Presentation Will Describe

- Background
- Work Stations
- Video Detection Cameras
- Pan, Tilt & Zoom Video Monitoring Cameras
- Installation, Programming & Maintenance
Background - Then

Brass Gear
Used to Set Cycle Length
Background - Then

Keys in Percentage Setting Used to Set Intervals and Split Times
Background - Then

Three Dials Used to Set Time of Day Plans
Usually Inbound Flow, Balanced Flow and Outbound Flow Each with Its Own Keys All on Same Cycle Length
Background - Now
Problems and Solutions

Retiming the Yellow Change and Red Clearance Intervals of a two-phase signal
Video Detection Cameras

- First installed at Bell St (Maxwell Blvd) and Dickerson Ave
- Four vendors considered
- Can separate lanes of an approach
- Also used for
  - Presence detection for Stop Line detection
  - Pulse detection for main approach
Video Detection Cameras
Problems and Solutions

- Fog Hinders Pixelation Changes for Video Detection
Problems and Solutions

- Thermal Detection not affected by fog or glare for this location of Ann St and Poplar St
Twenty-two Workstations

- ALDOT
- City Engineering
- City Hall
- EMA & 911 – Eight station
- Fire Dept – Four stations
- Police Dept and Two Sub-stations
- Traffic Engineering Dept – Four stations
Pan Tilt & Zoom
Video Monitoring Cameras

- First Installed
  - Madison Ave & Jackson St
  - First installed in Alabama
- First vendor was Philips
- Later included Axis, Bosch, Cohu, Pelco and Video Alarm

- Features
- Limitations
Pan, Tilt & Zoom Cameras
PTZ Used to View Construction
Cramton Bowl Expansion
Pan, Tilt & Zoom Cameras
Pan, Tilt & Zoom Cameras
Pan, Tilt & Zoom Cameras
Special Features Developed
Carousel
Installation, Programming & Maintenance of Our ITS System

- Cameras
- Encoders
- Ethernet Switch
- Fiber Optics
- Tactics Software
- Problems and Solutions
Installation, Programming & Maintenance of Our ITS System

- Infrastructure
  - Common Controller
  - Programming Features

- Communication System
  - Twisted Pair Copper Wire
  - Fiber Optic Cable
  - Radio Communication
  - Wireless Cloud
Installation, Programming & Maintenance of Our ITS System

- System Status
  - 385 Signalized Intersections
  - 400 Video Detection Cameras of City
  - 250 Cameras on Blvd SCATS Project
  - Communications to 270 Intersections
  - Additional 25 in the near future
  - 46 Pan Tilt Zoom Cameras

- Other options being considered
  - Radar Detection
  - Wireless Magnetometer
Video Detection Example

- Atlanta Hwy & Perry Hill Rd
Video Monitoring Example

- Atlanta Hwy & Taylor Rd
Video Enforcement Example

- Ann St & Highland Ave
Summary

- **Video Detection**
  - For traffic signal timing
  - Done by Traffic Engineering Dept

- **Video Monitoring**
  - For evaluation and incident response
  - Done by Traffic Engineering Dept

- **Video Enforcement**
  - For red light running & speeding
  - Done by vendor for Police Dept
ITS Applications
City of Montgomery
Summary

Any Questions? Call Bubba...

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