FTA Climate Change Adaptation Initiative

- **Policy Framing:** Dear Colleague Letter and Policy Statement describe climate impacts on FTA goals and commits FTA to action
- **Synthesis:** “Flooded Bus Barns and Buckled Rails” Report examines climate impacts, strategies, and risk management
- **Outreach:** Workshops and webinars
  - March 2012 FTA Workshop on Climate Adaptation
  - Have held three peer exchange webinars
- **Pilots:** Delve more in-depth on climate impacts on particular transit agencies, potential adaptation strategies, and mainstreaming into transit practices
  
  www.fta.dot.gov/adaptation
Climate Change and Impacts on Public Transportation
Background: Heat Waves

U.S. average temperature has risen more than 2°F over the past 50 years and heat waves have become more frequent and intense.

By 2100, most areas of the country are projected to see an additional 40-80 days per year over 90°F.

Heat kink de-rails DC Metro train July 6, 2012. 55 passengers evacuated, severe delays, emergency track work performed, scheduled track work cancelled.

Heat Impacts on Transit: overheated electrical equipment, stretched catenary wires, overheated vehicles, failed A/C, rail buckling, stressed materials, asset life reduction.
Background: Heavy Rain and Snow

Recent increases:
1958 - 2007

Future increases:
100-yr floodplain width projected to increase 45% on average by 2100.
– FEMA commissioned study

Source: USGCR P 2009

Percentage Change in Very Heavy Precipitation
0 - 10% 10 - 20% 20 - 30% 30 - 40% 40 - 50% >60%

Philadelphia
Nashville
Chicago
Houston
FTA Adaptation Workshops and Webinars

• APTA Sustainability Workshops
  – August 2011 in Los Angeles, CA
  – August 2012 in Philadelphia, PA

• March 2012 Workshop on Climate Adaptation in Washington, D.C.

• Webinars – Have held three peer exchange webinars with the pilot projects
  – Fourth Peer Exchange scheduled for May 21, 2013
FTA Climate Adaptation Pilots

7 Pilots – $1 million total – Completion August 2013

- Sound Transit, Seattle
- BART, San Francisco
- LACMTA, Los Angeles
- SEPTA / ICF, Philadelphia
- CTA, Chicago
- MARTA / Georgia Tech, Atlanta
- Metro (Houston) / Island Transit (Galveston) / HART (Tampa) / Texas A&M Transportation Institute

AK & HI not to scale
Objectives of the Pilot Projects

• Increase knowledge of how transit agencies can adapt to climate change (including costs and savings, strategies, and mainstreaming into transit practice)
• Advance the state of the practice in adapting transit assets and operations to the impacts of climate change
• Assess lessons learned for application to other transit providers
• Build strategic partnerships between transit agencies and climate adaptation experts

Need to be able to tell the story to other transit agencies by having concrete examples from the pilots:
• Adaptation is just better planning
• Climate change is another factor we must include
• We must think about future conditions
• Saves money in the long run
• Some are already doing this and having success
General Approach for the FTA Climate Adaptation Pilot Projects

• Identify climate hazards and potential climatic events
• Characterize risk on transit assets and operations
• Develop initial adaptation strategies
• Link strategies to organizational structures
• Final Report
Hurricane Sandy

- New York City Transit (NYCT) stations and tunnels in Lower Manhattan, and the line in the Rockaways, were severely impacted by extensive flooding.
- Metro North Railroad experienced extensive flooding of its Hudson Line and catenary damage on the New Haven Line
- NYC DOT ferry slips and terminals were severely impacted by winds, severe flooding and storm surge.
Hurricane Sandy Response: Disaster Relief Appropriations Act of 2013

• Signed by President Obama on January 29, 2013
• Appropriates $10.9 Billion for FTA’s Emergency Relief Program
  • $2 billion to be allocated by March 30th (60 days from January 29th)
  • $8.9 billion upon Interim Final Rule and Memorandum of Agreement with FEMA
  • $5.383 billion may be used for projects to reduce the risk of damage from future disasters in areas affected by Hurricane Sandy
  • $6 million for oversight by DOT’s Office of the Inspector General
  • 0.75% set-aside for administration and program management oversight
• Requires all funds to be expended within 24 months of obligation
• Funds are for specific areas (counties) in 12 States designated as disaster areas for Hurricane Sandy: http://www.fema.gov/disasters
Contact Information

Brian Alberts
Program Analyst
Federal Transit Administration
(202) 366-3600
Brian.Alberts@dot.gov

Ray Tellis
Senior Transportation Program Specialist
Federal Transit Administration
(213) 202-3956
Ray.Tellis@dot.gov