I am Fire Chief Lou Ann Metz of the Bainbridge Fire Department. Welcome to this week's edition of *Fire Chief Friday*. This is a weekly series aimed at providing information that is informative, verifiable, and neutral about the Bainbridge Fire Department. Today's topic is *Fire Department Expenses Part 1*: Outfitting Fire Fighters

Firefighting is a dangerous business. There are several organizations that govern safe operations for firefighters. The National Fire Protection Association develops standards for the fire service that range from qualifications and training to apparatus and equipment, firefighter health and safety and response. Occupational Safety and Health Administration governs the health and safety of firefighters and safe operations at both emergency and non-emergency scenes. National Institute of Occupational Safety and Health also has oversight of firefighter health and safety.



Of major concern to these agencies is reducing firefighter cardiovascular and stroke risk, cancer risk, and exposure to life threatening emergencies. They require that firefighters be issued certain personal protective equipment such as structural firefighting gear, self-contained breathing apparatus, and radios. Below is listed such equipment and the cost:

- 1. Structural firefighting gear is a custom fit ensemble of fire resistive coat, pants, hood, gloves, boots, and helmet. Each firefighter is provided with two sets. This is because studies have shown that firefighters develop cancer at a rate of 14 time greater than the general population. Those studies have shown that the structural firefighting gear becomes saturated with carcinogens during a fire. After each fire, firefighters must decontaminate, wash, and dry their gear before storing or wearing it again to reduce their cancer risk. This process takes several hours to accomplish. To avoid firefighters being unable to respond to a fire, they are issued a second set of gear so that they have a clean set to wear in the event of another fire. The gear must be replaced if damaged or worn, or at the end of ten years. Cost of a single set of gear is approximately \$4,500. To outfit every firefighter with two sets of gear is a total cost of \$360,000.
- 2. Self-contained breathing apparatus (SCBA) allows firefighters to breath clean air when working in an environment that is immediately dangerous to the firefighter's health and safety. It protects against breathing superheated gases and toxic chemicals produced from burning materials or hazardous materials. Each firefighter must wear their breathing apparatus any time they are in a contaminated environment. Generally, they are required to be upgraded every seven years. The cost of a breathing apparatus, mask with heads up display and thermal imaging capability and spare bottle is approximately \$11,000. The department has 24 units for a total cost of \$264,000.
- 3. Radios are a firefighter's lifeline inside a burning building. Each firefighter requires a radio to ensure if they are trapped or injured or fire conditions change, they can communicate with the incident commander to request assistance. Cost of a radio is: \$4,500 each. The department has 30 radios for a total cost of \$135,000.
- 4. Unication pagers are issued to our personnel so that they can be alerted on or off-duty when there is a call and respond if additional assistance is needed. The cost of a pager is approximately \$850 each and a total of \$34,000 for 40 personnel.

- 5. Ballistic vests have become a required item for personnel. Mass shootings and violence against first responders has risen sharply in the last 5 years. Each member is issued a fitted ballistic vest to provide protection against gunshots and stabbings. Department procedure requires them to wear them in high-risk situations. They are responsible for the care and maintenance of their vests. Cost of a ballistic vest is \$1,200 per person, or \$48,000 total for 40 personnel.
- 6. Hi-visibility traffic vests are required when working near a roadway or in parking lots. An alarming number of firefighters are struck by vehicles each year. Cost of vest: \$45.00 per person or a total \$1,800 for 40 personnel.
- 7. Launderable blood and body-fluid resistant coveralls are a necessity for our EMS personnel. During Covid we learned that supply chain issues created a significant shortage of disposable fluid resistant PPE increasing the risk of exposure and sickness. We purchase coveralls for our personnel that can be decontaminated and washed, so that we have adequate protection in accordance with the CDC's guidelines for keeping our personnel safe. Cost: \$180.00 per person or a total of \$7.200.
- 8. N-95 respirators were also purchased to protect our personnel during Covid to prevent them from being exposed to the Covid virus when treating and transporting Covid patients. Again, supply chain issues created shortages of disposable N-95 masks. The respirators purchased were reusable with disposable filters and purchased to make sure our personnel were protected. The cost of the respirators and filters was \$125 per person or a total of \$5,000.
- 9. The fire department is required by law to fund a comprehensive annual physical for firefighting personnel. The physical includes general wellness, cancer screening, cardiovascular and pulmonary function testing, hearing and vision testing, extensive bloodwork, and an infectious disease panel, among other things. The average cost of these physicals is \$1,300 per person for a total of \$52,000.

The total cost to outfit a firefighter is approximately **\$22,700**. The department has 40 personnel, so the total cost is **\$907,000**. As you can see, it is expensive to outfit a firefighter/paramedic so they can safely do their job. Much of the equipment has a service life of 5-10 years, so we budget money every year and set aside for the replacement of these items when the time comes. Additionally, we seek grant funding when available and have been fortunate enough to receive approximately \$400,000 through grant funding for SCBA's, firefighter physicals and mental health education. Below are illustrations of what we wear and carry and the weights.



In next week's edition I will discuss the different equipment firefighters/paramedics use and the costs. Have a great week and stay safe!