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# Arizona Traffic Incident Management (TIM) Data Collection

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# AZDPS – Freeway Service Patrol



- Began 2000 CMAQ funds thru MAG
- In 2004 incorporated in 20 yr plan and funding from Regional Transportation Plan Funds
- Nearly 1/2 million miles a year, 10000 + motorist assists
- Removal of abandoned vehicles from roadways
- Assist Troopers at traffic incident scenes
- Reducing secondary crashes clearing minor incidents
- Reduce road hazards by removing roadway debris.

# MCDOT – Regional Action Coordinating Team (REACT)



On March 27, 2021,  
REACT lost “**Gustav  
Danielson**” in a tragic  
secondary H&R crash  
near Glendale Ave & 71<sup>st</sup>  
Avenue

# AZDOT - Incident Response Unit (IRU)

- Arizona Department of Transportation (ADOT) Incident Response Unit (ALERT) responds to incidents on the freeways.



On March 4, 2020, IRU lost “**Frank Dorizio**” in a tragic secondary crash on I-10 just south of Phoenix.

- In the rural areas, maintenance yard crews will respond to fulfill similar duties.

# AZ Building on Every Day Counts EDC Initiatives

- **EDC Round 2:** National Traffic Incident Management Responder Training (SHRP2)
- **EDC Round 4:** Using Data to Improve Traffic Incident Management
- **EDC Round 6:** Next-Generation TIM: integrating Technology, **Data**, and Training

# TIM Data History in Arizona

- 2010 thru 2014 collected TIM PMs to include responder struck in a separate crash database internal to AZDPS.
- 2014 AZ TRCC approved adding the TIM performance measures to the standard crash report form.
  - Secondary Crash
  - Roadway Clearance Time
  - Incident Clearance Time
- 2017 they approved adding the “Responder Hit” field with the discipline of the responder.
- Other disciplines, both Public and Private, are collecting measures to help reduce RCT and ICT.



***“Collecting, Analyzing and  
Sharing the AZ Responder  
Involved Crash Data with  
Responders ”***



Goal of this Activity: Be able to put the TIM data and “struck-by” crash information into the hands of our responders.

- TIM Data collection and use is one of the pillars of **the EDC6 Next GEN TIM** innovation.
- Both the Arizona TIM Coalition and EDC team have adopted the action item to make the data available to the responders involved in traffic incidents to highlight TIM’s importance to them.
- The first accomplishment has been having the TIM Data Element flags have now been added to the ACIS interface which allows them to be pulled from ALISS
- **Available soon from ACIS is a TIM Dashboard that allows responder agencies access to pull and use TIM PMs to improve their traffic incident management.**

## TIM

Crash Data Analysis

Crash Count Overview

STSP

HSIP

TIM

GOHS

Traffic Incident Management (TIM) Data				
This report displays crash, secondary crashes, and non-crash incidents for the last 3 years. <a href="#">Click here to download the report.</a>				
<b>Crashes by Year and Severity</b>				
Year/Severity/Type	2018	2019	2020	2021
All	27,122	27,275	27,122	27,122
Minor	15,122	15,122	15,122	15,122
Major	12,000	12,153	12,000	12,000
Fatal	0	0	0	0
Non-Crash	1,000	1,000	1,000	1,000
Non-Crash Total	1,000	1,000	1,000	1,000
<b>Secondary Crashes by Year</b>				
Secondary Crash Type	2018	2019	2020	2021
All	12,122	12,122	12,122	12,122
Minor	10,000	10,000	10,000	10,000
Major	2,122	2,122	2,122	2,122
Non	0	0	0	0
Total	12,122	12,122	12,122	12,122
<b>Secondary Crashes by Injury Severity and Year</b>				
Year/Severity/Type	2018	2019	2020	2021
All	12,122	12,122	12,122	12,122
Minor	10,000	10,000	10,000	10,000
Major	2,122	2,122	2,122	2,122
Non	0	0	0	0
Total	12,122	12,122	12,122	12,122

TIM data - First Responder Struck in Secondary Crash			
This table shows the number of first responders struck in Secondary Crashes for the Year 2018. This is based on a data source and may not reflect data in RUCRS. <a href="#">Click here to complete the report.</a>			
Responder Incident Secondary Crashes	Total	Hours	2018
Working 911 Workers	0	0	0
Working EMS	0	0	0
Working Fire	0	0	0
Working Law Enforcement	0	0	0
Working Other	0	0	0
Total	0	0	0

TIM Data - ACT and ICT and Crash data time Difference				
This table shows the difference in time between the time of the crash and the time of the incident. This is based on a data source and may not reflect data in RUCRS. <a href="#">Click here to complete the report.</a>				
Year/Severity/Type	2018	2019	2020	2021
All	12,122	12,122	12,122	12,122
Minor	10,000	10,000	10,000	10,000
Major	2,122	2,122	2,122	2,122
Non	0	0	0	0
Total	12,122	12,122	12,122	12,122

### [TIM Report](#)

This report displays the data that is used for Traffic Incident Management (TIM). The dashboard has summaries of secondary crashes for the last 3 years, a breakdown of first responders struck in secondary crashes, and analysis of roadway and incident clearance times.

For more information visit: [tim.az.gov](http://tim.az.gov).

## Interactive Crash Data

› [Crash Data Analysis](#)

› [Crash Count Overview](#)

› [STSP](#)

› [HSIP](#)

› [TIM](#)

› [GOHS](#)

## Traffic Incident Management (TIM) Data

This report shows total crashes, secondary crashes, and non-motorist crashes for the last 3 years. Crash data is complete through 2020.

## Crashes by Year and Severity

Injury Severity Desc	2018	2019	2020
Fatal	918	909	968
No Injury	90,120	92,841	69,343
Possible Injury	18,208	18,770	14,110
Suspected Minor Injury	15,439	15,623	12,058
Suspected Serious Injury	3,064	2,950	2,513

Year

- (All)  
 2018  
 2019  
 2020

Investigating Agency

(All) ▼

## Secondary Crashes by Year

Secondary Crash Flag	2018	2019	2020
n/a	13,960	27,649	20,157
No	110,974	101,071	77,154
Yes	2,815	2,373	1,681

## Secondary Crashes by Injury Severity and Year

Injury Severity Desc	2018	2019	2020
Fatal	18	14	18
No Injury	1,919	1,554	1,118
Possible Injury	446	438	295
Suspected Minor Injury	369	313	214
Suspected Serious Injury	63	54	36

## Non-motorist Crashes by Year

Injury Severity Desc	2018	2019	2020
Fatal	266	245	265
No Injury	120		
Possible Injury	772	948	670
Suspected Minor Injury	1,371	1,447	1,003
Suspected Serious Injury	548	503	418

### TIM Data - RCT and ICT and Crash date/time Difference

**Roadway Clearance Time (RCT)** - This is the time all traffic lanes were cleared. There are no vehicles or debris blocking the traffic lanes.

**Incident Clearance Time (ICT)** - This is the time the incident was cleared. All vehicles and first responders (police, EMS, fire, tow, etc.) have left the scene and are no longer a possible distraction to normal traffic.

This table shows crashes that were marked by the officer as a secondary crash for the last 3 years (2018-2020). Only those crashes where the ICT or RCT were entered by the officer are shown.

Incident ID	Geocode On Road	Geocode Crossing Feature	Difference between ICT and crash date/time (in minutes)	Difference between RCT and crash date/time (in minutes)	Difference between RCT and ICT (in minutes)	
3313162	SR-51 Exit 1 C11-Ramp	M000	114	86	28	■
3313507	I-10 Non-Cardinal	M145	70	0	70	■
3313541	I-10	M138	62	4	58	■
3313627	I-19	M051	153	89	64	■
3313658	SR-101 Non-Cardinal	M059	10	5	5	■
3313988	I-17 Non-Cardinal	M208	79	59	20	■
3314038	US-60 Non-Cardinal	M173	59	59	0	■
3314288	35th Ave	Beverly Ln	Null	63	Null	■
3314367	24th St	Southern Ave	60	60	0	■
3314468	Miller Valley Rd	Fair St	36	21	15	■
3314559	SR-101	M052	70	5	65	■
3314612	I-40 Non-Cardinal	M127	137	30	107	■
3315020	SR-101	M017	75	0	75	■
3315028	SR-51	M002	106	78	28	■
3315059	SR-101 Non-Cardinal	M048	83	17	66	■
3315069	I-10 Non-Cardinal	M145	62	0	62	■
3315105	SR-101	M053	68	6	62	■
3315128	I-10 Exit 144 P-Ramp	M000	37	0	37	■
3315641	19th Ave	Broadway Rd	112	82	30	■
3315786	SR-51	M002	59	12	47	■
3315804	US-60	M182	105	88	17	■
3315811	I-10 Exit 143 C1-Ramp	M000	35	6	29	■
3315834	SR-202	M001	97	0	97	■
3315835	SR-202 Non-Cardinal	M005	105	0	105	■
3315839	I-17	M198	114	24	90	■
3316256	I-10	M151	77	0	77	■
3316264	SR-202 Non-Cardinal	M010	44	0	44	■
3316289	I-17 Non-Cardinal	M204	72	6	66	■
3316300	I-17 Non-Cardinal	M321	104	0	104	■
3316318	I-17 Non-Cardinal	M203	257	69	188	■
3316319	US-60	M192	100	20	80	■
3316768	SR-85	M146	106	0	106	■
3316796	I-10	M131	33	8	25	■
3316797	I-10	M131	79	8	71	■
3317010	Cave Creek Rd	Desert Willow Pkwy	-7	42	-35	■
3317043	Stapley Dr	Southern Ave	29	29	0	■

Year

- (All)
- 2018
- 2019
- 2020

Severity

- (All)
- Fatal
- No Injury
- Possible Injury
- Suspected Minor Injury
- Suspected Serious Injury

Investigating Agency

(All) ▼

Flags

(All) ▼

On Road

Crossing Feature or Milepost

ICT and crash date/time difference

(All) ▼

RCT and crash date/time difference

(All) ▼

RCT and ICT difference

(All) ▼

Legend for date/time difference:

Good < 120 minutes  
Poor > 120 minutes

- Good, Good, Good
- Good, Good, Poor
- Good, Poor, Good
- Good, Poor, Poor
- Poor, Good, Good
- Poor, Poor, Good
- Poor, Poor, Poor

## TIM data - First Responder Struck in Secondary Crashes

This table shows the number of first responders struck in Secondary Crashes for the Year 2019. This is based on a review of crash reports where first responders were struck and may not reflect data in ALISS.

Responder Involved Secondary Crashes	Fatal	Injury	PDO	Total
Involving DOT Workers	0	1	3	4
Involving EMS	0	0	1	1
Involving Fire	0	2	1	3
Involving Law Enforcement	1	12	9	22
Involving Other	0	0	0	0
Involving Tow	0	2	2	4

# 2019 Fatal or Injury Crashes Involving Incident Responders

- **1 LE**, an officer was struck and killed while conducting a traffic stop.
- **1 fire fighter** was standing beside the engine when it was struck – non incapacitating injuries
- **3 fire fighter** were seated in an engine when it was struck all had complaint of pain - non incapacitating injuries
- **1 LE officer** was traveling through the scene, not part of the initial investigation and was rear-ended while on his police motor - non incapacitating injuries
- **1 LE officer** was traveling SB when a NB vehicle hit a donkey which landed in front of the officer, and he struck it - non incapacitating injuries
- **1 LE officer** and **1 tower** were pedestrians when struck LE officer was suspected serious injury, tower had non incapacitating injuries
- **1 Trans (ADOT)** was inside a closure when an errant driver struck his vehicle suspected serious injury
- The **Remaining 9** fatality and injuries were to the civilians involved in the crash with the responder.

# A Deeper Dive into the Crash Reports

- 2 of these were unique in that the while it was a secondary collision, the officers were not part of a response to the primary.
  - In one case, a local LE was traveling through a scene and was rear ended in the queue.
  - The second case the LE saw a crash between a vehicle and a donkey occur in the opposite direction in front of him and the donkey landed in his path and he struck it.
- 6 crashes were a result of the responder taking an action such as merging into traffic when it was not clear, conducting rolling roadblock and attempting to cut off a vehicle trying to get passed them.
- 10 crashes involved only responders maneuvering in the scene striking objects or other responder vehicles.
- 3 of the 30 crashes involved 4 responders who were outside of their vehicles and were struck as pedestrians.
- **14 of the 30 crashes involved an errant "D" driver that caused the collision as they entered a primary incident scene.**

# Questions?

While the focus of this review was on secondary collisions involving responders. It has been demonstrated that the strategies to reduce these crashes also reduce “civilian on civilian secondary crashes” as well. The resulting reduction in RCT and ICT reduces the duration the primary incident distracts a “D-driver”

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