

New York City Sub Regional ITS Architecture Functional Area Meeting Minutes

Functional Areas: Commercial Vehicle Operations & Electronic Toll/Fare/Parking #1
Location: MTA 2 Broadway, New York City
Meeting Date: February 27, 2003
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Commercial Vehicle Operations (CVO) Functional Area Meeting (9am - 12pm)

1. Introductions/Service Announcements
2. Presentation / Q&A
 - What is a *Regional ITS Architecture* (according to FHWA Rule 940/FTA Policy)?
 - NYC Sub Regional ITS Architecture Development Process
3. Commercial Vehicles Operations Issues Discussed
 - Weigh-in-Motion
 - City Issued Special Hauling Permits
 - Alarm Systems for Overdimension Vehicles entering Bridges/Tunnels
 - Stopped/Stalled Vehicle Detection
 - Traveler Information for CVO Loading Zone monitoring and Curbside Accessibility
 - Traffic/Weather/Air Quality Management
 - CVO Value Pricing
 - Loading Zone Monitoring and Accessibility
 - Vehicle Classification
 - HAZMAT Incident Management

Weigh-in-Motion

- Beneficial for weighing vehicles before entering toll facility.
- Potentially charging tolls by weight.
- Compare vehicle weight vs. permit info on vehicle. tag to detect violations/pull-in
- There are weight limits
 - CV Operator interacts with NYC Permits Office
 - CV Operator also requires permission from MTA Facility TOC (Facility Engineer)

- In the Long Term MTA B&T-wide (through OCCC) and not specific facility
- NYC then issues the permit
- NYPD Motor Carrier Enforcement Division violation enforcement at MTA B&Ts

City Issued Special Hauling Permits

- Broker handles (expedites) permits for commercial vehicle operators for overdimension
- City already has overdimension criteria from MTA B&T
- There is a benefit to automating the application process via internet interface

Alarm Systems for Overdimension Vehicles entering Bridges/Tunnels

- Overdimension detection (field equipment)
- CCTV system for monitoring trucks entering the facility
- Security officers also play a role in detection
- Rerouting is a major issue
- Overheight detection equipment would be connected to an electronic sign. Triggers alarms that are sent to local officers. Equipment may be on “other agencies” right-of-way. B&T TOC Facility desk is notified for immediate local response – based on filters, automatically notifies the MTA B&T OCCC.
- Also detection at ports/airports, freeways, roadways.
- Consider a network to share overdimension/hazmat excessive speed information among bridge/tunnel facility operators
 - E.g. in-motion radiation-detection monitoring systems
- Also detection of ammonia compounds
- X-Ray systems

Traveler Information for CVO

- Currently TRANSCOM
- Make information about vehicle dimension limits available on web site and accessible to CVO operators (?? Potential issue with providing this information without also providing alternative route information)
 - MTA B&T OCCC → facility restrictions → TRANSCOM
 - Static, scheduled and unscheduled facility restrictions

Stopped/Stalled Vehicle Detection

- Through CCTV and in the future more loops
- Detection information would be available to Facility TOC and B&T OCCC

Traffic/Weather/Air Quality Management Issues

- Weather Systems

- Surface Weather Information, Roadway Weather Status
- Pay a meteorologist to create forecasts from information
- Anti-icing equipment
- Monitoring of air quality in tunnels – biological/hazardous
- For traffic mgmt – use of TRANSMIT for detection
 - Delays at tunnels/bridges
 - Travel times

CVO Value Pricing

- Transponder-based
- Existing at GWB/ Lincoln/Holland Tunnels, NJTP
- ITS Issues:
 - Value Pricing rules should be disseminated perhaps over web site to CV Operators

Loading Zone Monitoring and Curbside Accessibility

- Move City part of discussion as part of → Traffic Management

Vehicle Classification

- Includes CV Counts / Bridge and Tunnel Crossings (archive data)
- Collected at the toll plaza
- Information is sent to revenue department / CSC also receives it
 - Call this the Traffic Data Repository
- MTA B&T Traffic Engineering Archive (all facilities) would archive the data

HAZMAT Incident Management

- Statewide HAZMAT Response System (statewide system)
 - Enter the information about type of hazardous materials
 - Information on immediate response
 - Who to notify
- MTA B&T Primary role is detection and coordination of response with public safety (Fire Rescue, PD)
- CHEMTREK – First responders are connected to this system (type of chemical and what protective measures should be, first aid) – over the phone. Based on placard. And also disposal measures, treatment measures,
- TOC Communications Desk is also Emergency Management Responder
- TOC calls NYC 911
 - Because NYC 911 automatically detects the number

- TOC then notifies MTA B&T OCCC
- Further notifications are to TRANSCOM and FDNY, NYPD from MTA B&T OCCC

Electronic Toll/Fare/Parking (1pm - 4pm)

1. Introductions/Service Announcements

2. Presentation / Q&A

- What is a *Regional ITS Architecture* (according to FHWA Rule 940/FTA Policy)?
- NYC Sub Regional ITS Architecture Development Process

3. Electronic Toll/Fare/Parking Issues Discussed

- Non-toll Opportunities
- Parking Reservation and Information Systems
- Airport Parking (E-ZPass Plus) / Parking Reservation Systems / Parking Garages
- On-street Parking Payment Systems (Muni-Meters)
- PrePass HELP
- Value Pricing / CVO Pricing
- Anonymous Probe Surveillance
- Compatibility with Fare Collection Cards/Smart Cards (Regional Integrated Fare Media)
- Park and Ride

Non-toll Opportunities

- Parking, etc. e.g. - E-ZPass Plus
- Payment for Food in a Drive Thru (example)
 - In the future, update transaction processing in the back-office for non-toll and private sector opportunities. Currently, set up/structured for toll collection.
 - For example, payment methods – this would be in addition/beyond the capabilities of the existing reciprocity network requirements.
 - Challenges related to guarantee of payment
 - Also, Fuel Payment as Service Stations

Parking Reservation and Information Systems

- Shea Stadium Park and Ride/Downtown Flushing Parking Guidance System (Pilot Project Shea Stadium Parking and 3 municipal lots in Flushing)
 - May be expanded to private lots in the future
 - Parking Demonstration Project – currently location of parking lots - (NYCDCP/NYCDOT joint project)

- Includes a web component (in future real-time availability of parking spaces, perhaps parking reservations – future, future)
- Include in discussion with Traffic Management
- Parking Garages
- TRIPS123
- ISP of Parking Occupancy / Future Occupancy
- Member Agencies would provide parking info
 - e.g., Parking Availability at Newark Airport is collected currently

On-street Parking Payment Systems (Muni-Meters)

- NYCDOT System
- Suggestion of use of regional fare payment media (smart card?)
- Suggestion of network connections to Muni-Meters
- Institutional issue of one agency's meters and another agency's transaction fees

Value Pricing / CVO Pricing

- Currently, this is a back-office function only (for tag reader system)
- Central Business District (CBD)
 - E.g., License Plate lookup using video
 - Add this to the Traffic Management Functional Area Meeting (discuss with NYCDOT)

PrePass HELP, Inc.

- Electronic Pre-Clearance
- Thruway is piloting this thru I-95 Corridor Coalition
- Use for CVO clearance at bridges and tunnels, electronic manifest, HAZMAT read through tag

Anonymous Probe Surveillance

- TRANSMIT
 - Travel Times, Speed, Automated Incident Detection, O-D Information (Real-time Monitoring)
 - In-Vehicle Signing through built-in tags and readers
 - 5.9MhZ Spectrum for send/receive messages to/from vehicle
 - Traffic Data Collection (logged for archiving by 15 minute period)
 - Fleet Management at PABT
 - Schedule performance through combination
 - Similar to sign-post systems of “today”
 - Also, AVL
 - Includes functionality to support privacy (e.g., scrambling of tag id in the field as a requirement)

Compatibility with Fare Collection Cards/Smart Cards

- Is there a possibility to use a regional medium for multiple transportation function
- “Single Purse”
 - Have a bank account that allows user to use one or more payment media tied to the single account
- PATH and NYCT to use the same Fare Media