2017 ECLIPSE AND BEYOND

ILLINOIS DEPARTMENT OF TRANSPORTATION
PREPARATIONS

• Attended meetings with local’s
• Attended meeting with Illinois Energy Management Agency
  • Attended training on IEMA software
• Limited leave time for Operations staff
• Limited lane closures on construction projects
• Limited turning movements on key routes
DAYS OF EVENT

• Imbedded IDOT staff at IEMA – Unified Area Command as requested
• Imbedded IDOT staff at IEMA – Area Commands as requested
• Placed Smart Message Boards with traffic detection on I-57
• Expanded communications staff at District Level
• Reacted as requested by IEMA
AFTERWARDS (LESSONS LEARNED)

• Limit lane closure 200+ miles away from event on major route

• Work with local law enforcement
  • Any stop sign or small community backed up traffic

• Traffic backup were significant but accidents were not

• Most State of Illinois staff will not be around for next one.
Totality Traffic Jam

Ted Trepanier
INRIX Technology Platform
Big data & analytics platform ingests multiple sources of data and combines technologies to create innovative solutions

Massive Input Data
- Incident data
- Mobile data
- Historical traffic data
- Parking data
- Event data
- Weather data
- Road sensors
- Consumer vehicle GPS data
- Fleet data
- Cell Tower Data

Technology Platform
- Realtime
- Predictive
- Historical
- Big data
- Analytics
- Machine Learning
- Cloud

Applications & Solutions
- Traffic
- Parking
- OpenCar
- Analytics
- Global geo-spatial platform for location based services
- Massive real-time data aggregation and processing
- Analytics capabilities on 10 years of historical data
Nationwide Bottleneck Analysis

Spanaway McKenna
Hwy | State Route 507 S | WA 507

- Segment Id: 1234567890
- Time: Tue Dec 19 2017 11:11 AM (PST)
- Length: 0.54 miles
- Speed: 7 mph
- Hist. Average: 45 mph
- Free Flow: 94 mph
- Score: 30
- Travel Time: 4 minutes 46 seconds

SPEED (% OF REFERENCE SPEED)

- Bottleneck suspected
- Bottleneck confirmed
- Bottleneck cleared
- Bottleneck closed

TIME

5 min
10 min

Bottleneck
Bottlenecks following the path of totality

Bottleneck Ranking - Using INRIX data

Bottleneck locations from 9/1 to 8/27 between August 21, 2017 and August 26, 2017 (2001 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (roles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WY-487 S @ US-287-US-30-LINCOLN HWY</td>
<td>15.033.49</td>
<td>29.59</td>
<td>3 h 39 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>1-29 @ WY-80/US-183</td>
<td>15.101.11</td>
<td>17.94</td>
<td>2 h 35 m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1-29 @ WY-80/CO STATE BORDER</td>
<td>8.105.99</td>
<td>12.00</td>
<td>2 h 49 m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>US-20 WY-6 @ US-183</td>
<td>6.732.54</td>
<td>1.47</td>
<td>2 h 44 m</td>
<td>40</td>
<td>26</td>
</tr>
<tr>
<td>5</td>
<td>WY-487 S @ CR-403S/BATES HOLE STOCK TML</td>
<td>2.346.46</td>
<td>18.86</td>
<td>2 h 31 m</td>
<td>1</td>
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</tr>
<tr>
<td>6</td>
<td>US-14 @ WY-448</td>
<td>4.491.37</td>
<td>6.71</td>
<td>2 h 08 m</td>
<td>4</td>
<td>4</td>
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<tr>
<td>7</td>
<td>WY-414 E @ WY-80/US-183</td>
<td>4.006.62</td>
<td>7.00</td>
<td>2 h 08 m</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>8</td>
<td>1-29 @ WY-80/CUTTHROAT CREEK RD</td>
<td>14.337.22</td>
<td>24.04</td>
<td>2 h 31 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>US-14 @ CR-111/MIDAS CREEK RD</td>
<td>7.134.90</td>
<td>6.55</td>
<td>1 h 54 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>WY-22 E @ US-183-W W BROADWAY</td>
<td>5.140.19</td>
<td>5.73</td>
<td>1 h 53 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>US-151 N @ AIRPORT RD</td>
<td>3.076.56</td>
<td>5.23</td>
<td>1 h 31 m</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

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## Bottleneck Ranking - Using INRIX data

### Bottleneck locations from NC (20935 times) between August 13, 2017 and August 20, 2017 (8003 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact Factor</th>
<th>Average max length (miles)</th>
<th>Average duration (h:mm:ss)</th>
<th></th>
<th>Y</th>
<th></th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US-74 E @ ROLAND DR</td>
<td>15317</td>
<td>7.353</td>
<td>9.45</td>
<td>12</td>
<td>h</td>
<td>3</td>
<td>50</td>
<td>80</td>
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<tr>
<td>2</td>
<td>US-23 S @ GA-13</td>
<td>81.762.36</td>
<td>60.64</td>
<td>6h 49m</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>US-129 S @ BLACK ROCK RD</td>
<td>6.805.72</td>
<td>4.61</td>
<td>6h 29m</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>1-40 W @ US-95 EXIT 10</td>
<td>7.288.16</td>
<td>7.13</td>
<td>5h 40m</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>1-75/1-76 N @ PRESNEL ST</td>
<td>1.077.42</td>
<td>3.48</td>
<td>5h 30m</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>0</td>
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<tr>
<td>6</td>
<td>1-88 N @ US-74/EXIT 10</td>
<td>21.271.29</td>
<td>38.40</td>
<td>4h 37m</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>US-981 N @ US-981 (CONCORD) (SOUTH)</td>
<td>289.06</td>
<td>2.06</td>
<td>4h 24m</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>0</td>
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<tr>
<td>8</td>
<td>US-601 N @ EFRANKLIN ST</td>
<td>6.853.71</td>
<td>5.30</td>
<td>4h 22m</td>
<td></td>
<td></td>
<td></td>
<td>5</td>
<td>0</td>
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<tr>
<td>9</td>
<td>1-98 S @ NCD 735 EXIT 15</td>
<td>2.341.37</td>
<td>6.43</td>
<td>4h 12m</td>
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<td></td>
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<td>1</td>
<td>0</td>
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<tr>
<td>10</td>
<td>NC 65 S @ MOORES PARKING</td>
<td>10.238.33</td>
<td>10.29</td>
<td>4h 05m</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>1-77 N @ SCOTT-CHELSEA COUNTY BORDER (SOUTH)</td>
<td>49.941.03</td>
<td>10.32</td>
<td>4h 37m</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>12</td>
<td>EML ST N @ US-255 MAIN ST</td>
<td>1.903.73</td>
<td>0.79</td>
<td>3h 49m</td>
<td></td>
<td></td>
<td></td>
<td>11</td>
<td>0</td>
</tr>
</tbody>
</table>

### Map and Occurrences

- **US-23 S @ GA-13**
  - Occurrences: 4
  - Map View: [Open Map View](#)
## Bottleneck Ranking - Using INRIX data

**Bottleneck locations from SC (9469 times) between August 13, 2017 and August 26, 2017 (3167 total)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location Description</th>
<th>Impact Factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>US-276 S @ SC-LCH/CHEROKEE SCENIC HWY (Cleveland) (North)</td>
<td>1,047.33</td>
<td>0.87</td>
<td>9:02 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>US-276 S @ SC-LCH/CHEROKEE SCENIC HWY (Cleveland) (South)</td>
<td>12,623.55</td>
<td>5.00</td>
<td>6:37 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>US-301 S @ SC-38/I-85 West Exit 10</td>
<td>2,059.46</td>
<td>8.03</td>
<td>5:58 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>I-85 N @ GA-57/LATIN EXIT 10</td>
<td>11,296.76</td>
<td>45.83</td>
<td>5:58 m</td>
<td>1</td>
<td>14</td>
</tr>
<tr>
<td>5</td>
<td>1-20 W @ GA-140/REVERE Highway/Exit 200</td>
<td>4,704.38</td>
<td>4.09</td>
<td>4:30 m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>SC-95 @ SC-95/TURNPIKE EXPRESSWAY Exit 7</td>
<td>1,092.72</td>
<td>3.66</td>
<td>4:42 m</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>SC-14 E @ US-74/EXIT 16</td>
<td>21,271.29</td>
<td>38.40</td>
<td>3:37 m</td>
<td>16</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>1-77 N @ I-40/EXIT 2</td>
<td>913.81</td>
<td>2.15</td>
<td>3:33 m</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1-9 N @ US-74/EXIT 10</td>
<td>1,330.02</td>
<td>6.13</td>
<td>2:45 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>US-276 S @ SC-LCH/CHEROKEE SCENIC HWY (Cleveland) (South)</td>
<td>3,551.46</td>
<td>3.44</td>
<td>3:39 m</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

- **Show Events/Incidents:** During selected time range
- **Only during bottleneck conditions**

**US-276 S @ SC-LCH/CHEROKEE SCENIC HWY (Cleveland) (South)**

**Map:**

- Highlighted location on the map.

**Graph:**

- Time periods with congestion indicated.
- Specific data for August 21, 2017, 9:37 PM to August 21, 2017, 10:01 AM.
## Bottleneck Ranking - Using INRIX data

### Bottleneck locations from KY (7056 tmcu) between August 13, 2017 and August 26, 2017 (4472 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact factor</th>
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<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I-71/775 N @ 5TH ST/EXIT 192</td>
<td>27,792.64</td>
<td>2.35</td>
<td>9 h 51 m</td>
<td>20</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>I-71/775 N @ I-71/EXIT 1</td>
<td>5,914.06</td>
<td>0.49</td>
<td>6 h 17 m</td>
<td>32</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>KY-390</td>
<td>1,645.80</td>
<td>2.67</td>
<td>5 h 08 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>I-65 N @ US-62/KY-61/EXIT 94</td>
<td>19,754.47</td>
<td>23.27</td>
<td>4 h 43 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>US-31 @ KY-52/LYONS STATION RD</td>
<td>1,927.49</td>
<td>7.01</td>
<td>4 h 35 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>KY-44 W @ KY-1526 BELLS MILL RD</td>
<td>3,422.13</td>
<td>6.34</td>
<td>4 h 30 m</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>I-65 S @ US-31/KY-61</td>
<td>5,059.13</td>
<td>3.98</td>
<td>4 h 14 m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>KY-53 N @ KY-1579</td>
<td>2,841.55</td>
<td>5.71</td>
<td>4 h 09 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>KY-53 N @ KY-44/BROWNS STORE RD</td>
<td>5,912.67</td>
<td>3.00</td>
<td>4 h 06 m</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>US-27 N @ US-68/BYP RD</td>
<td>17,927.49</td>
<td>4.73</td>
<td>3 h 57 m</td>
<td>16</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**I-71/2-75 N @ 5TH ST/EXIT 192**

Map of I-71/2-75 N @ 5TH ST/EXIT 192 showing traffic congestion.

**Occurrences**

- **08/13/17:**
  - Event: Mon, Aug 21, 2017 5:33 AM to Tue, Aug 22, 2017 4:31 AM
  - Duration: 23 h 58 m
  - Max queue length: 3.51 miles
  - Impact: 0.00

---

**Show ranks**, **Highlight selected bottleneck**, **Show events/incidents label next to rank**
Thank You

Ted Trepanier
ted@inrix.com
### Bottleneck Ranking - Using INRIX data

#### Bottleneck locations from OR (7938 times) between August 13, 2017 and August 20, 2017 (4542 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact Factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>US-97 N @ WA-14 (GOLDENDALE) (SOUTH)</td>
<td>7,375.48</td>
<td>12.97</td>
<td>9 h 21 m</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>I-205 N @ WA-305/NE 30TH CIR/EXIT 30</td>
<td>28,419.34</td>
<td>16.95</td>
<td>8 h 20 m</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>US-97 N @ OR-156/SE DIAMOND LAKE HWY</td>
<td>27,802.30</td>
<td>44.47</td>
<td>7 h 23 m</td>
<td>14</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>I-58 E @ WA-OR STATE BORDER</td>
<td>738.37</td>
<td>1.82</td>
<td>6 h 43 m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>I-58 S @ MARQUAN BRIDGE</td>
<td>2,774.09</td>
<td>4.04</td>
<td>6 h 34 m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>NE ASSEY RD @ NE HENDRICKS RD/N REID Rd</td>
<td>1,285.48</td>
<td>3.49</td>
<td>6 h 11 m</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>I-64 W @ 102ND AVE/EXIT 9</td>
<td>1,260.29</td>
<td>2.30</td>
<td>6 h 00 m</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>US-51 S @ US-305</td>
<td>10,580.37</td>
<td>9.96</td>
<td>5 h 54 m</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>I-58 S @ INTERSTATE BRIDGE</td>
<td>10,800.38</td>
<td>3.30</td>
<td>5 h 32 m</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>I-205 S @ WA-14/EXIT 27</td>
<td>54,255.41</td>
<td>13.14</td>
<td>5 h 28 m</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SE LAFAYETTE HWY @ MADISON ST</td>
<td>5,644.19</td>
<td>6.09</td>
<td>5 h 09 m</td>
<td>3</td>
<td>1</td>
</tr>
</tbody>
</table>

**Show Events/Incidents:** During selected time range  Only during bottleneck conditions

---

#### Plot of Occurrences

- **Occurrences:**
  - 08/15/17
  - 08/16/17

- **Maximum queue length in miles:**
  - Gray scale  Compact View

---

**Show ranks**  **Highlight selected bottleneck**  **Show events/incidents label next to rank**
## Bottleneck Ranking - Using INRIX data

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I-71/I-75 N @ 5TH ST/EXIT 192</td>
<td>27,792.64</td>
<td>2.35</td>
<td>9 h 51 m</td>
</tr>
<tr>
<td>2</td>
<td>I-71/I-75 N @ I-71/EXIT 1</td>
<td>5,914.06</td>
<td>0.49</td>
<td>6 h 17 m</td>
</tr>
<tr>
<td>3</td>
<td>KY-51 S @ KY-390</td>
<td>1,645.80</td>
<td>2.67</td>
<td>5 h 08 m</td>
</tr>
<tr>
<td>4</td>
<td>I-65 N @ US-62/KY-61/EXIT 94</td>
<td>19,754.47</td>
<td>23.27</td>
<td>4 h 43 m</td>
</tr>
<tr>
<td>5</td>
<td>US-31 N @ KY-52/LYONS STATION RD</td>
<td>1,927.49</td>
<td>7.01</td>
<td>4 h 35 m</td>
</tr>
<tr>
<td>6</td>
<td>KY-44 W @ KY-1526/BELLS MILL RD</td>
<td>3,422.13</td>
<td>6.34</td>
<td>4 h 30 m</td>
</tr>
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<td>7</td>
<td>I-65 S @ US-31/KY-61</td>
<td>5,059.13</td>
<td>3.98</td>
<td>4 h 14 m</td>
</tr>
<tr>
<td>8</td>
<td>KY-53 N @ KY-579</td>
<td>2,841.55</td>
<td>5.71</td>
<td>4 h 09 m</td>
</tr>
<tr>
<td>9</td>
<td>KY-53 N @ KY-44/BROWNS STORE RD</td>
<td>5,912.67</td>
<td>3.00</td>
<td>4 h 06 m</td>
</tr>
<tr>
<td>10</td>
<td>US-27 N @ US-68/BYP RD</td>
<td>17,927.49</td>
<td>4.73</td>
<td>3 h 57 m</td>
</tr>
</tbody>
</table>

### Occurrences
- **I-71/I-75 N @ I-71/EXIT 1**
  - **Element**
    - From: Mon, Aug 21, 2017 8:30 AM
    - To: Tue, Aug 22, 2017 4:39 AM
    - Duration: 20 h 11 m
    - Max queue length: 0.49 miles
    - Impact: 0.00

---

**Show ranks**, **Highlight selected bottleneck**, **Show events/incidents label next to rank**

---

**Line**, **Spiral**, **Table**

---

**Icon Legend**
### Bottleneck Ranking - Using INRIX data

#### Bottleneck locations from MD (14970 times) between August 13, 2017 and August 26, 2017 (7555 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>1-26/85 S @ MD-210/ARBOUR RD/EXIT 6</td>
<td>2.753.24</td>
<td>1.44</td>
<td>7 h 36 m</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1-70 W @ 11TH ST/EXIT 2</td>
<td>20.691.92</td>
<td>3.24</td>
<td>7 h 06 m</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>MD-63 N @ MD-102/102 W BROADWAY ST</td>
<td>854.02</td>
<td>2.87</td>
<td>4 h 37 m</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>1-70 N @ US-154/EXIT 197</td>
<td>1.397.27</td>
<td>4.87</td>
<td>4 h 37 m</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>MD-153 W @ BRIGHTON AVE</td>
<td>716.46</td>
<td>4 h 45 m</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>I-64 E @ I-701/155/US-46</td>
<td>17.173.11</td>
<td>2.41</td>
<td>4 h 36 m</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>NE COLLEGIATE RD W @ MD-7</td>
<td>827.26</td>
<td>2.22</td>
<td>4 h 16 m</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

#### Map of Bottleneck Location

![Map of Bottleneck Location](image)

#### Occupancy Graph

![Occupancy Graph](image)

- **Show ranks**: Highlight selected bottleneck
- **Highlight events/Incidents**: Label next to rank

**Display Options**
## Bottleneck Ranking - Using INRIX data

### Bottleneck locations from NC (19535 times) between August 13, 2017 and August 26, 2017 (8603 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact Factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US-74 E @ ROLAND DR</td>
<td>7,353.99</td>
<td>9.65</td>
<td>12 h 32 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>US-23 S @ 0A-13</td>
<td>81,762.36</td>
<td>66.64</td>
<td>6 h 49 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>US-129 S @ BLACK ROCK RD</td>
<td>6,805.72</td>
<td>4.61</td>
<td>6 h 59 m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>I-40 E @ US-19 EXIT 20</td>
<td>7,208.16</td>
<td>7.13</td>
<td>5 h 40 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>I-73/US N @ PRESSHILL ST</td>
<td>1,077.42</td>
<td>3.48</td>
<td>5 h 10 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>I-85 N @ US-74/EXIT 10</td>
<td>21,371.29</td>
<td>38.40</td>
<td>4 h 37 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>US-901 N @ I-49 (CONCORD) (SOUTH)</td>
<td>229.00</td>
<td>2.06</td>
<td>4 h 24 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>US-901 N @ E FRANKLIN ST</td>
<td>6,815.71</td>
<td>5.20</td>
<td>4 h 22 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>I-85 S @ US-74/EXIT 20</td>
<td>3,241.37</td>
<td>6.42</td>
<td>4 h 12 m</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>NC-66 @ WORKS DRAIN RD</td>
<td>10,205.35</td>
<td>10.29</td>
<td>4 h 08 m</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

### Map and Graph
- Map showing locations and incidents.
- Graph displaying occurrences over time.

**Event:**
- Date: Aug 25, 2017
- Time: 11:23 AM
- Location: 13 h 72 m
- Max queue length: 6.65 miles
- Impact: 5.00
**Bottleneck Ranking - Using INRIX data**

**Bottleneck locations from KS (9493 tmc's) between August 13, 2017 and August 26, 2017 (5655 total)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>KS-52 W @ US-69/E 850 RD</td>
<td>128,483.57</td>
<td>9.02</td>
<td>1 h 15 m</td>
<td>190</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>KS-181 S @ CR-388</td>
<td>16,609.95</td>
<td>4.95</td>
<td>1 h 18 m</td>
<td>43</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>KS-181 N @ US-24/KS-9/STATE ST</td>
<td>14,500.28</td>
<td>4.95</td>
<td>2 h 02 m</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>I-35 S @ 75TH ST/EXIT 227</td>
<td>13,054.60</td>
<td>4.69</td>
<td>1 h 56 m</td>
<td>24</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>US-50 W @ W LONGVIEW RD</td>
<td>12,140.98</td>
<td>2.09</td>
<td>33 m</td>
<td>176</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>KS-25 N @ UNNAMED STREET 3</td>
<td>12,079.19</td>
<td>14.31</td>
<td>3 h 31 m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>KS-9 W @ KS-28</td>
<td>12,053.76</td>
<td>9.71</td>
<td>3 h 27 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>KS-4 W @ KS-149/L AVE</td>
<td>11,697.67</td>
<td>11.14</td>
<td>2 h 55 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>US-400 W @ KS-23/MAIN ST</td>
<td>11,578.38</td>
<td>9.65</td>
<td>25 m</td>
<td>48</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>US-159 S @ KS-9 (HORTON)</td>
<td>10,627.01</td>
<td>5.47</td>
<td>3 h 36 m</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>KS-4 W @ KS-177</td>
<td>10,238.73</td>
<td>13.84</td>
<td>2 h 28 m</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

**Event Details:**

- **Event:** KS-181 N @ US-24/KS-9/STATE ST
- **From:** Sun, Aug 20, 2017 4:00 PM
- **To:** Sun, Aug 20, 2017 9:04 PM
- **Duration:** 5 h 04 m
- **Max queue length:** 4.95 miles
- **Impact:** 0.00

**Map and Graphical Representation:**

The map shows the location of the bottleneck, and the graph illustrates the occurrence and duration of events over a specific time period.
<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>US-24 W @ I-70/CR-11</td>
<td>8,771.88</td>
<td>26.18</td>
<td>5 h 35 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>US-24 W @ US-385/8TH ST</td>
<td>131.92</td>
<td>0.43</td>
<td>5 h 10 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>W TOWANDA AVE W @ S SUMMIT ST</td>
<td>1,365.14</td>
<td>0.46</td>
<td>4 h 07 m</td>
<td>12</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>PARALLEL RD W @ N 155TH ST</td>
<td>488.04</td>
<td>1.98</td>
<td>4 h 06 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>US-169 S @ I-70/US-40</td>
<td>1,747.72</td>
<td>1.08</td>
<td>3 h 52 m</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>E 53RD ST NW @ N OLIVER ST</td>
<td>3,639.65</td>
<td>3.96</td>
<td>3 h 50 m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>US-159 S @ KS-9 (HORTON)</td>
<td>10,027.01</td>
<td>5.47</td>
<td>3 h 36 m</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>KS-9 E @ US-159</td>
<td>982.51</td>
<td>4.59</td>
<td>3 h 34 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>KS-25 N @ UNNAMED STREET 3</td>
<td>12,079.19</td>
<td>14.31</td>
<td>3 h 31 m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>KS-9 W @ KS-28</td>
<td>12,053.76</td>
<td>9.71</td>
<td>3 h 27 m</td>
<td>6</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>I-70 E @ 110TH ST/EXIT 410</td>
<td>2,248.54</td>
<td>5.43</td>
<td>3 h 27 m</td>
<td>2</td>
<td>0</td>
</tr>
</tbody>
</table>

Show Events/Incidents: During selected time range □ Only during bottleneck conditions
## Bottleneck Ranking - Using INRIX data

### Bottleneck locations from WY (1840 trms) between August 13, 2017 and August 26, 2017 (1101 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration (h:mm)</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>WY-207 S @ US-287</td>
<td>US-287/US-30/LINCOLN WAY</td>
<td>19.932.44</td>
<td>20.59</td>
<td>2h 10m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I-25 S @ CR-126</td>
<td>CR-126/EXIT 293</td>
<td>19.101.11</td>
<td>17.94</td>
<td>2h 10m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>I-25 S @ WY-1840</td>
<td>US-1840</td>
<td>6.319.99</td>
<td>12.00</td>
<td>2h 44m</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>US-30 S @ WY-1840</td>
<td>US-1840</td>
<td>6.747.86</td>
<td>1.47</td>
<td>2h 44m</td>
<td>18</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>WY-487 S @ CR-490</td>
<td>CR-490/BATES HOLE STOCK TRL</td>
<td>2.354.46</td>
<td>14.84</td>
<td>2h 31m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>US-14 E @ I-80</td>
<td>I-80</td>
<td>4.491.97</td>
<td>8.71</td>
<td>2h 09m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>WY-414 E @ UT-WY STATE BORDER</td>
<td>WY-414 E</td>
<td>4.016.61</td>
<td>7.02</td>
<td>2h 02m</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>I-25 S @ N ANTIOCH CREEK RD/EXIT 66</td>
<td>I-25 S</td>
<td>14.547.20</td>
<td>24.04</td>
<td>2h 01m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>US-14 E @ CR-132</td>
<td>CR-132/INTERSTATE 80</td>
<td>7.124.99</td>
<td>6.99</td>
<td>2h 34m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>US-221 E @ US-198</td>
<td>WY-198/BROADWAY</td>
<td>5.100.13</td>
<td>9.23</td>
<td>2h 11m</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>US-351 N @ AIRPORT RD</td>
<td>US-351 N</td>
<td>3.075.66</td>
<td>9.23</td>
<td>2h 11m</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

### Occurrences

<table>
<thead>
<tr>
<th>Occurrences</th>
<th>AM</th>
<th>PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/13/17</td>
<td></td>
<td></td>
</tr>
<tr>
<td>08/20/17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Bottleneck Ranking - Using INRIX data

#### Bottleneck locations from NE (4125 times) between August 11, 2017 and August 26, 2017 (2543 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration (m)</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>US-20 W @ NE-171</td>
<td>2.664.45</td>
<td>3.52</td>
<td>4 h 12 m</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>NE-91 W @ CR-622</td>
<td>2.732.37</td>
<td>11.11</td>
<td>4 h 06 m</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>US-20 E @ IA-87/204M</td>
<td>740.49</td>
<td>3.04</td>
<td>3 h 29 m</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td>US-135 E @ CR-72</td>
<td>813.73</td>
<td>9.40</td>
<td>3 h 12 m</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>NE-74 W @ CR-13/306/308/309/311/34/39/58</td>
<td>5.874.44</td>
<td>8.03</td>
<td>3 h 03 m</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td>NE-95 W @ KINNOULD RD</td>
<td>19.701.83</td>
<td>14.92</td>
<td>2 h 07 m</td>
<td>10</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td>I-55 E @ S 112TH ST</td>
<td>316.39</td>
<td>2.00</td>
<td>2 h 20 m</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>US-34 E @ US-81</td>
<td>1.734.46</td>
<td>10.03</td>
<td>2 h 53 m</td>
<td>1</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>I-90 E @ NE-51</td>
<td>17.030.79</td>
<td>28.03</td>
<td>1 h 49 m</td>
<td>4</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>I-90 E @ S 540</td>
<td>9.157.03</td>
<td>20.30</td>
<td>2 h 20 m</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>US-77 N @ I-80</td>
<td>1.310.46</td>
<td>2.81</td>
<td>2 h 30 m</td>
<td>3</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

#### Occurrences

<table>
<thead>
<tr>
<th>Date/Time</th>
<th>Location</th>
<th>Events/Incidents</th>
<th>Duration</th>
<th>Queue Length</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>08/12/17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>08/26/17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Show ranks**, **highlight selected bottleneck**, **show events/incidents label next to rank**

**Display Options**: [Line], [Table]
### Bottleneck Ranking - Using INRIX data

**Bottleneck locations from TN (1864 times) between August 11, 2017 and August 26, 2017 (OSRI total)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td>1-40 E @ US-412/EXIT 79</td>
<td>3,974.64</td>
<td>11.01</td>
<td>6 h 01 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>1-40 E @ TERMINAL DR/EXIT 216</td>
<td>5,120.34</td>
<td>8.24</td>
<td>5 h 07 m</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>1-40 E @ I-12/Q-42</td>
<td>1,414.62</td>
<td>5.15</td>
<td>4 h 27 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>1-40 W @ US-70/US-412</td>
<td>10,449.95</td>
<td>14.79</td>
<td>4 h 09 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>1-40 W @ US-46/EXIT 142</td>
<td>14,156.14</td>
<td>11.85</td>
<td>3 h 58 m</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>6</td>
<td></td>
<td>1-40 W @ US-41/EXIT 105</td>
<td>11,965.18</td>
<td>16.68</td>
<td>3 h 51 m</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>I-24 W @ TN-225/HARDING PL/EXIT 25</td>
<td>12,221.42</td>
<td>5.87</td>
<td>2 h 26 m</td>
<td>10</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td>I-24 W @ TN-84 STATE BORDER</td>
<td>505.58</td>
<td>2.74</td>
<td>3 h 34 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td></td>
<td>US 77 E @ SCENIC RD</td>
<td>24,804.26</td>
<td>8.62</td>
<td>2 h 25 m</td>
<td>13</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>US 22 W @ INDIANA 64/EXIT 116</td>
<td>7,425.24</td>
<td>1.27</td>
<td>3 h 11 m</td>
<td>27</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td></td>
<td>I-65 N @ TN-55 STATE BORDER</td>
<td>9,071.67</td>
<td>7.02</td>
<td>3 h 21 m</td>
<td>6</td>
<td>0</td>
</tr>
</tbody>
</table>

---

**Map of Bottleneck Location 3-40 E @ US-412/EXIT 421**

**Timeline of Occurrences**

- From: Wed, Aug 16, 2017 5:26 PM
- To: Wed, Aug 26, 2017 6:25 PM
- Duration: 4 h 57 m
- Minimum queue length: 6.59 miles
- Impact: 0.00

- Show ranks, highlight selected bottleneck, show events/incidents label next to rank

---

**Legend**

- Maximum queue length
- Gray-scale
- Compact View

---

**Options**

- Display Options
## Bottleneck Ranking - Using INRIX data

### Bottleneck locations from GA (20675 tmcs) between August 13, 2017 and August 26, 2017 (7189 total)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>I-75 S @ GA-16/EXIT 205</td>
<td>1,338.12</td>
<td>3.28</td>
<td>6 h 48 m</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>I-75 N @ GA-113/MAIN ST/EXIT 288</td>
<td>4,437.45</td>
<td>11.29</td>
<td>6 h 33 m</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>I-85/75 S @ MARTIN LUTHER KING DR/SB EXIT 24B</td>
<td>27,213.10</td>
<td>3.19</td>
<td>5 h 56 m</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>I-20 E @ EVANS MILL RD/EXIT 74</td>
<td>2,119.31</td>
<td>6.97</td>
<td>5 h 04 m</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>I-20 E @ SEVEN ISLANDS RD/EXIT 121</td>
<td>5,415.05</td>
<td>5.23</td>
<td>4 h 19 m</td>
<td>4</td>
<td>1</td>
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<tr>
<td>6</td>
<td>I-95 S @ HARRIETTS BLUFF RD/EXIT 7</td>
<td>1,724.41</td>
<td>6.90</td>
<td>4 h 10 m</td>
<td>3</td>
<td>1</td>
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<tr>
<td>7</td>
<td>I-85/75 S @ MARTIN LUTHER KING DR/SB EXIT 24B</td>
<td>28,240.38</td>
<td>2.98</td>
<td>4 h 09 m</td>
<td>38</td>
<td>1</td>
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<tr>
<td>8</td>
<td>I-20 W @ GA-104/RIVERWATCH PKWY/EXIT 200</td>
<td>4,099.57</td>
<td>3.49</td>
<td>3 h 55 m</td>
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<td>1</td>
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<tr>
<td>9</td>
<td>US-19 S @ BALD RIDGE MARINA RD/EXIT 15</td>
<td>7,880.10</td>
<td>3.76</td>
<td>3 h 53 m</td>
<td>9</td>
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<tr>
<td>10</td>
<td>I-20 E @ GA-388/EXIT 190</td>
<td>6,538.23</td>
<td>4.70</td>
<td>3 h 52 m</td>
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</tr>
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</table>

### Show Events/Incidents:
- During selected time range
- Only during bottleneck conditions

### US-19 S @ BALD RIDGE MARINA RD/EXIT 15

#### Occurrences

**Element**
- From: Mon, Aug 21, 2017 4:27 PM
- To: Mon, Aug 21, 2017 10:37 PM
- Duration: 6 h 10 m
- Max queue length: 7.77 miles
- Impact: 0.00

**Maximum queue length in miles**
- Grayscale
- Compact View

---

**Show ranks**
- Highlight selected bottleneck
- Show events/incidents label next to rank
# Bottleneck Ranking - Using INRIX data

**Bottleneck locations from IL (27177 tmc) between August 13, 2017 and August 26, 2017 (16519 total)**

<table>
<thead>
<tr>
<th>Rank</th>
<th>Map</th>
<th>Location</th>
<th>Impact factor</th>
<th>Average max length (miles)</th>
<th>Average duration</th>
<th>Occurrences</th>
<th>All Events/Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1-55 N @ S KING DR/EXIT 203D</td>
<td>21,542.08</td>
<td>1.28</td>
<td>8 h 01 m</td>
<td>35</td>
<td></td>
<td>0</td>
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<tr>
<td>2</td>
<td>1-90 W @ IL-171/CUMBERLAND AVE/EXIT 79</td>
<td>6,864.11</td>
<td>9.33</td>
<td>6 h 08 m</td>
<td>2</td>
<td></td>
<td>0</td>
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<tr>
<td>3</td>
<td>1-90/I-94 W @ BELMONT AVE/EXIT 45C</td>
<td>7,783.96</td>
<td>4.44</td>
<td>5 h 51 m</td>
<td>5</td>
<td></td>
<td>0</td>
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<tr>
<td>4</td>
<td>1-57 N @ IL-148/EXIT 45</td>
<td>1,357.89</td>
<td>2.02</td>
<td>5 h 36 m</td>
<td>2</td>
<td></td>
<td>0</td>
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<tr>
<td>5</td>
<td>1-90/I-94 W @ KIMBALL AVE/EXIT 45B</td>
<td>3,855.47</td>
<td>6.10</td>
<td>5 h 16 m</td>
<td>2</td>
<td></td>
<td>0</td>
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<td>6</td>
<td>1-270 W @ RIVERVIEW DR/EXIT 34</td>
<td>5,884.66</td>
<td>3.74</td>
<td>5 h 15 m</td>
<td>5</td>
<td></td>
<td>0</td>
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<tr>
<td>7</td>
<td>1-90/I-94 W @ DAVEN AVE/EXIT 47B</td>
<td>12,893.51</td>
<td>8.62</td>
<td>4 h 59 m</td>
<td>5</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>I-55 N @ I-72/US-36/EXIT 98</td>
<td>6,230.48</td>
<td>7.02</td>
<td>4 h 56 m</td>
<td>3</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>1-90/I-10 E @ I-200/EISENHOWER EXPY/EXIT 51N-I</td>
<td>174,262.78</td>
<td>7.33</td>
<td>4 h 50 m</td>
<td>82</td>
<td></td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>I-55 S @ NEW DOUGLAS RD/NICHOLS ST/EXIT 37</td>
<td>722.01</td>
<td>2.50</td>
<td>4 h 49 m</td>
<td>1</td>
<td></td>
<td>0</td>
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<tr>
<td>11</td>
<td>1-55 E @ I-146</td>
<td>6,314.01</td>
<td>4.63</td>
<td>4 h 48 m</td>
<td>5</td>
<td></td>
<td>0</td>
</tr>
</tbody>
</table>

Show Events/Incidents: During selected time range or Only during bottleneck conditions

---

**Occurrence Data**

- **08/13/17**
  - From: Mon, Aug 21, 2017 13:53 PM
  - To: Mon, Aug 21, 2017 10:44 PM
  - Duration: 6 h 51 m
  - Max queue length: 8.18 miles
  - Impact: 0.00

**Maximum queue length in miles**

- Option: Grayscale
- Option: Compact View

---

**Click on the map to view detailed information on the selected bottleneck.**
Maximum Total Eclipse 2:40
Drivesheds of the Great American Eclipse
A watersheds is the basin spanned by drops of water flowing to a low point
A driveshed is where cars can drive the quickest route to a destination in the path of totality

These are the drive paths from every county in the USA to the closest point in the path of total solar eclipse as computed with advanced GIS analysis.
Information Campaign Directed at Specific Groups

- Joint KYEM-KYTC General Release
- Business
- Truckers/travelers
- Local Residents
- Eclipse Watchers Coming to Visit
- Traffic Monitoring & Reports
Eclipse visitors will impact cell service, internet

Companies say callers may get busy signals, web traffic may slow

BY LAURA HARVEY
LEAD REPORTER
LHARVEY@THE-MESSENDER.COM

When thousands of people suddenly converge into a relatively small area at the same time, they often find themselves in competition...
Friday News Briefing
Best One-line Interview Quotes

• When you pack for your trip include a 5 gallon bucket of patience
• This is like the Super Bowl, but without a stadium
Quote of the Event

In the end, we were grossly overprepared. I will never apologize for being grossly overprepared.

2nd Quote of the Event

Anytime you try to predict human behavior you’re just asking for trouble.

--Keith Todd
Preparing for the Unexpected

**Expectation**
- Up to 500,000 guests
- Arrival over 3 days
- Increased traffic on streets, in restaurants & stores
- No school

**Reality**
- About 300,000 guests
- Traffic congestion on Monday upon exit only
- Most visitors drove in Monday morning
- Locals stayed home
Biggest Surprises?

Local residents stayed home to avoid the anticipated traffic crunch.

Worst traffic snarl was at the Interstate 69/Western Kentucky Parkway/Pennyrile Parkway interchange.

10-mile backup on the Pennyrile Parkway.
WAZE/Google Traffic Map 3:21 p.m., CDT
I-24 Maximum Traffic Count
40,000 Vehicles Per Day
Biggest Surprises?

Traffic counts showed an immediate jump as people headed home from their eclipse adventure.

The Pennyrile Parkway north of Hopkinsville normally carries 14,800 vehicles per day. On Aug. 21, it carried 23,927 vehicles – a 60 percent jump in traffic for the day.

U.S. 31E in Hart County – +222 percent – Biggest Single Jump
U.S. 641 – Marshall County +43 percent
U.S. 62 – Grayson County +123 percent
I-65 – Warren County +44 percent
I-24 – Lyon County +37 percent
U.S. 68 – Logan County +122 percent
How Far the Message Reached

- Visitors from approximately 47 states, 25 countries
Special Thanks

- NASA
- http://www.eclipseville.com
- http://nationaleclipse.com/
- https://www.greatamericaneclipse.com/
2017 SOLAR ECLIPSE: LESSONS LEARNED AND PREPARING FOR THE APRIL 8, 2024 ECLIPSE

National Operations Center of Excellence Webinar - April 9, 2018
Laurel Radow, Moderator
Billion-dollar disasters of 2017 in the US

Sources: NOAA, Ball State University Center for Business and Economic Research (for Harvey), Reuters (for Maria), and CoreLogic (for Irma)
GETTING READY FOR 2024: PROS

- Six years to prepare.
- AASHTO’s two task forces - communications and emergency management - can easily be reestablished
- Good relationships established in 2017 can be easily maintained through the years
- 2017 eclipse states have valuable information to share.
- Ask the 14 states for their plans, staffing requirements, outreach material and begin to build the notebook that can be shared with DOT staff and partners.
- The National Operations Center of Excellence has and will continue to serve as the repository of information.

Source: Southern Illinois University
GETTING READY FOR 2024: CONS

- With the eclipse is six years from now
  - People currently in positions may not be in that position in 2024 OR the people responsible for the eclipse may not even be with the agency.

- More people are aware of the 2024 eclipse and far earlier than the 2017 eclipse = higher expectations.

- The 2024 set of technologies are unknown; how well will those technologies be incorporated into the plans?

- Early spring weather may include flooding and other extreme events which may drain staffing capabilities.

- Unlike the 2017 eclipse, much of the path of the 2024 eclipse crosses the nation's more densely populated states.

Source: Southern Illinois University
GETTING FROM 2017 TO 2024:
PROPOSED TIMELINE

April 9, 2018 (today) - Peer-to-Peer exchange amongst the 2017 solar eclipse states; webinar to be archived for future use.

   - As the eclipse begins in Mexico and ends in Canada, consider a trilateral eclipse agreement/partnership
     - Possible product: eclipse transportation document in three languages

April 8, 2019: Announce April 8, 2020 Eclipse Conference

April 8, 2020: Day of the Eclipse Conference - Learning from 2017 to Prepare for 2024

April 8, 2021: Conference Proceedings Released

April 8, 2022: Announce partnerships with the private sector including weather/traffic reporters

April 8, 2023: One year to go Eclipse Countdown Announced
   - In preparation for the one-year kick-off, all involved parties unveil the 12 month action/public awareness plan including
     - Webinars for the agencies preparing for the eclipse
     - Information on how to hold a tabletop exercise (Available as an FHWA planned special events publication)

April 8, 2024: Eclipse Day
   - Though the next eclipse to cross the United States is in 2045, somewhere a solar eclipse occurs every 18 months
   - How to capture the information from both the 2017 and the 2024 eclipses that can be used by other countries
THANK YOU

To learn more about:

- The October 9-10, 2018 Resiliency Summit, Denver, Colorado, go to [http://transportationrisesummit.com](http://transportationrisesummit.com)
- To become a friend of TRB Standing Committee on Critical Infrastructure Protection (ABR10), go to [https://www.mytrb.org](https://www.mytrb.org)
Safety Messaging

• Don’t stop along the interstate or shoulder.

• Exit the highway to view or photograph the event.

• Don’t take photographs while driving.

• Turn your headlights on.

• Watch out for pedestrians.

• Prepare for congestion on the day before, day of and day after the eclipse.
Lessons Learned

Build case early
Prepare for the worst
Traffic volume and timing
Tagline = sound bite
States not in path still affected by traffic
Managing Expectations

Communication is Key
- Public announcements on expectations, transportation options, finding alternative viewing sites, and possible traffic delays
- Social media
- Electronic message boards
- News media
- Radio
Nebraska DOT Three Key Points
1. Early and frequent discussions
2. Trust
3. Flexibility

Start planning 18-20 months before event

Mark Engler
Homestead National Monument of America
Mark_Engler@nps.gov
402-223-3514
TOTAL SOLAR ECLIPSE
Virtual Peer Exchange
April 4, 2018
Greg Ek-Collins, Emergency Operations Manager
ODOT Concerns

• Traffic safety
• Traffic management and movement
• Emergency vehicle response ingress and egress
• Traffic bottlenecks and choke points
• Weather conditions
• Wildfire conditions
• Communications – PIO, JIC and Messaging
• And the list goes on... food, water, fuel, first aid stations, comfort stations etc.
What ODOT did to prepare for the event

- ODOT worked with the Office of Emergency Management and other key state agencies to plan and prepare for this event.
- Key ODOT divisions were brought together as an Eclipse Working Group to manage planning and response efforts for the department.
  - Highway – Maintenance and Operations, Regions and Districts
  - Rail/Public Transit
  - Traffic
  - Motor Carrier
  - DMV
  - Communications – PIO, JIC, Messaging
  - Safety
What ODOT did to prepare for the event

• Beginning almost a year out ODOT participated in briefing meetings with the Office of Emergency Management and the other key state agencies.

• Maintenance and Operations (MOB) facilitated regular working group planning meetings and gathered the plans each of the divisions developed.

• The MOB compiled all of the individual plans into a Statewide Department plan for the Eclipse which was published and distributed in June.

• ODOT participated in the State ECC activation and activated our Agency Operations Center and the Region EOCs for the event.
Communications: Messaging

• 9 months out ODOT joined statewide communications team
• Had to ‘wrassle’ with tourism’s “keep ‘em coming” message
• Our knee-jerk message: “Stop ‘em coming, our roads can’t hold ‘em”
• Middle ground found: We embraced Tourism’s goal

“People will have a good time visiting Oregon, and will want to come back.”

• Now our messaging could focus on preparation
• Now our messaging could be positive
Communications: Preparation; Positive; ...POETRY!

1. “Arrive early; stay put; leave late.”
2. “Plan to have a good time watching the eclipse. Plan ahead, so you will.”
3. “This isn’t a game day. Treat the eclipse as a 3-day event, not a 3-hour event.

“If you wait to arrive
You’ll be late on the drive
And miss the celestial lights.

If you hurry to leave
You’ll surely feel peeved
Stick around and see all our sights.”
• OregonDOT Region 4 will provide a more detailed overview of the planning and operational aspects in preparation, response and recovery for the Eclipse
Solar Eclipse Virtual Peer Exchange

Joel McCarroll, P.E.
ODOT Region 4
District 10 Manager

NOCoE’s Solar Eclipse Virtual Peer Exchange
April 9, 2018
The Path of Totality....
Expectations Vs Actuals

- Arrivals came from different areas than we had assumed
  - Assumed the majority of people would come from the Portland and Puget Sound regions (3-6 hour travel)
    - These folks listened to our “come early, stay late” messaging
  - In reality, the majority of arrivals came from the California Bay Area (8-10 hour travel)
  - The further they traveled, the more they wanted to get to the center of the path

- Departures occurred all at once
  - Within minutes of the eclipse ending, roadways became oversaturated
Expectations Vs Actuals

- Coordination with local jurisdiction, EMS, and event planners was critical
  - Sharing of information proved to be highly beneficial for all parties

- Some event planners had trouble living up to promises
  - Overselling of events
    - In some cases, over double what they anticipated
  - Lack of traffic control implementation
    - Traffic control plans were developed with the aid of ODOT, but the event planners correctly implementing them was another story
  - Poor directions given to their customers
    - Event pamphlets/tickets failed to inform customers of the correct route to use in order to access the event property based on the developed traffic control plans
Lessons Learned

– Messaging works
  • Locals paid attention and changed habits based on the messaging we sent to them
  • Messaging was done via TV, radio, social media, etc….

– Two lane highways
  • Passing lanes became major congestion points when the highway was oversaturated

– Pre-staging of incident response crews was highly beneficial
  • Allowed for quick responses, clearing of incidents, and the relocating of portable cameras and message boards
Lessons Learned

- Data is key for situational awareness
  - Installation of new permanent cameras and portable cameras was a huge asset
  - Near real time volume data
    - Greatly aided in signal timing changes
    - Allowed for making informed changes such as asset placements
  - Real time travel-time data
    - Tripcheck (ODOT interactive map)
      » Aided in informing travelers
    - iPeMS
      » Easily obtained speed and travel time data
      » Disseminating this data to the public was harder
What We Would Change

- Get zip code data from event providers
  - This includes requesting that event providers require zip code data at the time of the sale of tickets
    - Do this early on in the planning process!

- Close passing lanes ahead of time

- Improve ways to disseminate travel time data to the public
Resources to Share with 2024 States

- Mapping that we developed and provided to local jurisdictions and event providers
- Spread sheet templates for comparing actual volumes to historical volumes
- iPeMS routes
Thank You!
PREPARING FOR AND COMMUNICATING IMPACTS OF THE AUGUST 2017 TOTAL SOLAR ECLIPSE THROUGH BROADCAST METEOROLOGISTS
ECLIPSE2017 WEBINAR
1pm Eastern Time
Tuesday, July 25, 2017

http://www.ustream.tv/channel/nasa-gsfc
Password: eclipse2017

Hosted by Dave Jones
CEO, StormCenter Communications
LIVE from NASA Goddard Space Flight Center

Eclipse2017 Webinar for media – July 25, 2017
Video Promo Produced for Broadcast Meteorologists
July 25, 2017

https://www.youtube.com/watch?v=uOdLRS8E7QM
GOALS OF TODAY’S WEBINAR

1. Communicate the impact that this eclipse is likely to have on communities across the nation
2. NASA resources available across the nation
3. Transportation Impacts & NWS Impact-based Decision Support
4. Content delivered via new technology called GeoCollaborate®
5. Question & Answer Period
GEOCOLLABORATE® DASHBOARD

• Located in Salem, OR at Oregon State Fairgrounds
• Satellite Tours with Scientists on August 20, 2017
• Send e-mail to: Nancy@stormcenter.com and copy Dave@stormcenter.com to get on the list to coordinate timeslots for interviews – Do this today please
Dan Satterfield, Chief Meteorologist, of Salisbury, MD: “Having a simple interface to show satellite data and the eclipse path made it easy to show this amazing event unfold. This kind of software has great potential for use in broadcast meteorology as well as many other fields where visuals are vital. We need more of this type of interactive collaboration in the future and it was a great way for NASA and science to share data real time!”
BROADCAST METEOROLOGISTS PARTICIPATION GREW TO 463 BROADCASTERS

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<th>City</th>
<th>State</th>
<th>City</th>
<th>State</th>
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<td>Washington (4 stations)</td>
<td>MS</td>
<td>Tupelo / Columbus</td>
<td>TN</td>
<td>Bristol</td>
</tr>
<tr>
<td>FL</td>
<td>Miami (3 stations)</td>
<td>MT</td>
<td>Great Falls</td>
<td>TN</td>
<td>Johnson City</td>
</tr>
<tr>
<td>FL</td>
<td>Orlando (3 stations)</td>
<td>NC</td>
<td>Charlotte (3 stations)</td>
<td>TN</td>
<td>Knoxville (3 stations)</td>
</tr>
<tr>
<td>FL</td>
<td>Panama City</td>
<td>NC</td>
<td>Greensboro / High Point</td>
<td>TN</td>
<td>Memphis</td>
</tr>
<tr>
<td>FL</td>
<td>Tallahassee</td>
<td>NC</td>
<td>Greenville (2 stations)</td>
<td>TN</td>
<td>Nashville (4 stations)</td>
</tr>
<tr>
<td>FL</td>
<td>Tampa</td>
<td>NC</td>
<td>New Bern (2 stations)</td>
<td>TX</td>
<td>Amarillo</td>
</tr>
<tr>
<td>GA</td>
<td>Albany</td>
<td>NC</td>
<td>Raleigh</td>
<td>TX</td>
<td>Austin</td>
</tr>
<tr>
<td>GA</td>
<td>Atlanta</td>
<td>NC</td>
<td>Wilmington</td>
<td>TX</td>
<td>Dallas (2 stations)</td>
</tr>
</tbody>
</table>

Small sampling....
BROADCAST METEOROLOGISTS PARTICIPATION GREW TO 463 BROADCASTERS

SALEM, OREGON
'LIVE' FROM SALEM, OREGON

DR. “LIKA” GUHATHAKURTA
DR. “NICKI” VIAL

NASA HELIOPHYSISTS
CONDUCTING LIVE INTERVIEWS
AUGUST 20, 2017
CONCLUSIONS

What to expect during the 2024 Eclipse?

2024 Total Solar Eclipse

• Early preparation through expanding partnerships with broadcast meteorologists
• Impacted states open up to early interviews
• States – plan further ahead and communicate your intentions so the media can communicate it to their viewers
• There will be a LARGER effort to communicate the difference between 99% and 100% totality.
• Expect more people from across the nation to go to the 2024 eclipse
• Perhaps expand use of GeoCollaborate® to tie in State highway, EOC, additional decision makers
TDOT presents - How to ECLIPSE

Step 1: During the Eclipse, pretend you're driving at night.

Step 2: Once it's over, stop pretending.
NO PARKING ON SHLDRS OR RAMPS

NO PARKING DURING ECLIPSE
Eclipse Planning Efforts

July 20, 2017
Purpose

- Provide Situational Awareness on the Eclipse
- Overview of the State’s 2017 Solar Eclipse Coordination Plan
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Goal & Priorities (Chapter 1)

• **Goal**
  – The goal of the *2017 Solar Eclipse Coordination Plan* is to support safety within Eclipse viewing areas by encouraging partners to prepare in advance for potential emergency situations, by making State emergency support resources available when possible, and by documenting actions of partner agencies for situational awareness.

• **Priorities**
  – Address Life Safety Needs
  – Support Local Governments and Resource Requests
  – Support Safe Movement along our Transportation System
  – Ensure Coordination and Communication among Local, State, & Federal Partners
First step of the Emergency Planning Process is to identify the Threat(s)

- **Hazard**
  - A hazard itself is usually the threat
    - Easy to identify the threat,
    - So we usually skip this step

- **Special Event**
  - An special event itself is not usually the threat
    - Sometimes harder to identify the threat,
    - So we need to formally address this step
Primary threat to Tennessee:

- The potential for Major Disruptions and Life-Threatening Accidents on our Transportation Systems
The event’s associated threats **related to** the Transportation System:

- Disrupted Emergency Service Vehicle Responses
- Stranded Motorists
- Disrupted School Bus & School Pickup Transportation

The event’s associated threats **not related to** Transportation System:

- Attack at Mass Gatherings
- Communication Disruptions on Cell Phones
- Issues at Mass Gatherings *(Overdoses, Fights, Crowd Control)*
- Sun Blindness Issues, Heat Exhaustion, & Non-Transportation Accidents/Incidents requiring Medical Assistance
- Increased 911 Calls due to Individuals unaware of Eclipse
- Increased Boat & Water Accidents
- Airspace Issues
- Solar Energy Devices
Second step of the Emergency Planning Process is to identify who needs to be involved.

### Core State Planning Team for Eclipse Safety

<table>
<thead>
<tr>
<th>Primary Threat</th>
<th>Associated Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td>TN Emergency Management Agency <em>(TEMA)</em></td>
<td>State Parks</td>
</tr>
<tr>
<td>TN Department of Safety <em>(THP/HLS)</em></td>
<td>Tourism</td>
</tr>
<tr>
<td>TN Department of Education</td>
<td>Education</td>
</tr>
<tr>
<td>TN Department of Tourism</td>
<td>National Guard</td>
</tr>
<tr>
<td>TN Wildlife Resources Agency <em>(TWRA)</em></td>
<td>TWRA</td>
</tr>
<tr>
<td>TN Department of Transportation <em>(TDOT)</em></td>
<td>NWS</td>
</tr>
<tr>
<td>TN Dept. of Env. &amp; Cons. <em>(State Parks)</em></td>
<td></td>
</tr>
<tr>
<td>TN Department of Military <em>(National Guard)</em></td>
<td></td>
</tr>
<tr>
<td>TN Department of Health</td>
<td></td>
</tr>
</tbody>
</table>

### Partners for Eclipse Safety

- Coast Guard
- Corps of Engineers
- Verizon
- AT&T
- Office of Homeland Security
- Fusion Center
- etc.
## A. Eclipse Timing

**Chart 1: Eclipse Timing for the State of Tennessee**

<table>
<thead>
<tr>
<th>Type of Eclipse</th>
<th>Starting Time (Central)</th>
<th>Ending Time (Eastern)</th>
<th>Total Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Partial Eclipse</td>
<td>11:52am</td>
<td>4:00pm</td>
<td>3 hours &amp; 8 mins</td>
</tr>
<tr>
<td>Total Eclipse</td>
<td>1:25pm</td>
<td>2:36pm</td>
<td>11 mins</td>
</tr>
</tbody>
</table>

*Source: TEMA Planning Branch*
Planning Considerations (Chapter 2)

A. Eclipse Timing

Anticipated Public School Closures for Eclipse
Current as of 8/07/17

Legend
TN Counties Status
- Closed
- Closing Early
- Open
- Undecided and/or Unannounced

**Sources: Open Media and TN Education Liaison; please validate with your school district!**

Source: TEMA Planning Branch
B. Increase in Visitors & Mass Gatherings

- 360,000 to 1,440,000 visitors based on model estimates

Population access and estimated visitation on eclipse day

On August 21, 2017, a total solar eclipse crosses the United States from Oregon to South Carolina. The closest destinations for the contiguous United States are summarized, as well as high and low estimates for how many people will travel to the path of totality. The methodology for our estimates is summarized at www.GreatAmericanEclipse.com/Statistics.

12.25 million people live inside the path of totality. We estimate that between 1.85 million people and 7.4 million will visit the path of totality on eclipse day.

The lines show the quickest drive path from population centers to the path of totality. Drive times to destinations are color coded by state of destination. The blue circles marks the path of totality and are the destinations.

Map was created by Michael Tabor, May 2017
B. Increase in Visitors & Mass Gatherings

Map 7: Locations of Eclipse Mass Gathering Events identified by TEMA thus far

Source: TEMA Planning Branch
Planning Considerations (Chapter 2)

C. Primary Concern Factor for Total & Partial Eclipse Areas

- **Total Eclipse (44 counties):** significant increase in visitors and mass gathering events

- **Partial Eclipse (51 counties):** lack of awareness of the eclipse
  - **West Region:** 93-99.9% obscuration
  - **Middle Region:** 95-100% obscuration
  - **East Region:** 95-100% obscuration

*Diagrams 1 & 2: Phases of Eclipse Obscuration* (Source: NASA)
C. Primary Concern Factor for Total & Partial Eclipse Areas

Map 4: TEMA West Region - Percentage Range of Eclipse Obscuration

Source: TEMA Planning Branch
C. Primary Concern Factor for Total & Partial Eclipse Areas

Map 5: TEMA Middle Region - Percentage Range of Eclipse Obscuration

Source: TEMA Planning Branch
C. Primary Concern Factor for Total & Partial Eclipse Areas

Map 6: TEMA East Region- Percentage Range of Eclipse Obscuration

Source: TEMA Planning Branch
D. Transportation Choke Points

Map 8: Location of Parks & Rest Stops within 5 miles of Highway Routes in the Path of Totality

Source: TEMA Planning Branch
Planning Considerations (Chapter 2)

D. Transportation Choke Points

Diagram 4: High Volume Highway Points on Eclipse Day

Source: Michael Zeiler, Great American Eclipse
Essential Elements of Information (EEI): the key pieces of information needed to help support decision-making before and during the event based on the threats.

- Status of Eclipse Timing by Areas: TEMA
- Status of Weather Conditions: NWS
- Status of Highway Flow: TDOT & THP
- Status of Highway Accidents: TDOT & THP
- Status of Stranded Motorists: TDOT & THP
- Status of Mass Gathering Events: State Parks, Tourism, & TEMA
- Status of Emergency Vehicle Flow: THP & Health
- Status of Lakes & Waterway Incidents: TWRA
- Status of Local Resource Requests: TEMA
- Status of School Closures & Bus Transportation: Education
## TN Department of Transportation (TDOT)
- Pre-stage TDOT Help Trucks, TDOT Queue Trucks, and other personnel/equipment to provide traffic and incident support before, during, and after the eclipse.
- Manage eclipse awareness and alert messages on TDOT safety signs and message boards.
- Disseminate highway updates during the eclipse on Tennessee 511.
- Limit lane closures and construction projects during the eclipse.
- Monitor TDOT highway cameras and highway movement during the eclipse and disseminate essential information to public safety partners.
- Coordinate the movement and support of transportation resources.
- Conduct wellness checks on stranded motorists if necessary.
- Coordinate the development of traffic control plans for the eclipse.
- Provide a representative to act as the Emergency Services Coordinator (ESC) in the SEOC during the eclipse and designated point-of-contacts.

## TN Department of Military (National Guard)
- Pre-stage 2 HH-60 medevac helicopters in Nashville.
- Place the 45th CST as available for hazardous material response.
- Provide manpower and equipment to support traffic control operations if necessary under State Active Duty.
- Provide security capabilities to support ESF-13 law enforcement within the scope of state policy if necessary under State Active Duty.
- Provide a representative to act as the Emergency Services Coordinator (ESC) in the SEOC during the eclipse.

## TN Department of Tourism
- Disseminate information about the eclipse on the trvacation.com website, through PR efforts and at Tennessee State Welcome Centers.
- Provide outreach to all tourism partners hosting events before and during the eclipse.
- Provide a representative to act as the Emergency Services Coordinator (ESC) in the SEOC during the eclipse.

## TN Emergency Management Agency (TEMA)
- Coordinate staffing for the State Emergency Operations Center (SEOC) and adjust activation levels as needed during the eclipse.
- Pre-identify priorities, specific threats, planning considerations, essential information requirements, and key public safety partners needed before and during the eclipse.
- Host eclipse planning meetings and webinars with public safety partners.
- Develop and disseminate the 2017 Solar Eclipse Coordination Plan.
- Develop and host the 2017 Solar Eclipse Tabletop Exercise.
- Create mapping products to enhance situational awareness among public safety partners.
- Identify key unified messages to be distributed statewide regarding the eclipse.
- Coordinate and communicate with local governments about local threats, needs, and actions both before and during the eclipse.
- Pre-position TEMA District Coordinators at key locations to provide coordination assistance.
- Support the fulfillment of resource requests through the SEOC Mission Coordination Center (MCC) network.

## TN Department of Safety (THP)
- Ensure additional personnel are on standby during the eclipse due to the increased likelihood of accidents, stranded motorists and traffic clearing issues.
  (Approximately 200 troopers will be available per THP)
- Pre-position patrol vehicles on highways within the eclipse’s Path of Totality.
  (Approximately every 5 miles a patrol vehicle in Path of Totality per THP)
- Provide assistance with roadway closures as requested.
- Provide law enforcement assistance to local jurisdictions as requested.
- Conduct wellness checks on stranded motorists if necessary.
- Coordinate the development of traffic control plans for the eclipse.
- Provide a representative to act as the Emergency Services Coordinator (ESC) in the SEOC during the eclipse and designated point-of-contacts.
Three Deliverables

- **Coordination Plan** *(due by July 19th)*

- **Incident Action Plan** *(due by August 14th)*

- **Tabletop Exercise** *(76th)*
What worked?

- Interactive travel map linked to web cams assisted public in identifying traffic congestion and may have helped to minimize questions from the public during the event.
- We experienced some busies on our radio system. (WyoLink)- training and expectations helped this.
- Cellular was spotty in some areas at times, but mostly reliable. Both AT&T and Verizon brought in COW’s.
- Training for employees was good, especially in the field. Everyone was onboard, prepared to help and positive. The director set this expectation.
- Assigning lead agencies was a good thing- Tourism and WOHS.
- We released statistics daily on Patrol dispatch call volume and traffic data. This was key with media. Lots of social media and Facebook Live, as well.
What didn’t work

- Would have been nice to have had some port-a-potties!
- Received complaints about not providing enough real-time data. Recommend providing “Time to travel from point to point” information.
- Could have shut down construction projects for the day of, instead of for 5 days.
- Restricting of oversize/overweight movements wasn’t needed for all three days (day before, day of and day after). There was confusion as to what oversize/overweight meant.
What didn’t work

- Sat phones were difficult to use and didn’t add value.
- Update traffic counter equipment before event and make sure everyone understands how to interpret the data.
- Maybe have additional parking at rest areas by mowing adjacent fields. Maybe have pump trucks pre-stationed at rest areas.
- More frequent updates to Highway Advisory Radios (HAR’s). Might have over-focused on social media. Stage district PIO’s at local radio stations. Old school media still strong in Wy.
How we’d capitalize on the experience moving forward

- Built extremely valuable partnerships that will assist with large-scale events in the future.
- Combined-agency news conferences were valuable. The pre-call conference added value, and having them led by the Governor’s Office created organization.
- Confidence in our WyoLink radio system for future large-scale events.
- Confidence in our cellular infrastructure.
- Confidence in our own ability to handle something seemingly impossible.
- Everyone remained extremely upbeat and positive. It was almost fun!
- We actually received very few complaints, and a ton of praise.