

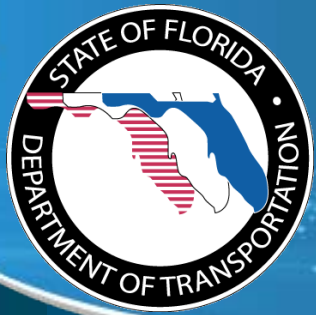
Change Management Board Meeting

Monday, September 23, 2013

Video Conference: CO- Burns Video Bridge 2

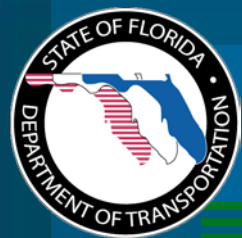
Audio Only: 850 - 414 – 4976

GotoMeeting: <https://www2.gotomeeting.com/join/340067778>



Welcome and Call for Quorum

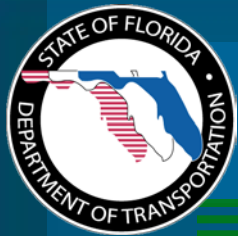
Javier Rodriguez, P.E., CMB Chairman



Agenda



Time	Item	Lead
1:30 – 1:35	Welcome and Call for Quorum	Javier Rodriguez
1:35 – 1:40	Previous Meeting Recap and Action Item Review	Javier Rodriguez
1:40 – 1:50	Intelligent Transportation Systems (ITS) Wide Area Network (WAN) Update	Randy Pierce and Frank Deasy
1:50 – 2:05	SunGuide Software Update	Clay Packard
2:05 – 2:20	Weather Enhancement (vote)	Clay Packard
2:20 – 2:45	Small Enhancements (vote)	Tucker Brown
2:45 – 3:05	Wrong Way Driving	Clay Packard
3:05 – 3:15	Break	



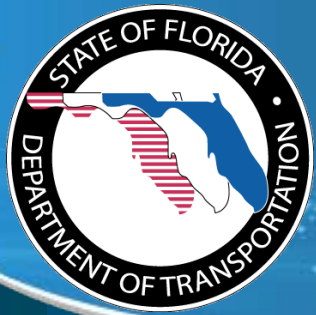
Agenda



Time	Item	Lead
3:15 – 3:45	TERL APL Process Update	Alan El-Urfali
3:45 – 4:00	FHP CAD Improvements	Clay Packard
4:00 – 4:15	Upcoming CDW / RITIS Enhancements	Clay Packard
4:15 – 4:20	Open Discussion	Javier Rodriguez
4:20 - 4:30	Review Action Items	Javier Rodriguez

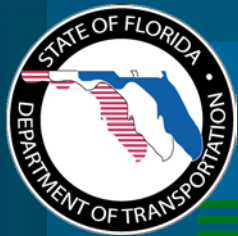
CMB agenda, slides, and attachments posted here:

http://www.dot.state.fl.us/trafficoperations/ITS/Projects_Deploy/CMB.shtm



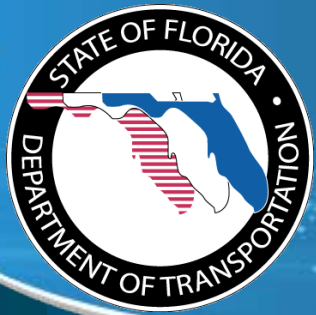
Previous Meetings Recap and Action Items Review

Javier Rodriguez, P.E., FDOT



Previous Action Items

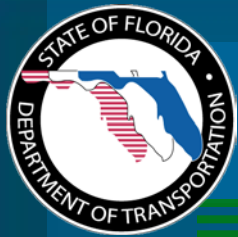
- 1. CO will be conducting meetings with the Districts to identify any needed changes and also training necessary to support the Districts with the ITS architecture**
- 2. G. Glotzbach to coordinate inventory / NH Tags for the FL511 server infrastructure in D7**
- 3. CO to coordinate with HAR vendor for product modification suitable for implementation of FDOT's updated HAR ConOps**
- 4. CO to continue research on PostgreSQL and cloud computing**



Change Management Board

ITS Telecommunications Update

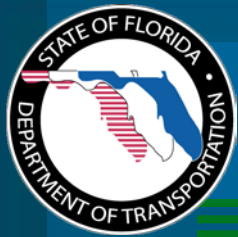
Randy Pierce & Frank Deasy, P.E.



ITS WAN Update



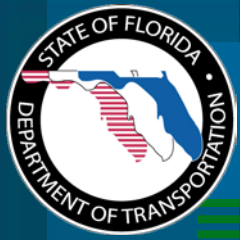
- Connecting D1 & D7
 - ITS WAN equipment operational
 - Unicast connectivity is operational
 - Multicast connectivity in process
 - Gigabit fiber circuit installed and in final testing
- Connecting D3 RTMCs Tallahassee
 - Tallahassee RTMC fiber connection in process
 - Routing for local ring architecture being provisioned by City of Tallahassee
- **FTE RTMC Pompano**
 - FTE switch configuration and connection to ITS WAN still in process



ITS WAN Update



- **FHP CAD**
 - Available to Districts connected to ITS WAN
- **Multicast Re-Addressing**
 - Districts should re-address their multicast devices now to resolve any overlapping addresses
 - D4 completed their multicast addressing
 - D1, D5, D6, D7 & MDX have committed to multicast readdressing and are in process
 - Status of this effort in D2, D3, FTE
 - Multicast video can then be shared statewide
- **FL-ATIS & VAS**
 - Replacing dedicated circuits with ITS WAN connectivity

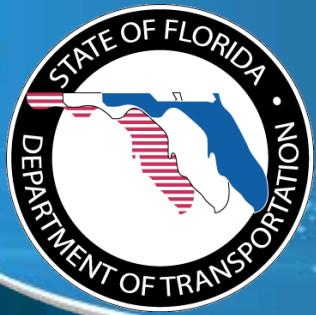


QUESTIONS?

Randy Pierce & Frank Deasy, P.E.

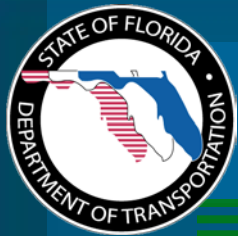
Randy.Pierce@dot.state.fl.us

Frank.Deasy@dot.state.fl.us



SunGuide Software Update

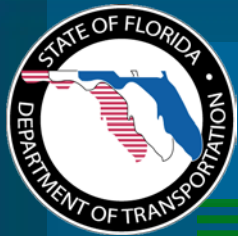
Clay Packard, P.E., Atkins



SunGuide Release 6.0



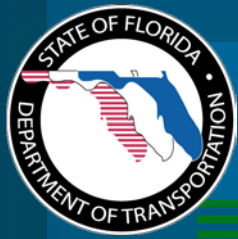
- Released July 3, 2013
- C2C Hotfix for 5.1.1
 - Provides compatibility between 6.0 and 5.1.1 systems
- Cumulative hotfix expected 9/23
 - Addresses a number of issues already resolved
 - Full installer
 - ICD published



Release 6.0 Updated Installer



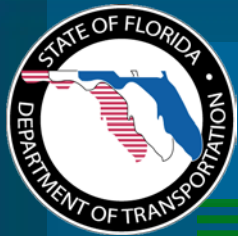
- Many issues found and fixed
- New installer expected September 23



SunGuide Release 6.1



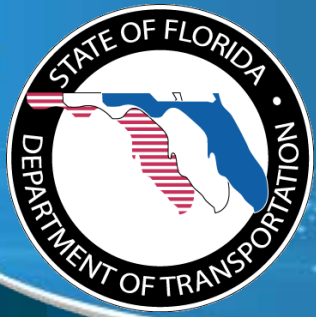
- **Current Scope:**
 - Phase 9 of SunGuide / Lonestar unification
 - Nokia compatibility
 - ONVIF compatibility
 - Installer enhancement
 - Activu and support multiple walls
- **Proposed Additional Scope:**
 - RWIS,
 - Wrong Way Driving Detection,
 - Several smaller enhancements
- **Schedule: Quarter 1, 2014**



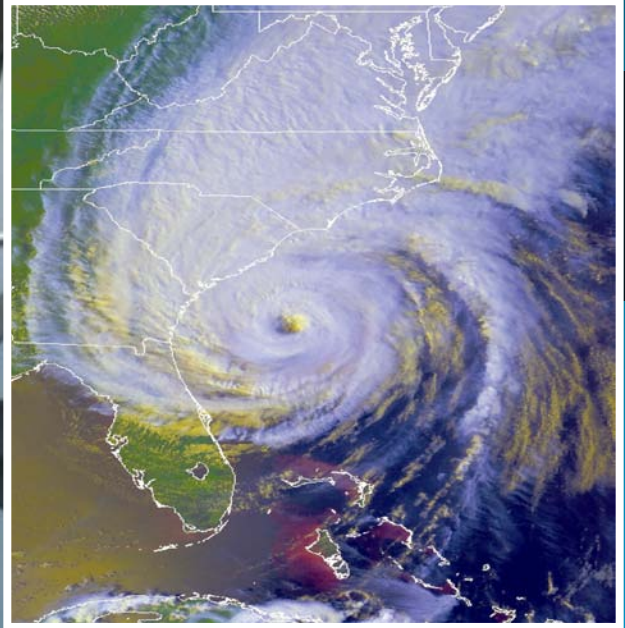
Please keep the good ideas flowing

QUESTIONS?

Clay Packard, P.E., Atkins
clay.packard@dot.state.fl.us

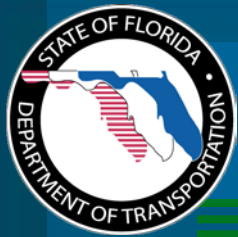


Change Management Board



Weather Enhancements

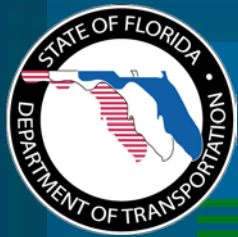
Clay Packard, P.E., Atkins



Weather Enhancements



- **Road Weather Information Systems**
 - Existing support for NTCIP 1204 v02.18 (April 2004)
 - Add support for NTCIP 1204 v03 (October 2009)
 - Newer products increases competition/quality
- **SunGuide Operational Needs**
 - Additional operational scenarios:
 - Low Visibility / Fog detection
 - Integration into Incident Detection / Event Mgmt
 - Configurable thresholds for data values
 - Post messages with response plans
 - Activate Surrounding Beacons
 - Consistent, user-friendly GUI
 - Reporting on device status and data



Existing Implementation

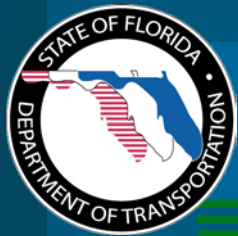


- NTCIP 1204 v02.18 protocol support
- Status only, using older style, HTML dialog

The screenshot shows a web browser window titled "RWIS Station Status: Sim2 [District 4] - Microsoft Internet Explorer". The page displays real-time weather data for station Sim2. On the left, there is a "Stations" list with "Sim2" selected, and a "Filter" dropdown set to "All Stations". The main content area has tabs for "Overview", "Air", "Pavement", "Precip", "Temp", and "Wind", with "Overview" currently active. The data shown includes:

Temperature	Wind
49°F	60 MPH E
Relative Humidity	Air Pressure
85%	0.13 Inches Hg
Visibility	Precipitation
0.35 Miles	Unknown

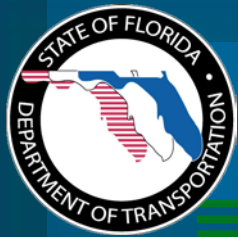
Below the data, it states "Data Retrieved Tuesday, October 11, 2005 2:44:40 PM". At the bottom, the location is "Northbound Florida Turnpike: Rwis sim device" and the operational status is "Error". There is a "Select new op status:" dropdown menu with "Active" selected and a "Set Status" button.



Software Enhancement



- **Add Support for version 3 of NTCIP 1204**
 - Maintain support for version 2 (of course!)
- **IDS Integration**
 - Thresholds set for individual RWIS data fields
 - Alarm and Recovery thresholds
 - RWIS will produce alerts and send to IDS
 - New IDS Driver and IDS Alert Type
- **Event Management Integration**
 - Weather template for DMSs in response plans
 - Distance-to-station parameter for templates
- **Enhance GUI to WPF (consistent with new GUIs)**
- **Reporting**
 - Device Status (existing)
 - Data Report with filters (new)



Weather Alert



- **Weather Alert**
 - New RWIS category
 - Handled consistently as other alerts
 - Create weather event
 - Set affected area
 - Generate Response Plan
 - DMS, HAR, email, Connected Vehicle, 511 responses

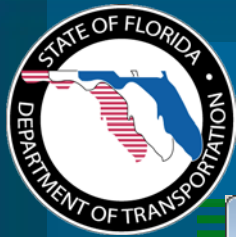
Alert Box - Windows Internet Exp...

Alert	Time
Incident Detected by Citilog camera Citilog: Stopped Vehicle	105417 min ago
Incident Detected by Citilog camera Citilog: Stopped Vehicle	104749 min ago

- AVL/RR Alerts
- VSL Updates
- Weather Reports
- External Incidents
- FHP Incidents
- Citilog Alarms
- TSS Alarms

Show all Show none

Group alerts by category



Low Visibility Response Plan





Response Plan: Event 1942

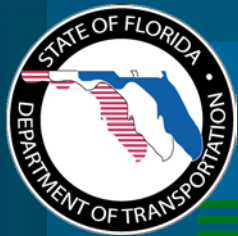
Activate Plan
Terminate Plan
Add Item
Edit Item
Remove Item
Accept
Load Predefined
Get New Suggestion
DMS Dist: 3
HAR Dist: 10
TAM Dist: 5

Plan Actions Plan Items Suggestions

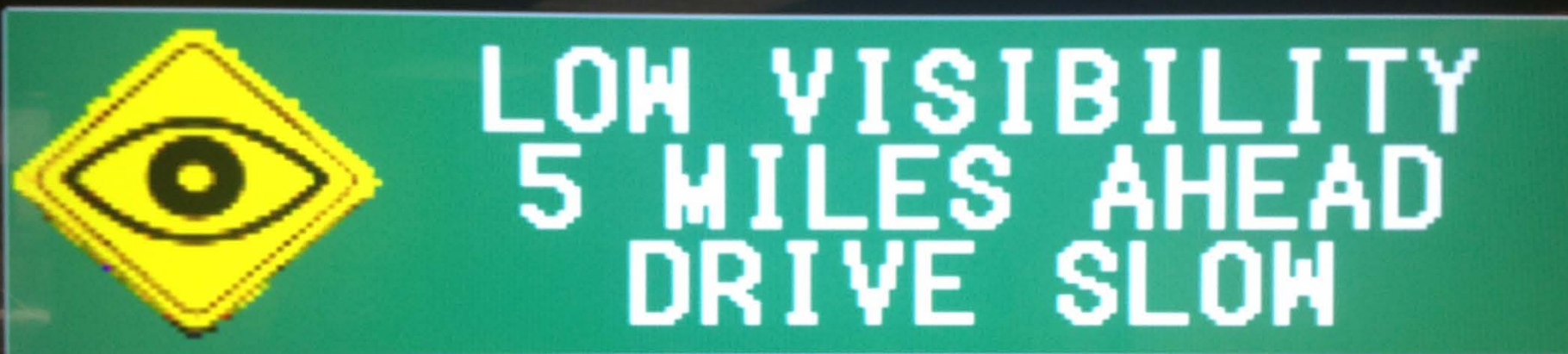
Current Plan Suggestions Event: 1942

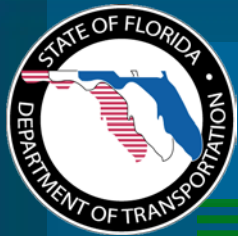
Device Details	Response Plan Message Details	Currently Active Message Details
511 ATIS	Weather event due to fog in Gadsden county, going Westbound on I-10 at US-90 with Last updated 5/20/2013 4:27:11 PM	
DMS ColorDMSTest1 [District 9] Active	 1:00:00 Displayed	 1:00:00 0
Email	Email Groups: None Subject: Title: Weather Alert: Location: Gadsden I-10 WB At Exit 192 US Body: No Lanes Blocked.	
HAR HAR_03 [District 9] Failed	[PB0,0,0][CF252,209,22]LOW VISIBILITY AT US90-W. TENNESSEE STREET[NL] ON I-10 WESTBOUND[NL]DRIVE SLOWLY. 1:00:00 Not Activated 10	DISABLED VEHICLE BEFORE SR-61 THOMASVILLE RD.[NL] ON I-10 EASTBOUND[NL]TWO LEFT LANES BLOCKED. 0:00:00 256

0 7 0 Updated response plan items.



Color DMS RPG Message

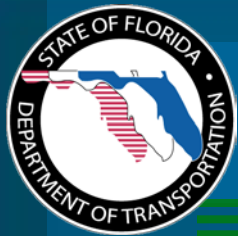




Beacon Subsystem



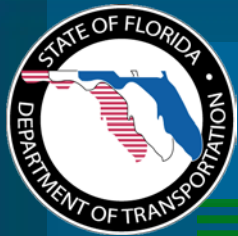
- **Beacon Subsystem**
 - Beacon Icon on map
 - Icon for stand-alone, and/or
 - Icon for HAR with beacon (design detail)
 - Manual activation
 - Included in response plan suggestion
 - Bidirectional distance radius
 - Can be changed for new suggestion
 - Will be represented as response plan item



Cost and Schedule



- **Cost for SunGuide Software modifications:**
 - TBD
- **Schedule:**
 - Planned for SunGuide Software Release 6.1.

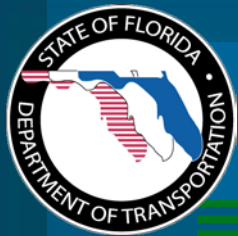


Weather Enhancements



QUESTIONS?

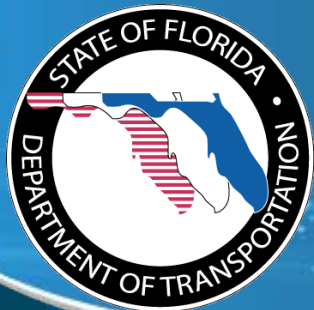
Clay Packard, P.E., Atkins
clay.packard@dot.state.fl.us



Weather Enhancements



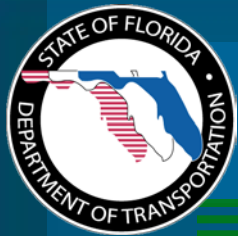
(vote)



Change Management Board

Small SunGuide Enhancements

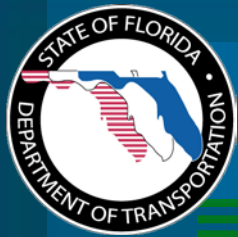
Tucker Brown, SwRI



Small Enhancements



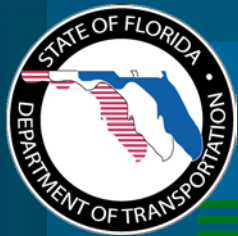
- **Low or moderate development effort**
- **Clear value added to software verses effort involved**
- **Not in conflict with Lonestar or the merge effort**
 - No duplicated effort
- **Straightforward concept of operations**
- **Unlikely to require extensive discussion or differing opinions on how the system should operate with the modification**



Response Plan Status



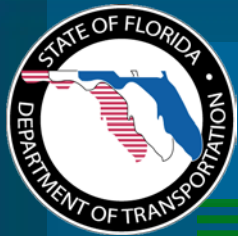
- Proposed by D2
- FP 2511, 2525
 - Add Terminate Response Plan button to Event Details dialog
 - Enhancement: On the Response Plan dialog, indicate if the response plan has been activated



AVL Update Alerts



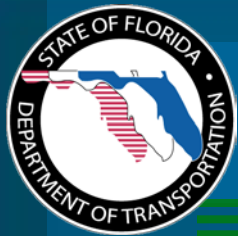
- **Proposed by TERL**
- **FP 1255**
 - Currently, there is no way of alerting operations if a vehicle stops reporting position updates
 - Enhancement: An alert could be sent to the System Messages when a vehicle hasn't reported a position in a configurable amount of time.



Device Display Groups



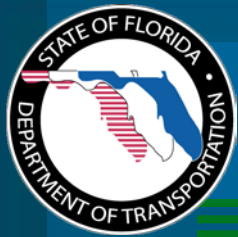
- **Proposed by D2**
- **FP 2493**
 - Currently, all devices of a given type (ex General DMS signs) will be shown or hidden
 - Enhancement: Device Display Groups could be created so an Operator could set up a custom set of devices for themselves



Contractions in Approved Words



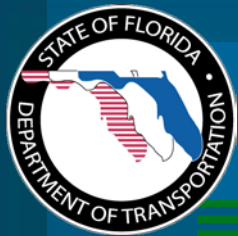
- Proposed by D2
- FP 2397
 - Currently, contractions are not supported as approved words
 - There is a workaround but it's not ideal
 - Enhancement: Contractions would be supported



Publish Event Dialog Filtering



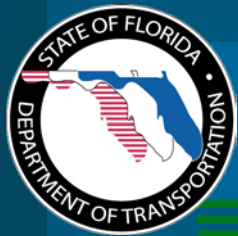
- Proposed by D6
- FP 2314
 - Currently, all events known to the system (including events closed for less than 1 hour) are included in the list of selectable events
 - Enhancement: The list of available events will be filtered to only have events that are currently open



Link Placement Details: Roadway Filtering



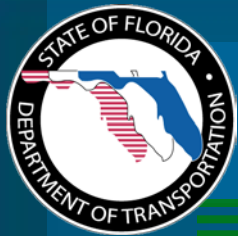
- **Proposed by D2/OOCEA**
- **FP 2181**
 - Currently, when drawing links on the Operator Map, there is no filter that will indicate which links have a roadway assigned to them.
 - Without these fields, links cannot be published to FLATIS
 - Enhancement: The roadway list will contain new filters
 - Links where the roadway has been selected
 - Links where the roadway has not been selected



Wavetronix HD, time sync



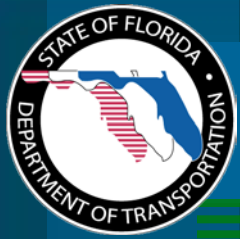
- Proposed by OOCEA
- FP 2456
 - Currently, WavetronixHD detectors have a different clock than the SunGuide server making data comparison difficult
 - Enhancement: SunGuide would time sync the WavetronixHD devices with the Server running TSS and the TSS Drivers.



Reporting Subsystem



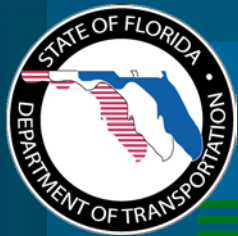
- **Currently, generating reports is strictly a manual process**
- **Reports are generated and presented to the user at time of completion and stored locally on the system**
 - Users must save off generated reports as needed
- **Users are unaware of currently running reports**
 - 5 concurrent reports are allowed to run at a time



Reporting Subsystem Proposed Modifications



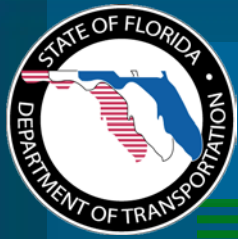
- **GUI will be removed from the tabbed UI and re-written in WPF**
 - All current filters will be available with current selections
- **Reporting will show currently running reports and allow for queuing of additional reports (beyond 5)**
- **Reports may be cancelled if desired**
- **Reports will be optionally emailed to a specified email address**



Scheduled Actions Response Plan Scheduling



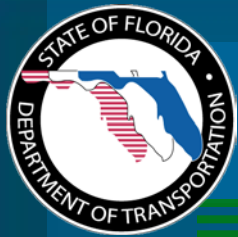
- Currently, all response plan and activations are manual processes
- SAS would be modified to:
 - Allow a user to select an open event with a response plan
 - Set a time to activate the plan
- Uses
 - Construction Events
 - Recurring Congestion



Scheduled Actions Reporting



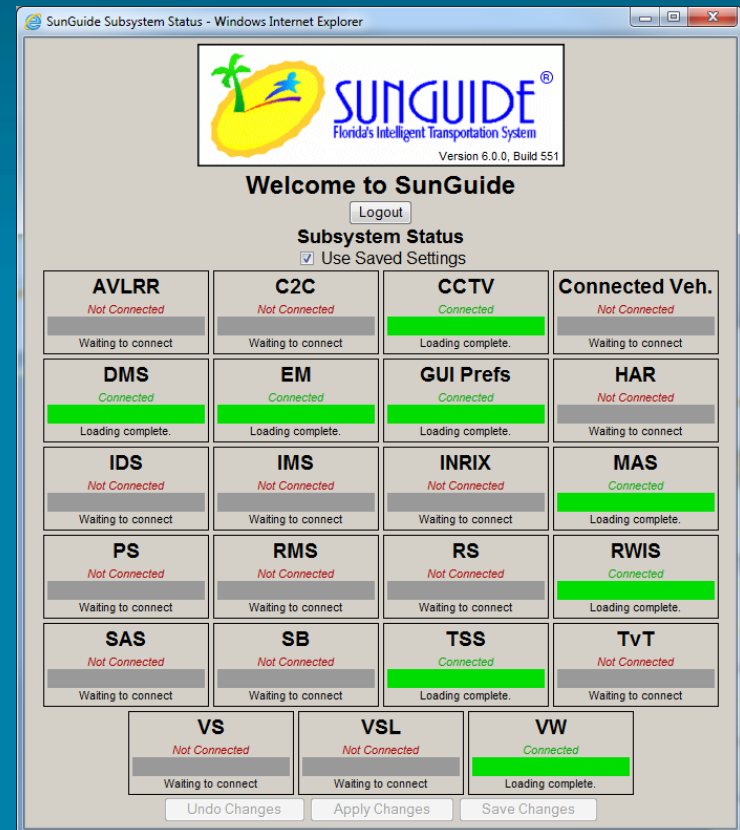
- **Changes to Reporting must be made before this enhancement**
- **SAS will be modified to:**
 - Use new Reporting Subsystem components and allow a user to select a report and parameters
 - Use the scheduler to setup a one-time run or a recurring pattern for the report
 - Time filter can be also set as an offset to the date/time that the report is scheduled to be executed (scheduled – meaning not affected by queue waiting time)
 - Upon completion, reports would be emailed to a specified address

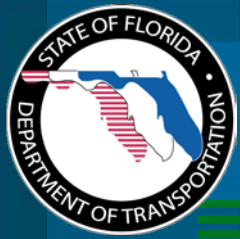


Login/Subsystem Dialog Integration



- Currently, the login and subsystem dialogs are standalone windows

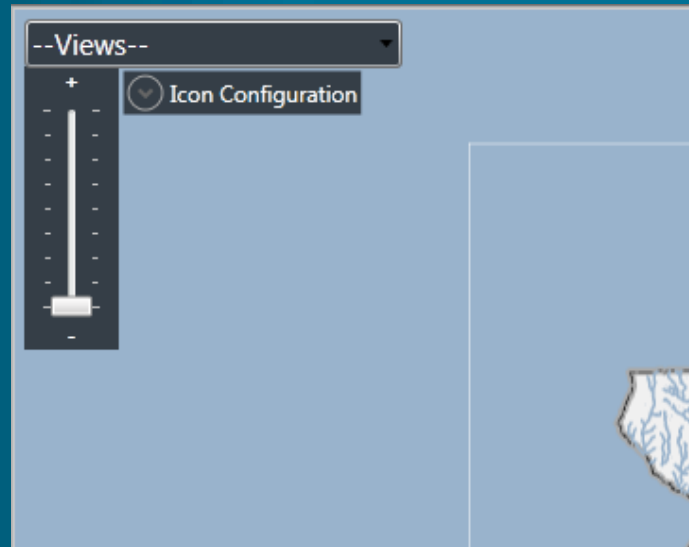


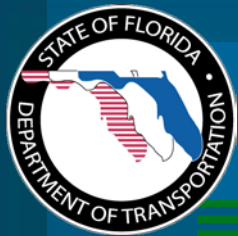


Login/Subsystem Dialog Integration



- Enhancement – Integrate the dialog into the Operator Map dialog directly, possibly similar to the icon configuration

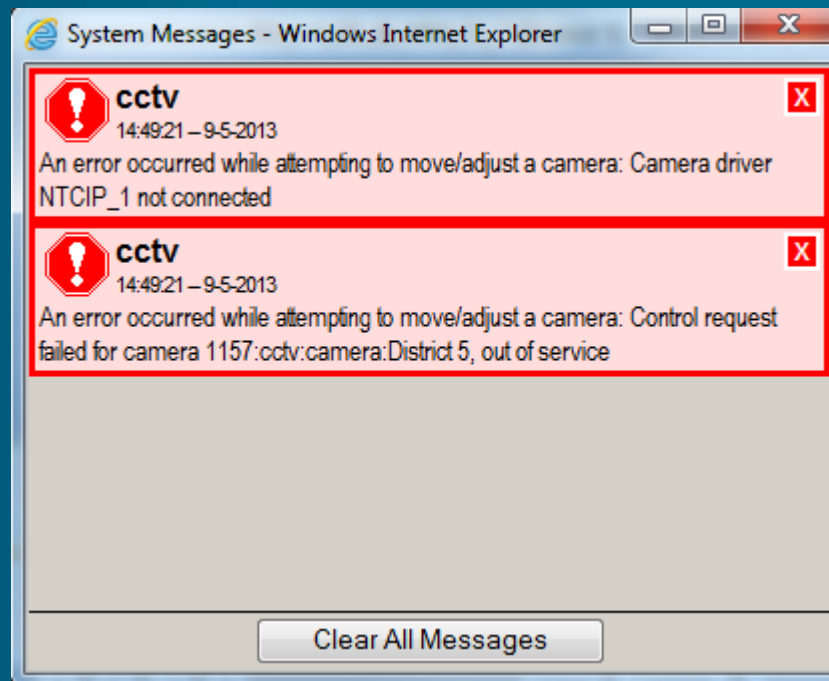




System Messages Dialog Integration



- Currently, the System Messages dialog is a standalone window

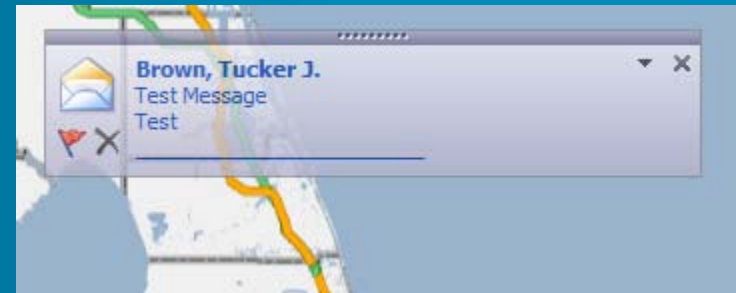


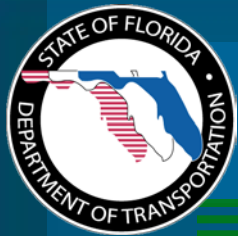


System Messages Dialog Integration



- Enhancement – Integrate the dialog into the Operator Map dialog directly
- Possibilities:

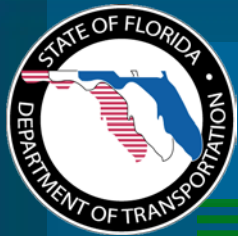




Video On Desktop Camera List



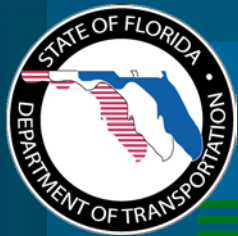
- **Enhancement – Add a collapsible list of cameras of CCTVs with configured video streams**



Video On Desktop Camera Stream, No PTZ



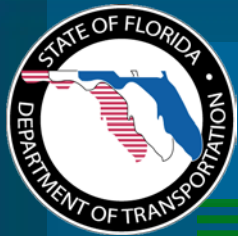
- **Enhancement – Create a camera that would with an attached video stream that can be viewed by VOD**
 - Configuration would include:
 - Show or hide the icon for the camera on the Map
 - Whether or not the camera can PTZ
 - If no, camera controls will disable and driver will not attempt to connect



Video On Desktop Digital Zoom



- **Enhancement – User can digitally zoom a video stream**
 - Viewer will not grow and image will become larger
 - Rubber Band Zoom capability
 - Similar to zoom on the Operator Map

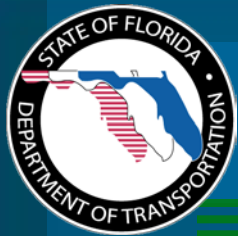


Small Enhancements



QUESTIONS?

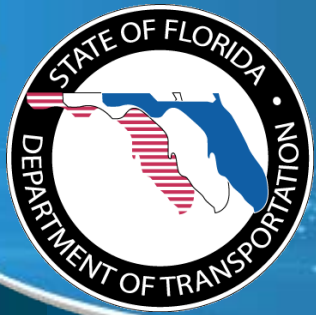
Clay Packard, P.E., Atkins
clay.packard@dot.state.fl.us



Small Enhancements



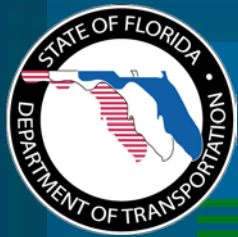
(vote)



Change Management Board

Wrong Way Driving

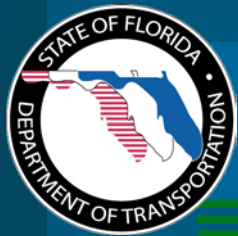
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Wrong Way Driving (WWD)



- Central Office formed a task team, per request from Secretary Prasad, to investigate warning systems and countermeasures.
- Scope of this effort
 - Literature Review of past studies and projects
 - Evaluation of wrong-way warning devices
 - Review of FDOT Standards to help improve application and consistency of warning systems
 - **SunGuide software proof-of-concept: detection and response for WWD events**
 - Pilot project field testing

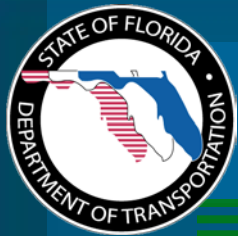


Preliminary Device Evaluation by TERL



- **Wrong-way detection on mainline**
 - WavetronixHD with Click!512 module
- **Wrong-way detection on ramps**
 - Signage with simple directional detection
 - TAPCO
 - Information Display
 - Unipart Dorman
 - Citilog VisioPad
 - SES America
 - Miovision
 - Econolite (formerly ISS and EIS)
 - Traficon
 - TrafficVision

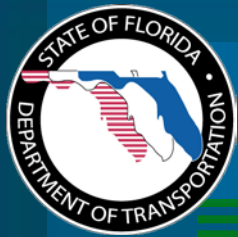




SunGuide Solutions



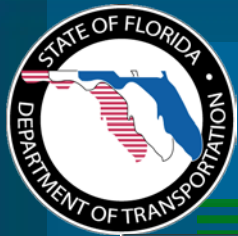
- **Single Wavetronix HD on mainline**
 - Click!512 pushes notification of WW events.
- **TAPCO detection and warning signs on Off-Ramps.**
 - Signs alert wrong-way drivers
 - Detector component also triggers WW events
- **WW Events handled by SunGuide**
 - Email automatically sent to preconfigured list
 - Operator Alert produced
 - Operator creates event and response plan
 - DMS messages warn motorists of oncoming WW driver
 - TxDOT says that no one has ever complained about false positive messages and people are thanking us for the warning system!"



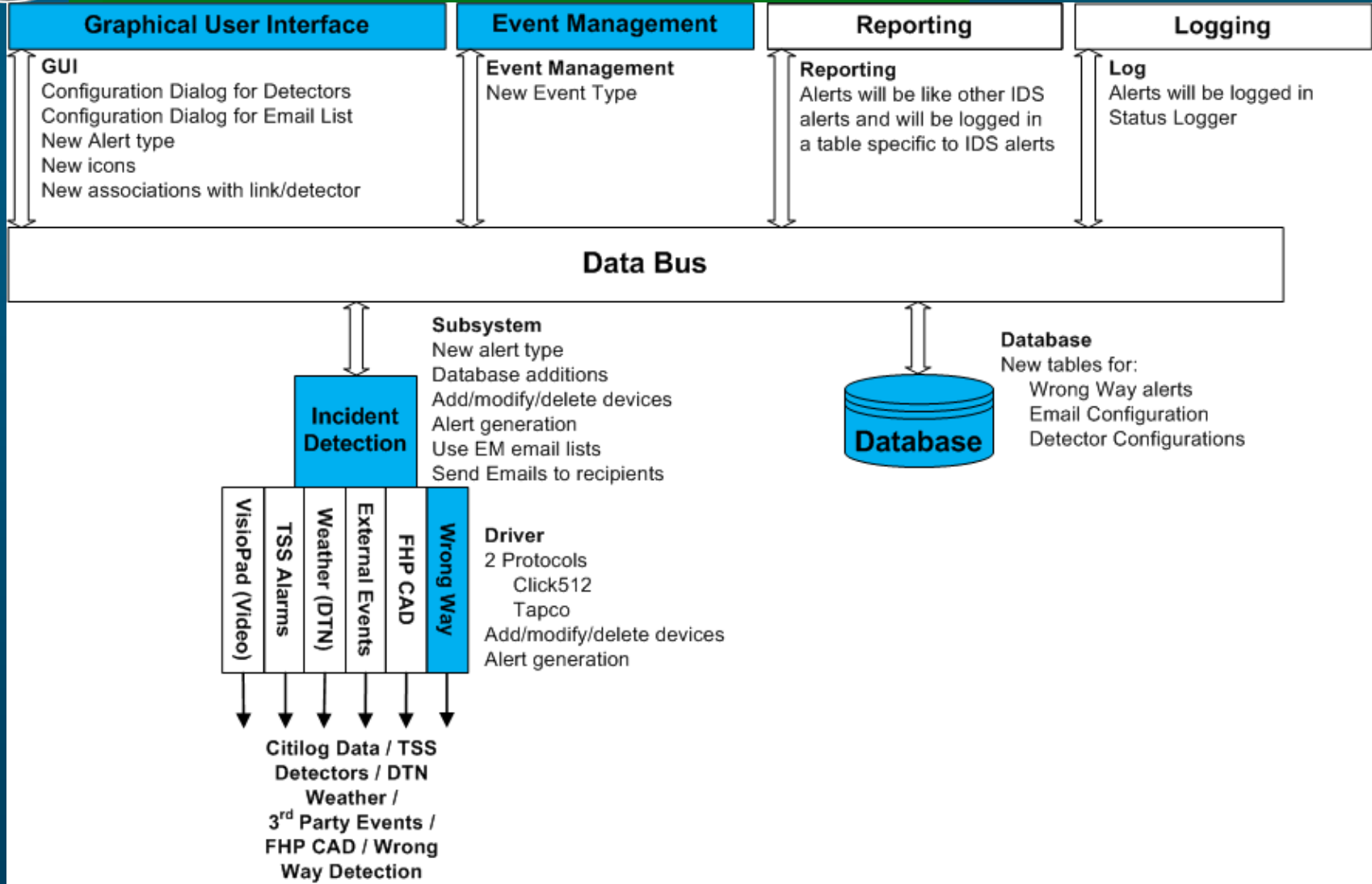
SG Software Modifications

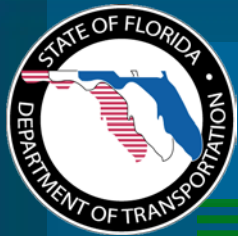


- **Support for two devices**
 - Click!512 (add-on to existing Wavetronix HDs)
 - TAPCO detection trigger
- **Generate instant alerts/emails**
- **Log alerts in database for reporting**
- **Operator Map Configurations**
 - Devices



Software Module Modifications

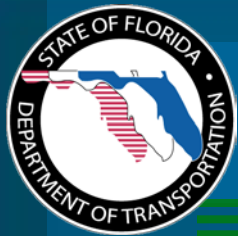




DTOE Update



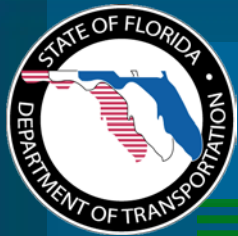
- TBD



Cost and Schedule



- **Cost for SunGuide Software modifications:**
 - \$74K
- **Schedule:**
 - Planned for SunGuide Software Release 6.1.

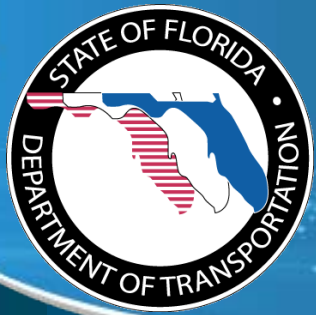


Wrong Way Driving



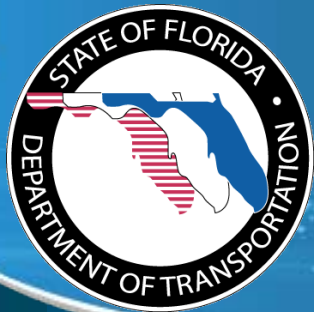
QUESTIONS?

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Break – 10 min

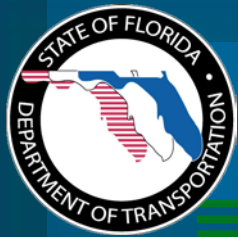
<http://ipadstopwatch.com/timer.html>



Change Management Board

Revised Process and Requirements for
Permitting Traffic Control Devices

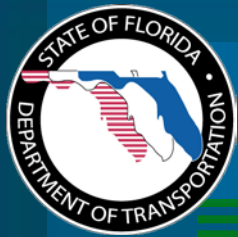
Alan El-Urfali, P.E., FDOT



Permitting Authority



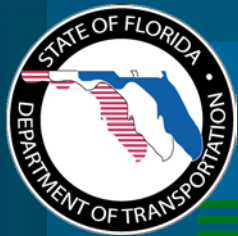
- Per 316.0745(8) F.S. , “The Department of Transportation is authorized to permit traffic control devices not in conformity with the uniform system upon showing of good cause”.
- Applies to devices that have potential for good cause (e.g. reduce congestion, save lives), but have not been certified and listed on the APL (in conformance with **Specifications, Standards, MUTCD**).



Why Change the Existing Process?



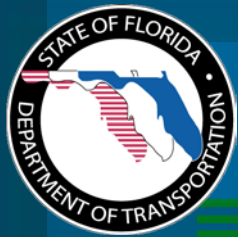
- Allow permitting of products that compete with APL certified items in a fair and impartial manner.
- Allow new technology to be readily used in the field under authorized conditions.
- Reduce turnaround time to issue a permit.
- Promote CPR.



Process



- **DTOE completes and submits a Request for Traffic Control Device Permit to the TERL including submittals and justification showing good cause.**
- **TERL reviews information for completeness.**
- **State Traffic Operations Engineer issues a permit for the non-conforming product that is project specific and limited to certain locations and quantities.**



Submittal Attachments

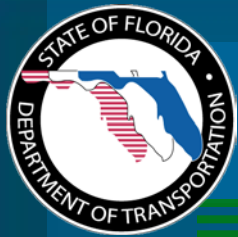


If FDOT product specifications exist, permit request must include:

- **TERL compliance matrix completed by the vendor indicating conformity/non-conformity to existing requirements.**

If FDOT specifications do not exist, permit request must include:

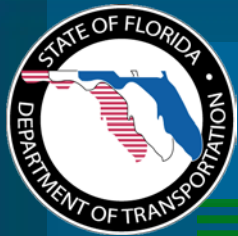
- **Developmental Specification, Modified Special Provision, Technical Special Provision, or other project requirements to be used for procurement.**



Permit Conditions



- **No expiration date (one-time permit)**
- **No extensions or additional permits will be issued for the same non-conforming product.**
- **If the product is to be sold, purchased, or installed on future projects, the vendor must obtain APL listing (become a conforming product) after permit issuance.**



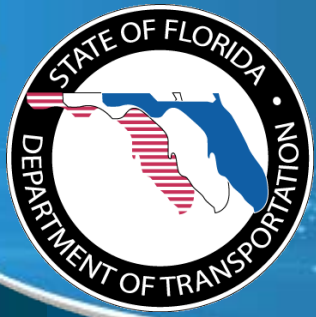
Wrong Way Driving



QUESTIONS?

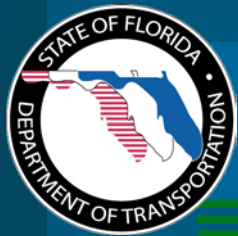
Alan El-Urfali, P.E., FDOT

Alan.El-Urfali@dot.state.fl.us



FHP CAD Improvements

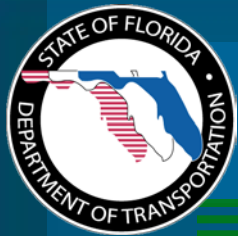
Clay Packard, Atkins



Pre-Discussion



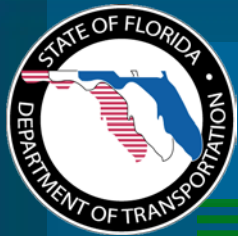
- Who is using FHP CAD now?
- Who has used FHP CAD in the past but no longer?



Objectives for FHP CAD & IDS



- **Address issues already identified**
 - as soon as possible in SunGuide
 - as soon as FHP can have their CAD feed modified
 - (see subsequent slides for details)
- **Capture additional ideas**
 - for later IDS enhancement
 - to be routed through SSUG
 - Captured in revised Concept of Operations
 - Brought to CMB for voting



Summary of Issues



1. Incorrect Location auto-selected

1. Direction
2. Offset (always "At", never "before"/"beyond")

2. Incorrect Filtering of roadways

- SR-9 also includes SR-91 (Turnpike in D6)
- SR-8 also includes SR-87

3. Alert Updates too frequent

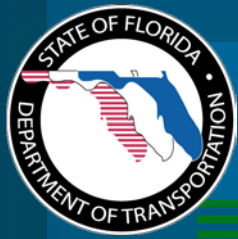
- No significant change in incident data

4. Missing Event Types:

- Road Closure and Disabled vehicle
- Requires FHP CAD Modification
- If FHP won't add, alternative solution is possible

5. Event always Active

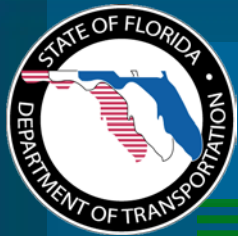
- Events without FHP arrival timestamp now set to "unconfirmed"



FHP CAD Provider Coordination



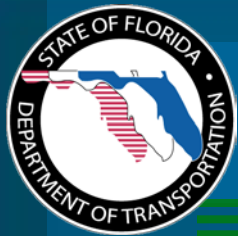
- **Minor enhancements to FHP CAD feed**
 - Provide location in separate fields
 - County, Roadway, Direction, Cross street,
 - Provide additional event types
- **FHP asked us to work with contractor**
- **Contractor unavailable until July 2014**
- **TBD – meeting to lock down scope/schedule**



Incorrect Location



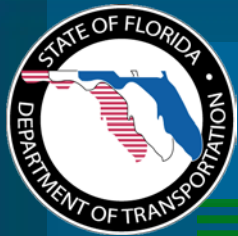
- **FHP CAD location data**
 - Latitude / longitude included
 - Location string describing location included
 - Location string **inconsistently formatted**
- **SunGuide uses latitude/longitude**
 - Chooses nearest EM location
 - Without regard for direction
 - Operator manually corrects direction
 - Must also reselect Crossstreet and Offset
 - **Slows down EM operations**
 - Many users have turned off FHP CAD due to this



Location Parsing Modification



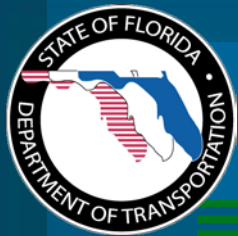
- **SunGuide will be modified to**
 - Improve parsing of the location string
 - Direction
 - Roadway
 - These will be used in conjunction with lat/long
- **This is anticipated to greatly reduce incorrect location selections**
- **SunGuide location configuration should be verified**



Roadway Filtering Modification



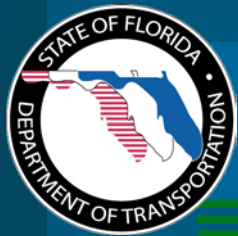
- **Configured as list of names**
 - E.g. I-10, I-4, SR-8
- **Name in list may be contained within roadway name**
 - E.g. **SR-8** would incorrectly include **SR-87**
- **SunGuide will be modified**
 - Filter (include) SR-8 but not SR-87
- **This will reduce irrelevant alerts**



Benefits



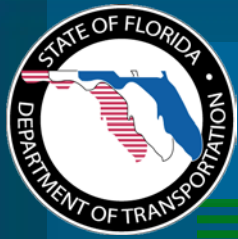
- Fewer alerts from undesired locations
- Fewer alerts with incorrect location
- Increased efficiency for operators
- No change to concept of operations (except minor configuration for updates)
- Desire is for more users to benefit from FHP CAD alerts



Availability



- To be deployed late October

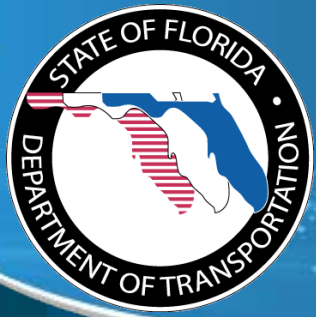


FHP CAD Improvements



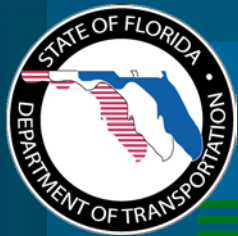
QUESTIONS?

Clay Packard, P.E., Atkins
clay.packard@dot.state.fl.us



Upcoming CDW / RITIS Enhancements

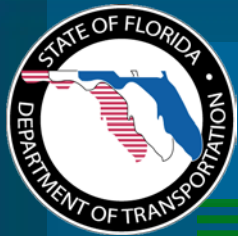
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RITIS Contract Status



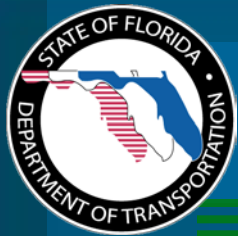
- Original contract ended January 2013
- Process of entering new contract
 - Complex legal language negotiations (complete)
 - Working out contract initiation process



New Contract Priorities



- Fix existing system issues
- New modifications
 - Compatibility with SunGuide Software Release 6.0
 - Nokia 3rd party data feed integration
 - SunGuide Probe data integration
- Future enhancements
 - We will prioritize in statewide forum (CMB)
- System defects
 - Email support@ritis.org

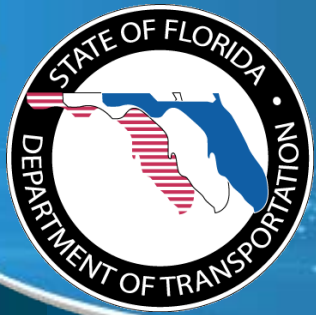


Central Data Warehouse



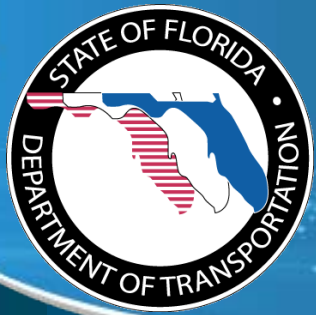
QUESTIONS?

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clay.packard@dot.state.fl.us



Open Discussion

Javier Rodriguez, P.E., FDOT



Review Action Items

Javier Rodriguez, P.E., FDOT