

**Third Biannual Certification of EMS Response Time Performance
Mayor's Task Force on Emergency Medical Services, Recommendation 4 (a)**

On September 27, 2007, the Task Force on Emergency Medical Services issued its *Report and Recommendations*. Among these recommendations was:

4 (a): *The Mayor shall establish a goal of providing ALS response times according to the National Fire Protection Association Standard 1710, 100% of the time, as well as a goal of providing transport responses within 13 minutes, 100% of the time. The Department shall conduct quality improvement review of those calls where the goal is not achieved. No later than March 20, 2008, and every six months thereafter, the Mayor shall certify that the District of Columbia has met this goal, or announce what steps are being taken to achieve this goal.*

National Fire Protection Association (NFPA) 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*, 2004 edition, states:

4.1.2.1 *The fire department shall establish the following time objectives: Eight minutes (480 seconds) or less for the arrival of an advanced life support unit at an emergency medical incident, where this service is provided by the fire department.*

4.1.2.2 *The fire department shall establish a performance objective of not less than 90 percent for the achievement of each response time¹ objective specified in **4.1.2.1**.*

For Fiscal Year 2009 to date (October 2008—March 2009):

- The percent of critical medical calls with first Advanced Life Support (ALS) (any unit) arriving within eight minutes (480 seconds) or less, measured according to the NFPA 1710 standard (en route-to-scene), was 90.00%.
- The percent of critical medical calls with first transport unit arrival within 13 minutes (780 seconds) or less, measured dispatch-to-scene, was 94.73%.

For FY 2008 (October 2007 through September 2008), the Department delivered first Advanced Life Support (ALS) to 56,383 out of 63,143 critical medical within 8:00 minutes or less, dispatch-to-scene, achieving performance of 89.3% against the 90% performance target, with 6,760 calls out of the target zone.

¹ NFPA 1710 defines response time as: “*The travel time that begins when units are en route to the emergency incident and ends when units arrive at the scene*” (in DC Fire & EMS, this interval is referred to as “en route-to-scene”). This is a less stringent definition than that used by the DC Fire & EMS, which calculates its response time statistics from dispatch-to-scene when measuring the performance of Fire & EMS units, and from call-to-scene when measuring system response time from the patient’s perspective.

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FY 2009 monthly statistics, calls in and out of desired response time target range:

| FY 2009 MONTH BY MONTH | oct '08 | oct '08 | oct '08 | nov '08 | nov '08 | nov '08 | dec '08 | dec '08 | dec '08 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Critical Medical Calls: Dispatch-to-Scene | IN | OUT | ALL | IN | OUT | ALL | IN | OUT | ALL |
| FIRST ALS ≤ 8:00 MIN | 4769 | 497 | 5266 | 4340 | 575 | 4915 | 4519 | 684 | 5203 |
| FIRST TRANSPORT ≤ 12:00 MIN | 5009 | 278 | 5287 | 4598 | 323 | 4921 | 4895 | 361 | 5256 |
| FIRST EMT ≤ 6:30 MIN | 4979 | 478 | 5457 | 4620 | 509 | 5129 | 4823 | 617 | 5440 |

| FY 2009 MONTH BY MONTH | jan '09 | jan '09 | jan '09 | feb '09 | feb '09 | feb '09 | mar '09 | mar '09 | mar '09 |
|---|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Critical Medical Calls: Dispatch-to-Scene | IN | OUT | ALL | IN | OUT | ALL | IN | OUT | ALL |
| FIRST ALS ≤ 8:00 MIN | 4613 | 855 | 5468 | 4315 | 707 | 5022 | 5062 | 609 | 5671 |
| FIRST TRANSPORT ≤ 12:00 MIN | 5025 | 485 | 5510 | 4663 | 388 | 5051 | 5377 | 291 | 5668 |
| FIRST EMT ≤ 6:30 MIN | 5024 | 779 | 5803 | 4660 | 624 | 5284 | 5325 | 521 | 5846 |

For Fiscal Year 2008, DC Fire & EMS internal performance target for transport unit arrival was changed from 13 minutes or less, 90% of the time, to the more rigorous 12 minutes or less, 90% of the time, since the agency was significantly exceeding the 12 minute target goal during Fiscal Year 2007. For Fiscal Year 2009, DC Fire & EMS is exceeding this target by delivering a transport unit to critical medical calls within 12 minutes or less, measured dispatch-to-scene, 93.29% of the time. The agency is not meeting its performance goal for ALS arrival within eight minutes or less, measured dispatch-to-scene, doing so 87.55% of the time, and meeting or exceeding the performance target during one out of the past six months. The drop in performance during January & February 2009 appears to be a data computation anomaly, most likely secondary to the Department's system-wide implementation of Mobile Data Computer (MDC) terminals. During the implementation phase of MDC installation, a higher percentage of time stamps had to be created manually by OUC operators, and there were more data connectivity errors, causing response times to appear longer than they actually were. The baseline has since returned to normal in March 2009, as the IT issues associated with MDC project are resolved.

The D.C. Fire & EMS Department has set a national benchmark for transparent and comprehensive reporting of EMS response time. Any interested stakeholder can visit the Department's website and find statistics showing detailed response time statistics for arrival of first EMT, first paramedic, and first transport unit. These statistics are reported using two primary methods: measured call-to-scene, and measured dispatch-to-scene. Call-to-scene response time reporting includes the dispatch interval and most closely mirrors response time from the patient's perspective. Dispatch-to-scene measures the component of response time that D.C. Fire & EMS is accountable for, and allows stakeholders to analyze the Department's performance independent of call-processing time at the Office of Unified Communications.

Strategies for Performance Improvement:

The D.C. Fire & EMS Department continues to examine response time performance outliers utilizing Geographic Information Systems (GIS) and utilizes these findings to improve performance. The Department has identified several specific neighborhoods where it is not achieving the desired level of response time reliability. Root cause analysis has determined that the underlying factor influencing longer response times in these neighborhoods is prolonged travel time due to fire/EMS stations that are not optimally located. These findings have led to Capital Budget proposals to relocate Engine Company 22, 5760 Georgia Ave., NW, further north,

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to the campus of Walter Reed Army Medical Center; and to relocate Engine Company 26, 1340 Rhode Island Avenue, NE, further east along the Rhode Island Ave. corridor.

The Department will continue to strive to improve all aspects of EMS response time performance. The Department's ALS response time performance directly relates to the number of Paramedic Engine Companies (PECs) it maintains in service. The Department has mounted a major recruitment campaign for paramedic/firefighters with a goal of attracting a minimum of 100 new ALS providers to the agency over the next 12 months. As the number of ALS providers grows, additional engine companies will be upgraded to PEC status, and the Department will be able to get closer to achieving the 100% goal.

With respect to the Task Force recommendation that the Department conduct quality improvement review of those calls where the goal is not achieved, DC Fire & EMS currently tracks response time outliers through several means, including retrospective exception reporting, and monitoring by the agency officers stationed at the Office of Unified Communications. Calls with response times that fall outside of acceptable parameters are examined in detail through a variety of tools, including the use of satellites to track vehicle travel routes and speed. The findings are then referred to the appropriate office for operational review and/or quality assurance/quality improvement.

For the most recent month available (April 2009) 23 transport unit response that appeared to fall outside of an acceptable performance range were examined for root cause analysis. 14 of the 23 proved to be electronic data issues, and the unit was determined to have actually arrived within an acceptable time frame. Only two responses were found where the root cause was determined to be possibly due to individual provider navigation error. These incidents were referred to the appropriate supervisor for follow-up.

| | |
|--|-----------|
| Total number of calls out of range | 23 |
| Unit Did Not Status On-scene & Halo Did Not Activate; Unit Arrived Within Acceptable Time Frame | 7 30% |
| Navigation Error | 2 9% |
| Additional Resource Added to Event at a Later Time; Unit Arrived Within Acceptable Time Frame | 3 13% |
| Unit Not Connected to I/Mobile and Dispatcher Did Not Place Unit on Scene; Unit Arrived Within Acceptable Time Frame | 2 9% |
| Distance contributed to not meeting 8-minute response from DP to AR | 4 17% |
| Rush Hour May Have Contributed to Slower Response Time | 1 4% |
| Incorrect Status Button Sequence Skewed Data; Unit Arrived Within Acceptable Time Frame | 2 9% |
| Additional Resource Added to Event at a Later Time; Unit Did Not Arrive Within Acceptable Time Frame | 2 9% |

DC Fire & EMS is committed to transparent reporting of its EMS response time performance and posts a monthly performance report on its website at <http://fems.dc.gov> The mid-fiscal year performance report (for March 2009) follows:

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**EMS Response Time Performance: March 2009
and
Fiscal Year 2009 Year-to-Date Report
(October 2008—March 2009)**

Number of EMS Incidents:

| | Current Month (March 2009) | Prior month (February 2009) | FY 2009 Year-to-Date | FY 2008 Year-end Total | One Year Ago (March 2009) |
|---------------------------------|-------------------------------|--------------------------------|-------------------------|------------------------------|---------------------------------|
| Total Medical Incidents | 11,088 | 9,891 | 65,545 | 126,523 | 11,057 |
| Critical Medical Dispatches | 6,065 | 5,556 | 34,891 | 64,099 | 5,522 |
| Non-Critical Medical Dispatches | 5,023 | 4,335 | 29,654 | 62,424 | 5,535 |

Advanced Life Support (ALS) Response Time Performance:

Percent of Critical Medical Dispatches Receiving First Advanced Life Support (ALS) Arrival Within 8:00 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 8:00 | FY 2009 Year-to-Date (cumulative) | Monthly Average ALS Response Time (minutes: seconds) | FY 2008 Year-to-date Average ALS Response Time |
|---------------|-------------------|---|---|---|
| October 2008 | 90.6% | 90.6% | 5:00 | 5:00 |
| November 2008 | 88.3% | 89.5% | 5:15 | 5:08 |
| December 2008 | 86.9% | 88.6% | 5:27 | 5:14 |
| January 2009 | 84.5% | 87.5% | 5:44 | 5:22 |
| February 2009 | 85.9% | 87.2% | 5:34 | 5:24 |
| March 2009 | 89.2% | 87.6% | 5:10 | 5:22 |

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Transport Unit Response Time Performance:

Percent of Critical Medical Dispatches Receiving First Transport Unit Arrival Within 12:00 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 12:00 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|-----------------|---|
| October 2008 | 94.7% | 6:08 |
| November 2008 | 93.4% | 6:21 |
| December 2008 | 93.1% | 6:28 |
| January 2009 | 91.2% | 6:52 |
| February 2009 | 92.2% | 6:38 |
| March 2009 | 94.9% | 6:11 |

Percent of Non-Critical Medical Dispatches Receiving First Transport Unit Arrival Within 12:00 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 12:00 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|-----------------|---|
| October 2008 | 94.1% | 6:14 |
| November 2008 | 93.8% | 6:23 |
| December 2008 | 92.5% | 6:39 |
| January 2009 | 89.8% | 7:12 |
| February 2009 | 92.3% | 6:37 |
| March 2009 | 94.6% | 6:15 |

Percent of All Medical Dispatches Receiving First Transport Unit Arrival Within 12:00 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 12:00 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|-----------------|---|
| October 2008 | 94.4% | 6:10 |
| November 2008 | 93.6% | 6:22 |
| December 2008 | 92.8% | 6:33 |
| January 2009 | 90.6% | 7:01 |
| February 2009 | 92.3% | 6:38 |
| March 2009 | 94.7 % | 6:13 |

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First-Arriving EMT Performance (First-arriving resource, staffed by EMT with automatic defibrillator minimum):

Percent of Critical Medical Dispatches Receiving First EMT Arrival Within 6:30 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 6:30 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|----------------|---|
| October 2008 | 91.2% | 4:11 |
| November 2008 | 90.1% | 4:20 |
| December 2008 | 88.7% | 4:27 |
| January 2009 | 86.6% | 4:36 |
| February 2009 | 88.2% | 4:28 |
| March 2009 | 91.1% | 4:15 |

First-Arriving EMT Performance, continued: (First-arriving resource, staffed by EMT with automatic defibrillator minimum):

Percent of Non-Critical Medical Dispatches Receiving First EMT Arrival Within 6:30 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 6:30 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|----------------|---|
| October 2008 | 78.4% | 5:00 |
| November 2008 | 76.4% | 5:15 |
| December 2008 | 74.7% | 5:24 |
| January 2009 | 71.5% | 5:41 |
| February 2009 | 75.2% | 5:19 |
| March 2009 | 78.5% | 5:01 |

Percent of All Medical Dispatches Receiving First EMT Arrival Within 6:30 Minutes or Less, Dispatch-to-Scene, FY 2009 YTD

| Month | Percent ≤ 6:30 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|----------------|---|
| October 2008 | 85.2% | 4:34 |
| November 2008 | 83.7% | 4:45 |
| December 2008 | 82.3% | 4:53 |
| January 2009 | 79.8% | 5:06 |

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| Month | Percent \leq 6:30 | Monthly Average Transport Unit Response Time (minutes: seconds) |
|---------------|---------------------|---|
| February 2009 | 82.6% | 4:50 |
| March 2009 | 85.4% | 4:35 |

Call-to-Scene Performance: (Response time from the patient’s perspective, measured from receipt of 911 call at the Office of Unified Communications to arrival on the scene by Fire/EMS.)

EMS Response Time, Call-to-Scene Performance by Interval, Critical Medical Dispatches, March 2009

| Average Response Time (minutes:seconds) | | | |
|---|-------------------|----------------------|--------------------|
| | Call-to-Dispatch* | Dispatch-to-Scene* * | Call-to-Scene* * * |
| First EMT | 2:33 | 4:13 | 6:46 |
| First Paramedic | 2:42 | 5:09 | 7:51 |
| First Transport Unit | 2:39 | 6:07 | 8:45 |

*Note: The Call-to-Dispatch interval is controlled by the Office of Unified Communications (OUC). This is the time it takes to process a 911 call. This interval begins with receipt of a 911 call at the Unified Communications Center (UCC) and ends with the beginning of dispatch of FEMS resources.

** The Dispatch-to-Scene interval is the component of response time that begins with the dispatch of FEMS resources by the OUC, and ends with the arrival of FEMS on the scene.