Recommended Replacement Schedule for Cleveland EMS Ambulances

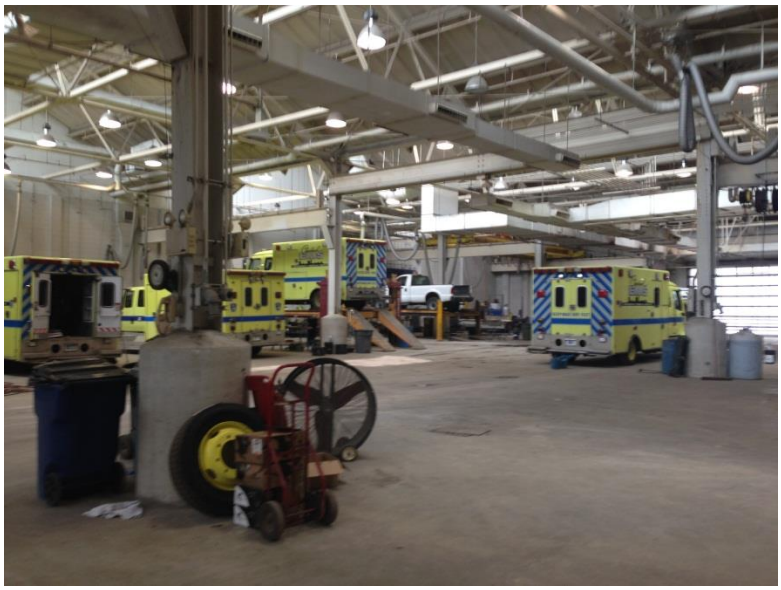
CARE 1975

X9, recently retired after 12+ years of service and over 300,000 miles.

Produced by Timothy Sommerfelt for

CARE 1975

Every EMS service requires a mechanically sound ambulance fleet to function effectively. The best paramedics in the world are worthless unless they have reliable vehicles that allow them to respond to scenes and safely transport the patient to the hospital. In the summer of 2015, ongoing mechanical issues with Cleveland EMS ambulances forced crews to respond to calls in an SUV. As detailed in a recent WKYC news story. This compromises patient care, because the paramedics in the SUV can only provide care at the scene and must wait until another crew arrives in an ambulance to transport the patient to the hospital. In addition, Medicare rules do not allow an entity to bill for ambulance transport if the patient is transported to the hospital in an SUV.

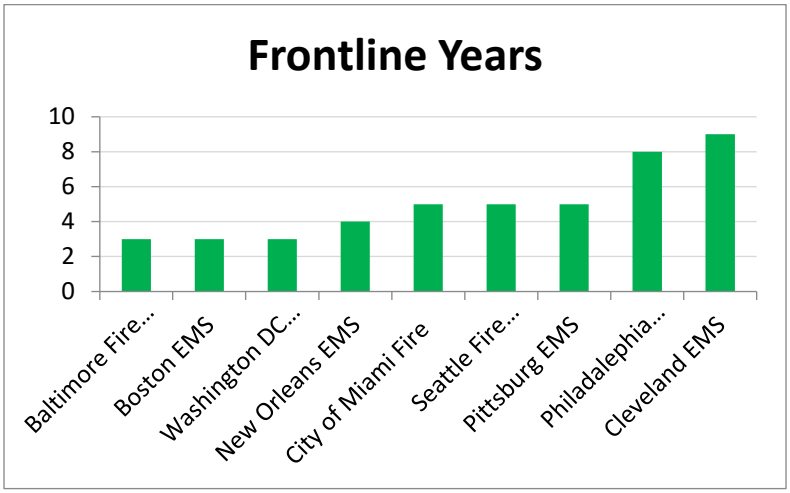


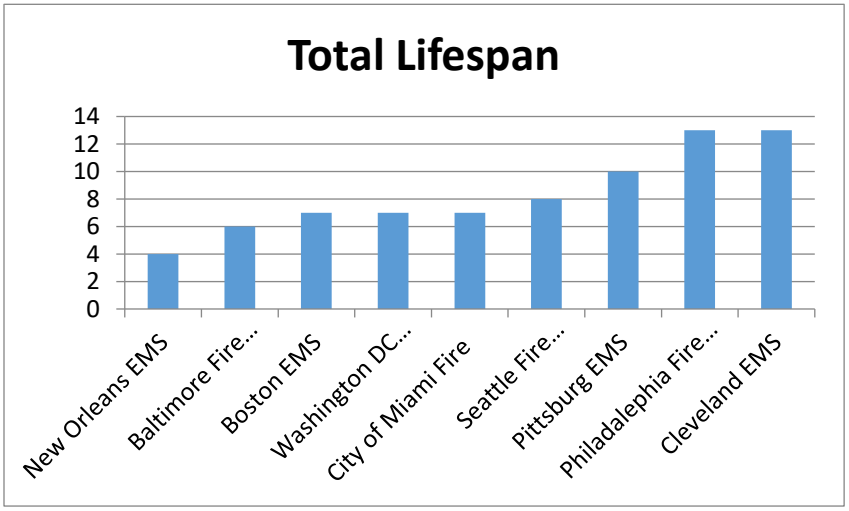
EMS ambulances wait for repairs at the 55th Street garage.

While the delivery of six new ambulances temporarily fixed maintenance crisis, the situation will likely be repeated in the near future because Cleveland EMS lacks a scheduled vehicle replacement program.

LEFT: gloves and plastic ties are used to repair an engine. RIGHT: Rust holes in the floorboards of X7.

After conducting a nationwide survey of urban EMS systems, it has been determined that the average ambulance spends **4.8 years or 163,833 miles in frontline 911 service**. It is then placed into reserve status for another 3-4 years and is permanently **retired at an average of 7.8 years or 200,714 miles.**



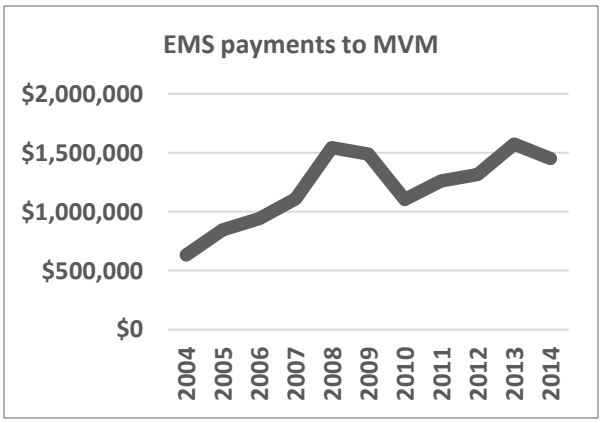


Cleveland EMS puts more miles and uses their ambulances longer than other municipalities surveyed.

A comprehensive report completed by an independent consultant for DC Fire and EMS found that:

"New apparatus should be budgeted for and procured on a consistent, on-going basis. Replacement of apparatus should not be deferred because of the strain that such actions place on the fleet."

The report also states that the cost to maintain an aging ambulance may be greater than the cost of purchasing a new ambulance. In Cleveland, we found that **EMS payments to the Division of Motor Vehicle Maintenance (MVM) doubled between 2004 and 2014**.



A recent article posted to an EMS website also discussed the fleet management of the Richmond VA ambulance fleet. The article's recommendations for fleet replacement were virtually identical to those contained in this document.

As such, we recommend that Cleveland EMS, in conjunction with MVM, implement a scheduled ambulance replacement program.

Cleveland EMS currently runs 18 front-line ambulances 24/7 365. In addition, one ambulance is always kept ready in case an ambulance contracts bed bugs, while another provides special event coverage. Additional spare ambulances are needed to replace broken ambulances, provide coverage when an ambulance is removed for preventative maintenance, provide extra units during times of high call volume such as New Year's Eve, or the Fourth of July, and when multiple special events are conducted at the same time, such as during the Gay Games or the upcoming RNC. At a minimum, however, Cleveland EMS needs 20 frontline ambulances available for regular day-to-day operations.

Currently, Cleveland EMS frontline ambulances drive between 35,000-45,000 miles annually. A reasonable goal would be to ensure that all frontline ambulances are below 200,000 miles. Assuming 20 frontline ambulances (18 911 ambulances + 1 bedbug ambulance + 1 special event ambulance), an ambulance should spend about 5 years in frontline service to reach the 200,000 mile mark. This means that **4 new ambulances should be purchased every year**.

When an ambulance is **removed from frontline service after 5 years or around 200,000 miles**, it can then be assigned reserve status for another 2-5 years. This will give EMS a reasonably reliable reserve fleet that can be used to cover frontline trucks when they are removed for preventative maintenance or a due to a breakdown. This reserve fleet is also needed for the occasions when multiple locations require special event coverage, and can be placed in service in the event of a mass casualty incident.

It should be noted that the ambulances purchased should continue to be mounted on medium-duty commercial truck chassis. Multiple agencies reported that smaller ambulances mounted on Ford or Chevy van chassis needed to be replaced twice as often as those mounted on a truck chassis.

Medic 36 being towed back to the service garage less than 12 hours after undergoing repairs. The crew would spend the rest of the night responding to calls in an SUV.

It is true that ambulances are not cheap, and that a municipality might be leery of such a significant expense, but remember that the lives of the citizens are riding on the reliability of each ambulance.

April 2016 years and mileages for the CEMS fleet

GOOD 20%

M33	2016	11540
M40	2015	23391
M23**	2015	29663
M11**	2015	29926
M43	2015	31695
M22**	2015	43660

FAIR 26%

M20	2013	115604
M41	2013	130245
M30	2013	132395
M1	2013	134420
M31	2013	142658
M39	2012	152787
M42	2012	153752

POOR 56%

M10	2011	210832
M7	2011	214592
M6*	2009	52556
M4	2011	215554
M36	2009	228133
X13	2006	233795
X52	2009	249564
X2	2006	257598
X50	2009	260207
X51	2009	279135
X54	2009	291233
X4	2006	292446
X1	2005	297150
X11	2006	299026
X10	2005	305529
M17	2005	317564
X7	2006	311419

*= M6 had the odometer reset last year. **= new remount