

MT Traffic Records Strategic Plan

Annual Element: 2023

Prepared for:
Montana Traffic Records Coordinating Committee

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Introduction

Overview: What is the TRSP Annual Element

The *Traffic Records Strategic Plan* is the blueprint for TRCC activities over the next five years. While the TRSP accounts for the broad view of the activities going on in all parts of the traffic records system, the TRSP Annual Element provides needed updates in a shorter time frame. The TRSP Annual Element will be maintained and updated annually by the TRCC to provide documentation and updates for Montana’s existing trafficsafety programs and to report the status of the TRSP implementation, including an updated timeline. This task is especially important as technology advances are made and critical systems are developed.

Active Projects – Monitoring and Under Contract

Agency	Project
MHP	Web-Based Crash Reporting
DOJ-MHP	DOJ-MHP Web-Based Crash Update
Courts	Upgrades to JRCS System
MDT	Montana Traveler Information System
DPHHS	EMS Laptops
DPHHS	Driller Data Reporting System
DPHHS	EMS Data System Coordination Performance Improvement
DPHHS	DPHHS NEMSIS Upgrade
DOJ-MVD	MVD Database Cleanup

Web-Based Crash Reporting (WBCR) - Monitoring Status

Web-Based Crash Reporting Project – Project Cost: \$27,745

Project ID: MT-P-00034

TRCC Project Priority: High

Lead Agency: Dept of Justice – Montana Highway Patrol

Project Director / Primary Contact:

Name:	Steve Lavin	Major Robert Armstrong
Title:	Colonel	Operations Commander
Agency:	MT Dept of Justice	MT Dept of Justice
Office:	JITSD/Support Services Bureau	Montana Highway Patrol
Address:	303 N Roberts	2550 Prospect Ave, PO Box 201419
City, ZIP:	Helena, MT 59620	Helena, MT 59620-1419
Phone:	406-444-0553	406-444-3588
Email:	jslavin@mt.gov	rarmstrong2@mt.gov

Partner Agencies:

- Department of Transportation

Project Description:

This section provides a brief overview of what the project will entail.

Provides a means for local law enforcement to enter crash data directly into SmartCop’s web-based crash reporting system. This also includes a data support project manager who will ensure that all crashreporting agencies across the state will use a standardized MMUCC compliant form.

Performance Area: Timeliness
System: Crash
Increase/Decrease: Increase

Measurement:

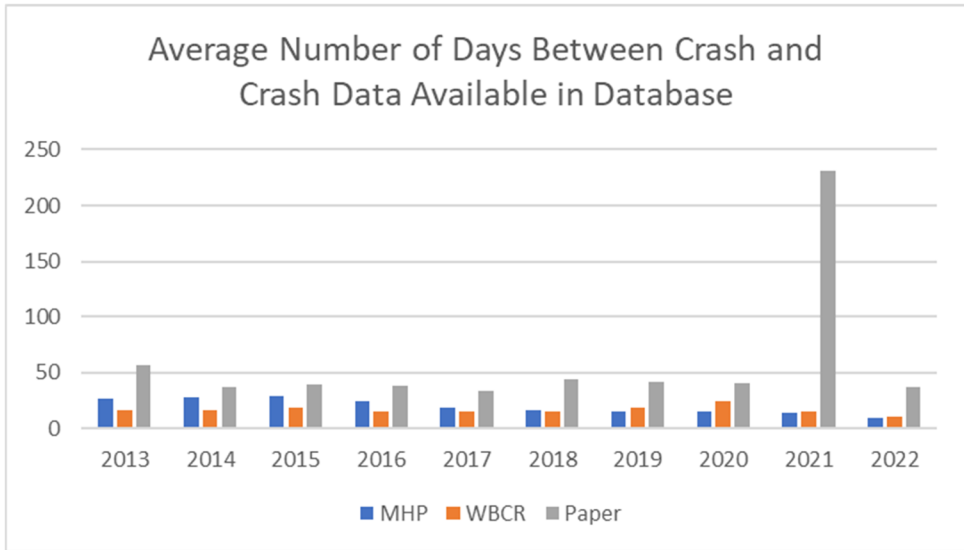
The median or mean number of days from (a) the crash date to the date the crash report is entered into the database. (C-T-1)

Measurement Method:

Averaging the difference between the crash date and the date the crash report is approved for database use. MHP enters data from three distinct sources:

- “paper” represents data entered into the MHP database from written reports created by some local policing agencies
- “MHP” represents data entered digitally by MHP digitally through Smart-Cop
- “WBCR” represent data entered digitally by some local policing agencies through Web-Based Crash Reporting

The two figures below illustrate MHP’s transition from paper reporting to digital Smart-Cop reporting from 2013 to the present (May 2022).



The following chart from the Montana Crash Data Base represent what Montana has seen in crash reporting, 2012 through March 31, 2022.

NHTSA TRCC PM Timeliness - C-T-1			
<i>TRCC MHP Web Based Crash (WBCR) Average Number of Days Between Crash and Database Access</i>			
	MHP	WBCR	PAPER
10/1/2012	21	19	60
1/1/2013	29	10	63
4/1/2013	31	17	59
7/1/2013	27	22	58
10/1/2013	19	15	47
1/1/2014	28	15	62
4/1/2014	30	17	29
7/1/2014	29	20	28
10/1/2014	24	15	27
1/1/2015	28	22	36
4/1/2015	37	18	37
7/1/2015	28	19	43
10/1/2015	22	14	38
1/1/2016	24	15	38
4/1/2016	26	17	34
7/1/2016	28	15	43
10/1/2016	20	13	37
1/1/2017	17	15	40
4/1/2017	22	18	32
7/1/2017	20	15	29
10/1/2017	13	12	35
1/1/2018	13	13	53
4/1/2018	17	16	38
7/1/2018	19	16	46
10/1/2018	13	15	39
1/1/2019	14	16	48
4/1/2019	18	18	42
7/1/2019	16	19	43
10/1/2019	14	23	33
1/1/2020	16	23	40
4/1/2020	17	28	37
7/1/2020	17	26	43
10/1/2020	12	21	43
1/1/2021	13	16	233
4/1/2021	15	16	290
7/1/2021	16	16	230
10/1/2021	11	13	170
1/1/2022	9	10	36

Courts Upgrades to JRCS System - Monitoring Status

Courts Upgrades to JRCS System – Project Cost \$18,423

DOJ/MVD requires this data transfer protocol to procure traffic citation adjudication data from the courts. This data is used and published by MHP and other MDOJ departments like the Montana Motor Vehicles Division (drivers licenses). (This project is contingent on a larger project currently underway in the Department of Justice.)

Performance Measures

Driver Database Model Performance Measure – Integration – D-I-1

- JRCS will become an actionable project upon completion of the Montana Court’s database upgrade, currently scheduled for Summer 2022

Courts report (larger project mentioned above) as of April 2022

- 41% complete statewide with Full Court Enterprise (FCE)
 - 192 Courts to Implement – 79 Complete (41%)
 - 25 of 56 District Courts (45%)
 - 54 of 136 Courts of Limited Jurisdiction (40%)

MDT – Montana Traveler Information System - Monitoring Status

Traveler Information System Upgrade – Project Cost: \$500,000

This project upgraded the MDT Traveler Information System by implementing a new automated roadway information data collection system to better report roadway conditions to the travelling public.

MDT – Montana measure – annually reviewing seasonal performance, average number of daily roadway condition changes input into the Roadway Information Systems reporting data base. Winter conditions will be reported. Historic data of manual reporting is available and will be used as a metric of the new automated system, once in place, and a season of reporting has been completed.

1. Baseline: MDT’s historic seasonal average number of daily roadway conditions reports is 1.3. (2016-2018).
2. The measure is the computed roadway system seasonal average number of daily roadway condition reports input into Roadway Information Systems reporting data base.
3. Target is an increase in the seasonal average number of daily roadway condition reports input in the database compared to historic reporting to two (2).

This project will be Montana Roadway Database Completeness and accuracy.

July 2023 Update

The new travel software went live 09/08/2021. Through 7/1/2023, the following stats have been recorded as compared to the start of the project:

MDT Traveler Information Software Upgrade			
	As of 9/2021	As of 7/2023	% Increase
Web Sessions	2,343,512	6,331,041	170%
Mobile Sessions	1,913,723	5,296,259	177%
Mobile App Downloads	114,492	295,158	158%
IVR 511 Calls	132,377	289,696	119%

DPHHS – EMS Laptops - Monitoring Status

EMS Data Collection Project – Project Cost \$79,035

Montana DPHHS EMS & Trauma Systems provides a data collection system to all EMS agencies in the state. This project will allow rural volunteer ambulance services the ability to enter data through the Montana EMS data collection system. The goal stated by DPHHS is that 95% of all ambulance services in the State of Montana will be reporting to the state EMS data collection system.

1. Baseline: 65% of all Montana ambulances services are submitting EMS data to the State of Montana EMS data ePCR system.
2. The measure is DPHHS will report the number of direct EMS database submittals from the agencies receiving the laptops.
3. Target is an increase in the number of ePCR system reports generated by rural EMS services and reaching the 95% goal of agency participation in the state EMS data collection system.

This project will address I-U-2 the number of records on the state EMS data file that are National Emergency Medical Service Information System (NEMSIS) compliant, or I-C-MT-1 number of patient care reports generated, submitted, available to MT's EMS database.

EMS Laptop Usage Report – 12/31/2022

Year	State EMS Database Electronic Patient Care Records (ePCR) Submitted by Agencies Receiving Tablets***
2017*	774
2018**	2366
2017	3570
2020	3671
2021	4086
2022	4155
*EMS database accepting ePCR's.	
**Agencies received EMS tablet in last month of 2018.	
***ePCR and Tablet receiving agencies (TRAs) reporting more data elements than previous Nemsis National Requirement elements with paper reporting. Report Volume changes attributable to ePCR and agencies getting access to table reporting.	

DPHHS – EMS/Trauma Driller Data Reporting System - Monitoring Status

EMS/Trauma Driller Data Reporting System – Project Cost: \$24,115

The Driller® Reporting Module is Digital Innovation's Data Visualization and Interactive Analysis Tool. It utilizes aggregated data that is loaded into a Reporting Warehouse from multiple source systems such as Trauma and EMS based on NTDS and NEMSIS standards.

The Driller® 2 Reporting Tool sits on top of this aggregated rolled-up data to easily allow users to recognize trends and patterns in their data in order to improve patient care and performance. These tools are invaluable to help determine which adjustments are most likely to affect trends.

The Driller[®] Reporting Module offers the following benefits:

- Increase organizational intelligence by creating reports that leverage information from formerly disconnected systems.
- Data visualization via charts and graphs which make it easier to identify trends or patterns within the data. This allows for more robust performance improvement at the local, regional and state-wide levels
- Users can interactively explore, drill-down/mine their facility's data in any number of dimensions to identify root causes and allows the Central Site users to see state-wide data easily and in a concise format
- By having all the data aggregated in a single place, it provides the users with a holistic view of their data.
- Queries made against the Reporting Warehouse do not impact the operational systems.
- Reporting across disconnected data such as EMS and Trauma data. Assists in benchmarking set identifiers amongst facilities across the state

Some of the Standard Features of Driller[®] include:

- Permission-based access to data, reports and filters
- Multi-level grouping of reports and report sets
- Data export capability to Excel and CSV
- PDF generation of reports or sets of reports
- Screenshot images for inclusion in other documents
- Custom global disclaimer messages and report footers

This Project is expected to report the NHTSA Performance Measure Accessibility I-X-1

Driller Reporting as of May 2023

Accessibility surveys of web-based users of Driller were submitted to the TRCC the fall of 2022. The table below shows the use of Driller by users groups from the "turn on" date in September 2021. Before Driller, the web-based user community did not exist and the users making up this group could only access EMS and Trauma data via manual data downloads performed by DPHHS at the request of the users. The table below illustrates that web-based users have taken advantage of the new data access/analysis opportunities provided by Driller. DPPHS reported previously that there were some issues with Driller in Fall of 2022 that have since been remedied. Trauma Registry training with the tool continues and will support agencies' efforts to analyze their data. The table below is not intended to address I-X-1 directly, but it does illustrate web-based user interest in taking advantage of accessible data. The data presented is 2021 to May 2023.

2021 Driller use by month	Web-based user	Software User	total Users
9/1/2021	50	12	62
10/1/2021	46	2	48
11/1/2021	64	8	72
12/1/2021	27	1	28
1/1/2022	10	1	11
2/1/2022	17	0	17
3/1/2022	39	10	49
4/1/2022	27	17	44
5/1/2022	12	3	15
6/1/2022	4	1	5
7/1/2022	6	2	7
8/1/2022	10	3	13
9/1/2022	12	5	15
10/22/2022	11	5	15
11/22/2022	4	3	7
12/22/2023	8	0	8
1/23/2023	12	0	12
2/23/2023	15	1	16
3/23/2023	15	2	17
4/23/2023	23	4	27
5/23/2023	22	4	26

* Web-based users are smaller facilities that that are mostly critical access facilities and or IHS facilities. The software facilities are bigger facilities that have stand alone registries that are more in depth with what they are documenting because they provide more in depth care. There are 10 of those. The rest use the web-based trauma registry.

DPHHS – Data System Coordination Performance Improvement - Current Contract

Data System Coordination Performance Improvement – Project Cost \$147,784

This contract with Montana Department of Public Health and Human Services’ (DPHHS) EMS and Trauma System Section (EMSTS) was amended into the FFY22 HSP. This is a continuation of that effort. The project will allow EMSTS to contract services to conduct activities to assist smaller EMS agencies with limited resources with performance improvement skills that will result in:

- More complete data collection,
- Information to help develop targeted training,
- Improved care for individuals suffering traumatic injury from motor vehicle collisions, and
- Improved state and national reporting.

Background: From January 1, 2021, until June 30, 2021, there were 1,349 911 ambulance transports related to motor vehicle crashes recorded in the NEMSIS-Compliant Montana EMS Registry.

- *GPS coordinates for the accident scene were recorded 28% of the time,*
- *patient location in the vehicle was documented 66% of the time and*
- *use of occupant safety device was documented 71% of the time.*

Project Tasks will include:

- Improve the skills of EMS providers to accurately record data about motor vehicle crashes
 - Create and distribute agency-specific EMS data reports to *improve the completeness* of EMS crash data entered in the NEMSIS-compliant Montana EMS Registry.
 - Create and distribute Best Practice tools
- Improve the skills of EMS providers and Medical Directors to implement performance monitoring and improvement practices.
 - Create and/or adopt on-line training on EMS performance improvement practices
 - Teach EMS agencies how to access and run performance improvement reports from the Montana EMS Registry and the NHTSA NEMSIS database
- Provide MTDOT with twice-annual reports summarizing project activities and EMS data completeness trends.

This project is a nationwide effort. Montana is actively participating in this effort. The upgrade's effect on DPHHS's EMS and Trauma data system should be monitorable in late 2023 to early 2024. The contractor is completing a project progress report for the end of FFY2023.

DPHHS NEMSIS Upgrade - Current Contract

DPHHS NEMSIS Upgrade Project – Project Cost \$243,408

Montana law requires ambulance services to submit EMS response data, including motor vehicle crash incident data to the State's EMS Registry. The EMS and Trauma System Section (EMSTS) contracts with ImageTrend, Inc. to provide the State EMS Registry. EMSTS submits data to the USDOT's National EMS Information System (NEMSIS). Over the next 12 months, NEMSIS will be transitioning from software version 3.4 to version 3.5.

In order for EMSTS to continue to meet USDOT data standards, Montana must upgrade the EMS Registry to version 3.5. This requires that the following be implemented:

- (1) upgrade the software in the Montana EMS Registry,
- (2) assist all 125 ambulance services with upgrading their local computer systems,
- (3) train EMS agency staff on how to use the version 3.5 updates, and
- (4) update the EMSTS data analysis and data reporting software to the 3.5 software standards.

The USDOT has requested that all State EMS offices complete the NEMSIS V4 to V5 transition by June 30, 2023, and that all states require that ambulance records are entered into the state EMS registry within 24 hours of the crash event. This request addresses the first USDOT request, the second request is being addressed in an on-going EMS rule revision.

DOJ-MHP Web-based Crash Update – 2023 Contract – Monitoring 2024

DOJ-MHP Web-Based Crash Update – Project Cost: \$37,160

The DOJ-MHP will purchase and distribute 150 EasyStreet Draw licenses and annual fees to users of the Web Based Crash Reporting (WBCR) system. The legacy project software Microsoft Silverlight drawing attachment function in the Web Based Crash Reporting (WBCR) system has become obsolete. New software: EasyStreet Draw, through WBCR, requires external (off the state network) Law Enforcement Agencies to have a license to EasyStreet Draw per workstation (not per user). MHP has determined that 150 licenses at a cost of \$62 and with a \$12.40/year annual fee will be distributed. Providing the licensure/fee for Easy Street Draw to LEAs will encourage non-MHP LEAs to participate in the program, which will reduce the number of reports that are entered manually by MHP staff.

MHP will continue to provide WBCR training and support to users of the system through this contract.

The overall, long-term goal of WBCR is to reduce paper reporting from 31% to 3% of users and encourage other LEAs to utilize the web-based crash reporting system. The goal of this EasyStreet Draw software license/fee purchase is to retain

current WBCR users and prevent the increase in paper reporting which would occur if WBCR was shut down due to obsolete software. The project will result in 1) ensuring there is no interruption in the ability of non-MHP law enforcement agencies (LEAs) to submit electronic crash reporting to MHP, 2) more complete data collection and reporting, and 3) MHP support and training in the system. This project will have a final report end of FFY2023.

DOJ-MVD Database Cleanup – Current Contract

DOJ-MVD Database Cleanup – Project Cost \$505,229

MVD's Montana Enhanced Registration and Licensing Information Network (MERLIN) databases currently have significant duplicate records which account for over 600,000 individual records, which is more than 20 percent of individual customer records in the database. Nearly half (over 300,000) of all organization customer records are duplicates. Some records have up to twenty different iterations within the system. The duplicate records are often incomplete or have outdated information. MVD is implementing system corrections to stop new duplicate records from being generated, but the problem of existing duplicates remains.

The issue is that when records are pulled from the system by emergency dispatchers, law enforcement and first responders, they may not be able to discern the most current and complete record. This creates a situation of inaccurate Montana records that are used for local and nationwide response.

To resolve this issue, MVD intends to deploy multiple task approaches. MVD's database clean-up project tasks will be broken up into phases to align strategically with our vendor's CARS timeline:

- **Year 1 - Drivers Databases**
 - Improve the Overall Accuracy of Customer & Credential Records
 - Reduce Duplication/Bad Data Record Count
 - Identify and Eliminate system defects that result data corruption
 - Data Conversion Readiness for Vendor
 - Meliorate the integrity of records accessed by the Montana Highway Patrol and other Public Safety Professionals

- **Year 2 – Vehicle Database**
 - Improve the Overall Accuracy of Customer & Credential Records
 - Reduce Duplication/Bad Data Record Count
 - Identify and Eliminate system defects that result data corruption
 - Data Conversion Readiness for Vendor
 - Meliorate the integrity of records accessed by the Montana Highway Patrol and other Public Safety Professionals

Number of MVD Merged Records - 2023		
Jan-Apr	May	Total
8,261	5,363	13,624