HAMPTON ROADS MILITARY TRANSPORTATION NEEDS STUDY

HIGHWAY NETWORK ANALYSIS

PRESENTED BY:
SAM BELFIELD, SENIOR TRANSPORTATION ENGINEER
FREIGHT TRANSPORTATION ADVISORY COMMITTEE MEETING
NOVEMBER 16, 2011
Local Military Concerns

• “During a typical weekday, there are approximately 125,000 Navy personnel traveling to the bases.”

• “Safety and quality of life are very important.”
  
  Rear Admiral Boensel (Navy) – December 2009

• “Time in transit – particularly when amplified by delays at bridges, tunnels and severe traffic congestion delays – significantly detracts from mission performance effectiveness and efficiency.”

  Major General Gallinetti (Retired Marine Corps) – February 2010

• “...we are dependent, in large measure, upon the resources and support of this region for the efficient and successful conduct of our mission. One of the key components of that success is mobility”, which is currently impeded “because our transportation infrastructure is in decline and struggling to meet our needs.”

  Rear Admiral Tobin (Retired Navy) – February 2010
Study Participants

- US Department of Transportation Federal Highway Administration (FHWA)
- Military Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA)
- US Navy
- US Army
- US Air Force
- US Coast Guard
- Virginia Department of Transportation (VDOT)
- Virginia Port Authority (VPA)
- Hampton Roads Cities (NOR, SUF, VB, NN)
Study Objectives

- Engage local stakeholders
- Examine adequacy of current STRAHNET designations
- Identify Non-STRAHNET military-related sites
- Develop “Roadways Serving the Military” (STRAHNET and non-STRAHNET)
- Determine deficiencies on “Roadways Serving the Military”
- Identify transportation projects that benefit the military
- Update Project Prioritization Tool
Strategic Highway Network (STRAHNET)
Hampton Roads

Definition
Total minimum defense highway network to support defense emergency and are used for daily military cargo movement.

LEGEND

- STRAHNET Site
- STRAHNET Interstate Highway
- Non-Interstate STRAHNET Route
- STRAHNET Connector
- Strategic Rail Corridor Network (STRACNET) Railroad
- Non-STRACNET Railroad

Prepared by: HRTPO Staff, February 2011

Data Source: SDDCTEA and FHWA
### Military and Supporting Sites

#### STRAHNET Site

<table>
<thead>
<tr>
<th>STRAHNET Site</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Fort Eustis</td>
<td>Newport News</td>
</tr>
<tr>
<td>2 Joint Expeditionary Base Little Creek - Fort Story (East)</td>
<td>Virginia Beach</td>
</tr>
<tr>
<td>3 Joint Expeditionary Base Little Creek - Fort Story (West)</td>
<td>Norfolk/Virginia Beach</td>
</tr>
<tr>
<td>4 Langley Air Force Base</td>
<td>Hampton</td>
</tr>
<tr>
<td>5 Naval Air Station Oceana</td>
<td>Virginia Beach</td>
</tr>
<tr>
<td>6 Naval Supply Center Cheatham Annex</td>
<td>York County</td>
</tr>
<tr>
<td>7 Naval Weapons Station Yorktown</td>
<td>York County/Newport News</td>
</tr>
<tr>
<td>8 Naval Station Norfolk (NSN)</td>
<td>Norfolk</td>
</tr>
<tr>
<td>9 Naval Support Activity Norfolk (NSA)</td>
<td>Norfolk</td>
</tr>
<tr>
<td>10 Norfolk Naval Shipyard</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>11 Port of Virginia - Norfolk International Terminals</td>
<td>Norfolk</td>
</tr>
<tr>
<td>12 Port of Virginia - Newport News Marine Terminal</td>
<td>Newport News</td>
</tr>
<tr>
<td>13 Port of Virginia - Portsmouth Marine Terminal</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>14 Lambert's Point Docks</td>
<td>Norfolk</td>
</tr>
</tbody>
</table>

#### Other Military Site

<table>
<thead>
<tr>
<th>Other Military Site</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Camp Peary</td>
<td>York County</td>
</tr>
<tr>
<td>2 Camp Pendleton - Military Reservation</td>
<td>Virginia Beach</td>
</tr>
<tr>
<td>3 Craney Island Fuel Terminal</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>4 Lafayette River Annex - Naval Support Activity</td>
<td>Norfolk</td>
</tr>
<tr>
<td>5 NASA Langley Research Center</td>
<td>Hampton</td>
</tr>
<tr>
<td>6 NAS Oceana Dam Neck Annex</td>
<td>Virginia Beach</td>
</tr>
<tr>
<td>7 Naval Auxiliary Landing Field Fentress</td>
<td>Chesapeake</td>
</tr>
<tr>
<td>8 Naval Medical Center Portsmouth</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>9 Naval Support Activity Northwest Annex</td>
<td>Chesapeake</td>
</tr>
<tr>
<td>10 Newport News Shipbuilding - Huntington Ingalls Industries</td>
<td>Newport News</td>
</tr>
<tr>
<td>11 Saint Helena Annex - Norfolk Naval Shipyard</td>
<td>Norfolk</td>
</tr>
<tr>
<td>12 St. Julien's Creek Annex - Norfolk Naval Shipyard</td>
<td>Chesapeake</td>
</tr>
<tr>
<td>13 US Army Corps of Engineers - Norfolk District</td>
<td>Norfolk</td>
</tr>
<tr>
<td>14 US Coast Guard - Atlantic Area and Fifth District (Portsmouth Federal Building)</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>15 US Coast Guard - Base Portsmouth</td>
<td>Portsmouth</td>
</tr>
<tr>
<td>16 US Coast Guard Training Center Yorktown</td>
<td>York County</td>
</tr>
<tr>
<td>17 US Joint Forces Command - Suffolk Campus (USJFCOM)</td>
<td>Suffolk</td>
</tr>
<tr>
<td>18 US Marine Corps Reserve Center</td>
<td>Newport News</td>
</tr>
<tr>
<td>19 Yorktown Fuel Depot - Naval Weapons Station Yorktown</td>
<td>York County</td>
</tr>
</tbody>
</table>

#### Other Intermodal Facility

<table>
<thead>
<tr>
<th>Other Intermodal Facility</th>
<th>Jurisdiction</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Amtrak - Newport News</td>
<td>Newport News</td>
</tr>
<tr>
<td>2 Chesapeake Intermodal - Norfolk Southern</td>
<td>Chesapeake</td>
</tr>
<tr>
<td>3 Newport News/Williamsburg International Airport</td>
<td>Newport News</td>
</tr>
<tr>
<td>4 Norfolk International Airport</td>
<td>Norfolk</td>
</tr>
<tr>
<td>5 Williamsburg Transportation Center</td>
<td>Williamsburg</td>
</tr>
</tbody>
</table>
Severely Congested Roadways Serving the Military
(PM Peak Hour)

LEGEND

Severely Congested Roadway
(Level of Service E or F during 2009 PM Peak Hour)

Uncongested Roadway
(Level of Service A – D during 2009 PM Peak Hour)

Strategic Highway Network
(STRAHNET) Site

Other Intermodal Facility

Other Military Site

Prepared by: HRTP Staff, April 2011
Deficient Bridges on Roadways Serving the Military

<table>
<thead>
<tr>
<th>Category</th>
<th>Number</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Bridges (on Roadways Serving the Military)</td>
<td>582</td>
<td></td>
</tr>
<tr>
<td>Structurally Deficient Bridges</td>
<td>15</td>
<td>2.6%</td>
</tr>
<tr>
<td>Functionally Obsolete Bridges</td>
<td>133</td>
<td>22.9%</td>
</tr>
<tr>
<td>Deficient Bridges</td>
<td>148</td>
<td>25.4%</td>
</tr>
</tbody>
</table>

LEGEND

- Structurally Deficient Bridge
- Functionally Obsolete Bridge
- Bridge

- Strategic Highway Network (STRAHNET) Site
- Other Intermodal Facility
- Other Military Site

Data sources: VDOT & FHWA (Data as of February 2011)
Prepared by HRTPO Staff, April 2011
Bridges & Tunnels with Vertical Clearances below Preferred Height on Roadways Serving the Military

Military-Preferred Min. Vertical Clearance
Interstate Bridges is 16 feet
Other STRAHNET is 14 feet

LEGEND

- Vertical Clearance < 14 Feet
- Vertical Clearance between 14 Feet and 16 Feet

- Strategic Highway Network (STRAHNET) Site
- Other Intermodal Facility
- Other Military Site

Data sources: VDOT & FHWA (Data as of February 2011)
Prepared by: HRTPA Staff, April 2011
Roadways Serving the Military with Lane Widths below 12 Feet

LEGEND

\[
\begin{align*}
\triangle & \quad \text{STRAHNET Roadway with Average Lane Width < 12 Feet} \\
\triangle & \quad \text{Non-STRAHNET Roadway with Average Lane Width < 12 Feet} \\
\square & \quad \text{Strategic Highway Network (STRAHNET) Site} \\
\square & \quad \text{Other Intermodal Facility} \\
\square & \quad \text{Other Military Site} \\
\end{align*}
\]

Data sources: VDOT & Google Maps
Prepared by: HRTP Staff, April 2011
Identification of Transportation Projects that Benefit the Military

HRTPO Staff reviewed:
- FY 12-15 TIP Projects
- 2034 LRTP Projects and Studies
- 2034 Candidate Projects not included in 2034 LRTP List of Funded Projects

Selection Criteria
- Any project (i.e. road widening, interchange improvement, or bridge replacement) located on “Roadways Serving the Military”
- Other non-highway transportation projects (i.e. ITS/Operational upgrades, public transit, and TDM Programs)
Recommendations

Update Project Prioritization Tool Criteria/Scoring

Deficient Bridges

- Rehabilitate or replace three Structurally Deficient bridges with sufficiency ratings below 50
  - Victory Blvd over Paradise Creek (Portsmouth)
  - Lasalle Ave over Tide Mill Creek (Hampton)
  - I-264 over Lynnhaven Parkway (Virginia Beach)

Vertical Clearances below Military Preferences

- Use minimum of 14 feet as tunnels are constructed or replaced (5 locations)
- Use minimum of 16 feet as Interstate bridge structures are constructed or replaced (16 locations)
Recommendations

Transportation Projects

- I-64 Peninsula Widening between Rte 199 and Fort Eustis Blvd*
- I-64 Southside Widening (including High-Rise Bridge) between I-64/I-464 to I-664*
- I-64/I-264 Ramp*
- I-264 at Witchduck Rd Interchange*
- I-64 at Fort Eustis Blvd Interchange*
- Improved ability to cross Hampton Roads harbor (HRBT expansion, Patriots Crossing or Third Crossing)
- Air Terminal Interchange
- Light Rail Transit Extension to Virginia Beach Oceanfront
- Light Rail Transit Extension to Naval Station Norfolk
- High-Speed and Intercity Passenger Rail Service (Hampton Roads – Richmond)

*2034 LRTP: “Unfunded Projects Recommended for Future Consideration” (Approved by HRTPO on 3/17/11)
Next Steps

Military Commuter Survey (FY 2012)

- To determine transportation challenges facing local military personnel during their daily commutes in Hampton Roads.
- Web-based survey located on HRTPO website (www.hrtpo.org)
- Planned distribution methods include:
  - HRTPO website and HR Crossings blog
  - Military websites
  - Military and study stakeholders
  - TTAC members
  - Jurisdiction websites
  - Military email chains
  - Local news and print media
  - Newsletters
  - Social Media (i.e. Facebook)
- Survey collection period (November 8, 2011 – February 20, 2012)
DOCUMENTATION

- Overview
- Shapes and Patterns
- Framing the LRTP
- Transportation Challenges
- Transportation Strategies
- The Plan
- Looking Ahead
OVERVIEW

- Introduction
  - Regional Overview
  - What is an LRTP?
  - Approach/Framework

- State of the Region
  - Transportation Network Characteristics
  - Transportation Network Usage
Shapes and Patterns

- Regional Demographics
  - Current/Anticipated Population
  - Current/Anticipated Employment

- Environmental Justice
  - Minorities
  - Elderly
  - Medical/Functional Needs
  - Linguistically-isolated Households
  - Zero-Vehicle Households
Framing the LRTP

- Public Involvement
  - Citizen Input Opportunities
  - Outreach Efforts
- Vision and Goals
  - Regional Priorities
  - Planning Factors
  - Goal Attainment
TRANSPORTATION CHALLENGES

- Mobility and Accessibility
  - Environmental Justice Groups
  - Freight/Military
  - Modal Choices
- Reliability
  - Transportation Infrastructure Condition
- Environmental
  - Climate Change
  - Transportation & Land Use
- Financial
  - Federal/State funding deficits
  - Construction Cost Increases
TRANSPORTATION STRATEGIES

- Mobility and Accessibility
  - Freight/Military Transportation Needs
  - Congestion Management Process
  - Modal Planning Efforts
- Reliability
  - System Preservation
  - System Management
- Environmental
  - Mitigating/Adaption to Climate Change
  - Environmental Consultation
- Financial
  - Governor’s Omnibus Transportation Funding Bill
- Project Prioritization Tool
THE PLAN

- The Financial Plan
  - Economic Forecast
  - LRTP Plan Revenues
- Selecting Projects
  - Candidate/Committed Projects
  - Components of 2034 LRTP Projects
- The 2034 LRTP Projects
  - Project Listing
  - Fiscal Constraint Demonstration
- Plan Performance
  - Volumes and Congestion
  - Air Quality Conformity
  - Environmental Justice Analysis

Hampton Roads Transportation Project Priorities

Funded Ongoing Studies
- Interchange Studies
- Multimodal Studies
- Highway Studies

Funded Projects for Construction
- Planned Transit O&M Center
- Planned HSIPR Stations
- Planned Intersection Projects
- Committed Intersection Projects
- Committed Interchange Projects
- Committed Roadway Projects
- Planned Roadway Projects

Unfunded Projects for Future Consideration
- Interchanges for Consideration
  - Projects for Consideration

Prepared by HRTPO Staff

8
LOOKING AHEAD

- Implementation and Monitoring
  - Transportation Improvement Program
  - Related Planning Efforts
- Beyond the Horizon
  - 2034 Vision Plan
  - Future LRTP Priorities
NEXT STEPS

- Public Review of 2034 LRTP Document
  - Comment Period ends December 8, 2011
  - Provide comments to LRTP Staff (lrtp@hrpdcvagov) by December 8, 2011
- Receive Joint FHWA/FTA Conformity Finding in November/December 2011
- Document approval by HRTPO Board in January 2012
## Virginia Freight Transportation Summit
### December 6, 2011

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Action</th>
<th>Points/Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 - 10:15</td>
<td>Set-up</td>
<td>Registration table/info packets/RSVP list/name tags/blank extra tags;</td>
<td>round tables and head table; banners, video, podium, audio, coat rack, door prize?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Talking Points:</strong> Summit purpose, FTAC mission, successes since inception, see it grow statewide</td>
</tr>
<tr>
<td>10:30 - 12:00</td>
<td>Registration</td>
<td>Manned registration table; water, coffee, juice bar</td>
<td></td>
</tr>
<tr>
<td>12:00 - 12:15</td>
<td>Lunch Served</td>
<td>Hotel staff serve lunch</td>
<td></td>
</tr>
<tr>
<td>12:15 - 12:20</td>
<td>Welcome</td>
<td>Bill Bell: Welcome, FTAC overview, Freight Summit goals, introduce &quot;A Region United&quot; video</td>
<td><strong>Talking Points:</strong> Summit purpose, FTAC mission, successes since inception, see it grow statewide</td>
</tr>
<tr>
<td>12:21 - 12:27</td>
<td>Video</td>
<td>Play &quot;A Region United&quot; video</td>
<td></td>
</tr>
<tr>
<td>12:28-12:30</td>
<td>Introduce Connaughton</td>
<td>Bill Bell: Connaughton Bio - my pleasure to introduce</td>
<td><strong>Talking points:</strong> Connaughton's bio</td>
</tr>
<tr>
<td>12:32 - 12:45</td>
<td>Connaughton</td>
<td>Welcoming remarks - Importance of freight and transportation - jobs and economic growth, introduce speaker - bio</td>
<td><strong>Talking Points:</strong> Importance of freight &amp; commerce to Virginia - Military, port, paper industry, etc. Consideration to these needs when transportation planning and funding is determined. Not represented the way voters/commuters are. Economic growth benefits all including the commuters. Diversifies the tax base and increase employment. Green Mountain Coffee for example.</td>
</tr>
</tbody>
</table>
# Virginia Freight Transportation Summit
**December 6, 2011**

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<tbody>
<tr>
<td>12:45 - 1:15</td>
<td>Speaker 1</td>
<td></td>
<td>The role freight movement plays in the economy and its importance in the economic recovery. International trade and door to door multimodal infrastructure needs.</td>
</tr>
<tr>
<td>1:17 - 1:20</td>
<td>Introduce Panel 1</td>
<td>Bill Bell - Announce Panel 1 - Introduce moderator, moderator bio</td>
<td>Talking Points: Title of panel. Moderator's bio</td>
</tr>
<tr>
<td>1:20 - 1:25</td>
<td>Panel Overview</td>
<td>Moderator: Introduce topic, introduce panelists, panelist bios</td>
<td>Talking Points: Definition of panel. Panelist's bio's</td>
</tr>
<tr>
<td>1:25 - 2:10</td>
<td>Panelist Presentations</td>
<td>Each panelist has up to 15 minutes to present topic from their perspective</td>
<td>Importance of freight for Virginia's economy and growth needs. Shippers, transportation providers, 3PL's and industrial development speak on where transportation falls into the where do I place my facilities, activities and employees.</td>
</tr>
<tr>
<td>2:10 - 2:20</td>
<td>Moderator questions</td>
<td>Scripted</td>
<td></td>
</tr>
<tr>
<td>2:20 - 2:30</td>
<td>Audience Questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2:30 - 2:45</td>
<td>Break</td>
<td>Coffee, cookies, brownies</td>
<td></td>
</tr>
<tr>
<td>2:45 - 2:50</td>
<td>Introduce Panel 2</td>
<td>Bill Bell - Announce Panel 2 - Introduce moderator, moderator mio</td>
<td>Talking Points: Title of Panel. Moderator's Bio</td>
</tr>
<tr>
<td>2:50 - 2:55</td>
<td>Panel Overview</td>
<td>Moderator: Introduce topic, introduce panelists, bio on each</td>
<td>Talking points: Definition of panel. Panelist's bio's</td>
</tr>
</tbody>
</table>
## Virginia Freight Transportation Summit
**December 6, 2011**

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<th>Time</th>
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</thead>
<tbody>
<tr>
<td>2:55 - 3:40</td>
<td>Panelist Presentations</td>
<td>Each panelist has up to 15 minutes to present topic from their perspective</td>
<td>Planning and funding multimodal infrastructure. PPTA’s, tolling, innovative revenues. Prioritizing projects utilizing economic vitality as one of the criteria.</td>
</tr>
<tr>
<td>3:40 - 3:50</td>
<td>Moderator questions</td>
<td>Scripted</td>
<td></td>
</tr>
<tr>
<td>3:50 - Until We Stop after 4:00</td>
<td>Audience Questions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:00 +/-</td>
<td>Closing Remarks</td>
<td>Bill Bell (Unless Connaughton wants to speak first.) Thanks, hope summit were of value. Reminder for Half Moone at 5:00</td>
<td>Talking points: Thanks for attending. Hope of some value. Half Moone Cruice &amp; Celebration Center right down the street at 5:00</td>
</tr>
<tr>
<td>End Part - 1</td>
<td>Play Freight Video Again</td>
<td>Dismiss audience - Wait 30 seconds &amp; play video again as audience is leaving.</td>
<td></td>
</tr>
<tr>
<td>5:00 - 6:00</td>
<td>Cocktail Hour</td>
<td>Open Bar - Orchestra - video screens playing Warner, LaHood, video and other images from conference</td>
<td></td>
</tr>
<tr>
<td>6:00 - 6:20</td>
<td>Seating for Dinner and Serving Dinner</td>
<td>Bill Bell: Recap of day, enjoy your dinner</td>
<td></td>
</tr>
<tr>
<td>7:00 - 7:30</td>
<td>Speaker Intro</td>
<td>Bill Bell: speaker introduction and bio</td>
<td></td>
</tr>
</tbody>
</table>
Virginia Freight Transportation Summit  
December 6, 2011

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</tr>
</thead>
<tbody>
<tr>
<td>7:00 - 7:30</td>
<td>Dinner Speaker</td>
<td></td>
<td>Re-Authorization of the Transportation Budget and a National Outlook on Transportation Infrastructure Needs</td>
</tr>
<tr>
<td>8:00</td>
<td>End Summit</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>