Current Non-Infrastructure Research at LTRC

Peer Exchange Meeting, 05/13/08
Areas

• Safety
• Environmental
• Highway
• Financial
• Data Processing
• Modeling
Safety Projects

• Highway Crash Data Analysis System with GIS
  – Query on temporal, spatial, and site conditions
• Statewide Traffic Safety Study
  – Identify factors contributing to high crash statistics in Louisiana
• Safety benefits of lane and speed restriction of trucks on I-10 over Atchafalaya Basin
  – Compliance, before-and-after crash statistics, opinion survey
• Crash Reduction Factor Study
  – Develop CRF’s for Louisiana
Environmental

- LOOP Environmental Monitoring Project
  - Since early 1980’s
- Wastewater treatment at Rest Areas
  - Rock filter and bead filter
- Water quality of road runoff
  - Treatment of first flush runoff
Highway

• Traffic Sign Inventory
  – Database and estimate of retroreflectivity
• Pavement Marker Retroreflectivity
  – Assess best product for circumstances
• Edge Line on Two-Lane Rural Roads
  – Before-and-after on 60-100 sites
• Work zone Lane Drop Merge Areas
  – “Zipper” design
Financial

• TIMED Financial Model
  – Estimate fund condition under different scenarios
• Trends in Highway Construction Costs
  – Factors affecting construction costs
• Impact of hurricane Katrina on highway construction costs in Louisiana
  – Immediate 50% increase reducing to 30% over 2 years, and now remaining stable.
Data Processing

• Data Warehouse
  – Identify required features

• ITS Lab
  – Exploit data from ITS sensors
Modeling

• Statewide Intermodal Plan

• Evacuation Demand Modeling
  – Time dependent departure, destination choice, and route selection

• Contraflow Design
  – Design of initiation and termination points