I-81 Corridor Coalition 6th Semi-Annual Meeting

September 15, 2019













System Reliability





World-Class Test Facilities

- Virginia Smart Road -An active, connected, automated test bed for 20 years
- Smart Road Expansion
 - Surface Street Expansion: Automation Park
 - Rural Roadway Expansion
 - Live Roadway Connector
- Virginia Connected Corridor
- Virginia Automated Corridor







Friday Morning Program

8:00	On-Site Registration and Full Breakfast
9:00	Welcome and Agenda Overview
	 Andy Alden, Exec. Dir. I-81 Corridor Coalition
9:15	DriveWyze Systems Connected Vehicle Technologies for Truck Freight
	 Brian Taylor, Director of Sales, Intelligent Imaging Systems
9:45	Law Enforcement Perspective & Discussion
	Jonathan Smith, VA State Police
10:15	Morning Break
10:35	Maryland Truck Parking Study
	 L'Kiesha Markley, ADC/Freight Planning Coordinator, MDOT Innovative
	Performance Planning Division
	Donald Ludlow, Vice President, CPCS
11:00	Tennessee I-81 Corridor Study
	Michelle Christian, Planning Specialist Advanced TDOT
11:30	Andy Alden, I-81 Corridor Coalition Update
	(Truck parking, Hazmat Placard alert, Incident management borders, Traffic Management
	sharing, ADS, UAS applications, Appalachian Regional Commission Network 81 update)
12:00	Lunch & Presentation - UAS applications for incident response
	Charles Werner, DroneResponders
1:30	Program End

Network 81 Update

- Sponsored with the assistance of the Appalachian Regional Commission
- VTTI is working with the Appalachian Regional Commission (ARC) on a project that evaluates the Extent and Impact of the I-81 Corridor and its Relevance to the Appalachian Development Highway System (ADHS). The intent in this project is to utilize more objective sources of data (e.g., origin-destination traffic data) that were previously unavailable to better define the corridor.

Network 81 – 2012 Report

NETWORK 81 DEFINING THE I-81 CORRIDOR

NOVEMBER 20, 2012

THE I-81 CORRIDOR COALITION IN COOPERATION WITH THE VIRGINIA TECH TRANSPORTATION INSTITUTE AND THE APPALACHIAN REGIONAL COMMISSION

RAY D. PETHTEL, INTERIM DIRECTOR

WITH THE ASSISTANCE OF: GENE HETHERINGTON CAROLYN BLANTON

- Define the geographic extent of the I-81 corridor
- Develop an inventory of the major transportation features in the corridor
- Identify opportunities to further develop the ADHS and the corridor

6

The Appalachian Development Highway System (ADHS) – Interstate 81



Long-Haul Freight Growth

Truck Freight 2011 vs 2040 (projected)



Sources: Freight Facts and Figures 2013: https://ops.fhwa.dot.gov/freight/freight_analysis/nat_freight_stats/docs/13factsfigures/index.htm



I-81 Corridor in the Appalachian Region



The red line represents the westward geographic limit of the Corridor in Appalachia.



Incident Management Border Sessions

- The Coalition hosted two gatherings of incident responders in 2019
 - VA-TN
 - VA-MD-WV-PA
- Maintain contact list of primary responders (private)
- Continue into 2020
 - Include TRIP outreach in VA sessions

Inter-State TOC Communication

- Goal facilitate automated communication of traffic events between state Operations Centers
 - WV
 - TN
 - VA
- Scope
 - Major roads (for now I-81)
 - Filter by distance, travel time, other parameters

Micro-congestion, Enforcement

- Moving bottleneck (micro-congestion)
 - An indicator/predictor of degrading performance metrics?





Roadside Hazmat Placard Reading for Advanced Notice to Critical Facilities

 The project assessed the readiness of automated hazardous material placard readers for their reliable and effective roadside deployment. Findings from the study indicated that several hazmat placard readers were readily available for deployment and they provided capabilities for installations requiring specific features



Big Walker Mountain Tunnel: I-77 through Appalachians (#9)

Problem

Safety-critical transportation facilities are particularly prone to risk from hazardous shipments due to:

- Nature of hazmat
- Their remote location, potentially difficult response
- Congestion potential and lack of alternative routes
- Incidents within confined facilities present challenges for placard identification (i.e., smoke, light)







Opportunity

- Camera/computer vision technologies are currently available off-the-shelf for roadside surveillance of moving vehicles to read:
 - Identification of hazmat placard
 - License plates
 - DOT numbers
 - Other data (time, location, heading, video)
- This information shared with:
 - Potentially affected facility operators
 - TOCs
 - Local responders
 - Statewide database (e.g. DMV)
- For:
 - Facility preparation if warranted
 - For response should an incident occur
 - For future preparation such as the staging of special response equipment/materials





Drone applications







*3D Model constructed from UAS for forensic analysis



Truck Parking Needs Assessment

- Evaluation of Truck Parking Needs in a Changing Regulatory Environment.
- The purpose of this project is to work with fleet safety partners, and/or fleet management system providers to acquire hours-of-service (HOS) data and geographic location data.
- The ultimate goal of this study is to inform the decisions made by truck parking providers, planners, and other stakeholders





Truck Parking Proposal

- Identification of prospective locations for small truck parking facilities
- P3 approach
- Lease/purchase of space
- Installation of facilities
 - Bathroom
 - Trash
 - Water
 - Fencing/gating
 - Security (surveillance)

Signage Analysis and Standardization (proposed)

- Investigate whether roadside communication with drivers may be improved
- Standardization along corridor?



Left lane loitering prohibition not yet posted on fixed signs.

Thursday Morning Program

On-Site Registration and Full Breakfast
Welcome
 Agenda Overview – Andy Alden, Exec. Dir. I-81 Corridor Coalition
 Statement from U.S. Rep. Ben Cline - Debbie Garrett, District Director
 Rick Rovegno – Founder, I-81 Corridor Coalition
Keynote Address
 Rob Cary, Chief Deputy Commissioner, VDOT
Virginia I-81 Improvements – From Legislation to Implementation
Terry Austin, VA State Delegate
Ray Smoot, Member VA Commonwealth Transportation Board
 Dave Covington, I-81 Improvement Plan Implementer, VDOT
 Ken King, Salem District Engineer – VDOT (Session Facilitator)
Morning Break
Commercial Operators Perspective/Discussion
Dale Bennett, VA Trucking Association
Lunch and Presentation - I-81 Closing in Syracuse NY
Martin Whitmer – Partner, Whitmer and Worrall

Thursday Afternoon Program

1:00	Federal Perspective and Regulatory Update/Discussion
	Craig Feister, FMCSA Virginia
1:45	Innovations in Traffic Incident Management
	 Todd Leiss, PA Turnpike Commission
2:15	Afternoon Break
2:30	Virginia's Towing and Recovery Incentive Program (TRIP)
	Scott Kapton, Parsons
3:00	Automated Driving System Demonstration Grant – Trucking Fleet CONOPS for
	Managing Mixed Fleets
	 Rich Hanowski, Director – Center for Truck and Bus Safety, VTTI
3:30	VTTI Facilities Tour (transport to VTTI and back provided)
	 Smart Roads Tour (Highway, Surface, and Rural test beds)
	 TORC/Daimler Autonomous tractor-trailer display
	 VTTI autonomous testing vehicle display
	 Wilson Creek Bridge – A tour inside
5:00 -	Reception – Eastern Divide Brewery (transportation provided, food and drink available)
7:00	