

INDUSTRY TRENDS AND ANALYSIS GROUP

SAN ANTONIO, TEXAS 2007



ITAG FINAL REPORT 2007

SAN ANTONIO, TEXAS

KEY ISSUE TOPIC:

THE IMPACT OF MAPPS VS. THE U.S. – WHAT ARE THE STAKES FOR THE GEOSPATIAL COMMUNITY?

FACILITATOR: Susan Ancel, GITA Past President

BACKGROUND: Doug Leibbrandt, GITA Treasurer

BREAKOUT GROUPS BY MEMBER TYPE

KEY ISSUE DISCUSSION QUESTIONS:

- How could this decision impact your business?
- How could this decision impact your employee career paths?
- What key messages would you like GITA to promote on this issue?

GROUP 1 - DATA ANALYST/BUSINESS ANALYST — Leader: Dan Shannon
GIS ANALYST — Leader: Mike Preston

- How could this decision impact your business?
 - Any changes to the interpretation of the Brooks Act are likely to lead to increased state legislation on the issue. Most consider this litigation as a symptom of the reaction of the survey industry to the erosion of their work. If this did lead to redirection of field collection work to licensed surveyors, it is unlikely that the practicing surveying community could satisfy the increased workload that would result.
 - There is a drive for more and more accurate, reliable data from trusted and identifiable sources. At the same time, however, it has been the ‘free’ data, such as TIGER, that had the largest impact on the user community. With so many free and low cost data sources, there is a strong tendency for users to implement data of questionable quality. It would be a shame to be forced into driving up the cost of data acquisition where the accuracy of a legal survey was not required.
 - A lot of GIS firms are already hybrid GIS/Survey or GIS/Engineering firms, so the impact to business owners may be minimal to some who have the necessary staff available as long as the outcome is focused more on the oversight of activities, such

as an architect overseeing the work of a junior draftsman.

- Restrictive licensing legislation in place in some states does complicate the process and thus increases costs. Some states are definitely getting pressure from the survey community to restrict data collection to state surveys.

■ **What key messages would you like GITA to promote on this issue?**

- GITA could take a leadership role in developing a framework for certification. GITA does not need to be the certifying entity, but by providing a common framework or set of guidelines and standards that various states could adopt it would provide more consistency state to state and possibly provide a model that an existing licensing body could incorporate. GITA could focus on researching and communicating what the impacts to GIS practitioners might be, to help members understand the issue and possibly minimize costs in the face of any restrictive changes that might result.

GROUP 2 - MANAGEMENT/CONSULTANT — Leader: Cindi Salas

■ **How could this decision impact your business?**

- Potentially higher costs from adding licensed surveyors to processes
- Could impact data-sharing with federal entities (examples: PUCs, NPMS, DOT, RRC, etc.)
- Non surveyor-certified data may no longer be accessible
- Undetermined impact to legacy data
- State law trumps federal law on this issue - need to work with individual states to validate roles that require certification
- Also need to consider what may be mandated at state level
- Potential workforce shortage due to lack of qualified workers, leading to offshoring challenges
- Increased screening of competitive bids

■ **How could this decision impact your employee career paths?**

- Will definitely change career paths for students currently pursuing GIS as a profession.
- Potential impact to instructors teaching GIS courses
- May need to fund educational institutions for new course development
- Difficult to get certified as a surveyor when day-to-day GIS work is really not what you're being tested on!
- The industry needs registered certification for GIS professionals that adequately addresses technical aptitude

■ **What key messages would you like GITA to promote on this issue?**

- Help clarify some of the uncertainty
- Provide different perspectives
- Publish more on the issues surrounding this topic
- Work with NSGIC to better understand states' roles
- More interaction with GISCI to improve certification
- Provide clarification on QBS (qualification-based selection) process
- More timely communication on current issues in general
- For this and other potential new topics, more interaction of GITA board with other organizations' boards

GROUP 3 - SURVEYOR/FIELD WORKER — Leader: Doug Leibbrandt
TECHNOLOGIST/OFFICE WORKER — Leader: Brenda Reum

■ **How could this decision impact your business?**

- Companies who use outsourced GIS vendors could be negatively impacted
- Required changes to existing data unknown, potentially significant
- Costs would likely go up
- State survey laws would prevent cross state boundary project work with one vendor
- There is a shortage of licensed surveyors to absorb additional required work
- It is difficult to interpret the differing definitions of mapping vs. surveying
- The current needs for field collection are quickly addressed with GIS technical staff, but getting a surveyor to take on the project takes longer
- One-call operations could be significantly impacted
- Our rapidly growing geospatial industry will be constrained
- States could take the ruling and use it to expand the definition of surveying to cover all GIS activities; the impact on GIS practitioners would be significant

■ **What key messages would you like GITA to promote on this issue?**

- Empower the members through information sharing
- Educate members on both the short and long term impacts of a decision in favor of MAPPs by holding forums, other means of communication
- Ask members what they want!
- Ask members what they want!
- Look into resurrecting the Spatial Technologies Industry Association to represent the GIS community
- Assign a data gathering function on this issue to the Research Committee
- Define the financial impact metrics and the time frame for enforcement, if the outcome is unfavorable

GROUP 4 - SYSTEMS DEVELOPER — Leader: Shaun McMullin

■ **How could this decision impact your business?**

- It would be a concern if data had to be shared with governmental agencies. Would we have to employ a certified professional to meet government requirements? It is not yet clear what impacts this ruling may have – will it impact data collection, data processing, data display, for example? The potential impacts on our organizations need to be defined before associated costs can be identified.

■ **How could this decision impact your employee career paths?**

- This depends upon certification requirements and whether there is there a potential need or requirement to employ a QA GIS certified professional.

■ **What key messages would you like GITA to promote on this issue?**

- Keep members abreast of the scope of the ruling, and how it may affect data collection, storage, use, map rendering, etc. In addition, help to define what levels of certification could potentially be involved.

INDUSTRY BREAKOUT SESSIONS

ELECTRIC

Coordinator:

Cynthia Salas— cindi.salas@centerpointenergy.com

Advisors:

David	Barclay	david.barclay@heco.com
Jimmy	Bouchillon	jim_bouchillon@fpl.com
Richard	Cohane	dcohane@controlpointtech.com
Randy	Cough	randy.cough@ge.com
Ian	Fitzgerald	ianfitzgerald@tdpud.org
Scott	Hand	sthand@wpsr.com
Linda	Harman	linda.harman@intergraph.com

James	Kivela	kivelaj@naperville.il.us
Mark	Maass	mark.maass@pse.com
Parag	Parikh	parag_parikh@oracle.com
James	Rice	james.rice@exeloncorp.com
Eric	Ruthenberg	eric.ruthenberg@exeloncorp.com
Alan	Saunders	alan.saunders@autodesk.com
Ronald	York	rcyork@duke-energy.com

TOP APPLICATIONS LIST

1. Trouble Call/Outage Analysis
2. Mobile Work Force Automation
3. Engineering Work Order Design
4. Work Management
5. Asset Management—Maintenance and Capital
6. Engineering Analysis & Optimization
7. CIS Integration
8. Mobile GIS Computing
9. Executive Information/Support System/Access/Public Access
10. Distribution Automation Interface/SCADA Interface

TOP TECHNOLOGIES LIST

1. Web Services
2. Pen Computing/Mobile Computing/Field Devices/Tablet
3. Disconnected/Connected Data Access
4. EAI
5. Distributed GIS
6. Terminal Services (Citrix)
7. AMI/AMM
8. Data Storage
9. Database Security
10. Interoperability

TOP THREE ISSUES FACING YOUR INDUSTRY

1. Intelligent grid and related technology

Why is this an issue?

- How it is evolving will change the way we do business
- It is driven by the need to improve customer service, increase reliability, improve efficiencies, lower cost to do business, and also by regulatory factors

2. Standardization of business processes and technology

Why is this an issue?

- Improves the success of M&A activities
- Improves ability to integrate

3. Doing more with less and aging infrastructure

Other issues addressed:

- Aging workforce emphasizes the need for succession planning, more education
- Critical infrastructure protection
- Global warming
- Increase need for real time data

What could GITA be doing at its conferences and in its programs to support you in addressing this issues?

- Online webcasts on relevant topics by industry (Education Committee?)
- More communication with other industry organizations to keep GITA community better informed (i.e., Associations Panel is a good example)
- Online community of practice with links to other sites with relevant information
- Have a presence with ANSI so we are informed about what standards are being developed and why
- More ITAG interaction throughout the year to solicit and share information, maybe including semi-monthly conference calls
- Publish white paper on GIT issues related to the aging workforce

GAS

Coordinator:

Shaun McMullin—shaun.mcmullin@pse.com

Advisors:

Elissa	Adams	eadams@trigon-epc.com
Karen M.	Bachmeyer	kmbachme@ingr.com
Steven	Ellis	sellis@col-col.com
Nicholas	Guerrero	nguerren@spectraenergy.com
Scott	Hand	sthand@wpsr.com
Laverne	Hanley	lhlanley@uniongas.com
David	Nemeth	david.nemeth@svg.com
Matt G.	Thomas	mghthomas@spectraenergy.com

TOP APPLICATIONS LIST

1. Damage Prevention
2. Demonstrated Compliance
3. Enterprise Integration Initiatives
4. Work Management and Process Automation
5. Mobile Data Collection and Integration
6. Facility Maintenance and Monitoring
7. System Planning and Modeling
8. CIS Integration with GIS/AM/FM
9. Gas Outage Management Systems
10. Target marketing of new customers already located on current system

TOP TECHNOLOGIES LIST

1. Data Exchange
2. Spatial Data in RDBMS
3. GPS
4. LIDAR
5. Georeferenced Imagery
6. Information Security
7. Document Management and Workflow
8. Internet/Intranet
9. Satellite Imagery
10. Wireless Access

TOP THREE ISSUES FACING YOUR INDUSTRY

1. Damage Prevention

Why is this an issue?

- Safety is the underlying reason for being concerned with compliance. Ultimately, if safety is addressed using GIS, then compliance becomes easier. Systems are built to address safety and reporting tools are used to convey compliance.

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Become more actively involved in the Common Ground Alliance and other similar initiatives. Too generalized, watered down conference for utilities. Need to address the fact that you've opened up the conference to many user groups. No longer a utilities focused conference. Distributech has taken some of your conference attendance away.

2. Demonstrated Compliance

Why is this an issue?

- Reporting of compliance is an issue, particularly developing the ability to create quick reports to show compliance. This can be very difficult with paper maps and paper service records. Centralized systems with flexible reporting capabilities are key.

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Better focus on utilities industry. See above for expanded explanation of what GITA could do better. Need to address declining enrollment and maturation of GIS industry. More focused on key user groups and partnership with other conferences. Reduce the number of days of the conference. Could probably cut in half the entire Sunday-Thursday schedule.

3. Enterprise Integration Initiatives

Why is this an issue?

- Distribution integrity management will push the need for centralized GIS. Close the loop on designs to vector data storage. Attributes need to be centralized and linked to vectors. Compliance and reporting are key drivers in this.

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Case studies and ROI work is a good start. Educating the community on these industry trends would be helpful. Including compliance and government entities in the conference would be useful as well. GITA could include papers on these aspects that are driving Enterprise GIS as well.

LOCAL GOVERNMENT AND PUBLIC WORKS

Coordinator:

Mike Preston—mike-preston@lra-inc.com

Advisors:

Danielle	Coulter	danielle.coulter@gcalgary.ca
David	DiSera	david.disera@ficoh.com
David	Dennis	dave_dennis@clevelandwater.com
Mark	Fortenbery	Mark.fortenbery@intergraph.com
Milo	Robinson	mrobinson@usgs.gov

TOP APPLICATIONS LIST

1. Asset Management
 - a. One Call
 - b. Critical Infrastructure
 - c. Right of way management
 - d. Sub-surface utility engineering
 - e. Work order management
2. Economic Development
3. Land Use Development
 - a. Planning/Zoning
 - b. Permits
 - c. Land development
 - d. Inspections
4. Airport Management
5. Port Management
6. Assessment of Taxes
7. Resource Planning
8. Emergency Management
 - a. Police, fire, EMS, 911

TOP TECHNOLOGIES LIST

1. Enterprise Architecture
2. Work Management System
3. 911-311
4. Web Internet/Intranet
 - a. E-Government
5. GIS
6. GPS
7. Wireless Solutions
8. SCADA
9. Mobile Computing
10. Intelligent Transportation Systems

TOP THREE ISSUES FACING YOUR INDUSTRY

1. **The coordination of Federal, State, Local, and International GIS information**

Why is this an issue?

- Sharing of data
- Data collaboration
- Organization collaboration
- Best Practices

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Work on providing more programs on best practices and data sharing between different levels of government. The GECCO program could drive these issues.

2. System Integration

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Provide more information – a seminar - on system integration.

PIPELINE

Coordinator:

David Nemeth—david.nemeth@sug.com

Advisors:

Roberto	Alvarez	ralvarez@corrpro.com
Ken	Ambrosius	ambroskj@bp.com
Phil	Angell	phil.angell@atosorigin.com
Doug	Asay	dasay@oneok.com
Elena	Bachilo	ebachilo@gie.com
Daniel	Bally	dbally@mbakercorp.com
Kermit	Brence	kermit.brence@atosorigin.com
Matthew	Brucker	matthew.brucker@encana.com
Greg	Cameron	greg.cameron@amerinnovations.com
Xingwen	Chen	xwc@ntbainc.com
Douglas	Czechowicz	doug.czechowicz@bp.com
Kelly	Derlago	kelly.derlago@encana.com
Tony	DiMarco	tony.dimarco@intergraph.com
Roger	Eldridge	roger.eldridge@colpipe.com
Chris	Galagan	
Joel	Gamble	joel.gamble@valero.com
Mathew	George	Mathew@eastwestsw.com
Trudy	Glaser	tcglaser@dow.com
Pete	Gomez	pete.gomez@xcelenergy.com
Debbie	Grieco	deb@allpointsgis.com
Juan	Guana	
Laverne	Hanley	LHanley@spectraenergy.com

Kimberly	Hiller	khiller@mbakercorp.com
Scott	Hills	sjhills@chevron.com
Steve	Howard	steve.b.howard@williams.com
Douglas	Hughes	
Robb	Isaac	robb.isaac@nov.com
Jason	Lambert	jason.lambert@williams.com
Chris	Landgraf	clandgraf@txgas.com
Pat	Linderholm	pat.linderholm@encana.com
Tony	Lopez	tlopez@espatial.com
Trevor	MacFarlane	
Charles	Marlin	charles.marlin@gti-us.com
Nathan	Marx	nmarx@chevron.com
Scott	McKinney	scott.mckinney@dvn.com
Stephen	Meigs	smeigs@matadorresources.com
John	Moeller	john.moeller@ngc.com
Ross	Phillips	ross.phillips@atcopipelines.com
Eric	Podurgiel	eric.podurgiel@valero.com
Meredith	Reeder	meredith.reeder@willbros.com
Tim	Rink	tim.rink@bwpmlp.com
Thomas	Salvucci	tsalvucci@scana.com
Chad	Shields	cshields@mbakercorp.com
Siobhan	Stack	siobhan_stack@xtoenergy.com
Tommy	Thomas	tjthomas@dcpmidstream.com
Shondra	Van Meter	shonda.vanmeter@willbros.com
Sue	Whiting	sue.whiting@ubisense.net
Gareth	Williams	gareth.n.williams@fluor.com
Jay	Williams	jay.e.williams@conocophillips.com
Tim	Willms	tim.willms@bwpmlp.com
Ed	Wilson	eddie.wilson@oneok.com
James	Winslow	james.winslow@oneok.com
Dmitry	Zelenkov	zelenkov@intari.com

ITAG 2007 PIPELINE OPERATORS' FORUM
Tuesday, September 25, 2007 – 1:30 p.m. – 2:30 p.m.
Marriott Westchase Hotel, Houston, Texas

I. Welcome

- a. Bob Samborski, GITA Executive Director, welcomed everyone to the ITAG Pipeline Operators' Forum. ITAG was started a few years ago by the GITA Board of Directors to assist with strategic planning and to provide conference input for the Board and conference committees. There were 53 participants in the Forum.

II. Top 10 Pipeline Applications and Technologies

- a. Cindi Salas spent a few minutes reviewing the 2006 top ten lists for applications and technologies. She encouraged participants to provide their thoughts on whether or not the lists reflect the state of the industry today. She also asked participants to identify what is missing and what is most important on the list.
- b. Comments
 - i. Missing: Public Awareness/Public Notification (the group determined that this was part of Regulatory Compliance)
 - ii. Most Important – Integrity Management
 - iii. Trend – integrating IT with GIS. Prior to 2000, most companies did not have an aggressive GIS program.
 - iv. Trend – some companies are asking for the integration of GIS with accounting and items such as DOT annual reports, etc.
 - v. GITA is looking into putting together a Standard Data Dictionary (Research Committee)
 - vi. “Management of Change” in the GIS industry
 - vii. Developing standards for mapping (does not currently exist)
- c. Oil and Gas Conference
 - i. Top Reasons for Attending the Oil and Gas Conference
 1. Networking
 2. Updates on technology
 3. Only conference for our industry
 4. Advances in technology (regulatory compliance & construction)
 5. Integration of Technology
 - ii. Future of Oil and Gas Conference
 1. Participant inquiry – is GITA considering expanding the conference beyond the pipeline industry (note: person was not in favor of such an expansion)? Salas noted that GITA is always looking to grow the conference, but not move away from the pipeline focus. This could be done through the addition of a track or a adjustment in focus of the existing tracks.
 2. Westchase Marriott Hotel location – participants liked the new location
 3. Would like to see more applications sessions
 4. Perhaps add some “Birds of a Feather sessions”
- d. Cindi Salas noted that the data for the Top 10 lists came from the GITA GTR survey. She encouraged everyone to complete the 2007 survey (and receive a free copy of the report).

III. Geospatial Dimensions of Emergency Response on Pipeline Infrastructure

- a. What emergency response areas are unique to the pipeline industry? What challenges is our industry facing?

- i. Plume modeling – current analysis is not advanced enough. Most GIS plume modeling packages are 2D, not 3D. The algorithms are not sophisticated enough yet.
- ii. Logistics – maintaining the location of equipment and crews. Managing assets (including people) in times of emergency. Knowing where everything (and everyone is) is critical to deploying resources in emergency response. RFID tagging for inventory purposes.
- iii. Training of Emergency Responders
 - 1. What responders need from operators to assist with emergencies
 - 2. What role does everyone have (beyond regulatory areas)
 - 3. Delivering precision data outside of the company’s proprietary systems
 - a. Old data – not updating often enough
 - b. Accuracy of data
 - c. Issue of proprietary data getting into the wrong hands
 - d. Working with multiple agencies who may require the data to be in different formats and updated at different times (accuracy and timeliness)
 - e. One Call systems vary from State to State
 - i. Need single system that is more universal.
 - ii. Simpler system to share information (frequently updated and accurate)
 - f. Reverse 911
 - i. Notifying public and private industry that there is a problem in their area (evacuation notification)

TELECOMMUNICATIONS

Coordinator:

Dan Shannon—daniel.shannon@telus.com

Advisors:

Robert	Austin	raustin@mbakercorp.com
Scott	Casey	Scott.casey@ge.com
Jerod	Floyd	jfloyd@above.net
Brian	McKelvey	Brian.mckelvey@intergraph.com
John	Moeller	John.moeller@ngc.com
Bill	Riva	Bill.riva@ge.com
Joel	Swanson	Joel.swanson@ge.com

TOP APPLICATIONS LIST

1. Fibre Management (very big issue)
2. Emergency Management
3. DSL, PON & VOIP Decision Support, Automation and Efficiency enhancement applications
4. Enterprise Integration
5. New Service Delivery Support (Customer Care)
6. Business Decision Support

7. Field Force Automation
8. Wireless (mobility) Support
9. Wireless/Wire Line Integration
10. NOC Integration (more demand for data from Design and Engineering)
11. Engineering Design and Planning
12. OGC/Open Source (Not an application)
13. Interoperability (Not an application)

TOP TECHNOLOGIES LIST

1. Web Services
2. Interoperability
3. Web Portals
4. Google Earth
5. Hardware Interoperability
6. GPS
7. Satellite Imagery
8. Orthophotography
9. LIDAR/IFSAR
10. Wireless (Matured to point of being more of an applications issue)

TOP THREE ISSUES FACING YOUR INDUSTRY

1. Retirement and Attrition

Why is this an issue?

- Companies are looking for ways to capture the embedded knowledge of senior employees prior to retirement. There is a demand for the development and deployment of tools and applications to help employers deal with this. As contract workers are engaged in the mix companies can't depend on long-term employees to carry so much tacit knowledge to be kept in their heads. However, as younger employees come on board there is also an opportunity to engage the field forces in data collection in ways that would have been problematic with a legacy work force.

Sub Issue: International hiring creating a resource drain

Why is this an issue?

- International hiring due to growth of overseas markets and activities negatively affecting infrastructure. This is reducing availability of telecom professionals in the domestic marketplace. More applications to increase productivity are required.

2. IMAGERY for the Nation, LIDAR for the Nation

Why is this an issue?

- Providing imagery across the nation in a consistent and reliable fashion will encourage utilities, telecoms specifically, to develop the business drivers and lower costs that should finally result in a much more attractive business model for integrating imagery into design and planning operations.

3. Fibre and related technologies

Why is this an issue?

- The use of these newer technologies, such as PON, DSL, and VOIP are driving much of the telecom investment in GIS.

(One study showed that by designing fiber on an accurate land-base with good GIS tools saved 42% on the design activity.)

The group thought that there would be some value in GITA investigating how they might be able to be involved in the Tele Management Forum (TMF), looking at the impacts of data, and possibly engaging them in discussions, and possibly looking into development of Inventory Management Standards.

There seems to be more GIS work that involves tying into BIM and CAFM C.A. Facilities Management.

Some value could be found in involvement with the National Institute of Standards Management.

There is still a growing demand for functioning relationships with the DHS and NGA regarding data sharing. Telecoms need to be more cooperative. GITA could provide leadership in developing the actual framework, or simply designing the framework and initiating the development of Data Sharing practices. GITA could provide functional requirements to USGSC in a way that protects commercial and security concerns. GITA could drive the development of interoperability standards and best practices. If GITA does not do this, eventually DHS will push down mandates to GITA constituents.

WATER/WASTEWATER

Coordinator:

Brenda Reum—brenda.reum@denverwater.org

Advisors:

Susan	Ancel	sancel@epcor.ca
Ralph	Anhold	ranhold@esri.com
Michael	Baker	michael.baker@intergraph.com

Roger	Cottrell	rcottrell@watershedconcepts.com
Skip	Heise	sheise@ema-inc.com
Paul	Hsiung	paul.hsiung@mwhsoft.com
Ian	Martin	ian.martin@us.tadpole.com
Geoff	Zeiss	geoff.zeiss@autodesk.com

TOP APPLICATIONS LIST

1. Asset Management
2. Workflow Applications for processes
3. Facility Management
4. Leak Management
5. GIS Migration/Integration
6. System Integrity Project Management
7. Water Quality and Collection Systems Analysis
8. Field GIS/GPS Enabled Condition Assessment
9. Geodetic disparities—from multiple data sources
10. Customer communication and problem resolution

TOP TECHNOLOGIES LIST

1. GPS differential for higher accuracy
2. Mobile Computing/WiFi/Wireless
3. Field Data Capture
4. Multimedia technology enabled through GIS (Video, Digital pictures etc)
5. Data Exchange OGIS
6. Database Management
7. Application Integration
8. Data Model Standards
9. Sensor Web Technologies
10. SOA and commercial web service consumption

TOP THREE ISSUES FACING YOUR INDUSTRY

1. Asset Management

Why is this an issue?

- Financial due diligence is necessary to respond to regulations
- We need to be proactive vs. reactive on replacement programs
- There is a need to define a system of record within the utility for a single source of truth
- One system should maintain the data and other systems access or use the data for operations purposes
- Creation should happen in only one place, it can be a different system than the maintenance system

- Legacy system integration is difficult – how to register assets in both systems with a unique key linking them together

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Continue with educational sessions on the topic at the annual conference
- Have seminars dedicated to the topic
- Encourage participation of AWWA in the discussions and at conferences, access the AWWARF study recently conducted with four water utilities

2. Data Sharing

Why is this an issue?

- Multiple sources cause differing quality
- Access to data via ownership
- Skill sets differ and understanding of the content must be fostered
- Problems keeping the data in synch when updates are received
- Metadata issues
- Geodetic shift from one version to another
- Data sharing agreements can be cumbersome to define and complete
- Data sensitivity must be communicated within the utility to protect licensed data or critical infrastructure

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Document case studies as a resource to members on how these issues have been handled, what worked, what did not
- White papers on differing data sources relative to scale and collection methods
- Hold sessions at conference on data source, collection methods, scale and items relative to differing data sources
- Foster understanding of GPS accuracy and technology changes

3. Disaster Response/Emergency Management

Why is this an issue?

- Coordination at the local level must be effective or the response will fail
- Response must be quick or it will be ineffective
- There are acute health implications in a slow response
- Data and application availability are difficult to standardize
- Multiple EOCs within a community can take up all resources for a utility and the response will become ineffective. If there are differing levels of demand, such as state

- EOC and City EOC the staff will have difficulty knowing which one to respond to first
- Creation of a common operating picture is difficult to come up with

What could GITA be doing at its conferences and in its programs to support you in addressing this issue?

- Papers on the topic
- Document common practices
- Hold chapter level seminars and meetings
- Invite speakers to conference who have been working on these efforts