



VEHICLE DEFENDER

TAKEAWAY

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CHAPTER 1



VEHICLE CONSIDERATIONS



INTRODUCTION

VEHICLE DEFENDER

Course Overview

Fighting Positions

Shoot

Know the fundamentals of marksmanship

Move

Know your vehicle

Communicate

Know how to talk to those around you

- Primary
- Alternate
- Contingency

Medicate

Know how to medicate out of this vehicle.



Reflect & Protect

What are you most excited to learn about in the Vehicle Defender Course?

VEHICLE CONSIDERATIONS

Part One



An ounce of **prevention** is worth a pound of **cure**.
Driving is your first line of defense.

Maintenance

1. Brakes
2. Tires
3. Oil
4. Gas

When you're getting in your vehicle, consider:

1. Where you're putting your weapon?
 - a. Is it going to stay on your person?
 - b. Do you have a place for it to be secured?
2. Am I wearing my seatbelt?
3. How much time does it take for me to take my seat belt and reach for my weapon?
4. Where am I putting my medic bag?
5. Where am I putting my family?
6. Are the people with me carrying?

IF POSSIBLE, ALWAYS

DRIVE AWAY

If the vehicle is mobile and you can drive it out of danger, that's **exactly** what you should do.

Your first line of defense is to **always** drive away.

Reflect & Protect

Have you prepared all routine maintenance on your car? If not, what steps do you need to take to keep your vehicle up to par?

VEHICLE CONSIDERATIONS

Part Two

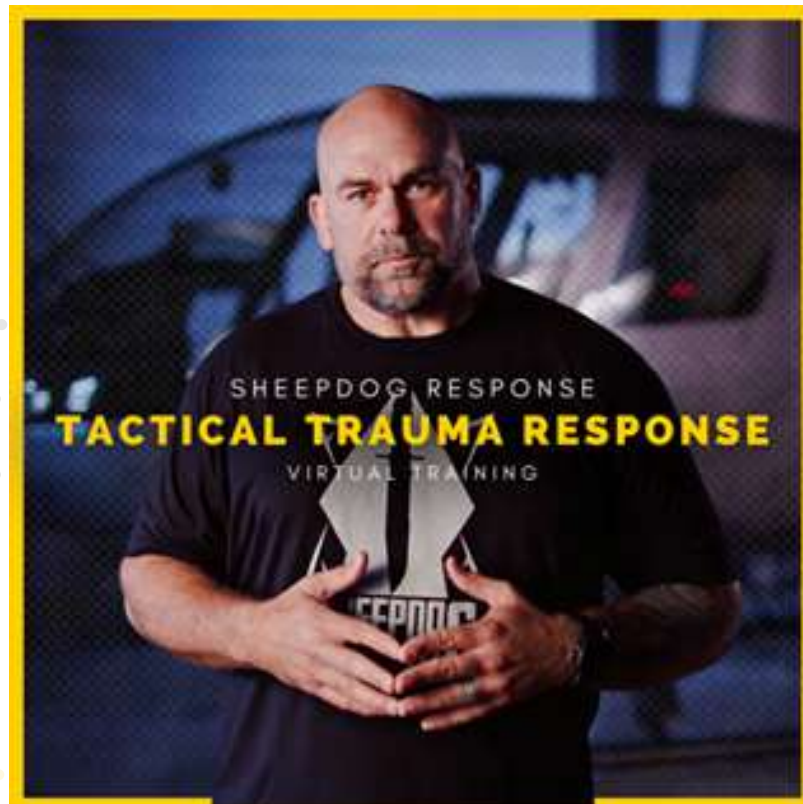
Considerations:

1. How many doors does this car have?
2. Are you driving a sedan, an SUV, a van?
3. What supplies and equipment do you have?

In the car:

- Medic Bag
- Survival Kit
- Fire Extinguisher

Take the Tactical Trauma Response Virtual Course





Bigger is good, but bigger is not always better.

- Manuverability
- Speed
- Target

Planning matters. You have to plan.

No plan is complete until it's been shared with everybody.

Reflect & Protect

What equipment do you need to add to your car to be better prepared?

EQUIPMENT CONSIDERATIONS

Shoot. Move. Communicate. Medicate



Sheepdog Response
Low Viz Waist Pack



Modular Storage Rack
by Noble Defender



Your weapon system should be:

1. Dependable
2. Sustainable
3. Secure

Reflect & Protect

Is your weapon system dependable, sustainable, and secure when you're driving? If not, how can you improve your weapon system?



VEHICLE BREAKDOWN & BALLISTIC INTEGRITY

Components of a Vehicle

1. **Bumper** - most modern bumpers are ABS plastic and foam and they won't stop a bullet.
2. **Engine Block** - fortified steel and aluminum, and it's the most dense metal in a vehicle, but in most fuel-efficient front-wheel drive vehicles, the engine block rests between the two front wheels and doesn't extend down the length of the vehicle like older car engines.
3. **Front Tires** - Cast aluminum wheels will fracture when they're hit by bullets. Disc brakes are solid, hardened steel that are fortified and almost nothing will go through those.
4. **A Pillar** - Supports the roof and the windshield. For visibility purposes, this is as skinny as possible, but it contains the most folded steel so it's heavily reinforced.
5. **Front Door Panels** - These are thin sheet metal that are designed to stay closed during a crash but crumple under impact. These **do not** provide cover from a bullet.
6. **Roof** - This is sheet metal. This does not provide a lot of cover, but when you hit a roof with a bullet, the roof will grab a bullet and pull it into the car. Ballistics in a vehicle are **unpredictable**.

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7. **B & C Pillar** - Highly reinforced. These are thicker than the A pillar so they're not quite as reinforced, but they are still steel. These contain the seams where the doors open as well.
 8. **Rear Door Panels** - These are the same as the front door panels and do not provide any more protection than the front door panels.
 9. **Rear Tires** - Similar to the front wheel, these have disc brakes that provide lots of protection and cover.
 10. **Gas Tank** - Modern gas tanks are reinforced inside an ABS shells. They won't deflect rounds, but they're designed by manufacturers to seal with small punctures, so it's rare that you shoot a gas tank and it ignites. Liquids slow bullets down.
 11. **D Pillar** - This is the largest of the pillars. It's the thinnest because it's the widest.
 12. **Rear Windshield** - Double laminated glass with clear plastic lamination over either side. This prevents them from spidering and cracking, but creates unpredictable ballistics.
 13. **Trunk** - One of the least fortified and one of the last places to take cover. It is just a compartment surrounded by sheet metal on most sedans.

This is a breakdown of this vehicle. Every vehicle is different. So know your vehicle.

If the vehicle is mobile, don't hide behind it. Get in and drive away.

COVER VS CONCEALMENT OVERVIEW

Cover = Stops bullets.

Concealment = Hides you.

Concealment is also precious.

The best place to shoot somebody is **anywhere**.

You want to be able to place effective fire on something without them being able to place effective fire on you.

Take the Pistol 1 or Protector 1 Virtual Courses.



[Find a Pistol 1 or Protector 1 Live Course here.](#)

The first step in React to Contact is to find cover.

A vehicle provides both cover and concealment at different places, and you need to understand where those are.

Reflect & Protect

In your own vehicle(s), what provides you the most cover?

CHAPTER 1

In your own vehicle(s), what provides you the most concealment?

COVER VS CONCEALMENT IN-DEPTH (LONG)

V-notch: The area between the A-pillar and the front door panel as the door is open. This area provides a lot of concealment and a little bit of cover.

Controlling the door with your foot:

- Protects your hands
- Hides your potential egress

Take the [Pistol 1](#) or [Protector 1](#) Virtual Courses.



[Find a Pistol 1 or Protector 1 Live Course here.](#)

Before using the vehicle for cover and concealment in your training...

1. Master the fundamentals of marksmanship
2. Master shooting and moving
3. Master shooting from non-standard shooting positions
4. Master using the vehicle as cover and concealment

If the vehicle is mobile, get in and drive it away. Don't become decisively engaged if you have the opportunity to give away.

Reflect & Protect

Do you feel like you've mastered the fundamentals of marksmanship, shooting and moving, and shooting from non-standard shooting positions? Where can you improve in those areas?

CHAPTER 2



SITUATIONAL AWARENESS



SITUATIONAL AWARENESS & COMMUNICATION

Good communication has 3 key components:

1. Distance - how far away is the threat?
2. Direction - what direction is the threat?
3. Description - who is the threat and what do they look like?

Reflect & Protect

Look at some objects or people around you or in the distance. Pretend they're a threat, and then practice writing down the distance, direction, and description of that threat.

WHERE ARE THEY? WHERE AM I? WHERE ARE MY RESOURCES?

Now that you've identified the bad guy, you need to look at three key questions:

Where are they?

Where am I?

Where are my resources?



ACTION FROM INSIDE THE VEHICLE

Threats:

- From the front
- From the lateral aspect
- From behind

Drawing from the Appendix while seated:

- Lean back
- Push hips forward
- Then draw to shoot from V-notch

Returning fire is important for two reasons:

- Potentially neutralizes your threat
- Buys you time to egress

Direction, distance, description allows you to frame your problem and your situation.
If you can drive away, drive away.
Returning fire and seeking cover have to happen, and they have to happen fast.

Reflect & Protect

Think about some different situations you might find yourself in. You and your spouse on a date night, or taking your kids to a soccer game, etc. and then imagine a threat. Process through every step you would take in that situation (Identifying your threat, communicating clearly, egress, return fire, etc.)

IMPORTANCE OF CLEAR COMMUNICATION

It's important to consider how different groups of people are going to react in response to a surprise threat.

OODA Loop:

1. Observe what I'm going to shoot.
2. Orient my body towards what I'm going to shoot.
3. Decide I'm going to shoot it.
4. Act on my decision.

Considerations:

1. Where am I going to return fire?
2. How am I going to be returning fire?

Reflect & Protect

How would the people you're in the car with the most (family, close friends) respond to a surprise threat? Write down their names and consider how you think they would respond (fight, flight, freeze, etc.)?

CHAPTER 3



LIVE DRILLS



SHOOTING FROM A SEATED POSITION

Steps in this drill:

1. Take the seatbelt off
2. Open the door and pin it
3. Draw your weapon
4. Engage the steel target

Purpose:

Get comfortable bearing a weapon from a seated position.

Before putting the weapon away, always check your surroundings to make sure it doesn't need to be used again.

EGRESS SOLO (FRONT THREAT)

Steps in this drill:

1. Take the seatbelt off
2. Open the door and pin it
3. Direct egress to the back of the vehicle
4. Engage target along the long axis of the vehicle

Purpose:

The vehicle is immobilized and there is a threat to the front, so you egress to the back to use it for cover.

Offset:

The distance between the optic and the barrel of the gun. When shooting over the roof, it's essential to ensure you have hold-over so that your barrel has clearance over the roof.

EGRESS WITH OTHERS IN THE CAR (FRONT THREAT)

Steps in this drill:

1. Take the seatbelt off
2. Open the door and pin it
3. Direct egress to the back of the vehicle
4. Engage target along the long axis of the vehicle

Purpose:

Engage a threat from the front, communicate with your passenger, and move to cover.

EGRESS SOLO (LATERAL THREAT)

Steps in this drill:

1. Take the seatbelt off
2. Egress outside of the passenger vehicle
3. Use the vehicle as cover & engage threat
4. Optional: Conduct a tac mag reload
5. Move to more fortified cover & engage threat

Purpose:

Engage with a lateral threat, egressing out of the passenger side of the vehicle and using it for cover.

USING THE VEHICLE AS COVER (LATERAL THREAT)

Steps in this drill:

1. Shooting around the trunk / bumper
2. Shooting from the rear wheel well / over the trunk
3. Shooting across the hood
4. Shooting from urban prone below the vehicle
5. Shooting from the front wheel well
6. Shooting from prone around the front of the car

Purpose:

Understand non-standard shooting positions to engage a threat around a vehicle that is being used as cover.

EGRESS WITH OTHERS IN THE CAR (LATERAL THREAT)

Steps in this drill:

1. Identify threat and communicate with passengers
2. Provide cover fire while passengers egress
3. Egress from driver's seat
4. Move to more fortified cover and engage target

Purpose:

Engage a threat to cover your passenger egress, and then move to more fortified cover.

LIVE DRILLS SUMMARY

If a vehicle is mobile, **drive away** from danger.

These drills are **not** team tactics. They allow you to see how to respond from different positions in the vehicle.

Think about where the **cover** and **concealment** is provided by the vehicle.

If a vehicle is taking fire, get to **fortified** cover.

Communication is key.



CHAPTER 4



VEHICLE BALLISTICS DEMONSTRATIONS



INTRO TO VEHICLE BALLISTICS

In this section, we'll look at how different aspects of a vehicle respond to different types of gunfire.

*Note: These ballistics are **not** universal. This will demonstrate how *this* vehicle responds to *this* vehicle. These demonstrations are **these** weapons on **this** vehicle.

SHOOTING THE A PILLAR & WINDSHIELD

A Pillar Result (Pistol): At close range with 9MM ammo, all bullets were terminated at the A Pillar and no bullets penetrated into the vehicle.

Windshield Result (Pistol): Bullets deflected off the windshield and ended up in the berm, high and right. In terms of energy, bullets are looking for the path of least resistance.

SHOOTING THROUGH WINDOWS & DOOR PANELS (PISTOL)

Door Panel Result (Pistol): Bullets penetrated both door panels with clean entry and exit wounds on both sides of the vehicle. The targets were also peppered with glass and shrapnel.

SHOOTING THROUGH WINDOWS & DOOR PANELS (RIFLE)

Door Panel Result (Rifle): .556 rounds went through with slight deviations and made clean, deadly contact with the target.

SHOOTING THROUGH WINDOWS & DOOR PANELS (SHOTGUN | BUCKSHOT)

Door Panel Result (Shotgun | Buckshot): Because it's not jacketed, many of the bullets did not exit the rear panel door, but would cause lots of damage to anyone in the backseat of the vehicle.

SHOOTING THROUGH WINDOWS & DOOR PANELS (SHOTGUN | BIRDSHOT)

Door Panel Result (Shotgun | Birdshot): No pellets exited the rear door panel. All were stopped / scattered by the front door panel.

SHOOTING THROUGH A WINDSHIELD FROM INSIDE A VEHICLE

Windshield Result (Pistol): There was nearly 8" to 9" of deflection even from nearly point blank range. Bullets go up when shot out from inside of the vehicle, and the results are unpredictable.

PORTING A RIFLE

Windshield Porting Result (Rifle): Some deflection still occurred on initial shots with the rifle, but the grouping was accurate once the rifle was ported through the windshield. You **cannot** port with a pistol or a short barreled rifle. The pistol will malfunction.

SHOOTING THROUGH A WINDSHIELD FROM OUTSIDE A VEHICLE

Windshield Result (Pistol): Bullets deflected significantly down. Bullets behave oppositely going *in* to the windshield, and will deflect downwards, though are still unpredictable.

Windshield Result (Rifle): Bullets experienced slight deflection down and right, but were more accurate and sent glass shards and shrapnel in to the target as well.



SHOOTING THE ROOF OF A CAR

Roof Result: As the round impacts, the roof pulls rounds in to the car and end up in the chest or head region of the back seat. If there are people in the back seat and you hit the vehicle, they are in **serious** danger.

SHOOTING A TIRE

Tire Result: Tires do not immediately deflate when they're shot. They are designed to seal back on themselves and not blow out when they're punctured. They do deflate, but it takes about 15-20 minutes before a tire deflates that's been shot. Hollywood is **not** accurate when it shows tires immediately deflating when shot.

Thank you for taking the Vehicle Defender Virtual Course! [If you'd like to take a live Vehicle Defender Course, find the course for you here.](#)