

# 2017 AASHTO SCOBS Bridge Meeting

Spokane, WA – Davenport Grand Hotel – June 2017

## Update on FHWA's Long Term Bridge Performance Program

Contact: ***Rob Zobel, Ph.D., P.E.***  
FHWA LTBP Program Coordinator

Presenter: ***Ben Graybeal, Ph.D., P.E.***  
FHWA Team Leader: Bridge Engineering Research



## Long-Term Bridge Performance Program

# LTBP Program Focus Areas – Near Term

### **Data Collection**

Untreated Bridge Decks  
Treated Bridge Decks



### **Programmatic Support**

Coordination, protocol development,  
bridge portal, gap analyses, etc.



### **Data Access**

Provide data access via  
LTBP Bridge Portal



## Long-Term Bridge Performance Program

# Field Data Collection

*NDE, Visual Inspection, Material Sampling*

*Mid-Atlantic Clusters*

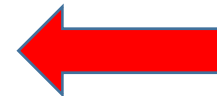
*(2)*



*NW and  
SW Clusters (2)*

*Gulf Clusters (2)*

- Third round – 2 Mid-Atlantic Clusters (*Spring 2017*)
- First round – 4 clusters NW, SW, Gulf (2) – *Complete*
- Initiate Data Collection in Clusters/Corridors  
Nationally – (*Late 2017 – Early 2018*)**



## Long-Term Bridge Performance Program

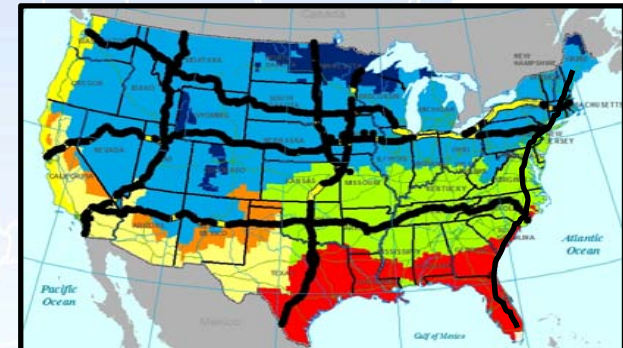
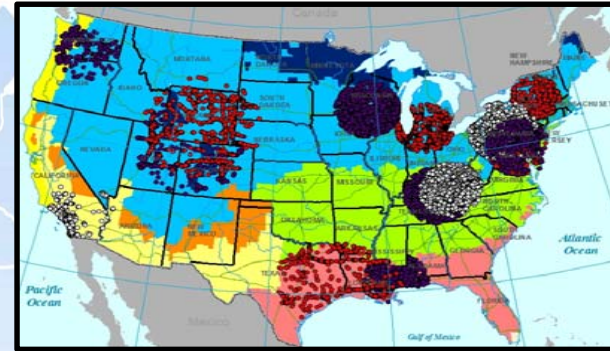
### *Field Data Collection* *Legacy Data Mining*

#### Untreated Decks

- ❑ 4 clusters in NE region  
*> 400 Bridges - Data Collection/Extraction Complete*
- ❑ 10 Corridors, 10 Clusters  
*> 1200 Bridges - Data Collection/Complete Summer 2017*

#### Treated Decks

- ❑ Legacy Data Mining for *Treated Decks*  
*Initiate Late 2017*



# Long-Term Bridge Performance Program

## *Program Focus Areas - Data Collection*

LTBP Bridge Breakdown							
Untreated Decks				Treated Decks			
Steel Multigirder		Concrete		Steel Multigirder		Concrete	
		Prestressed Concrete Multigirder	Prestressed Concrete Box			Prestressed Concrete Multigirder	Prestressed Concrete Box
Steel Coatings		Prestressing Strands		Steel Coatings		Prestressing Strands	
Bearings	Joints	Bearings	Joints	Bearings	Joints	Bearings	Joints

*Near Term Data Collection Focus*

# Long-Term Bridge Performance Program

## Program Focus Areas – Data Collection

LTBP Bridge Breakdown					
Untreated Decks			Treated Decks		
Steel Multigirder	Concrete		Steel Multigirder	Prestressed Concrete Multigirder	Prestressed Concrete Box
	Prestressed Concrete Multigirder	Prestressed Concrete Box			
Steel Coatings	Prestressing Strands		Steel Coatings	Prestressed Concrete Multigirder	Prestressed Concrete Box
Bearings	Joints	Bearings	Joints	Bearings	Joints

**Studies for Development of Protocols in Progress**

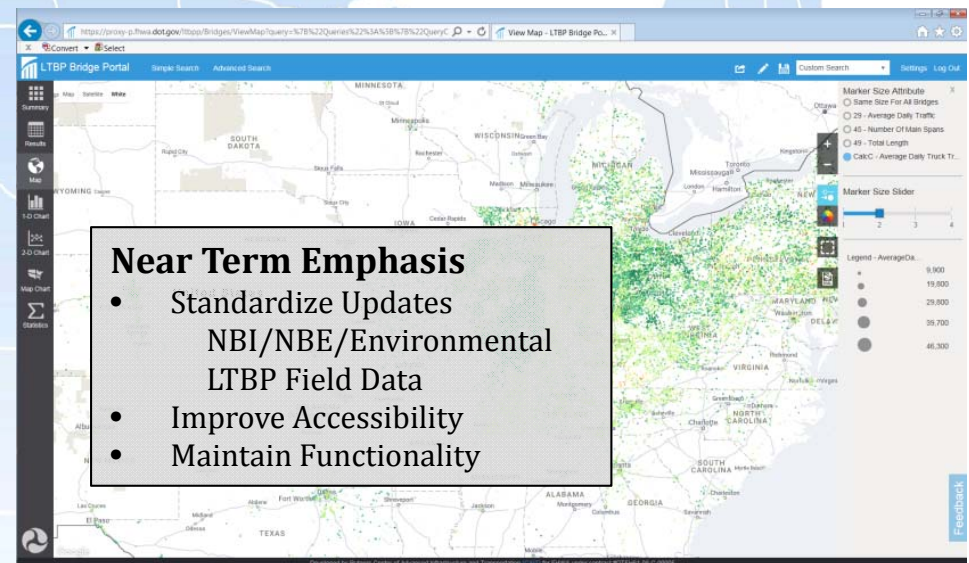
**Legacy Data Mining to Begin Soon**

**Preparation for Data Collection for Treated Bridge Decks**

## Long-Term Bridge Performance Program

# Program Focus Areas – Data Access

- The LTBP Bridge Portal has been updated and is currently available
- Update includes search enhancements, modeling updates, new user interface features, and data updates
- NBI and NBE, Legacy Data, and LTBP Deterioration Modelling Implemented



***Next Major Update  
Expected in Summer 2017***

# Long-Term Bridge Performance Program

## Program Focus Areas – Programmatic Support

*Coordination meetings with states, FHWA, contractors, subcontractors, etc.*

*Quality Assurance of Raw and Analyzed Data*

*Communication and Dissemination*



*Strategic Research Matrices*

*Bridge Deck Performance Analysis and Modeling*

*Data Gap Analyses (untreated and treated decks, joints, bearings)*

*Development/Refinement of Protocols (Treated Decks, LT Monitoring)*

*Assessment of ND and SHM Technologies*



## Long-Term Bridge Performance Program

***Implementation ..... Two New Contracts:***

**Programmatic Support**

Technical Support Services Contract (TSSC) – *recently awarded*

**Field Data Collection Support**

Data Collection Contract –  
proposals received – *expected to be awarded Summer 2017*

# 2017 AASHTO SCOBS Bridge Meeting

Spokane, WA – Davenport Grand Hotel – June 2017



## Update on FHWA's Long Term Bridge Performance Program

Contact: ***Rob Zobel, Ph.D., P.E.***  
FHWA LTBP Program Coordinator

Presenter: ***Ben Graybeal, Ph.D., P.E.***  
FHWA Team Leader: Bridge Engineering Research