



# Safety Source

## CONTENTS

When Bay Doors Attack	1
Safety is not an accident	2
Back-to-Basics Firefighting: Driving Duties	2
Safety Contest	2
Vehicle Rollovers	3
The Fire Departments Guide for Safe Drivers	4

## Driver-Operator Safety

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### When Bay Doors Attack!

By: Calgary Int'l Airport Fire Dept

#### Distracted Driving

It is well known for emergency services personnel that there are many things that are going through a driver/operator's head while responding to an emergency. The emergency itself, although is important, should not be taking away from the first priority before leaving the hall which is personal/apparatus safety. A safe departure from the fire hall for you and your apparatus has now given you one less item to worry about while responding to an emergency.

An ARFF department has a few more intricacies that need to be addressed when responding such as:

- ◆ Routes to certain standby positions or areas of the airfield. We do not have GPS to take us to points on the airfield and thus must go through in our minds the route that ground has designated, as well as repeat it back properly.
- ◆ Aircraft to avoid while responding. This is done by listening to the ground radio to avoid incursions. At night is particularly hard as now we are looking for small red and green wing lights.
- ◆ Taking into consideration if you are the lead vehicle and are calling for a route for the entire fleet, or maybe just a +2 to a standby position. If you are the lead vehicle, what are your tactics for placement of vehicles?

These examples are what could be going through a driver/operators mind while responding, and thus can put other important things to think about on the backburner like:

- ◆ Are all the compartment doors closed?
- ◆ Did the auto eject work? Is the power cord hooked to the truck?
- ◆ Has the bay door time run down?

- ◆ Are the other crew members clear of the truck?

There are lots of little details that a driver/operator needs to check off just to leave the apparatus bay, and with the implied need to rush to a call. The little things may be neglected to address to big issue of responding.



Response is only one aspect of an airport firefighter's job. Accidents can happen while performing the simple daily tasks of checking the apparatus, driving to complete maintenance, leaving and returning to the station. It's important for the driver/operator to be aware of his/her surroundings to avoid preventable accidents.

#### So, what do we do to keep focused?

On mandatory measure that has been put into place is the daily/nightly DI on the vehicles. This gives us an opportunity to do an entire 360° of the apparatus BEFORE responding, mitigating any hazards at that time. We all know the importance of making sure compartments are closed and the vehicle functions correctly before departure. Another measure could be to take response one step at a time. Get into a routine while responding, completing a mental checklist the same way every time. Many operators do this to slow things down in a hustle and bustle situation of responding. Practice radio procedures so it becomes second nature when performing for the actual response. The more a task is repeated, the higher likelihood you are to remember and retain that information. If you are unsure about something prior to departure, DOUBLE CHECK! An auto eject shorline didn't swin in your mirror confirming ejection? Do you think you left the nitrogen bottle door open? It takes 2 seconds to jump out and make sure.



## Safety is not an accident

By: Mojave Air and Space Port

“Safety is not an accident.” Everyday drivers/operators must focus on safe operation of all apparatus.

Driver/Operators must maintain basic skills and use good safe practices (Back-up person.) Knowledge of aerodrome to include road closures and construction work performed on ramps help drivers avoid hazards when operating apparatus. Complacency must be avoided as this encourages an unsafe mindset.

### Reporting Accidents

Realizing we do not work in a perfect world and accepting that an accident will happen. When it does, ensure that it is immediately reported to supervisors and management (Regional Fire Chiefs) so that the incident can be properly reported and addressed. Ensure to complete statements so that accidents can be properly investigated. Accident data can be compiled, analyzed, and common issues can be identified and corrected. This is how further accidents are prevented.

### Safety Awareness Mindset

- ◆ Follow SOPs/SOGs
- ◆ Maintain basic skills
- ◆ Proper vehicle maintenance programs
- ◆ Response exercises
- ◆ Safe Practices
- ◆ Use a back-up person
- ◆ No Complacency
- ◆ On-line driver training

Take the necessary time to allow yourself to respond successfully without distractions deferring your focus from the tasks at hand. Always remember to take note of your surroundings and be prepared to react appropriately to the ever-changing situation.



## Back-to-Basics Firefighting: Driver Duties

The position of the driver is not a glorious position within the fire service, but it is a very necessary one. As with a football team, the quarterback or wide receiver is the desired position to play because of the attention they receive from their scoring or passing of touchdowns. However, they gain their glory based on the team's other members' abilities to do their jobs.

The driver is one of those positions that is required for the rest of the team to prosper. What the driver does for the crew will have an impact on how well that crew will function and operate. Success only comes from all team members working together.

It is fitting that we are now entering the winter season. The driver's number-one job is to drive in a safe and defensive manner. The fire trucks we are given are not lightweight cars but rather heavy pieces of machinery that require special skills to operate. One area you need to address is the braking distance; the heavier the vehicle, the greater the braking distance is required. Normally, for a fire apparatus, it will require about a four- to seven-second gap between vehicles, depending on how fast you are going. Always remember to use your defensive driving skills and scan the roadway ahead of you so that you can anticipate problems that will require you to use the brakes.

Having a good attitude while driving is key to arriving safely. Driving in a manner that anticipates others not seeing you, paying attention to you or yielding the right-of-way to you is a very good approach. If you are on scene, working the incident, chances are that you got there safely. That's a credit to the driver, the officer and those who trained and prepared them.

But think a bit about the ride, just like you would critique a fire. Did it go smoothly and without incident? An incident might not be an accident, but might be a near miss. Take the time to learn from your driving experience and implement SOGs related to driving to facilitate continuous improvement in your operation. Your crews' lives directly depend on it. Firefighters have to get to an incident safely before they can do their jobs.

## SAFETY CONTEST

June wrapped up the second bi-annual Health and Safety contest.

Each Fire Station was asked to create an activity that helps to reinforce the themes of Driver-Operator safety utilizing their staff, the airport, the public or anyone or thing they wish to involve.

We received 100% participation with some really great videos, posters, power points, and games. They were informative, creative, funny, and educational. Everyone did a great job!

Corporate had to decide on only one for the contest winner. The winner of the 2nd Health and Safety contest was **Trenton-Mercer Airport Fire Department**. Their theme was 'Highway to the safety zone' from the movie "Top Gun."

### Congratulations



Click on the picture to view the winning PSA.

**Click here to view all safety contest submissions.**

# Vehicle Rollovers

By: VFIS

Emergency vehicle rollovers are costly. There is a human cost (fatalities and serious injuries to occupants), and there is a financial cost (vehicle damage, loss of use of the vehicle, and the public perception of your organization). They are also largely preventable. All emergency vehicles are susceptible to rollovers, but tankers (tenders), pumper tankers, aerials, and ambulances are particularly vulnerable because of their high center of gravity.

## Vehicles

Fire and EMS vehicles are certainly not getting smaller. Requirements of updated standards and limitations on length and width in existing stations have led to many vehicles being taller. This raises the center of gravity making the vehicles more susceptible to rollover.

The width may also be increased. While an increased width helps with stability, it also means that the vehicle will take up more of its lane of travel, leaving less room for error or drift before the vehicle may leave the road.

The design of newer vehicles incorporates more stability control technology. While this is a positive step, the new technology can provide a false sense of security. Unfortunately, not all of the vehicles used by emergency service organizations are new. Many agencies purchase used apparatus and make needed changes to accommodate their needs. These changes can change the center of gravity based on the location and weight of equipment and water carried. Agencies should also be concerned with dynamic loads (water sloshing, etc.) when looking at their vehicles.

Vehicle inspection and maintenance play a key roll in rollover prevention. Tires, suspension and brakes are obvious concerns, but items like wipers and defrosters can play a pivotal role in maintaining visibility and allow the driver to aim high in steering to lessen the potential for sudden steering corrections.

## Drivers

The number one job of every driver is to get the vehicle (along with personnel and equipment it carries) to the scene and back safely. Keep in mind that excessive relative speed is a contributing factor in most rollover incidents. Said a different way, we can prevent the vast majority of vehicle rollovers by simply slowing down. Excessive speed (for conditions) greatly

reduces the driver's ability to control the vehicle on a curve or when making evasive steering moves. Reducing speed will increase the driver's ability to keep the vehicle under control during a wider range of circumstances. Reducing speed decreases the likelihood that evasive steering will be needed, further reducing the likelihood that weight (especially water) will shift and helping the driver maintain control.



All emergency vehicle operators should successfully complete an operator-training program. Persons operating vehicles that are vulnerable to rollovers should receive training on what to do if the right wheels leave the paved surface. This is critical, because the steps to correct the situation go against their natural reaction to pull the vehicle quickly back onto the road surface. Oversteering will often cause the weight of the vehicle to shift from one side to the other or can lead to the tires gripping the road at an excessive angle once brought back on the road. Either scenario could lead to a rollover.

To help regain control of a vehicle that drops off the road surface the driver should:

- ◆ Take their foot off the accelerator and allow the vehicle to slow down gradually.
- ◆ Use soft application of the brakes, natural deceleration and downshifting to bring the vehicle to a safe speed or complete stop.
- ◆ Under soft shoulder conditions, feather the accelerator as needed to help maintain control of the vehicle slowing.
- ◆ Once the vehicle has been stopped or been brought down to a safe speed, gently steer the vehicle back onto the road surface using a lower gear and/or feathered acceleration to assist in overcoming the surface drop off or soft shoulder.

Drivers need to understand how adrenaline (going to an emergency, lights and sirens) can impact their judgement. Typically, the more experienced a driver is, the better they are at overcoming the effects of adrenaline. Officers (or the person in the right hand seat) should help assure that the driver is taking the appropriate precautions for a safe response.

One of the most important step emergency responders can take is to wear their seatbelt. Crash survivability is much greater when the responder is secured within the vehicle than when they are thrown from a moving vehicle. A seatbelt will also help keep the driver in the driving position in the even of a quick movement. The best driver can do nothing if they are no longer in contact with the steering wheel and other controls.

## Leaders

A major role of leadership in emergency services is to make sure everyone gets to go home. That includes the need to develop, implement and enforce operating guidelines. With respect to rollovers those guidelines should include:

- ◆ Seatbelt usages by everyone in the vehicle.
- ◆ Driver training for all operators and training specific to vehicles susceptible to rollovers; and
- ◆ Emergency response guidelines including a consideration of having vehicles that are susceptible to rollovers respond in a non-emergency mode. Is the risk worth the short time saved?

When an emergency vehicle rolls over responding to a call no one wins. It creates another emergency and does nothing to help address the initial call for assistance. Rollovers are preventable. Make sure rollover prevention is part of the design of a new vehicles and placement of equipment. Make sure vehicles are properly maintained and inspected. Make sure that all persons in the vehicle are buckled up and that the vehicle is operated at safe speeds for the conditions.

## The Fire Departments Guide for Safe Drivers

### How to Safely Drive Fire Apparatus

Driving fire apparatus and other emergency vehicles is a noble task. However, the job also demands that the person is in this position has the right training. Such vehicles are often more significant than the average car on the road, meaning one has to factor in different concerns. These concerns include:

**The vehicle's size:** Firefighter vehicles have ladders, cranes, and other machines that make them take more space than even the average truck. This means the driver has to pay attention to effectively creating a turn without colliding with other drivers. The driver also needs to have some sense of the center of gravity and how it works to make proper navigations and at the right time.

**The vehicle's weight:** Apart from its size, a firefighters truck will weigh differently on what it carries. When the truck has to bring water/foam to its destination, it will weigh heavier than empty. The driver also needs to remain aware that a truck's weight will dictate its safe speed and navigation techniques.

### What improvements to the drivers need?

When planning a program, the people in charge should think about the knowledge and skills needed. Such skills need constant checks even with drivers who have been in the force for a while.

Also, some skills are not often used, especially for emergencies that happen once in a while. There should be a test sheet that helps drivers and other department members keep their knowledge in check.

Department heads have to work with their drivers to check which updates are necessary. During daily updates, such pieces of training should be mentioned as scheduled as soon as possible. New drivers have to go through a test program, no matter when they last worked at a fire department. This ensures that every team leader is at par with their member's skill standing.

### What new technologies need thorough training?

There has to be an allowance to visit new technologies and techniques in every fire department training program for drivers. It

other story to learn a new one. Such programs should ensure that every member of the force goes through improvement pieces of training often.

Has the department acquired any new tools lately? Do its drivers know how to operate these machines in real-life cases? What about new forms of emergencies and their responses?

The world keeps changing, and fire outbreaks are caused by different things today. It does not matter if one only applied as a qualified driver; every fire department member needs to be versed with all forms of emergencies.

### Are customer relations in check?

The most foundational work of the fire department is to take care of people. This means that communication skills, whether on the road or when attending to a victim, should be well understood. This involves the use of sign language, verbal communication, and using different communication apparatus.

A well-trained driver is also one who can multitask and do so safely. The training program should check on matters such as this. Full competency will go a long way while reducing accidents' multiplication when drivers are attending to emergencies.

### Why Fire Department Driving Training Programs are Important

As already highlighted, it is not enough to meet the minimum qualifications to be a competent fire department driver. General driving guidelines demand that each driver is fit for the road and to run different machines on the fire truck. This is why further training drivers is essential. The programs are necessary because:

#### Teachers drivers' pre-response routines

It takes a lot to be a fire department driver. The driver should follow all pre-response guidelines as missing one can put the entire team at risk. This involves understanding the district map, quickly suiting up, and carrying all the necessary tools.

Drivers also need to have proper training on traffic patterns and how to swing their way when they are tight. If such

knowledge lacks, it takes longer for a driver to get to the scene, meaning the damage would have already gone too far.

### Personal safety in the fire trucks

Besides being careful about the environment when one is getting to an emergency scene, fire truck drivers need to be just as cautious with how they carry themselves in their work trucks. Do they have proper seatbelts, and are they adequately fastened? How dynamic are their decision-making processes without being too aggressive?



All trainees need to have all the necessary tips for handling hazardous circumstances. This means they need proper mentorship from those who have been on the job longer. Such mentorships ensure that drivers know how to do basic tasks such as coming to a stop at an intersection, watching traffic lights, when to push the brakes, and when to rush forward.

They also need to understand that high speed does not always mean getting to the scene fast enough, especially if they risk their safety in the process.

### Technical know-how

Safe driving demands drivers continuously keep their eyes on every corner of the road. This means they have to know how to scan through corners, side mirrors and know what to do when an animal, pedestrian, or another car suddenly appears on their way.

Remember that a truck will not stop as fast as a personal vehicle in the event of an unforeseen obstacle. Therefore, drivers should mechanize their stops to ensure that accidents are avoided as much as possible.

From the few guidelines, one can already tell that navigating a heavy track is almost an art or a science. This means that specific laws need to be put in check at all times, else something will go amiss. This also involves having simple etiquette or good habits that need to be instilled in all drivers from the start.