Danville Fire Department

2017 Annual Report

January 2018

Message from the Fire Chief

The Danville Fire Department is hard at work serving Danville and striving to fulfill our vision to honor the community's trust; striving for continuous improvement; performing with integrity; and consistently meeting or exceeding the expectations of our members and the community. Through the hard work of our dedicated team, I strongly believe we are fulfilling this mission and providing the best all hazard emergency services possible. I am proud to share this annual report as a snapshot and review of our accomplishments.

In 2017, the fire department responded to 8064 calls for service. I am excited to say that for the first time in recent memory this reflects a decrease in calls. With an average of 22 calls for service per day, we ran 152 calls less than the previous year. We feel the decrease in calls for service is a combination of our local volunteer ambulance company paying to staff two engines during the daytime hours to provide better call coverage and from the creation of a multi-agency task force proactively addressing the misuse of the 911 system. We also continue to believe that our comprehensive targeted prevention programs also help in this regard. Although a small decrease in calls, it comes as a welcome change from the twenty-eight percent total increase over the previous five years. The Emergency Communication Center (ECC) answered 111,811 incoming emergency and non-emergency calls, resulting in 65,615 service entries in CAD.

Attrition continues to be one of the big concerns for the department as personnel hired during the city's annexation in 1987 have met their thirty-years for retirement eligibility. During 2017, attrition accounted for six firefighter vacancies: five through retirement and one resignation, as well as an additional three from the ECC where each transferred to other city departments. In November, we hired three dispatchers fully staffing the ECC briefly only to see one of the new hires resign before the end of the year. Recruitment and hiring processes for firefighter are underway and we are on track to be back up to full staff with a training academy scheduled for February 2018. As the City investigates making improvements to public safety retirement benefits, eligible employees continue to

delay retirement, so turnover, recruitment, and retention will continue to be an area of attention.

Department training efforts continue to focus on preparing members to fill the loss in operational experience through these retirements and to improve the overall health, safety, and welfare of our members. In our effort to improve, a formalized mentoring program was established and Target Solutions, a training software package will go live first of the year and should provide a more efficient means of scheduling, delivering, and tracking training and allow direct submission of continuing education to the Virginia Office of EMS. The department sponsored a series of behavioral health workshops geared toward and open to first responders throughout the region.

As an Internationally Accredited department that holds an Insurance Services Office (ISO) Class 2-rating, we are always striving to improve our service delivery. ISO completed a review of our capabilities and we are optimistic of receiving good results first of the year.

The Danville Fire Department takes great pride in providing the best possible service to our community and we consider it an honor to serve you.

Yours in Service,

Chief David R. Eagle

Department Summary

Services Summary

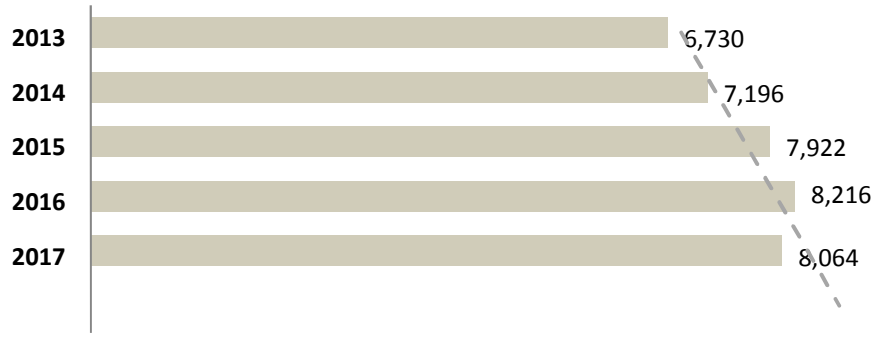
Services Offered

DFD provides a wide array of services in the categories of emergency communications, emergency response, public assistance, public education, fire prevention, and emergency preparedness. These are described in detail in the department's Standards of Cover. However; the department is most readily identified for its response to emergency calls and non-emergency requests for assistance.

Overview of 2017 Calls for Service

During 2017, DFD responded to a total of 8,064 calls for service. This was an approximately 1.8% decrease from 2016 and the first decrease in calls in over 5 years. The decrease in call volume can be attributed to 2 factors: the increase in call coverage from one of the contracted transporting agency, the Danville Life Saving Crew and, the community wide Paramedicine program that assists citizens who frequently use the emergency services system in getting proper medical assistance. An average of 22 calls per day while the maximum calls per day for the year was 38.

Figure 1: DFD All Calls for Service 2013 – 2017 with trendline



Fire Calls for Service

Fire calls include DFD's specialty teams, Technical Rescue and Hazardous Materials, as well as a number of responses which are not fire suppression. The total number of fire incidents decreased just over 1% from 2016 to 2017 and reflected an overall 7.4%

increase since 2011. Though DFD responded to 201 structure fire calls in 2017, only 26 of those were declared working fires. Because it covers a high traffic, commercial area in the center of the city, District 2 maintained the highest percentage of fire calls at 23%.

Minimum staffing requirements – 27 on-duty personnel staff seven engines, one aerial, one command vehicle, and one safety truck – guarantee that sufficient personnel and equipment are available for an effective response. The Shift Battalion Chief on duty carefully monitors the daily roster and makes adjustments with leave, recall, or overtime to ensure staffing levels are met.

Figure 2: Fire Call Counts 2013 - 2017 with trendline

Year	%Change
2012-13	-7.8%
2013-14	2.8%
2014-15	4.8%
2015-16	10.7%
2016-17	-1.0%

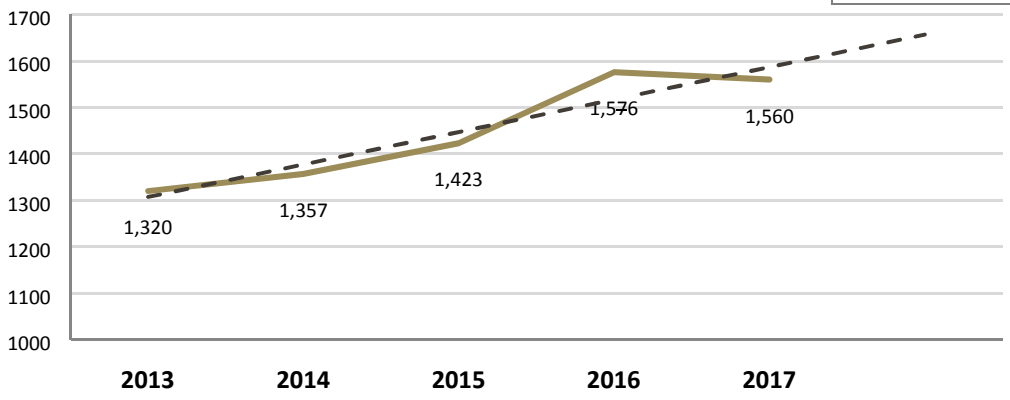
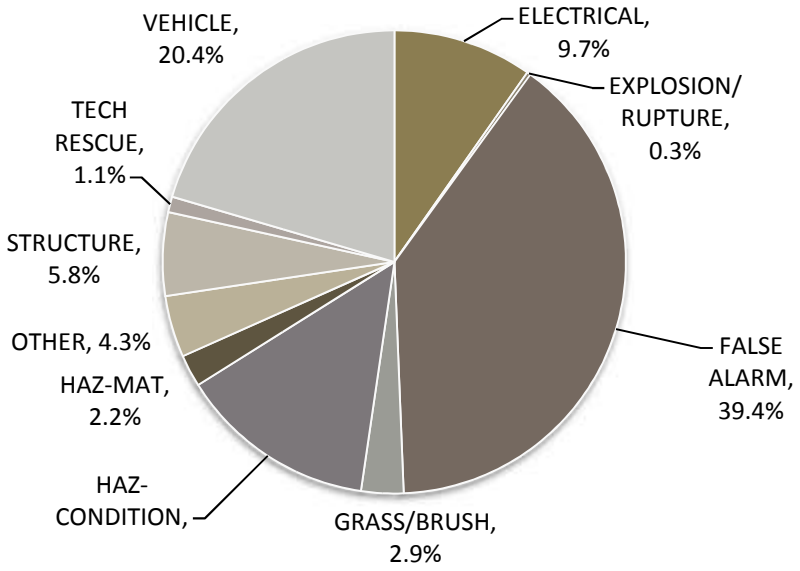


Figure 3: Composition of Fire Calls in 2017

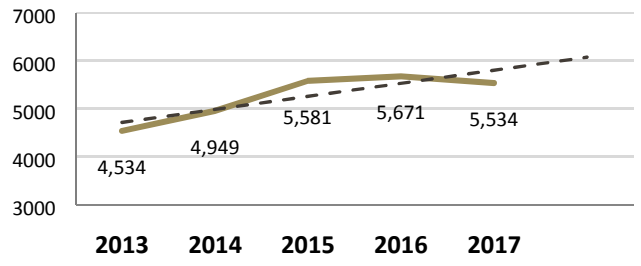

VEHICLE, 20.4%
ELECTRICAL, 9.7%
EXPLOSION/ RUPTURE, 0.3%
TECH RESCUE, 1.1%
STRUCTURE, 5.8%
OTHER, 4.3%
HAZ-MAT, 2.2%
HAZ-CONDITION,
GRASS/BRUSH, 2.9%
FALSE ALARM, 39.4%

13.8%

EMS Calls for Service

The total number of EMS incidents had risen steadily over the past several years until a drop this year of 2.4%. However, since 2011, EMS calls for service has risen 28.3%. District 5, covering the north end of Danville, responded to nearly 28% of the EMS calls followed by District 1, which covers the downtown section of the city.

Figure 4: EMS Call Counts 2013 - 2017 with trendline

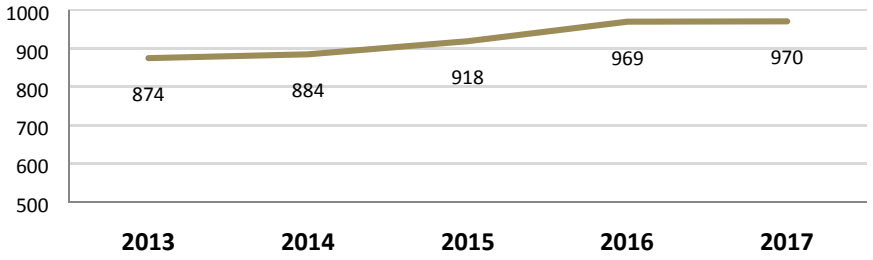


Year	%Change
2012-13	3.0%
2013-14	9.2%
2014-15	12.8%
2015-16	1.6%
2016-17	-2.4%

Other Non-Emergency Calls for Service

An important but less frequent component of DFD service are non-emergency requests for assistance. These include "good intent" calls, weather related responses, and requests for services such as smoke alarm battery replacement and lift assists. The number of non-emergency requests remained steady at less than a 1% increase, and the overall increase since 2011 has been over 45%.

Figure 5: Non-Emergency Call Counts 2013 - 2017 with trendline



Year	%Change
2011-12	16.4%
2012-13	12.8%
2013-14	1.1%
2014-15	3.9%
2015-16	5.6%

The non-emergency calls in 2017 were composed <1% weather related, 59% "good intent," and 41% other public service requests.

Response Performance

DFD has defined performance objectives in its Standards of Cover for each of its primary services. An important component of these objectives is the time it takes units to respond. In 2014, DFD began using percentiles to monitor performance and to compare what happens on average with what happens 90 out of 100 times. The long-term goal is to bring 90th percentile performance closer to the average and to monitor where actual performance registers against the targeted objective of a national standard published by the Center for Public Safety Excellence and the Commission on Fire Accreditation International. DFD has adopted these national standards as "best practice" objectives and is committed to improving service delivery to attain these quality standards.

Structure Fires. DFD's goal is to have the first-arriving unit on-scene within 7 minutes 20 seconds and the Effective Response Force (Fire ERF = all first alarm units) within 12 minutes 20 seconds of the initial call on all structure fires 90% of the time. The following table describes 2017's actual response time performance:

Figure 6: ***Structure Fire*** 90th Percentile ***Response Time*** Performance by District in 2017

District	All	1	2	3	4	5	6	7
First-arriving	05:27	06:35	06:48	05:29	04:21	06:51	04:47	03:51
ERF	11:16	16:31	10:29	11:24	13:04	10:30	15:53	08:32

Emergency Medical. DFD's goal is to have the first-arriving unit on-scene within 7 minutes on all EMS calls 90% of the time. Though multiple units may respond to an unusual medical emergency, only one unit is dispatched by default; there is no ERF measure. The following table describes 2017's actual response time performance:

Figure 7: ***EMS*** 90th Percentile ***Response Time*** Performance by District in 2017

District	All	1	2	3	4	5	6	7

First-arriving	06:37	06:23	06:09	06:59	06:46	06:41	06:54	06:35

Turnout Time. Turnout is a component of the overall response time which measures the period from "unit notified" to "unit en-route." DFD's goal is for the first-arriving unit to mark en-route within 60 seconds on EMS calls and within 90 seconds on structure fire calls (due to the additional turnout gear and equipment). The following table describes 2017's actual turnout time performance on structure fire and EMS calls.

Figure 8: Emergency 90th Percentile ***Turnout Time*** Performance by District in 2017

District	**All**	**1**	**2**	**3**	**4**	**5**	**6**	**7**
Turnout EMS	02:32	02:33	02:13	02:46	02:25	02:27	02:42	02:43
Turnout Fire	02:21	02:05	01:58	02:58	02:18	02:20	01:29	02:31

Because performance has not aligned with the goal, the department continues to evaluate process and measures. The Operations Chief was tasked with researching potential causes and solutions in the 2016 calendar year. In the last Annual Compliance Report, it was discovered that the turnout times were not within the 90th percentile goals. This lead to an effort to determine any underlying factors or issues that would help improve this statistic. The process was initiated to review calls that were significantly above the established goals. This included evaluating the processing time and the time from the CAD dispatch time and activating audible alerting. The next review was of the method of notifying that the unit was responding from the enroute button on the MCT, auto enroute feature and radio notification. This evaluation found a number of factors that have contributed to this situation. One was inconsistent use of methods of marking in route and short comings in the automatic feature.

A finding concerning the lag time between the CAD "rollover" from processing to dispatch found that there is an occasional lag of more than 5 seconds, however, this was found to be still less than 10 seconds with some occasionally longer. Another finding was that the auto enroute feature was very inconsistent and unreliable. Use of

the enroute feature on the MCT in the apparatus was not used consistently or potentially did not activate the time stamp. The use of the radio required the Telecommunicator to manually press the in route button on the CAD side which could be delayed due to performing other actions at the same time. Another issue factoring in on the time calculations was that all units were being reported for all calls rather than simply the first units marking in route.

Mid-year units were requested to use all features in an effort to better track the times with a result finding that compliance numbers were in general better than being reported. It was not feasible to try and manually go back and change times to improve the results. As a result of the findings efforts have been made to improve consistency of the use of available technology. Also, a closer scrutiny of training of dispatchers and fire response personnel to put emphasis to recording times in a manner that better indicates the correct data will be implemented. Further actions to improve the overall performance in this area are being put into place for the upcoming year to help better align the performance of the department with the goals.

Travel Time. Travel is a component of the overall response time which measures the period from "unit en-route" to "unit arrived." DFD's goal is to arrive on-scene of any emergency in the City limits within five minutes of the first unit marking en-route. The following table describes 2017's actual travel time performance.

Figure 9: All Emergency 90th Percentile ***Travel Time*** Performance by District in 2017

District	All	1	2	3	4	5	6	7
Travel	04:54	04:22	04:47	05:18	05:06	04:59	04:45	04:34

Because performance has not aligned with the goal in each district, the department continues to evaluate process and measures. The review of travel times has indicated an increase to a level slightly above the goal target. The potential for units responding from one call to another or other assignments appears to have increased as well. The

agency will continue to monitor this effect to determine methods to address the travel times to seek improvements.

Other Responses. The Technical Rescue Team and the Hazardous Materials Team did not respond to a sufficient number of calls to conduct a statistical analysis by district. However, because the specialty teams respond from single stations to a citywide service area, performance was summarized by team. DFD's goal is to have the first-arriving unit on-scene within 7 minutes 20 seconds for special team calls, the same as for fire calls. Should the call warrant additional specialized equipment or personnel, the DFD's goal for Effective Response Force (ERF = special-equipped engine plus additional trucks, trailers, equipment, and personnel) to arrive within 12 minutes 20 seconds of the initial call 90% of the time.

Figure 10: ***Specialty Team*** 90th Percentile ***Response Time*** Performance in 2017

Specialty Team	Incidents	First-Arriving	ERF
Technical Rescue	17	08:13	09:29
Hazardous Materials	38	07:48	09:10

Personnel

Summary

During 2017, the department had 5 retirements and 1 resignation from the Fire Division and 4 resignations from the Emergency Communications Center. A new recruit academy will start in February 2018 with 7 new firefighters. There was also 3 new dispatchers hired bringing the center to one under full staffing as of December 31, 2017.

The department's human resources will continue to be administered by the City's Human Resource (HR) Department and will operate under HR's personnel regulation and policy.

Recruitment and Retention

During the year 2017, the department continues to see retirements due to longevity and disabilities. To continue with staffing the HR Committee and Human Resource department are consistent with advertising and recruitment fairs for future openings in the fire department. The application period was from March 17, 2017 - May 26, 2017. There were letters sent to area volunteer fire fighters, newspapers, a national search, recruitment fairs, television, community events, social media and city web site. The department also updated its recruitment brochure for the year.

The department's internal HR committee is dedicated to employee recognition for perfect attendance, promotions, outstanding service, additional training, class certifications, and retirements. The HR committee met in February 2017 to be updated on the balance of the Flower Fund. The committee discussed employee recognition, and adding single benefactors to the flower fund to equal the marital member's benefits such as in-laws. The Committee met again on September 21, to discuss the needs for a small card for prospective fire fighter distribution to each Engine Company during public education events, and individuals stopping by the stations. Distribution is encouraged to volunteer departments. The committee is represented by personnel from all ranks of the department. 1-Assistant Chief, 2-Battalion Chiefs, 4-Captains, 4 Lieutenants, 2-Engineers, and 1- Firefighter. The team is looking to add members from the firefighter position to even out tier.

Staffing Snapshot

As of December 31, 2017, 7 positions remained open with the hiring process well underway.

Position	Available	Filled
Fire Division		
Fire Chief	1	1
Assistant Fire Chief	2	2
Battalion Chief	4	4
Fire Marshal	1	1
Captain	21	21
Assistant Fire Marshal	1	1
Lieutenant/Training Officer	6	6
Engineer/Firefighter	24	24
Firefighter	60	54
Fire Code Inspector	1	1
Administrative	3	3
Emergency Communications		
Telecommunicator Supervisor	4	4
Telecommunicator	16	15
Administrative	1	1
Total Positions	**145**	**138**

Finances

Capital and Special Projects

DFD received $475,000 in Capital and Special Project funds. All of these funds will fund the first half payment of replacement of the 1994 ladder truck to be delivered in calendar year 2018.

General Fund

According to the City of Danville's published Fiscal Year 2018 Adopted Budget,

26% of general funds were appropriated to Public Safety. Of that amount, the Fire Department was allocated $7,789,120, Emergency Management was allocated $79,960, and Emergency Communications was allocated $1.058,510.

Figure 11: Fire Department Fiscal Year 2018 General Fund Allocations

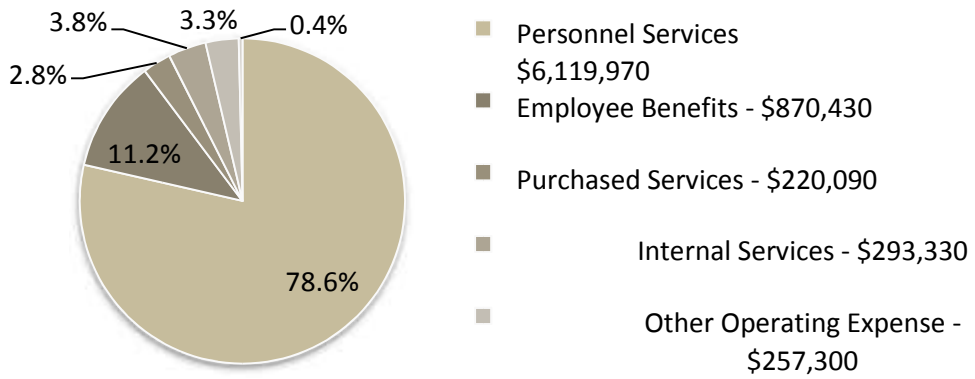


Figure 12: Emergency Management Fiscal Year 2018 General Fund Allocations

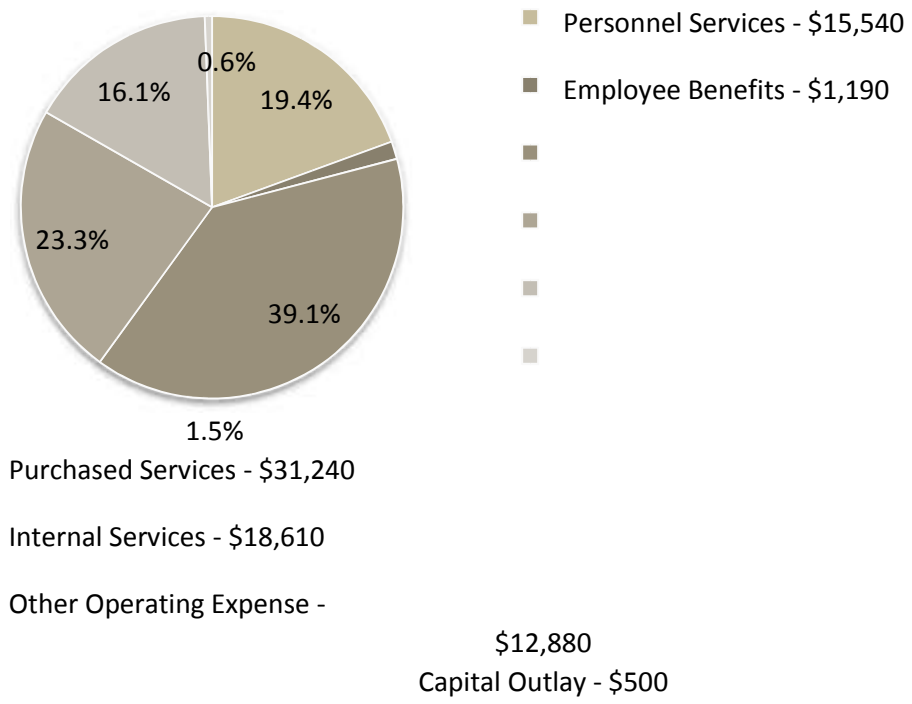
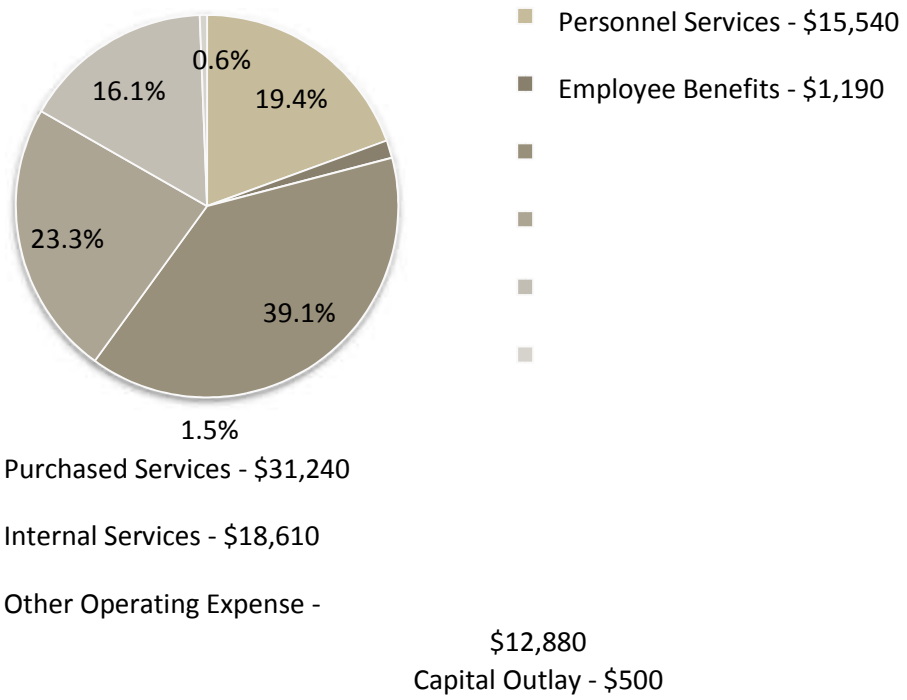


Figure 13: Emergency Communications Fiscal Year 2018 General Fund Allocations



EMS Division

Highlights

The Danville Fire Department reported 5570 EMS responses to the Virginia Office of EMS VPHIB reporting system in 2017. This was a 2.4 % decrease from the previous year. The department contributes this to two major milestones. First, the Danville Life Saving Crew (DLSC) has added a paid staff during the day. This resulted in allowing the DLSC to answer 97% of their calls and not using the DFD to answer the low priority and turn over calls. The second change is the City of Danville developed a taskforce to look into residents that excessively use the EMS system. The taskforce included members of the fire department, police department, social services, sheriff's office, and several ems agencies and other private entities in the city. By educating

the people when to call 911 and getting them the right assistance to help them with their needs on case-by-case bases, the call volume for these citizens dropped.

In March of 2017, the DFD recertified as a Non-Transport First Responder – BLS Agency with the Virginia Office of EMS. This certification will expire on March 31, 2019.

Assistant Chief Jefferson is an active member of the Western Virginia Emergency Medical Services (WVEMS) Board of Directors and Executive Board. In addition, Assistant Chief Jefferson serves on the Western Virginia Emergency Medical Services (WVEMS) Regional General Improvement and Trauma Triage Program Committee.

Division Summary

Staffing. In order to better align responsibilities with administrative positions, responsibility for training, recertification, and Quality Assurance remains assigned to the Battalion Chief of Training. However, responsibility for external EMS relationships, division administration, and EMS supply ordering is assigned to the Assistant Chief of Operations. There are no changes in the administration staffing in the DFD for 2017. However, three Training Lieutenants completed their EMS Educators certification in January 2017 bringing the total to 5 BLS EMS Educators and 3 ALS/BLS Educators.

Certification. As first responders on medical calls for service, all firefighters maintain at least Emergency Medical Technician Basic (EMT-B) certification. The DFD Training Division completed an EMT class for the new employees and all of them passed the NREMT course. All responder EMT certifications are up-to-date.

Equipment. All Philips monitors had annual preventive maintenance, and all EMS equipment is working without issue. The department has started the process of replacing all our laptops in all frontline apparatus and hope to have everything up and running by March 2018. These laptops will be for MDT's, EMS reporting, and they store all our protocols.

The department also added a 2017 Mule ATV with Fire and EMS capabilities to assist with EMS incidents on the bike and walking trails. The ATV will also assist with concerts at the main concert venue downtown and throughout the river district as a support vehicle.

Protocol. WVEMS has drafted a new set of EMS Protocols. They should release them around February 2018 for in-service training.

Operational Medical Director. The DFD now has two Operational Medical Directors. Dr. Stacy Williams is our primary OMD and Dr. Thomas Boro is also assigned to the department.

12-lead EKG transmission program. DFD began transmitting patient 12-lead EKG readings to Danville Regional Medical Center's Emergency Room on April 1, 2014. In February 2015, DFD responders began to collect a 15-lead posterior reading if the patient experiences signs or symptoms of a heart attack but the12-lead does not indicate a heart attack. Sharing this information directly with the hospital before or while the patient is being transported assists in timely treatment, which saves lives. In 2018, the DFD will be obtaining data cards for each monitor to allow transmission from anywhere a cellular signal is available.

Reporting Software. The DFD continues to utilize Image Trend Elite as the reporting software. A NEMSIS upgrade to 3.4 was completed in December of 2017. We utilize Apple iPads to complete the reports on the scene of an incident. The DFD has purchased Target Solutions to track and assist with our training. This program will also send any continuing education (CE) EMS training to the Virginia Office of EMS for recertification hours.

Training Division

Highlights

The Training Division purchased Target Solutions, a training and credential management system that will allow for an easier training hour recording process. The department has started setup and will go live January 2018.

The Department's Career Development Program saw improvements with mentoring program addition. The Policy and Guideline on this program is in process.

Division Summary

Staffing. The EMS Division continues to be staffed with one Training Officer, a Battalion Chief who works administrative hours, and six Lieutenants, who work two per shift.

Needs. The Battalion Chief of Training & Safety met with lieutenants several times to discuss the future plans of the training division. DFD reviewed the reasons why training was conducted (tasks, activities, skills, abilities), and agreed it is based on the need for continuing education efforts to keep all of our certification current with the Department of Fire Programs, VA Department of Emergency Management and Western VA EMS Division. The Department also considered the future needs of new recruits entering the department and the career development for our future officers.

Facilities and Equipment. The Regional Training Center (RTC) is in excellent condition after improvements were noted during a VDFP-mandated inspection. To keep everything in good condition, a preventive maintenance agreement was established with SRG Inc. for the building and training props. The division located a

used 40’ metal container which will be painted and utilized for storage and for training on roof ventilation props. Repairs for the year also included a leak in the underground liquid propane pipe feeding the building burn props.

The Training Division reclaimed an old training building near the city’s wastewater treatment plant to be used as a RIC/Mayday training facility. Several props have been designed and built to incorporate this type of training. The RTC building underwent annual preventive maintenance and will be used for several future training classes.

Documentation. Training topics and hours are recorded in the department’s record management system, and the division continues to refine its methods of categorizing and reporting types of training conducted. The Training Lieutenants conduct periodic Quality Assurance, which continues to indicate a need for improvements to documentation in incident reports. The purchase of Target Solutions will replace the old method of recording training hours and will allow users to take certified classes from the computer.

Career Development. A number of efforts were made this year to create a more structured career development program. The Department has also made improvements to our recently developed Mentoring Program in each station. The department confirmed the dates for conducting a NFA ISO, Leadership II and III class. The department conducted a Parking lot and underground parking garage fires, Loft apartments/warehouse combination fires, an EMT class, Power & Light hazards and safety class, EMT CEU’s, Safety Stand down on suicide prevention and behavioral workshops, and engine company training utilizing a scenario based training program. DFD has replaced the previous relief driver program with the new DFD Driver/Operator program. This program will coincide with the reading list used for the Engineers Promotional Test. DFD will be using the IFSTA Operator Driver Aerial and Pumper Handbooks. DFD had a night training scenario titled Firefighter Emergencies. This covered the aspects of RIC and Mayday. There have been numerous classes offered and attended from the NFA, VDEM, DFP Chief Officer Academy at the University of Richmond, area Regional Fire Schools and locally sponsored seminars The department is entertaining several opportunities to start

providing educational seminars on leadership, mentoring and coaching sessions for our Staff and Line Officers.

Additional plans are in place to develop single engine scenario-based training to better prepare for promotional testing and practical exercises.

Training Conducted. The following training was conducted in 2017:

- January: EMS Super weekend training, 3 days. Haz-Mat and Tech Team shift days.
- February: MSA-G1 classes. Garage Fires Training. Haz-Mat Team Day on Radiological emergencies and response. Started the EMT class for the Recruits (February to July).
- March: Underground and parking garage fires, night training. Haz-Mat EVOC training.
- April: NFA Leadership III class. Philips monitor training. MSA-G1 training. Ability test practice and training. Sever Weather Seminar. Haz-Mat/Tech Team Day drill training.
- May: Ability testing for the Department.
- June: Safety stand down (3 Behavioral workshops, suicide awareness and prevention). Target Solutions training program demo and Training Expo.
- July: Loft/Warehouse class and practicals. VDEM sponsored PIO classes.
- August: Power & Light electrical safety class. VDFP Leadership II class. Haz-Mat Team Day PEAC research program. New Candidate agility practice sessions.
- September: Engine company hydrants, PIS reports and EMS Protocols.
- October: Pub Ed, Pump testing, Fit testing and VDEM/EOC training drill.
- November: Independent station company study, night training and VDFP Instructor in-service update.
- December: 911 center training and independent company training.

Skill Testing. Essential basic skills evaluation became a component of the annual pay-for-performance program in 2015. The Training Division has responsibility to provide training material and to develop, administer, and evaluate the job related basic skills testing. A new testing system was designed and implemented in 2016 and was still used in 2017. The evaluation process continues to be refined to ensure consistency and proficiency throughout the department.

Hazardous Materials Team

Highlights

The Hazardous Materials Team (HMT) is specially trained to respond to chemical leaks and spills, suspicious substances and smells, and similar specialized investigations. In addition, the team is under contract to respond regionally at the request of the Virginia Department of Emergency Management (VDEM). In 2016, HMT handled 38 incidents within the city limits and no regional responses.

Special Team Summary

Staffing. The Danville Regional Haz-Mat Team's membership stands at 29 as of December 31, 2017. The 30th member has been approved and will be on the team as of January 2018. The required training was done this year in order to keep our contract in tact with VDEM. This past year we sent two new members to Haz-Mat Technician School and one member went to Chemistry in Yorktown VA. Each student received certification and is currently serving on the team. Three team members attended the VA Haz-Mat Conference in VA Beach this past September. There were numerous shifts training days this year along with 3 team days, 1 of which was a duel Tech / Haz-Mat Team day at the local Waste Water Treatment plant. Another day was dedicated to a software workshop on the PEAC program.

Equipment: Due to a grant award, the Hazmat has been able to buy and replace a lot of equipment this year. The team received Haz-Mat Grant from VDEM this year that

totaled $60,000. With this grant, the team was able to purchase 10 new SCBA units and pay for the PEAC team training day.

Training. HMT maintained a full training schedule. The team met with a Haz-Mat Coordinator and Team leader group HMO and developed the 3 team day training events for the year. The team has also set all of the shift days and the classes are being developed as the year progresses. Our training records are kept in the RMS but will be migrated to use Target Solutions in 2018.

Technical Rescue Team

Highlights

The Technical Rescue Team (TRT) responded to 17 incidents this year. The majority were structural stabilization due to vehicles within a structure and vehicle extrications

Special Team Summary

Staffing. As of December 31. 2017, the DFD Technical Rescue team is fully staffed. The team will start recruiting efforts in 2018 with the anticipated retirement of team members.

Equipment: The TRT conducted weekly and annual inspections and all equipment is in working order. The team also added this to ImageTrend electronic reporting software system. The SABA packs were flowed tested by Sure-Flow and passed. The DFD-TRT has received a grant from the Virginian Department of Emergency Management for 2017 State Homeland Security Program for $38,289.00 to purchase swift water PPE for each member.

Training: Nine days of shift training refreshed all responders' basic skills and provided specialized instruction on ropes, water rescue, confined space, air bags, vehicle extrication, and structural collapse stabilization. The TRT also participated in a joint training day with the Hazmat Team in May of 2017.

Fire Marshal's Office

Fire Investigation Program

Statistics. All fires that occur in the City of Danville are investigated by the fire department. Fires that are suspicious, involve injuries, fatalities, or major loses are turned over to the FMO for a more comprehensive investigation. There were 12 arson cases investigated in 2017 with 2 submitted to the Commonwealth for prosecution. In additional to arson cases there were 4 cases of illegal burning that required citations and fines. (Copper, Construction Material, and Hazardous Waste). There were 10 other charges; 2 were felonies, with 8 misdemeanors.

Staffing. The FMO remains staffed with two certified Fire Marshals, and a Fire Inspector. The Fire Chief is the Fire Official for the City. During extensive investigations, the FMO is assisted by Engine Companies, Danville Police Department, and outside agencies such as Southwest Virginia Fire Investigation Association, Virginia State Police, Canine Services, Halifax County Sheriff's Office, and the Federal Bureau of Alcohol, Tobacco, Firearms and Explosives. These partnerships have proven effective, and the results of outside investigations agreed with FMO findings. The FMO will maintain its relationship with these agencies, and pursue the opportunity for new partnerships in the future.

Equipment. The FMO stocks basic investigative equipment and relies on Engine Companies, the Hazardous Material Team, the Technical Rescue Team, Danville Police Department Crime Scene unit, and the Public Works Department to assist with equipment and tools for on scene investigations. During 2017, the FMO added secured storage lockers for evidence collections at the headquarters station. The FMO will continue to add investigative equipment as the budget and vehicle storage allows.

Training. NFPA 921 is the main resource guide for fire investigations used by the Fire Marshals. The Fire Marshals continually train to keep up with the most updated methods of investigations. The Fire Marshals attend multiple training sessions and participate in the Danville Police Departments training courses. In addition, training hours are obtained by attending conferences and other classes offered by the Virginia International Association of Arson Investigators (VIAAI). All Fire Marshals are required to maintain 40 hours of continuing education and recertification every two years.

Individual investigation cases are discussed during the appraisal meetings held by the DFD Fire Marshals. The discussion offers input from all DFD Fire Marshals and serves as a learning tool as to what was encountered during the investigation. These discussions have proved to be an invaluable tool for the investigators. The Fire Marshals will continue to use NFPA 921 as a guide for investigations, and explore new methods by attending additional classes to improve the techniques used to complete investigations.

Public Education (Pub-Ed) Program

Statistics. In 2017, the FMO coordinated 177 public education classes and programs, with an estimated 16,911 persons in attendance. These programs had two target audiences: schoolchildren, with a focus on fire safety instruction, fire station tours, and fire safety demonstrations; senior and group home audiences, with a focus on unattended cooking and electrical safety. The FMO has also increased the use of the department social media with the goal of reaching more citizens.

Public Education Event	2014	2015			2016	2017
Total classes and programs	174	185			183	177
Total attendance		25,243	14,126	16,911		
Smoke Alarm Installations	165	192			216	207
Batteries Installed in smoke alarms	40	62			73	67
Child Safety Seats Installed	55	76			69	74
Fire Extinguisher Training	27	29			10	12
Home Safety Inspections	14	21			12	15
Safety House Events	24	22			19	31

Public Safety Announcements and customized prevention programs were delivered throughout the year. These consisted of newspaper articles, radio announcements, and interviews on local television stations, and the River City TV Facebook channel and social media pages. Topics were based on recent incidents, particularly unattended cooking and seasonal fire prevention safety tips.

Staffing. The Fire Marshal Office coordinates all of the public education activities of the department and is responsible for evaluating the community and developing targeted programs to reduce risk, injury, and prevention of fires. All fire department personnel participate in executing programs. The Public Education Committee assists with ideas and special events programs and holds meetings throughout the year. The committee consist of Battalion Chiefs, Captains, Engineers, Fire Fighters, and representatives from the Emergency Communication Center.

Equipment and materials. The Division of Public Education continually increases its inventory of equipment for programs and events. The new material included stickers, adult and children brochures for the open house, signs, banners, posters, fire safety door hangers, fans, videos, and smoke alarms. Dry erase emergency contact boards were acquired to distribute to residents during smoke alarm installations, emergency medical calls, and public educational events. These boards were no cost to the department. They were paid for by local businesses by purchasing advertising space. The Fire Safety House was used again on many occasions such as the Festival in the Park, schools, community church special events, commercial business events, and events for the Recreation and Tourism Department. The department has 12 certified installers and will continue to strive get more members certified. Of special note this year:

- June 2, 2017 Sam's Club $1.000 Fire Prevention Supplies
- Energizer Batteries 490 9V Batteries September 2017
- Safety Literature Sellers Insurance Agency October 2017
- Awarded Wal Mart grant $800.00 December 2017
- Several monetary donations from churches, civic groups, and individuals for prevention supplies.

Get Alarmed, Danville. The FMO continues to assist low income families and seniors with free safety equipment such as smoke alarms, carbon monoxide alarms, batteries, and literature to ensure their safety in their homes. Since the program began in 1999, "Get Alarmed, Danville" has been credited with 91 lives saved with 11,725 alarms installed by the Danville Fire Department.

Fire Prevention and Life Safety Program

Statistics. The Department continued its community life safety initiatives by conducting a variety of inspections, tests, plan reviews, and consultations. As part of an initiative to increase prevention activity, the FMO conducted 1361 inspections in 2017. The Fire Marshals make a priority of conducting the required semiannual inspections of schools and day care facilities and annual inspections of institutions.

	2015	2016	2017

Day Care Centers Inspected	27	31	26
Pre- Incident Surveys	173	59	-
Inspections Made	1499	1170	1361
Violations Found	497	1159	369
Violations Corrected	414	-	-
Fire Systems Tested	13	27	88
Schools inspected	12	19	22
Adult Homes	11	9	13
Underground Hydro	11	23	17
Home Insp/Foster Homes	21	18	15

Staffing. The FMO is staffed with two Fire Marshals who are certified in Fire Inspections 1031 with the Virginia Department of Fire Programs. The Fire Official, the fire Chief, is also certified in Fire Inspections 1031. Both Fire Marshals and Fire Official maintained certification with the required 20 continuing education hours. In addition, the City's blight reduction initiative allowed for creation of a Fire Inspector position who also holds 1031 certification. The Fire Marshal has retained her relationship with the Virginia Fire Life Safety Coalition, which is a resource for program material. The Fire Marshals work with local building officials, law enforcement agencies, the City Attorney's office, and firefighting personnel to conduct fire prevention tasks.

Equipment. The FMO is equipped with testing supplies, office equipment, and vehicles to perform its duties. Funds for prevention and equipment are generated and distributed out of the department budget. A new camera will be purchased in 2018 for the fire inspector. Smoke detectors, batteries, and similar distributed program supplies are provided primarily by donations and grants. This equipment will allow

paperwork to be completed on site saving time, reducing site visits, and improving documentation. As new inspection tools and equipment are needed, the FMO makes requests to the Fire Chief.

Standards. The Fire Marshals are authorized by City ordinance to ensure compliance with applicable fire protection laws by following and enforcing the most current edition of the Virginia Statewide Fire Prevention Code (VSFPC 2013 ed.) and the Fire Chief is codified as the Fire Official.

Division Summary

The Operations Chief has oversight of seven stations, eight front-line apparatus, three reserve apparatus, and two special call apparatus, as well as suppression and safety equipment.

Facility Summary

Reports on the design, condition, and maintenance of each facility follow:

Station #1 - 600 Lynn Street	
Location and Access	Apparatus bays face low-traffic Lynn street, allowing easy departure but either uphill or down a narrow one-way street to the main travel route. Apparatus return via Monument Street thru a gated entrance. Public parking is available off Lynn Street; employee parking area is gated.
Built / Remodeled	New construction 2014
General Description	Single-story 28000 square feet community fire headquarters station with four drive-through apparatus bays which houses one front-line engine, a one 75 foot quint, a 95 foot platform, and support vehicles. Typical staffing is 14 personnel (firefighters and officers) for fire suppression. Administration staff and the Fire Marshal's Office are located in this building.
Design	Facility is a state of the art community fire station that blends relatively well with the surrounding River District structures. It is well designed with adequate office space, training facilities, space for the Emergency Operation Center and firefighter living quarters.
Construction	The facility is masonry and steel with brick veneer. Initial construction was designed to meet hurricane and earthquake resistant standards. Pitched metal roof over living area and over apparatus bay should last 60 years. Numerous details of design and material were chosen to match surrounding warehouses, such as corbeling of brick.
Safety	Infrared apparatus door stop with proper pressure sensitive door reversing mechanisms. The apparatus doors have a stop and go traffic style light to indicate the door is properly open before departures. The building is fully sprinkled and a smoke detection system is place. The facility has adequate fire extinguishers and the storage room within the

	facility. The facility has an electric lift to hoist hose which makes it safer for firefighters. Emergency exits are located in the sleeping quarters. A gas emergency shut-off is located in the kitchen/patio area.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Facility is ADA and OSHA compliant. Doorways, hallways and door hardware are sufficient to meet current code requirements.
Living Quarters	This station can sleep 42 personnel. Each of the 14 bedrooms has three beds, a desk, and a chair. Each firefighter on duty has his/her own bed and locker. Between the two dorm hallways are five full bathrooms and showers. The semi-private bedrooms provide adequate space for study and sleep.
Efficiency	Turnout may be affected by living quarters being located on the opposite end of the building from the apparatus bays.
Maintenance	During 2017 all routine maintenance was performed. We removed all mulch around the building and property and covered with river rock and weed inhibiter.
Condition	Acceptable for the foreseeable future
Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 33 seconds ***on medical calls*** turnout time of 2 minutes 05 seconds ***on structure fire calls*** travel time of 4 minutes 22 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 16 minutes 31 seconds ***on structure fires.***
Station #2 – 250 Piney Forest Road	
Location and Access	The station faces a three-lane (two traffic lanes plus a center turn lane) primary road which runs from Riverside Drive to Highway 29 Business at Central Boulevard. This section of Piney Forest has a low traffic volume except during school opening/closing hours.

Built / Remodeled	Built 1971

General Description	Single-story community fire station with two drive-through apparatus bays which houses one front-line engine and one reserve 75 foot ladder apparatus. Typical staffing is 2 to 3 firefighters and one officer.
Design	Facility is a typical circa 1960/70's community fire station that blends relatively well with the surrounding community. Size of facility is adequate for current use but may not be adaptable to future needs.
Construction	The facility is masonry and wood frame with brick veneer. Pitched roof with asphalt shingles over living area and flat rubber membrane roof over apparatus bay, both reported to be in good condition.
Safety	Infrared apparatus door stops only without proper pressure sensitive door reversing mechanisms. The building is not sprinkled and only local smoke detection systems are in place. The facility lacks adequate fire extinguishers and the storage room within the facility housed several flammable / combustible liquids not in approved containers
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Doorways are narrow and hardware is not ADA compliant.
Living Quarters	This station can sleep 12 personnel however the facility offers little in the way of privacy due to open dormitory style bunk rooms. Bathrooms are not sufficient for bi-gender staffing. Space for working on or around apparatus is marginal.
Efficiency	Turnout may be affected by living quarters being located on the opposite end of the building from the apparatus bays.
Maintenance	During the 2017 routine maintenance was performed.
Condition	Acceptable for the foreseeable future

Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 13 seconds ***on medical calls*** turnout time of 1 minutes 58 seconds ***on structure fire calls*** travel time of 4 minutes 47 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 10 minutes 29 seconds ***on structure fires.***

Station #3 – 1315 Industrial Avenue	
Location and Access	The station faces a two-lane road and is less than one block off a major thoroughfare. The street and entrance allow easy access. Traffic is steady but not heavy, except during school opening/closing hours.
Built / Remodeled	Built 1978
General Description	Single-story community fire station with two drive-through apparatus bays which houses one front-line engine and one reserve engine. One of the bays contains exercise equipment, which affects one drive-through and one back-in apparatus bay. General staffing is 2 to 3 firefighters and one officer.
Design	Facility is a typical 1970's era fire station that blends relatively well with the surrounding community consisting of both residential and light commercial occupancies. Size of facility is adequate for current use but may not be adaptable to future needs.
Construction	The facility is masonry structure with brick veneer. Roof is a flat rubber membrane that is in good condition.
Safety	The station is not sprinkled and only local smoke detection systems are in place. The facility has adequate fire extinguishers.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Doorways, hallways and door hardware are sufficient to meet current code requirements.

Living Quarters	Staff facilities offer little or no privacy due to the open dormitory style bunk rooms. A lavatory is not sufficient for bi-gender staffing. Space for working on or around apparatus is marginal. Space for safe and rapid response turnout is marginally adequate. Space for preparing and eating meals is marginal.
Efficiency	Turnout is adequate by living quarters being located right next to apparatus bays.
Maintenance	During 2017 routine maintenance was performed. We replaced the HVAC using 2016/2017 CIP funding. We are still having a moisture issue. We have replaced all ceiling tiles, insulation, exterior doors, lights, and painted the interior of the building.
Condition	Acceptable for the foreseeable future

Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 46 seconds ***on medical calls*** turnout time of 2 minutes 58 seconds ***on structure fire calls*** travel time of 5 minutes 18 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 11 minutes 24 seconds ***on structure fires.***
Station #4 – 2152 West Main Street	
Location and Access	The station's entrance has easy access to US 29 South business route, which is a four-lane road with a median and regular traffic. Directly across the street from the station is a frequently used rail line with insufficient grade crossings.
Built / Remodeled	Built 1992
General Description	Single-story community fire station with two drive-through apparatus bays which houses one front-line engine and one reserve engine and a 1000 gallon tender. Staffing is 2 to 3 firefighters and one officer.
Design	Facility is one of the newer stations which offer more amenities than other stations in the system. Size of facility is adequate for current use with some room for expansion if necessary in the future.

Construction	The facility is masonry structure with brick veneer. Roof is pitched with asphalt shingles over apparatus bays and a flat rubber membrane roof over the living quarters.
Safety	The station is not sprinkled and only local smoke detection systems are in place. The facility has adequate fire extinguishers.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Doorways, hallways and door hardware are sufficient to meet current code requirements.
Living Quarters	Staff facilities offer little or no privacy due to the open dormitory style bunk rooms. Space for working on or around apparatus is sufficient for current uses. Separate lavatories are present to accommodate bigender staffing but concessions are necessary in the bunk rooms.

Efficiency	Turnout is adequate by living quarters being located right next to apparatus bays.
Maintenance	During 2017 routine maintenance was performed. We repaired the sheetrock in the apparatus bay and exterior soffit area that was falling.
Condition	Acceptable for the foreseeable future
Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 25 seconds ***on medical calls*** turnout time of 2 minutes 18 seconds ***on structure fire calls*** travel time of 5 minutes 06 seconds ***on all calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 13 minutes 04 seconds ***on structure fires.***
Station #5 – 114 Third Avenue	
Location and Access	The street allows easy access for the apparatus to respond.
Built / Remodeled	Built 1957, addition 1994

General Description	A two-story community fire station with one drive-through apparatus bay and two back-in bays. The drive thru bay was added in 1994. One front line engine and a reserve utility pickup. Staffing is 2 to 3 firefighters and one officer.
Design	Facility houses both fire apparatus and technical rescue equipment. Size of facility is adequate for current use but may not be adequate for future expansion. The facility previously served as a training center as well and contains a 50 foot training tower and large lot to the rear of the structure.
Construction	The facility is masonry structure with brick veneer. Roof is a flat rubber membrane and is in fair condition.
Safety	The station is not sprinkled and only local smoke detection systems are in place. The facility has adequate fire extinguishers. The door stops have only infrared stops on apparatus doors.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.

Code Compliance	Doorways, hallways and door hardware are sufficient to meet current code requirements. OSHA compliant.
Living Quarters	Staff facilities offer little or no privacy due to the open dormitory style bunk rooms. Space for working on or around apparatus is sufficient for current uses. Bathrooms are present but do not accommodate bigender staffing. Living area is located on the opposite end of the building from the apparatus bay, which may hinder a safe and rapid response turnout.
Efficiency	Turnout is sometimes hindered by living quarters being located on opposite end of building and bedrooms located on the second floor.
Maintenance	During 2017 routine maintenance was performed.
Condition	Acceptable for the foreseeable future

Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 27 seconds ***on medical calls*** turnout time of 2 minutes 20 seconds ***on structure fire calls*** travel time of 4 minutes 59 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 10 minutes 30 seconds ***on structure fires.***
Station #6 – 3165 Westover Drive	
Location and Access	The station faces a four-lane road with light traffic in a residential neighborhood. The entrance provides easy access. The station was acquired from a volunteer department during annexation and was reconstructed to accommodate full-time staffing for the city.
Built / Remodeled	Built 1990
General Description	A single-story community fire station with two back-in apparatus bays. The station houses one engine and one wild land fire response vehicle. Staffing is 2 to 3 firefighters and one officer.
Design	Size of facility is marginal for current use and expansion for any future growth would be unlikely.
Construction	The facility is a masonry and wood frame structure with brick veneer. Roof is a combination flat rubber membrane and pitched facade and is

	in good condition. Recent modifications and abatements of bats required the placement of a bat habitat on the rear of the structure.
Safety	The station is not sprinkled and only local smoke detection systems are in place. The facility has adequate fire extinguishers. The door stops have only infrared stops on apparatus doors.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Doorways, hallways and door hardware are sufficient to meet current code requirements. OSHA compliant.

Living Quarters	Staff facilities offer little or no privacy due to the open dormitory style bunk rooms. Space for working on or around apparatus is not sufficient. Bathrooms are present but do not accommodate bi-gender staffing. Living area is located on the opposite end of the building from the apparatus bay, which may hinder a safe and rapid response turnout. Space for eating meals is limited.
Efficiency	Turnout is sometimes delayed due to living quarters being located on opposite end of building
Maintenance	During 2017 routine maintenance was performed. We have ordered a new HVAC system and will be replaced in January 2018.
Condition	Acceptable for the foreseeable future
Performance	For the period January 1 – December 30, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time: turnout time of 2 minutes 42 seconds ***on medical calls*** turnout time of 1 minutes 29 seconds ***on structure fire calls*** travel time of 4 minutes 45 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 15 minutes 53 seconds ***on structure fires.***
Station #7 – 423 Airport Drive	
Location and Access	The station faces a low traffic two-lane road beside the municipal airport and is l/10th mile from US Highway 58 and less than a mile from the regional training center. The entrance provides easy access.

Built / Remodeled	Built 1991, addition 1996
General Description	A single-story community fire station with two drive-thru apparatus bays which houses one engine and the Hazardous Material equipment, trucks, and trailers. A drive-thru bay was added in 1996. Staffing is 2 to 3 firefighters and one officer.
Design	Facility serves as both a community fire station and as a primary response to the Danville Regional Airport. Station also houses a regional hazardous materials response unit. Size is adequate for current use but space is limited for future expansion.

Construction	The facility is a masonry and steel structure with brick veneer. Roof is metal and in fair condition. Recent modifications and abatements of bats required the placement of a bat habitat on the rear of the structure.
Safety	The station is not sprinkled and only local smoke detection systems are in place. The facility has adequate fire extinguishers. The door stops have only infrared stops on apparatus doors. Doors do not have pressure sensitive reversing mechanisms.
Environment	Direct connect vehicle exhaust removal system is present with signs of regular use. No underground storage tanks. Central air and heat provide adequate climate control.
Code Compliance	Doorways, hallways and door hardware are sufficient to meet current code requirements. OSHA compliant.
Living Quarters	Staff facilities offer little or no privacy due to the open dormitory style bunk rooms. Space for working on or around apparatus is not sufficient. Bathrooms accommodate bi-gender staffing. Living area is adjacent to the apparatus bay. Space for preparing and eating meals is limited.
Efficiency	Turnout is adequate due to living quarters being located next to apparatus bays.
Maintenance	During 2017 routine maintenance was performed. The roof was sealed with a 25-year warranty. This was in the 2017/2018 budget. We replaced the rear classroom exterior door and had the station sealed for bats.
Condition	Acceptable for the foreseeable future
Performance	For the period January 1 – December 31, apparatus responding from this station to calls within this station's first-due district had the following performance measures 90% of the time:

	turnout time of 2 minutes 43 seconds ***on medical calls*** turnout time of 2 minutes 31 seconds ***on structure fire calls*** travel time of 4 minutes 34 seconds ***on all emergency calls***. The Effective Response Force for calls within this station's first-due district had the following performance measures 90% of the time: response time of 8 minutes32 seconds ***on structure fires.***

Emergency Communications Center – 580 Lynn Street	
Location and Access	The ECC is located beside headquarters and shares both public and employee parking. See Station 1 for additional detail.
General Description	One story 5000 square foot 911 communications center and administrative office. Six dispatcher consoles.
Design	State of the art 911 center that that blends relatively well with the surrounding River District structures.
Construction	The facility is masonry and steel with brick veneer. Pitched metal roof should last the department 60 years. Numerous details of design and material were chosen to match surrounding warehouses, such as corbeling of brick.
Code Compliance	Facility is ADA and OSHA compliant. Doorways, hallways and door hardware are sufficient to meet current code requirements.
Safety	Monitored fire alarm system with FM 200 Suppression system in the computer room. Adequate fire extinguishers. Secured locked doors and locked gates around the perimeter to deny unauthorized access. Security cameras.
Maintenance	During the 2016 routine maintenance was performed. We removed all mulch around the building and property and covered with river rock and weed inhibiter.
Condition	Acceptable for the foreseeable future
Regional Training Center – 658 Stinson Drive	
Location and Access	The center faces a low traffic two-lane road near the municipal airport 0.5 mile from US Highway 58/29 and less than a mile from Station 7. The entrance provides easy access.
Built / Remodeled	Built 2001
General Design	Approximate 4000 square foot, two story facility with a kitchen and bedroom prop and 60’ repelling tower.

Construction	Pre-fabricated metal, steel and concrete state of the art Class B burn facility.
Safety	Automatic emergency E Stops to vent building if temperature exceeds 700 degrees F. Manual E Stops.
Environment	LP Gas for burn props with a vegetable smoke.
Code Compliance	NFPA 1403 Code Compliant.
Maintenance	During the 2017 routine maintenance was performed. We have a PM agreement with SRG Inc. to maintain the building and fire props and Country Side to maintain the grounds. We paved the parking lot and driveways.
Condition	Overall condition is excellent. Building is well maintained and will be acceptable for future use.
May-Day & RIT Building – 200 block Gypsum Rd.	
Location and Access	200 block, Gypsum Rd. Danville, VA 24541
Built / Remodeled	Previous class A burn building, repurposed to use as a May-Day & RIT training building.
General Design	Approximate 900 square foot, cinder block one story facility with four rooms and a concrete floor and flat roof.
Construction	Cinder block walls, concrete roof and floor, 4 rooms with 2 doors and 8 windows. This is an old repurposed Class A burn facility.
Safety	One story with 8 easy open windows and 2 doors for easy exit. There will be no fire used in the building, rescue props only.
Environment	Scenarios are completed with and without vegetable smoke machine.
Code Compliance	NFPA 1403 Code Compliant.
Maintenance	During 2017 routine maintenance was performed. We upgrade the props and added millings for parking.
Condition	Overall condition is good.

Apparatus Summary

All front-line apparatus are in excellent or good condition. The current average age of apparatus is 12- years. DFD's apparatus replacement plan strives to replace engines every 15 years and aerials every 20 years. The department will start the process by replacing a 1991 E-One 75' ladder truck with a new 100' ladder truck. With all the growth in the River District and the size of the studio apartments buildings, the longer ladder would better serve our community.

Reports for each apparatus and special use vehicle follow:

Engine 1	
General Description	Year/Make/Model: 2006 E-One Pumper Pump Capacity: 1,250 GPM Tank Capacity: 500 gallons Housed At: Station 1: 600 Lynn St.
Usage	Total mileage for this year: 7,791 Total fuel for year 2686 gallons at $1.98 per gallon= $5318.28 Total call volume for year 1911 calls
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance were $12,487.14. Pump service and testing performed in November 2017.
Condition	Excellent
Replacement	This unit is scheduled for replacement in July 2021 CSP budget with an engine of equivalent function and capacity.
Engine 2	
General Description	Year/Make/Model: 2004 E-One Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 2: 250 Piney Forest Road.
Usage	Total mileage for this year: 9,987 Total Fuel for the year 2907 gallons at $1.98 per gallon=$5,755.86 Total call volume for year 1693

Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance were $16,390.69. Pump service and testing performed in November 2017.
Condition	Good
Replacement	This unit is proposed for replacement in FY 2020 and appears in the CIP.

Engine 3	
General Description	Year/Make/Model: 2016 Pierce, Impel Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 3: 1315 Industrial Ave.
Usage	Total mileage for this year: 7877 Total Fuel for the year 2287 gallons at $1.98 per gallon=$4,528.26 Total call volume for year 1492
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance were $2,180.56. Pump service and testing performed in November 2017.
Condition	Excellent
Replacement	This unit is proposed for replacement in FY 2031.
Engine 4	
General Description	Year/Make/Model: 2004 E-One Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 4: 2152 W. Main St.
Usage	Total mileage for year: 5661 Total Fuel for the year 1,341.40 gallons at $1.98 per gallon= $2,655.98 Total call volume for year 981
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $12,218.58. Pump service and testing performed in November 2017.
Condition	Good
Replacement	This unit is proposed for replacement in FY 2021 and appears in the CSP.

Engine 5	
General Description	Year/Make/Model: 2011 Pierce Impel Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 5: 114 Third Ave.
Usage	Total mileage for this year: 8,003 Total fuel for the year: 2374.61 gallons at $1.98 per=$4,701.73 Total call volume for year: 2,031
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $12,696.55. Pump service and testing performed in November 2017.
Condition	Excellent

Replacement	This unit is scheduled for replacement in FY 2026.
Engine 6	
General Description	Year/Make/Model: 2001 E-One Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 6: 3165 Westover Dr.
Usage	Total mileage for year: 5,973 Total Fuel for the year 1,191.50 at $1.98 per gallon =$2359.17 Total call volume for year 668
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $5,287.44. Pump service and testing performed in November 2017.
Condition	Good
Replacement	This unit is proposed for replacement in 2019
Engine 7	
General Description	Year/Make/Model: 2013 E- One pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 7: 423 Airport Dr.

Usage	Total mileage for this year: 6,183 Total fuel for the year: 1,855.25 gallons at $1.98 per gallon=$ 3,673.30 Total call volume for year: 675
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $3,106.75. Pump service and testing performed in November 2017.
Condition	Excellent
Replacement	This unit is scheduled for replacement in FY 2028.

Engine 8 (reserve)

General Description	Year/Make/Model: 1998 E-One Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 4
Usage	Total mileage for this year: The odometer stop working Total fuel for the year: 224.77 at $1.98 per gallon=$445.05 Total call volume for year: counts are not available for this unit, when a reserve is put into service it becomes the unit it replaces.
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $5,450.96. Pump service and testing performed in November 2017.

Condition	Good
Replacement	In October 2013, due to budgetary restraints this engine was not replaced but was put in reserve. Its status will be revisited in FY2020.

Engine 9 (reserve)

General Description	Year/Make/Model: 2001 E-One Pumper Pump Capacity: 1250 GPM Tank Capacity: 500 gallons Housed At: Station 3: 1315 Industrial Ave.
Usage	Total mileage for this year: 1,580 Total Fuel for the year 429.83 gallons at $1.98 per gallon=851.06 Total call volume for year: counts are not available for this unit, when a reserve is put into service it becomes the unit it replaces.

Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $1,461.24. Pump service and testing performed in November 2017.
Condition	Good.
Replacement	This unit is scheduled for replacement in FY 2021.
Ladder 1	
General Description	Year/Make/Model: 2008 E- One 75 Foot Ladder Pump Capacity: 1500 GPM Tank Capacity: 500 gallons Housed At: Station 1
Usage	Total mileage for this year: 9374 Total Fuel for the year: 3,581.99 at $1.98 per gallon= $ 7,092.34 Total call volume for year: 1,394
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $8.653.96. Pump service and testing performed in November 2017. Ladder Certification of NDT Inspection NFPA 1911 performed in October 2017.
Condition	Excellent
Replacement	This unit is scheduled for replacement in July 2028.
Ladder 2 (reserve)	
General Description	Year/Make/Model: 1994 E- One 75 foot ladder Pump Capacity: 1500 GPM Tank Capacity: 500 gallons Housed At: Station 2
Usage	Total mileage for this year: 609 Total fuel for the year 147.66 gallons at $1.98 per gallon= $ 292.37

	Total call volume for year: counts are not available for this unit, when a reserve is put into service it becomes the unit it replaces.
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $8.653.96. Pump service and testing performed in November 2017. Ladder Certification of NDT Inspection NFPA 1911 performed in October 2017.

Condition	Fair
Replacement	This ladder was placed in reserve 10-1-2008 and is proposed to be replaced when the current Ladder 1 is replaced over FY 2018 and FY 2019. The DFD has placed an order with Atlantic Emergency for a 107foot Pierce Ladder truck. This apparatus should be placed in-service around November 2018.
Tower 1 (special call)	
General Description	Year/Make/Model: 1999 E- One 95 Foot Ladder Pump Capacity: 1500 GPM Tank Capacity: 500 gallons Housed At: Station 1
Usage	Total mileage for this year: 235 Total Fuel for the year 128.75 at $1.98 per gallon=$ 254.93 Total call volume for year 0
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $2,278.45. Pump service and testing performed in November 2017. Ladder Certification of NDT Inspection NFPA 1911 performed in October 2017.
Condition	Fair
Replacement	This unit became unmanned in 7-1-2012 due to budget cutbacks and in 10-1-2014 it was moved to Station #1 as an on-call unit and will be staffed if put into service, with recall if necessary.
Tender #4 (special call)	
General Description	Year/Make/Model: 1987 KME Pumper/ Tender Pump Capacity: 1000 GPM Tank Capacity: 1000 gallons Housed At: Station 4
Usage	Total fuel for the year: 15.0 gallons at $1.98 per gallon= $29.7 Total call volume for year: 7
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $476.67. Pump service and testing performed in November 2017.
Condition	Fair

Replacement	The DFD is going to request replacing this unit in the 2019/2020 capital improvement budget. This is a special use unit and is manned when put into service.
Brush 10	
General Description	Year/Make/Model: 1996 Ford F-350 Pump Capacity: 300 GPM Tank Capacity: 300 gallons Housed At: Station 6
Usage	Total mileage for year: 194 Total Fuel for the year: 11.36 gallons at $1.98 per gallon= $22.49 Total call volume for year: 5
Maintenance	During the 2017 calendar year, all routine and preventive maintenance was completed. Totals for the year for maintenance $250.93
Condition	Excellent
Replacement	This unit was refurbished in 7-1-2011.A 300 gallon pump and 300 poly tank, custom slide in unit and turret nozzle was placed on the front bumper joystick controlled.

DFD has an additional 12-vehicles which are leased from the City's Public Works Department. The lease expense is determined each year by the miles and age of the vehicle and is a line item in the annual budget. These vehicles are used for command trucks, the Fire Marshal's Office, staff vehicles, and utility vehicles for equipment and trailers.

Tools, Equipment, and Safety Equipment

The department's tools, equipment, and safety equipment are the responsibility of the Operations Chief, and all are in good or excellent condition. Equipment test methods

and test cycles were reviewed and revised, resulting in long-term reduced costs and immediate safety improvements.

The following is a summary of equipment for 2017:

- Purchased 1 ¾ hose and phased out all 1 ½ fire hose on all apparatus
- Purchased 50 sections of 2 ½ fire hose to start replacing aging hose
- Have ordered all new base stations, portables, and mobile radios for the Fire Department, Emergency Management and Specialty Teams. We should have the new UHF system up and running in first quarter 2018. This will make us interoperability with the rest of the City of Danville Departments.
- Added to every apparatus and trained the department on using a meter grabber. The department will submit a grant for 122 sets of turn out gear in early 2018. If awarded, the grant will give every member a second set with the hopes of reducing potential exposure. More nozzle and hose will also be replaced in 2018.

Suppression Program

Water Supply

In order to remain aware of essential resources and to ensure water availability and distribution for fire suppression, DFD maintains an excellent working relationship with the City's Water Department. With this year's hydrant inspections, DFD reported all functional issues to the Water Department for follow-up. The departments conducted a joint review of hydrant locations as recorded in the City's Geographic Information System (GIS) and made numerous corrections. DFD identified a need to obtain current flow capabilities with an updated system model, which will aid in the department's risk assessment and in construction plan reviews. A plan is in place to help condense GIS data for city hydrants with the water and gas department.

A review of the current status of the system indicated reliability is high and more than 90% of the city is covered by the water system. Additionally, 98% of all structures are within 1,000 feet of an operating hydrant.

The agency continues to maintain a 1250 gallon Tender for a portable water supply when needed in areas not served by the water system. The mutual aid agreement renewed in 2014 with Pittsylvania County is utilized when water need exceeds the capability of DFD resources. A new response plan was mapped out for the Tender and was implemented in fall of 2016.

Risk Assessment

A formal risk assessment was completed in the last quarter of 2016. Along with this assessment, the department plans to implement a new Risk assessment worksheet to the pre-incident survey reports. This will allow the department to determine target hazards and elevate the response level as needed. The goal is have this implemented in 2018.

Emergency Management

Highlights

The City's Emergency Operations Plan (EOP) remains current and is scheduled for renewal in 2018. Written and signed Mutual Aid Agreements and Memorandums of Understanding have been confirmed active, and contact information was updated. Department administrative staff attended a regional exercise in October of 2017. The exercise was successful in bringing departments and agencies together and actively engaging all in decision making and priority discussions. Participants also made use of a web-based form for situation reports, which makes all submissions immediately available to decision makers.

Interoperability

Work continues on the interoperability of communications between the City departments as well as the outside agencies of the county and state. Recent changes in the communications equipment in Pittsylvania County effected radio interoperability however, the migration to digital UHF radios will be completed in 2018 and should improve all communication with external agencies.

Emergency Communications

Highlights

Danville's Emergency Communications Center (ECC) serves as the Public Safety Answering Point (PSAP) and dispatch center for the City. The ECC and Fire Headquarters are served by a generator capable of supplying sufficient power to maintain operations. Additionally there is a battery backup system that maintains communications for two or more hours in the event of a generator failure.

Division Summary

- **Staffing.** Staffing has remained at the previous level. Due to resignations and transfers there have been four (4) new personnel hired this year with upcoming certifications to be obtained due to training availability. Current recruiting programs appear effective. The local turnover statistics appear consistent with other jurisdictions but cause concerns and efforts are ongoing to attempt to reduce the rate.

- **Policy.** All updates and changes have been logged in the log of changes page in the Policies and Guidelines document. No major changes were made but a total of 10 updates and clarifications were documented this calendar year.

- **Training.** Training hours for the ECC totaled just under 1,435 for the year. This included initial certifications for new employees along with continuing education for maintaining existing certifications. Additional training is available internally with the city, online and through periodicals with articles and test questions. Below is a listing of areas of training for the Division.

- CDE Medical, Police, Fire magazine article trainings for EMD/EPD/EFD
- CPR Recerts
- Recerts for EMD, EPD, EFD
- Protocol Updates
- Policy Updates
- CJIS Training
- Employee Ride Alongs
- NIMS

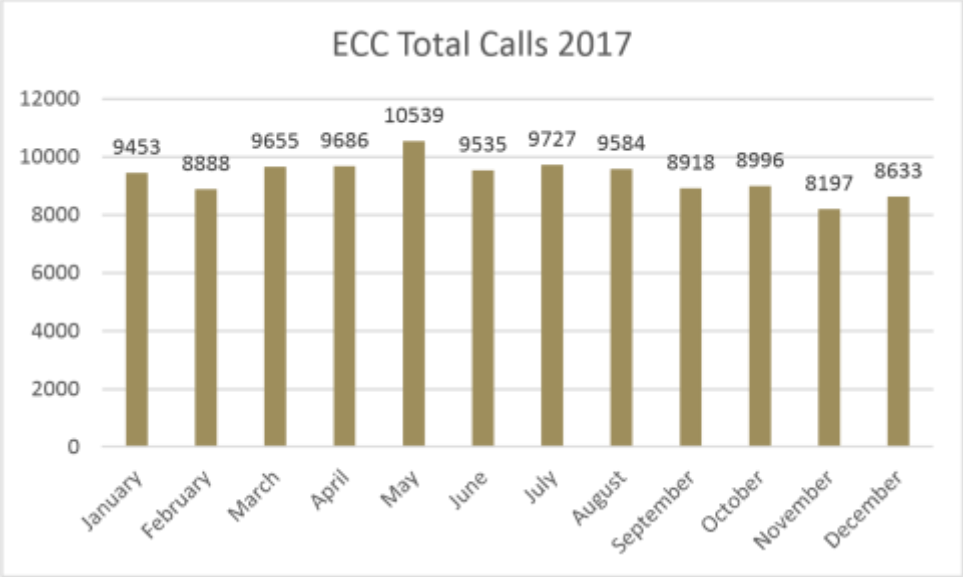
- Supervisor CDU Classes
- Online DCJS Classes
- VCIN Recerts
- New Telephone System Training
- OJT Basic Trainings

- **Equipment.** Due to the upgrades in the past three years, there have been no significant changes in the past year.

Calls Processed

The ECC telecommunicators processed an average of 306 calls per day in 2017, with a peak month in May. The following chart portrays calls from landline phones, cell phones, and TTY to 911 and administrative ECC phone lines which resulted in the creation of an incident in the Computer Aided Dispatch (CAD) system.

Figure 14: ECC Calls Processed in CAD in 2017



Each of those 111,811 calls required communication with one or more agencies to handle the request or emergency, resulting in 65,615 service entries in CAD.

Call Processing Time. Also called "alarm handling time," call processing time is a component of the overall response time which measures the period from "call received" to "first unit dispatched." DFD's goal is for 90% of all calls to be handled within 60 seconds on EMS incidents and within 90 seconds on structure fires (due to the additional information that must be collected). 2017's actual 90th percentile call processing performance was 1 minute 25 seconds for structure fires and 38 seconds for EMS calls.

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