

# Final Program



## ***MELTING DOWN THE STOVEPIPES***

Fifteenth Annual

## ***GEOSPATIAL INFORMATION SYSTEMS FOR TRANSPORTATION SYMPOSIUM***

To provide a forum for transportation officials from State, Province, Federal, and  
Municipal Agencies to discuss geospatial transportation issues

**March 25-27, 2002**

**Workshops – March 24, 2002**

**Sheraton Atlanta Hotel**

**Atlanta, Georgia**

[www.GIS-T.org](http://www.GIS-T.org)

### **Workshops**

Land Use Models and GIS  
GIS-T Project Management  
Implementing Road Data Models  
Advances in Remote Sensing & Data Capture  
GIS and Census  
ANSI-TriServices GIS/CADD Standards  
Understanding Software Development Models  
Cutting the Wire to GIS  
Introduction to Airport GIS

### **Sponsored by:**

American Association of State Highway  
and Transportation Officials



### **Co-Sponsored by:**



U.S. Department  
of Transportation  
Federal Highway Administration  
Federal Transit Administration  
Bureau of Transportation Statistics



Highway Engineering  
Exchange Program



Urban & Regional Information  
Systems Association

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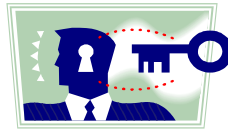
## Moderator Chair

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## OUR KEYNOTE SPEAKER

**Dr. Steven P. French**

**Director, Center for GIS**



Dr. French is Director of the City Planning Program at the Georgia Institute of Technology and the Director for the Center for GIS in Atlanta, Georgia. He has had a long involvement in teaching and researching the application of GIS to urban systems. He has worked closely with the Georgia Department of Transportation on several projects, including the production of a base map of all Georgia roads. Currently, Dr. French is involved in a leading edge transportation and land use research project called SMARTRAQ, or Strategies for Metropolitan Atlanta's Regional Transportation and Air Quality. This is an ongoing study to determine what types of land-use and transportation investment policies will have the best chance to reduce auto dependence and vehicle emissions in the metropolitan Atlanta area. SMARTRAQ has already produced a prototype parcel-level GIS land use database of the 13-county Atlanta metropolitan region, and combined with this data the research project will produce results that will be critical in developing a comprehensive regional transportation plan.

## GIS-T 2002 PLANNING COMMITTEE

Diane Pierzinski, Chair

Nancy Armentrout Maine DOT	Daris Ormesher South Dakota DOT
Frank Busch Connecticut DOT	Roger Petzold FHWA
Georgene Geary Georgia DOT	Tony Pietropola GeoDecisions
Dick Genrich Nebraska DOT	Randy Rowell Idaho DOT
Don Grayson Mississippi DOT	Bill Schuman Iowa DOT
Brian Logan Kansas DOT	Bruce Spear FHWA
Larry Miller AASHTO	Tammy Goorman Colorado DOT
David Moyer NOAA	Ben Williams FHWA
Marc Kratzschmar Exor Corporation	

## General Schedule

### Saturday, 3/23 5-7pm- Early Bird Registration

TIME	Sunday, 3/24	Monday, 3/25	Tuesday, 3/26	Wednesday, 3/27			
7:30 a.m.	Registration and Continental Breakfast	Registration and Continental Breakfast	Registration and Continental Breakfast	Registration and Continental Breakfast			
8:00	<b>Workshops begin</b>	<b>Welcome and Introductions</b> <b>-Paul Mullins,</b> <b>GDOT</b> <b>Keynote Speaker</b>	<b>Discussion Panel</b>	Next State Host Speaker			
8:30	<b>Half-Day Sessions</b> 1. Land Use Models and GIS 2. GIS-T Project Management 3. Implementing Road Data Models 4. Advances in Remote Sensing & Data Capture Technologies 5. Intro to Airport GIS Break at instructors' discretion	Break/ Exhibits Open	What is GIS?	<b>Discussion Panel</b> Melting Down the StovePipes.			
9:00			Break/Exhibits Open	<b>Session 2</b> 1. LRS Development 2. Data Collection using Remote Sensing 3. Enterprise Access 4. Transit Systems	<b>Session 5</b> 1. LRS in Action 2. Data Integration 3. GIS on the Web 4. Travel Behavior		
10:00						<b>State Summary &amp; Roll Call of States</b>	
10:30	Lunch – Workshop Attendees Only	Lunch	Lunch	Lunch			
12:00 p.m.							
1:00	<b>Workshops (cont.)</b>	<b>Session 1</b> 1. Enterprise Architecture 2. Data Collection 3. Interagency 4. Path Finding	<b>Session 3</b> 1. Data Model 2. Dynamic Segmentation 3. Web GIS 4. Transportation Planning	<b>Session 6</b> 1. Case Study 2. ITS 3. Spatial Analysis 4. Asset Management			
1:30	<b>Half-Day Sessions</b> 1. GIS and Census 2. ANSI-TriServices GIS/CADD Standards 3. Understanding Software Development Models 4. Cutting the Wire to GIS Break at instructors' discretion				Break/Bus Loading	Break	Break
3:00							
3:30	Break	<b>Technical Tours</b> 1. TMC 2. ERDAS 3. Marta 4. Hartsfield Airport 5. ARC	<b>Session 4</b> 1. Temporal 2. GPS 3. Tools 4. Transportation Planning	<b>Session Wrap-Up</b> Come join us for a debriefing of this year's symposium and planning for the next. <b>Refreshments Provided!</b>			
5:00							
5:30	<b>Exhibits Open and Vendor Reception</b>	<b>Exhibits Open Vendor Reception Poster Session</b>	<b>Tuesday Night Social</b>	<b>End of Conference</b>			
6:00							
7:30							
8:00	<b>Individual Vendor Presentations</b>	<b>Birds of a Feather</b> Interest Groups for Various GIS-T Software	Stone Mountain Park - Georgia's "Eighth Wonder of the World"				

### GIS-T Workshops ❖ Sunday March 24

	Workshop Name	Instructor(s)	Time	Room
1.1	Land Use Models and GIS	Dr. Paul Waddell University of Washington	8 am- Noon	Georgia 9
1.2	GIS-T Project Management	Dr. Simon Lewis GIST/Man, Inc.	8 am- Noon	Georgia 10
1.3	Implementing Road Data Models: Detailed Requirements for Selected Location Reference System Components	Tom Reis GeoAnalytics, Inc.	8 am- Noon	Georgia 7-8
1.4	Advances in Remote Sensing and Data Capture Technologies	Dr. Keith Turner Colorado School of Mines	8 am- Noon	Georgia 11
1.5	Introduction to Airport GIS	Randy Murphy Grafton Technologies, Mark Ricketson Geonetics, David Tamir Carter & Burgess	8 am- Noon	Georgia 12
2.1	GIS and Census	Elaine Murakami FHWA, Ed Christopher FHWA, Leo Dougherty Census Bureau - Geography Division	1 -5 pm	Georgia 11
2.2	NCITS ANSI - TriServices GIS/CADD Standards	David Tamir, Carter Burgess	1 -5 pm	Georgia 12
2.3	Understanding Traditional and New Age Software Development Models	Dr. Paul Scarponcini, Bentley Systems	1 -5 pm	Georgia 7-8
2.4	Cutting the Wire to GIS	John Karnowski StreetSmarts	1 -5 pm	Georgia 9

State Summary/Roll Call of States

Capital Ballroom

Bruce Spear from FHWA will give his annual report on the state of GIS-T in the state DOTs. A summary of the survey conducted earlier this year will be given along with the general status of GIS in DOTs, the changes that have occurred over time, and trends that have been seen.

The Roll Call of States will introduce each state's delegates. Dick Genrich's Power Point presentation showing a short summary of each state will give the audience a short summary from each state. Following the states will be the Canadian provinces, other countries, and other government organizations.

## TECHNICAL TOURS (MONDAY 3:00 PM TO 5:00 PM)

Tours will be offered for various locations in the Atlanta metro area to see GIS and data in action. Limited space is available for these tours so you must reserve your space at on-site registration Saturday, Sunday or Monday morning. Transportation will be provided. The functions and choices are:

### **DOT: Atlanta's Traffic Management Center (TMC)**

See Atlanta's notorious traffic in action from the DOT's vantage point at the TMC by attending this tour. *Buses will depart from 3-3:15 from outside the registration lobby.*

### **Transit: Metropolitan Atlanta Rapid Transit Authority (MARTA)**

Come see how GIS is used in trip planning and itinerary development by touring MARTA's main command center. *Transportation will be provided by Marta.*

### **Airport: Hartsfield International Airport**

*This presentation will be held at the hotel.* The session will demonstrate Hartsfield Airport's Total Airport Management & Information System (TAMIS). The TAMIS tracks aircraft within 30 miles of the airport along with a ring of noise monitors to record the noise levels area residents are exposed to. The system will also be used to allow residents to geocode themselves and compare their location to the location and altitude of arrival and departure corridors for aircraft. Doug Strachan of the Atlanta Department of Aviation will be our host.

### **MPO: Atlanta Regional Commission (ARC)**

As the regional planning agency for the 10-county area, ARC compiles the most current Atlanta Region data, forecasts future trends and keeps track of the most critical issues facing the area. *This will be a walking tour as the ARC headquarters are located just blocks from the Atlanta Sheraton.*

### **Digital Imagery: Leica GeoSystems (ERDAS)**

Leica GeoSystems (ERDAS)' corporate and international headquarters are located in Atlanta, Georgia. They will take you inside how imagery goes from pretty pictures to useful data using GIS and mapping tools. *Buses will be leaving lobby between 3-3:15 pm.*

## Birds of a Feather

This is a concurrent session held Monday evening (7:30-9:00 pm) that enables attendees with the same software to network among themselves with representatives from their software companies. The attendees will determine the agenda in this informal session.

Session	Room
ESRI	Georgia 7-8
Intergraph	Georgia 9-10

## Poster Session (Monday 6:00 PM - 7:00 PM)

Everyone is encouraged to bring a poster showing your GIS achievements. Prizes will be awarded in three categories:

- Cartographic Design
- Analytical Presentation
- Data/Software Integration

Posters will be accepted up until Monday morning at the registration desk. Submitters are requested to be available near their posters from 6-7 pm on Monday to answer questions. Number of entries may be limited based on available space. Winners will be announced on Wednesday during Colorado's presentation for next year's Symposium.

**PANEL DISCUSSION SESSIONS****W**hat is GIS? Tuesday, 3/26 - 8-10 am

Capital Ballroom

**Moderator: Diane Pierzinski**

A panel of GIS experts will lead a discussion centering on the 'moving target' of defining GIS in light of other related Geospatial technologies. Technology is constantly evolving and as GIS evolves the impacts on an organization can introduce unintended stovepipes.

The panel consists of:

- Bruce Spear, FHWA
- David Loukes, Geoplan Consultants
- Don Kiel, GeoDecisions

**M**elting Down the StovePipes. Wednesday, 3/27 8-10 am Capital Ballroom**Moderator: Roger Petzold, FHWA**

Do you have those "unintended stovepipes" presented during Tuesday's panel discussion? Yes or no, you should come to this panel discussion and listen to seasoned GIS veterans relate their approach to melting down those stovepipes into an enterprise approach to GIS development.

The panel consists of:

- William Shuman, Iowa Department of Transportation
- Mavis Georgalis, Florida Department of Transportation
- Jay Adams, Oklahoma Department of Transportation

**TUESDAY NIGHT SOCIAL - STONE MOUNTAIN PARK  
GEORGIA'S "EIGHTH WONDER OF THE WORLD"**

*Buses begin loading at 5 pm outside registration lobby.*

Hospitality is the Hallmark of the South and the Georgia DOT has planned an evening to remember. Ya'll come join us for a Southern Barbecue buffet at Stone Mountain Park. While listening to a Dixieland Band, you'll be able to enjoy a picnic of fried chicken, sliced pork, corn on the cob, and all the foods that make a southern barbecue a not-to-be-missed experience. After eating, we will go to the base of Stone Mountain and enjoy our own private Laser and Fireworks show. Stone Mountain is 25 million square feet of exposed granite and rises 825 feet above the surrounding area. Nowhere in the Southeast will you be able to see such a spectacular sight. Transportation to and from the Park will be provided. Come sit with your friends and accept our Hospitality, it will be an evening you won't forget!

**AMERICAN ASSOCIATION OF AIRPORT EXECUTIVES (AAAE)**

The American Association of Airport Executives (AAAE) will hold the Fifth Annual Airport Geographic Information Systems conference March 24 - 27, 2002. In addition, AAAE is cosponsoring several Sunday workshops in conjunction with GIS-T and will be sharing the GIS-T vendor reception Monday evening. Please welcome our transportation partners in air travel.

**Concurrent Session 1****1:30PM Monday, March 25**

<b>1.1 Enterprise Architecture</b>			<b>Georgia 7-8</b>
Moderator: Todd Slind			
1.1.1	<b>Interagency Enterprise GIS with Oracle Spatial</b>	John Harper Tennessee DOT Nashville, TN	Paul Yadlowsky TransDecisions Boston, MA
1.1.2	<b>Ohio's Base Transportation Referencing System (BTRS), Bringing Enterprise GIS to the Ohio Department of Transportation</b>	Joseph Hausman Ohio DOT Columbus, OH	David Blackstone Ohio DOT Columbus, OH
1.1.3	<b>Integrating Not Only Data Sets, But Also Business Relationships</b>	Mavis Georgalis Florida DOT Tallahassee, FL	
<b>1.2 Data Collection</b>			<b>Georgia 9-10</b>
Moderator: James Brown			
1.2.1	<b>Automated Highway Data Collection: Best Practices Field Review</b>	Jesse Day PBS & J Miami, FL	Simon Lewis GIST/Man, Inc. Media, PA
1.2.2	<b>Using RoadSoft-GIS for Road Maintenance and Rehabilitation at the Local Government Level</b>	Fernando de Melo e Silva Michigan Tech. Univ. Houghton, MI	Steve Kangas Michigan Tech. Univ. Houghton, MI
1.2.3	<b>Producing and using Virginia DDT Statewide Road Centerline Data</b>	Stan Hovey - Parsons Brinkerhoff Facilities Richmond, VA	David Baraniak Lambda Tech, Int. Waukesha, WI
<b>1.3 Interagency</b>			<b>Georgia 11</b>
Moderator: Ed Kelley			
1.3.1	<b>Integrating Fire, Police, and CAD to assist in Traffic Management</b>	Brian Smith GeoDecisions Newark, DE	Bill Lee Gene Donaldson Delaware DOT Dover, DE
1.3.2	<b>Implementing a GIS-Based Traffic Monitoring System</b>	Doug Hall GIS/Trans Ltd Silver Spring, MD	Amy Gamble Vermont Agency of Trans. Montpelier, VT
1.3.3	<b>Using Location to Integrate Local and State Government Road Information</b>	Louis Schoolkate GeoAnalytics, Inc. Madison, WI	
<b>1.4 Path Finding</b>			<b>Georgia 12</b>
Moderator: William Bachman			
1.4.1	<b>A PathFinding Algorithm for a Geo-Statistical Analysis of the Public Transportation Network</b>	Christophe Lang Pascal LIFC Besancon, France	Chatonnay Tho. Thevenin THEMA Lab Besancon, France
1.4.2	<b>Oversize/Overweight Permitting in the State of Alabama</b>	Ron Long Intergraph Government Solutions Huntsville, AL	
1.4.3	<b>Automation of Oversize/Overweight Permit Processing</b>	Wut Malaikrisanachalee University of Wisconsin Madison, WI	Teresa Adams University of Wisconsin Madison, WI

**Concurrent Session 2****10:30AM Tuesday, March 26**


<b>2.1 LRS Development</b>		<b>Georgia 7-8</b>	
Moderator: Bruce Aquila			
2.1.1	<b>PENNDOT's Enterprise LRS Study</b>	Frank Desendi PENNDOT Harrisburg, PA	Jim Knudson GeoDecisions Camp Hill, PA
2.1.2	<b>Building Enterprise GIS-T Applications in ArcGIS</b>	Al Butler Farragut Systems DeBary, FL	
2.1.3	<b>Creating a Railroad Referencing System (Milepost)</b>	Carl Fischer Federal Railroad Admin. Washington, DC	
<b>2.2 Data Collection using Remote Sensing</b>		<b>Georgia 9-10</b>	
Moderator: Mark Weber			
2.2.1	<b>The I-77/81 Re-Location Visualization Project</b>	Randy Dymond Virginia Tech. Blacksburg, VA	
2.2.2	<b>Comparison of LIDAR Derived Data to Traditional Photogrammetric Mapping</b>	David Veneziano Center for Transportation Research and Education Ames, IA	
2.2.3	<b>Technologies for Generating Road Centerlines - An Application View</b>	Val Noronha VITAL, Univ. California Santa Barbara, CA	
<b>2.3 Enterprise Access</b>		<b>Georgia 11</b>	
Moderator: Tom Ries			
2.3.1	<b>Oklahoma DOT's Intranet Portal - A New Way of Sharing Information</b>	Jay Adams Oklahoma DOT Oklahoma City, OK	Jesse Jay GeoDecisions Austin, TX
2.3.2	 <b>Successful Implementation of a Client/Server-based GIS Module for Pavement Management in Georgia</b>	James Tsai Georgia Institute of Tech. Atlanta, GA	Buddy Gratton Georgia DOT Atlanta, GA
2.3.3	<b>Highway Inventory and Infrastructure Integration at the New Brunswick Department of Transportation</b>	Wayne Walsh New Brunswick DOT Fredericton, New Brunswick	
<b>2.4 Transit Systems</b>		<b>Georgia 12</b>	
Moderator: Fang Zhao			
2.4.1	<b>Internet GIS Rideshare for Online ParaTransit Services</b>	Bobby Harris GIS Trans, LTD Silver Spring, MD	
2.4.2	<b>GIS Architecture for Transit Information WebSite</b>	Martin Trepanier Ecole Polytechnique University Montreal, Canada	
2.4.3	<b>Utilizing GIS to Maintain Complex Transit Data Structures</b>	Somitra Saxena GIS Trans, LTD Oakland, CA	



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**Concurrent Session 3****1:30PM Tuesday, March 26**

<b>3.1 Data Model</b>		<b>Georgia 7-8</b>	
Moderator: Simon Lewis			
3.1.1	<b>Updating Nebraska Department of Roads Data Model for Enterprise GIS Applications</b>	Chris Markel GeoDecisions State College, PA	Dick Genrich Nebraska DOR Lincoln, NE
3.1.2	<b>GeoTrans Transportation Data Model - A practical implementation</b>	Philip H. Hardy Product Planner Intergraph Mapping and GIS Solutions Mission Viejo, CA	
3.1.3	<b>Integration of Uncertainty in Linear Referencing Data Models</b>	Thomas Windholz University of Maine Orono, ME	
<b>3.2 Dynamic Segmentation</b>		<b>Georgia 9-10</b>	
Moderator: Frank DeSendi			
3.2.1	 <b>Georgia DOT Route Intersect Tool</b>	Brian St. Mary Georgia DOT Atlanta, GA	
3.2.2	<b>Utilizing the National Highway Planning Network for National and Regional Transportation Planning</b>	Mike Neathery FHWA Washington, DC	
3.2.3	<b>MultiCriteria Dynamic Segmentation: A GIS application for Managing Pavement Marking Retroreflectivity</b>	Wayne Sarasua Clemson University Clemson, SC	
<b>3.3 Web GIS</b>		<b>Georgia 11</b>	
Moderator: Jim Knudson			
3.3.1	<b>Developing Dynamic Internet Mapping Component for the National Bridge Inventory (NBI) Database</b>	Chris Nutakor GIS/Trans Ltd Silver Spring, MD	
3.3.2	<b>Manitoba Roads - Web-Based Dynamic Segmentation used in a Pavement Inventory Project</b>	Dan Buhler Manitoba Roads Winnipeg, Manitoba	
3.3.3	<b>Turning Transportation Planning Data into Effective Web Sites</b>	Andres Rabinowicz Caliper Corporation Newton, MA	
<b>3.4 Transportation Planning</b>		<b>Georgia 12</b>	
Moderator: Tom Neal			
3.4.1	<b>Course Materials and Curricula for NHI Course 151039 - Applying Spatial Technologies for Transportation Planning: A Progress Report</b>	Elizabeth Harper Parsons Brinckerhoff Morrisville, NC	Tim Case Parsons Brinckerhoff
3.4.2	<b>Exploring Trip Attributes with GIS</b>	Fang Zhao Florida International University Miami, FL	
3.4.3	<b>Development of an Integrated GIS-T Platform for Canada's Prairie and Northern Region</b>	Scott Minty University of Manitoba Winnipeg, Manitoba	



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## Concurrent Session 4



3:30PM Tuesday, March 26

4.1 Temporal		Georgia 7-8	
Moderator: Wayne Sarasua			
4.1.1	<b>Implementation of the NCHRP Multi-Dimensional Transportation Location Referencing System Data Model</b>	Nicholas Koncz University of Wisconsin Madison, WI	Teresa Adams University of Wisconsin Madison, WI
4.1.2	<b>Temporal Considerations for Transportation Location Reference Systems</b>	Tom Ries GeoAnalytics, Inc. Madison, WI	Scott Lueck GeoAnalytics, Inc. Madison, WI
4.1.3	<b>Temporal Error Propagation, Accuracy, and Uncertainty</b>	Carola Blazquez University of Wisconsin Madison, WI	Teresa Adams University of Wisconsin Madison, WI
4.2 GPS		Georgia 9-10	
Moderator: Larry Mattke			
4.2.1	<b>Melting Stovepipes in Global Positioning Systems - Des Moines Metro Continuously Operating GPS Base Stations</b>	William Schuman Iowa DOT Ames, IA	
 4.2.2	<b>Evaluating Driver Behavior and Safety with GPS Event Recorders and GIS</b>	Hainan Li Georgia Tech Atlanta, GA	Jennifer Ogle William Bachman Georgia Tech
4.2.3	<b>Practical Results on Mobile Positioning through Urban Canyons using Applanix POSLV System with Tightly Coupled Navigation Technology: A Case Study on Japan</b>	Manfred Sever Applanix Corp. Richmond Hill, Ontario	Bruno Scherzinger Kevin Andrews Applanix Corp
4.3 Tools		Georgia 11	
Moderator: Connie Gurchiek			
4.3.1	<b>Development of Conflation Tools to Conflate ITD Urban Area Segment Code Maps with TIGER Data</b>	Mandar Khanal Boise State University Boise, ID	
4.3.2	<b>Nebraska DOR - Standalone/Field Bridge Inspection Tool</b>	Steve Brown Nebraska DOR Lincoln, NE	Dick Genrich Nebraska DOR Lincoln, NE
4.3.3	<b>Use of GIS for Sign Management in Transportation Agencies</b>	Tony Pietropola GeoDecisions Camp Hill, PA	Minhua Wang GeoDecisions Camp Hill, PA
4.4 Transportation Planning		Georgia 12	
Moderator: Al Butler			
4.4.1	<b>Using GIS as an Interface for Developing INTEGRATION Model Networks and Visualizing Traffic Simulation Results</b>	Todd Slind CH2M Hill Bellevue, WA	Adam Kirk CH2M Hill Bellevue, WA
4.4.2	<b>Behavior Impedance Domain Modeling: A Utility for Geographic Information Systems for Transportation</b>	Lluiz Vidal Universitat Politecnica de Catalunya Barcelona, Spain	
4.4.3	<b>Investigating the Relationship between Pedestrian Mobility and Urban Morphology</b>	Mehdi Flitti THEMA CNRS Besancon, France	Jean-Christophe Foltete University of Besancon Besancon, France



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**Concurrent Session 5****10:30AM Wednesday, March 27**

<b>5.1 LRS in Action</b>		<b>Georgia 7-8</b>	
Moderator: Dwayne Mills			
5.1.1	<b>Automated LogPoint Reporting</b>	James Greetham Bentley Transportation Madison, AL	
5.1.2	<b>Implications of Multiple Linear Referencing on GIS-T Systems Development</b>	Bill Elliot Exor Corporation Lawrence, MA	
5.1.3	<b>GIS Crash Analysis in Action at the Illinois DOT</b>	Jim Wright Illinois DOT Springfield, IL	
<b>5.2 Data Integration</b>		<b>Georgia 9-10</b>	
Moderator: Bobby Harris			
5.2.1	<b>The Role of GIS in Enterprise Data Sharing Frameworks</b>	Marc Kratzschmar Exor Corporation San Diego, CA	
5.2.2	<b>Everyplace is Someplace: A Universal Location Based Service at Delaware DOT</b>	Vince Rucinski Delaware DOT Dover, DE	Kirk Divine TransDecisions, Inc. Austin, TX
5.2.3	 <b>Implementing Straight Line Diagram Using ArcGIS in Georgia DOT</b>	Todd Payne David Wright Georgia DOT Atlanta, GA	
<b>5.3 GIS on the Web</b>		<b>Georgia 11</b>	
Moderator: Carol DAoust-Martin			
5.3.1	<b>Nebraska DOR - Road Condition Reporting System</b>	Dick Genrich Nebraska Dept. of Roads Lincoln, NE	Steve Brown Nebraska Dept. of Roads Lincoln, NE
5.3.2	<b>GIS and the Internet, New Opportunities for Cultural Resource Management in Local Government Comprehensive Planning</b>	Terry Jackson Georgia Department of Community Affairs Atlanta, Georgia	
5.3.3	<b>Snow Plow Tracking on Web</b>	Andy Shaw Enterprise Information Solutions, Inc. Columbia, MD	
<b>5.4 Travel Behavior</b>		<b>Georgia 12</b>	
Moderator: Mohammed Alam			
5.4.1	 <b>GPS in Household Travel Surveys</b>	Jean Wolf Miriam Thompson GeoStats Atlanta, GA	William Bachman Georgia Tech Atlanta, GA
5.4.2	<b>A Deterministic Approach to Solve Resource Allocation Problems in Mobile Networks using Transportation Techniques, GPS, and GIS</b>	Lakshminarayana Putcha Louisiana State University Baton Rouge, LA	Balakiran Vadlani Intergraph Corp. Huntsville, AL
5.4.3	<b>GDSS - A GIS Decision Support System for Freight Transportation Planning</b>	Ken Bennett GIS/Trans Ltd Costa Mesa, CA	



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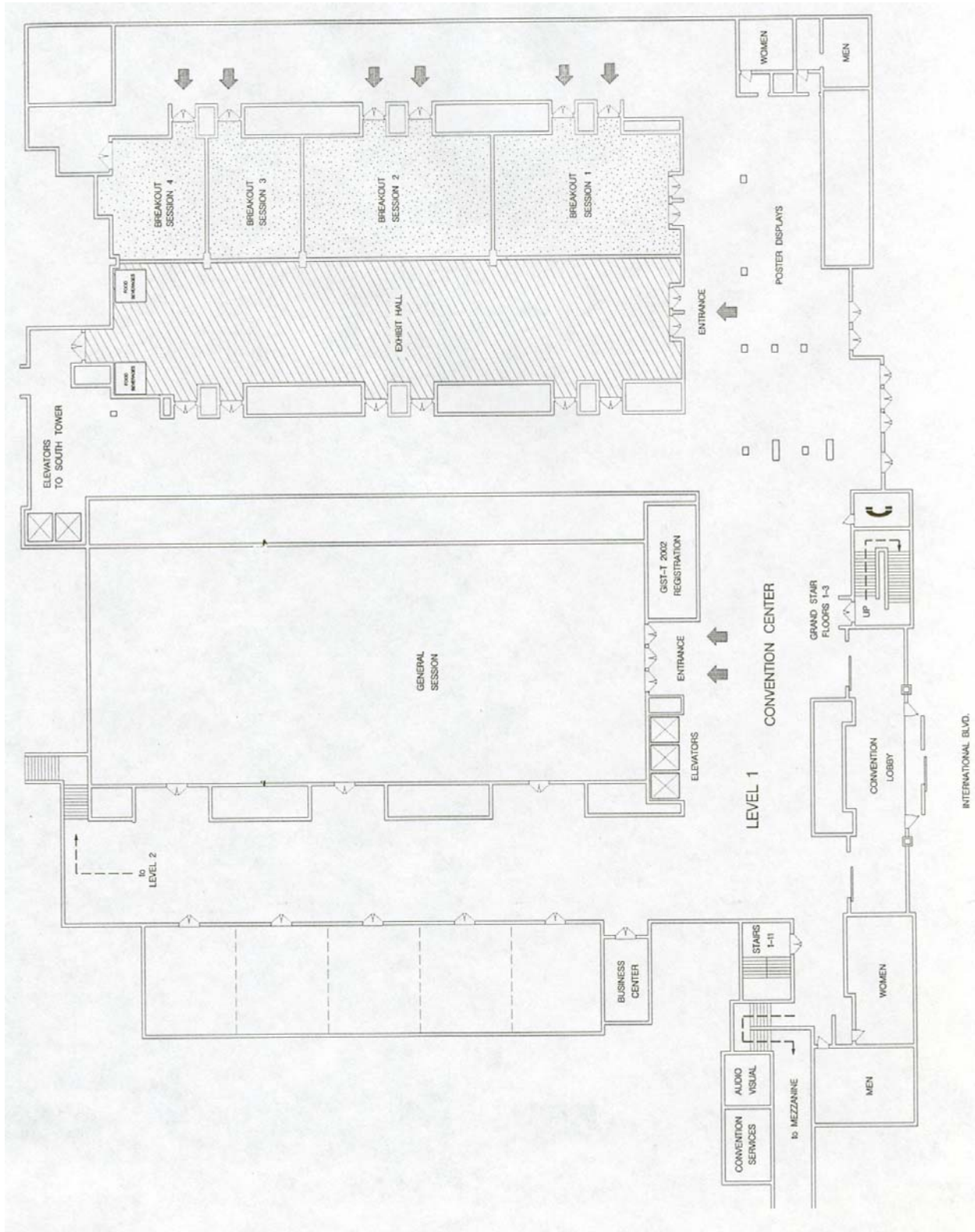
**Concurrent Session 6****1:30PM Wednesday, March 27**

<b>6.1 Case Study</b>		<b>Georgia 7-8</b>	
Moderator: Dave Loukes			
6.1.1	<b>Mn/DOT Location Data Management Project P075 - Implementing the NCHRP 20-27 (2) LRS Conceptual Model</b>	Dan Ross Minnesota DOT St. Paul, MN	Paul Scarponcini Bentley Corporation Collinwood, CO
		Jim Tucker Bentley Transportation Englewood, CO	Martin Bolt Bentley Transportation
<b>6.2 ITS</b>		<b>Georgia 9-10</b>	
Moderator: Jeff Orton			
6.2.1	<b>Real-Time Demand Responsive Transport Managed by Spatio-Temporal Information of Users</b>	Bolot Jerome THEMA-CNRS Besancon, France	
6.2.2	<b>Geomatics Versus Telematics: Is There a Role for GIS in ITS?</b>	John Sutton Cambridge Systematics Washington, DC	
6.2.3	<b>Using GIS to Provide Timely Customer Information and Evaluate ITS Projects</b>	David Crout Tri-Met Portland, OR	
<b>6.3 Spatial Analysis</b>		<b>Georgia 11</b>	
Moderator: Linda M. Pearson			
6.3.1	<b>Methods for the Collection, Analysis, and Dissemination of Data for Environmental Impact Statements on Proposed Highway Alignments</b>	Robert Fuhler Arkansas Highway and Transportation Dept. Little Rock, AR	
6.3.2	<b>Using GIS to Identify Problem Areas and Enhance Pedestrian Safety in Clark County, Nevada</b>	Srinivas Pulugurtha UNLV Trans Research Ctr Las Vegas, NV	Shashi Nambisan UNLV Trans Research Ctr Las Vegas, NV
6.3.3	 <b>Measuring Change in Accessibility to Essential Facilities Due to Event-Related Transportation Network Closures using GIS</b>	Subrahmanyam Muthukumar Georgia Tech Atlanta, GA	William Bachman Georgia Tech Atlanta, GA
<b>6.4 Asset Management</b>		<b>Georgia 12</b>	
Moderator: Nancy Armentrout			
6.4.1	<b>A GIS-T Approach to Integrating Asset Management and Maintenance Management</b>	Bill Elliott Exor Corporation Lawrence, MA	
6.4.2	<b>Roadway Information Management for South Carolina DOT and Tennessee DOT</b>	Karin Goodwin Intergraph Corporation Huntsville, AL	
6.4.3	<b>The Automated Gathering of Sign and Pavement Marking Retroreflectivity Data from a Moving Platform</b>	Jamie Retterath Facet Technology Corporation Excelsior, MN	



The Peach Symbol indicates a session from Host State Georgia.

# MEETING FACILITIES Atlanta Sheraton Floor Plan



## VENDOR EXHIBITS (Georgia 1-6)

There will be 38 booths and 4 days of exhibits as part of the symposium. The vendor exhibit will include 2 receptions. This is a great opportunity for each exhibitor to get to know the transportation customer. The exhibits start on Sunday, March 24 at 6:00 pm with the first vendor reception and will end on Wednesday, March 27 at 12:00 pm. For more details (booth numbers/locations) see the handout in your registration packet.

### VENDOR LIST

- 3M
- Applanix Corporation
- BTS
- Bentley System, Inc.
- Caliper Corporation
- Census
- E-Solutions
- Engilutions, Inc.
- ESRI
- Exor Corporation
- FHWA
- GEO-3D, Inc.
- GeoAnalytics, Inc.
- GeoDecisions
- GIS/Trans, Ltd.
- Hewlett-Packard
- Intergraph Corporation
- Intergraph Federal
- Lambda Tech International
- Leica GeoSystems (ERDAS)
- Mandli Communications, Inc.
- Meterologix
- Mississippi State University
- PBS&J
- Plangraphics
- Roadware Group
- TransDecisions
- Tri-Global Technologies, LLC



## MELTING DOWN THE STOVEPIPES

1988	Tempe, Arizona
1989	Orlando, Florida
1990	San Antonio, Texas
1991	Orlando, Florida
1992	Portland, Oregon
1993	Albuquerque, New Mexico
1994	Norfolk, Virginia
1995	Reno, Nevada
1996	Kansas City, Missouri
1997	Greensboro, North Carolina
1998	Salt Lake City, Utah
1999	San Diego, California
2000	Minneapolis, Minnesota
2001	Arlington, Virginia
2002	Atlanta, Georgia 🍌
2003	Colorado Springs, Colorado