

AMBULANCE AUGMENTATION STAFFING RECONFIGURATION

EXECUTIVE SUMMARY

On May 5, 2013, the Los Angeles Fire Department (LAFD) implemented the Ambulance Augmentation Staffing Reconfiguration to improve overall public safety, service delivery, and emergency responsiveness. This improved public service deployment augmented the previous complement of 34 basic life support (BLS)¹ ambulances with 11 additional BLS ambulances, representing a 33% increase that raised the current deployment of 24-hour BLS ambulances to 45.

The Ambulance Augmentation Staffing Reconfiguration maintained the current number of LAFD "all-risk"² fire suppression resources, thus averting any closures. In effect, 22 of 41 light force resources were reconfigured to provide staffing for the 11 new BLS ambulances. Specifically, one position from each of 22 light forces was transferred to a BLS ambulance position, causing staffing levels on those 22 light forces to be reduced from six personnel to five.

Emergency medical service (EMS) demands continue to increase significantly at all levels: locally, regionally, and nationally. Correspondingly, LAFD medical service requests increased 18% between 2001 and 2012, and in 2012 alone, the LAFD dispatched resources to 397,232 emergency medical incidents (1,085 average/day). These incidents resulted in 208,209 ambulance transports (569 average/day). Consistent with these trends, LAFD service requests are projected to surpass 400,000 per year in 2014, and data analyses provide no evidence of future declines.

The LAFD's Medical Director, Dr. Marc Eckstein, has warned that the Department risks losing its ability to maintain relevance if it fails to keep pace with the changing landscape. Dr. Eckstein, who has continually advocated for an increase in EMS resources asserted, "The simple fact is that we need more BLS ambulances."

The Ambulance Augmentation Staffing Reconfiguration is designed to maintain an all-risk foundation that improves public services by appropriately addressing rising EMS demands, which are approaching 85% of all LAFD service requests. The addition of 11 BLS ambulances produces a more relevant public service model due to the fact that the LAFD complement of 134 ambulances; 89 advanced life support (ALS)³ and 45 BLS, are now more closely patterned to match LAFD capabilities with community needs.

¹ "Basic life support" means emergency first aid and cardiopulmonary resuscitation procedures which, as a minimum, include recognizing respiratory and cardiac arrest and starting the proper application of cardiopulmonary resuscitation to maintain life without invasive techniques until the victim may be transported or until advanced life support is available (1797.6 Health and Safety Code).

² "All-risk" is a term used to describe the scope of incident types and capabilities required to address the wide range of public safety incident types common to Los Angeles, including but not limited to EMS, multi-casualty, high rise, hazardous materials, urban search and rescue, homeland security, metro rail, wildland fires, earthquakes, floods, mudslides, airport and marine incidents.

³ "Advanced life support" means special services designed to provide pre-hospital emergency medical care, including but not limited to, cardiopulmonary resuscitation, cardiac monitoring, cardiac defibrillation, advanced airway management, intravenous therapy, administration of specific drugs and other medical preparations, and other specific techniques and procedures administered by authorized personnel under the direct supervision of a base hospitals part of the local EMS system at the scene of an emergency, during transport to an acute care hospital, during inter-facility transfer, and while in an emergency department of an acute care hospital until responsibility is assumed by the emergency or other medical staff of the hospital (1797.5 Health and Safety Code).

For example, 64% of LAFD service requests require ALS response, and 66% of the Department's ambulances are ALS. Additionally, 34% of the Department's service requests require BLS response, and with the addition of 11 BLS ambulances, 36% of the Department's ambulances are now BLS. These percentages certainly represent a ratio of ambulances that more appropriately align the LAFD public service model with contemporary public service needs.

Ultimately, the reconfiguration was implemented to accomplish the following:

- Improve public safety
- Maintain firefighter safety
- Improve advanced life support service delivery
- Improve basic life support service delivery
- Maintain staffing levels consistent with NFPA standards
- Increase resource availability for pre-deployments, move-ups, and mutual aid
- Increase opportunities to conduct mandated training
- Increase overall capacity of the emergency response system

Public safety, firefighter safety, and public service were important considerations in selecting the locations to station 11 newly implemented BLS ambulances. However, the determining factor in selecting Fire Stations 1, 20, 35, 50, 69, 73, 74, 75, 78, 92, and 96 was that these 11 fire stations represent the only locations that house a light force as the sole all-risk fire suppression resource. These reconfigurations were implemented to increase the availability of light force resources for all-risk emergency types, as well as to increase the availability of additional ALS and BLS light forces, engines, and ambulances.

The LAFD is an all-risk life safety response provider. The term all-risk expands upon the role of fighting fires, emphasizing the importance of maintaining a foundation of resources that are capable of mitigating or improving the outcomes of all emergency types, whether "high risk/low frequency" or "low risk/high frequency" (e.g., EMS, high rise, brush/wildland, earthquake, terrorism, multi-casualty, metro rail, airport, marine, hazardous materials, and urban search & rescue).

As a means to optimize public and firefighter safety, the LAFD will continue to dispatch effective response forces that are comprised of the appropriate resources, apparatus and personnel that either meet or exceed national, regional, or local standards.

National Fire Protection Association (NFPA)⁴ Standard 1710 establishes minimum requirements relating to the organization, operation, and deployment of fire suppression operations, emergency medical services operations, and special operations by career fire departments. NFPA Standard 1710 also establishes the following:

- "The Fire Department shall identify minimum company staffing levels as necessary to meet the deployment criteria required to ensure that a sufficient number of members are assigned, on duty, and available to safely and effectively respond with each company." (5.2.2.2.1)

⁴ The National Fire Protection Association is a United States trade association that creates and maintains private, copyrighted, standards and codes for usage and adoption by local governments. This includes publications from model building codes to the many on equipment utilized by firefighters while engaging in hazardous material response, rescue response, and firefighting.

- In jurisdictions with tactical hazards, high hazard occupancies, high incident frequencies, geographical restrictions, or other pertinent factors as identified by the Authority Having Jurisdiction (AHJ), truck companies shall be staffed with a minimum of five or six on-duty personnel. (5.2.3.2.2)

The LAFD clearly meets or exceeds the aforementioned NFPA recommendations with the five-member staffing on the light force. For several years, the Department operated with five and six member light force configurations. Most significantly, on September 2, 1997, the Department reduced staffing from six-members to five-members on 34 light force resources. This configuration remained in place for a nearly nine-year period until April 30, 2006, at which time the sixth member was restored to the remaining five member light force resources.

Department policy delineated in LAFD Training Bulletin No. 76, "Company Operations," addresses the safe, effective operational deployment of five-member light force operations, and reinforces NFPA Standard 1710 relative to staffing. In accordance with Training Bulletin No. 76 and standard operating guidelines, the commander of a five-member light force shall determine whether to act only as a truck or engine company upon arrival at an incident. Safe operations are facilitated with the mandate that deviation from company unity is not permitted.

Although implemented for only a brief period, the Ambulance Augmentation Staffing Reconfiguration has shown the following favorable results:

- (1) Improved coverage of emergency medical calls, as more resources are available;
- (2) Increased availability of light force resources to respond to all-risk incidents;
- (3) Increased availability of ALS rescue ambulances for more urgent EMS calls.

The LAFD, with support from the Mayor and City Council, initiated "FIRESTATLA", which provides a data driven performance and accountability system that is designed to provide technologically innovative management techniques to enhance department performance. "FirstWatch" is a software application that will provide decision-makers the ability to capitalize on the identification of positive trends that may be enhanced or negative trends that may be mitigated, or improved.

LAFD goals are always to improve public safety and service, firefighter safety, and acknowledge national, state, regional, and industry standards while constantly evolving to meet public service demands. Consequently, the LAFD is exploring systems status management processes that provide tangible metrics for success. These technological advances provide the ability to employ dynamic deployment models where continual review of current operations, reevaluation of changing community needs, and the development of contemporary, relevant redeployments become the norm.

Ultimately, the LAFD resource footprint must be matched with the type and frequency of service requests. This process will be based on sound scrutiny of key performance indicators, data analysis thresholds, and emergency service trends that will provide the platform to achieve the desired public service model.