

2019 Traffic Crash Analysis

Prepared by: Lt. Michael May, Traffic Safety Section, between 3/31/2020-4/25/2020

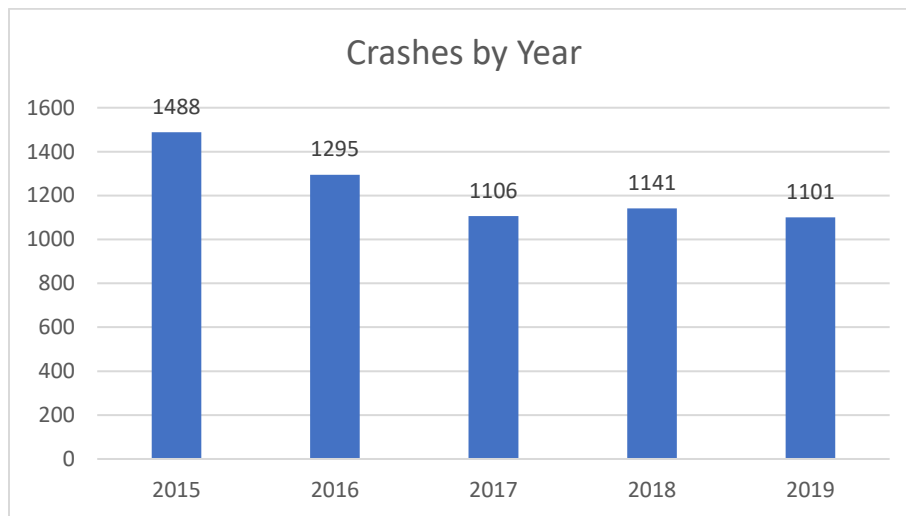
Annual Evaluation of Traffic Enforcement Program

Traffic Crash Analysis

The following summarizes traffic crash data for Calendar Year (CY) 2019 and provides an analysis of crash trends according to various factors.

There were a total of 1101 crashes in the CY 2019. This total represents a decrease of 3.5% in crashes from CY 2018 and a decrease of 10.2% from the five-year average.

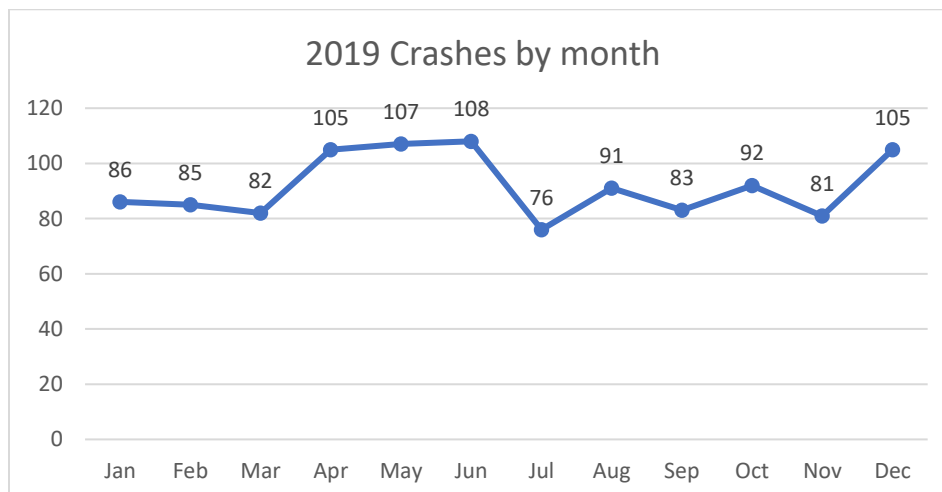
Crash Profile Analysis:



Note: Crashes by Year: Total crashes in DMV TREDS data. VSP and NOVA police reports excluded.

Crashes by Month

The greatest number of crashes for 2019 occurred in the months of June (108) and May (107). The number of crashes that occurred during the listed two months in 2019 accounted for 19.7% of the total crashes for 2019.



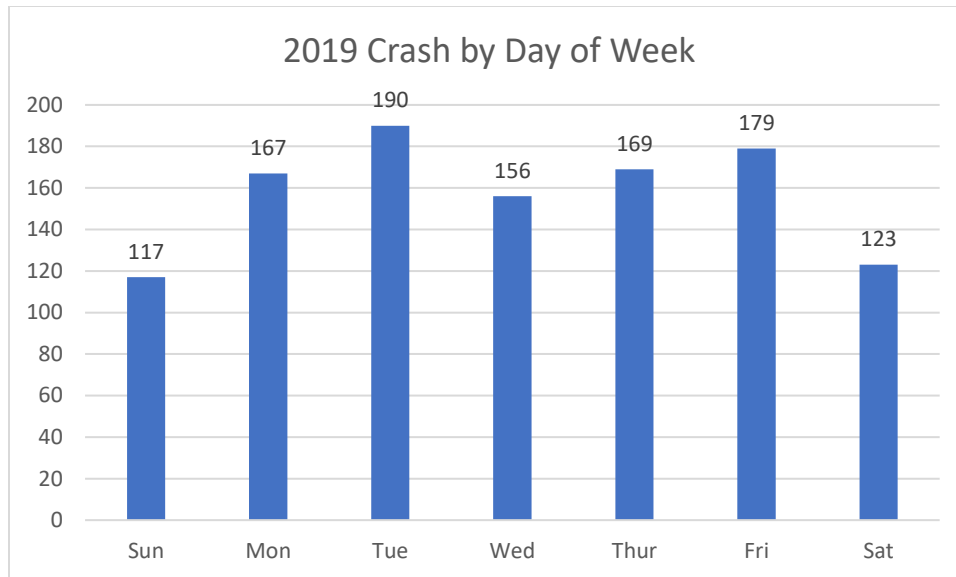
Note: Crashes by Year: Total crashes by year in DMV TREDS data, filtered by Month.

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Crashes by Day of Week

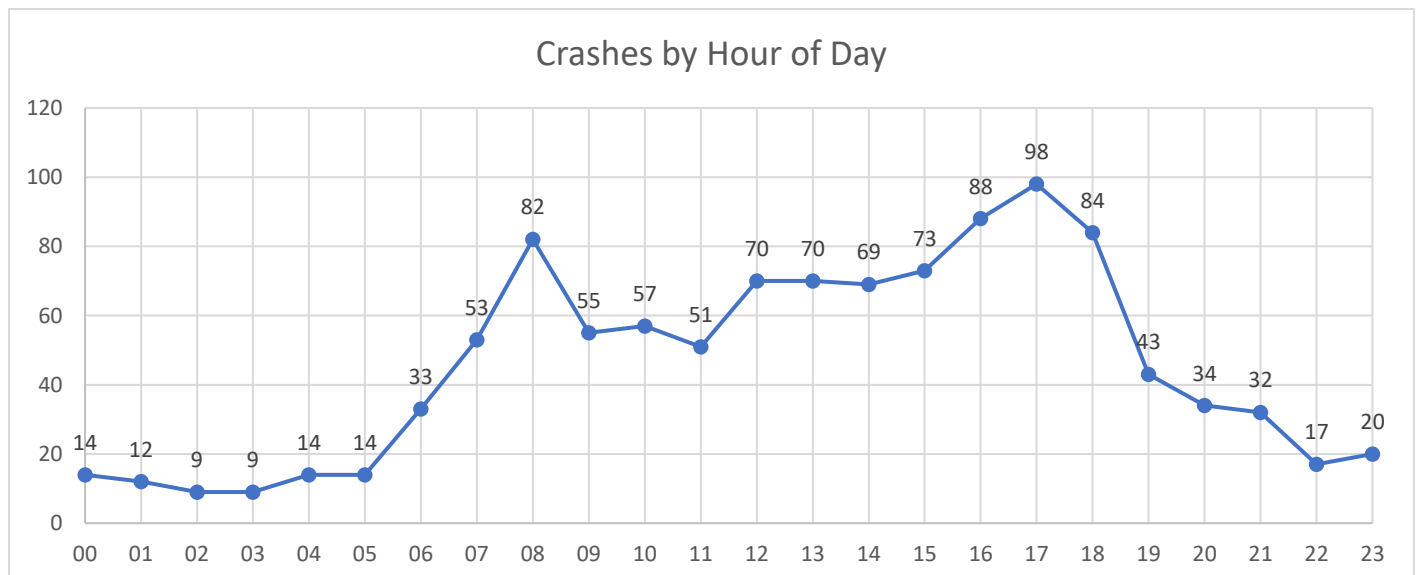
The day of the week with the most crashes in 2019 was Tuesday (190) accounting for 17.3% of the total crashes. Friday was next with 179 crashes or 16.2% of the total and Thursday had 169 of the crashes, which accounted for 15.3% of the total crashes.



Note: Crashes by Year: Total crashes by year in DMV TREDS data, filtered by Day of the Week.

Crashes by Timeframe

The highest number of crashes (98) occurred between 5:00pm and 5:59pm, with the second highest (88) between 4:00pm and 4:59am, followed by 84 crashes between 6:00pm and 6:59pm. These three timeframes represent 24.5% of the total crashes for CY 2019. They appear to correlate directly with the increased traffic volumes that are a part of evening rush hours.



Note: Crashes by Year: Total crashes by year in DMV TREDS data, filtered by time of crash.

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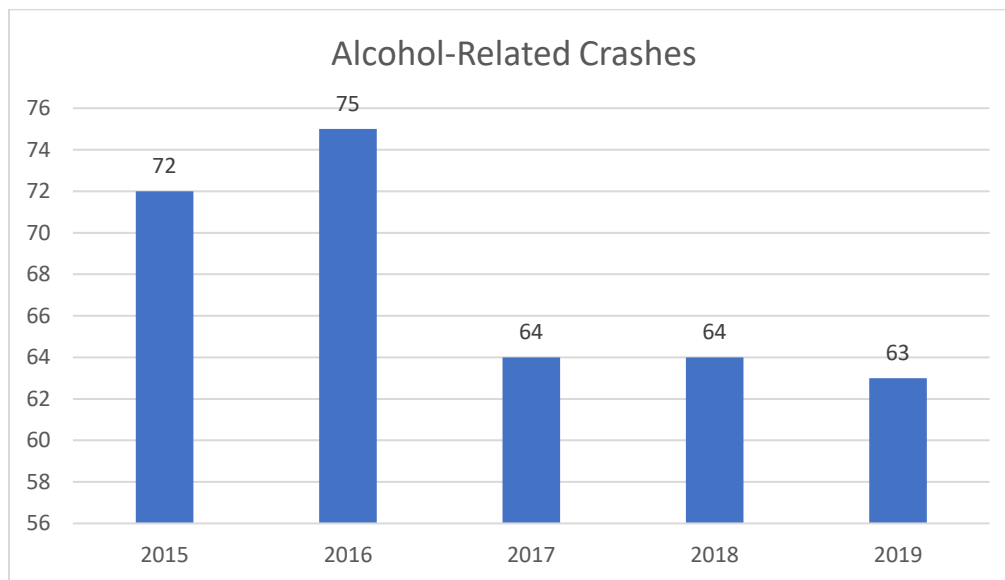
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TOP 2019 CRASH LOCATIONS CITYWIDE

Top 10 Crash Locations	Count
DUKE ST & TELEGRAPH RD	14
MARK CENTER AVE & SEMINARY RD	11
I395 HWY & SEMINARY RD	10
N WASHINGTON ST & PRINCESS ST	9
DUKE ST & S WALKER ST	9
N BEAUREGARD ST & SEMINARY RD	9
EDSALL RD & S VAN DORN ST	8
FRANKLIN ST & S PATRICK ST	8
MADISON ST & N HENRY ST	8
N WASHINGTON ST & ORONOCO ST	8

Alcohol-Related Crashes

There were 63 crashes where alcohol was a contributing factor in CY 2019. This number represents a 1.56% decrease from CY 2018.



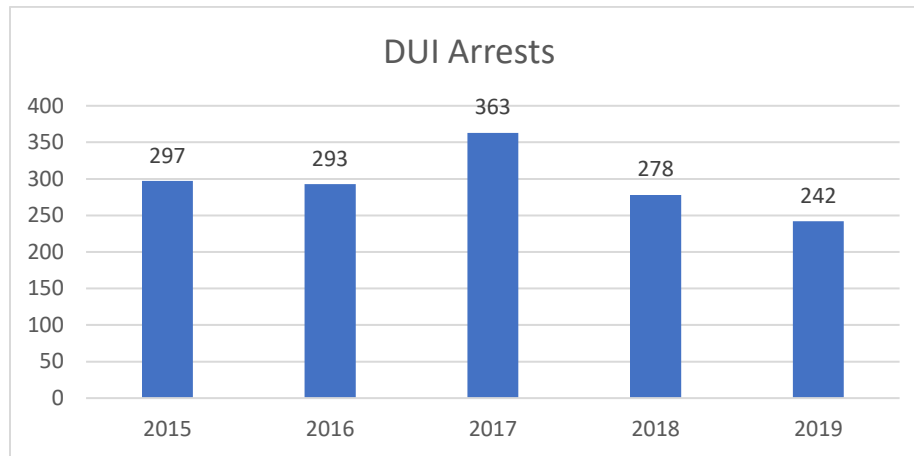
Note: Alcohol-related crashes: Total crashes by year in DMV TREDs data, filtered by Driver's Action, Had been Drinking.

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DUI Arrests

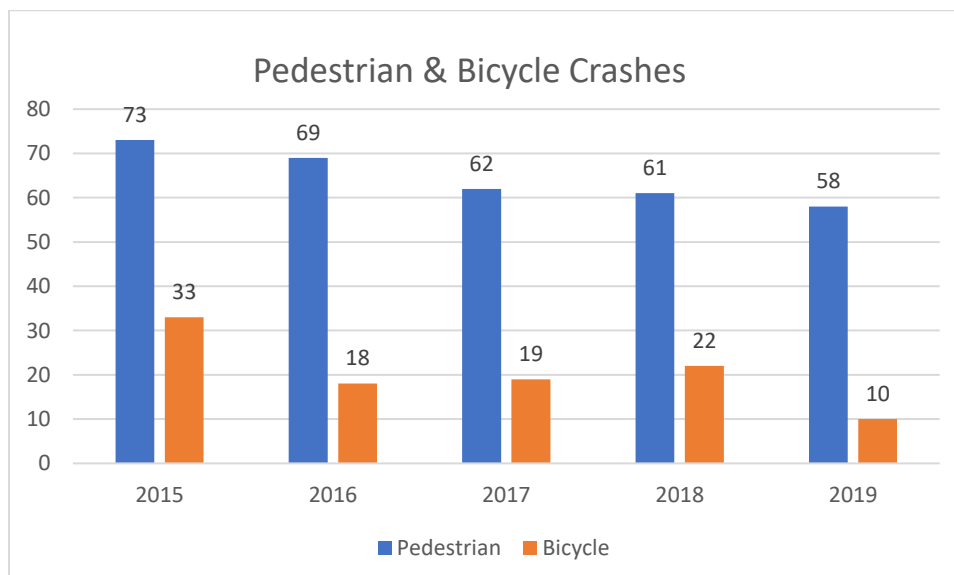
There were 242 arrests for Driving Under the Influence (DWI) in CY 2019. This represents a 12/9% decrease from CY 2018.



Note: DUI Total Arrests, PRISM data, filtered by criminal charge.

CY 2019 netted 242 DWI arrests compared to CY 2018 which incurred 278 DWI arrests. Also in 2019, the Police Department conducted 58 individual mobile DWI details. Eight of these details consisted of many officers working the same night to coincide with the National Highway Traffic Administration (NHTSA) calendar. From these enforcement details, officers made 560 vehicle stops during the mobile details, 6 DWI arrests from all details and 10 criminal arrests. This information was compiled by Sergeant Holden. Sergeant Holden managed the DUI grant for all of CY 2019.

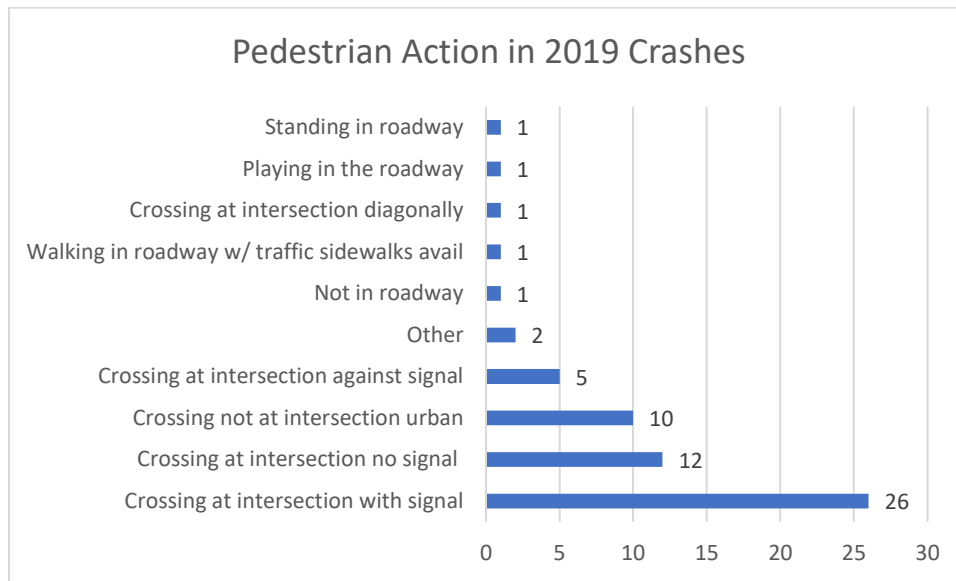
Pedestrian / Bicycle Crashes



Note: Pedestrian & Bicycle Crashes: Total crashes by year in DMV TREDs report

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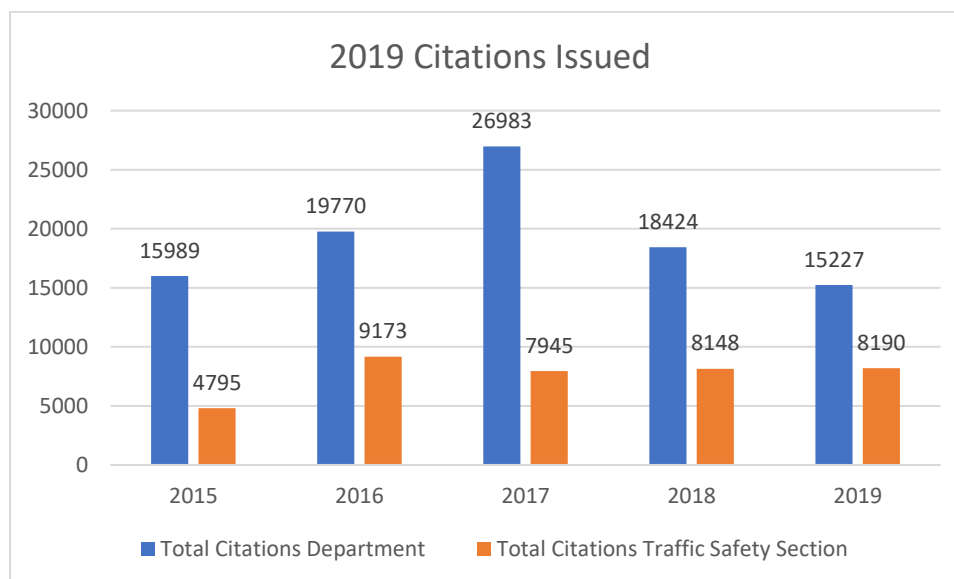


Note: Total Pedestrian Action in 2019 Crashes: DMV TRENDS data, filtered by 'Pedestrian Action'. There are a total of 60 pedestrian actions for 58 crashes. Two crashes in CY2019 involved two pedestrians.

Traffic Enforcement Activities

Traffic enforcement activities for speeding, DWI/impaired driving, violations in conjunction with crashes, pedestrian/bicycle violations and passenger safety violations were reviewed. In CY 2019, there were 15,869 Traffic Stops that resulted in a total of 18,424 Virginia Uniform Summons (VUSs) being issued. This is a 31.7% decrease in VUSs when compared to 2018.

Out of 15,227 citations issued during CY 2019, the Traffic Safety Section issued a total of 8,190 citations, which accounted for 53.8% of the total citations issued for the entire police department.



Note: Total Citations: Crime Analysis Queries folder - Citations Access Database – 'All Citations – SQL' and filtered by 'DivDesc' for the division name 'Special Operations.'

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Year	Department	Traffic Safety Section
2015	15989	4795
2016	19770	9173
2017	26983	7945
2018	18424	8148
2019	18809	8190

Source data: 2019 Motor Unit Complaint Log

Overview

Routine enforcement for speeding, violations associated with crashes, and other violations were conducted through proactive patrol, selective traffic enforcement campaigns, and deploying traffic enforcement measures during peak hours to address the higher incidence of violations and crashes.

To combat drunk driving in CY 2019, the Alexandria Police Department conducted 68 individual mobile DWI details. Eight of these details consisted of many officers working the same night to coincide with the National Highway Traffic Administration (NHTSA) calendar. From these enforcement details, officers made 506 vehicle stops during the mobile details, 7 DWI arrests from all details, 10 criminal arrests and issued 315 traffic citations.

The department also participated in special enforcement programs to emphasize pedestrian and bicycle safety in CY 2019. These efforts will continue in CY 2020 to reduce injuries and crash rates involving pedestrians and bicyclist. The goal in CY 2020 will be to increase patrol awareness for bicycle and pedestrian safety and increase the warnings or written citations if warranted.

Personnel Deployment

Through the use of the Traffic Safety Plan, specific roadways are identified for selective enforcement and traffic complaints are handled in a systematic method. Speed is the primary traffic complaint received from residents. Complaints are received by phone, from department personnel, council members, social media and through the City's webpage. Focusing our available resources into the areas where they can be most useful is logical and stands the best chance of having a positive impact. The availability of discretionary time for directed enforcement continues to have a significant impact on the effectiveness.

The Traffic Safety Section (TSS) maintains a log of all traffic complaints received. When a complaint is received, it is initially evaluated for validity. This process is accomplished by examining the frequency of complaints in that area, previous citation activity, and traffic surveys. If warranted by activity, a determination is then made as to whether motorist behavior can best be modified by use of the smart trailers, live enforcement, roadway modifications or a combination.

All complaints are routed to the Traffic Safety Section for investigation and enforcement. If a traffic complaint requires sustained follow-up and documentation, an appropriate number of TSS officers will be assigned to the complaint. All traffic complaints are also disseminated to all patrol officers. By doing so, the Patrol Commanders can assign resources as best benefits the individual Sector needs in addition to TSS enforcement. A total of approximately 222 traffic complaints were logged in 2019. There was only an increase of one complaint from

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CY 2018 to CY 2019. This shows the consistency of the many different avenues that the public has to send in their complaints (telephone, email, ALEX311, through Civic groups, Facebook, and Twitter) as well as a more informed public on these different ways to convey their concerns and complaints.

Speed Trailers

Aside from enforcement, an effective means of educating the public, deterring violations and addressing complaints remains the continuous deployment of the speed trailers in locations known for unacceptable violator activity and high complaint rates. These trailers have become the tool of choice, effectively modifying violator behavior while allowing accurate assessments of traffic rates and speeds, broken down by location and time of day. Utilizing the trailers permits better allocation of staffing to achieve maximum effectiveness.

In 2019, the police department had four speed trailers that were running almost continuously for the entire year collecting data. The speed trailers were deployed on 24 occasions in an effort to gather speed data. When deploying the speed trailers, they were positioned at a specific location for a two week period. This was to gather data over a longer period of time to better evaluate the complaint and needs of that location.

Year	Smart Trailer Deployments	Working Trailers
2019	24	4
2018	32	4
2017	50	1
2016	31	2/4
2015	77	1

Source data: 2019 Traffic Unit Smart Trailer Log

Child Safety Seats

The Alexandria Police Department also offers free child safety seat inspections. In 2019, we hosted a National Standardized Child Passenger training. To date, 15 officers and one volunteer are certified Child Passenger Safety Technicians. This program includes not only the traditional model of holding child safety events, but also providing on-site appointments. Anyone, regardless of where they reside, can request an appointment through our 24/7 Child Safety Seat line. On duty certified technicians (officers and volunteers) provide the inspections at a convenient location. Over 200 child safety seat inspections were completed in 2019.

DMV Grants

The Alexandria Police Department currently runs three DMV Grants.

- Alcohol and Impaired Driving
- Pedestrian and Bicycle
- Aggressive Driving and Speeding

All three grants are worked simultaneously throughout the year. They work in conjunction with the department's Traffic Safety Plan and Vision Zero, in an effort to minimize serious death an injury, as well as to further educate citizens.

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Technology

We are currently utilizing several systems, to include PRISM2 (Police Reporting and Investigative Search Module), which receives data uploads multiple times per day, allowing us to conduct meaningful analysis from crash data. This data is produced for the S.A.F.E meetings by the Crime Analysis Unit and available for review by the Patrol Sector Commanders. It is critical that we have the means of examining entered data from crash reports to determine time, location, alcohol involvement, pedestrian involvement, injury, death, and causal factors in accidents if we expect to make informed decisions on how to effectively use resources or make our transportation system safer.

Many officers are currently utilizing Brazos, an advanced electronic citation (e-citations) from Tyler Technologies. Brazos is an electronic citation solution that is used on handheld cellular devices that is used for capturing, processing and transmitting data into public safety and court systems. Electronic citations have shown officers spending less time on traffic stops, which results in improved safety for officers and the public when on the roadside. This technology is currently being used by several of our neighboring jurisdictions.

Conclusion

Utilizing the Traffic Safety Plan, the Traffic Safety Section and the integration of Vision Zero, traffic safety has grown to be an utmost importance for the department. Through these movements, several targeted safety problems have been identified throughout the City. With the assistance of the Crime Analysis Unit, data analysis of these targeted problems will determine hot spot areas for enforcement. This analysis will be reported at the weekly and monthly S.A.F.E meetings.

Selective enforcement locations are determined by the Traffic Safety Section Supervisors based on traffic data analysis. Selected enforcement efforts are assigned to specific TSS officers and the criteria used to determine the selective enforcement includes patterns of similar causes or sudden increases in the severity or number of collisions, violations at a specific location and citizen complaints/concerns. When areas of concern are brought to our attention by citizens, they are studied and determined for Selective Traffic Enforcement efforts. When possible, the citizen voicing the concern was contacted and advised of the department's efforts. In CY 2019, the Selective Traffic Enforcement Program focused on the following issues:

- Decreasing the total number of crashes from CY 2017
- Decreasing crashes where alcohol was a factor
- Decreasing pedestrian and bicycle crashes
- Addressing citizen complaints
- Focusing efforts in locations that had increased traffic offenses or crashes
- Working in conjunction with the Traffic and Environmental Services to enhance traffic Solutions

Locations with increased traffic offenses, pedestrian crossings and increased bicycle violations continued to be a high priority for selective enforcement efforts. These efforts in CY 2019 did show a reduction of one pedestrian related crash but an increase of three bicycle related crashes. Hopefully, the continued educational efforts with the Bicycle and Pedestrian Advisory Committee to get the word out among the cyclist and pedestrians to stop at controlled intersections (to include traffic signals and stop signs), follow the posted signs and use the marked cross walks will assist the police department in reducing the number of pedestrian and bicycle crashes in 2019.

The police department will continue the use and deployment of the speed trailers. The speed trailers alerted drivers of their actual speed for specific locations which appears to have reduced speeding and citizen complaints

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at these locations. The speed trailers were also used in a “ghost” status to record the actual speeds when drivers thought they were not working. For CY 2019 the police department will be deploying four speed trailers for an entire year and hopes to reduce citizen complaints as well as the number of violations taking place throughout the City.

The continued growth of the City of Alexandria in all sectors has negatively impacted the major roadways which were not originally designed to accommodate the current volume of traffic commuting through the City on a daily basis. The City of Alexandria serves as a “cut through” for commuters as it is surrounded by major access roads. The Alexandria Police Department continued to participate in regional enforcement campaigns such as Street Smarts, both Spring and Fall. The department continues to stay involved with the department of Traffic and Environmental Services in locating and identifying roadway engineering issues that need to be changed or enhanced through design.

The department also has a representative on the Vision Zero Task Force. The task is comprised of stakeholders from the Police Department, Fire Department, and Traffic and Environmental Services. Their goal is review bicycle accidents, pedestrian accidents and accidents with serious injuries. All accident locations are pulled up and reviewed to make immediate improvements to accident locations.

During the upcoming year, the Traffic Safety Section will not only look at enforcement, but education and promoting voluntary compliance with commuters throughout the City. This will rely heavily on continued participation in regional enforcement and educational campaigns such as Street Smarts, Bike Rodeos, and marketing Sober Ride programs. We also rely on a dedicated partnership with the department of Traffic and Environmental Services in locating and identifying roadway engineering issues that need to be changed or enhanced through design. In addition, we continue to grow and build partnerships with Non-Government Organizations such as the Alexandria Bicycle and Pedestrian Advisory Committee (BPAC) and Alexandria Families for Safer Streets (AFSS).

In conclusion, selective traffic enforcement efforts continue in an effort to reducing the total crashes and crashes involving bicycles for CY 2019. However, continued diligence is needed to reduce citizen complaints/concerns, total crashes per year and crashes involving bicyclists.