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INTEGRITY – FAIRNESS – SERVICE



ACRS Beginning

- Last time Crash Reports were modified was August 2001
- Federal Standards required more data to be collected
 - Minimum Model Uniform Crash Criteria (MMUCC)
 - Currently on Version 4 which was recently released
- Due to Federal Standards, Maryland Timeliness rating was **RED**
- Recognized the need to move to electronic data capture for timeliness, accuracy and completeness



ACRS Beginning

- State Highway Administration led the charge to fund the development of a new crash report
 - Federal Motor Carrier Safety Administration (FMCSA)
 - Maryland State Police
- Maryland State Police was tasked with developing the user interface for the officer to enter crash data



ACRS Development

- Leveraged existing technology
 - Reusability
 - Familiarity
- .NET 4.0 framework
- Within Delta Plus
 - E-TIX is not required
- Developed by the Maryland State Police
- Web services as the connection to the data



ACRS User Interface

The screenshot displays the ACRS User Interface for an Accident Report. The interface is organized into several sections:

- Navigation Menu (Left):** A vertical list of menu items: Report Information, Accident Details (highlighted in blue), Units, Diagram & Photos, and Narrative.
- Form Header:** "Accident Report" with a sub-tab "Road" selected.
- Form Fields:**
 - Crash Section:** Includes "Collision Type", "Fixed Object Struck", "School Bus Involvement", "Harmful Event One", "Harmful Event Two", and "Contrib. Circumstance - Road".
 - Traffic Control Section:** Includes "Traffic Control Device".
 - Construction Section:** Includes "Construction Zone".
 - Environment Section:** Includes "Light", "Contrib. Circum. - Environment", and "Weather".
- Bottom Bar:** Contains "Submit", "Save", "Print", and "Close" buttons.
- Errors:** A red box at the bottom left indicates "Errors Found: 1".
- Tools:** "Add Item" and "Delete Item" buttons are located near the error message.



ACRS User Interface

ETIX

Accident Report

Report Information | Vehicle Information | **Accident Details**

Collision Type

Collision Type

NOT APPLICABLE (00)	HEAD ON (01)	HEAD ON LEFT	SAME DIR REAR END (03)	SAME DIR REND RIGHT TURN (04)
SAME DIR REND LEFT TURN (05)	OPPOSITE DIR SIDESWIPE (06)	DIRECTION RIGHT TURN (08)	SAME DIRECTION LEFT TURN (09)	
SAME DIR BOTH LEFT TURN (10)	SAME MOVEMENT ANGLE (11)	MEETS LEFT TURN (13)	ANGLE MEETS LEFT HEAD ON (14)	
OPPOSITE DIR BOTH LEFT TURN (15)	SINGLE VEHICLE (17)	UNKNOWN (99)		

Number Of Lanes: 12

DEL CLEAR

1 2 3

4 5 6

7 8 9

. 0 OK

Display: Text

CANCEL

+

Add Item

!

Errors Found



ACRS Advantages

- Everything is electronic
- Ease of use
- Timeliness
 - Once report is approved, MSP CRD has access
- Accuracy
 - Scanning of barcodes
 - GPS
 - Validations
 - Over 200 validations on user interface
- Completeness
 - Average 30 more fields of data



ACRS Advantages

- Report saving and retrieval from anywhere Delta is installed
- Nth level approval and rejection built in
- Submission from the vehicle
- Scanning information into the forms
- Reuse of the information in other modules
 - Accident Exchange
 - E-TIX
- Report is in Plain Language – No Codes



ACRS Disadvantages

- Computer based
 - Lack of Computer Skills
 - Relying on availability and accessibility
- Diagram Tool
 - Barebones tool for road officer
 - Minimum graphics to add to diagram
- Longer printed report
 - Minimum 4 pages



ACRS Initial Deployment

- Initial Beta test
 - 8 Troopers
 - No Training
 - Entered 2 reports
- Issues found
 - Diagram tool knowledge
 - New elements added due to MMUCC
- Positive Feedback
 - Did not think they entered as much data as the old MAARS Report
 - Interface workflow was appropriate for an officer at a crash scene



ACRS Current Deployment

- Effective January 1, 2015 we are 100% electronic
- 133 Agencies are using ACRS
- Over 11,600 users of ACRS
- Over 47,750 reports submitted in 2015



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ACRS Future Development

- There is a current re-structure of the database
 - Expected release early July 2015
 - Reorganizes fields to relate appropriately and assist in future enhancements
 - Ability to assist in returning the information in a format more readily available to ingest as a local level.
- Ability to return the data to the local law enforcement agencies
 - This process will mirror the traffic data process



ACRS Future Development

- Throughout the next few years...
 - Additional validations
 - Additional required fields
 - QC at Central Records Division for specific elements
 - Additional elements as MMUCC standards change
 - Additional State requested fields



ACRS Data

- Data access
 - An agreement with any agency who requests data must be on file
 - SHA can act as an agent for MSP with proper addendum to the existing agreement
- Data Quality
 - This will be the responsibility of MSP Central Records Division
 - Any issues or concerns over data is welcome through proper channels (ACRS Task Force)



ACRS Task Force

- Prioritization of development and enhancements are the decision of the Task Force
 - Maryland State Police
 - State Highway Administration
 - Highway Safety Office
 - National Study Center
- Monthly meetings to re-prioritize next development sprint
- Requests should be brought to the attention of a task force member to have the task entered into the backlog and prioritized



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Training:

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Additional Questions:

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