

Central Arizona Life Safety Council

*Managing Fire & EMS
Service Delivery*

IN THESE TOUGH ECONOMIC TIMES





The members of the Central Arizona Life Safety Council are committed to exploring contemporary fire, special operations, and Emergency Medical Service (EMS) delivery methods that will enhance the current delivery model to more effectively and efficiently provide the highest level of service to our communities. The Council as a whole and each community individually are currently re-evaluating deployment models for fire, special operations, and EMS.

Emergency fire, special operations, and EMS response are the essential public safety functions provided by the fire service in support of community health, security, and prosperity.

The protection of life and property have been the mission of the Valley's fire service since its inception. We must continue to be innovative in the way we serve our customers while providing the basic fire, special operations, and emergency medical services our communities have grown to expect. Some of the future response challenges will be in the area of public health such as preparations for pandemics, disasters, and weapons of mass destruction incidents.



Today, the community-based fire station, with its ready availability of trained personnel 24 hours a day, creates a symbiotic blend of traditional public safety concepts with the potential for the most rapid delivery of our emergency response resources. Traditionally, fire stations have been strategically placed across geographic regions, typically commensurate with population densities and workload needs.



This creates an all-hazard response infrastructure meeting the routine and catastrophic emergency needs of all communities, regardless of the nature of the emergency. This pivotal public safety service emphasizes responder safety, competent and compassionate workers,



and cost-effective operations using cross-trained/multi-role firefighters. Firefighters are all-hazards responders - prepared to handle any situation that may arise.

The Automatic Aid System used in the Valley is a time-tested deployment system that provides the closest most appropriate fire service resource regardless of jurisdictional boundaries. The system provides small and large communities with value added shared resources. Large communities gain by in the numerous single unit incidents that span their vast boundaries, while smaller communities benefit by having additional units capable of responding to large incidents that occur in their community. This sharing of resources and joint purchasing power allows communities to be fiscally responsible while providing excellent service.

While revising and exploring different deployment models, we will adhere to the time proven safety enhancements built into our current deployment systems as well as established national standards that impact deployment of fire department resources.

The Automatic Aid System and the current service delivery model used by the Central Arizona Life Safety Council has served our communities for well over 30 years, they are recognized nationally and internationally as the "gold standard" for an emergency service delivery model. The challenging fiscal times facing us now require us to redefine our service delivery efforts to allow us to better meet the challenging service delivery requirements that we will face in the coming years.

The economic downturn that has developed in the United States and in the international community has impacted Arizona and the communities that make up the Valley in a number of ways. The market for existing and new homes has been significantly reduced. The value of existing homes has decreased in many areas. Residents are losing their homes and are unable to keep current with property taxes. Reductions in workforces in the public and private sectors mean that there is less money being earned and spent in the community, and difficulties in gaining and retaining credit have impacts on businesses and families.





HOW HAS THE DOWNTURN IN THE ECONOMY IMPACTED FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES IN THE VALLEY?

The provision of fire protection and emergency medical services is impacted by the downturn in the economy. Structural fire incident activity in some areas has grown as abandoned residences and businesses become the victims of neglect or arson fires. Customers who do not have medical insurance often wait until they are sicker before seeking care. The care provider of last resort for many without insurance is the emergency medical system provided by the Valley's fire departments.

The government structures that support the fire and emergency medical services have been impacted. Most municipal and fire district revenue streams are currently or are expected to generate less funding than they had in the past. They may be growing more slowly than had been expected based on traditional growth patterns in the Valley. These revenue reductions or slowdowns have a direct impact on the ability of local governments to provide services – including fire protection and emergency medical services.

HOW ARE VALLEY FIRE DEPARTMENTS RESPONDING TO THE ECONOMIC DOWNTURN?

Valley fire departments are basic public services and these organizations should tighten their belts to the greatest extent possible. However, the basic emergency services provided by fire departments must survive in order to adequately protect our customers.



Valley fire chiefs are evaluating the use of additional revenue streams, including grants, to fund fire and emergency medical services. Training is being streamlined to reduce costs, and some valley fire departments use alternate staff in support roles.

The safety of the citizens served by Valley fire departments and the safety of firefighters as they do their work is of the utmost importance.

WHAT IS AUTOMATIC AID?

The delivery of fire protection, special operations, and emergency medical services in the Valley is a model for intergovernmental cooperation, efficiency, and customer service. Automatic Aid, the system that provides the customer with the fastest response to their emergency, has been working daily in our community for over thirty years. Automatic Aid is considered the “Gold Standard” of emergency service delivery systems.

The attributes of the Automatic Aid system that make it strong in a growing economy also make it a strong system in a weaker economic landscape. The benefits of Automatic Aid are more fully described in an attachment to this report.

The Automatic Aid system utilized in the Valley provides the community and the customer with a high level of service and high levels of effectiveness. Despite the successes of the Automatic Aid system, it is unwise to assume that no further change or evolution of the system is necessary or needed. In fact, the Automatic Aid system is continuously evolving and improving.



WHY DO VALLEY FIRE DEPARTMENTS DEPEND ON ONE ANOTHER?

One of the basic tenants and strengths of the Automatic Aid system is the interdependence of the system’s members on each other. Each member organization knows that the resources of the other organizations in the system are trained, equipped, and staffed in a standard way. An incident commander in Goodyear knows that an engine company from Avondale and an engine company from Phoenix have the same capabilities as a Goodyear engine and can be deployed at an emergency scene with confidence.



The system is so interconnected that no operational change implemented by one fire department occurs in a vacuum. Operational changes, be they staffing, dispatch, or tactical policies, impact all of the fire departments in the system.

WHY IS RESPONSE TIME IMPORTANT?

The time that it takes firefighters and paramedics to reach the scene of an emergency, from the time the customer calls 911 until firefighters and paramedics are at the scene and working, is a basic measure of fire department service levels. As time passes, a fire grows rapidly. The sooner firefighters are on the scene; the sooner the fire can be controlled. Likewise, if a person has a heart attack and becomes unconscious, time is of the essence. The longer someone goes without medical assistance, the lesser the chances of survival.

The standard for fire department response times in the United States is published by the National Fire Protection Association. The standard allows a total of five minutes from the time firefighters in the fire station are notified of a fire until the first firefighters arrive on the scene. For medical emergencies, the standard requires that firefighters trained as Emergency Medical Technicians (EMT's) arrive within five minutes.



WHY FOUR FIREFIGHTERS ON A FIRE TRUCK?

The fire fighters in the Valley are dual role emergency service providers. Valley fire departments deliver Emergency Medical Service (EMS) and fire fighting service using the same personnel, from the same facilities, using the same systems and trucks. There are communities (mostly on the East coast) that provide emergency medical service with a governmental "third service." In those cases, the community's tax dollars often pay for separate dispatch facilities, additional service delivery personnel, physical facilities, apparatus, training systems, and administrators. These types of systems are not a responsible use of taxpayer dollars. This is the reason that over 30 years ago the Valley's fire service transitioned to a dual role system where the firefighters deliver EMS and fire protection. The deployment system used in the Valley is much more efficient, more economical, and provides better service to the community in a more responsible manner than third service provider systems.



During these difficult financial times our communities do not have the necessary funding to hire the additional personnel, create new dispatch systems, hire additional administrators, build new training systems, and purchase different apparatus to meet the needs of the community using the third service system model.

In the Valley's Automatic Aid system the firefighters are the paramedics. Whenever we hear about paramedics saving someone's life we know, they are the same work force that is fighting fires.

Fire fighting is manual labor. When firefighters arrive at the scene of a fire, a number of fire fighting tasks need to happen at the same time to effectively control a fire, rescue those in danger, and minimize damage. The faster that a force of firefighters can be on the scene and working, the better the expected outcome.



The same principle applies to medical emergencies. In the most serious cases, when someone is very ill or injured seriously and needs the services of a paramedic, four trained firefighters (including two paramedic firefighters) can more quickly treat someone in distress than fewer trained firefighters. Sending two paramedics by themselves to a critical emergency medical incident reduces patient care and could lead to the death of the patient before the necessary additional resources can arrive.

The national standard that defines fire department response to fires and medical emergencies requires that a minimum of four firefighters staff every fire truck.

In areas on the edge of development or in newly developed areas where there are fewer people, and therefore fewer fires and medical emergencies, some Valley fire departments use emergency response units that have fewer than four firefighters aboard. Since these units are less capable than fire trucks staffed with four firefighters, they cannot be used in place of a fully staffed fire truck.

Every engine company and ladder company in the Valley is staffed with at least four firefighters. This assures that every one of them is capable of performing the same standard set of tasks as other engine and ladder companies.

Fire department response units staffed with two firefighters have been used in some Valley communities. These units typically handle non-emergent or urgent calls for service. Mesa has had a positive experience with these units, but Phoenix discontinued their pilot program when they found that the impact of these units on the overall system was minimal.



WHY DID A BIG FIRE TRUCK COME TO A MEDICAL EMERGENCY?

Firefighters bring all of their tools with them when they respond to an emergency. They always have to be prepared to respond to another emergency and may be sent to a fire on their way back from a medical emergency. Fire trucks in the Valley carry fire fighting and emergency medical equipment. The firefighters who ride the fire truck are trained to fight fires and provide medical treatment.



In some parts of the United States, firefighters do not have the training and equipment to provide emergency medical assistance. In these communities, a separate group of emergency responders provides emergency medical care. In the Valley, firefighters provide fire protection and emergency medical services.

Fire departments in the Valley are constantly experimenting with different ways to provide fire protection and emergency medical services. They are always looking to provide high quality services for the lowest possible cost. The fire departments in Goodyear, Mesa, and Phoenix have experimented with sending two person response units to emergency medical calls. These programs have been met with mixed results and efforts to refine these programs continue.

WHAT IS “SOFT” FOUR PERSON STAFFING?

A concept that has been discussed in the Valley is the idea of a “soft” approach to staffing. The idea is to staff each engine and ladder with four firefighters – unless you do not have enough firefighters available to do so. What this really means is that engine and ladder companies will not be reliably staffed with four firefighters and that the quality of service that they provide will be diminished.

Each engine and ladder company should be staffed with a minimum of four firefighters. Certainly, there will be short periods of time when it is impractical to call another firefighter in to cover a vacancy. However, long periods of time cannot be permitted to pass without the appropriate and effective number of firefighters on each fire truck.



HOW DO FIRE DEPARTMENTS COORDINATE THEIR WORK?

The Central Arizona Life Safety System Response Council is a group made up of all the Fire Chiefs from every fire department or fire district in the Valley. The group meets regularly to discuss issues of mutual interest, coordinate operational procedures and training, and look after the overall health of the Automatic Aid system.

HOW IS TECHNOLOGY USED IN DEPLOYMENT OF THE VALLEY'S FIRE SERVICE?

A requirement of all communities that participate in the Automatic Aid System is that all fire apparatus be equipped with common communications devices. They must also be dispatched by one of two dispatch centers.

There are only two fire and EMS dispatch centers in the Automatic Aid system. One is in Phoenix and one is in Mesa. When a citizen of any community in the Automatic Aid System dials 911 for a fire, medical, or special operations

emergency, the caller is electronically routed to either the Phoenix Regional or Mesa dispatch center. From there, the caller speaks to a fully trained fire department incident taker that determines the type of emergency that is taking place.



From that point the information is entered into a highly sophisticated Computer Aided Dispatch (CAD) system that is integrated with the Global Positioning Automatic Vehicle Location (AVL) system to select the closest, most appropriate unit(s) to respond to the emergency regardless of jurisdictional boundaries. The two CAD systems keep track of the status and location of well over 300 emergency response units. The CAD and AVL systems select the closest most appropriate unit whether they are in the fire stations or traveling throughout the more than 2,000 square miles that encompass the Automatic Aid Systems jurisdictions.

The CAD systems also have the ability to re-route units that are responding to a lower priority incident to a higher priority incident. For example, if Engine 1 were dispatched to check a fire hydrant that is leaking water, and while en-route to that incident, a child drowning incident were to occur nearby, the CAD system would re-route Engine 1 to the drowning and send another unit to check the fire hydrant.



- ▲ When an emergency occurs, the firefighters that are closest to the emergency respond. In many communities in the United States, jurisdictional lines prevent firefighters from another city or town who are closer to an emergency from responding to that emergency. In the Valley, the closest firefighters are dispatched, regardless of jurisdictional considerations.
- ▲ Automatic Aid reduces the number of fire stations that are needed to serve the community as a whole. Through coordinated planning, fire stations are located and built in a way that serves the entire community, not just the citizens of one city or fire district. An average fire station costs \$5-6 million to construct and approximately \$1.5 million a year to operate.
- ▲ Coordinated training and procedures help firefighters do their jobs better. All Valley firefighters receive the same basic training and use the same daily procedures to respond to emergencies. Chiefs from all Valley fire departments receive the same training and command incidents according to the same procedures.
- ▲ Firefighters work together every day on routine emergencies so that they work better together at larger emergencies. Firefighters are used to working together with firefighters from other communities. This familiarity helps when larger emergencies occur.
- ▲ Automatic Aid makes sure that all fire department units have similar capabilities. In order to be a member of the Automatic Aid system, fire departments are required to equip and staff their fire trucks in a standard way. This assures that all firefighters have similar equipment and the same number of firefighters on all fire trucks. The number of firefighters on a fire truck translates to the number and types of work that can be performed.

- ▲ Support functions such as dispatch and communications are coordinated. The fire service in the Valley utilizes two dispatch centers for almost all of the communities in the Valley, rather than having to maintain and operate a communications center for each fire department. This service eliminates duplication, increases efficiency, and saves money.
- ▲ Joint purchasing leads to savings. The Automatic Aid system uses its purchasing power to buy things like protective clothing for firefighters. Most Valley firefighters use the same protective clothing. Everyone pays a lower price since so much of the equipment is purchased. Manufacturers compete for the contract.
- ▲ Specialized fire fighting and rescue teams are shared. No single community can afford to keep enough firefighters on hand to respond to every specialized emergency. Incidents like leaks of hazardous materials and building collapses occur less often than fires. The fire departments in the Automatic Aid system work together to respond to specialized emergencies. This cooperation saves money and helps firefighters work more efficiently and safely at these unusual incidents.
- ▲ Non-emergency resources such as training facilities, health centers, and other support systems can be shared to reduce expense and standardize programs.



The current state of the economy has impacted every service provided by government, including basic public safety services. The fire departments in the Valley provide a very efficient service to our communities through cooperation that would be unthinkable in many parts of our country. While fire departments need to be agile and seek to be very cost effective, compromises that reduce the level of service that we provide to our customers are unacceptable.

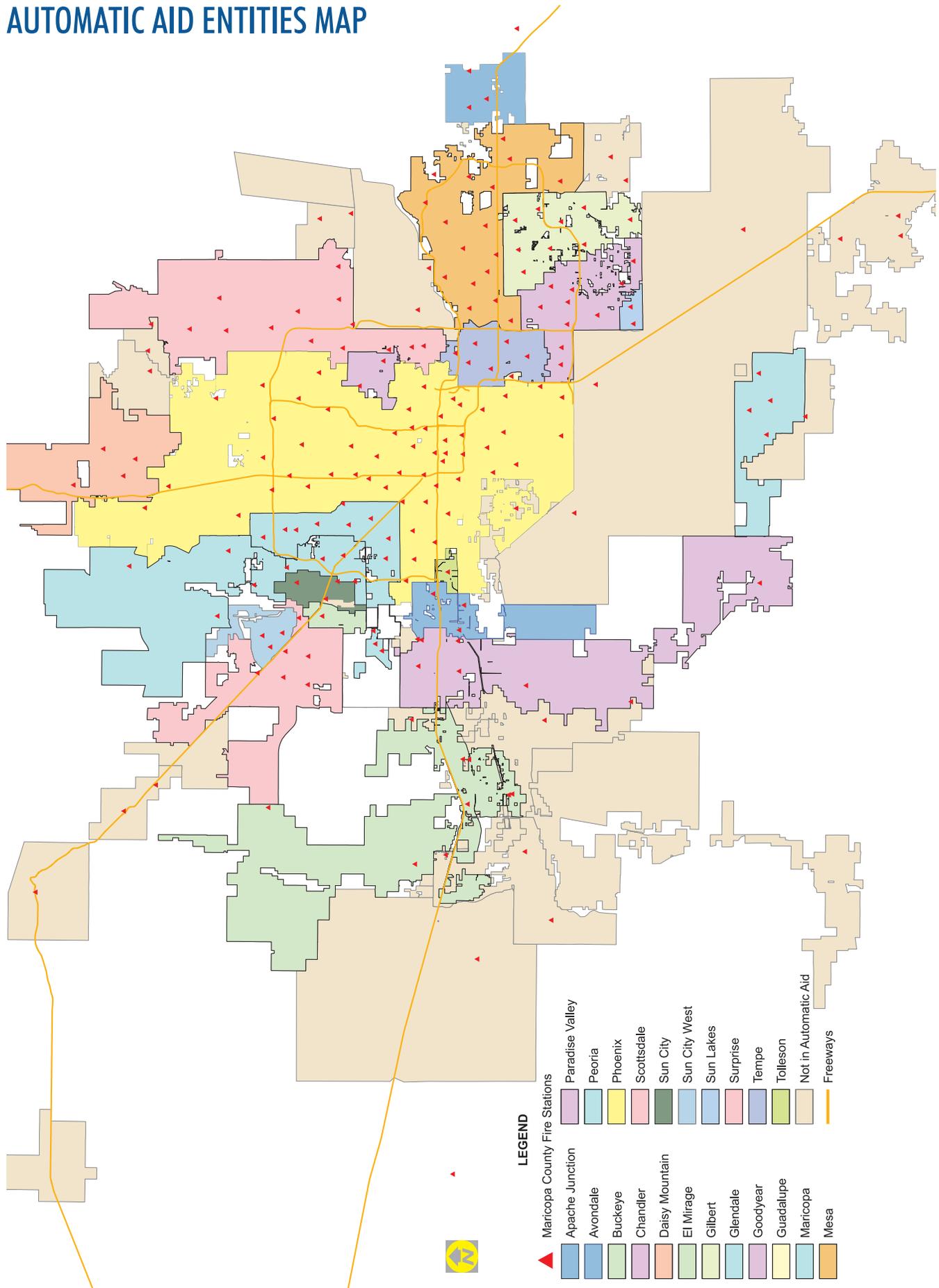
The members of the Central Arizona Life Safety Council are committed to exploring better service delivery models that will enhance the current Automatic Aid system to create more effective and efficient service delivery for our communities.

The protection of life and property has been the mission of the Valley's fire service since its inception. We will continue to be innovative in serving our customers while providing the basic fire protection, special operations, and emergency medical services our communities have grown to expect.

Fire stations are strategically located across geographic regions, commensurate with population densities and workload needs. This all-hazard response infrastructure meets the routine and catastrophic emergency needs of our communities, regardless of the nature of the emergency. The community-based fire station, with its ready availability of trained personnel 24 hours a day is a blend of the traditional public safety concepts and duties of the fire service with the potential for the most rapid delivery of our emergency response resources. This pivotal public safety service emphasizes responder safety, competent and compassionate workers, and cost-effective operations using cross-trained/multi-role firefighters. Firefighters are all-hazards responders, prepared to handle any situation that may arise.

The Automatic Aid System is a time tested deployment system that provides the closest most appropriate fire service resource regardless of jurisdictional boundaries. Sharing these resources allows communities to be fiscally responsible in these tough economic times, while still providing excellent service to the community.

AUTOMATIC AID ENTITIES MAP



AUTOMATIC AID MEMBERS

Community or District	2008 Call Volume	Area Served Sq. Mi.	Population
Apache Junction	8,136	34	32,776
Avondale	5,442	44	81,299
Buckeye	3,833	219	47,261
Chandler	15,856	65	247,140
Daisy Mountain	2,372	98	100,000
El Mirage	1,964	10	24,751
Gilbert	13,063	68	216,449
Glendale	23,804	58	251,522
Goodyear	4,082	191	59,508
Guadalupe	751	1	5,948
Maricopa	2,349	59	45,571
Mesa	53,450	136	463,552
Paradise Valley	964	15	14,990
Peoria	13,534	178	157,960
Phoenix	146,363	516	1,567,924
Scottsdale	20,457	184	236,371
Sun City	8,135	16	40,000
Sun City West	5,774	21	36,000
Sun Lakes	2,809	6	16,000
Surprise	8,497	106	92,897
Tempe	17,936	40	175,523
Tolleson	1,054	5	7,199
Total	354,748	2,070	3,920,641

CENTRAL AZ LIFE SAFETY COUNCIL VS. FDNY

	Auto Aid	FDNY
Land Area	2036 Sq. Mi.	322 Sq. Mi.
Population	3,920,641	8,250,567
Engines	186	198
Ladders	42	143