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 retroreflecivity
- 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
  - 1995, repeated by consultants in 2001.
- Evacuation Demand Modeling
  - Time dependent departure, destination choice, and route selection
- Contraflow Design
  - Design of initiation and termination points