Vehicle Probe Project

North Carolina Department of Transportation Status Update

July 16, 2009
North Carolina (updated)

• Utilizing VP data within the Statewide Monitoring System
  – Entering events into both our Travel Information Website and in the 511 system
  – Detecting and verifying incidents;
  – Providing information to callers that are routed to the Statewide Transportation Operations Center from 511
  – Currently using only VP data but plan to combine with sensor data in the future
North Carolina (cont’d)

• Final review of the integration of the monitoring site mapping (red, yellow, green)

• Next step for website:
  – Add automatic congestion incidents
  – Show speeds on segments when they drop below a certain threshold.
North Carolina (cont’d)

• Currently working on integrating Travel Times into our 511 system. TT’s in urban areas will have ability to chose begin/end; TT’s in rural areas will be based off of predetermined cross streets. (Available mid/late August)

• Getting ready to let RFP for Statewide Software Integration that will include utilizing VP data for Automated Travel Times to NC’s DMS.

• Working with IT to develop statewide Data Archiving Database to use data for performance measures

• In the future, Planning Department may utilize the VP data
North Carolina (cont’d)

Current DMS Travel Time Methods

Travel Time To:
Exit 42, 15 Miles  15 Min
Exit 50, 22 Miles  22 Min

TRAVEL TIME TO
I-405  12-15 MIN
HWY 26  10-12 MIN
North Carolina (cont’d)

Virtual Message Sign Approach

• Emulates a DMS sign in a voice “report”

“Travel time on I-95 North from exit 27 to exit 42, 15 minutes”
North Carolina  (cont’d)

Virtual Message Sign

- Must get input from the caller
- Plays the travel time to the next several “significant exits”
- Playback report is “tunable” and can be modified based on feedback
North Carolina (cont’d)

Travel Time Report Format

• What information should be played to the caller?

• Examples:
  – “I-95 Travel time to:”
    • “Exit 42, 17 minutes”
    • Or
    • “Exit 42, 15 miles, 17 minutes”
    • Or
    • “Exit 42 at Fayetteville, 15 miles, 15 minutes”
Virtual Message Sign Sample Caller Interaction

- **System:** On what interstate are you traveling?
- **Caller:** I-95
- **System:** Are you traveling North or South?
- **Caller:** North
- **System:** At what exit or mile marker are you currently located?
- **Caller:** Exit 27
- **System:** Travel time on I-95 North from Exit 27 to:
  - Exit 42, 15 minutes;
  - Exit 50, 22 minutes;
  - Exit 55, 27 minutes; Would you like to hear that again?
- **Caller:** No
- **System:** Would you like to hear further travel times for this interstate?
- **Caller:** Yes
- **System:** I-95 North travel time to: Exit 70, 42 minutes…
North Carolina (cont’d)

Next Steps?

• Get travel times on 511 relatively quickly
• Get feedback from end users and modify if necessary
• Web based subscription component for commuters?
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Thank You