New Tools for Traffic Counts and other Data Collection

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PREPARED FOR:
2018 MPO/RPC/WisDOT
Transportation Planning Conference
• Traffic data available on demand to public.

• Expectations for traffic engineering professionals are high.
We don’t believe you!
Based on the best information available.....
BT Deployment

2012

Merge BT & TLAP

2013

Published Methodology

2014

HD Ground-Based Cameras

2015

Merge HD/BT

2016

Drones & VISSIM Validation

2017

Future

Transparency

Drone/Bluetooth Cost-Effective Video Evidence
<table>
<thead>
<tr>
<th>Skycomp</th>
<th>Tethered Drone</th>
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<tbody>
<tr>
<td>• Maryland</td>
<td>• Wisconsin</td>
</tr>
<tr>
<td>• Helicopter rental</td>
<td>• Owned by TADI/Menet Aero</td>
</tr>
<tr>
<td>• 1.5 hour max flight</td>
<td>• Unlimited flight time</td>
</tr>
<tr>
<td>• TLAP not video</td>
<td>• 4k Video</td>
</tr>
<tr>
<td>• 4 linear miles</td>
<td>• ½ linear mile</td>
</tr>
<tr>
<td>• Data reduction by hand</td>
<td>• Data reduced with software</td>
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</tbody>
</table>
Partnership with Menet Aero

- Commercial licensed drone pilots
- Permitted by most Wisconsin airports including Dane County
- WisDOT Master Contract
- Subcontractor to TADI for Central Office Roundabout Study
Software developed by:

DATA FROM SKY
Tether Drone Traffic Analysis
Data from Sky

- Software works by georeferencing video to an actual map.
- Tracks vehicles thru exit and entry gates
- Advanced algorithms produce trajectories for individual vehicles.
- Ability to show trajectories and vehicle speed, count on video for audience
Unprecedented amount of traffic data

- Vehicle counts
- Vehicle classification
- Speed
- Acceleration
- Time stationary

- Gap time and follow-up time
- Density
- Origin Destination
- Presence
- Data never before available can now be measured and used in the development of traffic models.
- Roundabout Operations Study (Central Office)
Tethered Drone System – A Game Changer

- Covers Multiple Intersections
- Granular OD Data for Systems of Intersections
- Ground Truth Data for Study’s Most Important Movements
Visual data collection equals better models
Questions?

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