A defensive driver is one who makes allowances for the lack of skill and knowledge on the part of the other driver and one who recognizes that he has no control over the unpredictable actions of other drivers and pedestrians nor over conditions of weather and road.

In the days of the horse-drawn fire apparatus, drivers were proud of their ability to handle two or three galloping horses in response to a fire alarm. An experienced driver realized that he and his steeds must act as one unit. He gave his team a workout every day, not only to exercise the horses but to acquire the "feel" of the power of his horses and to become aware of the constant vigilance necessary to control the weight of the apparatus when responding to an alarm through traffic.

Today, with the power of hundreds of horses under the hood of an automotive fire apparatus, and with the greatly increased congestion of modern traffic, far greater attention must be given to the training of fire apparatus drivers. These drivers and their officers are responsible for the safety of the apparatus and its personnel. Drivers must recognize that while they may know what they are doing, the drivers of other vehicles, and pedestrians as well, may not. Therefore, the officer and the driver must always be prepared for the unexpected.

**Speed**

Speed is not of prime importance when responding to alarms. Speed often results in a serious and unnecessary accident, which not only prevents the apparatus from reaching the scene but also may cause death or injury to firefighters and civilians.

Of even greater importance is the psychological effect which speed has on the crew. The natural result of speeding to a fire is that it induces a lack of logical judgment when the fire is reached. The officer who makes certain of an alarm location and responds with sane and safe driving will arrive with a company prepared for action. Of major importance during a response is that the driver of the apparatus keep the vehicle under control at all times, and especially at street intersections. The normal excitement induced by dangerous speed will then be minimized.

**Hazards**

As a driver, every portion of the fire department vehicle should enter into your thinking. The weight and balance of the apparatus are important. The engine with its high power; the transmission with its intricate mechanisms; the brakes, which must always be effective for the safety of all concerned, the tires that provide the frictional surface for traction and for stopping or turning; the steering mechanism; the starter; and the various switches are all under your control as the driver. You must be trained to a high degree in their proper use.
Modern fire trucks are equipped with several performance features comparable to passenger cars and commercial trucks. The modern fire truck is a machine of great horsepower, equipped with powerful brakes and designed for ease of operation. The ease of performance may conceal the fact that the tons of weight under your control. The efficient and safe responses will result only if these controls are operated properly. This is more apparent when you consider that when a fire truck running at 20 mph is involved in a collision, it will have the same force as though the truck were dropped from a height of 14 feet. At 40 mph, the equivalent falling distance is four times as great or 56 feet -- about the height of a four-story building.

Emergency right-of-way does not permit you, as a driver, to lose sight of your responsibility for the safety of all users of the streets. Although the law allows certain exemptions to emergency vehicle drivers when responding to a call with the lawful use of a red light and siren, it does not give any valid recognition to the arbitrary use of these emergency rights that may endanger life or property. Remember, when using red lights and siren, you are requesting the right-of-way, not demanding it.

Driver Responsibility And Qualifications

A firefighter wanting to qualify as a apparatus driver must first be licensed by the Department of Motor Vehicles and should then successfully complete the certified driver program.

Modern traffic conditions necessitate that fire truck drivers be skillful, mature, and responsible people. Good drivers are made, not born, and they attain the required skills largely through a training program that includes initial instruction, driver training, the development of proper attitudes and driving habits, and training in the exercise of restraint and good judgment. Some of the factors that govern skillful driving are:

— The condition and limitations of the vehicle
— The physical features of roads, streets, and terrain
— The attitudes, behavior, and reactions of other highway users
— Varying light and weather conditions
— The personality and makeup of the driver

Driver Characteristics

Despite all the mechanical improvements and automotive safety advances, the driver remains the key to traffic safety. You must keep yourself in good physical condition, have sound driving skills and habits, and develop and maintain proper attitudes. The chief attributes of a good driver are related directly to attitude, skills, knowledge, judgment, habits, and physical and mental fitness.
Attitude

A good attitude is possibly the most important requirement of being a good driver. As a driver, your attitude is reflected in your mental or emotional regard for yourself, for others, for your vehicle, and for surrounding conditions. A driver with a poor attitude usually has some excuse for any adverse occurrence. Attitudes are not inborn; they are learned and, therefore, can be improved. Tests conducted by the Fire Service have indicated that the self-styled “expert driver” usually has an attitude of indifference, which tends to cloud judgment. This attitude often results in an excessive number of accidents that the alert driver probably would have avoided. This lack of attention on the part of a driver indicates a need for retraining. Some of the contributing factors to a bad attitude of a driver are:

— Overconfidence: Taking too much for granted; having a serene confidence that your vehicle will always perform as you will it; counting on other people to do the right thing at all times; feeling that red lights and siren provide an impenetrable barrier through which nothing can pass to do you harm

— Pride in your past record: Getting puffed up about an accident-free record. Such a driver may be due for a rude awakening.

— Faith in experience: Believing that long experience, as a driver will see you through. Experience alone is not enough. It must be supplemented by comprehensive and continuing training and constant self-analysis of your capabilities, attitudes, and skills. Experience develops bad habits as well as good ones.

— False ideas: Relying on guesses, estimates, legends, and hearsay, instead of facts. A quiz of hundreds of drivers revealed that when estimating stopping distances at a given speed, 90 percent of those tested were short by more than 40 feet -- a possibly fatal underestimation. The average driver, driving at 20 mph, will travel 45 feet before braking to a stop; at 30 mph, the total stopping distance will average 78 feet.

— Impatience: Taking needless chances, suppressing good judgment and violating safe-driving practices, just to save a little time. This causes accidents.

Skills

Skill in driving does not necessarily mean safe-driving performance. Records show that some drivers of exceptional skill are repeatedly involved in accidents, while other drivers, who are less adept, have good safety records. Skill is ability plus training. Good driving performance is skill plus (or minus) attitude. It is not how much skill has
been developed that is important, but rather the attitude with which the skill is applied.

**Knowledge**

Good knowledge of apparatus capabilities and limitations, response routes, hydrants, and rules and regulations is essential if you are to be a skillful driver. If you do not have this knowledge, you are apt to be distracted and confused to such an extent that you become an accident looking for a place to happen.

**Judgment**

Good judgment is based on proper attitude, mental fitness, knowledge, and experience.

**Good Habits**

Habits are acquired and learned through training and self-discipline. It has long been recognized that it is more difficult to break a bad habit than it is to develop new and acceptable ones. This is true throughout all fire service operations and is of maximum importance in driver training.

**Physical Fitness**

As a driver who is assigned as a vehicle operator, you should refrain from driving and ask for a relief driver when you feel there is any impairment of your physical well-being. The reason for such an action might be illness, fatigue, drowsiness, or the effect of medication. This does not relieve the Company Officer of the responsibility to replace those drivers who are not physically fit or those who might be reluctant to ask for relief.

**Mental Fitness**

Mental fitness will change from day to day, hour to hour and minute to minute. Mental fitness is affected by, and affects, attitude. A driver, who is worried over financial difficulties, domestic problems, department discipline, and the like, may not be mentally fit to drive. If you, as a driver, cannot clear your mind of such distractions and concentrate on the job of driving, you are not mentally fit to drive and should remove yourself or be removed from driving status.

**THE BEST SAFETY DEVICE IS A CAREFUL DRIVER**

**Vehicle Operational Practices**

All members of the Fire Department should have a thorough knowledge and understanding of the provisions found in section 21055 of the California Vehicle Code. This section exempts a driver of an authorized emergency vehicle from compliance
with certain non-emergency sections of the code.

It is particularly important to note that section 21055 of the Vehicle Code does not:
Grant any exemptions when a fire department vehicle is returning from a fire or from any other emergency call
— Relieve the driver of a fire department vehicle from the responsibility to drive with due regard for the safety of all persons using the highway when responding to a fire or other emergency call.
— Protect the driver of a fire department vehicle from the consequences of an arbitrary exercise of the privileges granted in that section.

It is of paramount importance that all fire department officers and drivers responsible for the operations of department vehicles exercise sound judgment in the application of the privileges accorded in Section 21055 of the California State Vehicle Code. Any action, which could be interpreted as an “arbitrary exercise of privilege”, must be avoided.

Collision and Accident Prevention
The majority of motor vehicle accidents might better be called collisions, and the remaining number called accidents. The latter group would include those quite accidental in nature and considered unavoidable.

Adopting preventive measures would tend to eliminate "avoidable" accidents; therefore, a small number that could be referred to as "incidents" might be left. Incidents would be those accidents considered unavoidable, and, as such, there is little that can insure against repetition of them under similar circumstances.

Sphere of Safety
The sphere of safety is meant to describe a fire apparatus and the area around, over and below it. Before starting any vehicle, the driver should walk completely around it. Look for loose equipment; open compartment doors, unsecured turnouts and any obstructions, including those above and below the vehicle. This is a simple, yet very effective form of accident prevention.

Causes of Apparatus Accidents
The majority of accidents involving fire department vehicles are the result of four principal causes:
— Improper backing (85%)
— Reckless driving on the part of the public
— Excessive speed of fire department vehicles
Lack of driving skills

**Procedure Following an Accident**

The procedure for Fire Department personnel following an accident is as follows:

1. Alert Dispatch (cover response)
2. Provide first aid if needed. (ambulance if needed)
3. Place the apparatus out of service
4. Notify the Battalion Chief and the Police Accident Bureau
5. Obtain the names and addresses of witnesses
6. Offer no opinions or statements to unauthorized personnel
7. Do not move the involved vehicles except for reason of safety or unless authorized to do so. Mark the original scene with chalk or tape.

The above requirements are necessary to ensure that investigation procedures are accurate and to reduce any adverse public opinion. There are, however, circumstances under which apparatus may need to continue with their emergency response. Minor accidents, involving engine companies, with all other engines busy, may necessitate the unit to continue. This is at the captain’s discretion and only after advising the other driver of your actions. Call for a police unit and have the other vehicle stay at the scene. Return as soon as possible.

When rescue units are involved in accidents, additional factors must be considered.

- Are you responding to the scene or to the hospital?
- Patient condition
- Availability of other rescue units or private ambulance
- Availability of an engine company

In most cases the rescue unit should stay at the accident scene. The foremost exception to this would be if you were involved in a minor accident on the way to the hospital with a critical patient. The patient’s care is primary. Communication in these instances is the key. Notify dispatch, the other driver, and the hospital of the accident. Dispatch should notify the Police, the Company Captain and the Battalion Chief. The Company Captain, if available, should respond to the accident scene.

**Safety Belts**

Although a seat belt will not save one’s life in all types of accidents, it has been adequately demonstrated that the seat belt is effective in minimizing injury and in reducing the number of deaths of vehicle occupants in the majority of accidents. This fact has been well documented by research of crash injuries conducted by the
National Safety Council.

NOTE: IT IS THE POLICY OF THE CITY OF ESCONDIDO, AS WELL AS A STATE LAW, THAT ALL EMPLOYEES WEAR SEAT BELTS WHEN THEY ARE RIDING IN ANY CITY VEHICLE.

Wheel Chocks
The San Francisco Fire Department Safety Committee concluded a series of tests designed to measure the efficiency of wheel chocks. The committee found that the proper placing of wheel chocks is all-important.

— Chocks must be placed square and snug against the tires to be effective.
— Improperly placed chocks that were off only a slight degree failed the job for which they were designed.

Flares
It cannot be overemphasized that flares are useful safety devices that can be extremely dangerous if misused in the presence of flammable liquids or explosive compounds. Whenever you light a flare, you should "look away - strike away." Flares should not be used to leeward if dangerous conditions exist. Prior to lighting a flare, consider the entire scene. It may be safer to use cones and flashlights in many cases.

Safety when Driving in Fog
Visibility is at its worst in fog. In dense fog, a person should drive slowly, with headlights on low beam, which will throw the light down on the road where it is needed, rather than out into the fog where it will be reflected back.

Sudden stops should be avoided. Stops should be signaled by tapping on the brake pedal to make the stoplights blink. You should never assume a clear road lies ahead when driving in fog, except for the distance you can actually see. You should drive as though you may have to make an emergency stop within the distance you can see, no matter how short it is.

Remember that you are driving an emergency vehicle when responding to an alarm, but also that it is better to drive safely under these conditions and to reach the scene of the emergency than to be involved in an accident which may result in possible death or serious injuries.

Windshield wipers of department vehicles should be kept in good working condition. They are bad-weather safety devices. Driving without efficient windshield wipers so increases the danger of accident that a driver may be guilty of
contributory negligence if an accident is caused by such a defect.

**Positioning Vehicles at Fires**

Drivers must use good judgment in parking their vehicles so as not to interfere with the positioning of other fire department apparatus. Particular attention must be given to the positioning of engines for the use of hose lines. Unless otherwise ordered, a "first in" vehicle should be placed in a position where it will least interfere with incoming companies, but still be spotted in an area where its mission can be satisfactorily accomplished. This may be the responsibility of the driver if direction is not available from command positions.

Operators of fire department cars and ambulances must at all times exercise good judgment in parking their vehicles so as not to interfere with the operations of responding companies.

When parking apparatus at brush fires, be careful not to block roadways that may be needed by other units. Whenever possible, units used for pumping at brush fires should be parked on a paved surface to prevent them from becoming stuck.

**Safe Driving Reminders**

— Skid marks on the pavement are an indication that the vehicle was not under proper control.

— The lives and welfare of your fellow firefighters depend upon the driver and the officer in charge every time a department vehicle leaves the station.

— Drivers should operate the siren so as to produce a regular high-and-low-pitched sound.

— A good driver takes the foot off the accelerator pedal and places it on the brake pedal at each intersection. This practice reduces reaction time when a stop must be made.

— More time can be made up by getting out of the station quickly than can ever be made up by speeding to alarms.

— The best piece of equipment in the world is useless unless it arrives at a fire safely.

— Traffic lights and stop signs are an aid to safe driving at intersections, but they are no guarantee that safe driving conditions actually exist.

— Inspect your vehicle often and keep it in safe operating condition.
— Do not back up an apparatus without a spotter in the rear to signal, or when it is not absolutely essential to back. Never back at more than 5 mph.

— If you should skid, turn your steering wheel the same way as the skid. Apply the brakes off and on, letting the wheels revolve.

— Be careful not to overheat the brakes.

— Everyone on the apparatus should assist in backing when necessary.