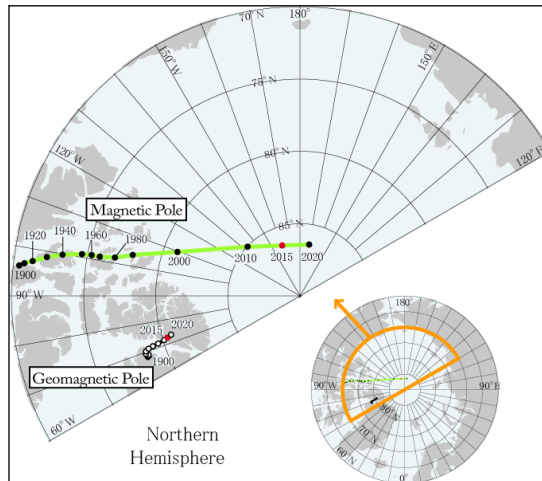




Anomalous Magnetic Pole Shift Detected

What is the relationship between the Earth's magnetic field and road-way vehicles? In the era of Internet-of-things and advanced location tracking and navigations systems, vehicles nowadays constantly communicate with global positioning systems (GPS) that rely on the Earth's magnetic pole to make accurate measurements.



The Earth's Magnetic pole has shifted dramatically since 2000. Map source: World Data Center for Geomagnetism, Kyoto.

Sometimes, however, the magnetic field can change unexpectedly, and forecasting how the magnetic pole shifts in time can be just as complicated as forecasting tomorrow's weather.

Recently, Earth's magnetic north pole was observed to move more than 34 miles per year, faster than forecasted. This unexpected change prompted scientists at the National

The strength and directions of the Earth's magnetic field are dynamic, and the model of the magnetic field, the World Magnetic Model (WMM), is typically due for an update every five years. GPS's rely on an accurate WMM for navigation and location tracking to work properly.

Oceanic and Atmospheric Administration to issue an out-of-cycle update to the WMM by the end of 2019. If your GPS seems to be having some issues now and then, perhaps they will behave better once the update is deployed.

Source: [NPR Illinois](#), [National Center of Environmental Information](#).

DUIs Lead to Hit-and-Run Death of Students

Two separate tragic DUI crashes occurred in the Chicago area in February that involved high school students. In early February, a high school student who was walking to school in Oak Lawn was struck in a hit-and-run crash.

The pedestrian, 15-year-old high school freshman Amira Nairat, was taken to a hospital, where she later died. The driver of the Volkswagen was eventually arrested on multiple counts, including aggravated DUI causing death.

It was later reported that the driver was arrested the night before for reaching behind a bar counter and drinking from open alcohol bottles. He allegedly

consumed more alcohol before the incident as well as after being released on bond and returning to his friend's home. The driver was denied bail, but his attorney recommended substance abuse treatment for what seems to be alcohol addiction.

On February 19, 17-year-old Beth Dunlap, a Downers Grove high school student, was struck and killed in a hit-and-run crash as she crossed an intersection while the walk sign was on to cross. The driver was later arrested and charged with multiple counts, including aggravated DUI. Investigations of the driver's hotel room revealed crack pipes and crack-cocaine, among other drugs.



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Last Month's Traffic Digest January, 2019

Fatal crashes: **49***
10 fewer than normal†

Total fatalities: **49***
16 fewer than normal†

* Provisional, subject to change
Source: IDOT

† Based on 2012–16 five-year means

NEWS THIS MONTH...

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2019 Starts with Low Fatalities

The first two months of 2019 have ended with below-average traffic fatalities, according to the Illinois Department of Transportation provisional data. As of February 26, there were 83 fatalities reported this year. That is 63 fatalities fewer than how many were reported to-date in 2018. Based on 2012–16 means, approximately 114 traffic fatalities are expected between January 1 and February 26 of a given year. So far, only one fatal crash involved more than one fatality.

2018 was the first year since 2014 to observe a lower traffic fatality count than the previous year. However, it was also the third year in a row to observe more than 1,000 fatalities. The state hopes that the below-average to-date fatalities for the first two months of 2019 suggests at last a decreasing trend of traffic fatalities but continues to urge drivers to always exercise caution when driving.

Source: Illinois Department of Transportation

Move over for stopped vehicles!



Illinois State Police Reminds Drivers of Scott's Law

In 2019 alone, Illinois State Police (ISP) already reported nine ISP squad car accidents involving an active duty officer tending to a roadside incident (e.g., traffic stop, crash). One of these crashes killed Trooper Christopher Lambert while handling a crash on a snowy Interstate 294 in late January. The driver of the car that struck Trooper Lambert was later arrested for reckless homicide.

A District Chicago trooper's squad was struck on February 12 in Des Plaines along Interstate 94, just one month after Trooper Lambert was struck. Less than one week later, on February 19, another District Trooper was struck while assisting a crash on the south side of Chicago along I-94. The crash involved a drunk driver.

Meanwhile, yet another state police trooper's squad car was struck along I-39 during a traffic stop just hours before the Chicago south side squad car crash. This crash involved a commercial vehicle who was unable to move over for the squad car because an-

other commercial vehicle occupied the left lane. None of the crashes involved life-threatening injuries, but all the troopers involved were taken to hospitals and treated. An additional few more troopers were also involved in crashes on the road.

On February 23, ISP announced on Facebook that they are performing "Move Over details across the state", emphasizing the importance of slowing down and giving room for emergency vehicles who are handling roadside incidents. Instead of one trooper for each traffic stop, another trooper will assist in the traffic stop to make sure drivers are moving over.

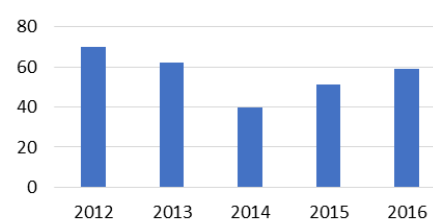
In 2002, Scott's Law was enacted in Illinois to mitigate the risk for such collisions from occurring. Also known as the "Move Over" law, the law states that vehicles must slow down to try to move over to another lane when there is a stopped car on the road or shoulder. ISP is calling all drivers to review Scott's Law and practice defensive driving at all times.

Source: [KWQC](#). Chicago Sun Times [1] [2]. [WREX](#). [KMOV](#). [Officer.com](#). Illinois State Police.

Hit-and-Runs on the Rise in Chicago, Nation

According to the Chicago Police Department (CPD), there have been six percent more hit-and-run crashes in Chicago in the past five months compared to the same time span of the previous year. Meanwhile, the National Highway Transportation Safety Administration (NHTSA) reported a record 2,049 fatalities involving hit-and-runs for 2016.

It is difficult to determine exactly the cause of such an increase in hit-and-run crashes, but the statistics may offer clues. Victims of hit-and-run crashes are typically pedestrians and bicyclists. According to AAA, drivers think they can get away from these hit-and-run crashes with little to no damage to vehicles;



Statewide hit-and-run fatalities, 2012–16.

Source: IDOT

however, they are still likely to get caught due to the abundance of traffic and security cameras along or near public roadways. Most of the vehicles involved in the hit-and-run crashes are SUVs or high-horsepower vehicles.

Drivers involved in fatal hit-and-run crashes tend to be young men with a criminal record, typically DUI. Victims are often male as well. AAA suggests that this is due to a higher proportion of men out in the streets during the late evening hours, the time that fatal hit-and-run crashes peak.

Statewide, hit-and-run crashes and hit-and-run injuries have been on the rise since 2013, and fatalities related to hit-and-run crashes have been increasing since 2014.

Source: [Chicago Tribune](#). Illinois Department of Transportation.

Pothole Repairs Underway Throughout Illinois

It is pothole repair season, a period typically spanning the months of February to April. Major urban areas of Illinois, including Chicago, Rockford, Metro East, and the Quad Cities, actively work to fix potholes along their roadways.

According to the Chicago Department of Transportation (CDOT), over 35,000 potholes were filled in January alone in the city. While northeastern Illinois observed temperatures in the -20s in mid-January, temperatures quickly rose to the 50s just a week later, quickly melting most of the snow on the ground.

Potholes large enough can cause damage to vehicles, and thousands of damage claims have been reported throughout the Midwest. Transportation safety officials caution drivers to slow down when driving on a road with many potholes.

Contrary to popular speculation, the number of potholes reported are not drastically higher than other years. However, the potholes this winter seem to have appeared suddenly and

POTHOLE SAFETY TIPS



PROPERLY INFLATED TIRES HOLD UP BETTER AGAINST POTHOLES THAN TIRES THAT HAVE TOO MUCH OR TOO LITTLE AIR.



IF YOU CAN'T AVOID A POTHOLE, SLOW DOWN BEFORE YOU HIT IT, BUT DON'T BRAKE DIRECTLY OVER A POTHOLE, WHICH CAN ACTUALLY CAUSE MORE DAMAGE.



WHEN DRIVING OVER THE POTHOLE, HOLD THE STEERING WHEEL FIRMLY TO AVOID LOSING CONTROL.



USE CAUTION WHEN DRIVING OVER A PUDDLE OF WATER BECAUSE IT MIGHT BE A POTHOLE IN HIDING.



Safety tips for dealing with potholes on roadways. Image source: Auburn Hills, MI.

also seem to last long. Perhaps this is because snow and ice fell frequently in January, prompting several rounds of snow plows to scrape the roads. Additionally, cold temperatures have lingered into February, with much of Illinois observing more at- or below-

average temperatures so far in 2019. For example, Moline noticed that potholes kept popping up even after fixing roadways, simply because the temperatures incessantly kept fluctuating after several rounds of winter precipitation events.

Potholes occur often in the winter because the air temperature frequently fluctuates below and above the freezing temperature of water. When water is stuck between the cracks of the pavement, and the water freezes and thaws multiple times, the crack can expand, and eventually the pavement crumbles. While salting of the roads is also commonly associated with potholes during the winter, the salt only slightly weakens the pavement. Potholes typically occur where heavy truck traffic creates cracks in the pavement over time.

Drivers can file a claim if they believe potholes have damaged their vehicle through [IDOT](#), the [Tollway Authority](#), or through the local municipality or county that is responsible for maintaining the roadway.

Source: [Chicago Tribune](#), [Daily Herald](#), [CBS Chicago](#), [ABC7 Chicago](#), [KMOV](#), [WIFR](#), [KWQC](#), National Weather Service.

Ford Issues Recall over Transmission Issues

TRAFFIC SAFETY AND BUSINESS



Ford trucks like the 2012 model above have been recalled for automatic transmission issues. Image source: Motor Trend

Source: [Reuters](#).

Nearly 1.5 million Ford vehicles were recalled in North America. The vehicles recalled include 2011-2013 Ford trucks with six-speed automatic transmission. Ford reported that unintended downshift into first gear was reported for several of these Ford trucks, some involving traffic accidents.

A past recall in 2016 involved several Ford vehicles, including Lincoln Navigator models, for a similar issue, but the issues are not related, according to a spokesperson from Ford.

In addition to the Ford truck recall, Ford also issued a recall of nearly 30,000 2017-2019 Lincoln Continental vehicles for faulty door latches, as well as for 4,200 2019 Ford Mustang, Lincoln Nautilus, and Lincoln Navigator vehicles for a panel cluster assembly software bug.



TRAFFIC SAFETY INITIATIVES

In the Spotlight!

Public Invited to Submit Anecdotes for Safety Campaign

By THE ILLINOIS DEPARTMENT OF TRANSPORTATION

The Illinois Department of Transportation is seeking real stories from people who have lost loved ones or otherwise been affected by poor choices and driving behaviors. The stories will be used as a part of Life or Death Illinois, IDOT's ongoing effort to encourage better driving habits and reach zero deaths on Illinois roads.

"Traffic crashes and fatalities do not just represent statistics, but names and faces of people with families and loved ones who care about them," said Cynthia Watters, IDOT's bureau chief of Safety Programs and Engineering. "The choices we all make in our daily travels can change your life or someone else's forever. By sharing these stories, we hope to honor victims and save lives."

The stories will be used as part the following cam-

paigns: Drive Sober or Get Pulled Over, Click It or Ticket, distracted driving awareness, work zone safety, motorcycle safety, bicycle safety and pedestrian safety.

To submit a story for consideration, visit [Lifeor-DeathIllinois.com](http://LifeorDeathIllinois.com).

Last year, 1,047 people died on Illinois roads, according to provisional IDOT statistics, marking the third consecutive year of more than 1,000 traffic fatalities, among the highest totals in a decade.

In response, IDOT in 2018 launched Life or Death Illinois to spotlight the importance of safe driving and appeal to audiences to stop and consider the seriousness of the issues on the state's roads.

Made possible by federal traffic safety funds administered by IDOT, Life or Death Illinois runs throughout the year on various media, including digital billboards, social media and online platforms, as well as traditional radio and TV safety messages.

Year-To-Date Fatal Crash Snapshot

February 25, 2019

82 Fatal Crashes*

83 Fatalities*

On this day last year:

135 Fatal Crashes*

146 Fatalities*

63 Below

Fatalities change

* Provisional, subject to change
Source: IDOT

Source: Illinois Department of Transportation.



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Access back issues on the
[Illinois Association of Chiefs
of Police website](http://Illinois Association of Chiefs of Police website)

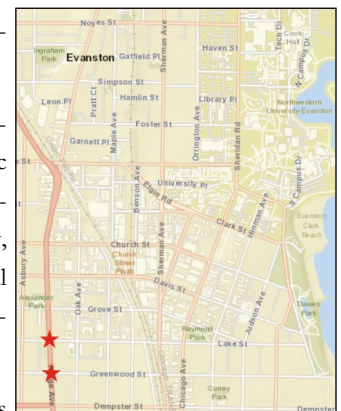


Local Evanston Street Sees Decrease in Crashes

Evanston's Ridge Avenue, notorious for its large number of traffic crashes, reported a 14 percent decrease in crashes for 2018 compared to 2017.

This drastic decrease is not a spontaneous miracle in the working, however. Rather, the improved safety is a successful result of several traffic safety initiatives that were conducted by the city. Evanston Police Commander Ryan Glew described the improvements made to the roadway, including lowering the speed limit to 25 mph, adjusting traffic signal timing, and improved visibility of the roadway and signage. Better visibility and slower traffic speeds helped to decrease the risk for crashes.

Along the roadway, 241 crashes were reported in 2018, while 278 crashes were reported in 2017. Some intersections experienced over 50 percent reduction in crashes. Police issued 4,311 traffic citations along the corridor in 2018.



Two intersections of Evanston, located with stars, observed a 58 percent decrease in crashes. Basemap: Esri.

Source: Patch.