

The Crescent Corridor & The DC Capitol Region

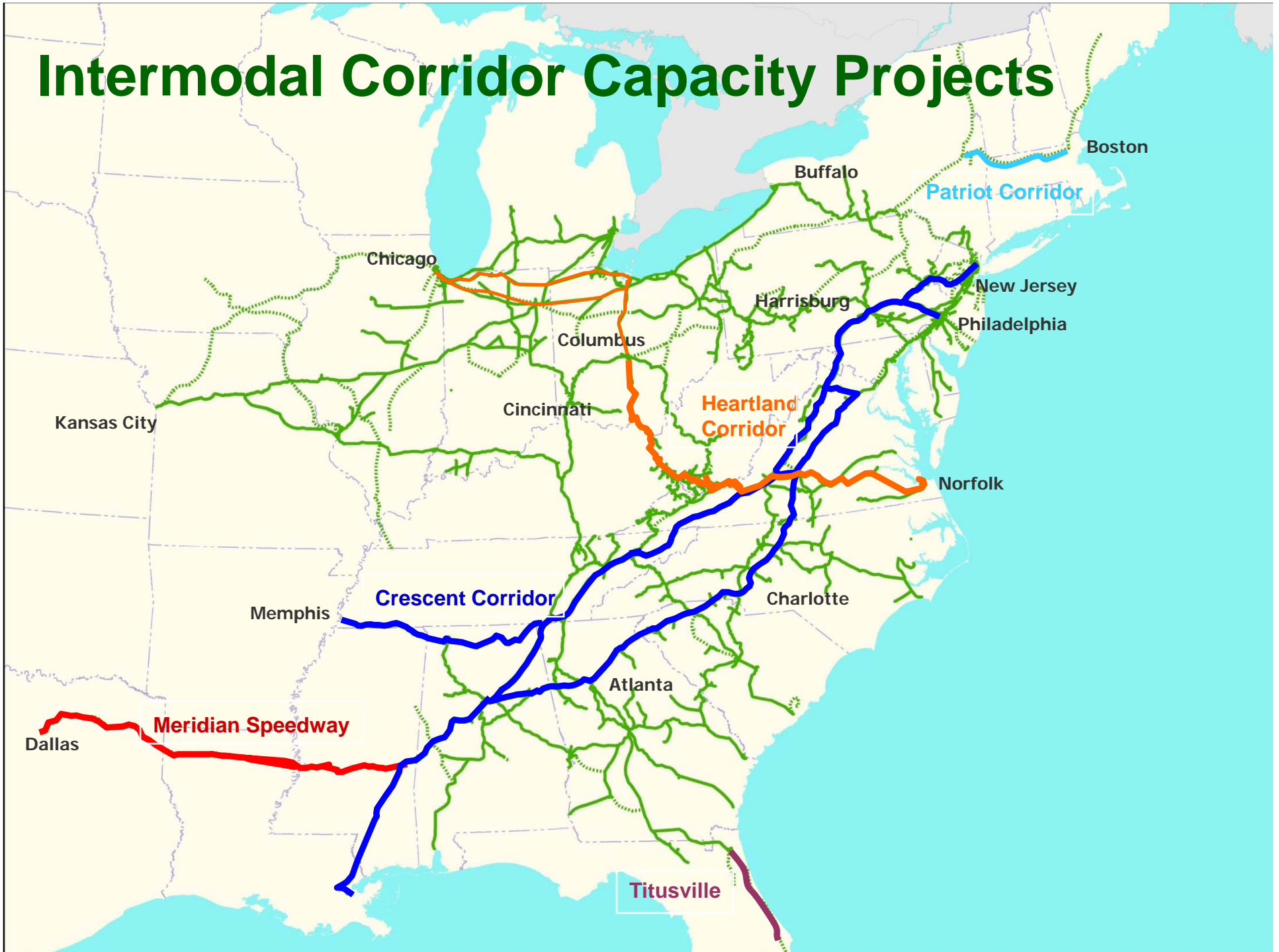


September 2009

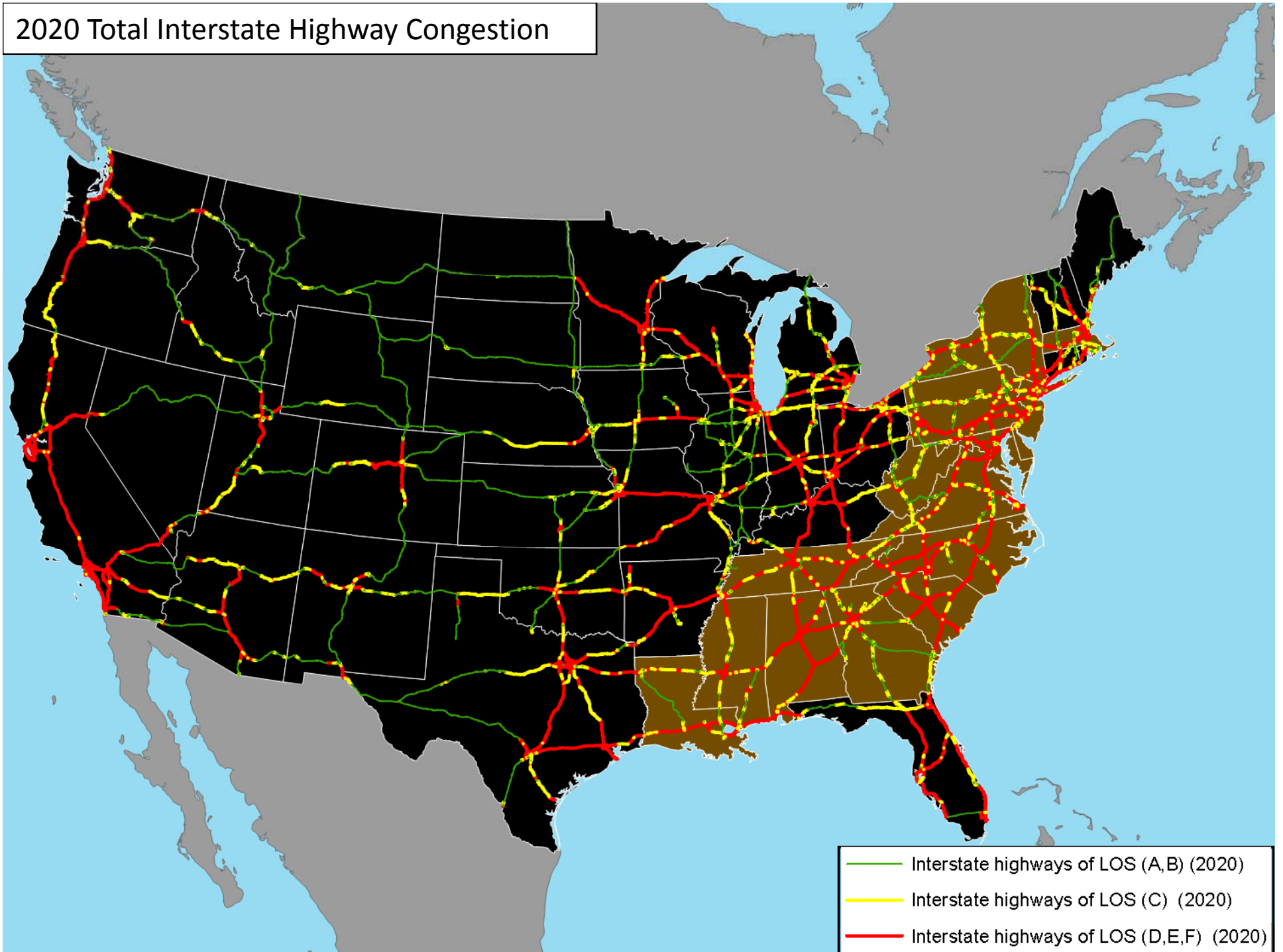




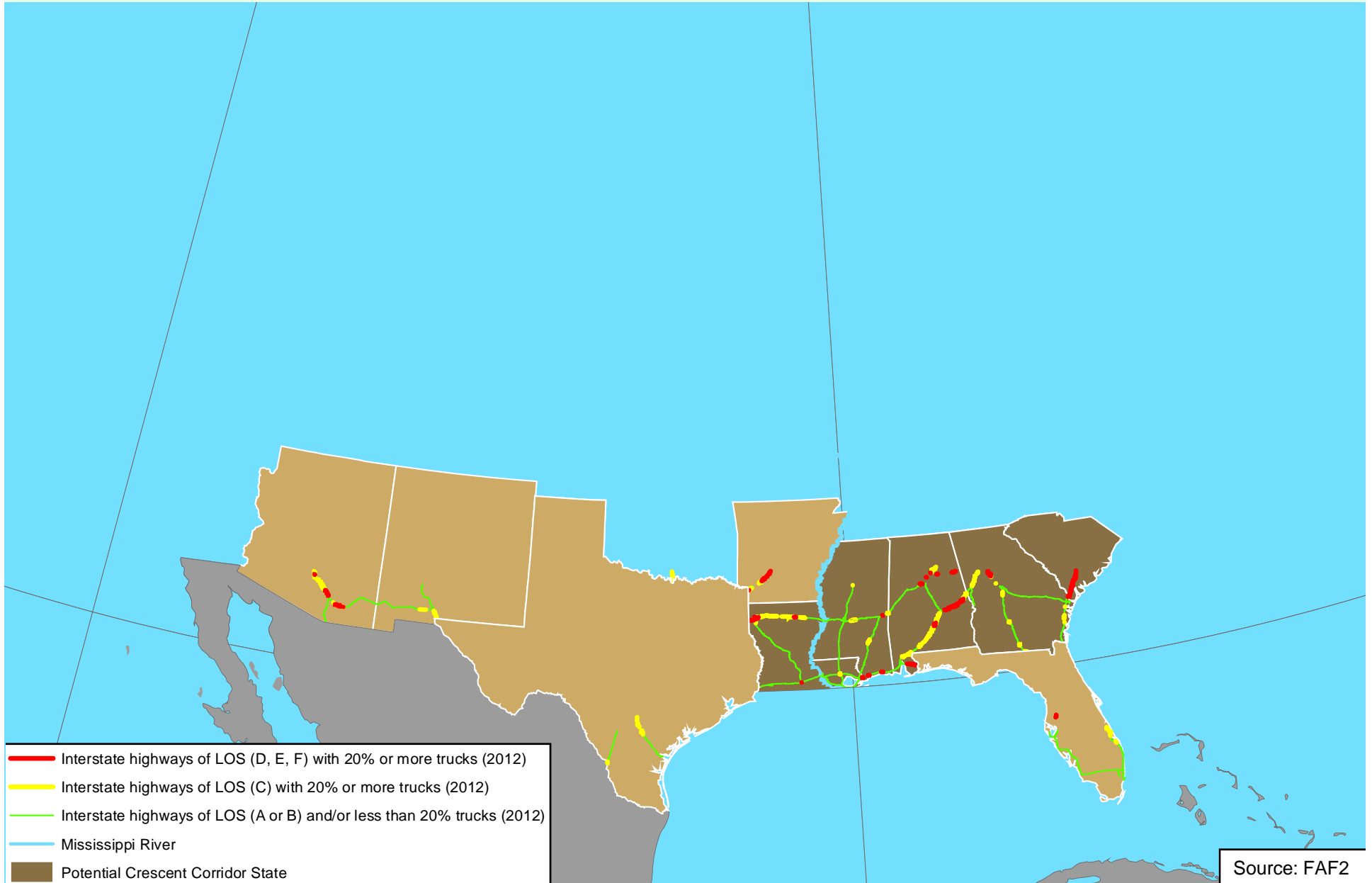
Intermodal Corridor Capacity Projects



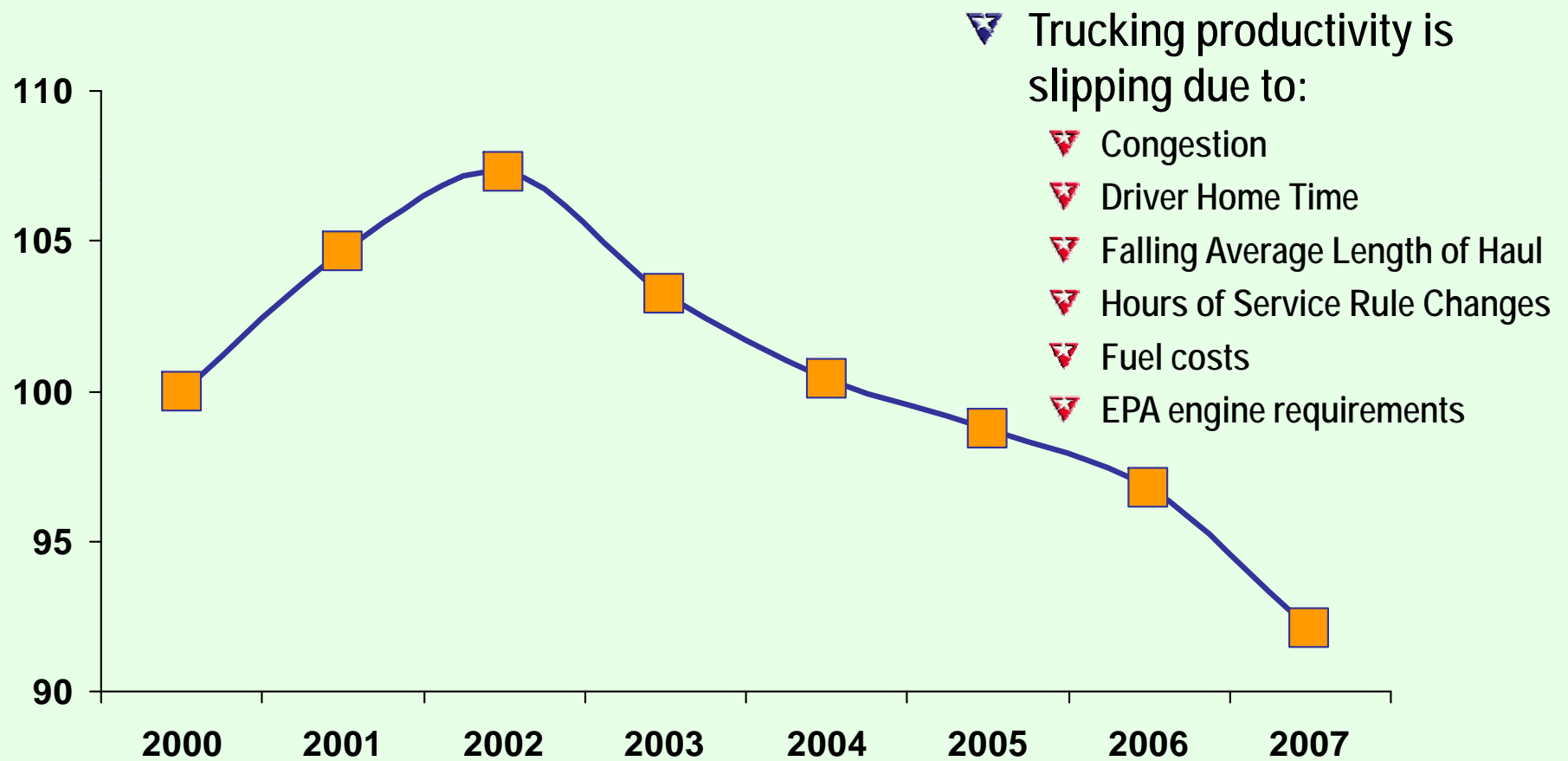
2020 Total Interstate Highway Congestion



By 2012, Traffic On Many Congested Highways Will Consist Of Over 30% Trucks




Truckload Productivity: Index of Miles per Truck per Month: 2000 = 100



Source: ATA

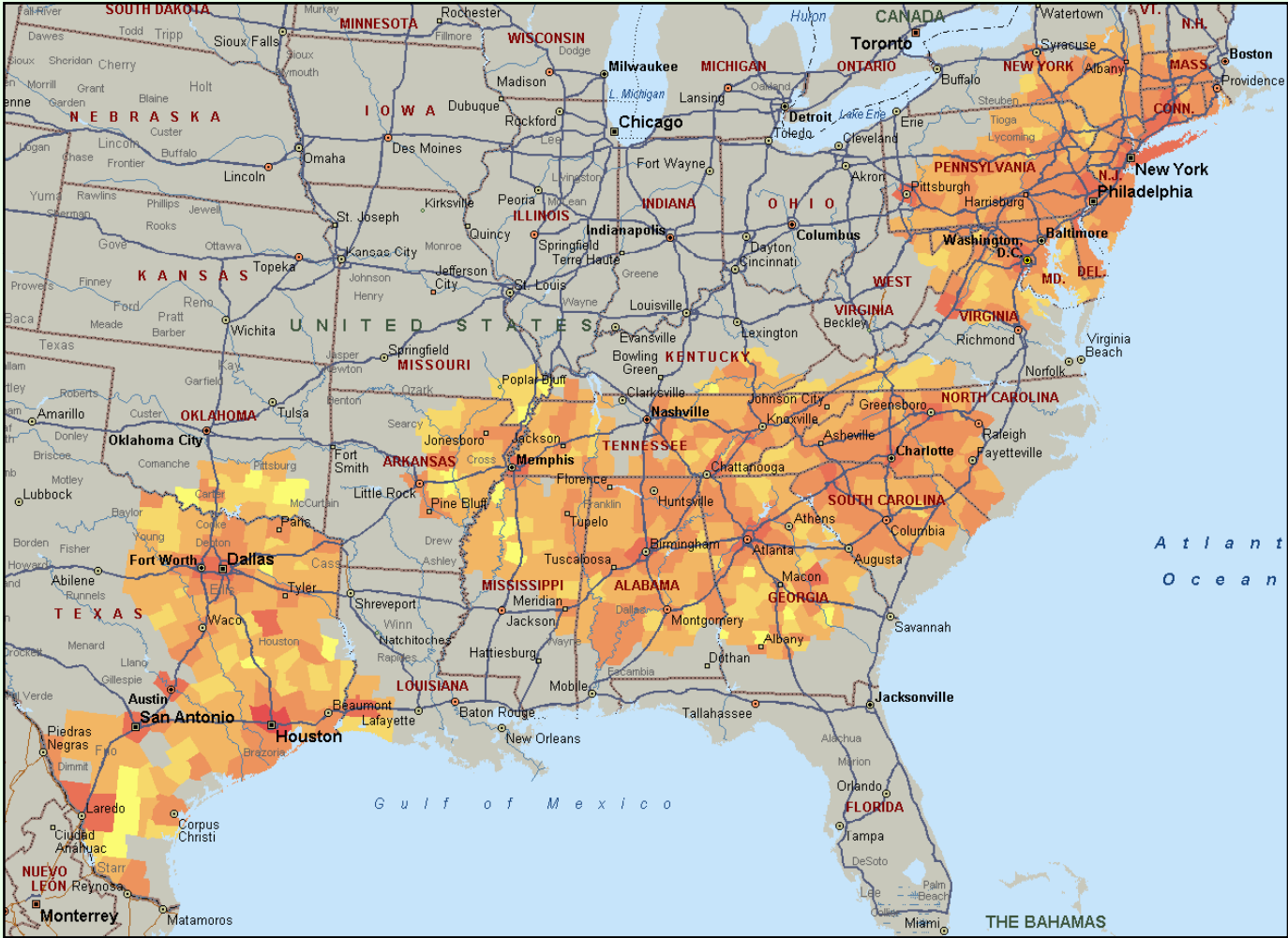
Crescent Corridor Demographics

- 26 percent of US population
- 30 percent of manufacturing output
- 24 percent of Interstate land miles

		Crescent Application States	Beneficiary States	GRAND TOTAL	Crescent Application and Beneficiary States
Total Population (000)	2008	34,033	44,803	78,835	
	% of U.S.	11%	15%	26%	
Manufacturing Output (m\$)	2008	625,892	1,029,624	1,655,516	
	% of U.S.	11%	19%	30%	
Miles of Interstate Highways	2007	5,585	5,608	11,193	
	% of U.S.	12%	12%	24%	
Class 1 Route Miles	2008	16,786	17,360	34,146	
	% of U.S.	12%	13%	25%	

Data sources: Population - Woods & Poole; Manufacturing - Global Insight; Highways - FHWA; Railroads - AAR

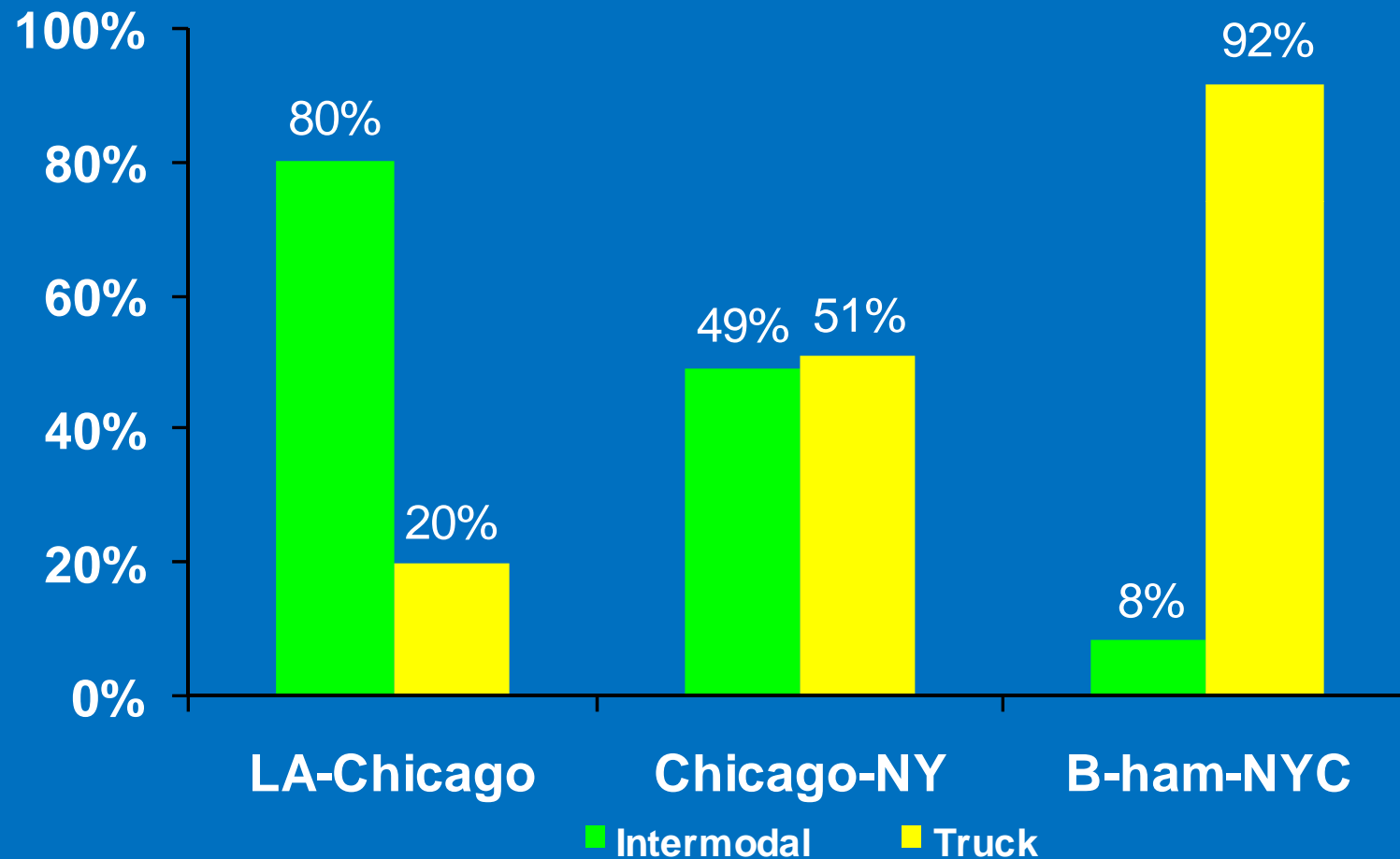
Market Assessment of Freight Volumes



Crescent Represents Significant Potential

- Long haul intermodal services along I-20, I-40, I-59, I-75, I-78, I-81, I-85 and I-95. Corridors are largely undeveloped for intermodal and there are historic and commercial reasons for this.
- Market share very low for rail intermodal.
- Significant highway congestion on portions of these routes, and a high proportion generated from freight.
- Existing trucker interest in developing services in this corridor; and we will explore carload opportunities.
- **Well over one million divertible truckloads in this corridor;**
 - **Requires NS be competitive with single-driver transit times and with high reliability/consistency in the service**

Rail Intermodal vs. Truck Market Share



Transit Times Will be Truck Competitive

Targeted Schedules

Memphis

Harrisburg – 29 hours

Memphis

Philadelphia – 46 hours

E. Tennessee

New Jersey – 30 hours

Birmingham Transit Times Must be Truck Competitive

Initial Schedule Goals

Birmingham

Bethlehem, PA – 33 hours

Birmingham

Greencastle, PA – 27.5 hours

Intermodal Site Selection Criteria

Some factors considered include:

- Locate along rail mainline used for intermodal traffic
- Contiguous to rail line for head-in and head-out moves
- Flat or gently rolling land adjacent to level rail mainline, at similar grade
- Rail mainline must have straight sections to allow switches to be installed.
- Avoid at-grade crossings or realign road or construct grade separations. Completed facility layout requires a crossing free zone of approximately three miles.
- Facility requires additional length for lead tracks - allows loading tracks and storage tracks to be switched without blocking public highway grade crossings or rail mainline.
- Design facility to allow for adjacent economic development opportunities.

Typical Facility Layout



What a Typical Crescent Corridor Train Will Look Like





LLOYD TRIESTINO

UNIC

MAERSK

5000

750

111







Crescent Corridor and DC

- Volume:
 - 200,000+ trucks off I-95 around DC (full Crescent)
 - Confirmed by trucking companies
- Markets: between Philadelphia/Harrisburg and Charlotte/Atlanta
- Routings: confirmed by surveys at weigh stations on I-95 and I-81
- Public Benefits Study: Cambridge Systematics

Clean, Green Relief for Congested Roads



Projected 2020 Interstate Highway Congestion
 (Source U.S. Department of Transportation) *

- Not Congested (LOS A, B)
- Approaching Congestion (LOS C)
- Congested (LOS D, E, F)
- - - - Norfolk Southern Crescent Corridor

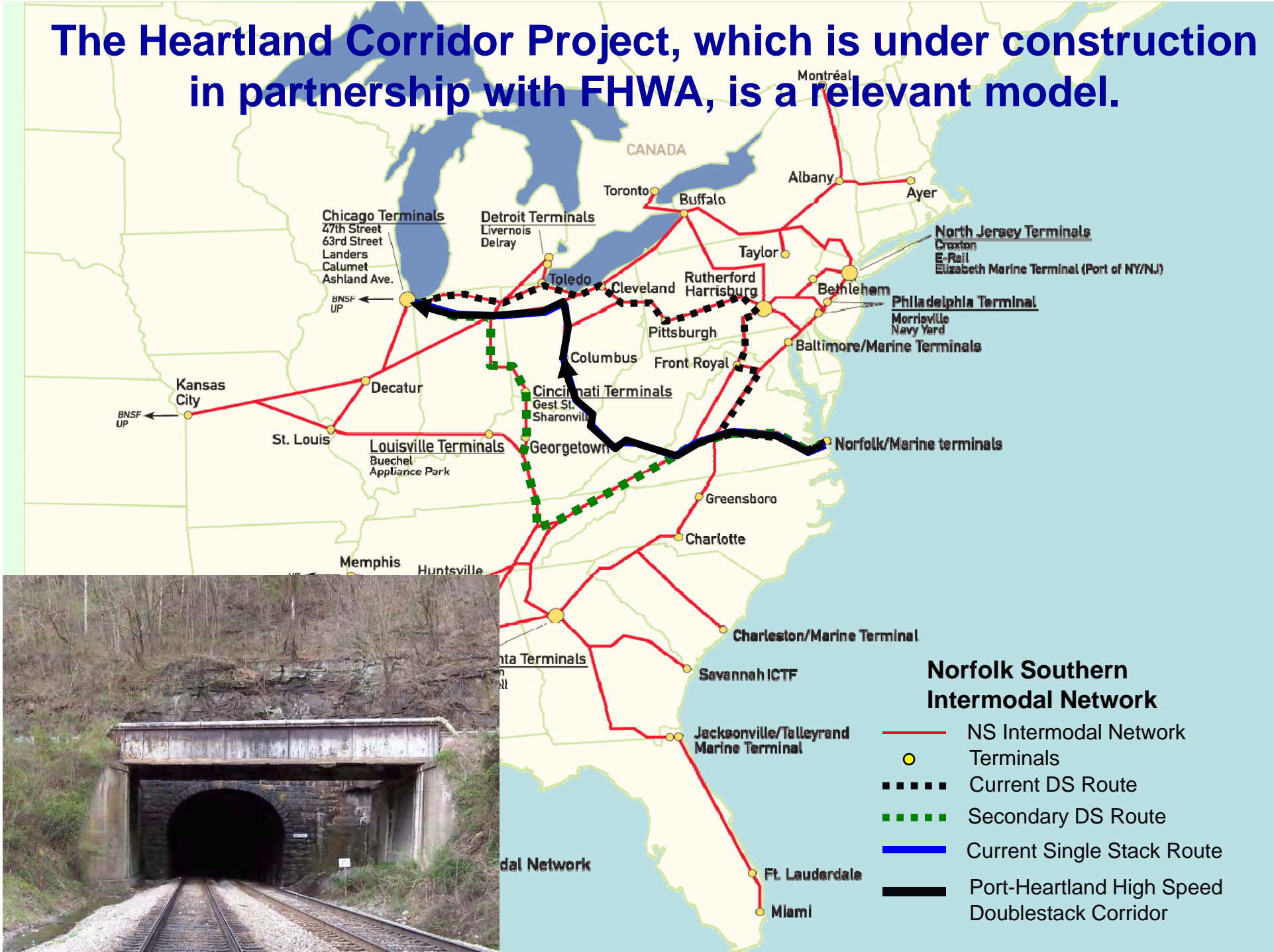
* The DOT estimates that congestion will increase significantly by 2035.
 Not all interstate highways or rail lines shown

Benefits to Maryland

884,000
 4.1 Million Gallons
 46,000 Tons
 \$25.7 Million
 \$3.6 Million

Annual Trucks Diverted to Rail
Fuel Saved per Year
CO₂ Reduction per Year
Annual Congestion Savings
Cost of Accidents Avoided

The Heartland Corridor Project, which is under construction in partnership with FHWA, is a relevant model.



Crescent Corridor Critical Success Factors

- Individual Projects across 12 states
- Timeline for Implementation extremely important for commercial success
- Existing Model for Heartland Corridor is preferred

Thank you

