

May 21, 2013

LOS ANGELES FIRE DEPARTMENT



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FIRE CHIEF

May 15, 2013

BOARD OF FIRE COMMISSIONERS  
FILE NO. 13-069

TO: Board of Fire Commissioners  
FROM: Brian L. Cummings, Fire Chief  
SUBJECT: AMBULANCE AUGMENTATION STAFFING RECONFIGURATION

FOR INFORMATION ONLY:  Approved  Approved w/Corrections  Withdrawn  
 Denied  Received & Filed  Other

The information provided, for the Board of Fire Commissioners, is an explanation of the Ambulance Augmentation Staffing Reconfiguration (Reconfiguration) to be received and filed.

**I. SUMMARY**

The Los Angeles Fire Department (LAFD) is committed to providing public safety, firefighter safety, and emergency service delivery based on the needs of the City's residents. As these needs evolve over time, the Department must remain flexible and ready to adapt its mode of operations in order to continue an effective delivery of services. Unfortunately, the constraint of finite resources requires the Department to develop deployment procedures, which are not optimal, but nonetheless achieve a balance between competing interests by utilizing the most appropriate resources in a safe and efficient manner for the services needed most by the public.

In response to an ever increasing demand for emergency medical care, the Department requested funding for additional Basic Life Support (BLS) Rescue Ambulances in the 2013-14 fiscal year budget. Due to the economic challenges faced by the City, the request was not granted. Like all other departments in the City, the LAFD was faced with difficult decisions on how to best serve its mission on a limited budget. Ignoring the growing emergency medical needs of the public was not an option.

The LAFD created a plan to increase its ability to respond to emergency medical service (EMS) calls by reconfiguring existing staff and apparatus until such time that there would be adequate funding. The Reconfiguration was implemented on May 5, 2013 and redirected staff from selected light force companies to newly added BLS rescue ambulances. This deployment model augmented the previous complement of 34 BLS ambulances with 11 additional BLS ambulances, representing a 33% increase, while maintaining the number of light force resources at 41. Although the Reconfiguration has

been in place for only a brief period so far, the results are tangible. The additional BLS ambulances have achieved the following results:

- (1) Provided better coverage of emergency medical calls by having more resources available to respond accordingly;
- (2) Increased availability of Light Force companies to respond to the type of calls for which such resources are best suited; and
- (3) Increased availability of Advanced Life Support (ALS) Rescue Ambulances for more urgent level EMS calls.

## **II. LOGISTICS OF AMBULANCE AUGMENTATION STAFFING RECONFIGURATION**

The Reconfiguration results in a 33% increase in the number of BLS ambulances at no additional cost by utilizing existing staffing from fire resources with no resultant closures of any fire companies.

### **A. Department Resources and Staffing**

The basic LAFD staffing models, including those from which the resources at issue were reconfigured, are represented as follows:

- ◆ **Engine Company:** An engine company refers to the personnel assigned to an engine apparatus that acts as its own independent resource. The fire engine apparatus has a pump, carries hoses, a tank of water, a limited quantity of ladders and hand tools. Minimum engine company staffing for the LAFD is four members. (Figure 1) An engine company (during fire related incidents) is responsible for securing a water source, deploying handlines, conducting search and rescue operations, and putting water on the fire.



Figure 1

- ◆ **Truck Company:** A truck company refers to the personnel assigned to a truck apparatus. A truck apparatus carries several ground ladders, an aerial ladder, and an extensive quantity of tools. The minimum staffing for an LAFD truck company is four to five members. A truck company (during fire related incidents) specializes in forcible entry, ventilation, roof operations, search and rescue operations, and deployment of ground ladders. All trucks, with the sole exception of the truck of Fire Station 9,<sup>1</sup> ride out accompanied by a pump engine. A “truck company,” as it is

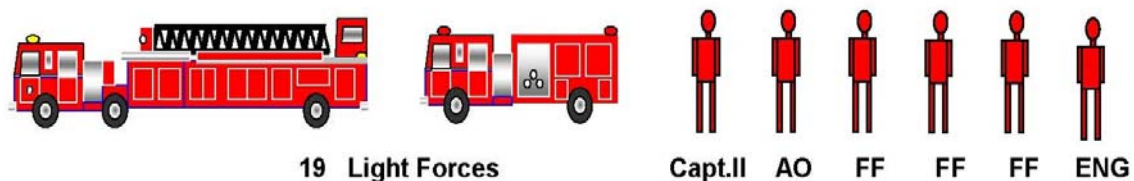
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<sup>1</sup> Truck 9 had previously been part of a Light Force and Task Force configuration until August 2001, at which time the accompanying pump engine was removed to make the truck more effective to the type of calls specific to the community served by Fire Station 9.

known in most fire agencies, is for all intents and purposes, a “light force company” in the LAFD.

- ◆ **Light Force Company:** A light force company refers to the personnel assigned to a light force. A light force consists of truck and engine apparatus that respond together. A truck apparatus carries several ground ladders, an aerial ladder, and an extensive quantity of tools. The engine apparatus of a light force, commonly referred to as a pump, differs from that of an engine company apparatus in that it is staffed with only one member and always accompanies the truck. Light force staffing has traditionally been six members, but there have been long periods when staffing was held to five members. (Figure 2) A light force company is capable of performing the functions of a truck or engine company at the scene of an emergency, but never both functions simultaneously. The light force configuration is not a common method of deployment in the fire service, but provides the LAFD with significant daily flexibility. In the event of a large-scale disaster, the light force deployment model also provides the LAFD with the immediate option of deploying 41 engine companies (which are otherwise part of a light force company), to supplement the 91 engine companies in service each day.

Six-Member Light Force:



Five-Member Light Force:



Figure 2

**Basic Life Support Rescue Ambulance:** A BLS Rescue Ambulance is staffed by two Firefighter/Emergency Medical Technicians (EMTs). (Figure 3) All members of the Fire Department who work in the field are required to maintain an EMT certification. BLS ambulances are equipped with basic life support equipment and self-contained breathing apparatus. The Firefighters are trained to respond to all emergencies, and are dispatched to a variety of EMS requests for service. They are also dispatched to structure fires to provide additional staffing on scene.



Figure 3

- ◆ **Advanced Life Support Ambulance:** An ALS Rescue Ambulance is staffed by two Firefighter/Paramedics. ALS ambulances are equipped with advanced life support equipment, advanced airway management equipment, narcotics, other medications, and self-contained breathing apparatus. The Firefighter/ Paramedics are trained to respond to all emergencies and are dispatched to the most serious and life-threatening EMS requests for services. They are frequently dispatched for the transport of BLS level patients if there is no available BLS ambulance in proximity to the incident. In addition, they are dispatched to structure fires to provide ALS intervention for both firefighters and civilians.

## B. Reconfiguring Resource Staffing

The Ambulance Augmentation Staffing Reconfiguration maintains the current number of LAFD all-risk fire suppression resources,<sup>2</sup> thus averting any closures. Twenty-two of 41 light force resources were reconfigured to provide staffing for the eleven new BLS ambulances. Specifically, one position from each of 22 light forces was transferred to a BLS ambulance position, causing staffing levels on those light forces to decrease from six personnel to five. (Figure 4)

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<sup>2</sup> The term “all-risk” describes 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, fire, hazardous materials, urban search and rescue, homeland security, wildland fires, earthquakes, floods, mudslides, and airport and marine incidents.

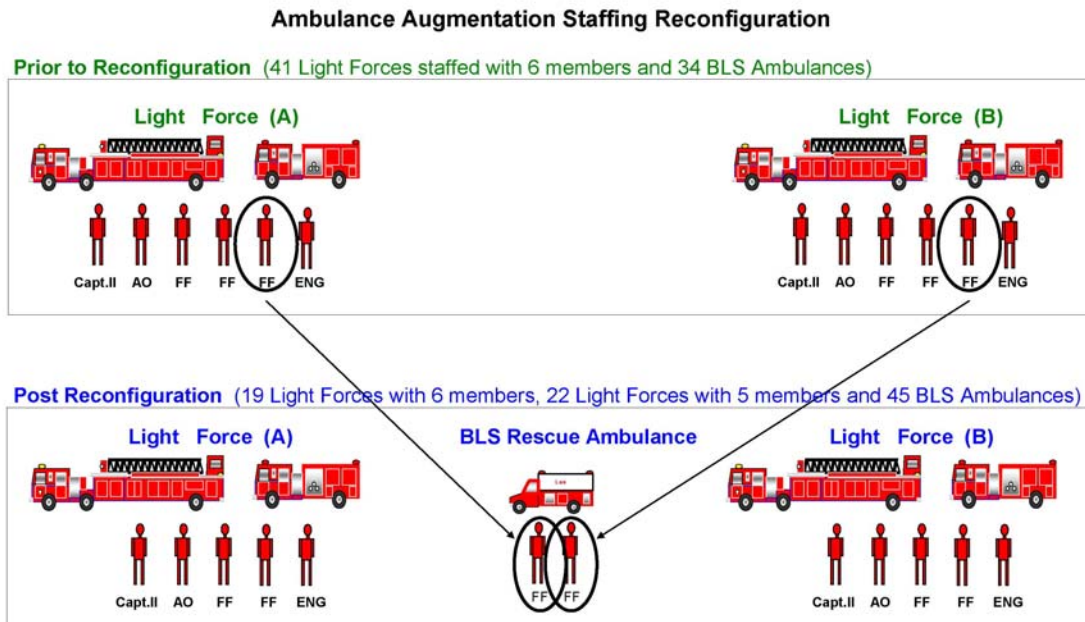


Figure 4

### C. Selecting Light Forces for Reduced Staffing

The Fire Department's Deployment Committee (FDDC), convened under the leadership of Deputy Chief Mario Rueda, Commander of the Emergency Services Bureau, was charged with developing Department priorities for deployment. The Information and Data Analysis Task Force (IDA TF), chaired by Fire Commissioner Alan Skobin, was created to establish several data measurement standards which would be employed to report accurate response data from which to make deployment decisions.

The FDDC undertook a review of all light forces to determine priorities with the goal of reducing staff on 22 light forces per shift from six members to five. Most important were the statistics on workload for each light force (i.e., number of responses) and response times for fire and ambulance resources in individual first-in districts. Other information considered by the FDDC included risks specific to the first-in district of each light force (e.g. special hazards, brush, high density, high rise) and specialty resources (e.g. hazardous materials, US&R Task Forces). A brief analysis of each is as follows:

- Task Force 21: Haz Mat Task Force with a fully-staffed full-time Squad in Metro area. Eliminated from consideration due to specialized mission.
- Task Force 48: Haz Mat Task Force in Port of Los Angeles area. Eliminated from consideration due to specialized mission.
- Task Force 95: Haz Mat Task Force in LAX area. Eliminated from consideration due to specialized mission.

- Task Force 5: Urban Search and Rescue Task Force in LAX area. Eliminated from consideration due to specialized mission.
- Task Force 85: Urban Search and Rescue Task Force in the Port of Los Angeles area. Eliminated from consideration due to specialized mission.
- Task Force 87: Haz Mat Task Force in the San Fernando Valley area. Eliminated from consideration due to specialized mission.
- Task Force 90: Aircraft Crash Support for Van Nuys Airport and Helicopter Support for LAFD Air Operations. Eliminated from consideration due to specialized mission.
- Task Force 3: Urban Search and Rescue Task Force in the Downtown area. Eliminated from consideration due to specialized mission.
- Task Force 88: Urban Search and Rescue Task Force in the Sherman Oaks area. Eliminated from consideration due to specialized mission.
- Task Force 27: Urban Search and Rescue Task Force in the Hollywood area. Eliminated from consideration due to specialized mission.
- Task Force 89: Urban Search and Rescue Task Force in the North Hollywood area. Eliminated from consideration due to specialized mission.
- Task Force 26: Light Force 26 averages 5.65 responses per day. It is deployed at the 10 Freeway and Western Avenue. Due to proximity to the freeways, it serves as a move-up company for the West Los Angeles, Central, and South Los Angeles areas. The frequent move ups for major incidents and freeway proximity eliminated this assignment from consideration.
- Task Force 15: Light Force 15 averages 6.61 responses per day. It is deployed to the University Park area of USC. It is a very complex district with numerous special events including the Coliseum football and soccer games. This assignment was not selected due to complexity and public activity.
- Task Force 94: Light Force 94 averages 6.96 responses per day. It is deployed in the Coliseum Park area of the City, and also serves Jefferson Park, Hyde Park, and South Los Angeles areas. This assignment was not selected for this program primarily due to heavy workload.
- Task Force 33: Light Force 33 averages 7.05 responses per day. It is deployed in the South Los Angeles areas of the City. It was not selected for this program primarily due to heavy workload.

- Task Force 11: Light Force 11 averages 7.61 responses per day. It is deployed in the Pico-Union area. This assignment was not selected for this program primarily due to heavy workload.
- Task Force 39: Light Force 39 averages 7.76 responses per day. It is deployed in the Van Nuys area. This assignment was not selected for this program primarily due to heavy workload.
- Task Force 66: Light Force 66 averages 8.36 responses per day. It is deployed in the South Los Angeles area of the City. This assignment was not selected for this program primarily due to workload.
- Task Force 64: Light Force 64 averages 8.57 responses per day. It is deployed in the Watts area of the City. This assignment was not selected for this program primarily due to heavy workload.
- Task Force 9: Truck 9 was not considered due to staffing concerns. Task Force 9 does not have a pump engine, resulting in staffing level of 9 members on the Truck and Engine.
- Task Force 12: Light Force 12 averages 2.78 responses per day. It is deployed in Highland Park, and also serves the Eagle Rock, El Sereno, and Northeast Los Angeles areas. This assignment was selected for this program primarily due to workload.
- Task Force 29: Light Force averages 3.99 responses per day. It is deployed in Mid-City area, and also serves the Wilshire, Pico Union, and Korea Town areas. Although high in population density, this assignment was selected for this program primarily due to workload.
- Task Force 63: Light Force 63 averages 4.03 responses per day. It is deployed in the Venice area, and also serves the Mar Vista, LAX, Playa Vista, Palisades, and West Los Angeles areas. This assignment was selected for this program primarily due to workload.
- Task Force 93: Light force 93 averages 4.31 responses per day. It is deployed in the Tarzana areas, and also serves the Encino, and West Los Angeles Valley areas. This assignment was selected for this program primarily due to workload.
- Task Force 61: Light Force 61 averages 4.91 responses per day. It is deployed in the 3<sup>rd</sup> and Fairfax area of the City, and also serves the West Hollywood and Mid-City areas. This assignment was selected for this program primarily due to workload.
- Task Force 2: Light Force 2 averages 5.36 responses per day. It is deployed in the Boyle Heights area of the City, and also serves the East Los Angeles and El Sereno areas. This assignment was selected for this program primarily due to workload.

- Task Force 60: Light Force 60 averages 5.94 responses per day. It is deployed in the North Hollywood area, and also serves the Toluca Lake, Universal City, and Valley Village areas. This assignment was selected for this program primarily due to workload.
- Task Force 10: Light Force 10 averages 6.17 responses per day. It is deployed in the Downtown area near the Staples Center, and also serves the Pico-Union, and Downtown areas. This assignment was selected for this program primarily due to workload.
- Task Force 98: Light Force 98 averages 6.28 responses per day. It is deployed in the Pacoima area, and also serves the City of San Fernando, Sylmar, and the Northeast area of the San Fernando Valley. This assignment was selected for this program primarily due to workload.
- Task Force 105: Light Force 105 averages 6.30 responses per day, it is deployed in the Canoga Park area, and also serves the entire west end of the San Fernando Valley, including Bell Canyon. This assignment was selected for this program primarily due to workload.
- Task Force 37, Light Force 37 averages 6.82 responses per day. It is deployed near the UCLA campus. It serves the UCLA campus, Bel Air, Brentwood, and West Los Angeles areas. This assignment was selected for this program primarily due to workload.

#### **D. Selecting Locations for Deployments of New BLS Rescue Ambulances**

The purpose of the newly formed BLS ambulances is to complement light forces in fire districts with a light force as the sole fire suppression resource. This provides coverage where needed most and promotes increased availability of light force resources. Currently, there are eleven fire stations that meet this criterion: Fire Stations 1, 20, 35, 50, 69, 73, 74, 75, 78, 92, and 96. (Table 1, Figure 5)



**Ambulance Augmentation Staffing Reconfiguration  
Additional BLS Ambulance Placement**

<b>Fire District Gaining BLS Ambulance</b>	<b>Council District</b>	<b>Community</b>	<b>New Resource</b>
1	1	Lincoln Heights	RA 801
20	13	Echo Park / Silverlake	RA 820
35	4	Los Felix / Griffith Park	RA 935
50	13	Glassell Park / Atwater Village	RA 950
69	11	Pacific Palisades	RA 869
73	3	Reseda	RA 873
74	7	Sunland / Tujunga	RA 874
75	7	Mission Hills	RA 875
78	2	Studio City / Valley Village	RA 878
92	5	Century City / Rancho Park	RA 892
96	12	Chatsworth	RA 896

Table1

## 11 Fire Stations Augmented with BLS Ambulances

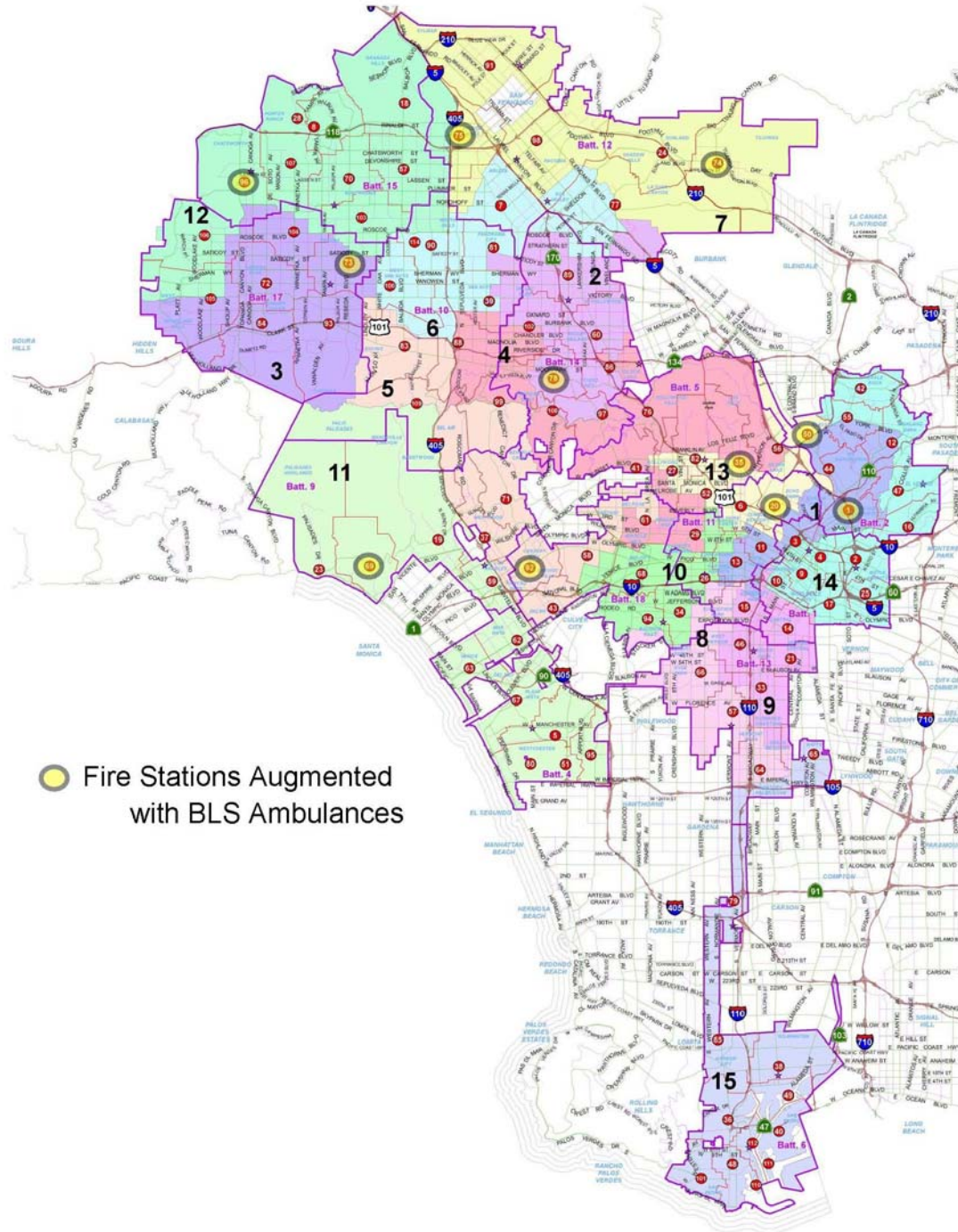


Figure 5

### **III. EFFECT OF THE INCREASE IN EMS CALLS ON DEPARTMENT OPERATIONS**

The demand for emergency medical services has grown significantly over the years. This trend applies at all levels – local, state, and nationally – and shows no sign of abatement. The LAFD's Medical Director, Dr. Marc Eckstein, has warned that the Department risks losing its ability to stay relevant if it does not evolve to keep pace with the changing landscape. Dr. Eckstein has continually advocated for an increase in EMS resources, and much of the Department's direction in this area is attributed to his leadership and expertise in providing superior emergency medical care.

In 1970, EMS calls represented 33% of all incidents to which the LAFD responded. Today, that number have gone up to 84%. Excluding false and automatic alarms, the real number of emergency calls that are for EMS care is almost 90% of the total. Conversely, the number of fires has fallen dramatically, and with it the rate of deaths, injuries, and property loss. Effective fire prevention has resulted in a steady decline in the number of structure fires. California has one of the strictest building codes in the country. Building technology and better materials have made fires much less commonplace. Structural fire prevention and suppression in the United States has been one of the great advances of recent decades.

The EMS call load for the Los Angeles Fire Department continues to grow. Many of the City's residents are uninsured or underinsured, and consequently are unable to receive sufficient preventative medical care. Budgetary cuts affecting public outreach programs for health education, closures and decreased hours of public health clinics, and a lack of preventive care have further exacerbated the problem, creating an increased demand for emergency medical services.

The 9-1-1 system has been highly successful in delivering quality pre-hospital care; so much so, that the uninsured use the Fire Department's EMS system for routine medical problems or wait until a minor problem becomes life threatening. As a result, LAFD personnel have become a primary point of entry into the health care system.

Between the 2001-2002 and 2011-2012 fiscal years, EMS incidents to which the Department responded increased by 18% percent. In the most recent calendar year, the LAFD responded to an average of 1,085 incidents per day, 569 of which resulted in transportation of patients to health care facilities. If these trends continue, LAFD service requests for emergency medical care will surpass 400,000 per year in 2014.

In addition to the shortage of BLS ambulances, a more critical issue is the increasing unavailability of ALS Rescue Ambulances during peak workload hours. The Department's typical and predictable call volume for emergency medical incidents increases during morning hours and peaks during the afternoon into the early evening hours. The unavailability of hospital beds and resultant emergency department crowding has created extended patient transfer times for ambulances during peak hours. This extended transfer time has a significant adverse impact on the Department's entire emergency medical delivery system. When ambulance personnel are awaiting an open emergency department bed into which to transfer their patients, that ambulance is

unavailable to respond to another emergency. These ambulance crews are required to inform the dispatch center and the resource is then considered “not available.” While EMTs and paramedics wait with the patient until a bed becomes available and the patient can be admitted to the hospital, the ambulance crews are unavailable to respond to additional 9-1-1 calls, two-thirds of which are categorized as requiring ALS care. This further delays appropriate response to those new emergency medical calls. As the chain continues, ambulance response delays are compounded further until the system can catch up during off-peak hours. These delays constitute a huge waste of valuable resources. More importantly, these delays have the potential to make the difference between life and death when ALS Ambulances, which are staffed by paramedics, are unavailable to respond to the more high-level EMS calls, such as cardiac arrest and major trauma.

In calendar year 2012, the LAFD dispatched resources to 397,232 emergency medical incidents (average 1,085 per day). These incidents resulted in 208,209 ambulance transports (average 569 per day) to 58 receiving hospitals within a geographic area of 470 square miles. The following data quantifies the impact of hospital and emergency department crowding, which force ambulances to remain out of service while paramedics wait to transfer patients to open beds<sup>3</sup>: (Table 2)

**Delays in EMS Resource Availability**

<b>2012</b>	<b>TOTAL HOURS EACH MONTH</b>	<b>AVERAGE HOURS EACH CALENDAR DAY</b>
JAN	2,321.07	74.87
FEB	2,444.89	84.30
MAR	2,561.15	82.61
APR	2,211.29	73.70
MAY	2,020.69	65.18
JUN	2,075.10	69.17
JUL	2,210.25	71.29
AUG	2,641.69	85.21
SEP	2,599.26	86.64
OCT	2,533.68	81.73
NOV	2,201.11	73.37
DEC	2,419.47	78.04

Table 2

During this time period, LAFD ambulances were unavailable due to extended patient transfer delays at hospitals for a total of 28,239 hours. To better illustrate the impact of this problem, these wasted hours are equivalent to parking one ambulance and its crew at a hospital for 3.2 years or parking three ambulances at one hospital every day around the clock for all of 2012.

<sup>3</sup>Upon hospital arrival, LAFD personnel communicate their status using a mobile data terminal. The change in ambulance status from “transporting” to “hospital” begins a 15 minute timer at the dispatch center. Upon expiration of the 15 minute timer the status of the RA is automatically changed by CAD programming to “available.”

Corresponding data for calendar year 2013 continues to be collected. Initial assessment of the data indicates a 21% increase in delays at hospital emergency rooms in January 2013 over the previous year.<sup>4</sup> These continuing delays directly impact the Department's ability to provide timely patient care.

#### **IV. OBJECTIVES OF AMBULANCE AUGMENTATION STAFFING RECONFIGURATION**

The Reconfiguration enhances public safety, service delivery, and emergency responsiveness by adding critically needed BLS ambulances to respond to the ever growing demand for emergency medical services. The Reconfiguration was developed with the following goals in mind:

- Increase overall capacity of the emergency response system
- 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

##### **A. More BLS Ambulances Provide More Accurate Coverage**

Presently, EMS calls comprise 84% of all reported incidents. Of those EMS calls, 64% are categorized as "advanced life support" or "ALS" and the remaining 36% are categorized as "basic life support" or "BLS," hence the nomenclature of the Department's ambulance resources.

An advanced life support call is a medical incident requiring paramedic level intervention, such as the advanced procedures required for cardiac arrest, major trauma, unconsciousness, and other serious medical conditions. In these kind of events, the LAFD dispatch algorithm sends out the nearest available paramedic staffed resource with transport capabilities. Ideally, an ALS ambulance is the closest available resource. If not, the algorithm moves to the next available resource staffed with a Paramedic as the primary responder, such as an assessment engine.<sup>5</sup>

A BLS call is a medical incident requiring EMT level intervention, such as bandaging, splinting, airway management, oxygen administration, bleeding control and use of Automatic External Defibrillator. In these kind of events, the LAFD dispatch algorithm sends out the nearest available EMT staffed resource, ideally a BLS ambulance. If a

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<sup>4</sup> Time spent by LAFD ambulances waiting for hospital beds was 2,924.39 hours in January 2013 – an increase of 603.32 hours from January 2012.

<sup>5</sup> An assessment engine is defined as an engine company with at least one Firefighter/Paramedic assigned to it.

BLS ambulance is unavailable, the next dispatch goes to a fire resource such as an engine company or light force.

With the newly added BLS ambulances, the allocation of resources accurately reflects the dispatch percentages of EMS incidents. ALS ambulances now account for 66% and BLS ambulances account for 34% of Department ambulances, a near mirror of the 64% and 36% of ALS and BLS calls.

**B. More BLS Ambulances Increase Light Force Availability and Reduces Response Times**

The addition of 11 new BLS ambulances increases the availability of light force resources, which are frequently responding to calls better suited for ambulances. During the peak hours of mid-afternoon to evening, BLS ambulances are often unavailable as the nearest resource for a BLS call. The dispatch algorithm then sends out an engine company or light force. The use of light forces to respond to BLS calls is an event that deservedly puzzles many people. It's repeatedly been asked why some of the Department's largest apparatus is sent out to tend to a patient who needs a band-aid. The frequent use of these kinds of apparatus exacts a heavy toll on both the Department and the public. Truck maintenance is expensive in terms of the monetary cost of repair and the operational cost of having resources out of service. The use of light forces on BLS calls also decreases their availability to respond to the structure fire calls for which their presence is critical. Furthermore, the need to dispatch a light force from a further district to respond to those structure fires causes a delay in response times. The new BLS ambulances provides much needed relief in the most impacted districts by allowing the light force to be accessible for the type of calls for which it is best suited and for which it can make the most impact.

**C. More BLS Ambulances Increase Paramedic Availability and Reduce Response Times**

The availability of Paramedic staffed ALS ambulances is vital to the Department's ability to provide the type of emergency medical care needed to save lives. When a 9-1-1 EMS call is received, Metro Fire Command makes an initial assessment of the emergency level to determine which resource to send. EMS calls that are initially categorized at the more urgent ALS level can be subsequently downgraded to BLS if certain criteria are met. This often happens after paramedics arrive on scene and assess the patient firsthand. ALS ambulances are the required mode of transport for the most critical patients, for others the BLS ambulance is sufficient.

When a BLS ambulance is unavailable to accompany or relieve the ALS ambulance, the ALS ambulance will treat and transport the patient. As noted in Section III, paramedic staffed ALS ambulance spent nearly 29,000 hours standing by in hospital emergency rooms waiting for hospital beds to become available for the patients they transported. Those hours should have been spent responding to ALS calls where the advanced skills of a paramedic can directly affect patient morbidity and mortality. The additional BLS ambulances will greatly offset this situation by allowing the paramedics to call in a BLS

ambulance for transporting patients meeting County of Los Angeles Department of Health Services, Reference 808 "Base Hospital Contact and Transport Criteria." BLS patients comprise a significant percentage of all transports.

## **V. SAFETY OF AMBULANCE AUGMENTATION RECONFIGURATION**

The perception that the Department is carelessly sending in five firefighters to a structure fire could not be more misleading. To the contrary, the LAFD's minimum effective response force goes beyond one light force. An incident of reported smoke (RS) in a single family dwelling (with no report of fire) will automatically call for a full assignment of resources, defined as a minimum of 22 members and seven apparatus. The same incident dispatched as a structure fire (SF) will receive a minimum of 23 members and eight apparatus.

In the development of deployment models, including the Reconfiguration, the Department staff considers fire service industry guidelines. Although not considered a mandate, the National Fire Protection Association (NFPA) Standards do serve as a benchmark that all fire departments should make every effort to meet.

NFPA Standard 1710, "Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments," establishes minimum requirements relating to the organization, operation, and deployment by career fire departments as follows:

- "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)
- 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)

NFPA 1710 also establishes minimum requirements for the capability of an initial full alarm assignment of fire resources to a structure fire. The Standard sets forth minimum requirements as follows:

- The fire department shall have the capability to deploy an initial full alarm assignment with a 480 second travel to 90 percent of the incidents as established in chapter 4. (5.2.4.2.1)
- The initial full alarm assignment to a structure fire in a typical 2000 square foot, two story single family dwelling with basement and with no exposures shall provide for the following: (Figure 6)



- ◆ Establishment of incident command (minimum of one individual plus staff aid)
- ◆ Establishment of uninterrupted water supply maintained by one operator.
- ◆ Establishment of an effective water application rate of 300 gallons per minute from two hose lines, each operated by a minimum of two individuals to safely maintain the line.
- ◆ Provide one support person for each attack and backup hose line deployed.
- ◆ Provide at least one victim search and rescue team with a minimum of two individuals.
- ◆ Provide one team of a minimum of two individuals to raise ground ladders and perform ventilation.
- ◆ If an aerial device is used in operations, one person to function as an aerial operator.
- ◆ Establishment of an initial rescue capability for firefighters consisting of a minimum of two personnel.

### NFPA Recommended Response Force

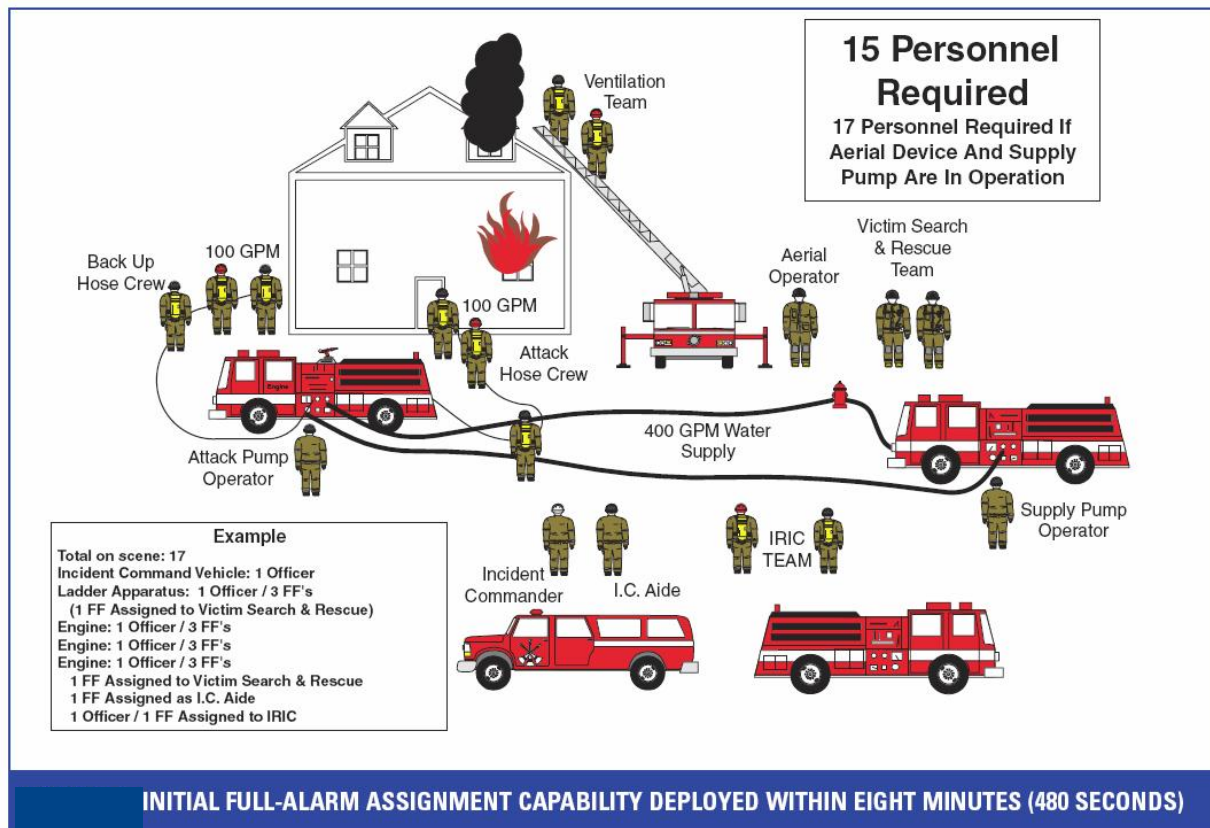


Figure 6

As shown in the Effective Response Force graphic above, the minimum number of trained firefighters to deploy to the above scenario as described in NFPA 1710 is 15-17 persons. In comparison, LAFD policies mandate a minimum of six resources and 22 personnel. (Figure 7) Reduced staffing on light forces does not impact the Department's



ability to meet its established minimums and will continue to exceed the NFPA minimums.

### LAFD Response Force

TYPE	CATEGORY	LAFD CAD DISPATCH	LAFD RESPONSE FORCE
RS	A	3E + 1T + 1BC + 1SQ** + PA + TR	22-24 (if Squad 26-28)
	B	4E + 2T + 2BC + 1SQ* + PA + TR	32-36 (if Squad 36-40)
	C	4E + 1T + 2BC + 1SQ** + PA + TR	27-30 (if Squad 31-34)
SF	A	3E + 1T + 1BC + 1SQ** + PA + TR + EM	23-25 (if Squad 27-29)
	B	4E + 2T + 2BC + 1SQ* + PA + TR + EM	33-37 (if Squad 37-41)
	C	4E + 1T + 2BC + 1SQ** + PA + TR + EM	28-31 (if Squad 32-35)

Tasks: Fire Attack, Backup Fire Attack, Laddering, Ventilation operations, Forcible Entry, Search & Rescue, Salvage operations, Medical Group, Medical Unit, Command Post Company, Incident Command, Overhaul operations, etc.

RS: Reported Smoke  
SF: Structure Fire

PA: Paramedic Ambulance (2 members)  
TR: Transporting Rescue Ambulance (2 members-BLS or ALS)  
EM: Emergency Medical EMS Battalion Captain (1 member)

E: Engine Company (4 members)  
T: Truck Company (5-6 members)  
BC: Battalion Commander (1-2 members)

A: Not less than four fire companies, including not less than one truck  
B: Not less than six fire companies, including not less than two trucks  
C: Not less than four fire companies, including not less than three engine companies and one truck

\*\*SQ: Hazmat Squad (4 members) recommended in 1<sup>st</sup> in district (RFS 21)

\* SQ: Hazmat Squad (4 members) recommended in 1<sup>st</sup> alarm district

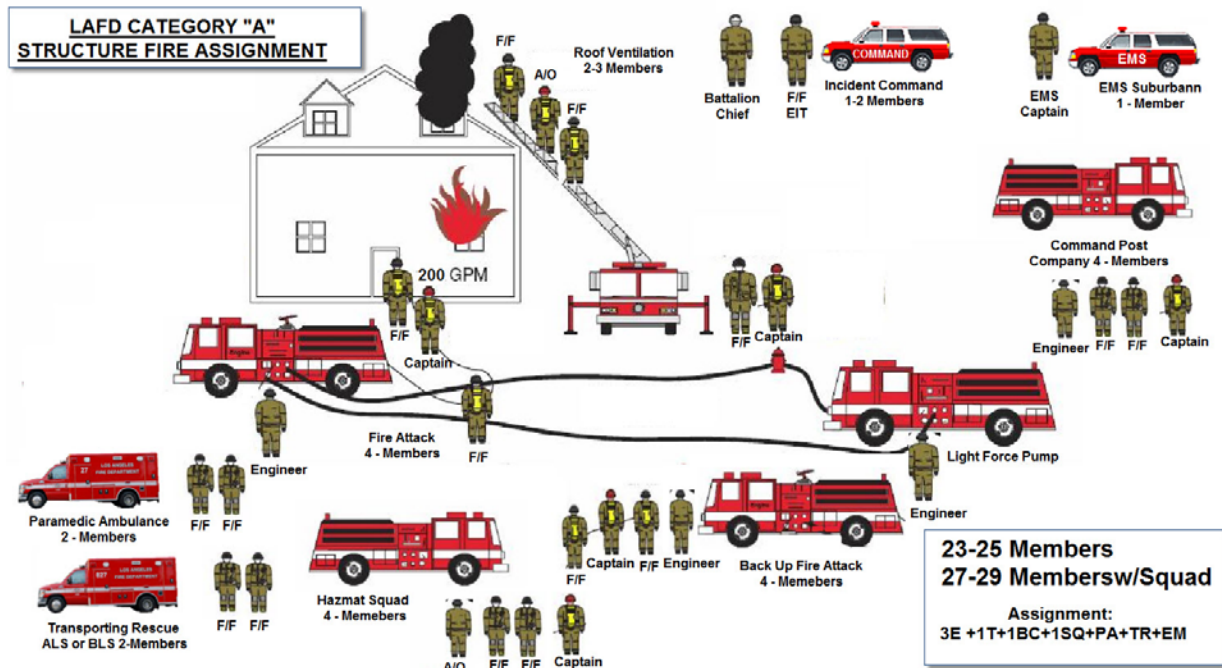


Figure 7

## **VI. DEPARTMENT POLICY REGARDING FIVE-MEMBER LIGHT FORCE**

The LAFD clearly meets the NFPA recommendation set forth in the section above, even with the reduced five-person staffing on the light force. For several years, the Department operated with five and six person light force configurations. Most significantly, on September 2, 1997, the Department reduced staffing from six-persons to five-persons 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, as described in LAFD Training Bulletin No. 76, "Company Operations," addresses the safe and 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-person light force shall determine whether to act as a truck or engine company upon arrival at the incident. The five-person light force must maintain company unity and is therefore not permitted to split its company in an attempt to perform both truck and engine operations.

Firefighter safety is of the utmost importance in every Department operation. From the simple to the most complicated call, safety is first and foremost. The LAFD's ability to effectively and safely mitigate whatever issues are encountered on scene is attributed to the practice of a risk versus gain philosophy, command experience, training, and the resource capacity that allows us to dispatch an incident driven and incident specific effective response force. The Reconfiguration does not diminish the Department's procedures in sending out the necessary complement of personnel, tools, and equipment required to address fire incidents; however, they may arrive on different resources.

## **VII. CONCLUSION**

In an ideal world of adequate funding and universal access to quality health and preventive care, the Ambulance Augmentation Staffing Reconfiguration would not exist. Yet, the reality is that the world in which we operate in is one of finite resources, competing interests, and an increasing demand for emergency medical care. The Department must act as a dynamic organization that can quickly adapt to the shifting needs of the public, as it did in the development and implementation of the Reconfiguration. This is the best solution for a complex situation in which the Department must balance its obligation to meet the public need for medical services while maintaining sufficient capacity to respond to fires and other catastrophic emergencies. The additional ambulances relieve an overworked system and provide the services that the public needs the most without compromising the ability of the Department to operate in a safe and effective manner.

Board report prepared by Administration.