



MILLAGE PEAKS  
FIRE CHIEF

May 27, 2010

BOARD OF FIRE COMMISSIONERS  
FILE NO. 10-053

TO: Board of Fire Commissioners

FROM: Millage Peaks, Fire Chief *[Signature]*

SUBJECT: **GRANT APPLICATION – 2009 ASSISTANCE TO FIREFIGHTERS  
GRANT (AFG) PROGRAM**

FOR INFORMATION ONLY:	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Corrections	<input type="checkbox"/> Withdrawn
	<input type="checkbox"/> Denied	<input type="checkbox"/> Received & Filed	<input type="checkbox"/> Other

### **RECOMMENDATIONS**

It is respectfully recommended that the Honorable Board:

1. Approve this report and the recommendations of staff.
2. Approve the acceptance of the FY2009 Assistance to Firefighters Grant (AFG) Program application, totaling \$2,000,000, submitted to the U.S. Department of Homeland Security (DHS), Federal Emergency Management Agency's (FEMA) Assistance to Firefighters Grants (AFG) Program Office.
2. Request the City Council authorize the LAFD to transfer \$1,600,000 from Fund 100/38, Account 1012 to Fund 335/38, Account to be determined
3. Request the City Council authorize the LAFD to expend \$400,000 from the Kaiser Fund (Fund 44R, Account 000A) as the 20 percent match required by the Grant guidelines. Said request may occur during the City Fiscal Year of 2010/11.
4. Authorize the LAFD to expend up to \$2,000,000 to procure an estimated 100 units of 12 lead defibrillators in accordance with the terms of the AFG program
5. Authorize the Fire Chief to accept FEMA/AFG grant funds as reimbursement of the funds expended for deposit into Fund 335, Account to be determined. Said approval may occur during the City Fiscal Year of 2010/11.

6. Authorize the Fire Department to transfer funds up to \$1,600,000 from Fund 335, Account to be determined to restore the funds transferred from Fund 100/38, Account 1012 to repay the amount borrowed.
7. Authorize the Fire Department to transfer any residual funds in Fund 335, Account to be determined to the appropriate fund and accounts of origin.
8. Instruct the Commission Executive Assistant to forward this grant application to the Mayor and City Council for further processing in accordance with Division 14 of the Los Angeles Administrative Code.

### **SUMMARY**

In accordance with Division 14 of the Administrative Code, all grant applications are to be forwarded to the Mayor and City Council for approval.

The attached AFG application was electronically submitted to FEMA's AFG program office of the DHS, on May 20, 2009 to meet the required deadline. The LAFD was informed on April 9, 2010 that its application had been selected for funding to procure an estimated 100 12-lead cardiac care monitors/defibrillators to replace about 40 percent of its current aging inventory.

The Department prepared the grant application in compliance with FEMA guidelines in the program category of Firefighting Equipment Acquisition. The proposal totals \$2,000,000 (\$1,600,000 – Federal portion; \$400,000 – LAFD portion of 20 percent cost-share) for the procurement of 12-lead cardiac care monitors/defibrillators.

### **FINDINGS**

The City of Los Angeles Fire Department's (LAFD) current cardiac equipment consists of approximately 200 12-lead cardiac monitor/defibrillators, of which 154 units are in operation in the field while the rest are used for backup and training. The units are periodically rotated throughout the year to maximize productivity and efficiency of each unit. The American Hospital Association (AHA) recommends a 5-year effective lifespan for a defibrillator. In 2009, approximately half of the monitor/defibrillators in LAFD's inventory will exceed the recommended lifespan and replacement of these units will be a priority. To this end, the LAFD applied for the FY2009 Assistance to Firefighters Grant Program, which in FY2009, allowed fire departments across the nation to apply for emergency medical supplies and equipment.

Receiving these grant funds allows the LAFD to replace obsolete and aging units, which is a key element of LAFD's Advance Life Support (ALS) patient care improvement project. Current LAFD equipment inventory consist of units that are between 0 and 6

years old. The older units are 12-lead Electrocardiogram (ECG) monitors that do not have the capability to perform industry standards such as cardiac pacing or Carbon Monoxide (CO) Monitoring, and have reduced battery, therefore replacing these units is necessary. The newer units also do not have the capability to perform CO Monitoring, although some do have the ability to perform cardiac pacing and all have acceptable battery reliance, therefore replacing these units is not recommended at this time. In FY2009-10, the LAFD, with the assistance of the General Services Department issued a request for bid (RFB) on establishing a new contract to procure future 12 lead cardiac monitor/defibrillators from. The new contract will provide equipment that meets the current standard of care, improve patient outcomes, improve operational efficiency, and will include clinical upgrades from current inventory such as cardiac pacing, CO Monitoring, cardiopulmonary resuscitation (CPR) guidance and ECG transmittance. The FY2009 AFG program is a welcome support of the LAFD's ALS patient care improvement program and will benefit the department greatly in the years to come.

Therefore, the Department seeks approval to accept the FY2009 AFG funding of \$2,000,000 from the Assistance to Firefighters Grant program to purchase 100 12-lead biphasic cardiac monitor/defibrillators. Each unit costs has a final cost of approximately \$20,000 and include the following additional capabilities that will improve patient care capability and efficiency: the latest Lithium-Ion battery technology, added CO monitoring, added CPR guidance via clinically proven metronome, and wireless communication for transmitting 12-lead ECG and patient data. The new equipment procured under this grant will be placed into service on existing LAFD ALS Ambulances, Engines, Trucks, Helicopter and Boats.

### **FISCAL IMPACT STATEMENT**

The use of AFG funds will enable the Department to increase the safety of our personnel, and the Los Angeles community, by possessing new equipment with newer, more reliable batteries, which provides the best opportunity to save a life in an ALS response and provides continued quality service to Los Angeles residents and members.

The total grant awarded to the LAFD is \$2,000,000. The Federal portion of the award is \$1,600,000, which will be reimbursed to the department by the Federal Emergency Management Agency (FEMA). The City portion of the award is \$400,000, which the LAFD will obtain from the Kaiser Fund as the 20 percent match required by the Grant guidelines. The LAFD also recommends the transfer of funds as indicated in Exhibit 1.

All residual funds will be returned to the accounts of origin. Reimbursements made by FEMA through the AFG program, covering the Federal portion of the grant, will be credited to Fund 335 and used to reimburse the amount borrowed from the LAFD's salary account Fund 100/38, Account 1012.

The uncommitted balance of the Kaiser Fund (44R, 000A) as of April 29, 2010 is \$731,269.75)

Exhibit 1.

**From**

<u>Fund</u>	<u>Dept</u>	<u>Account</u>	<u>Amount</u>
100	38	1012	\$ 1,600,000

**To**

<u>Fund</u>	<u>Dept</u>	<u>Account</u>	<u>Amount</u>
335	38	TBD	\$ 1,600,000

**CONCLUSION**

The equipment acquisition, training and implementation department wide of the new 12-lead cardiac monitor/defibrillators will increase the capabilities of the LAFD by establishing a higher level of safety benefiting not only the public the LAFD serves but also LAFD personnel and other first responders (e.g. on-scene police personnel) who are in need of EMS treatment.

Board report prepared by Stewart Young, Management Analyst II, Administrative Services Bureau, Grants Management Unit.

Attachments

## Entire Application

### Overview

\*Did you attend one of the workshops conducted by DHS's regional fire program specialist?

No, I have not attended workshop

\*Are you a member, or are you currently involved in the management, of the fire department or non-affiliated EMS organization applying for this grant with this application?

Yes, I am a member/officer of this applicant

If you are a grant writer or otherwise not affiliated with this applicant, please **complete** the information below.

If you are a member/officer of this applicant, please do **not** complete the information requested below. After you are finished press the *Save and Continue* button below.

Preparer Information	
* Preparer's Name	
* Address 1	
Address 2	
* City	
* State	
* Zip	-

## Contact Information

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Alternate Contact Information Number 1	
* Title	Senior Management Analyst I
Prefix	Mr.
* First Name	Philip
Middle Initial	V
* Last Name	Orozco
* Business Phone	213-978-3451 Ext.
* Home Phone	[REDACTED]
Mobile Phone/Pager	[REDACTED]
Fax	213-978-3414
* Email	phil.orozco@lacity.org

Alternate Contact Information Number 2	
* Title	Senior Management Analyst II
Prefix	Mr.
* First Name	William
Middle Initial	R
* Last Name	Jones
* Business Phone	213-978-3461 Ext.
* Home Phone	[REDACTED]
Mobile Phone/Pager	[REDACTED]
Fax	213-978-3414
* Email	bill.jones.@lacity.org

## Applicant Information

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EMW-2009-FO-06741

Originally submitted on 05/19/2009 by Stewart Young (Userid: lmk9798)

### Contact Information:

Address: 200 North Main Street

City: Los Angeles

State: California

Zip: 90012



Day Phone: 2139783427

Evening Phone:

Cell Phone:

Email: stewart.young@lacity.org

**Application number is EMW-2009-FO-06741**

* Organization Name	Los Angeles Fire Department
* Type of Applicant	Fire Department/Fire District
* Type of Jurisdiction Served	City
If other, please enter the type of Jurisdiction	
* <u>Employer Identification Number</u>	95-6000735
* What is your organization's <u>DUNS Number</u> ?	172405821 (call 1-866-705-5711 to get a DUNS number)
Headquarters or Main Station Physical Address	
* Physical Address 1	200 North Main Street, Suite 1800
Physical Address 2	
* City	Los Angeles
* State	California
* Zip	90012 - 4110 <a href="#">Need help for ZIP+4?</a>
Mailing Address	
* Mailing Address 1	200 North Main Street, Suite 1800
Mailing Address 2	
* City	Los Angeles
* State	California
* Zip	90012 - 4110 <a href="#">Need help for ZIP+4?</a>
Account Information	
* Type of bank account	Checking
* Bank routing number - <u>9 digit</u> number on the bottom left hand corner of your check	
* Your account number	
Additional Information	
* For this fiscal year (Federal) is your organization	

receiving Federal funding from any other grant program that may duplicate the purpose and/or scope of this grant request?	No
* If awarded the AFG grant, will your organization expend more than \$500,000 in Federal funds during your organization's fiscal year in which this AFG grant was awarded?	Yes
* Is the applicant <u>delinquent on any Federal debt</u> ?	No
If you answered yes to any of the additional questions above, please provide an explanation in the space provided below:	
LAFD is currently receiving DHS 2006, 2007, and 2008 UASI (Urban Search and Rescue Initiative) grants to train, plan and purchase equipment, FEMA FY2007-08 and FY2008-09 US&R (Urban Search and Rescue) Cooperative Agreement grants to sustain US&R California Task Force 1, and FEMA 2008 FFA (Fire Fighter's Assistance) to purchase 5-Gas Detectors for all Fire Companies.	



## Department Characteristics (Part I)

* Are you a member of a Federal Fire Department or contracted by the Federal government and solely responsible for suppression of fires on Federal property?	No
* What kind of organization do you represent?	All Paid/Career
If you answered combination, above, what is the percentage of career members in your organization?	%
If you answered volunteer or combination or paid on-call, how many of your volunteer Firefighters are paid members from another career department?	
* What type of community does your organization serve?	Urban
* What is the square mileage of your first-due response area?	470
* What percentage of your response area is protected by hydrants?	83 %
* In what county/parish is your organization physically located? If you have more than one station, in what county/parish is your main station located?	Los Angeles County
* Does your organization protect critical infrastructure of the state?	Yes
* How much of your jurisdiction's land use is for agriculture, wild land, open space, or undeveloped properties?	34 %
* What percentage of your jurisdiction's land use is for commercial, industrial, or institutional purposes?	18 %
* What percentage of your jurisdiction's land is used for residential purposes?	48 %
* How many occupied structures (commercial, industrial, residential, or institutional) in your jurisdiction are more than four stories tall?	85000
* What is the permanent resident population of your Primary/First-Due Response Area or jurisdiction served?	4018080
* How many active firefighters does your department have who perform firefighting duties?	3481
* How many stations are operated by your organization?	106
* Do you currently report to the National Fire Incident Reporting System (NFIRS)?	Yes
If you answered yes above, please enter your FDIN/FDID	95-6000735
* What services does your organization provide?	
Structural Fire Suppression	Medical First Response
	Hazmat Operational Level

Wildland Fire Suppression	Basic Life Support	Hazmat Technical Level
Airport Rescue Firefighting (ARFF)	Advanced Life Support	Rescue Operational Level
	Formal/Year-Round Fire Prevention Program	Rescue Technical Level

## Department Characteristics (Part II)

	2008	2007	2006
* What is the total number of fire-related civilian fatalities in your jurisdiction over the last three years?	26	23	50
* What is the total number of fire-related civilian injuries in your jurisdiction over the last three years?	130	151	152
* What is the total number of line of duty member fatalities in your jurisdiction over the last three years?	1	0	0
* What is the total number of line of duty member injuries in your jurisdiction over the last three years?	54	51	42
* Over the last three years, what was your organization's average operating budget?	535388591		
* What percentage of your TOTAL budget is dedicated to personnel costs (salary, overtime and fringe benefits)?	96 %		
* What percentage of your annual operating budget is derived from: Enter numbers only, percentages must sum up to 100%			
Taxes?	100 %		
Grants?	0 %		
Donations?	0 %		
Fund drives?	0 %		
Fee for Service?	0 %		
Other?	0 %		
If you entered a value into Other field (other than 0), please explain	0		
* How many vehicles does your organization have in each of the types or class of vehicle listed below? You must include vehicles that are leased or on long-term loan as well as any vehicles that have been ordered or otherwise currently under contract for purchase or lease by your organization but not yet in your possession. Enter numbers only and enter 0 if you do not have any of the vehicles below.			
Type or Class of Vehicle	Total Number	Total Number of Riding Positions	
Engines or Pumpers (pumping capacity of 750 gpm or greater and water capacity of 300 gallons or more): Pumper, Pumper/Tanker, Rescue/Pumper, Foam Pumper, CAFS Pumper, Quint (Aerial device of less than 76 feet), Type I Engine, Type II Engine, Type II/III Wildland/Urban Interface	204	816	
Tankers (pumping capacity of less than 750 gallons per minute (gpm) and water capacity of 1,000 gallons or more): Tanker, Tender, Tanker/Tender	7	14	
Aerial Apparatus: Aerial Ladder Truck, Telescoping, Articulating, Ladder Towers, Platform, Tiller Ladder Truck, Quint (Aerial device of 76 feet or greater)	63	315	
Brush/Quick attack (pumping capacity of less than 750 gpm and water carrying capacity of at least 300 gallons): Brush Truck, Patrol Unit (Pick up w/ Skid Unit), Quick Attack Unit, Mini-Pumper, Type III Engine, Type IV Engine, Type V Engine, Type VI Engine, Type VII Engine	15	30	
Rescue Vehicles:			

Rescue Squad, Rescue (Light, Medium, Heavy), Technical Rescue Vehicle, Hazardous Materials Unit	224	636
Other: EMS Chase Vehicle, Air/Light Unit, Rehab Units, Bomb Unit, Technical Support (Command, Operational Support/Supply), Hose Tender, Salvage Truck, ARFF (Aircraft Rescue Firefighting), Command/Mobile Communications Vehicle, Other Vehicle	662	1324

## Department Call Volume

	2008	2007	2006
* How many responses per year by category? (Enter whole numbers only. If you have no calls for any of the categories, enter 0)			
Working Structural Fires	3263	4192	4380
False Alarms/Good Intent Calls	45561	0	0
Vehicle Fires	2525	4549	4389
Vegetation Fires	619	1613	2900
EMS-BLS Response Calls	53310	51663	33391
EMS-ALS Response Calls	50777	56109	70955
EMS-BLS Scheduled Transports	53957	45538	44321
EMS-ALS Scheduled Transports	137206	144543	140984
Vehicle Accidents w/o Extrication	0	0	0
Vehicle Extrications	0	0	0
Other Rescue	4369	5254	19081
Hazardous Condition/Materials Calls	7450	3943	3600
Service Calls	4053	0	0
Other Calls and Incidents	14968	45618	28848
<b>Total</b>	<b>378058</b>	<b>363022</b>	<b>352849</b>
What is the total acreage of all vegetation fires?	1439	55473	1555
In a particular year, how many times does your organization receive mutual/automatic aid?	1754	59	59
In a particular year, how many times does your organization provide mutual/automatic aid? (Please indicate the number of times your department provides or receives mutual aid. Do not include first-due responses claimed above.)	2491	202	173

## Request Information

\* 1. Select a program for which you are applying. You can apply for as many activities within a program as you need. If you are interested in applying under both Vehicle Acquisition and EMS Operations and Safety, and/or regional application you will need to submit separate applications.

Program Name

Operations and Safety

\* 2. Will this grant benefit more than one organization?

No

If you answered Yes to Question 2 above, please explain.

\* 3. Enter Grant-writing fee associated with the preparation of this request. Enter 0 if there is no fee.

\$0

## Request Details

The activities for program **Operations and Safety** are listed in the table below.

Activity	Number of Entries	Total Cost	Additional Funding
Equipment	1	\$ 2,000,000	\$ 0
Modify Facilities	0	\$ 0	\$ 0
Personal Protective Equipment	0	\$ 0	\$ 0
Training	0	\$ 0	\$ 0
Wellness and Fitness Programs	0	\$ 0	\$ 0

Grant-writing fee associated with the preparation of this request.

\$0

## Equipment

Equipment Details	
1*. What percent of your active firefighters are trained to the level of Firefighter I?	100 % (whole number only)
2. What percentage of your active firefighters are trained to the level of Firefighter II?	100 % (whole number only)
3. If you answered less than 100% to either question above, are you requesting for training funds in this application to bring 100% of your firefighters into compliance with NFPA 1001?  If you've indicated that less than 100% of your firefighters are trained to the Firefighter II level and you are not asking for training funds in this application, please describe in the narrative section of this application your training program and your plans to bring your membership up to Firefighter II.	
4*. What equipment will your organization purchase with this grant?	Defibrillator/Monitor
Please provide further description of the item selected above or if you selected Other above, please specify.	LAFD is looking to purchase 12-lead monitor/defibrillators that combines semi-

	automated and manual defibrillation, and includes features such as capnography, external pacing, 12-lead electrocardiography, carbon monoxide monitoring, CPR guidance via a clinically-proven metronome and the capability to transmit 12-lead ECG and patient data to an admitting emergency room.
5*. Number of units	100 (whole number only)
6*. Cost per unit	\$ 20000 (whole dollar amounts only)
7*. Generally the equipment purchased under this grant program is:	
The equipment will replace old, obsolete, or substandard equipment currently owned by your organization	
If you selected "replacing equipment" (from Q7) above, please specify the age of equipment in years.	5 Years
8*. Generally the equipment purchased under this grant program:	
Will bring the organization into voluntary compliance with a national standard, e.g. compliance with NFPA, OSHA, etc. Please explain how this equipment will bring the organization into voluntary compliance in the space provided to the right.	All 200 units cannot perform carbon monoxide monitoring. 63 of the 200 units do not have the capability to perform cardiac pacing. The requested equipment will have both features and will bring LAFD into voluntary compliance with the national standards, such as NFPA 450, NFPA 473, FDA standard 21CFR870.5300 and FDA standard 21CFR870.1025. Also, the requested equipment will bring LAFD into LA County's mandatory local compliance of being able to perform cardiac pacing.
9*. Does this equipment provide a health and safety benefit to the members of your organization? If yes, please fully explain in the narrative section.	Yes
10*. Will the item requested benefit other organizations or otherwise be available for use by other organizations?	Yes
If you answered Yes in the question above, please explain:	LAFD on occasion will provide medical monitoring or aid or both to firefighters from LAFD, LA County, and the surrounding cities. LAFD has specialized teams that provide Hazardous Materials and Technical Rescue responses within the City of Los Angeles and frequently provide mutual aid responses to the surrounding Cities within Los Angeles County. LAFD also have contractual agreements to provide service to the surrounding cities of Bell Canyon and San Fernando.
11*. Will this equipment be used for wildland firefighting purposes?	No
12*. Is your department trained in the proper use of the equipment being purchased with grant funds?	Yes
If not, will you be asking for training funds for this purpose with this application or will you obtain the appropriate training through other	

sources?	
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**Budget**

<b>Budget Object Class</b>	
a. Personnel	\$ 0
b. Fringe Benefits	\$ 0
c. Travel	\$ 0
d. Equipment	\$ 2,000,000
e. Supplies	\$ 0
f. Contractual	\$ 0
g. Construction	\$ 0
h. Other	\$ 0
i. Indirect Charges	\$ 0
<b>Federal and Applicant Share</b>	
Federal Share	\$ 1,600,000
Applicant Share	\$ 400,000
Federal Rate Sharing (%)	80/20
<b>* Non-Federal Resources</b> <i>(The combined Non-Federal Resources must equal the Applicant Share of \$ 400,000)</i>	
a. Applicant	\$ 400,000
b. State	\$ 0
c. Local	\$ 0
d. Other Sources	\$ 0
If you entered a value in Other Sources other than zero (0), include your explanation below. You can use this space to provide information on the project, cost share match, or if you have an indirect cost agreement with a federal agency.	
<b>Total Budget</b>	<b>\$ 2,000,000</b>



## Narrative Statement

### Project Description

\* Please indicate which of these Target Capabilities your request outlined in this application will satisfy. Check all that apply:

Emergency Medical Services

\* Please provide your narrative statement in the space provided below. Include in your narrative, details regarding (1) your project's description and budget, (2) your organization's financial need, (3) the benefit to be derived from the cost of your project, and (4) how the activities requested in your application will help your organization's daily operations and how this grant will protect life and property.

#### Project Description and Budget

The City of Los Angeles Fire Department's (LAFD) current cardiac equipment consists of approximately 200 12-lead cardiac monitor/defibrillators, of which 154 units are in operation in the field while the rest are used for backup and training. The units are periodically rotated throughout the year to maximize productivity and efficiency of each unit. The American Hospital Association (AHA) recommends a 5-year effective lifespan for a defibrillator. In 2009, approximately half of the monitor/defibrillators in LAFD's inventory will exceed the recommended lifespan and replacement of these units will be a priority.

Receiving grant funds allows the replacement of obsolete and aging units, which is a key element of LAFD's recent initiation of an Advance Life Support (ALS) patient care improvement project. Current LAFD equipment inventory consist of both old and new. The older units are 12-lead Electrocardiogram (ECG) monitors that do not have the capability to perform industry standards such as cardiac pacing or Carbon Monoxide (CO) Monitoring, and have battery reliance that will become susceptible in 2009, therefore replacing these units will be necessary. The newer units in LAFD's current inventory also do not have the capability to perform CO Monitoring, some have the ability to perform cardiac pacing, but all have acceptable battery reliance, therefore replacing these units is not recommended. The requested equipment will meet current standard of care, improve patient outcomes, improve operational efficiency, and will include clinical upgrades from current inventory such as cardiac pacing, CO Monitoring, cardiopulmonary resuscitation (CPR) guidance and ECG transmittance. But more importantly, the new equipment possesses newer, more reliable batteries, which provides the best opportunity to save a life in an ALS response and provides continued quality service to Los Angeles residents and members.

LAFD is a career Fire and emergency medical services (EMS) agency that serves a population of 4,018,080 within 470 square miles of the City of Los Angeles. LAFD also have contractual agreements to provide service to the surrounding cities of Bell Canyon and San Fernando. The 3,586 members of the force, each with training as a Paramedic or an Emergency Medical Technician (EMT), are based in 106 Stations throughout Los Angeles. LAFD provides paramedic ALS and Basic Life Support (BLS) EMS, specialist-level hazmat response, Urban Search and Rescue, Swift Water Rescue, Paramedic Cycle Teams, Brush Patrols, and service to Los Angeles International Airport, Ontario International Airport and the Port of Los Angeles.

The distress most commonly associated with an EMS response is cardiac emergency. Medical studies show a dramatic increase in risk of cardiac emergencies for adults over the age of 50. City of Los Angeles Department of City Planning's 2000 Census data approximates 616,000 individuals over the age of 55 years old residing in the City. LAFD responded to approximately 295,250 EMS incidents in 2008, which calculates to roughly 1 out of 14 (4,018,080 residents / 295,250 EMS incidents = 13.6) residents in Los Angeles that needed EMS in 2008. Of these incidents, approximately 187,983 were dispatched as requiring ALS, about 1 out of 21 (4,018,080 residents / 187,983 ALS = 21.4) residents in Los Angeles that required ALS in 2008. But all 2008 EMS responses utilized and benefited from the ALS equipment, specifically a 12-lead cardiac monitor/defibrillator with its monitoring capabilities. As the trend from previous years, LAFD expects an annual 3% volume increase on EMS incidents.

The anticipated rise in EMS incidents together with approximately 100 cardiac monitor/defibrillators exceeding AHA's recommended lifespan reliability will challenge LAFD's EMS mission of providing the best EMS Service to the citizens of Los Angeles. In order to maintain the quality care currently afforded to the public by LAFD, replacing these 100 cardiac monitor/defibrillators is of the highest priority.

Another vital concern while providing EMS is the ability to monitor CO levels, for both responders and patients. CO is a colorless, odorless, and tasteless gas that is caused by the incomplete combustion of any carbon-based material. CO poisoning is not always evident and mild to moderate sufferers will only display flu like symptoms. High levels of CO can be fatal causing death within minutes. Each year, more than 400 Americans die unintentionally, more than 20,000 people visit the emergency room and more than 4,000 are hospitalized due to CO poisoning. Fatality is highest among Americans that are 65 years old and older. Loss of life and irreversible bodily damage can be avoided if CO poisoning can be readily detected and immediately treated to help those suffering from the poisoning.

LAFD on occasion will provide medical monitoring or aid or both to firefighters from LAFD, LA County, and the surrounding cities. LAFD has specialized teams that provide Hazardous Materials and Technical Rescue responses within the City of Los Angeles and frequently provide mutual aid responses to the surrounding Cities within Los Angeles County. During these responses, first responders are very susceptible to on the job injuries, which include CO poisoning. Having proper and reliable equipment could ultimately reduce casualty and loss to LAFD members and the firefighting family.

LAFD's final concern is the inability to transmit recorded ECG to a medical doctor or to an admitting Emergency Room (ER). A 12-lead ECG recorded and transmitted from the field is a vital advantage for patients suffering from acute myocardial infarction, commonly known as a heart attack. A proper ECG recording takes approximately two minutes to perform and record. If the ECG reading is transmitted to the hospital for interpretation while en-route, proper and immediate treatment can be provided to the patient. If proper treatment is not possible in the EMS vehicle, a transmitted 12-lead ECG has shown to shorten the time for in-hospital treatment by 30 – 60 minutes. This is achieved because the receiving ER can prepare for immediate patient assessment and rapid treatment like thrombolytic therapy (a treatment used to break up dangerous clots inside your blood vessels, commonly used to treat heart attacks) or percutaneous transluminal coronary angioplasty (PTCA, a technique of mechanically widening a narrowed or obstructed blood vessel, another common treatment for heart attacks). Patients will also benefit from triage and transport to the most appropriate facility. Documentation of transient or intermittent arrhythmias (irregular heart beat) and other electrophysiologic events that occur in the pre-hospital setting can assist in diagnosis and treatment decisions in the Emergency Department.

The pre-hospital 12-lead ECG offers paramedics and emergency physicians significant advantages by providing a diagnostic quality ECG for use in the detection of heart attacks, and allowing a knowledgeable paramedic to determine the area of myocardial injury, to anticipate associated potential complications, and to implement treatment strategies accordingly.

Therefore, LAFD respectfully requests a total of \$2,000,000 in Aid from the Firefighters Grant to purchase 100 12-lead biphasic cardiac monitor/defibrillators. Each unit will cost approximately \$20,000 and include the following additional capabilities that will improve patient care capability and efficiency: latest Lithium-Ion battery technology, CO monitoring, CPR guidance via clinically proven metronome, and wireless communication for transmitting 12-lead ECG and patient data. The new equipment will be placed into service on LAFD ALS Ambulances, Engines, Trucks, Helicopter and Boats.

Furthermore, the new equipment will allow LAFD to continue to meet and maintain our Medical Direction protocols to have 12-lead capability on all ALS resources. It will also ensure LAFD maintain compliance with current training, patient care, and equipment standards including, but not limited to: NFPA Standards (NFPA 450: Guide for Emergency Medical Services and Systems, NFPA 473: Standard for Competencies for EMS Personnel Responding to Hazardous Materials/WMD Incidents, 2008 Edition) and FDA Standards (21CFR870.5300: Performance Standard for DC-Defibrillator Including Paddles, 21CFR870.1025: Performance Standard for Arrhythmia Detector and Alarm).

#### Financial Need

The majority (96%) of LAFD's \$561 million annual budget is dedicated to salary and personnel cost. Due to recent economic troubles and an overwhelming budget shortfall, the City of Los Angeles, per discussions by the City Council, is projected to have a \$530 million deficit in the upcoming 2009-2010 fiscal year, and could exceed a \$1 billion deficit for the 2010-2011 fiscal year; effectively reducing LAFD's annual budget by 10%, approximately \$56 million, for FY 2009-2010. Because of this deficit, the City of Los Angeles will not meet LAFD's requested financial support and LAFD will find it challenging to fund the replacement of the expiring units without severely impacting the department's core operations. Federal assistance is essential in order for LAFD

to be successful with the replacement program, and to maintain the goal of offering a high level of ALS service and improve patient care.

LAFD has focused its annual budgetary requests on additional personnel and resources to meet a growing EMS demand. All proposed programs are required to undergo the budget process, regardless of the benefits gained by our members and by the public and these programs must compete with budget priorities often leaving many programs unfunded.

LAFD's current cardiac equipment consists of approximately 200 12-lead cardiac monitor/defibrillators. 76 of these units were procured through a 2005 grant award received from The Annenberg Foundation. The remaining 124 units were obtained over multiple years, funded by LAFD's \$349,000 annual budget line item for defibrillator replacement, at about 25 units per year. Since the Annenberg grant, the Department has been unsuccessful in securing additional funding to supplement the annual budget line item for replacing the EMS equipment.

#### Cost/Benefit

The cost of each new 12-lead monitor/defibrillator is \$20,000. Using the recommended 5-year effective lifespan for the battery, the adjusted per year cost of each unit is \$4,000. By the end of the grant performance period, LAFD will respond to approximately 304,108 (295,250 plus 3% annual increase) EMS incidents. With about 200 units in operation throughout the City of Los Angeles, each unit will respond to an estimated 1521 (304,108 EMS calls / 200 units = 1521 EMS calls per unit) EMS calls for the year. The approximate cost breakdown of a 12-lead monitor/defibrillator per EMS call is \$2.63 (\$4,000 annual cost / 1521 EMS calls per unit = \$2.63 per EMS call), during the 5-year effective lifespan of the unit. As a requirement of the grant guideline, LAFD commits to the 20% match. This match will lower the value of \$2.63 per EMS call to \$2.10 (\$2.63 x 80% federal cost share = \$2.10), the federal cost share per EMS call for the life of the equipment.

The project, if awarded, will also lead to non-measurable benefits. Protecting and saving lives is core to the mission of LAFD. The procurement of these 12-lead cardiac monitor/defibrillators would allow LAFD to maintain a premiere EMS system in Los Angeles. Implementing the new equipment on LAFD ALS vehicles will provide consistent care from the responding resource. LAFD will utilize the 12-lead cardiac monitor/defibrillators on all ALS EMS, about 64 % of all EMS incidents, and possibly more due to medical emergencies often accompanying fire and technical rescues. Grant funding will allow LAFD personnel to purchase the equipment needed to detect and treat cardiac issues quicker and with greater efficiency than with the aging monitor/defibrillators. LAFD's Medical Director has recognized the importance of 12-lead ECG's in the pre-hospital setting and has set the goal of focusing and improving all ALS EMS. The addition of the updated monitor/defibrillators will allow LAFD to transmit 12-lead ECG's to a cardiologist to interpret a patient's heart rhythm, thereby receiving necessary treatment, if needed, prior to hospital arrival. Current aging equipment does not have this capability. Replacing current equipment allows LAFD to keep up with current medical technology, effectively providing higher quality care to patients and potentially reducing death rate.

Another non-quantifiable benefit of the new equipment is improving firefighter safety. The new units will be used regularly in firefighter rehab, especially for CO monitoring of personnel at fire incidents and at all Special Operations disciplines. Firefighters entering the rehab sector can now be screened for CO exposure within seconds, significantly diminishing the potential for CO-related injuries and long-term neurological and cardiac damage.

LAFD commits to all required and proper maintenance of the new equipment, keeping the units in a high state of readiness. And upon receipt of the new units, hands-on training classes will be provided to all LAFD personnel to review and to become proficient on all aspects of the new technology.

Even though the procurement cost of each unit appears extreme, considering the number of times each unit will be used on an EMS incident throughout its effective lifespan (a per call breakdown of \$2.63 per call), the potential lowered death rate, and the improved quality of life for victims of cardiac problems, having the confidence of knowing equipment failure will be a non-issue during an EMS response and the extra monitoring features certainly justifies such an expense. If financial assistance is not awarded, LAFD will have to continue using the aging units, which do not meet the current standard of care. Therefore, LAFD's efficiency will not improve and patient care will not be at an optimum level, potentially resulting to negative patient outcomes including patient death.

## Operational Outcomes

AFG funding will allow LAFD to replace aging 12-lead cardiac monitor/defibrillator equipment, thereby attaining unquestioned battery reliability, and giving LAFD members the confidence of providing the best patient care for our response area and fire department personnel.

Grant funding will also equip LAFD with the capacity to monitor CO levels, not available with current equipment, which greatly enhances LAFD's ability to expeditiously make proper field assessment and render appropriate care, thus reducing morbidity and mortality from CO intoxication for both the general public and firefighters.

Grant award will supply LAFD with advance cardiac monitor/defibrillators that will be utilized on every medical response for monitoring vital signs. When 12-lead ECG's are available in medical emergency responses and transmitted to a medical doctor for immediate analysis, patients' odds for survival or quality of life after cardiac incident vastly improves. Rapid identification and treatment has shown to preserve cardiac function, limit infarct size, and reduce morbidity and mortality. In short, keeping the time it took for a patient to receive treatment to a minimum yields the maximum patient benefit.

The implementation of the new equipment will allow the LAFD to meet 5 target capabilities that includes Emergency Triage and Pre-Hospital Treatment, Medical Surge, Responder Safety and Health, Search and Rescue, and Technical Rescue. LAFD's request also meets the Department of Homeland Security's determination that the greatest benefit for AFG funding will be achieved by supporting the department's existing mission and to replace used or aging equipment. And finally, procuring the new units will enable LAFD to perform cardiac pacing and meet the industry standard, which currently is still an option nationally, but is a requirement locally by Los Angeles County, Department of Health Services.

If funding were not awarded, LAFD would have to continue using obsolete and aging devices, disallowing responders to utilize all available technological advancements, effectively depriving LAFD patients the best possible care. Then, LAFD would be constrained to using the older devices, and would need to seek and purchase any available extended warranties to maintain the operation of these aging devices. Lastly, LAFD, in the worst-case scenario, would have to decrease spending in other departmental programs or operations or both in order to identify the necessary budget to fund the critical need of replacing aging monitor/defibrillators.

**\* Please describe all grants that you have received from DHS including any AFG grants received from DHS or FEMA, for example, 2002 AFG grant for vehicle or 2003 ODP grant for exercises. (Enter "N/A" if Not Applicable)**

LAFD is currently receiving DHS 2006, 2007, and 2008 UASI (Urban Search and Rescue Initiative) grants to train, plan and purchase equipment, FEMA FY2007-08 and FY2008-09 US&R (Urban Search and Rescue) Cooperative Agreement grants to sustain US&R California Task Force 1, and FEMA 2008 FFA (Fire Fighter's Assistance) to purchase 5-Gas Detectors for all Fire Companies.

LAFD has received FEMA US&R Cooperative Agreement grants to sustain US&R California Task Force 1 since 1997 through 2006, FEMA 2004 FP&S (Fire Prevention & Safety) grant to establish a Comprehensive Medicals Program, and FEMA 2005 FFA (Fire Fighter's Assistance) grant to purchase New Generation Fire Shelters.

## Assurances and Certifications

### Form 20-16A

**You must read and sign these assurances by providing your password and checking the box at the bottom of this page.**

**Note:** Fields marked with an \* are required.

#### Assurances Non-Construction Programs

**Note:** Certain of these assurances may not be applicable to your project or program. If you have any questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant I certify that the applicant:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States, and if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. Section 4728-4763) relating to prescribed standards for merit systems for programs funded under one of the nineteen statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. Sections 1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. Section 794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. Sections 6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) Sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. 290-dd-3 and 290-ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Acts of 1968 (42 U.S.C. Section 3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Title II and III of the Uniform

Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or Federally assisted programs. These requirements apply to all interest in real property acquired for project purposes regardless of Federal participation in purchases.

8. Will comply with provisions of the Hatch Act (5 U.S.C. Sections 1501-1508 and 7324-7328), which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. Sections 276a to 276a- 7), the Copeland Act (40 U.S.C. Section 276c and 18 U.S.C. Sections 874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. Sections 327-333), regarding labor standards for Federally assisted construction sub agreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in flood plains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. Section 1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. Section 7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended, (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended, (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. Section 1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. 469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. 2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. Section 4801 et seq.) which prohibits the use of lead based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act of 1984.
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations and policies governing this program.
19. It will comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act (29 U.S.C. 201), as they apply to employees of institutions of higher education, hospitals, and other non-profit organizations.

Signed by **Stewart Young** on 05/19/2009



**You must read and sign these assurances by providing your password and checking the box at the bottom of this page.**

**Note:** Fields marked with an \* are required.

Certifications Regarding Lobbying, Debarment, Suspension and Other Responsibility Matters and Drug-Free Workplace Requirements.

Applicants should refer to the regulations cited below to determine the certification to which they are required to attest. Applicants should also review the instructions for certification included in the regulations before completing this form. Signature on this form provides for compliance with certification requirements under 44 CFR Part 18, "New Restrictions on Lobbying; and 44 CFR Part 17, "Government-wide Debarment and Suspension (Non-procurement) and Government-wide Requirements for Drug-Free Workplace (Grants)." The certifications shall be treated as a material representation of fact upon which reliance will be placed when the Department of Homeland Security (DHS) determines to award the covered transaction, grant, or cooperative agreement.

**1. Lobbying**

A. As required by the section 1352, Title 31 of the US Code, and implemented at 44 CFR Part 18 for persons (entering) into a grant or cooperative agreement over \$100,000, as defined at 44CFR Part 18, the applicant certifies that:

- (a) No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with the making of any Federal grant, the entering into of any cooperative agreement and extension, continuation, renewal amendment or modification of any Federal grant or cooperative agreement.
- (b) If any other funds than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of congress, or an employee of a Member of Congress in connection with this Federal grant or cooperative agreement, the undersigned shall complete and submit Standard Form LLL, "Disclosure of Lobbying Activities", in accordance with its instructions.
- (c) The undersigned shall require that the language of this certification be included in the award documents for all the sub awards at all tiers (including sub grants, contracts under grants and cooperative agreements and sub contract(s)) and that all sub recipients shall certify and disclose accordingly.

**2. Debarment, Suspension and Other Responsibility Matters (Direct Recipient)**

A. As required by Executive Order 12549, Debarment and Suspension, and implemented at 44CFR Part 67, for prospective participants in primary covered transactions, as defined at 44 CFR Part 17, Section 17.510-A, the applicant certifies that it and its principals:

- (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency.
- (b) Have not within a three-year period preceding this application been convicted of or had a civilian judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain or perform a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property.
- (c) Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of



this certification: and

(d) Have not within a three-year period preceding this application had one or more public transactions (Federal, State, or local) terminated for cause or default; and

B. Where the applicant is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this application.

### 3. Drug-Free Workplace (Grantees other than individuals)

As required by the Drug-Free Workplace Act of 1988, and implemented at 44CFR Part 17, Subpart F, for grantees, as defined at 44 CFR part 17, Sections 17.615 and 17.620:

(A) The applicant certifies that it will continue to provide a drug-free workplace by:

(a) Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the grantee's workplace and specifying the actions that will be taken against employees for violation of such prohibition;

(b) Establishing an on-going drug free awareness program to inform employees about:

- (1) The dangers of drug abuse in the workplace;
- (2) The grantees policy of maintaining a drug-free workplace;
- (3) Any available drug counseling, rehabilitation and employee assistance programs; and
- (4) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(c) Making it a requirement that each employee to be engaged in the performance of the grant to be given a copy of the statement required by paragraph (a);

(d) Notifying the employee in the statement required by paragraph (a) that, as a condition of employment under the grant, the employee will:

- (1) Abide by the terms of the statement and
- (2) Notify the employee in writing of his or her conviction for a violation of a criminal drug statute occurring in the workplace no later than five calendar days after such conviction.

(e) Notifying the agency, in writing within 10 calendar days after receiving notice under subparagraph (d)(2) from an employee or otherwise receiving actual notice of such conviction. Employers of convicted employees must provide notice, including position title, to the applicable DHS awarding office, i.e. regional office or DHS office.

(f) Taking one of the following actions, against such an employee, within 30 calendar days of receiving notice under subparagraph (d)(2), with respect to any employee who is so convicted:

- (1) Taking appropriate personnel action against such an employee, up to and including termination, consistent with the requirements of the Rehabilitation Act of 1973, as amended; or
- (2) Requiring such employee to participate satisfactorily in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement or other appropriate agency.

(g) Making a good faith effort to continue to maintain a drug free workplace through implementation of paragraphs (a), (b), (c), (d), (e), and (f).

(B) The grantee may insert in the space provided below the site(s) for the performance of work done in connection with the specific grant:

Place of Performance				
Street	City	State	Zip	Action

If your place of performance is different from the physical address provided by you in the Applicant Information, press *Add Place of Performance* button above to ensure that the correct place of performance has been specified. You can add multiple addresses by repeating this process multiple times.

Section 17.630 of the regulations provide that a grantee that is a State may elect to make one certification in each Federal fiscal year. A copy of which should be included with each application for DHS funding. States and State agencies may elect to use a Statewide certification.

Signed by **Stewart Young** on 05/19/2009

**FEMA Standard Form LLL**

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Only complete if applying for a grant for more than \$100,000 and have lobbying activities. See Form 20-16C for lobbying activities definition.

**This form is not applicable**