

# THE SUMMIT

## News From and For The Washington GIS Community

### WAURISA

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



AUTUMN 2008

WWW.WAURISA.ORG

ISSUE 13

### HEY SEATTLE, WHERE YOU BEEN?

By Fred Rowley

High stress is no stranger to Nick Pealy, the Seattle Public Utilities' Director of Field Operations. Puget Sound region storms can be destructive, and when they appear on the horizon, he must anticipate their severity and stage drainage system/flood response crews in tactical locations around the city to mount a safe and effective response. Managing a response, in large part, is a problem in geography – monitoring the location of the severest storm cells and customer complaints, while directing field crews to the emerging critical incidents; the complaints and field crews themselves are located in a context of traffic congestion and other possible public safety events. GIS can be a critical tool for managing such operations, but it's only recently that the City of Seattle's GIS infrastructure could adequately support such real-time information and demands.

#### Diverse GIS Operation

Located in central Puget Sound, Seattle is 84 square miles in land area (142 square miles total) and home to over a half million residents. The City's electric, water, and drainage and wastewater utilities serve upwards of 1.3 million Puget Sound customers, many of whom are located in service areas that extend well beyond city limits.

Virtually all City of Seattle operational departments employ GIS in one way or another for planning, management, asset management, and communication. In the late eighties the City adopted a federated organizational structure for its GIS operations to meet its diverse needs. A central GIS core operation sets data standards and technologies (ESRI), and develop and maintain corporate, centrally served base layers (cadastral and control, street network, parcels, topography, and orthophotography).

See: *Seattle GIS*, page 10

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### BEST PRACTICES FOR DEVELOPING GEOGRAPHIC INFORMATION MODELS WORKSHOP IN ISSAQUAH

Even with decades of experience, effective design of a GIS database remains a combination of art and science. This workshop shows how you can build on your existing data and skills to take advantage of the latest generation of GIS tools and practices for database design. Exercises include developing use cases, conceptual and logical data models, and applying object-oriented design patterns for commonly used GIS database structures.

November 17 at the Hilton Garden Inn, Issaquah

For more information and to register, see:

<http://www.waurisa.org/index.html>

### URISA LEADERSHIP ACADEMY IN SEATTLE



The highly successful ULA (URISA Leadership Academy) will be coming to Seattle in December. The ULA debuted to rave reviews in New Orleans last December and sold out in Chicago last June. The ULA is a unique training opportunity that brings together no more than 75 students with some of the most experienced GIS managers, academics, and consultants for an intensive, weeklong program.

The entire five day program, the only leadership training program of its type, is tailored to industry leaders and practitioners faced with unique challenges of GIS leadership and management and who want to make an impact leveraging the power of GIS.

If you are new to GIS management, experienced in directing a GIS program, or aspire to a future GIS leadership position, the URISA Leadership Academy is for you!

December 8-12, 2008 at Hotel 1000 in Seattle

For More Information Visit:

[WWW.URISA.ORG/ULA](http://WWW.URISA.ORG/ULA)

### PRESIDENT'S COLUMN

The President's Column will return next issue.

-Editor

# KING COUNTY IMAGERY PROGRAM UPDATE

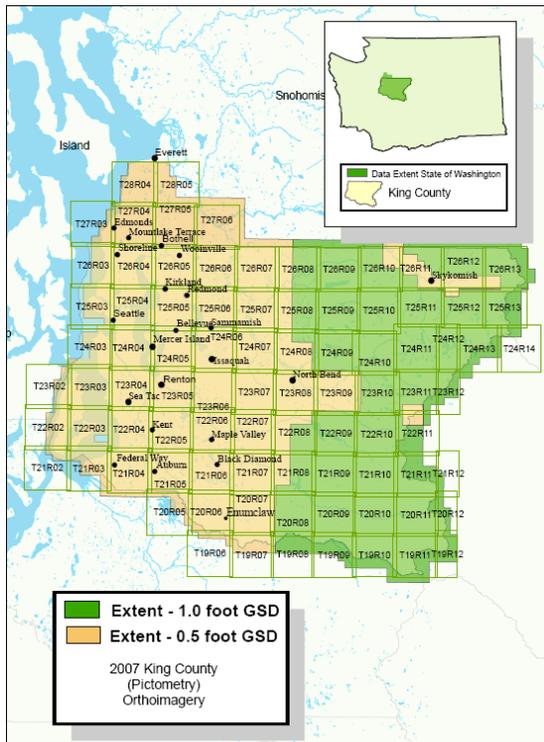
By Mike Leathers, Khalid Khan, and Greg Stought

## Introduction

King County tapped its new image acquisition fund in 2007-2008 to acquire a suite of imagery products from Pictometry International, known as a leader in oblique imagery and viewing software. Pictometry provided the King County GIS Center, the E-911 Office of Emergency Management, and other participating King County agencies high-resolution oblique and vertical orthoimagery covering all of King County and the southwestern portion of Snohomish County. This combination of oblique imagery and standard orthoimagery provides significant functionality and flexibility when using the imagery through Pictometry's Electronic Field Study (EFS) viewing and analysis software, through Pictometry's toolbar extension to ESRI's ArcMap software, or via customization that link EFS to ArcMap and even ArcView3x.

The project area was acquired in basically two halves: 1580 sq. miles of urbanized western King County at 6-inch orthoimage resolution (with accompanying N-W-S-E directional obliques) and 1150 sq. miles of rural eastern King County at 1-foot resolution (with a two-direction, N and S, oblique pair).

Over 305,000 oblique images and nearly 170,000 vertical images capture any project location with up to 4 directional views plus a straight-down view, with extensive overlap for any given location. Elevation values (i.e., z-value data), integrated with the imagery, allow interactive query of ground elevation, as well as determination of building and other feature heights. In addition, over 7300 high-resolution, non-overlapping "supertiles" (known as sector tiles) provide a seamless orthoimagery base layer. This base tile dataset has been published as a continuous SDE raster mosaic and in several tiers of compressed, file-based tiles that help meet a range of business needs on different software platforms.

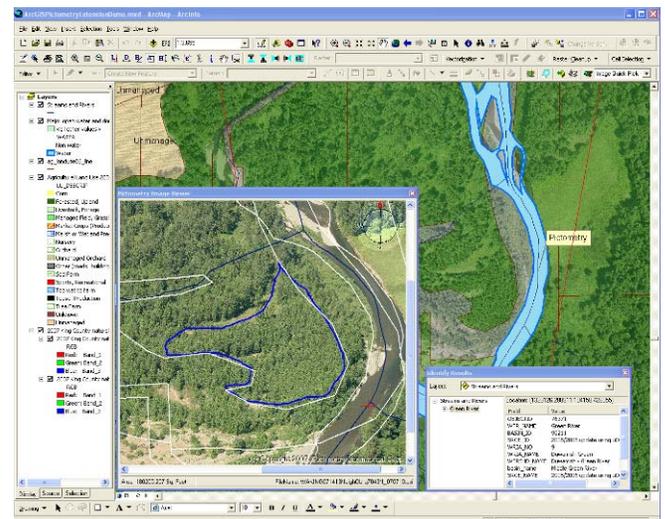


King County 2007 Imagery Project Area

## What the Imagery and Software are

The imagery package is a closely integrated suite of data and software, the software providing the interface and tools to manage the large database, as well as helping in viewing the best images quickly and efficiently. Good integration with other orthoimagery or raster basemaps, and existing shapefile or SDE databases is a key component of the software/data interface.

This linkage between the imagery and the viewing/analysis software requires some minimal administrative setup. Deployment to a few users or to a large enterprise operation is manageable via configuration tools and workspace templates, thus simplifying installation for end users.



Pictometry ArcGIS Toolbar

Various options are available to integrate the imagery and software into existing routines to support traditional GIS (i.e., vector-data driven) workflows, or to support new users whose main interest is primarily working with the vertical/oblique imagery, supplemented with selected GIS vector data sources as required. The option chosen also depends on the level of standardization across your GIS software platform and your requirements for high-end cartographic output.

Generally, GIS users will find that their easiest access to the oblique imagery and associated tools is via the Pictometry ArcGIS Toolbar extension. This extension installs and deploys similarly to ESRI and other, third-party extensions. It provides access to the oblique imagery through a separate window spawned from the toolbar through which many of the Pictometry image manipulation and query tools are available. The result is an excellent combination of traditional vector over seamless orthoimagery processing in the main ArcMap window with selected cardinal-direction, oblique view accessibility in the Pictometry window.

See: King County Imagery, page 3

# KING COUNTY IMAGERY UPDATE

*Continued from page 2*

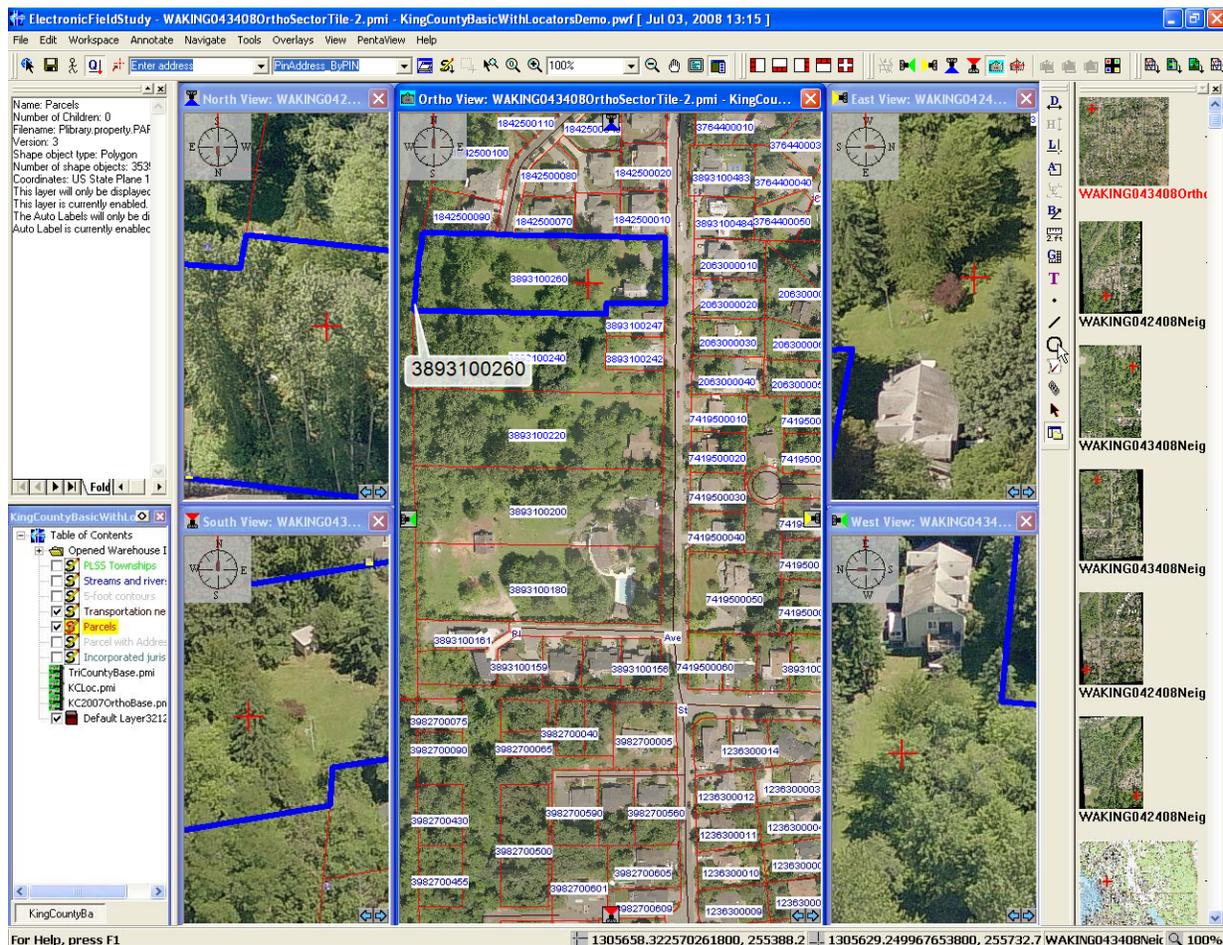
The Pictometry window effectively warps and displays the same vector data as seen in the ArcMap window, and supports interactive identity queries, though not feature labeling. Additional efforts on the part of Pictometry and ESRI should improve the stability of the extension, and provide enhanced cartographic options when printing from the Pictometry window. At this time the particular upgrade path is not known.

Pictometry's flagship Electronic Field Study (EFS) software, a stand-alone desktop client application, provides image-driven access to the database with a full suite of query, analysis, and search tools for working with both imagery and vector data. Overlays, either as shapefiles or as SDE feature classes, can be added to EFS workspaces (think MXDs for EFS), though shapefiles require indices unique to this application for enhanced performance. Raster imagery can also be added to EFS workspaces providing additional reference base data if necessary. Manipulation of all the imagery, including easily accessing any view containing the point of interest, is more robust than with the ArcGIS toolbar, making this interface very amenable to workflows answering focused questions, especially if they take advantage of the locator and search tools available within EFS. Printing and exporting images, with overlaid vector layers and graphical and text annotations, allows users to capture the results of their analyses or queries.

Another way to integrate GIS software and the imagery is through a linkage between the software (ArcMap or ArcView3x) and the EFS application. For ArcMap, this is accomplished via an easily configured customized tool that operates through the primary ArcMap window. Clicking on a point in the ArcMap view starts (or refreshes, if already open) EFS and displays all the pertinent imagery for that location. A user can then access the full functionality of EFS to explore multiple image angles, pan or 'walk' to another location, query gradient and directional bearings, or measure distance, height and area dimensions.

For those operations still supporting a base of ArcView3x users, similar GIS-to-EFS linkage is created via an Avenue extension. Under most desktop installations, all that is required is loading the extension, which adds a tool to the ArcView 3x View toolbar. If EFS is running, clicking on a location in the ArcView window loads the appropriate imagery to EFS, from which users can then leverage EFS tools for further analysis. This option is particularly appealing to legacy platforms, as there is no comparable intra-ArcView3x Pictometry toolbar.

*See: King County Imagery, page 12*



*Pictometry Electronic Field Study (EFS) Software (with enterprise vector overlays)*

## WHAT GIS DOES BEST

By Linda Gerull, Pierce County GIS Manager

It was a dark and stormy day in early January, when the Pierce GIS staff came together to develop strategic priorities for 2008. After many years of building software applications and automating business process, the group decided to go back to the "roots of GIS" and focus on analysis. Only one problem - Directors and users were not asking for data analysis. Everyone was very happy with interactive maps, online queries and web-based map production. It would be up to the GIS staff, once again, to show the benefit, need, purpose, value and fun of analyzing data spatially.

In order to kick-start demand for analysis, Pierce staff performed several spatial projects for County departments to help resolve complex financial and resource management problems. A few examples are provided below, followed by some lessons learned along the way. You might find these examples useful in your agency or the paradigm might be similar to a problem you are trying to solve. Also, remember that great analysis projects are presented at WAURISA and other GIS conferences every year.

### **Analysis 1 – How to generate money for the Parks Department**

Because of its obvious spatial components in terms of safety, accessibility, and site improvements, the Parks Department has the potential to be one of the largest GIS users. However, park maintenance currently receives the bulk of a shrinking budget. So the Parks Department was looking for ways to generate more money to fund park maintenance, which would make more funding available for GIS and other capital improvement projects.

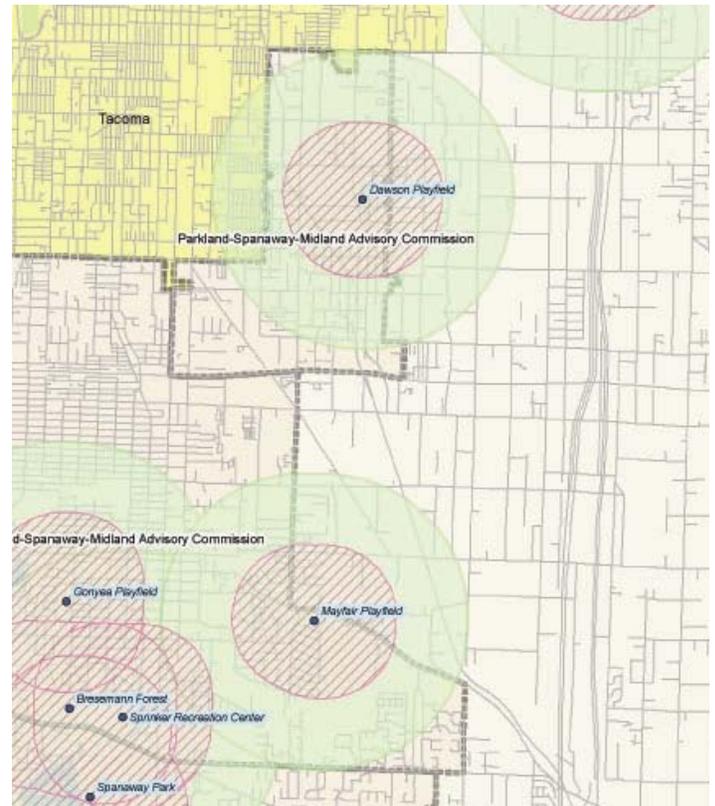
GIS staff wondered if the "transportation impact fee" model could be applied to parks. This model assesses fees in areas impacted by the development. Assuming citizens use the park closest to them, could sufficient revenue through a similar "park use fee" be generated to fund park maintenance? The GIS staff created half-mile and mile buffers around the parks, intersected the buffers with parcels, and then calculated the total number of parcels and assessed value for each park impact zone.

The result was a series of attractive maps showing the buffers and table data. It was quickly apparent that a small assessment of less than .01% of a property's assessed value would pay for the yearly park maintenance. The results were presented to the County Executive.

### **Analysis 2 – Quantifying the need for more resources in the Medical Examiner's office**

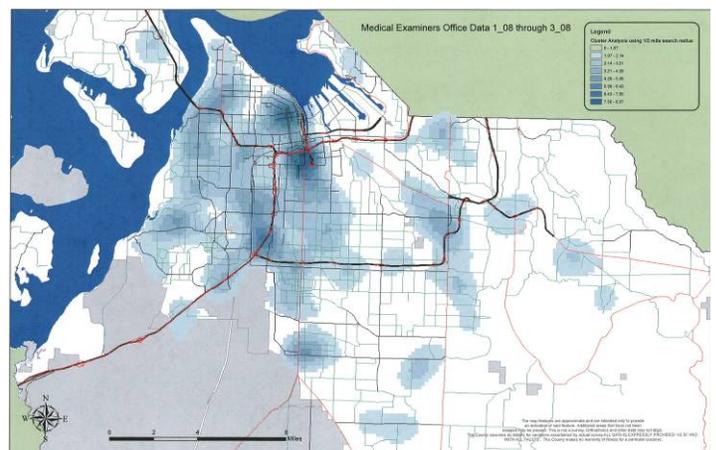
The Medical Examiner's office operates with very few resources 24 hours a day, seven days a week. With death rates on the rise and a compelling need to assess the cause of death, the workload far exceeds the level of staffing available. How could GIS help illustrate this problem?

As a first step, GIS staff mapped County deaths in 2007 and early 2008 and symbolized the type of death. These data were compared to senior care facilities, schools, and socioeconomic data. The wide dispersion of the data showed no clustering and generally followed population density. However, the suicide rate was particularly high, and in close proximity to military bases. This unexpected result may be analyzed further in the future for other sociological studies.



*Pierce County Parks Fee Assessment Analysis Map*

The Medical Examiner presented the results of this analysis to the County Executive and Directors. Graphs and maps displayed the locations of deaths by type, emphasized the proximity of suicides, noted a cluster of fatality traffic accidents around a particular neighborhood, and detailed the heavy workload demand based on death type and processing time.



*Pierce County Medical Examiner Cluster Analysis Map*

**See: What GIS Does Best, page 5**

# WHAT GIS DOES BEST

Continued from page 4

## Analysis 3 – Find a New location for the District Court

Second largest in the State, the District Court is responsible for all traffic infractions, toll bridge violations, civil matters less than \$75,000, and small claims within Pierce County. Due to problems with the original construction of the court building and a shortage of office and court space, the District Court wanted to relocate. GIS staff worked with the court to find the best location to most adequately serve court clients.

GIS staff took delivery of seven years of court data. The records of all court participants were mapped and classified by type. The results were not expected:

- The bridge toll mapping showed there are toll violators in every county in WA
- The location of court participants is not changing but the density has grown by 100%
- A significant cluster analysis showed that the current Court location was the most preferred location
- Travel time analysis showed that the current Court location allowed 90% of the county's residents to reach the court in 15 minutes or less

More importantly, the data analysis that accompanied the maps showed that the Court was experiencing an 8% increase per year in court participants when population was increasing by 2%. In 2007, over 102,000 people entered the Court facility which was a 137% increase in court appearances over the last 10 years.

The results of the District Court analysis were compiled into a report that included 8 maps. The report was presented to District Court Judges, the County Executive, Directors and the County Council. As a result of this analysis, the Court will look for a new facility with increased capacity near their current location.



Pierce County Toll Runner Analysis Map

### Summary

In addition to the above analyses, GIS staff worked on a "green project" which analyzed drive times to county employment centers, a proposal for a new licensing agent, and a facilities master plan for the Sheriff. Fortunately, once the first projects were presented to County departments, other managers saw the benefit and more projects were envisioned. The power of analysis and the cartographic map displays proved invaluable to solving complex problems.

Lesson learned during this year of analysis has been:

- When performing the analysis, GIS staff become experts in the client's data and work process. A complete analysis should include factors that don't appear on a map such as workflow improvements, business efficiencies and improved data quality.
- An analysis is useful if client's can easily read and pick out the important aspects of a map. Too much data, poor cartography or illegible text can hide conclusions.
- Simple examples should be used to explain complex analytical processes. Jargon or detailed explanations of statistical methodology should not be used or should be relegated to an appendix.
- Perform a quality check on the analysis. Complex analysis projects with several procedures and large datasets can be prone to error. It is a good practice to review both the processes and data used to eliminate blunders.

Pierce GIS staff had a great time working on these assignments and hope you can find time to do what GIS DOES BEST – ANALYZE DATA.

Credit for these outstanding analysis projects go to: Jason Matthiessen, Xuejin Ruan, Cort Daniel, Trisha James, Ross Heasty, Xiongjiu Liao, and Angie Venturato from Peirce County and Kirsty Burt of Kirsty Burt Consulting.

For more information, contact **Linda Gerull**, Peirce County GIS Manager ([LGERULL@co.pierce.wa.us](mailto:LGERULL@co.pierce.wa.us)).





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## TOWARD GREEN RIVER COMMUNITY COLLEGE (GRCC) SPATIAL TECHNOLOGY

By Sabah Jabbouri

**Remember when Microsoft Office first came out** in the 80s? If you were to ask the average person then if they use Microsoft Office or even know its purpose, they would most likely be clueless. Today, the same scenario is true for GIS Spatial Technology. Not many people know what GIS (Geographic Information Systems), or Geospatial Technology is or have even heard about it. Little do people know that GIS Geospatial Technology is the technology of the 21st Century.

Geospatial Technology (GST) is fascinating in that it links databases to actual location on earth. It provides a visual representation of the data with respect to location. Geospatial Technology consists of three important components: Remote Sensing, GPS, and GIS. All three components play an essential role in facilitating a visual representation of the data.

In the near future, students, employees, businesses, hospitals, and individuals will be dependent on GST on a daily basis. As a matter of fact, we are already using GST in countless ways. How do you think MapQuest, Microsoft Virtual Earth or Google Earth work? The answer is GST.

As GST advances, it will progress from a mere tool to become a multidiscipline science. Therefore, as educators it is our responsibility towards our students and our nation to see that GST reaches its highest potential. It is my vision that in five years Green River Community College (GRCC) will become the first Spatial Technology Community College and a center of excellence for GST in Washington State.

The process is already on its way. As a first step, the GIS program at GRCC was completely reviewed and revised to meet the demands of the 21st Century. Some courses were revised, others were omitted, and new ones were introduced. All of this was the result of cooperation of the Dean, Assistant Dean, Technology Division Chair, Natural Resources Instructors, Advisory Committee, and DACUM workshop participants.



*GRCC GIS Lab and Students*

As a result of reviewing the GIS program, the GIS Department now offers two programs: a nine-month GIS Certificate Program and a two-year GIS AAS Degree. Students in either one of these programs have the opportunity to conduct their final project in the field that interests them including, but not limited to: business administration, environmental science, geology, health, engineering, ecology, journalism, political science, criminal justice, homeland security, nonprofit organization, etc.



As part of my vision to integrate GST into every department and facility at GRCC, GIS has been successfully integrated into the Natural Resources Department. GRCC now offers a joint two year degree program with Natural Resources department in GIS/Natural Resources giving students a choice of three GIS programs.

In addition, the GIS Department, in cooperation with the GRCC Department of Research and Planning, completed a project on mapping student enrollment from 1990 to 2007 by service area and zip code. The GIS department is also working very closely with GRCC Facilities Department to build a geodatabase including but not limited to water, sewer, and gas networks.

Moreover, the GIS instructor is collaborating with the Business Instructor to develop a course titled *Introduction to GIS Business Marketing* as first step to bridge to the business department.

***In the near future, students, employees, businesses, hospitals, and individuals will be dependent on GST on a daily basis.***

Besides aiming to integrate GST into every Department at GRCC, the GIS department is also working towards integrating GST into the high school curriculum. The Assistant Dean, The Technology Division Chair, Natural Resources Instructor, Advisory Committee, and GIS Instructor are working on initiating a workshop for high school instructors to help them develop a high school GIS/GST course.

Accrediting the GIS program at the university level is another goal of the GRCC GIS Department.

It is impossible to write about the GRCC-GIS program without acknowledging GIS students who delegated their time and efforts to reach out to the community through GIS Alliance Club. The GIS department is grateful for their hard and excellent work, which has been of an asset to the department.

The GIS Department realizes that all these goals might sound a bit ambitious. However, just as GIS was successfully integrated into the Natural Resources Department, so it can be with the rest of the college.

All these goals are attainable. The GIS department is committed to its vision, but needs the support of GIS colleagues and businesses in Washington State and Puget Sound area to see this vision through.

Ultimately, we will not only be serving Washington State and the Puget Sound Community, but our nation as a whole as we compete with the rest of the world in the race for progress.

**Sabah Jabbouri, GIS Instructor**

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## AN INTERVIEW WITH MIKE ONZAY 2008 SUMMIT AWARD WINNER

By Whitney K. Bowerman

Mike Onzay left his native Spokane in the mid-1980's to attend the University of Idaho, where he graduated in 1988 with a Bachelor's degree in Cartography. At the time Mike attended, Idaho was the only school west of the Mississippi offering such a degree. In 2000 the cartography program was dropped due to fiscal constraints and the cartography courses were merged into the GIS program.

After working for a defense mapping agency in St. Louis, Mike returned to Idaho in 1990 to pursue a Master's degree in Geography. In his thesis Mike posited whether distance really mattered anymore with the advent of email as a new communication method. It was during this second stint at the University of Idaho that Onzay was introduced to GIS via ESRI's ArcInfo.

After graduating with his Master's Mike worked as a contractor on two parcel conversion projects, first with Canyon County in Idaho and then with King County. Mike eventually found his way to the City of Mercer Island as a GIS Coordinator. Mike commented that Mercer Island almost didn't hire him. About a month after he had received a letter notifying him that he was not selected as an interviewee for the GIS position, he received a call from the City to come in for an interview. The moral of this story, says Mike, is that when an employer says they will save your application in a file ... they just might.

When he arrived, Mercer Island had just begun to scan and vectorize paper maps. Mike built the GIS from the ground up, with the help and support of many people, identifying the needs and wants of City employees and determining how GIS could best serve the City's business functions.

Originally situated in the City's Development Services Department, which is responsible for permitting, planning and engineering, the GIS program now resides as a non-departmental team called IGS (Information and Geographic Services). The GIS section consists of the GIS Coordinator who provides overall guidance and a GIS Analyst whose primary function is to map and maintain the city's utilities. The move from Development Services to IGS had both benefits and drawbacks for the GIS staff. The separation from the hustle and bustle of the rest of the office allowed them more opportunity to focus, however keeping in touch with what was happening on a day to day basis at the City became more challenging. Mike stresses that maintaining a balance between connecting with the users and focusing on one's work is crucial.

When asked what he sees as the future of GIS, Mike responds "people are the future....both the GIS geeks who build it and the users who use it." Early on at Mercer Island he saw the web as an increasing force in GIS, believing that most users in his department were looking for basic information and did not need the high powered analytical tools that desktop GIS software provided. In 2003, Mike built an internal WebGIS site that has become an integral tool in the daily lives of nearly half the staff. The City continues to integrate GIS with other business applications and he looks forward to 2009 when he will be able to access the City's GIS from the internet. He lamented that he will not be there to participate in the next phase of GIS at Mercer Island.



Mike Onzay Receives 2008 Summit Award from Donna Wendt

Outside of his work at the City of Mercer Island, Mike has been an integral part of the Central Puget Sound GIS User Group (CPS-GIS). The user group was formed in 1998 by the late Dick Thomas, when GIS was relatively new and the region had many lone GIS staff looking for a support network. Onzay says it was Thomas who helped him to realize the power of a user group. Mike either founded or co-founded five other users groups most of which had short lives but resulted in new connections with other people. Thomas also initiated the CPS-GIS list serve which was originally built from those who attended the user group meetings but is now administered separately. Onzay is not certain whether the CPS-GIS user group, which has not met in about a year and a half, will continue. He says that this is okay – sometimes a user group finishes what it needs to accomplish and then dissolves.

In early October Mike and his family left Washington State for Bethesda, Maryland, where his wife has accepted a position at the National Institute of Health. Mike will remain on contract with the City of Mercer Island through the end of this year.



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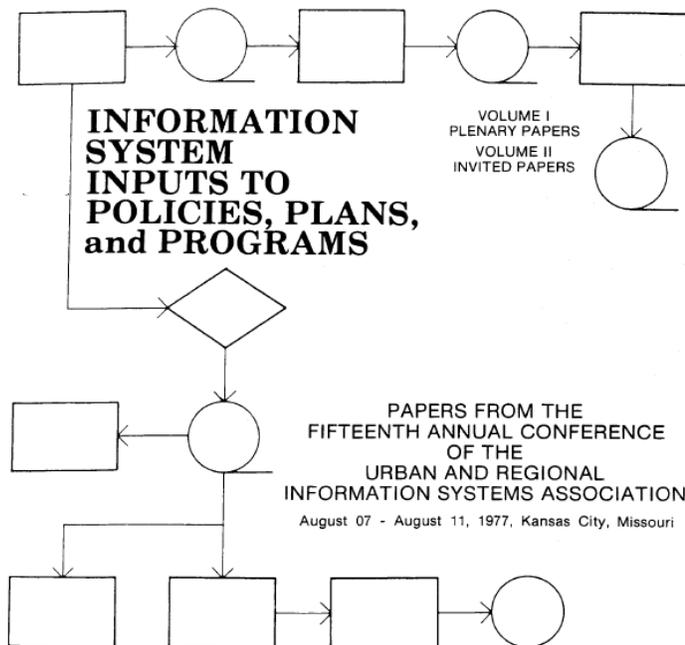
## THE STATE OF WASHINGTON CONNECTION

### EDGAR HORWOOD, THE EARLY DEVELOPMENT OF GIS, AND THE FOUNDING OF URISA

Seattle and the University of Washington both have special connections with the early development of GIS and with the formation of the Urban and Regional Information Systems Association – URISA. A phone call placed 47 years ago by a University of Washington faculty member led to unforeseen developments and opportunities. Arturo 'Bullfighter' Graziano once gave your editor the following advice: 'Greg – just ask, they can't beat you up.'

The following excerpt is from an article published in the proceedings of the 1977 URISA Annual Conference in Kansas City. The article is Edgar M. Horwood's recollections of events that led to the formation of URISA and that helped to accelerate the development of GIS technology. Hopefully WAURISA members and all those who work with GIS here in Washington State will find this little bit of history of particular interest....and feel empowered to 'just ask.'

-Greg Babinski, Chief Editor



#### Edgar M. Horwood

Professor of Civil Engineering and Urban Planning and Director Urban Data Center, University of Washington  
Seattle, Washington 98195

### PERSPECTIVES ON URISA'S ORIGIN AND ON THE EMERGENCE OF A THEORY OF URBAN AND REGIONAL INFORMATION SYSTEMS

#### INTRODUCTION

I have been asked as the first president of URISA and as one involved during its pre-organizational period to sketch the early background of URISA today, and coincidentally to make some comments that may give relevance to its present being and its emerging role. It has been several years since our last exercise in this respect, wherein we introduced the decades of the Seventies by a session on the examination of the past, present and future of our field (URISA, 1970).

We have been an organization of substantial turnover, according to one of our historians (Kraemer, 1977), and there are only about 100 of us who have maintained continuous association with URISA for more than a decade. Perhaps it is also a sign of my advancing years that I am asked to recount the history of URISA and record early events and decision points before they are forgotten. History is only significant in that it can be related to current events and emergent prospects, therefore I will try to be more than just an historian in this role.

#### THE ORIGINS OF URISA, 1962-1966

The concept of URISA got its start unbeknowningly in the fall of 1961 with the attempt of a few people to get information from the then new tape technology of the United States Census Bureau regarding the Census of Population and Housing of 1960. If I could point to one single incident, it would be a telephone discussion I had with Jack Beresford, a subsequent URISA president, who was then a member of the staff of the U.S. Bureau of the Census involved in handling requests regarding access to Census data. The conversation went something like this:

Ed Horwood - "Jack, how can I get Seattle's block data without waiting for its hard copy publication in a couple of years?"

Jack Beresford - "Well, you can't, Ed, that information is only yet on computer tape."

Ed Horwood - "Well, why don't you send us a copy of the tape and a write-up of what's on it?"

Jack Beresford - "(deep pause) Well, there's nothing I know of that tells me I can't. Providing there is appropriate suppression to avoid disclosure on small entries I'll send it on out to you at cost."

The current generation of Census tape users should realize that there was no apparatus in 1960 for the dissemination of Census tapes. They were essentially an internal artifact of the Census Bureau. With the receipt of the tape at the University of Washington sometime in November a new world opened. For one thing, with the advent of the relatively new automatic digitizer the block centroids could be digitized from maps, merged with the tapes from Census, and Census data or symbols representing data could be printed out in the mapped format. Further, computer printer graphics could be developed to show rank order arrays and distributions of data. The only thing Jack Beresford did not tell us was that there was a dummy word on the tape at the beginning and it took us several months to get a useful product.

The use of the first United States Census tapes came shortly after the advent of the first general computer programming language, FORTRAN, and with the assistance of Arnold Rom, of the Boeing Company, who had considerable experience with the then new IBM 709 computer, my colleagues and I developed a macro-compiler which produced ROMTRAN, the first known user's language for Census tape processing.

See: *Horwood & the Washington Connection*, page 9

## HORWOOD & THE WASHINGTON CONNECTION

*Continued from page 8*

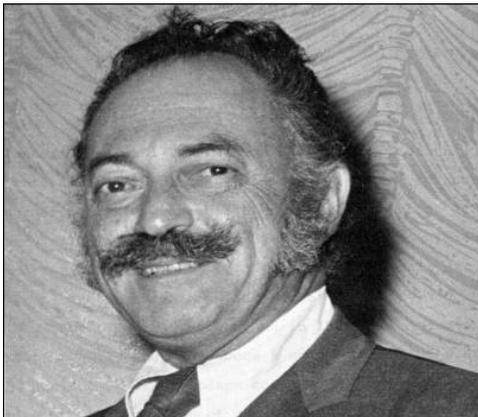
During the winter of 1962 we had a number of inquiries from people Jack Beresford referred to us, and decided under the demands of efficiency to produce a two-week workshop for a national audience, which included the then chief of the Geography Branch of the Census, William T. Fay. Two weeks were required for a short course then because we also felt the need to teach the elements of data processing and general computer programming, insofar as the user language we developed included FORTRAN-type arithmetic capabilities. In retrospect, the main thing I learned from this experience was that 15 years ago people could leave their offices for two weeks without having them fall apart, whereas today that time has diminished to two days.

At the end of the first course we distributed object decks of the ROMTRAN programs as graduation gifts, and expected to go back to our research. However, a fraternity seems to have been formed that did not dissolve. A number of the graduates began using the new-found knowledge and kept us busy on the telephone lines and in visits to help them out with problems. And so we planned additional short courses, and by 1965 had given 11 at major universities in the United States and one in Europe. The faculty for these courses included names long active in URISA—Clark D. Rogers, Kenneth J. Dueker, and William L. Clark.

To return to the chronology, by mid-1963 there seemed to be a genuine interest of the users of the ROMTRAN language and some of the more active graduates of the courses to get together to discuss applications, and on August 28, 1963, 48 people met on the University of Southern California campus to trade information on developments in "urban and regional information systems". This was billed as the "First Annual Conference on Urban Information Planning Systems and Programs." In a sense, the organization founded itself.

No proceedings were issued from the first conference, which was essentially of a seminar nature, structured around a few topics of interest. Two things stand out in my mind from that first meeting. One is the demonstration of interactive computer graphics given after the meeting by Weldon Clarke, then of the Los Angeles Office of Bolt, Beranek, and Newman, and the other was the luncheon address given by Robert Goe, a chief aid to the then recently elected Mayor of Los Angeles, Sam Yorty.

The demonstration of interactive computer graphics, using a light pen and vector generating cathode ray tube operating from a small-scale computer, opened a new horizon of thought in the minds of the viewers toward the on-line editing of networks in connection with geocoding. In retrospect this causes one to consider how quickly the hardware systems' technology outdistances our capabilities to adapt to it, because it took us five years to gain this competence at my university and few metropolitan area DIME files are yet interactively edited.



*Edgar M. Horwood*

*We see from the foregoing that URISA emerged from the need for communication among professionals...to learn skills, outlooks and philosophies that had not been included in their formal scholastic background.*

The lunchtime talk by Robert Goe is memorable in the light of the 12-year history of the Yorty administration of Los Angeles. Mr. Goe personified the newly emerging style of public administrator dedicated to the incorporation of information systems into the fabric of the administrative process. With the computer now firmly incorporated in public management thinking, we were, according to Goe, at a new threshold of governmental efficiency and improved executive capabilities via harnessing of the new information automation capabilities. Los Angeles, situated in the center of a vast sea of competency in information processing technology related to the Southern California aerospace industry, was obviously well located to accommodate the transfer of the new technology for the betterment of the citizens of the region. Needless to say, the visions of Robert Goe were slow in materializing. Bunker Hill, the oldest unfinished urban renewal project in the country, was then entering its second decade of planning and is now, for all I know, in its fourth. In the interval, smog, riots, traffic, and the civil service did not show any signs of diminishing.

We see from the foregoing that URISA emerged from the need for communication among professionals in a new field and from their need to learn skills, outlooks and philosophies that had not been included in their formal scholastic background.

### THE FORMATION OF URISA, 1966-1967

Returning to this brief history of URISA, conferences on urban and regional planning information systems and programs--note emphasis on planning--were held in Pittsburgh, Chicago and Berkeley in the successive three years, with attendance increasing and the inexorable movement toward an association. An ad hoc committee to study formal incorporation was impaneled in 1964 at Pittsburgh. The Chicago meeting of the informal group in 1965 called for the drawing up of a constitution, which was adopted the following years at Berkeley. The first formal annual meeting of URISA as an organization was held in 1967 in Garden City, New York, and the initial by-laws were adopted in 1968 at the second annual meeting in Clayton, Missouri.



### **PEIRCE EICHELBERGER RECEIVES URISA'S HORWOOD DISTINGUISHED SERVICE AWARD**

October 24, 2008 (PARK RIDGE, IL) – Peirce Eichelberger, Chester County (PA) GIS Manager was the 2008 recipient of URISA's prestigious Horwood Distinguished Service Award during the association's 46th Annual Conference in New Orleans.

The Horwood Award is named for founding member and first URISA President, Edgar Horwood. Horwood was an early pioneer in the field of information systems for local government and admired by all for his intellectual and organizational contributions to URISA. Horwood was the Chair of the constitutional drafting committee, giving URISA the "open membership" model that has led to URISA's inter-disciplinary organization.

This year marks Peirce Eichelberger's 34th anniversary working with GIS and other advanced technologies in local government. He is a Past URISA President (2001-2002), has served on the URISA Board of Directors for two terms, and has presented thirteen different URISA workshops over 25 years. He has presented many papers at URISA conferences, several of which have been instrumental in URISA's continuing growth and direction.

# SEATTLE GIS

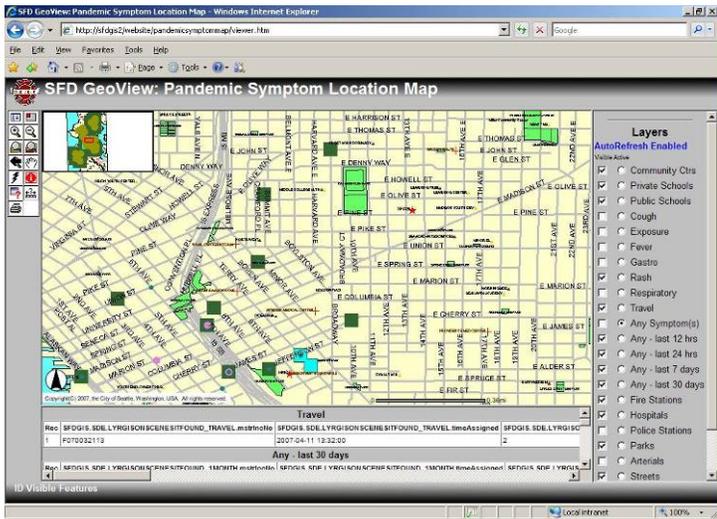
*Continued from page 1*

Departmental GIS layers are also centrally accessible, but individual departments are left to manage their data and deliver GIS to their end users. The City is fortunate to have a solid foundation of reliable, precise, central, corporate data layers. It is especially fortunate, as well, that talented GIS staff support nearly every department – collectively they represent perhaps hundreds of years of GIS experience.

A sampling of GIS applications around the City might include:

- A pandemic flu application that tracks details of Medic-One responses as an early-warning system
- Construction permit activity (<http://web1.seattle.gov/dpd/maps/>)
- City services (My Neighborhood Map) (<http://web1.seattle.gov/seastats/doServices.aspx>)
- Internal interactive maps of live customer calls and work orders
- 3D view-sheds for re-zone evaluation
- Development capacity analyses
- Map interfaces to business information systems such as a scientific information management system, work management systems, and a right-of-way management system.

Many other desktop, mobile, and internal web maps and cartographic products support City business with analysis, operations management, planning, and public outreach.



*Seattle Fire Department's Pandemic Flu early warning application. (Pete DiTuri)*

## GIS Tech Refresh Project

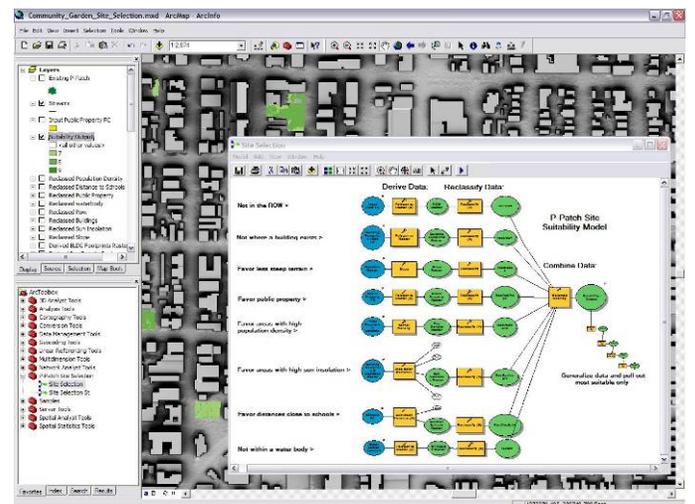
The City's GIS program is today emerging from a 6-year long effort to transform its GIS infrastructure – from AML editor applications and file-based coverages, to .NET ArcEdit applications and relational database data tables. The City has completely re-designed its corporate data layers (Cadastral, street network, and address layers), and its asset layers for Water, Drainage, and Wastewater systems. Seattle City Light is engaged in a multi-year process to migrate its asset layers to the Minor and Minor ArcFM model. The City originally designed and built many of these layers as tiled coverages in the early 1990s.

Overall, the goals of the GIS Tech Refresh project were to enable reaching a broader and less technical audience, improve our capacity to integrate GIS with existing business systems, and to leverage the significant evolution in GIS technologies. We re-designed our data to better reflect City business needs and take advantage of current spatial technologies such as ESRI's SDE and Oracle Spatial. The project was intensive and challenging in every respect – from understanding the new technologies well enough to formulate a reasonable design, to accommodating software surprises, to training staff and revising business processes, to – need I say it? – meeting our budget and schedule. Where have we been? We've had our heads down in a concerted effort to successfully complete a very difficult project.

## Location-enabled Information Technologies (Seattle's emerging GIS program)

With our data and maintenance systems in place, the City can today treat its spatial data much like any other relational database data. Many of the periodic, automated data maintenance processes that used to execute as AML scripts on a Unix server, now execute as Oracle stored procedures and are very well monitored by a (non-GIS) database administrator. These processes are reliable, relatively easy to create and update, and are significantly better managed today than they were as scripts.

Far more importantly, however, virtually any client can 'do GIS' on the database with SQL alone – notifications to property owners within 500' of a parcel, identifying the census tract a parcel is in, or selecting bus stops nearest a community center, etc. This is meat and potatoes GIS that any application in the City can conduct without a map or intervening third-party software. The City is no longer constrained to ordinary relational database joins. On-the-fly spatial joins add a new dimension to the City's information systems that we're only starting to benefit from.



*Office of Planning and Management's P-Patch locator model that analyzes properties for suitability as a community garden. (Jill Willison)*

*See: Seattle GIS, page 11*

# SEATTLE GIS

*Continued from page 10*

Despite the accessibility of database functions, the City has begun to design and develop a GIS "Service Oriented Architecture" to provide core, shared, GIS functionality to the enterprise. Address validation and geocoding, coordinate transformations, spatial queries and reports are examples of web services that we expect will provide plug-in functionality to desktop applications, web applications, and interactive maps in the near future.

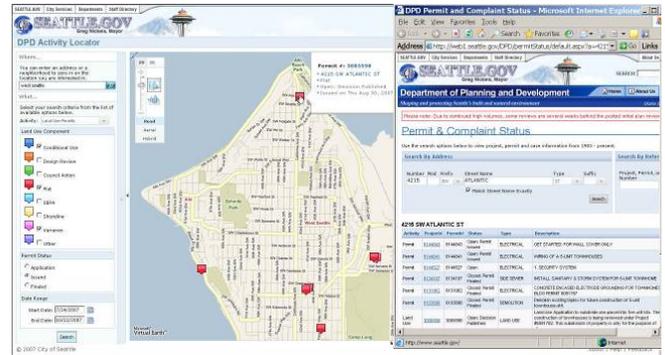
## Creating the Common Operational Picture

Integrating GIS with City business systems was a key goal of Tech Refresh. But it is no longer enough to open a map inside a dedicated business application to show the location of a selected asset, incident, or work order. To better manage operations, department staff need to see these in the context of recent customer calls, current field crew locations, traffic congestion, weather, and perhaps public safety incidents – and they need to see where these are taking place right now. 'Situational awareness' is a concept adopted from the military by the public safety domain. The concept works equally well managing day-to-day operations as it does managing emergency operations. Web GIS is exceptionally well-suited to presenting a Common Operational Picture that potentially provides everyone with real-time situational awareness.

The City is beginning to design and develop interactive web maps that leverage Oracle Spatial, .NET, Virtual Earth, and GIS web services. Not only do these technologies enable the City to present a useful operational picture, they make it relatively easy to drill into other business systems to review permit information, for example, or re-assign work to a nearby field crew. As the City's offering of web services grows, we expect applications such as these to become more complex and feature-rich, yet potentially no more costly to build and maintain.



*Department of Planning and Development: 3D modeling to support view-shed analysis for anticipated development. (Jennifer Pettyjohn)*



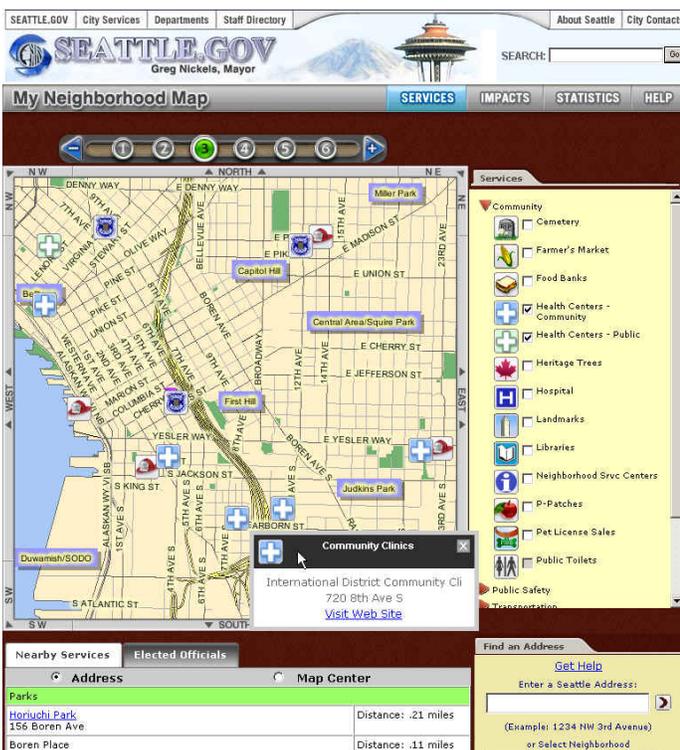
*Department of Planning and Development's 'Activity Locator.' The Internet-facing application enables users to display construction and other permitting activity on an interactive web map. (Ken Mar)*

SPU's Emergency GIS application is one of the City's first to be built on Virtual Earth, Oracle Spatial and web services. It will present crew vehicle locations, active work orders, and customer calls in real-time (generally within the past minute). By clicking links associated with the real-time event features, users will be able to update work orders or drill into other information, such as engineering drawings. The City's real-time arterial roadway congestion and traffic cameras are displayed as well. The map will refresh itself automatically, affording staff a broad operational picture that includes not only the locations of real-time operations, but a glimpse of the changing world around them.

The fall showers this year may turn ugly and occasionally become nasty storm events that overwhelm our drainage infrastructure. If they do, Nick Pealy and the SPU Operations Response Center – armed with an application built on top of the City's enterprise GIS – will have better tools to manage the Utility's response to incidents as they unfold in a dynamic, and often chaotic, urban setting.

For more information, contact:

**Fred Rowley, City GIS Coordinator**  
 Seattle Public Utilities  
 206.386-1126  
[fred.rowley@seattle.gov](mailto:fred.rowley@seattle.gov)



*Department of Information Technology's 'My Neighborhood Map.' The Internet-facing map presents City services, impacts and statistics to the Seattle community. (Neil Berry)*



## KING COUNTY IMAGERY UPDATE

*Continued from page 3*

### *How King County is Using the Imagery*

The County's E-911 Program Office, in addition to its general GIS work, integrates the oblique and vertical imagery into its E-911 mapping system that incorporates other vector data, including its new address database. In parallel, the King County GIS Center manages the 3.3 terabyte database for hundreds of enterprise users across 17 King County GIS member agencies. As this has been the first year for exposing GIS users to this extensive database and new software tools, there has been the expected learning curve. Allocating sufficient storage requirements, designing a deployment architecture that will be scalable for future deliveries, and developing administrative policies, have in turn extended the deployment timeline. King County's experience during this first delivery will not only serve it well in subsequent deployments, but can also be used to assist other recipients of the imagery and software.

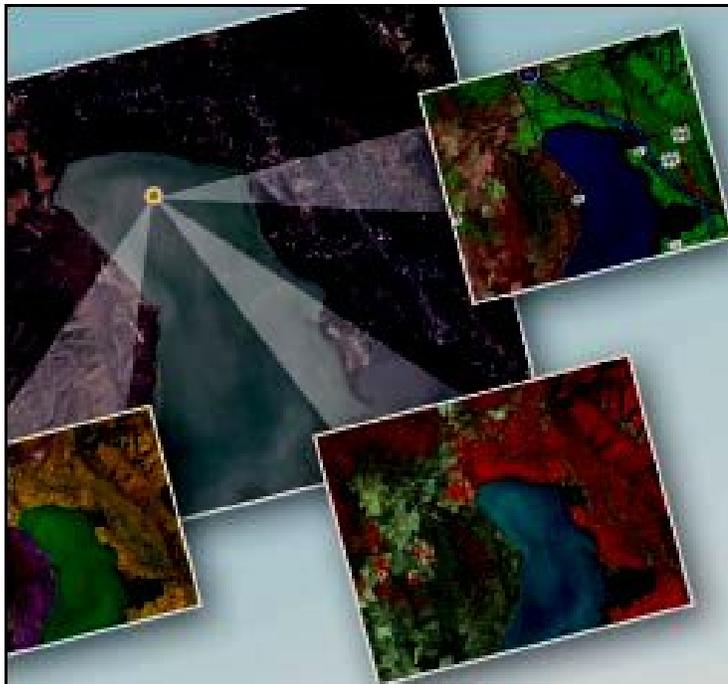
Though internal acceptance has been incremental, with greater exposure it is hoped that, besides general GIS applications, the imagery package will match key niches in certain agencies, such as King County Assessments, and other 'on-the-ground' response agencies that might leverage the imagery for increased business efficiencies. In addition, expanding access to the imagery and enterprise vector data via software other than ArcMap has significant potential in gaining user acceptance for those whose job responsibilities might benefit from access to the data, yet whose organizational budgets do not justify licensing ArcGIS.

### *Distribution of the Pictometry Imagery*

King County E-911 is leading the distribution of the imagery to other PSAPs (Public Safety and Answering Points), Addressing Authorities, and other Emergency Service Providers who fall under its licensing and user agreement auspices. The King County GIS Center is the contact for distribution of the imagery package to all other cities and governmental entities that are then licensed as cost-share participants. This type of licensing is different from the E-911 agreement in that general GIS users pay a reasonable per tile fee. This cost-share then gains them unlimited licensed access to the data and software for users within their organization as self-defined in the licensing agreement.

At the time this article went to press, eight cities and other public entities have signed on as cost-share participants: Cities of Seattle, Mercer Island, Des Moines, Shoreline, Burien and Bellevue, as well as Midway Sewer District and Lakehaven Utility District. Cost-share participation is available to all public entities within the project area, including cities, utility districts, and other publicly-funded entities.

*See: King County Imagery, page 13*



For more information, visit [www.esri.com/is](http://www.esri.com/is)

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## KING COUNTY IMAGERY UPDATE

*Continued from page 12*

All software and documentation components, and imagery extracted for a given area of interest (AOI - based on King County's standard 7500-ft x 7500-ft tiling scheme) are available at a cost of \$196.00 per 7500 tile. Each tile covers approximately 2 sq miles, and generally the square mile value for an AOI will roughly match the number of tiles the AOI contains or intersects. For example, if an AOI is 10 square miles, then it will likely intersect about ten 7500 x 7500 foot tiles. At \$196.00 per tile, the "ballpark" cost-share estimate would be \$1,960.00. The KCGIS Center will assist interested participants in creating more detailed capacity and cost-share estimates. For further information please contact Mike Leathers, KCGIS Data Coordinator at [mike.leathers@kingcounty.gov](mailto:mike.leathers@kingcounty.gov) or at 206.263.4867.

### KCGIS Future Imagery Plans

Current plans are to acquire the Pictometry imagery package on a two-year cycle (again in 2009 and 2011). As part of the 2007 delivery, Pictometry also included their 2005 urban area acquisition. Even though this 2005 project covered only the western part of King County, if the current contract is completed as planned, there will be high-resolution, multi-view imagery for the county covering a period from 2005 through 2011.

This consistency in the imagery database over a long timeframe will prove invaluable in meeting a broad range of needs for up-to-date imagery, as well as providing a database easily accessed for archival retrieval and comparative analysis. The dense, overlapping coverage of vertical and oblique imagery provides numerous workflow options for address or other site-location analyses, or more ad-hoc use of the various image views. The large and continuous project area of high-resolution imagery can support the multiple business needs of cities and other small areas of interest, while also assisting projects such as large-area environmental analyses which require data over a larger footprint.

King County GIS is fully committed as a partner in regional data acquisition and sharing initiatives. KCGIS hopes that this initial effort to deploy the Pictometry imagery package to as many interested partners as possible will help establish the basis for coordination for future imagery projects, as well as other regional data initiatives.

For more information about KCGIS imagery, contact:

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[Mike.leathers@kingcounty.gov](mailto:Mike.leathers@kingcounty.gov)

**Greg Stought**  
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[Gregory.stought@kingcounty.gov](mailto:Gregory.stought@kingcounty.gov)

**Khalid Khan**  
King County E911  
206-296-3906  
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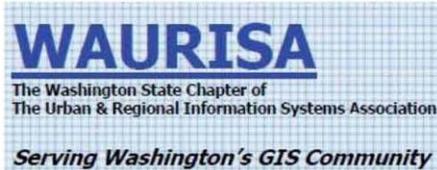
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## WAURISA Announces its Fall 2008 Workshop Best Practices for Developing Geographic Information Models

Monday, November 17, 2008 - Hilton Garden Inn - Issaquah, Washington

### Workshop Details:

Even with decades of experience, effective design of a GIS database remains a combination of art and science. This workshop shows how you can build on your existing data and skills to take advantage of the latest generation of GIS tools and practices for database design. Exercises include developing use cases, conceptual and logical data models, and applying object-oriented design patterns for commonly used GIS database structures.

### Specific topics to be covered include:

- The key phases in iterative database design
- Using database templates to build on your existing data sources
- Ten steps to follow for conceptual, logical, and physical information modeling
- Developing use cases
- Ten design patterns for GIS database structures and elements
- Understanding the relationships between your map layers and geographic database objects

**Instructor:** Douglas Adams is the GIS Program Manager for Baltimore County's enterprise GIS in the Office of Information Technology. Mr. Adams is responsible for implementation of the recommendations in the County's GIS Strategic Business Plan. These initiatives include consolidation of geodatabase maintenance operations; designing and developing geodatabases and applications; and further integration of GIS into county business processes. He received his BS and MA in Geography and Environmental Planning at Towson University. Mr. Adams has over 20 years of cartographic and geographic information systems experience. Mr. Adams is an adjunct faculty at Towson University where he teaches GIS Database and System Design.

**URISA Certified Workshop:** Best Practices for Developing Geographic Information Models is a URISA Certified Workshop. URISA – The Association for Geospatial Professionals – developed the course content and certified our instructor. The URISA Workshop Development Committee ensures that topics are timely, content provides value, and instructors are subject matter experts and skilled educators. For more information about URISA Certified Workshops, see: <http://urisa.org/workshops>

**GIS Certification Points:** Those who complete the Best Practices for Developing Geographic Information Models workshop can earn 0.2 education points towards their GISCI Certification (see: <http://www.gisci.org/> ).

**Intended Audience:** This material is intended for technical managers and designers of GIS databases and applications. Skilled database users will also benefit. No programming experience is required.

**Lunch and Refreshments:** Your registration includes lunch along with morning and afternoon break refreshments.

**Workshop Location:** The workshop will be held at the Hilton Garden Inn Seattle/Issaquah on November 17, 2008 from 8:30 am to 5:00 pm.  
(<http://hiltongardeninn.hilton.com/en/gi/hotels/index.jhtml;jsessionid=S1DTTYKHWG1TUCSGBJN2VCQ?ctyho cn=SEASGI>)

## Registration Information:

*Seats in This Workshop will be Limited to 50 so Register today!*

You can register securely online and pay with credit card, check or request a purchase order. Please click the ONLINE REGISTRATION LINK below to be directed to the site. Mailed registrations must be postmarked by October 31st, and online and email registration will be available until November 7th. Registration is limited to 50 attendees only.

### Online Secure Registration Link:

<https://secure.thriva.com/Reg/Form.aspx?IDTD=7578&IDRPH=1359297>

### Attendee Information:

Name \_\_\_\_\_ Company/Agency \_\_\_\_\_  
 Address \_\_\_\_\_ Phone Number \_\_\_\_\_  
 City \_\_\_\_\_ Fax Number \_\_\_\_\_  
 State/ Province \_\_\_\_\_ Zip/ Postal Code \_\_\_\_\_ email Address \_\_\_\_\_

### Registration Cost for November 17 Workshop:

WAURISA Member Registration Rate: \$125 (You are a current WAURISA member if you attended the 2008 Washington GIS Conference in Seattle) The WAURISA rate is also offered to all current URISA members. Non-Member Registration Rate: \$140

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## URISA GIS LEADERSHIP ACADEMY IN SEATTLE

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Registration is now open for the URISA Leadership Academy, to be held in Seattle, December 8-12. For full Academy details and registration information, see: <http://urisa.org/ula>.

The entire five day program, the only leadership training program of its type, is tailored to industry leaders and practitioners faced with unique challenges of GIS leadership and management and who want to make an impact leveraging the power of GIS.

#### What you will learn:

- Introduction to leadership and various leadership styles
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- The manager as communicator
- How to build a successful team of GIS professionals
- Outreach and expansion of GIS in the organization
- How to build a GIS budget and enumerate costs and benefits
- The politics of GIS leadership
- How to plan for change
- Trend spotting, GIS as an integrative tool

The URISA Leadership Academy (ULA) was presented in New Orleans last December and in Chicago in June....read what one ULA Graduate had to say about his experience:

*"This was the best training/conference opportunity I have been privileged to attend. It certainly reflects well on URISA and makes me want to be more involved in the organization locally and nationally. Keep up the good work."* - Lane A. DeLarme, IS Manager, City of Lakewood, WA

ULA attendees work together in a collegial environment designed to foster networking during the session and to enhance professional networking outside the Academy. The Academy is a full-service conference. Each day, ULA members will learn, dine, and socialize together. To that end, each day is structured to promote and encourage strong relationships between instructors and attendees.

#### Who attended past ULA sessions?

- \* Individuals attended from 25 states and 4 countries.
- \* They work for a wide variety of organizations, representing:
  - city/county/regional/state and federal government
  - private sector
  - non-profit organizations
  - academia

The URISA Leadership Academy is limited to no more than 75 people – so register today!

[WWW.URISA.ORG/ULA](http://WWW.URISA.ORG/ULA)



June 2008 ULA Graduates and Instructors



**UPCOMING URISA EVENTS AND CONFERENCES**



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**2009 GIS in Transit Conference  
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- **Exhibit & Sponsorship Information - Coming Soon**

**URISA's 47th Annual Conference**  
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Anaheim Marriot  
<http://www.urisa.org/conferences/aboutannual>

*For Information about all URISA Conferences and Workshops, see:*  
[www.urisa.org/conferences\\_workshops](http://www.urisa.org/conferences_workshops)

**GIS in Public Health Conference**

**URISA's Second GIS in Public Health Conference**  
June 5-8, 2009  
Providence, Rhode Island

**GIS/CAMA Technologies Conference**

*Annual Conference for Professionals in Property Assessment, Tax Administration, Mapping and Information Technology*

This annual specialty conference and exhibition is jointly presented by URISA and the International Association of Assessing Officers. This conference is designed to foster collaboration and integration of data, technology, and functionality.

**Mark Your Calendar:**

13th Annual GIS/CAMA Technologies Conference  
February 8-11, 2009

**Charleston, South Carolina**

**2009 URISA/NENA Addressing Conference - Call For Presentations**

**2009 URISA/NENA Addressing Conference**  
August 4-6, 2009  
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*The only conference where GIS professionals, addressing coordinators, 9-1-1 and emergency response specialists come together for education and networking.*



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**December 15, 2008 – Strategic Planning for GIS**  
*Rebecca Somers, Somers St Claire GIS*  
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## THE SUMMIT - EDITORIAL

### PUBLIC SERVICE

The term **civil service** often conjures up negative images. The notion of lifetime jobs, lack of motivation, and an abundance of red tape are part of the public perception of those who work for government agencies.

However, just as GIS is a new technology, most of those who work with GIS for public agencies seem to have a new and different viewpoint of what being a public servant means.

We think of GIS as a profession in the highest sense...a calling requiring specialized knowledge and academic preparation, which benefits society as a whole by providing information and insights into the spatial organization of the world we live in. As a profession, we hold what we do to high standards of practice and ethical guidelines.

But those of us who work for public agencies also believe that government services are vital to preserve and enhance the quality of life in our community. We focus our work to support the provision of effective and cost-efficient public services. We recognize that GIS is not a 'toy for techies' but a vital business tool. We should have no tolerance for waste, inefficiency, or unfairness in discharging the trust that our neighbors have given us by providing their hard earned tax dollars.

We are also proud of our part in the achievements of our agency in providing transportation and sewage services, parks and public health facilities, airports and public art, green spaces and fair elections, and many other services and amenities that help make the municipal geography that we serve a great place to live and prosper.

There are classes of civil servants that the public views in very favorable light. Just think of fire-fighters, who represent one of the most admired professions in America. Or how many of us have known and admired public school teachers, who in addition to their normal academic classes, also help out as a coach, or a school club advisor, or who give up evenings or weekends to help students with the school play or a band trip?

Those of us who work with GIS in government agencies give up something by not working for the private sector. Lower pay, never a hope of a bonus, no profit sharing or stock options...none of us will get rich. But walk or drive through your community and think about the parks or the transit system or the public health services that are better for your agency because of the GIS work you do. GIS can make a difference....so be proud of the public service you provide.

*The Summit* would like to hear from you. To encourage the discussion of issues and ideas of importance to the Washington GIS community we welcome letters to the editor and opinion essays. Letters to the editor should be a maximum of 100 words and essays should be limited to 500 words.

*The Summit* is published by WAURISA, The Washington State Chapter of the Urban & Regional Information Systems Association

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For subscriptions, content, comments, or suggestions, email:  
[SummitGISNews@URISA.org](mailto:SummitGISNews@URISA.org)

### PUBLIC MAPS IN WASHINGTON

**Puget Sound** is as much an icon of Washington State as Mt. Rainier or the Columbia River. But Puget Sound is in trouble. The map shown below was photographed along the Seattle waterfront. Other copies of this map can be found around the Sound, to educate people and to encourage them to get involved to save this precious water body. For more information, contact the People for Puget Sound:

<http://www.pugetsound.org/>.



*Restoring Puget Sound Map Found Along the Seattle Waterfront*

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

#### Sherlock Holmes & Dr. Watson....

*'There is a delightful freshness about you, Watson, which makes it a pleasure to exercise any small powers which I possess at your expense.....Where do you think that I have been?'*

*'A fixture also.'*

*'On the contrary, I have been to Devonshire'*

*'In spirit?'*

*'Exactly. My body has remained in this armchair; and has, I regret to observe, consumed in my absence two large pots of coffee and an incredible amount of tobacco. After you left I sent down to Stanford's for the Ordnance map of this portion of the moor, and my spirit hovered over it all day. I flatter myself that I could find my way about'*

*'A large scale map, I presume?'*

*'Very large.'*

*He unrolled one section and held it over his knee.*

*'Here you have the particular district which concerns us. That is, Baskerville Hall in the middle.'*

**-Sir Arthur Canon Doyle, from *The Hounds of the Baskervilles* 1902**

## GIS USER GROUPS IN WASHINGTON

ACSM – Washington State Section  
<http://www.wss-acsm.org/>

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

Central Puget Sound GIS User Group  
<http://waurisa.org/phpBB2/viewforum.php?f=24>  
 Meetings the 3rd Tuesday of each month from 1:00 to 3:00pm at Mercer Island City Hall. Contact Nora Gierloff at: [nwierloff@ci.tukwila.wa.us](mailto:nwierloff@ci.tukwila.wa.us)

Central Washington GIS User Group  
 Meets the 1st Thursday of each month at the Super China Buffet in East Wenatchee, WA at 12:00 noon.  
 For information contact Amanda Taub at: [ataub@co.douglas.wa.us](mailto:ataub@co.douglas.wa.us)

King County GIS User Group  
[http://www.metrokc.gov/gis/KC\\_Users\\_Group.htm](http://www.metrokc.gov/gis/KC_Users_Group.htm)  
 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](http://www.acadweb.wvu.edu/gis/nwgis_mtgs.htm)

Spokane Regional GIS User Group  
<http://waurisa.org/phpBB2/viewforum.php?f=19>  
 Contact: Dave Rideout, Spokane County 509-477-7251  
[drideout@spokanecounty.org](mailto:drideout@spokanecounty.org) .

Washington Geographic Information Council (WAGIC)  
<http://wagic.wa.gov/>  
 Join Listserve at: <http://listserv.wa.gov/archives/wagic.html>

To have your GIS related group or event listed in future issues of *The Summit*, notify the editor at: [SummitGISNews@URISA.org](mailto:SummitGISNews@URISA.org).

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