Memorandum

DATE **April 5, 2018**

TO **Honorable Members of the Public Safety and Criminal Justice Committee**

SUBJECT **EMS Dispatch Update**

On Monday, April 9, 2018, you will be briefed on Tiered EMS Dispatch software by Assistant Fire Chief Daniel Salazar, Dallas Fire-Rescue Department (DFR). The software has been in use in the Fire Dispatch Center since November 14, 2017. Upon going live with use of the software, DFR altered its dispatch of resources to handle low priority EMS calls for approximately one week. The software categorizes calls and for the "beta" (one-week) launch, DFR assigned Engine Companies to low acuity calls. The software categorizes medical emergencies based on information provided by the caller as prompted by dispatchers utilizing scripted protocols. The prioritization matrix includes the following: Low to High (Omega (lowest priority), Alpha, Bravo, Charlie, Delta, and Echo (Highest Priority Call)

DFR has continued use of the software in its Dispatch Center since implementation to help with call handling and prioritization. However, after the trial one-week period where Engine Companies were dispatched as sole EMS resources to low acuity calls, DFR reverted to its traditional model of dispatching ambulances to All reported medical emergencies. The software data analytics reveal that approximately 29% of calls handled are categorized as low priority (Alpha and Omega). Shifting this level of calls to Engine Companies has benefits and drawbacks which will be covered in the presentation.

It is evident to DFR's leadership that shifting such a high number of medical calls (29% of all EMS call volume) to Engine Companies warrants careful investigation of data and potential policy changes that would permit more effective use of Tiered EMS Dispatch software as well as the department's limited available resources.

The presentation will also discuss how other large cities approach the ever-increasing EMS call volume and DFR's investigation of innovative practices and potential policy changes. All with the goal of ensuring that all citizen requests for medical assistance are given due regard and in the most appropriate manner.

The briefing materials are attached for your review.

Please contact me if you have any questions or need additional information.

Jon Fortune
Assistant City Manager

[Attachment]

cc: Honorable Mayor and Members of the City Council Jo M. (Jody) Puckett, Assistant City Manager (Interim)
    T.C. Broadnax, City Manager   Joey Zapata, Assistant City Manager
    Larry Casto, City Attorney   M. Elizabeth Reich, Chief Financial Officer
    Craig D. Kinton, City Auditor   Nadia Chandler Hardy, Chief of Community Services
    Bilierae Johnson, City Secretary (Interim)   Raquel Favela, Chief of Economic Development & Neighborhood Services
    Daniel F. Solis, Administrative Judge   Theresa O'Donnell, Chief of Resilience
    Kimberly Bizor Tolbert, Chief of Staff to the City Manager   Directors and Assistant Directors
    Majed A. Al-Ghafry, Assistant City Manager

EMS Dispatch Update

Public Safety and Criminal Justice

April 9, 2018

Daniel Salazar, Assistant Chief
Dallas Fire-Rescue Department

Presentation Overview

- Recap DFR's implementation of Tiered EMS Dispatch Software (Go-live on Nov. 14, 2017)
- Options to address high EMS call volume
- Review of existing DFR EMS transport and service delivery policies
- Next steps with Tiered EMS Dispatch

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Tiered EMS Dispatch Software

- Tiered EMS dispatch software achieves the following:
  - ➢ Scripted questions for Fire Dispatchers designed to elicit information from callers
  - ➢ Medical instruction to 911 callers (i.e., CPR, childbirth delivery, etc.)
  - ➢ Categorizes the type of medical emergency reported to help users dispatch appropriate EMS resources

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Tiered EMS Dispatch Software

- Categorization of medical calls:
  - ➢ Echo calls-highest acuity requiring rapid response via ambulance with Advanced Life Support (ALS) capability
  - ➢ Omega/Alpha calls-lower priority and do not necessarily require ALS units

E	**Echo**
D	**Delta**
C	**Charlie**
B	**Bravo**
A	**Alpha**
Ω	**Omega**

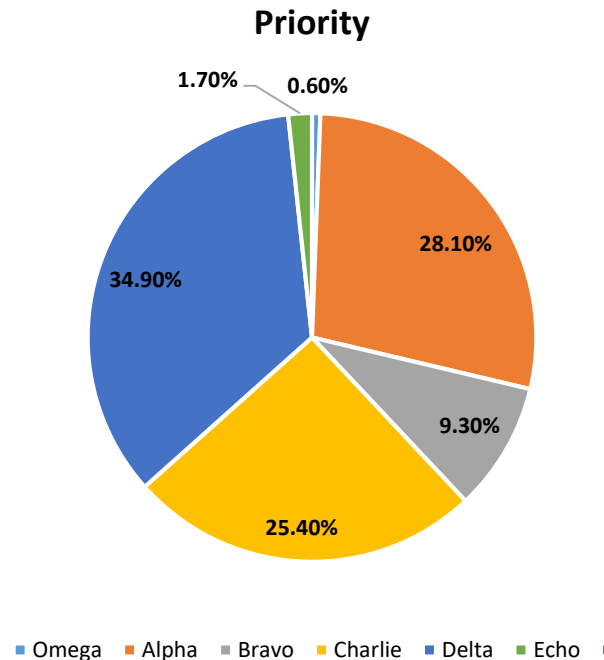**Higher Acuity**

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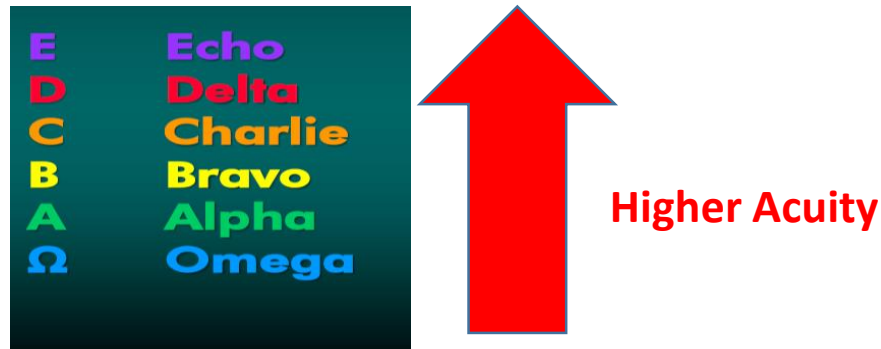
Background/History

- Council approved purchase of Tiered EMS Dispatch Software (Sept. 2016)
- Beta Launch of EMS resource dispatching (Nov. 2017) (Fire Engines for certain calls)
- Ambulance dispatches focused on higher priority EMS calls
- Software use continues in the Dispatcher Center (Improved Dispatcher proficiency)

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Impact of Software Use

- Use of software revealed the following:
  - Approximately 29% of EMS calls (28,254 processed) were categorized as low priority (Alpha and Omega)

Priority

1.70%   0.60%
34.90%
28.10%
9.30%
25.40%

(Nov. 14, 2017 – Feb. 13, 2017)

Omega   Alpha   Bravo   Charlie   Delta   Echo

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Impact of Software Use

- Use of software revealed the following:
  - During Nov. 2017, DFR engines were assigned as a sole EMS resource to handle low priority (Omega/Alpha) calls spanning one week
  - Over 50% of Engine Company dispatches - callers requested ambulance transport (existing policy dictates that DFR transport patients if such requests are made)

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Impact of Software Use

- Use of software continues in the Fire Dispatch Center
- Dispatchers continue to become more proficient with call processing
- DFR is investigating policy changes and adding resources in the future to better leverage Tiered EMS software

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Options to Address Call Volume

- Houston, Texas (ETHAN) - use of video conferencing to assess low acuity patients (Ambulances/Engines equipped w tablets)
- Taxi voucher system for low acuity calls - Phoenix, Anaheim, California as well as other cities across the U.S. make use
- Other large cities including Washington, D.C. have or are considering partnerships with Uber for transport of low acuity patients

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Options to Address Call Volume

- Like Houston which is leveraging videoconferencing, DFR is engaging Parkland/BioTel medical control to discuss this type of service
- DFR is exploring policy changes which includes transporting patients to the closest and most appropriate hospital (reduces ambulance out of service time)

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Options to Address Call Volume

- Other potential policy change to help address high call volume includes:
  - ➢ DFR paramedics refuse transport to patients deemed to be very low acuity after patient assessment and medical control authorization

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Next Steps with Tiered EMS Dispatch

- 911 EMS Call volume-increased over 20% since FY 09-10 (**166,585** vs **206,000** incidents)

EMS Requests for Service

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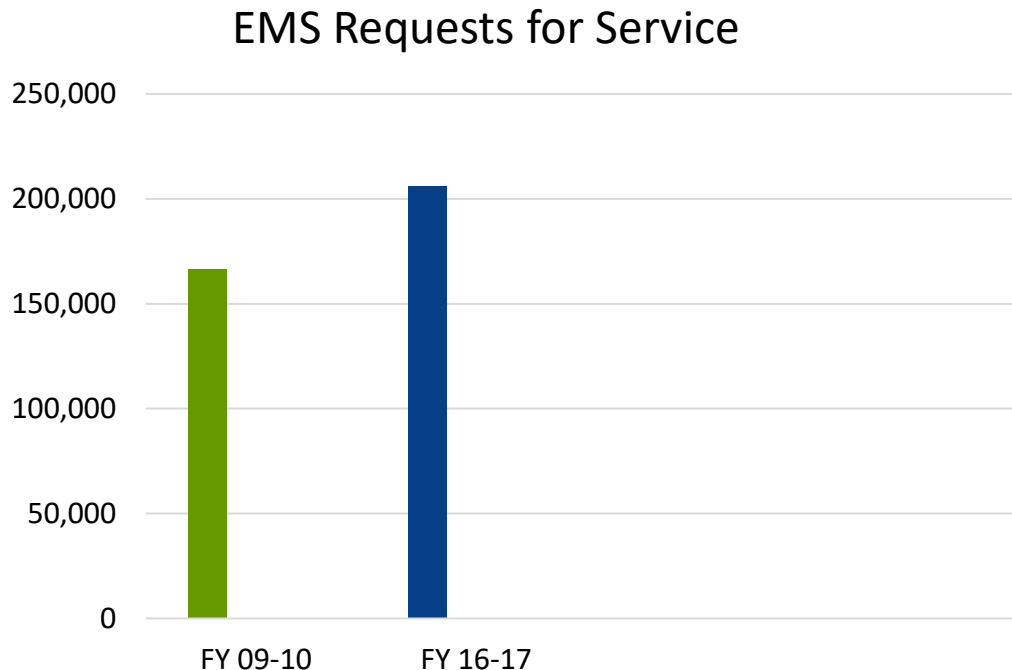
Next Steps with Tiered EMS Dispatch

- Shifting low priority EMS calls to Fire Engines has both benefits and drawbacks
  - ➤ Ambulance units remain available for higher priority calls
  - ➤ Peak volume during summer-large cities are prone to exhausting ambulances
  - ➤ Leads to more wear and tear on Engine resources (29% of all EMS calls are low acuity - Alpha and Omega)

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Next Steps with Tiered EMS Dispatch

- Alternate emergency fleet response resources are under consideration to handle low acuity requests (i.e., SUV vehicles and alternate transport capable units)
- DFR will add engine company responses to handle certain low acuity calls over the next few months
- Proposed policy changes and data analysis will help determine how engines are utilized

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Next Steps with Tiered EMS Dispatch

- DFR will continue with ongoing data analysis of EMS call volume and future system improvements for efficacy

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Daniel Salazar, Assistant Chief
Dallas Fire-Rescue Department