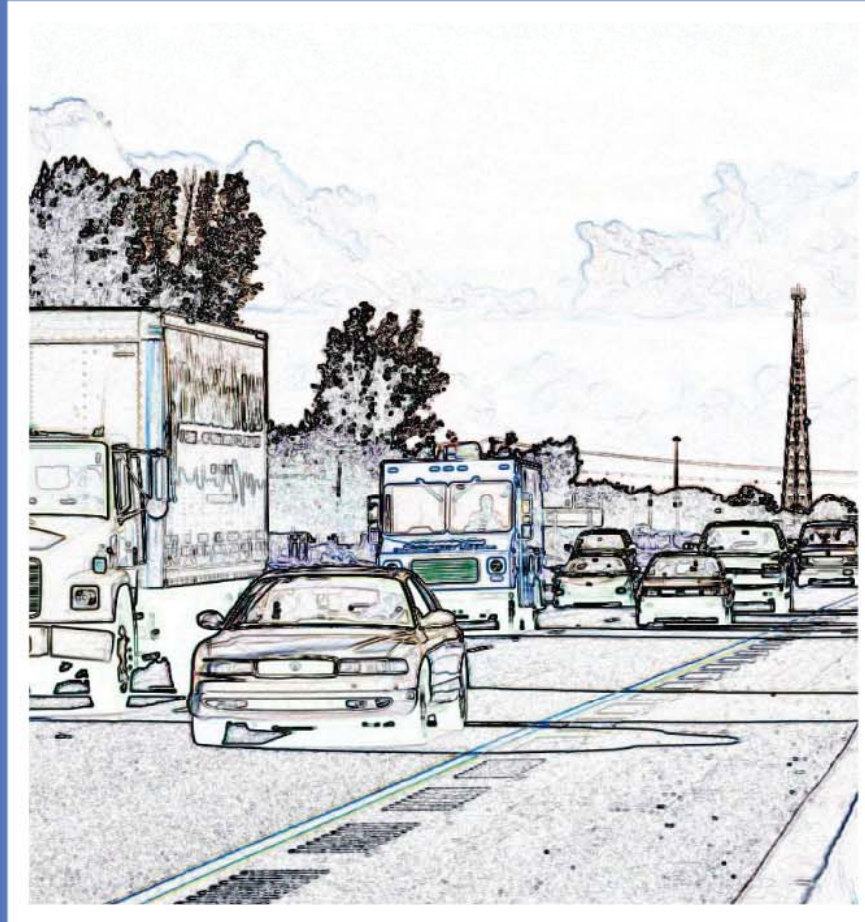


# Florida Department of Transportation



## Intelligent Transportation Systems Program



# FDOT's ITS Program Mission

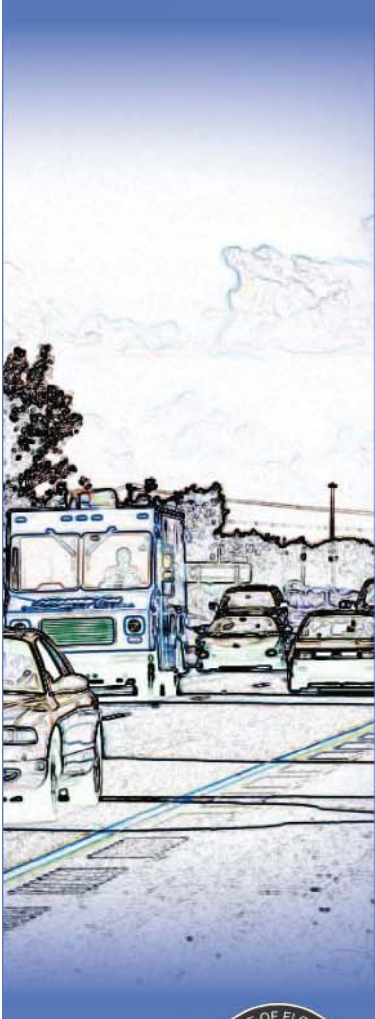
- Provide effective intelligent transportation systems for Florida's travelers that enhances the safety and mobility of people and goods, economic competitiveness, and the quality of our environment and communities by serving commuters, tourists, commercial vehicles, and evacuees.





# FDOT's Commitment to ITS

- Maintains a State Highway System of more than 12,000 centerline miles and 42,432 lane miles
- \$6.8 billion budgeted in Five-Year Work Program to support Florida's transportation needs
- Committed to investing approximately \$883 million in ITS between 2002 and 2019





# Proven ITS Benefits

- ITS transportation technologies enhance safety, improve mobility, support commerce, and help sustain the environment
- Directly improves traffic flow and reduces congestion





# Proven ITS Benefits

- Service patrols – benefit-to-cost ratios ranging from 2:1 to 36:1<sup>1</sup>
  - improved incident clearance also enhances responder safety, reduces the likelihood of secondary accidents, reduces time lost and fuel wasted in traffic backups, and increases customer satisfaction





# Proven ITS Benefits

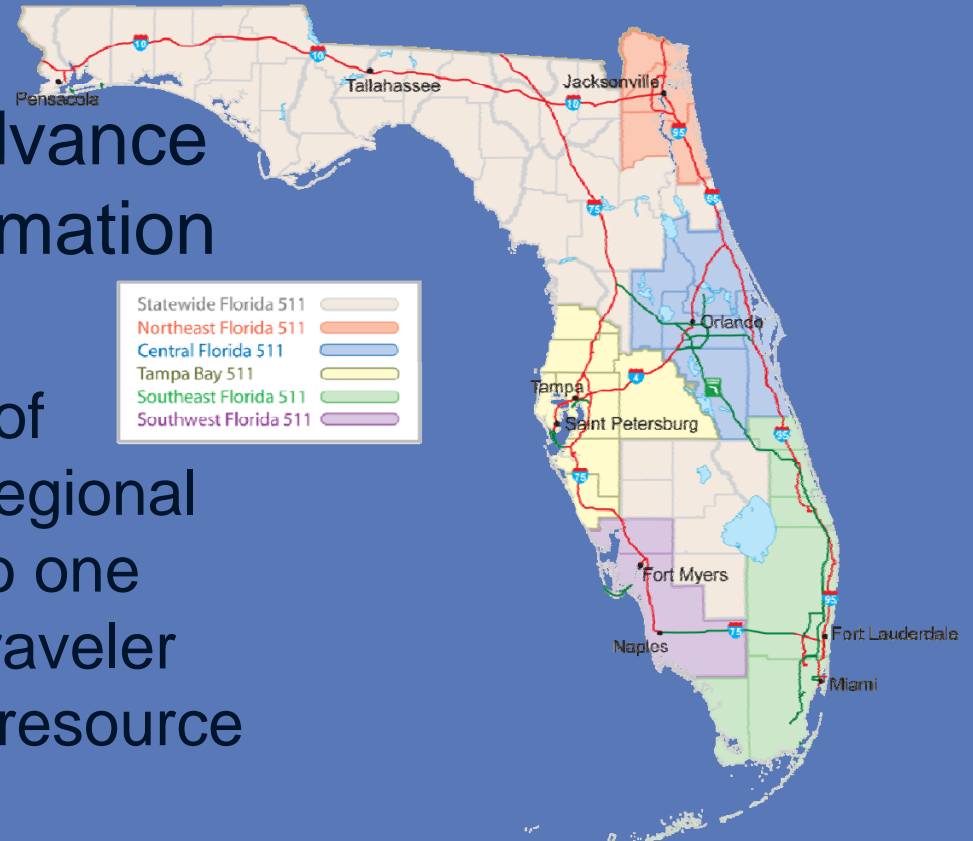
- Traveler information – allows motorists to avoid congestion by pre-planning or altering routes based on information about congestion, incidents, etc.
  - Reduced emissions
  - On-time reliability
  - Better trip planning
  - Reduced early/late arrivals





# Florida 511

- Statewide advance traveler information system
  - Unifying all of the state's regional systems into one integrated traveler information resource





# Florida 511

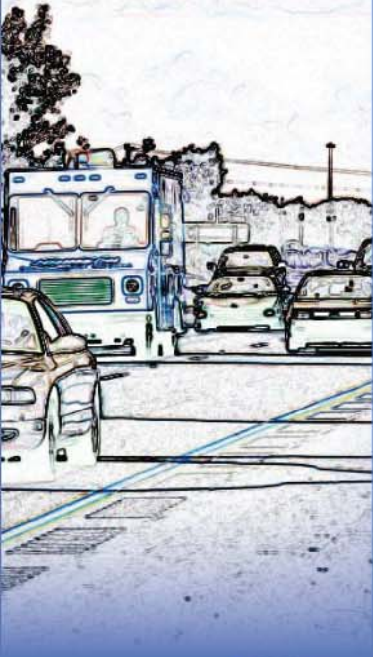


- How do traveler information systems assist motorists?
  - Provides real-time information 24/7
  - Helps users to make informed travel choices
  - Better travel planning
  - Saves time
  - Avoids congestion



# Florida 511

- Florida 511 elements
  - Real-time traffic information
  - Video
  - Personalization
  - Interactive map
  - English/Spanish





# Florida 511



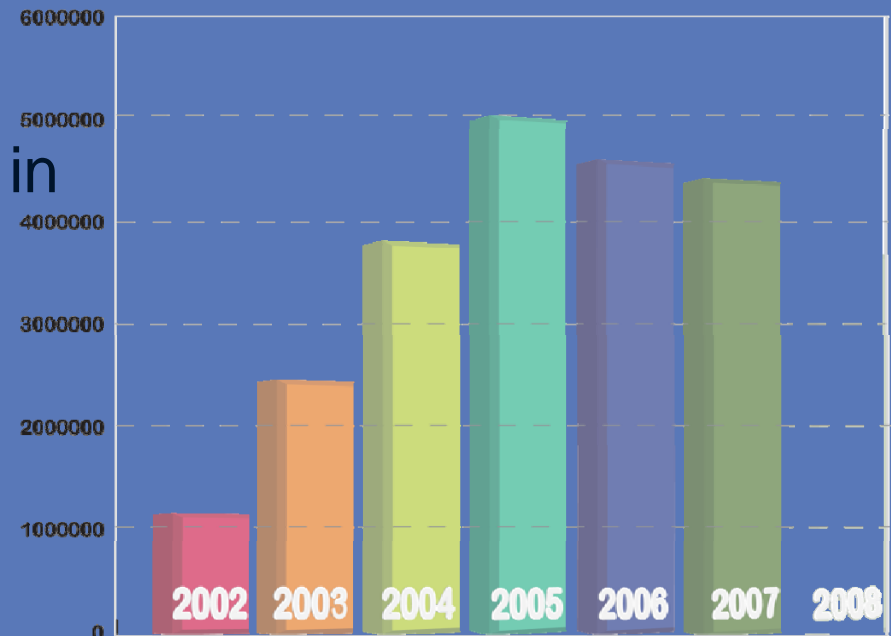
- Data Collection
  - Utilize existing sensors and video
  - Utilize probe data
  - Information from Road Rangers
  - Information from Florida Highway Patrol
  - Develop supplemental data collection systems for gaps



# Florida 511 – Call Counts



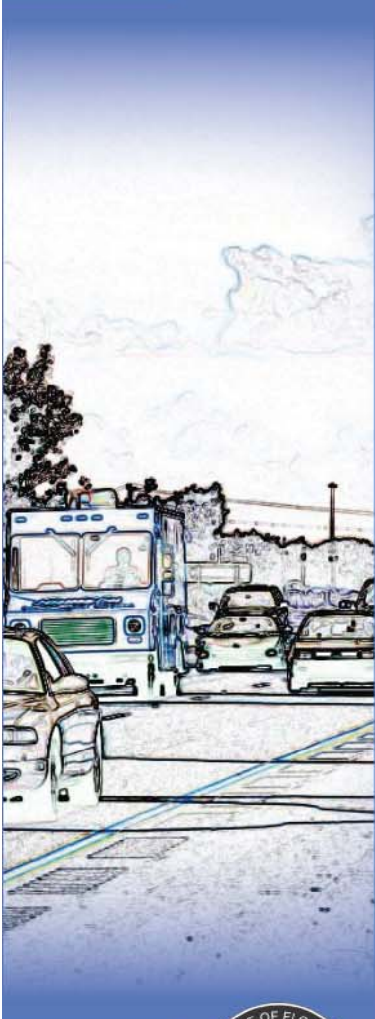
- Rapid increase 2002 to 2005
  - Peaked out at 5,000,000 calls in 2005
- Decreases in 2006 to 2008
  - Personalized services added to system
    - Web site
    - E-alert





# Transportation Management Centers

- Nine out of 12 transportation management centers built and operational
  - Monitor information from closed-circuit television cameras and post on dynamic message signs
  - Provide central location for agency coordination





# Regional Transportation Management Centers





# SunGuide<sup>®</sup> Software

- Facilitates traffic and incident management
- Disseminates traveler information to the motoring public
- Exchanges critical information between agencies
- Collects and reports performance measures





# SunGuide® Software – Meeting the Needs

- Monitor roadside sensors and evaluate traffic conditions using closed-circuit television cameras from TMCs
- Control mechanism for freeway ramp signals and express lanes
- Assist in hurricane evacuation and re-entry
- Continuously collect and store data

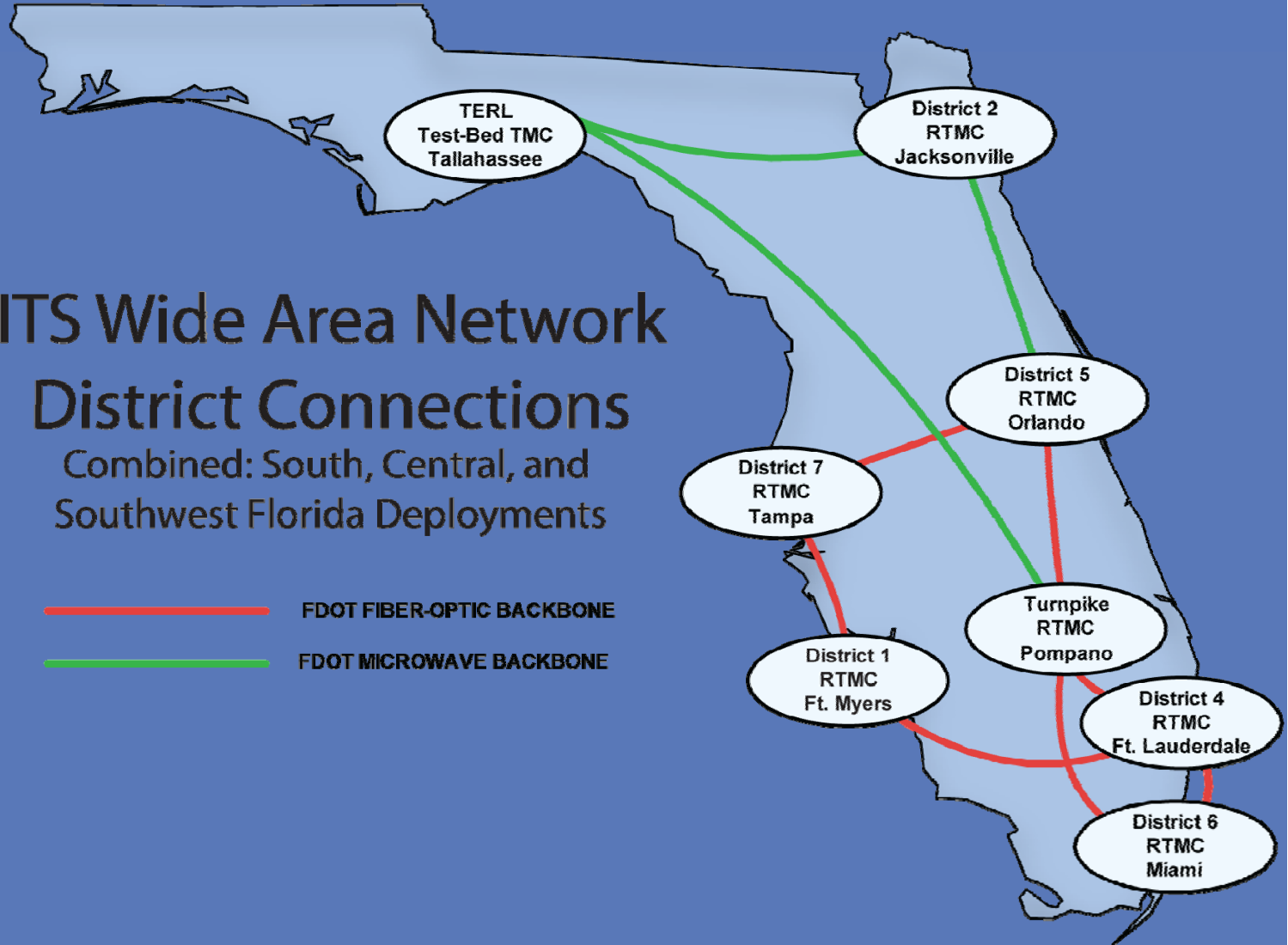




# Wide Area Network – Providing Connectivity

- Uses the statewide microwave system and available fiber
  - Center-to-center communications
  - Inter-district traffic video transmission
  - Other communications, including those supporting traffic operations, incident management, and responses to natural disasters







# Wide Area Network – Benefits

- Enhanced inter-district traffic management
- Improved incident response and clearance times
- Better regional and statewide disaster evacuation management
- Remote management
- Improved decision-making based on real-time information





# Wireless Internet Service

- WiFi® hot spots
  - Internet access to travelers from their own personal computers or PDAs
- Availability
  - All Florida Welcome Centers
  - Florida's Turnpike Enterprise Turkey Lake Service Plaza





# Facility Management

- Establishes a statewide standard software system to manage the FDOT's fiber optic and microwave networks
  - Provides the ability to analyze and troubleshoot fiber optic and ITS networks statewide
  - Capable of tracking ITS device replacement costs





# Road Ranger Service Patrols

- Primary benefits<sup>1</sup>
  - Reduce incident duration
  - Quicker debris removal
  - Assistance to stranded motorists and crash victims
  - Traffic control and management
  - Provide real-time updates

<sup>1</sup> Service Patrol Handbook, Federal Highway Administration, July 2008





# Road Ranger Service Patrols

- Secondary benefits<sup>1</sup>
  - Improved traffic flow
  - Reduced travel time, fuel costs, and vehicle emissions
  - Improved travel time reliability
  - Improved motorist and responder safety

<sup>1</sup> Service Patrol Handbook, Federal Highway Administration, July 2008





# Traffic Engineering Research Lab

- Core responsibility
  - Evaluation of traditional traffic control products and ITS devices
  - Approved Product List





# Transportation System Management and Operations

- New Program within the Department
- Endorsed by the Executive Board in May2010
- Making the most efficient and effective use of existing systems and infrastructure to improve mobility and improve the safety of the travelling public.





# Questions ?