Creating Distribution Boundaries Using Computational Geometry & Meteorological Mesonet – Better Predictions for Storm Damage

EPRI GIS Interest Group Webcast
May 22, 2014
Legal Notices

• Please observe these Antitrust Compliance Guidelines:
  – Do not discuss pricing, production capacity, or cost information which is not publicly available; confidential market strategies or business plans; or other competitively sensitive information
  – Be accurate, objective, and factual in any discussion of goods and services offered in the market by others.
  – Do not agree with others to discriminate against or refuse to deal with a supplier; or to do business only on certain terms and conditions; or to divide markets, or allocate customers
  – Do not try to influence or advise others on their business decisions and do not discuss yours except to the extent that they are already public
Helpful Ground Rules

• Please silence your cell phone and place away from your desk phone. It can cause interference.
• Please mute your phone when you are not speaking.
• Do NOT place the call on hold to take an incoming call.
• This webcast is being recorded. Your continued participation in the call is considered your acceptance to being recorded.
  – Do not disclose any information you consider proprietary.
  – Remember that any you say will be available to the members of the interest group
## GIS Interest Group – Past....

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Presentation</th>
<th>Recording</th>
</tr>
</thead>
<tbody>
<tr>
<td>April 10th, 2014</td>
<td>Utilizing Low Cost GIS Technology – Open Maps and Apps</td>
<td>Presentation</td>
<td>Recording</td>
</tr>
<tr>
<td>March 11th, 2014</td>
<td>GIS 2025: What does the industry hold for us and how can we prepare?</td>
<td>Presentation</td>
<td>Recording</td>
</tr>
<tr>
<td>August 29, 2013</td>
<td>Webcast on Field Force Data Visualization, GIS Data Correction, and IDMS</td>
<td>Presentation 1 Presentation 2</td>
<td></td>
</tr>
<tr>
<td>March 7, 2013</td>
<td>Union Power Dashboard and PSNH Importance of GIS Data</td>
<td>Presentation 1 Presentation 2</td>
<td>Recording</td>
</tr>
</tbody>
</table>

http://www.smartgrid.epri.com/GIS.aspx
<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>May 22, 2014</td>
<td>Finding Feeder Boundaries Using GIS</td>
<td>Bob Williamson, Oncor</td>
</tr>
<tr>
<td></td>
<td>Advance Weather Model for Predicting Storm Damage Using GIS</td>
<td>Bob Pasken, SLU</td>
</tr>
<tr>
<td>June</td>
<td>Mapping Underground Utility Infrastructure</td>
<td>Geoff Zeiss</td>
</tr>
<tr>
<td>July</td>
<td>Use of GIS as a Wide Area Situational Awareness Platform in Transmission</td>
<td>TVA</td>
</tr>
<tr>
<td>August</td>
<td>Conflation of GIS Data</td>
<td>Open Geospatial Consortium</td>
</tr>
</tbody>
</table>

http://www.smartgrid.epri.com/GIS.aspx
Where to Find the Results

- Handouts
- Web site
About the GIS Interest Group

• This interest group is part of the IntelliGrid Program – ICT for Distribution

• We are use these forums to drive the research in this program

• It is open to utilities whether funding or not

• The research we do will be for the funders of the IntelliGrid Program – ICT for Distribution
Roadmap for ICT for Distribution

- Previous work
  - Monetizing the GIS
  - Data dependencies of GIS
- Current year work
  - GIS as a situational awareness platform
  - GIS data quality handbook
- Future work
  - Future editions of the GIS quality handbook
  - Work/asset management integration with GIS
  - Data visualization using GIS
Shameless Plug....

Register for EPRI Smart Distribution & Power Quality Conference & Exhibition 2014
June 17-19 in Charlotte (With Post-Event IntelliGrid & SG Demo Advisory Meetings June 20)

Link
Help With Brainstorming…. 

5-Year plan: What should we be doing?

- Top issue

Need speakers!

Need help with monetizing data correction methods
## Comparison of Data Correction Methods

<table>
<thead>
<tr>
<th>Method</th>
<th>Accuracy</th>
<th>Cost/Service Points – 10,000</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Field Asset Inventory</td>
<td>2’ – 3’</td>
<td>$60,000 – $80,000 + cost of adjusting existing data</td>
<td>Months</td>
</tr>
<tr>
<td>Asset Inspection with GPS</td>
<td>2’ – 3’</td>
<td>GPS point capture + cost of existing data – ~ $2/pole</td>
<td>Years</td>
</tr>
<tr>
<td>On-screen Spatial Correction</td>
<td>5’ – 10’</td>
<td>&lt; $10,000</td>
<td>Weeks</td>
</tr>
</tbody>
</table>
Poll
Our Speakers

• Robert Williamson, PE, Senior Engineer at Oncor Electric Delivery -- Bob supports Oncor's existing Work Management / Geographic Information System and is engaged in the design of Oncor’s new GIS.

• Dr. Robert Pasken, Associate Professor of Meteorology, St. Louis University -- Dr. Pasken has been a meteorologist and faculty member at Saint Louis University for over thirty years. He is the creator of the Missouri Mesonet, a meteorological network to provide improved forecasts for metropolitan Saint Louis area.

And now …