

WASHINGTON FARS



January 2014 Issue 4

2013: Was it a Very Good Year for WA Fatal Crash Reporting?

HATS OFF to Washington's fatal crash investigators and their agencies! Your reporting time from crash to State Patrol notification has improved, and is ultimately making our communities safer! THANK YOU, ALL!

2013 was a very good year. As the number of traffic deaths goes down (not as quickly as we would like), reporting time is following. Investigators are collecting more information at crash scenes, reporting more quickly, and keeping data folks apprised of new information.

RCW 46.52.030 requires crashes to be reported to the State Patrol within four days.

Why is prompt reporting important?

The more we know about crashes and crash causes, particularly fatal and serious injury crashes, the more judiciously we can apply

shrinking traffic safety dollars. Faster, more accurate reporting to the National Highway Traffic Safety Administration (NHTSA) increases our state's eligibility for federal funding. Slow-reporting agencies often can't demonstrate their specific traffic safety issues in time to meet eligibility requirements for additional funding.

The data is critically important and we use every nugget; but the greatest payoff for all of us is that our roadways and our communities are becoming safer.

We appreciate your diligence in earlier reporting. Remember, supplemental information can always be added later.

If you would like a report of your agency's fatal crash reporting history, please email mnickerson@wtsc.wa.gov.

FATAL CRASH REPORTING

2013 QTR 4 HALL OF FAME

TOP REPORTING PDS:

**WENATCHEE
BELLEVUE
EVERETT
PASCO
PUYALLUP**

TOP REPORTING OFFICER:

**J. NORDENGER
AUBURN PD**

TOP REPORTING SO'S:

**GRANT
ASOTIN
YAKIMA**

The agencies listed above submitted fatal crash reports within 4 days per RCW 46.52.030 OR improved their reporting timeliness.

THANK YOU!!

Police Department (City) Reporting



2013 City Fatal Crash Reporting Timeliness

In 2013, 43 city police departments submitted fatal crash reports. The overall average number of reporting days ranged from 1 to 96.

Four cities reported fatal crashes within four days, per RCW 46.52.030:

Bellevue, Pasco, Puyallup, and Wenatchee

Agencies reporting within ten days include those listed above, plus:

Bonney Lake, Everett, Goldendale, Lake Stevens, Lynnwood, Marysville, Mill

Creek, Redmond, Sumner, and University Place.

2013 City Fatal Crash Reporting Volume

Last year, 122 fatal crashes were investigated and reported by city police departments.

- 23 cities reported a single fatal crash
- 18 cities reported 2 to 8 fatal crashes
- 1 city reported 10 fatal crashes
- 1 city reported 25 fatal crashes

(Continued on page 4)

Inside:

GIS and Traffic Safety



Sheriff's Office (County) Reporting

2013 Fatal Crash Reporting Timeliness

In 2013, twenty-five counties reported fatal crashes. The average number of reporting days ranged from 2 to 99.

One county reported a fatal crash within 4 days:

Asotin.

Four others reported fatal crashes within ten days:

Grant, Kitsap, Pierce, and Klickitat.

2013 Fatal Crash Reporting Volume

Last year, 110 fatal crashes were investigated and reported by county sheriff's offices.

- 6 counties reported a single fatal crash
- 17 counties reported 2 to 9 fatal crashes
- 2 counties reported 18 to 19 fatal crashes

2009—2013 Fatal Crash Reporting Timeliness

From 2009—2013, 33 county law enforcement agencies reported fatal crashes.

Thirteen counties reported fatal crashes in each of the five years.

The top reporting agencies for this five-year period were

Grant and Okanogan.

2009—2013 Fatal Crash Reporting Volume

In the five-year span, 113 fatal crashes were investigated and reported by counties.

- 1 county reported a single fatal crash
- 18 counties reported 2 to 9 fatal crashes
- 8 counties reported 10 to 22 fatal crashes
- 6 counties reported 30 to 88 fatal crashes

SECTOR (eTrip) Reporting

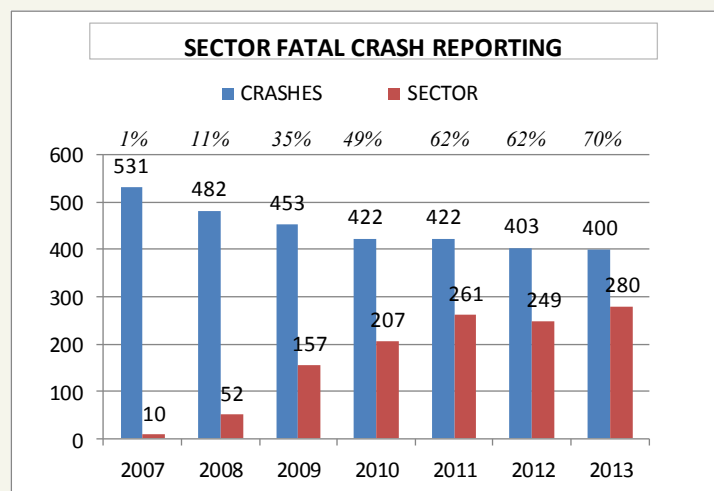
Electronic Crash Reporting

This graph exhibits the rapid increase in the use of SECTOR or eTrip fatal crash reporting. The comparison of electronic crash reports to paper report is well documented. SECTOR reports are completed more quickly, submitted more quickly, and submitted with fewer errors, and are more complete. The diagrams are more detailed and therefore more informative.

In 2007, the year of SECTOR's birth, 1% of fatal crash reports were received electronically. Last year, 70% of fatal crash reports were submitted electronically, helping data crunchers meet deadlines and getting investigators back out on the road.

Agencies using SECTOR have a more prompt and consistent fatal crash reporting pattern. While data analysts and researchers appreciate the various factors involved in "going online," we also recognize the advantages for investigators and their communities.

Who, after all, goes into law enforcement to wrestle with paperwork?



FATAL CRASH REPORTING

~~~

## 2013 HALL OF FAME

### TOP REPORTING POLICE DEPARTMENTS:

**WENATCHEE  
BELLEVUE  
PASCO  
PUYALLUP**

~~~

TOP REPORTING SHERIFF'S OFFICES:

**ASOTIN
GRANT
KITSAP
PIERCE
KLICKITAT**

~~~

## 5-YEAR 2009—2013 HALL OF FAME

### TOP REPORTING POLICE DEPARTMENTS:

**FEDERAL WAY  
WENATCHEE  
W. RICHLAND**

### TOP REPORTING SHERIFF'S OFFICES:

**GRANT  
OKANOGAN**

*The agencies listed  
above submitted fatal  
crash reports within 4  
days per  
RCW 46.52.030 OR  
improved their reporting  
timeliness.*

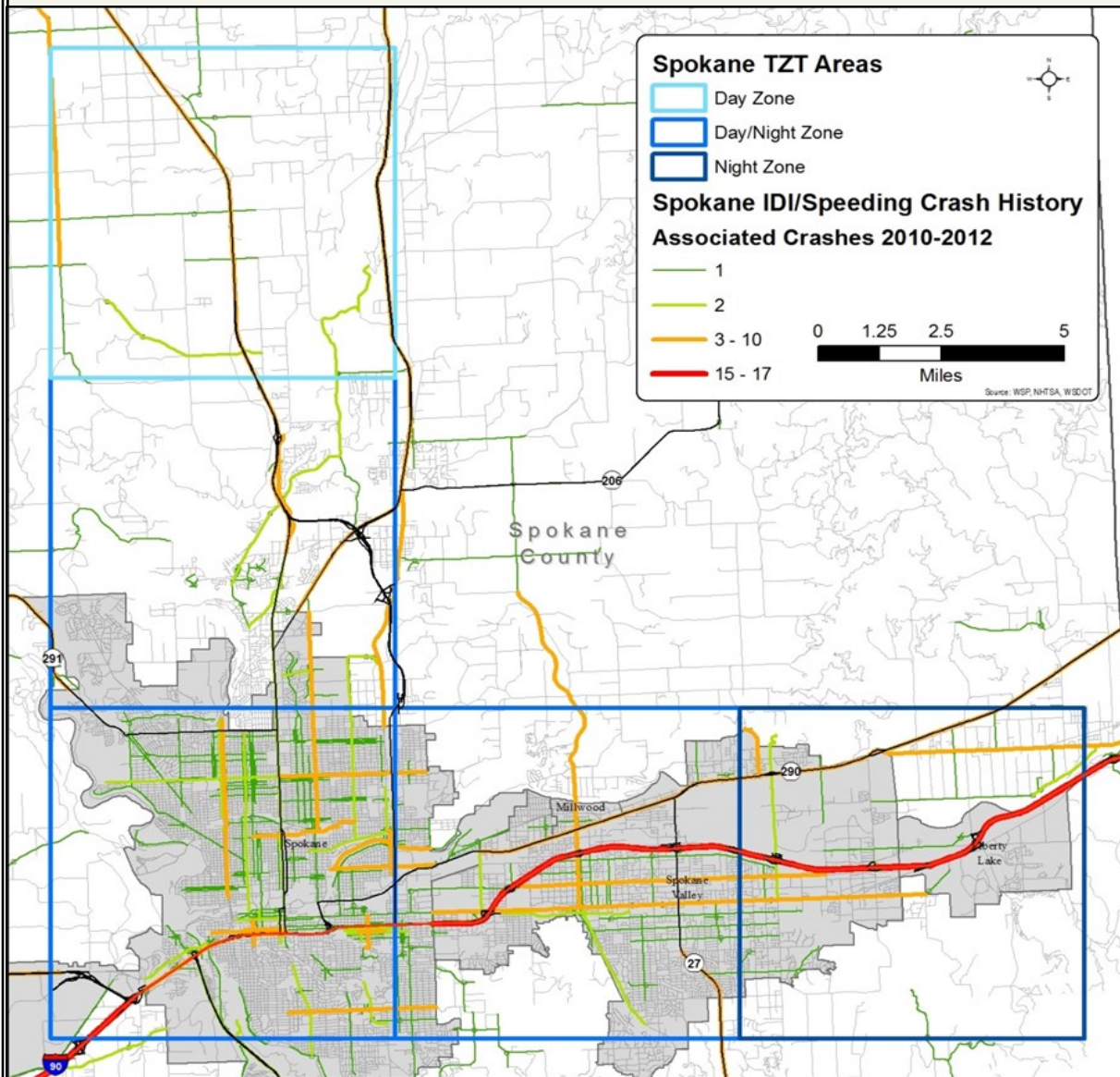
**THANK YOU!!**

# GIS and Traffic Safety

By Gary Montgomery

Maps are an integral part of safe travel and have been since humans first put marks on animal skins. But we have problems more complex than treacherous river crossings and cave bears – hence GIS. A deep and broad fusion of cartography and statistics, we can use the analytical capabilities of GIS to do more than show the locations of past events: we can model their dispersion, predict where they'll occur, and depict the results in a comprehensible visual manner.

That last part is perhaps the most important component of GIS. There are plenty of statistics programs – anyone with a how-to book and a copy of Excel can do some pretty complicated mathematical modeling, but GIS offers a way to convey results at a glance that tables, histograms, or box plots (nice as they are!) just can't. For example, a table of speeding and impaired-driver associated serious injury and fatal crashes by road name in the Spokane Target Zero Team areas would put a meth-head to sleep with its boringness (apologies to people who love tables of information). Even just *typing* that makes me yawn. But this map—



—tells it unmistakably. And since the crash locations are aggregated to street centerlines the map's information comes across clearly without the awkwardness or legal ramifications of depicting the exact point of an impaired-driving or speeding crash.

The challenge of relating GIS to traffic safety is getting past the “well, *duh*” informational maps and into useful descriptive and predictive modeling. If one was to plot the latitude/longitude values of crashes from FARS data on a map, to no one's surprise they'd be clustered around the areas of high population. Well *duh*, that's where the most driving takes place. So then maybe we subdivide them by crash type or driver factor – do the

clustering patterns change within the overall concentration of points? Or rather than look at the information from a statewide or county-wide level, we can zoom in a little more, add some noncrash location data, and do some exploratory analysis. Intersections, for instance – is there a statistically significant change in occurrence of crashes at intersections? Maybe at a *particular* intersection? For the sake of argument, say there is: where's the danger zone around an intersection for serious injury and fatal crashes? Is it only mid-roadway, dead center in the intersection, or is there an area of increasing danger as one approaches? Knowing that, can we institute some signage or other visual warning around an intersection?

GIS is, in a nutshell, the process of taking weird, dense, nonintuitive data and making a coherent visual product from it. Sometimes that product is just a simple visual representation – the map version of a bar chart or histogram. Sometimes it's considerably more complex.

Washington Traffic Safety Commission  
Research and Data Division (RADD)

621 8th Avenue SE, Suite 409  
P. O. Box 40944  
Olympia, WA 98504-0944

Manager: **Staci Hoff**

shoff@wtsc.wa.gov (360) 725-9893

Research Investigator: **Dick Doane**

ddoane@wtsc.wa.gov (360) 725-9894

GIS Specialist: Gary Montgomery

gmontgomery@wtsc.wa.gov (360) 725-9877

FARS\* Research Analyst: **Terry Ponton**

tponton@wtsc.wa.gov (360) 725-9891

FARS\* Research Analyst: **Mimi Nickerson**

mnickerson@wtsc.wa.gov (360) 725-9892

\*Fatality Analysis Reporting System



from the pen of

**Gary Montgomery,**  
**RADD Map Guy**

I moved to Olympia from Lock Haven, PA (home of the Piper Cub aircraft) where I worked for the Lycoming County planning department as a GIS technician. I graduated with an M.Sc. in GIS from Penn State in 2012, and spent a year and change working here in Oly for a timber industry consultant - minding databases, producing maps, and running an occasional terrain model. During that time I realized how much I missed public service, and leapt at the chance to work for the WTSC team. I'm thrilled to be part of RADD!

**FEEDBACK: This newsletter is a work-in-progress and intended to open discussion between crash data crunchers and law enforcement "boots on the ground." Officers, we need your feedback! What would you like to be addressed in this newsletter? Guest contributors are very welcome! Contact Mimi Nickerson (mnickerson@wtsc.wa.gov) or (360) 725-9892.**

Continued from Page 1

## City Fatal Crash Reporting

### 2009—2013 City Fatal Crash Reporting

#### Timeliness

During this five-year span, 87 cities investigated and reported fatal crashes. Nine of these reported fatal crashes each of the five years. Of these,

#### Federal Way

had the shortest average reporting period.

An additional 10 cities reported fatal crashes 4 of the 5 years. Of these,

#### Wenatchee and W. Richland

averaged reporting within 10 days.

### 2009—2013 City Fatal Crash Reporting

#### Volume

During this period, 559 fatal crashes were investigated and reported by city police departments.

- 23 cities reported a single fatal crash
- 43 reported 2 to 5 fatal crashes
- 17 reported 6 to 9 fatal crashes
- 12 reported 10 to 54 fatal crashes
- 1 reported 108 fatal crashes

**NOTE: Special thanks to investigators who note in the narrative why they are submitting a supplemental crash report.**

**THANK YOU for your prompt and accurate reporting!**  
**The work you do is making all our communities and roadways safer.**