

# Lane Reversals and Hurricane Evacuation

Virginia's In-Season Review of Evacuation Plans  
and Next Steps for Southside Lane Reversal

Presented to HRTTO  
By Robert B. Case, PE, PhD  
October 14, 2014



# Virginia's In-Season Review

- May 24, 2014: Governor McAuliffe<sup>1</sup> :
  - “we could not evacuate if we had a major catastrophe”
  - appointed Secretary of Public Safety Brian Moran and Secretary of Transportation Aubrey Layne to oversee in-season review of hurricane plans

<sup>1</sup> 05-24-14 article in the Daily Press

# Lane Reversal Threatened

- July 21 WVEC reported that VDEM:
  - “is second-guessing a plan that would reverse lanes on Interstate 64” and “officials could follow other states like North Carolina and Florida where the plan has been **thrown out.**”
- HRTPO Staff iterated **the merits of reversal:**
  - July 1: Camp Pendleton (preparedness workshop)
  - July 18: Newport News (in-season evacuation committee)
  - July 30: Virginia EOC (Witt O’Brien’s interview)
  - Aug. 5: VMASC (validation exercise)
- HRTPO indicated **support for reversal** during its Aug. 12 mtg.

# VDEM In-Season Review

- Report released Sept. 4 (attached to HRTTO agenda)
- **State retained lane-reversal in its plans**
- “Key Findings” of interest to HRTTO
  - Evacuation
    - “Lane reversal should **remain a tool of last resort**, but renewed emphasis should be placed on developing focused evacuation **areas for the most vulnerable citizens**, increasing **regional shelter capability**, and **communicating preparedness** to the public.”
    - “Future road networks should include considerations for **improving the capacity** and options for evacuating citizens from the area.”

# VDEM In-Season Review

- Other “Key Findings” concerned:
  - Situational Awareness and State-Local Coordination
  - Sheltering
  - Citizens Needing Assistance
  - Public Information

# WebEOC and Emergency List

# Aug. 12: WebEOC and Emergency List

- August 12th HRTTO meeting
  - WebEOC
    - Jackie Kassel (Newport News) led a discussion about using WebEOC software for communication between TOCs.
    - A WebEOC presentation is planned for the **December 9 HRTTO** meeting.
  - Emergency List
    - Rob Case (HRTPO) agreed to prepare a list of operators names and phone numbers to be used by HRTTO members in an emergency.
    - HRTPO staff transmitted that list on September 22, and **re-transmitted it [with corrections] on October 1.**

# 168/64/58 Southside Reversal



# Need for Southside Reversal

- May 2008: VEM/USACE/FEMA publish *Virginia Hurricane Evacuation Study (VHES)*
  - Showing **36 hour clearance time for Suffolk Bypass** (2)
- 2008: “VDOT, VDEM and Cities of Chesapeake and Suffolk began to explore ways to **alleviate evacuation traffic queues** in the Bowers Hill area” (1)

(1) VDOT slides presented to HRTPO Board, 12-15-11, pg. 3

(2) 35.8 hours, VHES, pg. 3-21 (Cat. 3 w/ I-64 Reversal, High Seasonal Occupancy, Heavy Background Traffic, Medium Response)

# HRTO and HRTPO Actions

- 04-20-10: **HRTO** voted to:
  - support VDOT's then-current study of US 58 reversal
  - recommend that US 58 be reversed during evacuations
- 04-21-11: **HRTPO** allocated **\$1,000,000** of RSTP funds to US 58 Reversal.

# VDOT and RCPT Findings

- 12-15-11: Stephany Hanshaw (VDOT) presented slides to HRTPO Board, highlighting:
  - Option #2: 168/64/58 Southside Reversal (w/ **19 hr. savings**)
- June 2013: Regional Catastrophic Planning Team (RCPT) Ph. 3 *Final Technical Memorandum* (1):
  - “The US 58/Bowers Hill reversal must be planned for and made operational **as soon as functionally and fiscally possible** by the state”

# HRTPO Analysis

- Mar. 2014: HRTPO published “Prioritizing Highway Projects for Improvement of Evacuation”:
  - estimating that the 168/64/58 Southside Reversal would **save 580,000 vehicle hours of delay** during evacuation (p. 11)
  - finding the 168/64/58 Southside Reversal “**highly cost effective**” (\$17 per hour saved, pp. 13,14)
  - recommending that the HRTPO Board and VDOT **consider funding** the 168/64/58 Southside Reversal project

# This Summer

- June 10, 2014 HRTPO meeting
  - HRTPO approved a motion **requesting VDOT briefings** (on Southside Reversal and in-season review) at the next HRTPO and TTAC meetings.
  - Robert Lewis (Suffolk) and Earl Sorey (Chesapeake) indicated that they have requested **VDOT presentations to their councils** and need that before moving forward.
- At June 19, 2014 HRTPO meeting
  - James Utterback (VDOT) presented the state's intentions for in-season review (**no mention of Southside Reversal**).

# Staff Analysis

# Southside Lane Reversal- Cons

- Requires **large staff**
  - TAMs contractors, VDOT, Va State Police, Va National Guard
- Prevents traffic flowing in **opposite direction**
- Construction **Cost**
  - \$10m for 168/64/58 Southside Reversal

<sup>1</sup> “Hurricane Lane Reversal Plan”, VDOT, May 2013, pg. 20

# Southside Lane Reversal- Pros

- 168/64/58 Southside Reversal
  - Reduces clearance time from 48 hours to 29 hours, saving **19 hours<sup>1</sup>**

<sup>1</sup> “Assessment of VDOT Bowers Hill Improvement Alternatives to Ease Evacuation”, Atkins, Oct. 2011, App. A



# Next Steps

- Desire of the Subcommittee?