

# Arizona Crash Data Reporting and Applications

**ADOT Team** 

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# Traffic and Criminal Software (TraCS)



#### What is TraCS

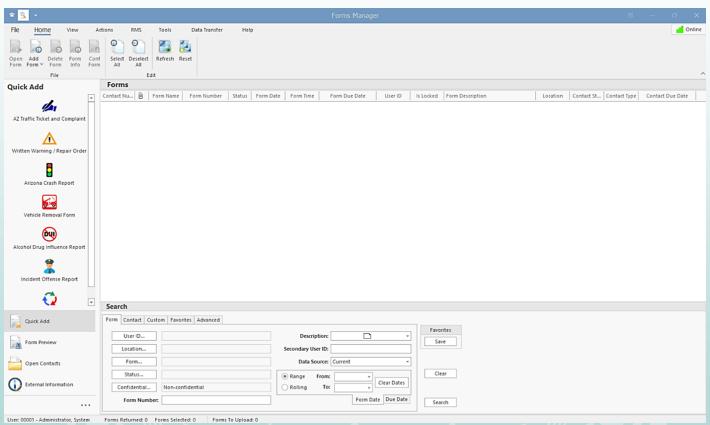
TraCS is an award-winning software for public safety professionals. It enables retrieving, and managing incident information anytime, anywhere.

Arizona, along with 16 other states, utilize TraCS for crash reporting. Currently over 80 law enforcement agencies in Arizona, including five tribal agencies (Gila River PD was the first tribal agency to transmit crash reports), employ TraCS

#### NATIONAL MODEL MEMBERS







#### **Benefits of Tracs**

- Data Collection Efficiency
- Improved Accuracy
- Information Sharing
- Streamlined Workflow
- Advanced Ad Hoc reporting
- Electronic transmittals ensuring real-time data



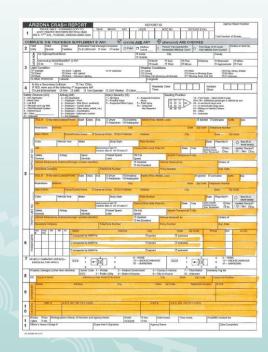
## **Real World Application**

- **Quickly clear incidents** by scanning and importing licenses and registration into forms; auto-populate additional supporting forms.
- Law enforcement agencies that can apply more detailed query tools into other
  agencies' data, especially neighboring and regional records, will be more successful
  in identifying suspects and ultimately solving crimes.

The likelihood of a **secondary crash increases** by approximately **2.8%** for each minute the primary incident remains a hazard.

#### Redaction

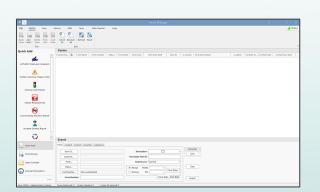
- All personally identifiable information can be removed from transmission to ADOT.
- Agency would still have access to the complete, unredacted report.



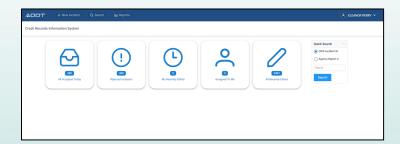


# Crash Records Information System (CRIS)

#### Tracs -> CRIS -> ACIS



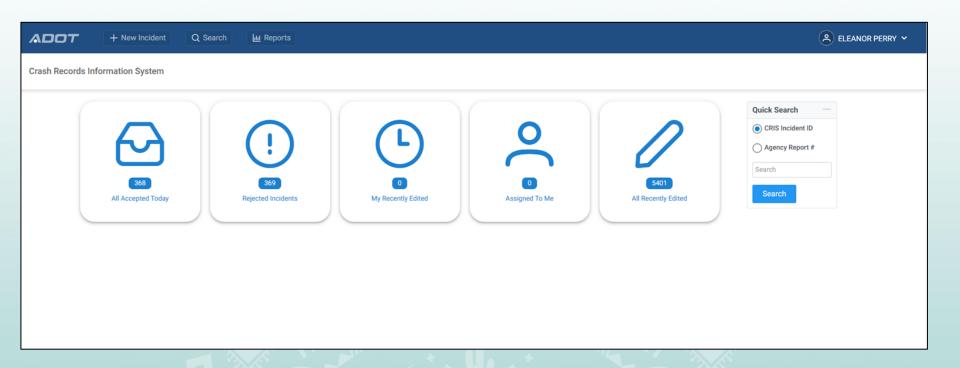












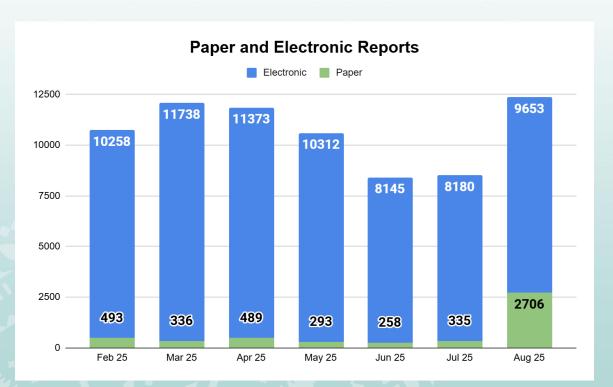
# Crash Records Information System (CRIS)

- The Arizona Department of Transportation's (ADOT) new Crash Records Information System (CRIS) replaced the previous system, Accident Location Identification Surveillance System (ALISS).
- CRIS was launched at the end of July 2024 and it serves as a central repository for crash data across Arizona.
- Focus on Safety CRIS is designed to support the analysis of crash data for highway safety projects. It assists in producing and formatting data for reporting requirements at the local, state, and federal levels.
- Essentially, CRIS acts as a central hub for crash-related information, providing a valuable resource for ADOT and other entities involved in transportation safety, planning and related decision-making processes.



# Electronic vs. Paper Reporting

- 96% of law enforcement agencies are now reporting electronically.
- 4% of agencies still report using paper via mail or sharefile.



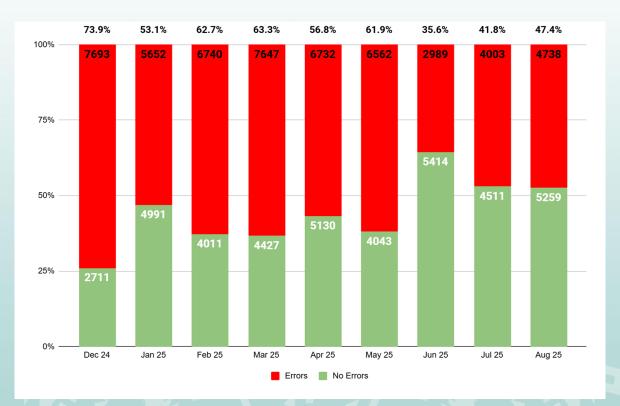


#### **MVD-Crash Records**

- Compiles crash data from all Law Enforcement Agencies
- Validate Data
- Provide targeted refresh training to Law Enforcement Agencies
- Fatality Reporting Information System (FARS)
- Does not provide Public Records



#### **Errors vs. No Errors**





#### Resources

 Arizona Crash Report Forms, Resources and Training Events | Department of Transportation

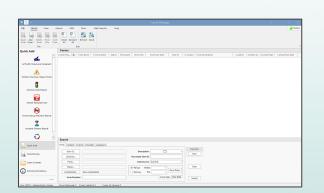
#### **Questions?**

CrashRecords@azdot.gov

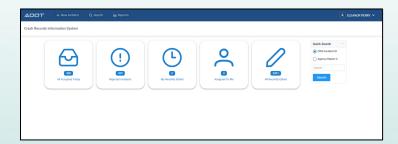


# Arizona Crash Information System (ACIS)

#### Tracs -> CRIS -> ACIS













#### ACIS - <a href="https://adotdw.dot.state.az/ACIS">https://adotdw.dot.state.az/ACIS</a>

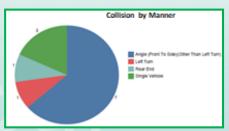




#### Crash Data for Crash Analysis/ Warrant Study

- ✓ Query Crash Data
  - Statewide
  - By Agency
  - By Project Site
  - By Route / Intersection
- √ Statistical Charts / Tables
  - By Agency
  - By Route / Intersection
- √ Crash Location Maps/Aerial Maps
  - By Agency
  - By Project Site
  - By Route / Intersection
- √ Collision Diagram
  - By Route / Intersection
- ✓ Network Screening
  - Statewide
  - By Agency

	A	8	C	0	E	F	G	н
			Incident Collision Manner Desc	Incident Count	Indicent Total Injuries	Incident Total Fatalities	Incident Total Units	Incident Total Persons
2	La Fac		Angle (Front To Side)(Other Than Left Turn)	2	0	0	4	4
2	La Paz		Head On	1	1	i	2	2
4	La Paz	2214	Other	9	4	0	19	29
0	Le Fee	2214	Sear Drd	24	22	2	10	03
c	Le Fec		Sideswige Same Direction				44	64
7	Le Fec		Single Vehicle	129	75	2	129	240
	La Paz	2215	Head On	1	0	1	4	12
9	La Paz	2215	Other	5	0	1		26
	La Fac		Fear End			2	87	125
	Sa Pac		Sidesvige Same Direction	29	34	0	58	88
	Sa Pac		Single Vehicle	130	00	7	136	249
	La Paz	2016	Angle (Front To Side)(Other Than Left Turn)	1	2	0	2	2
	La Paz	2016	Head On	1	1	0	2	3
	La Paz	2016	Other	12	2			53
15	La Paz		Fear End		49		143	276
17	La Pac	5916	Sideswipe Same Direction					
	La Paz	2016		131	72	4	131	227
1)	La Paz	2017	Angle (Front To Side) (Other Than Left Turn)		2	o .	4	0
20	Le Fec	2017	Other	10	4		24	36
21	Le Fec		Feer Ord	42	37		87	131
	to Foc		Rear To Side	1		0	2	
	La Paz	2017	Sideovipe Opposte Direction	1	2	0	2	
24	sa Paz		Sideovige Same Direction	27	9	0	54	05
25	Sa Pac		Single Vehicle	100	68	4	100	194
25	La Fac	3918	Head On	2	2	4	4	0
27	La Paz	2016	Other		8	2	26	42
23	La Paz	2918	fear End	52	44	1	107	151
23	ta Paz	2918	Sideovige Opposite Direction		2	0	2	0
20	La Paz	2016	Sideoxige Same Direction	29	11	0	58	193







# **Features of ACIS**

- Crashes are geo-coded to ATIS Routes
- Flags to customize queries are included
- Search by City / County/ ADOT District
- XML data export
- Site Summary Charts and Graphs
- Aerial Map / Map
- Collision Diagram
- Network Screening
- Crash Data Dashboards
- Crash Data Web Viewer Map



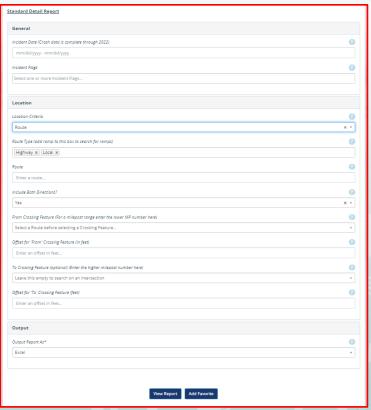
# Reports

- ✓ Crash Reports
  - Collision Diagram
  - Collision Manner (Summary)
  - Data Export (Data)
  - First Harmful Event (Summary)
  - Incident Level Detail (Data)
  - Injury Severity (Summary)
  - Network Screening Report
  - Site Summary Graphs
  - Standard Detail Report (Data)





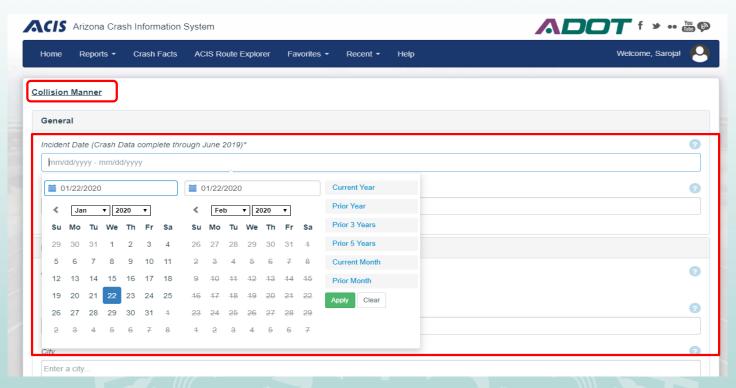
### **Query Form**



- ✓ Crash Period
- √ Crash Flags
- √ Location
  - Open Map
  - County/City/ADOT District
  - Route/Intersection
- ✓ Output Report
  - Data Excel/PDF/CSV/XML
  - Visualization (Graphs)
  - Map/Aerial Map



# **Crash Period**





- Alcohol Use Flag
- Animal Involved Crash Flag
- Bus Flag
- Crossed Median Flag
- Curve Related Flag
- Dark Light Condition Flag
- Distracted Driving Flag
- Drug Use Flag
- Fatal Accident Flag
- Fixed Object Involved Flag
- GVWR Flag
- Hazmat flag
- Heavy Vehicle Involved Flag
- Hit And Run Flag
- Impairment Flag
- Intersection Flag
- Intersection Turning Flag
- Lane Departure Flag
- Marijuana Use Flag
- Medical Transport Flag
- Medication Use Flag
- Motorcycle Flag

## **ACIS Flags**

- Multiple Vehicle Involved Flag
- Older Driver Involved Flag
- Overturning Flag
- Pedalcyclist Flag
- Pedestrian Flag
- Pedestrian Or Pedalcyclist Involved Flag
- Speed related Flag
- Run Off Road Flag
- Safety Device Used Flag
- School Bus Related Flag
- Secondary Crash Flag
- Signalized Intersection Flag
- Single Vehicle Involved Flag
- Tow Away Flag
- Truck/Bus Flag
- UnSignalized Intersection Flag
- Vehicle Train Crash Flag
- Workers Present Flag
- Work Zone Related Flag
- Wrong way Crash Flag
- Younger Driver Involved Flag

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Urban Flag

- Rural Flag
- SHS (State Highway System) Flag
- Local Road Flag
- Serious Injury Crash Flag
- Fatal Or Serious Injury Crash Flag
- Road Rage Flag
- Ran stop sign
- Disregarded traffic signal
- Wet Surface Crashes
- Cross Centerline
- Controlled Access Flag
- Safety Device Not Used (child restraint, helmet, seatbelt)
- Weather Related Crashes
- Ramp
- Guardrail
- Median Barrier
- Auto Correct
- Tree Related
- Speed related flag without impairment
- Electronic Report
- Paper Report



#### **Query Parameters**

#### **Every Report generated includes Query Parameters**

#### **Report Parameters**

Request ID: 85a35923-9dc7-4fea-a515-872631654641

Incident Date Range: 1/1/2016-12/31/2018

Route : State Route 24 (EB) From Crossing Feature : M000

To Crossing Feature : Ellsworth Rd

Both Directions Selected? : No Intersection Selected : M000

Report Generated On: 2/15/2019 11:58:31 AM

2/15/2019 11:58:31 AM



# **Collision Diagram**

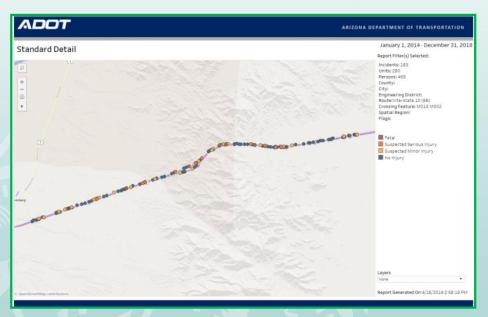






# **MAP & Aerial Map**







### **Network Screening Report**

#### Network Screening Report: Locations List - State Highway

				Severity					
Rank	On Road	Mile Post	District	K+A Tota	Fatal (K)	Serious (A)	Minor/Poss (B+C)	PDO (O)	Total
				1	(,	,,	(	(-,	
1	I-10	M149	Central	17	5	12	207	496	720
	I-10	M144	Central	14	2	12	616	1614	2244
_	I-17	M201	Central	13	1	12	406	944	1363
	I-10	M145	Central	12	3	9	798	2105	2915
	US-60	M173	Central	12	1	11	232	453	697
6	SR-347	M185	Central	12	2	10	82	124	218
	I-17	M202	Central	11	1	10	331	746	1088
8	SR-202	M007	Central	11	0	11	183	513	707
9	SR-101	M053	Central	10	1	9	569	1255	1834
10	I-17	M203	Central	10	1	9	334	772	1116
11	I-10	M139	Central	10	3	7	222	604	836
12	I-10	M138	Central	10	4	6	232	565	807
13	I-17	M213	Central	10	1	9	164	367	541
14	I-10	M147	Central	10	2	8	106	349	465
15	SR-202	M005	Central	10	1	9	69	242	321
16	SR-101	M007	Central	10	3	7	76	172	258
17	SR-88	M206	Central	10	2	8	24	19	53
18	I-10	M146	Central	9	2	7	715	1824	2548
19	SR-202	M001	Central	9	0	9	518	1247	1774
20	SR-101	M024	Central	9	4	5	313	739	1061
21	I-17	M206	Central	9	2	7	286	661	956
22	I-17	M207	Central	9	1	8	279	665	953
23	I-10	M136	Central	9	3	6	192	623	824
24	SR-101	M002	Central	9	1	8	203	459	671
25	US-60	M177	Central	9	1	8	198	450	657
26	I-10	M135	Central	9	4	5	155	463	627
27	US-60	M172	Central	9	2	7	165	441	615
28	I-10	M152	Central	9	1	8	147	372	528
29	I-10	M156	Central	9	3	6	128	378	515
30	SR-101	M041	Central	9	3	6	97	248	354
31	SR-69	M295	Northwest	9	0	9	35	79	123
32	I-17	M241	Northwest	9	2	7	25	65	99
	US-93	M029	Northwest	9	6	3	8	11	28
	I-10	M142	Central	8	2	6	299	919	1226
35	SR-101	M054	Central	8	1	7	351	856	1215
	I-17	M204	Central	0 8	2	6	296	676	980



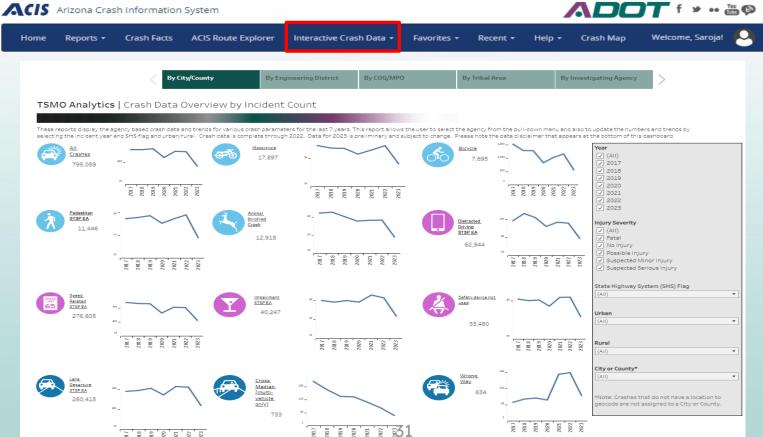
#### **Crash Facts**



https://www.azdot.gov/crashfacts

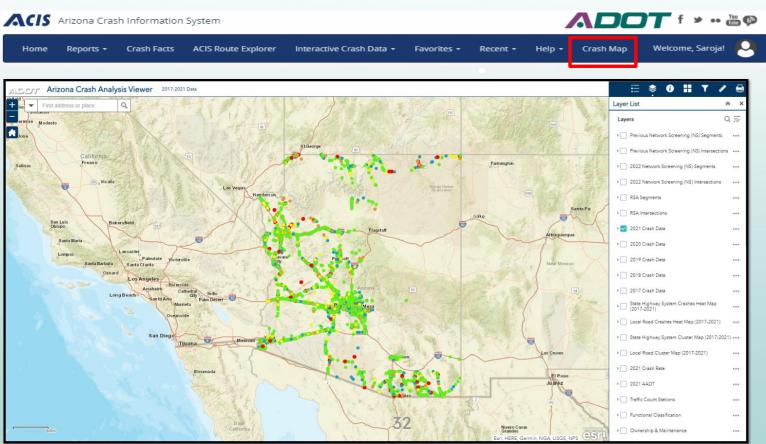


#### **Interactive Dashboard**





# Crash Map





## Crash Numbers Don't Match - ACIS

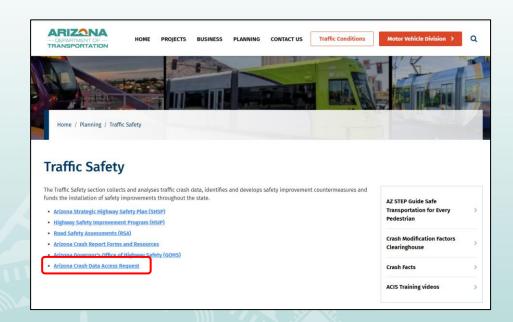
- ✓ An agency may not have sent all their crash reports to ADOT or the reports have not been processed due to backlog
- ✓ Agencies may have different criteria for crashes, such as counting private property crashes or under minimum crashes, or including fatalities not matching NHTSA guidelines
- ✓ An agency may have different criteria for certain queries, example: counting all crashes within 250 feet of an intersection instead of 150 feet or using the intersection related box
- ✓ Any query run from 2 different databases may have different results.



#### **ACIS Access**

#### ALL entities need a Data Access Agreement in place to access ACIS

\* Government Agencies or Consultants shall submit <u>waiver form</u> for Crash Report requests



https://azdot.gov/planning/traffic-safety



## **ACIS – Access and Support Contact**

#### **ACIS Access**

Nicholas Dennis <u>ndennis@azdot.gov</u>

#### **ACIS Support**

John Riemer <u>Jriemer@azdot.gov</u>

Saroja Devarakonda <u>Sdevarakonda@azdot.gov</u>



# Questions??



# Thank You!