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Safety Service Patrol Idea Sharing Network – Session IV: SSP Equipment and Vehicles



CHART - MV2101 Video Solution



Coordinated *Highways* Action Response *Team*



CHART

Coordinated *Highways* Action Response Team

The Maryland Department of Transportation's / State Highway Administration's emergency traffic incident management team.



CHART – MV2101 Video Solution

SKYLINE Technology Solutions

High Level Specifications

- Rugged and weatherproof enclosure designed for extreme outdoor environments
- Hardened Pan/Tilt/Zoom camera with vibration dampening
- High performance, mission critical cellular gateway
- Highly efficient H.264 video stream with remote PTZ control



Camera Specs

- Autofocus 3.44mm – 122.4 mm lens.
- 36 power optical zoom with 12 power digital zoom.
- Automatic Focus, Gain, White Balance, AE Control.
- Ruggedized aluminum housing.
- NTSC (380k pixels) or PAL (440k pixels).
- Highly efficient H.264 video stream with remote PTZ control.
- Signal to Noise Ratio - >50 db
- ¼” EXView HAD CCD Device (progressive Scan).
- Minimum Illumination 1.4 lux (typical)(F1.6, 50 IRE)
- Image Stabilization
- Near IR Cut Filter



Wireless Specs

- Approved by Verizon, AT&T, Sprint, Rogers, Bell, Telus, Telstra.
- Operates on multiple Network Protocols.
- VPN
- Ipsec, SSL, and GRE Client
- Security
- IKE Encryption
- Port Forwarding & DMZ
- Port Filtering
- Trusted IP
- MAC Address Filtering



Video Streaming

Compression

- MPEG – 4
- Motion JPEG

Resolution

- 176 x 120 to 720 x 576

Frame Rate

- 30/25 (NTSC/PAL) fps

Time Delay

- 7 Sec. Average

Bandwidth

- Approx 190 kps

Image Settings

- Compression, color, brightness, contrast
- Rotation
- Aspect ratio
- Mirroring
- Text & image overlay
- Privacy Mask
- Enhanced deinterlacing



Camera Control

- Remote Control from TMCs
- Pan/Tilt/Zoom w/ 100 presets
- Pan/Tilt/Zoom Control Queue
- Guard tour
- Supports Windows compatible joysticks

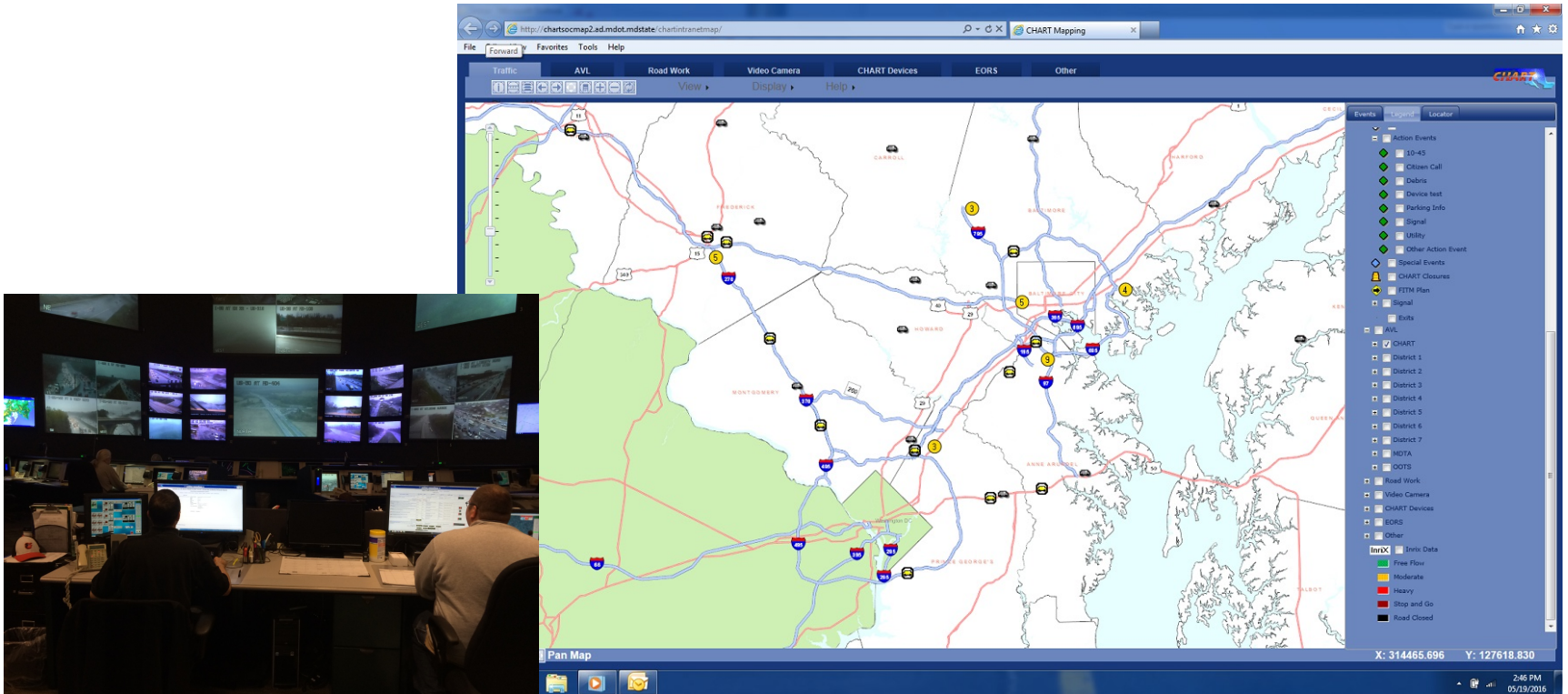


Camera power is controlled by ignition. Key on – camera on.



GPS

Able to identify units at incidents, and determine closest for response.



Mobile Video vs. Pole Video

Mobile

- Cellular Service
- Varied locations
- GPS location-driver safety
- Verify incident location
- Maintenance-can be driven to tech
- Price plus installation-approx. \$17,000

Pole

- T1 lines
- Fixed and limited sight
- Maintenance-not as easy
- Price installed-approx. \$90,000
 - Plus another \$10,000 for engineering, planning, acquisition, etc.
 - Plus variables (hit granite, change in cabinet location, etc.)



Recording Video

Pros

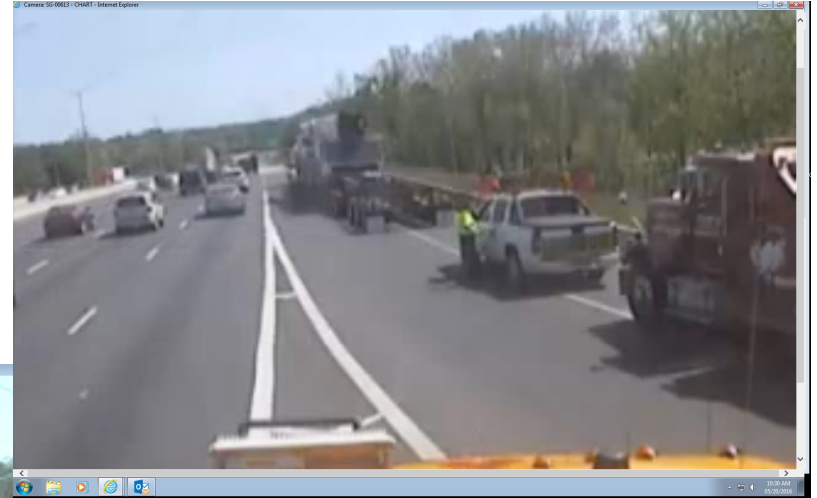
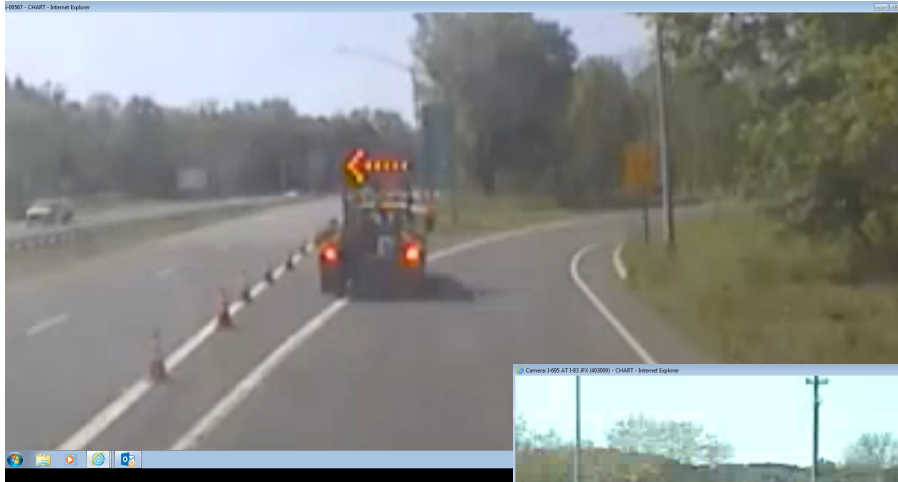
- No Audio
- After Action Reviews
- Training
- Short Overwriting Loop
- Evidence

Cons

- Public Requests - FOIA
- Server storage space and cost
- Policies and Procedures for storage and retention
- Retention period – custodian of records
- Audits and Legal Review



Real Time, Close-in, Scene Status



Response Unit as it Arrives at an Incident



Preset positions make selection quick and easy for TMC operator.



