Panel Remarks
pbeaulieu@psrc.org
June 1, 2006, Long Beach, CA
June 20, 2006, Seattle, WA

INNOVATIVE FINANCE:
A Project Selection
Case Study
I. FAST within the REGIONAL FREIGHT STORY

PORT GATEWAY
A Pacific Gateway with two-thirds of container imports heading by rail to eastern destinations. (i.e., FAST Corridor)

RAIL
Linked to a freight rail grid shared in our region with passenger rail. (i.e., FAST)

TRUCK
A regional economy on the National Highway System (NHS) but with 80% of truck trips local, staying within the region.

AIR
Dependent upon air service and landside reliability for high value cargo, including Boeing aircraft components.

INFO-DATA
Marine Cargo Forecasts (WPPA/WSDOT, 2004) and Port monthly reports.
Rail Capacity Study (WPPA, 2004)
Rail Strategy (Trans. Commission 2006)
Strategic Freight Transportation Analysis (SFTA, 2002-7)
Air Cargo Forecasts (PSRC, 2006)
Vision 2040: Land use and environmental

More modal details nearer end of this presentation (13 thru 20)
FAST CORRIDOR

Part of the Regional Story:

• 1998: 12 rail crossing + 3 port access (9 done)
• 2002: 10 new rail, roadway, ITS, add long-term chokepoints
• Separate project management
• Project-level Benefits:

  Reconnect communities,
  Mitigate pass-thru,
  Link I-90 to Port of Seattle waterfront,
  Complete e-w highways Green R. Valley,
  Close some at-grade crossings,
  Enable better operations - Agile Ports,
  Project-level environmental review,
  Access to/from the deep water Ports.
FAST Project Selection Process

Step 1: Establish public-private “communication hub.”

Step 2: Public agencies:
- “Lift out” bite-sized freight bundle, i.e., the marine/rail FAST Corridor, with do-able 6-year action horizon.
- Set aside other modes/geographies - rail, trucking, air cargo.
- That is, FAST Corridor an action strategy, not a regional plan.

Step 3: Window down & Look up!
- Develop consistent corridor criteria (e.g., train forecasts).
- Combine freight mobility with 4 other project criteria (community impacts, general traffic, cost, etc.).
- Present/jointly screen & rank projects, and note interactions,
- Later slides identify system Performance Measures (images 13-20)
- Put money where mouth is; cobble with other funds.

Step 4: Look around! Add port access, from concurrent Legislative studies.

Step 5: Sequencing. (images 8, 9).

Step 6: Concurrently, support freight in Highway Corridor Programs (etc.) not part of the selective FAST Corridor action package.
Setting Priorities?

- Approach: create new package, not rank an existing “silo” for either grants or loans.
- Common train assumptions (above)
- Actual sequence based on readiness-to-go
- Credibility based on partnered funding.
FAST Project Criteria

- Mitigation of gateway impacts calls for federal funding share
- Regional criteria nearly same as for statewide program.
- Quantification soft, but supported by technical studies (TTI), multiple criteria beyond freight
- State law requires MPOs to review maximum net benefits

For all 25 Projects ($ mil):

Cost: 865.0
Committed/ Expected: 568.3
Committed & Unfunded: 86.7
Unknown: 210.1
The numerical results and “consumer report” summary format used in informational brochures.
FAST meetings track and align corridor/project funding

## FAST PROJECT FUNDING MATRIX (DRAFT)

### Phase I

<table>
<thead>
<tr>
<th>FAST PHASE I PROJECTS</th>
<th>G277th St</th>
<th>3rd St SW</th>
<th>POT Rd</th>
<th>Calif. St</th>
<th>160th St</th>
<th>Spokane St</th>
<th>8th St E</th>
<th>Ph 1/4th</th>
<th>Ph 2/15th</th>
<th>SRS19 1A</th>
<th>E Marg.Wy</th>
<th>EMm.VwDr</th>
<th>SRS19 1B</th>
<th>SRS19-Ph</th>
<th>SRS167(row)</th>
<th>Shaw Rd</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lead Agent</td>
<td>Auburn</td>
<td>Auburn</td>
<td>WSDOT</td>
<td>PEO/Evr</td>
<td>WSDOT</td>
<td>City/Sea</td>
<td>Everett</td>
<td>WSDOT</td>
<td>POS</td>
<td>Everett</td>
<td>WSDOT</td>
<td>WSDOT</td>
<td>WSDOT</td>
<td>Ply/Muk</td>
<td></td>
<td></td>
</tr>
<tr>
<td>FMSI#</td>
<td>14</td>
<td>19</td>
<td>4</td>
<td>9</td>
<td>23</td>
<td>13</td>
<td>22</td>
<td>11</td>
<td>11</td>
<td>1</td>
<td>3</td>
<td>28</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>15</td>
</tr>
<tr>
<td>Committed Funds</td>
<td>3,515</td>
<td>5,032</td>
<td>1,000</td>
<td>800</td>
<td>26,059</td>
<td>3,058</td>
<td>1,938.0</td>
<td>831</td>
<td>1,600</td>
<td>644</td>
<td>7,379</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td>3,250</td>
<td></td>
</tr>
<tr>
<td>State/COT</td>
<td>1,933</td>
<td>1,933</td>
<td>21,707</td>
<td>79</td>
<td>3,750</td>
<td>1,861</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Federal Min.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T-21 STP/100NHS</td>
<td>10,000</td>
<td>15,367</td>
<td>1,007</td>
<td>0</td>
<td>3,000</td>
<td>1,000</td>
<td>4,744</td>
<td>1,148</td>
<td>3,847</td>
<td>1,998</td>
<td>600</td>
<td>1,500</td>
<td>600</td>
<td>1,500</td>
<td>3,250</td>
<td></td>
</tr>
<tr>
<td>T-21 HiPr</td>
<td>4,038</td>
<td>3,020</td>
<td>7,543</td>
<td>0</td>
<td>7,543</td>
<td>1,000</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td></td>
</tr>
<tr>
<td>T-21 Demo (sec 378)</td>
<td>4,038</td>
<td>3,020</td>
<td>7,543</td>
<td>0</td>
<td>7,543</td>
<td>1,000</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td>7,543</td>
<td></td>
</tr>
<tr>
<td>T-21 FAST</td>
<td>5,000</td>
<td>4,400</td>
<td>1,680</td>
<td>0</td>
<td>3,000</td>
<td>1,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>T-21 1116/18</td>
<td>5,000</td>
<td>4,400</td>
<td>1,680</td>
<td>0</td>
<td>3,000</td>
<td>1,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td>4,000</td>
<td></td>
</tr>
<tr>
<td>T-21 300 Prop 2003</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>0</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>SAFETEA/LU/30</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>0</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>TIB</td>
<td>8,180</td>
<td>2,740</td>
<td>4,953</td>
<td>5,500</td>
<td>3,948</td>
<td>1,500</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td></td>
</tr>
<tr>
<td>FMSI#</td>
<td>13,362</td>
<td>3,171</td>
<td>5,000</td>
<td>25,000</td>
<td>7,000</td>
<td>3,000</td>
<td>4,800</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td>5,070</td>
<td>7,300</td>
<td></td>
</tr>
<tr>
<td>Port</td>
<td>2,400</td>
<td>2,570</td>
<td>3,471</td>
<td>1,000</td>
<td>1,000</td>
<td>5,000</td>
<td>7,050</td>
<td>1,500</td>
<td>7,543</td>
<td>1,500</td>
<td>7,543</td>
<td>1,500</td>
<td>7,543</td>
<td>1,500</td>
<td>7,543</td>
<td></td>
</tr>
<tr>
<td>RR</td>
<td>1,800</td>
<td>1,185</td>
<td>1,100</td>
<td>900</td>
<td>2,050</td>
<td>2,250</td>
<td>500</td>
<td>800</td>
<td>400</td>
<td>4,800</td>
<td>1,433</td>
<td>600</td>
<td>750</td>
<td>750</td>
<td>750</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>1,942</td>
<td>356</td>
<td>700</td>
<td>1,200</td>
<td>250</td>
<td>1,000</td>
<td>413</td>
<td>71</td>
<td>413</td>
<td>71</td>
<td>413</td>
<td>71</td>
<td>413</td>
<td>71</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Anticipated Funds</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FAST/Federal</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>35,157</td>
<td>30,514</td>
<td>30,014</td>
<td>12,417</td>
<td>23,390</td>
<td>15,927</td>
<td>12,000</td>
<td>16,443</td>
<td>7,152</td>
<td>73,400</td>
<td>33,333</td>
<td>10,413</td>
<td>14,403</td>
<td>45,670</td>
<td>45,615</td>
<td>10,300</td>
</tr>
</tbody>
</table>

**Color key:**
- Project is complete
- Project is under construction
- Project is fully funded
- Project received funding from the 2005 Legislative Transportation Partnership Account (amount is included under FMSI#)
- Project received funding from the 2003 Legislative Nickel Funding Package (amount is included under FMSI#)
- Project received funding from the 2005 Federal Reauthorization (SAFETEA-LU)
- Not yet funded
- Funded
Our finest hour:

- New federal/state money ('98) + merit based competition
- Some Rail/federal contributions to the corridor-as-a-whole
  (federal earmarking list includes contingency list)
- Fungibility of some port, rail and federal funds enables ready-to-go projects to bypass stalled projects.
II. STEPPING BACK: Federal things to watch for (2005-9)

- **Federal partner** to mitigate trade impacts benefitting the nation (Pacific Coast message, WCCC, 2006)

- **Tax Incentives** and **private financing**

- Enact a **National Freight Policy** (slide 24…)

- New **trust fund**?
  - Like Aviation Trust Fund and Highway Trust Fund,
  - A new Maritime and rail Trust Fund (much smaller) seeded with share of annual growth in Customs Fees?
  - Or, broaden eligibility under Harbor Maintenance Tax (HMT)?

- **State Infrastructure Banks** (SIBs):
  - Revolving loan funds supported by use-based fees

- **Amtrak reform proposals** interactive with freight rail, especially regarding rail bed maintenance.

“Within ten years, the United States could lose most of the competitive edge it has in transportation costs because trucking productivity has bottomed out and because other nations, like China, are investing heavily in transportation infrastructure to move freight efficiently.”

*Transport Topics*
*Nov. 14, 2005*
Possible FAST Corridor ACTIONS

*Partnerships within the region & Engagement beyond…*

**Federal:**
- Connect **multi-state corridors** (Seattle-to-Chicago, West Coast Coalition)
- Decide **multi-year schedule for earmarking**, OR follow Border Program (Sec. 1303) for **long-term predictability**
  
  Congress set federal funding level + regions and states complete sub-national project lists + maximize leveraging through partnerships.
- **Advance use-based fees; and with a possible trust fund**

**State:**
- Protect new **state weight fees** (done)
- Incorporate Transportation Commission **rail strategy** (2006-7)
- Enlarge **State Infrastructure Bank** (revolving loans for front end; + payback)
- Influence **Regional Governance Commission** research and recommendations.
Region/local*

- Regional Transportation Plan (2007, 2010) - add freight issues
- VISION 2020/ Growth Strategy (2007-8) - add freight policies
- Transportation Action Strategy (2007) - broaden/add Freight strategies
  - Governor’s Marine Ports Container Initiative (2006 – )
  - Regional Transportation Investment District (RTID, referendum in 2007)
  - Role from state Rail Study (2006)

(* A single freight Concept Paper to inform all three of these paths.)

Public/Private:

- Public-private Regional Freight Mobility Roundtable (communication hub)
- Attract project-level private shares (e.g., Local Improvement Districts)
- Testify leading up to SAFETEA-LU reauthorization (2009)
III. FAST MODES: Ports of SEATTLE, TACOMA & EVERETT

- 3.5 million TEU in 2004, with 70% of international TEU imports east to Chicago (TEU= 20’ Equivalent Unit)

- TEU double-digit increases past 3 years; surge expected to double the volume in 10 years.

Port Performance Criteria

- “Velocity” TEU/acre/year
- Reliability Including overflow from other West Coast ports, and seasonal surges
- Capacity Infrastructure and system operations
- Security Container and port, post 9/11
# Railroad Network

- Take part in state Rail Strategy (2006),
- Continue **FAST Corridor actions** (1998 - ) to mitigate impacts of globalization
- Review/advance **short-term operations**  
  Duwamish Corridor, Tacoma area “co-production”, curve realignment and speed upgrades in Everett
- **Monitor long-term actions.** Stampede Pass, Pt. Defiance/Bayside/Vancouver Bypasses, Vancouver 3rd track, Columbia Gorge, train direction coordination
- Partner toward mainline and rail yard **capacity**, joint **operations**, and **access** to ports.

## Performance Criteria

### Private:
- **Average speed** (fixing the lowest speeds can be the answer)
- **Delay ratio** (delay over total running time. Vancouver is 20%, as bad as Chicago).
- **Disruption Ratio** (percent of trains disrupted. The regional challenge is port-rail interface and staging/storage capacity).
- **Sustainable capacity** (daily/peak)

### Public:
- **Multiple use**: freight+passenger rail + solid waste transfer to landfills.
- **Freight efficiency**, e.g., pavement life expectancy, fuel per ton-mile.
- **Community impacts**,
- **Safety and accident reduction**
### Regional/State rail capacity (cont’d)

Port-related tonnage double by 2020
How to handle passenger needs?
Bottlenecks by 2009-12 constrain landside capacity.
Commuter Rail Actions/ access rights.

#### Three Cross-state Routes
1. Stevens Pass (BNSF)
2. Stampede Pass (BNSF)
3. Columbia River Gorge (BNSF/UP)

#### Current Mainline Rail Capacity

<table>
<thead>
<tr>
<th>Segment</th>
<th>Est. Sustainable</th>
<th>Average/ peak day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stevens</td>
<td>28</td>
<td>23/25</td>
</tr>
<tr>
<td>Stampede</td>
<td>20</td>
<td>6/7</td>
</tr>
<tr>
<td>Everett/ Seattle</td>
<td>50</td>
<td>45/50</td>
</tr>
<tr>
<td>Seattle/ Tacoma</td>
<td>100</td>
<td>85/94</td>
</tr>
</tbody>
</table>
Railroad Networks and FORT LEWIS (cont’d)

- Only Dept. of Defense (DOD) *Power Projection Platform* on the West Coast

- **STRACNET** gets to base
  * Strategic Rail Corridor Network, Strategic Highway Network

- Local on the base: Surge deployment capacity
  (96 hr. response, 2 divisions 5-8 days)

- Deployment from the base: Access rights + redundancy:
  (a) routes
  (b) ports
  (c) commercial rail carriers.

*Figure 1. Strategic Rail Corridor Network (STRACNET)*
I-90 Westbound Destinations
- 35% Warehouse/Distribution Centers
- 15% Truck Terminals
- 15% Marine Ports (early in week)
- 11% Point of Sale
- 7-22% Factory (varies)

I-5 Gross Annual Tons (millions)
- Thurston line: 72
- Snohomish line: 48
- Pierce line: 42
- Skagit line: 35
Truck Needs (cont’d)

Statewide/ Route increases (1994-02)

Net Tonnage  96%  up to 176 million
Cargo Value  78 %  up to $421 Billion

Trucks/ day   (2002)

I-90  44%  eastbound  2.5k
      83  westbound  3.3k
I-5   108  Airport south  9.2k
      97  Airport north  9.7k
      59  Everett north  5.2k
      120  Everett south  6.7k
Blain  (USDOT/ BTS, 2003)  1.8k

(Nationally, Truck Counts are expected to rise by at least 62 percent for 2002-20.)

Performance Criteria

• Capacity, Speed & Delay
• Trip Predictability
• Route flexibility
• Cost  (for shipper and/or for carrier)
• Safety and Security
• Shipper criteria:  e.g., air to overnight trucks.

(Some variation due to day-of-week sampling)
**AIR CARGO SYSTEM**

- **2004 Volume:** 473,000 tons
  - Boeing Field share: 27%
  - Seattle-Tacoma: 73%
  - International 25% of Sea-Tac air freight
    (split equally between Asia and Europe).

- **2020 Forecast:** 1,400,000 tons

Source: 2004 – 2005 World Air Cargo Forecast, Boeing

Dip in 2001: Recession and then 9/11

Load distribution *within* the region: In 1995 UPS moved from Seattle-Tacoma Airport to Boeing Field.
Air Cargo Findings (cont’d)

• Air freight recovering from 2000-1 slump
• **Sea-Tacoma International:** 3.5%/yr growth – 347k-708k tons (2004-25)
• **Boeing Field:** 126k-243k tons (2004-25)
• **Paine Field:** Boeing assembly components

• **Access/ egress issues:** I-5 Everett-Olympia, I-405
  **Surface freight** to and from Seattle-Tacoma Airport:
  - Seattle-Tacoma vicinity: 35% of trips
  - Seattle CBD: 19%
  - Kent Valley/south King Co.: 31%

Performance Criteria

Airside:

• Operations per year
• Yield Management (flights can be added or dropped)
• Annual Hours of Delay
• Percent of flights/month delayed by more than 15 minutes.
• Security (e.g., mail above 16 oz. on non-passenger planes)

Terminal handling:

• Efficiency per square foot.

Landside:

• Access to alternative airports (Vancouver, Portland) …
• Together with reliable highway access (reliability as well as speed)
IV. THREE PERSPECTIVES \(\text{(a,b,c)}\) hinting toward a National Freight Policy…

a. Effectiveness: possible state recipe for economic relevance

1. **Target** Help growth industries/ those with direct benefits.
2. **Screen** Exclude simple redistribution of benefits within state.
3. **Bundle** Shortlist for synergy and to sequence actions.
4. **Criteria** Net Present Value, leveraging, local labor, and serve exporters.*

* Exports mean new money and domestic jobs. Which specific transportation actions (with benefit/cost) are needed by the Prosperity Partnership clusters to best serve exporters? (Flexible Economic Development Policy, Cambridge Systematics for WSDOT, 1997).

*Remember: “the road runs in both directions”…*
b. Declining project marginal benefits to the economy (Congressional Budget Office, 1998)

• Federal **Return on Investment (ROI)** barely competitive in the market (a national average), because of total system completion.

• So, (1) **shift** federal spending from low-return projects; more valuable to better **maintain** and (2) **operate** the total system.

• Efficient **pricing** and management of existing capital, and the need is for independent evaluations of “needs”.

*The Economic Effects of Federal Spending on Infrastructure and other investments, June 1998*
c. The Great Society is Over: 21st Century Freight Capacity

- Economic efficiency (net economic benefit reflecting all costs.)
- Limit government role (only to offset highly inefficient market outcomes).
- Leadership is not always a subsidy.
- Use-based financing & local match will improve project selection.

"Freight Capacity for the 21st Century, Special Report #271, 2003"

FAST Corridor seeks only a 33% federal share. What if federal share was high for planning and startup, and less for costlier implementation?
# Thoughts for a National Freight Policy (NFP)

<table>
<thead>
<tr>
<th><strong>Multimodal:</strong></th>
<th>Congress thinks “freight” issue is foreign trucks. No sense of trucker shortage + need for rail capacity/competitiveness.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Partnerships:</strong></td>
<td>Prerequisite for federal funding + smaller federal shares (state FMSIB has a ceiling).</td>
</tr>
<tr>
<td><strong>Fewer Surprises:</strong></td>
<td>Use the “accrual” basis, not “cash flow” (total earmarking!)..like any state, city, or business. State Rail Study is admonished to replace lobbying w rationality + asset management</td>
</tr>
<tr>
<td><strong>National Priorities:</strong></td>
<td>Spend a nickel to keep DOD Power Projection Platforms viable, e.g., rail ingress/egress, redundancies (as at the Fort Lewis).</td>
</tr>
<tr>
<td><strong>Project Justification:</strong></td>
<td>Post-Deregulation world requires benefit/cost analysis, of public benefit for public dollars.</td>
</tr>
<tr>
<td><strong>The Future is us:</strong></td>
<td>Eisenhower/Great Society; both, obsolete. State Infrastructure banks/revolving loans, with shipper (not carrier) use-based fees?</td>
</tr>
</tbody>
</table>
The End of the Beginning...