

Republic of the Philippines  
OFFICE OF THE CITY MAYOR  
DAVAO CITY  
TRAFFIC MANAGEMENT CENTER





Defensive driving is often defined as preventing crashes before they occur, it is the demonstration of an attitude, awareness and driving skills such as:

- Stay alert and keep eyes moving so that you can keep track of what is happening at all times.
- Look for trouble spots developing around you.
- Have a plan of action if the other driver does the wrong thing; and
- Know that the law requires drivers to protect each other from their own mistakes.



## A Defensive Driver must:

- Be able to keep a safe driving record.
- Have a positive attitude on road safety
- Be physically and mentally fit to drive.



## FACTORS THAT AFFECT DRIVING

### 1. ATTITUDE

A defensive driver must develop and demonstrate an attitude that:

- Shows concern for other road users.
- Recognizes that other road users will make mistakes.
- Knows no journey is so urgent that a safe speed can be maintained.
- Driving is a skill which requires the application of good techniques; and;
- Believes that safe driving requires an alert mind at all times.



## 2. BEHAVIOR

An ideal defensive driver:

- Always clean the seatbelts.
- Keeps within the advisory speed limit.
- Constantly scans the road for potential hazard.
- Signals his intentions at all times; and;
- Shows courtesy at all times.



### 3. RIGHT MENTAL ATTITUDE

A defensive driver always maintain a safe caution of distance in front and behind his vehicles by: a) observing the four-second rule; b) adopting a positive and skilled mental approach.

- SEARCH - the road seen ahead, around and rear of the vehicles.
- IDENTIFY - the potential and immediate hazard on the road.
- PREDICT – the actions of other road users.
- DECIDE – what to do to avoid an unsafe situation.



## Keys to Effective Defensive Driving

### 1. CONCENTRATION

- Standard of vision, hearing and health all have a bearing on the amount of concentration.
- The driver must adjust the speed of his vehicle on the degree of concentration he is able to apply.



## 2. DRIVING PLANS AND DECISIONS

- Driving plans should be made on the correct assessment of the changing scene both ahead or to the rear of the vehicle.
- Driving plans should enable the driver to make decisions in a methodical manner.
- Plans and decisions are combination of what can be seen, what cannot be seen circumstances which are expected to rise, allowances for the mistakes of other road users.



### 3. VIEW FROM THE VEHICLE

- The driver must aim to have the best possible view of the area around the vehicle.
- Windows and windshield must be clean.
- Washers and wipers should be functioning.
- Mirrors are properly adjusted at the start of the journey.



#### 4. VISIONS AFFECTED BY SPEED

- The driver must adjust the length and the depth of his vision according to the speed trail.
- Focus further ahead as his speed increases.
- Road and traffic conditions will govern speed.
- Mirrors are properly adjusted at the start of the journey.



## 5. VISIONS AFFECTED BY FATIGUE

- Continuous driving for long periods will cause fatigue which will result in eye strain.
- Recognition and assessment of dangerous situations will become late and inaccurate.
- Making it essential to have period of rest.



## 6. WEATHER CONDITIONS

- Fog, rain, fading daylight or bright sunshine will reduce visibility so speed must be kept low.



## 7. ROAD SURFACE

A good driver is one that looks ahead and recognizes any change in the road surface.

- Keep a steady speed on open roads. Slow down smoothly. Press the gas pedal lightly. Starting up slowly give other drivers and people walking a chance to see what you are doing. They can then judge how to react. When you have reached the speed you want, glance at the speedometer.



## DRIVING TECHNIQUES AND SAFETY

### *Keys to safe driving*

- Good vision, look with your eyes but see with your mind.
- Obeying traffic rules and regulations.
- Proper care of your car.
- Be courteous to other road users.
- Proper signalling. Failure to signal is dangerous and inconsiderate.
- Physical fitness. Let someone else take the wheel if you are not physically and mentally fit.



## PROPER USE OF BRAKES

A good driver uses his brakes. An experienced driver is able to make without using his brakes a great deal and yet be perfectly safe, as compared to the less experienced one who keeps on banging at his brakes every now and then. Skidding is caused by sudden hard and violent braking as the weight of the vehicle is thrown forward and downward thereby subjecting the front suspension to a force greatly in excess of what is normal. Steering therefore becomes unwieldy and because the weight at the back is suddenly transferred to the front, road holding by the rear tires is greatly reduced – hence the driver should be able to apply progressive light braking and have control of the vehicle at all times, smoothly stopping before any potential hazard with ease.



## STEERING

In order to be able to have control of the car, the driver must be sitting in the correct comfortable position in relation to his size.

- When turning, hand in the direction you are going should pull down, the other hand allowing the wheel to pass through it, if necessary, the other hand can help by pushing the wheel upward.
- When transferring from one lane to another, or when pulling in after overtaking, the turn should be gradual and never a sudden swerve which may result in skidding.
- A firm, not a tight grip on the wheel is all that is needed. Never grip tightly on a greasy road.
- Do not move the wheel to and from while driving; a firm straight steer is better.
- Both elbows should be free from obstruction. Never rest the left elbow on the window frame while driving.
- Never drive off without first having made sure that the seat, mirrors, doors, windows, etc., are properly adjusted.



## GEAR CHANGING

- Avoid over-revving in lower gears – a direct cause of over-heating, engine wear and high fuel consumption. Do not put unnecessary load on your engine by not changing to lower gear when necessary. Change gear before a potential hazard.



## STOPPING

- A driver should have the ability to judge how much time and space you need to stop your vehicle. The amount of time it takes for you to see when to stop until you step on the brakes is called REACTION TIME.
- A driver of a motor vehicle, is considered stopped when passengers and cargoes were loaded and unloaded for about ten (10) minutes or more.

There is no simple way on how long will it take one step at a certain speed. Signs, signals and traffic rules tell us to stop.



## RIGHT OF WAY RULES ARE:

### 1.) *First Time Vehicle Rule*

At all intersections without "STOP" or "YIELD" signs, slow down and prepare to stop. Yield to vehicles already in the intersection or about to enter it.

### 2.) *Same Time Vehicle Rule*

At all intersections without "STOP" or "YIELD" signs (or with stops in all directions). Yield to the vehicle on your right if it has reached the intersection of same time as your vehicle.

### 3.) *Stop Signs*

Stop at any limit line or crosswalk. Yield to all approaching vehicles on the through street, go only when it is safe for you to cross. Approaching vehicles should slow down and allow you to get across safely.



#### 4.) *Left Turn*

Signal left turn and yield to approaching traffic until it is completely safe to finish the turn.

#### 5.) *Rotonda*

Vehicles around the rotonda have the right-of-way over vehicles which are just about to enter.

-when entering a highway from a driveway, yield the right-of-way to traffic on the highway. Never insist on taking the right-of-way if other drivers are not following the rules, let them have the right-of-way even if it belongs to you to prevent possible accidents, however, do not always insist on other going ahead of you, slowing and stopping may delay the flow of traffic.



## *Give the Right-of-Way to Emergency Vehicles*

One should yield the right-of-way to police cars, fire trucks, ambulances and other emergency vehicles which are sounding a siren or bell or flashing a red light by pulling to the edge of the roadway and stopping. In the event traffic is so congested as to prevent you from safely doing so, slow down and leave a clear path for the emergency vehicles.



## PASSING

The law places the responsibility on the driver of the passing car, if the driver makes mistakes in passing, he is held liable.

### Three Important Things to Remember in Passing:

- 1.) It is illegal to speed up when being passed. Continue at the same speed, or reduce your speed.
- 2.) Help other drivers to pass safely. Move to the right side of your lane to give the other driver more room and better view ahead.
- 3.) Show the passing driver the same courtesy that you would expect from other drivers.



## When not to pass – Especially on Roads Marked by Signs

- 1.) At no-passing zone marked by signs or by solid yellow lines which indicate no passing.
- 2.) On blind-curves where you would not be able to see oncoming cars, always stay in your own lane on any curve, out of the way of oncoming traffic.
- 3.) On going uphill, passing is not allowed from 700 to 1,000 feet from the top of a hill.
- 4.) At intersections or railroad crossing-where other vehicles or pedestrians may suddenly appear or unless such intersections is controlled by traffic signal.
- 5.) Near a bridge or underpass that may cut-off a road shoulder. You or the car passed might need to use the shoulder road in case emergency arises.



## Where Passing is not Safe

- 1.) When there is a long time of cars ahead.
- 2.) When you intend to turn or to stop very soon.
- 3.) When an incoming car is too close.
- 4.) When the car ahead is going at or near the speed limit. Speed limit is still applied when passing.
- 5.) When sight distance ahead is limited.
- 6.) When the maneuver would have to be completed in a no-passing zone such as hill, curve or intersection.



*Passing on the right is permitted only*

- When overtaking another vehicle making or about to make a left turn or signaling intent to make a left turn.
- On streets and highways marked for multi-lanes; and;
- On one-way traffic streets.



## CURVES

To make it around a tight curve, keep the turning of the front wheels in line with the sharpness of the curve. When turning right, keep your front wheel close to the center line. This prevents the rear wheels from dropping off the pavement. Curving left keep your front wheels close to the right edge to prevent the rear wheels from drifting into the other lane.

Avoid braking in a curve because this can cause you to skid out of control. Slow down before you get into the curve. Accelerate after you have passed the midpoint of the turn.



## ROAD SAFETY

### a. Vehicle

A vehicle should be properly equipped and must always be in good condition for safe driving. No one can legally drive a vehicle that maybe a hazard to any person and properly just like its operator, it needs regular clean-up and check-up.

#### 1. *Underneath Parts*

Check tie rod. Low tire pressure may cause the wear and tear pressure. Always equip vehicle with spare tires. Tires with worn out thread will slide more easily on wet pavements and may blow-out without warning.



## 2. *Outside Parts*

Have clean rearview mirrors to see at least 200 ft. Behind. Windows must be clean and free of obstruction. Check vehicle lights if they are all working such as tail lights, turn signals, stop lights, license plate lights and parking lights. Check wipers if they operate properly to clear the windshield. Check mufflers to prevent excessive noise and smoke.



### 3. *Inside Parts*

**Engine tune-up.** As part of the tune-up, spark plugs, distributor points, condenser and air cleaner must be replaced, carburetor must be clean periodically.

**Battery.** It must be kept in good condition. Add distilled water if the level is low.

**Safety devices .** Check devices such as fuses and circuit breakers.



**Radiator.** Check radiator fluid level before starting the engine.

**Brakes Foot.** Brakes and parking brakes must be firm enough to stop.

**Others.** Check the temperature gauge and hose connections, brake fluid and master cylinder.

Be sure to check the type of gasoline/oil suited to your vehicle.



4.) Check horn if it can be heard from a distance. A defective steering wheel, clutch, pedals and shift gears need serious attention. Turn the ignition if lights and gauge register. The car's gauge warns the driver if something is going wrong.

Finding a competent and dependable mechanic is important to a driver for proper maintenance and prevention of car problems before they become critical. It is the responsibility of the driver to keep his car in good running condition.



## b. The Driver's Physical Condition

It is enough to have a vehicle in good running condition to ensure safety in driving. As a driver you must be physically, emotionally and mentally fit to operate your vehicle on the road. This is vital to safe driving.



## 1. Vision

A driver must see quickly, clearly and accurately. Seeing too late makes decisions come too late. Decisions made while driving are based on what the driver see. If eyes do not see properly, it can be corrected by using corrective lenses.

## 2. Smell

By smelling, you can tell the presence of gas that maybe coming out of your car. Symptoms of carbon monoxide poisoning may result to drowsiness, headaches, nausea or mental dullness that impair your driving ability. Check your engine and exhaust system if they are in top condition.



### 3. Hearing

A driver who has impaired hearing may not hear important sound like police vehicles, sirens of fire, engines and horns of other drivers who wish to pass. The use of hearing aids overcome this defect.

### 4. Touch

Proper coordination of hand and feet helps in controlling the vehicle while in motion. Sensitivity to the important parts of the car such as brakes, steering system, accelerator, lights and signals through your sense of touch enable you to determine any incoming failure that may surprise you and the other driver to an emergency.



## 5. Emotions

Emotions affect driving performance. Failure to control emotions may lead to driving errors.

**Anger** – it impairs the performance of smooth braking and accelerating due to changes in some body functions such as increase of heartbeats.

**Anxiety** – it may lead to panic decisions.

**Excitement** – stress and sometimes happiness changes the functions of the body and mind that prevents wise decision necessary for safe driving.

**Fatigue** – is the most common that lower driver's fitness. Fatigue may come from lack of sleep, excessive physical exercise or from mental or emotional stress. Fatigue dulls the mind and slows down nerve and muscular responses. As a good driver, you must learn to cope with all these emotions, to perform the driving task safely and effectively.



## TIPS IN DRIVING

### *NIGHT DRIVING*

Adjust your driving to the weather and time. Do not try to drive the same speed at night that you do by day you should slow down. You see less at night and so do other drivers. Be sure that you can see clearly in your head lights. Be extra alert to pedestrian, bicycles and motorcycles.



## Things to Remember when Driving at Night

- 1.) It is best to turn your headlight on the sunset. Do not blind other drivers with your headlights. Use your high beams only in open country when other cars are not near.
- 2.) Dim your lights by switching the low beams as a vehicle comes toward you. If you are following another vehicle, switch to low beams when you get closer.
- 3.) Night driving is difficult. Try to slow speed while driving.



- 4.) Give enough room and space to vehicles ahead of you.
- 5.) Drive as far as possible if a vehicle with one light comes toward you.
- 6.) When driving a brightly dim place, drive slowly until your eyes adjust to darkness. Avoid looking directly into the glare of incoming headlights. Watch the right edges of your lane, noting the position of the incoming vehicle out of the corner of your eye.
- 7.) Do not wear sunglasses when driving at night.
- 8.) When in the act of overtaking or passing at night, switch to high beam then back to low, warning the driver you wish to pass.



On long drives, keep awake and alert. Do not drive if you are tired or sleepy. Stopping often, fresh air and singing or conversation can help avoid drowsiness. If you get too sleepy, park at the shoulder of the road and take few minutes nap.



## Driving in the Rain

Rain affects your vehicles stability. Rain acts as lubricants, making road surfaces slippery. Heavy downpour bring floods, cause heavy traffic and creates puddles on the road that requires proper controlling and maneuvering of motor vehicles. It makes windshields, headlights, mirrors and taillights blurred and dirty.



## Things to do when Driving in the Rain

- 1.) Turn your headlights when visibility is very poor.
- 2.) Slow down at first sight of rain or drizzle on the roadway. This is when many road pavements are most slippery because oil and dust have not been washed away.
- 3.) Driving on flooded roads could lose your brakes. If this happens, test your brakes thoroughly to dry them out (do this if the engine has not drowned and once beyond the flooded stretch).



- 4.) Avoid instant stopping, turning and starting the engine.
- 5.) Increase your “following” distance and allow extra space.
- 6.) Clean your windshield, washers, and check wiper blades if they are working.



## SAVING TIPS ON GASOLINE USAGE

- 1.) Do not race your engine once started. Wait until the engine has warmed up. Warming up the engine by driving gives you better gasoline economy.
- 2.) Avoid jack-rabbits starts, take-off and sudden stops. Gradual acceleration saves gas and car wear and tear.
- 3.) Keep proper air pressure in tires. Incorrect tire pressure reduces gasoline mileage, wears out tires faster and makes vehicle handling difficult.
- 4.) Shift to high gear as soon as you can and stay there as long as you can. Low-gear speed consumes much more than high gear speed.



- 5.) Preferably use smaller cars. Smaller engines usually give better economy.
- 6.) Plan your trips. Avoid congested routes and cover as many errands as possible in a single trip.
- 7.) Avoid parking in the sun. Gas evaporates rapidly when exposed to hot weather.
- 8.) Use car pools and other public transport vehicles.
- 9.) Eliminate unneeded cargoes and fuel consuming loads.
- 10.) Do not fill your gas tank to the brim. Allow for expansion to avoid wastage.



## DRIVING AND ALCOHOL

Driving is not safe when drunk. It is said that “If you drink, do not drive”. Driving a motor vehicle requires concentratin. Driver’s found under the influence of alcohol is punishable by law.



## ROAD COURTESY

### *A. Other Motorist*

- 1.) Give proper signals to other motorists. It is very vital to signal your intention of stopping, passing, turning left or right or slowing down to warn other drivers.
- 2.) In parking, wait for vacant spaces and give consideration to those who came first. Park orderly to give enough space to those incoming vehicles who would also be parking.
- 3.) Extend assistance to other drivers who happen to have vehicle trouble along the road.



- 4.) Give way to vehicles who would like to overtake your path, although you know that you have the right-of-way.
- 5.) Give proper courtesy to motorcyclists, bicyclists and other road users.
- 6.) Check your distance with other vehicles. Avoid tail-gaiting.



## *B. Passengers*

Driver's should be courteous and considerate to their passengers.

- 1.) Be careful while driving. Follow strictly signs and signals to avoid delay once apprehended.
- 2.) Do not slam your brakes or press your pedals too hard. Your passenger might not be able to hold themselves and may smash inside your vehicle.
- 3.) Be sure your passengers have stepped-out of your vehicle safely before starting to move.



- 4.) To taxi drivers, be honest to your passengers. Do not drive with fast meters and always give them their exact change.
- 5.) Do not smoke while driving.
- 6.) To public utility or for hire drivers, avoid trip cutting.



## The Role of Passengers

- 1.) Passengers should never do anything to interfere with the driver and as much as possible do not distract him while he is driving.
- 2.) In looking for a street name or address, the passenger must assist the driver and do the searching.
- 3.) The passenger must handle the paying or change in approaching a toll booth.
- 4.) Passengers should discourage the driver from reckless behavior.
- 5.) If the driver's decision is impaired by anger, alcohol or by any other reason, the passenger may decide to risk a friendship or may refuse to ride the car he is driving.



### *c. Pedestrians*

Drivers have special obligations to pedestrians.

- 1.) CHILDREN. They often forget the dangers or traffic when playing on sidewalks. They run into the street without thinking. Be alert.
- 2.) OLDER PEOPLE. They may not see or hear very well and may not move of the way quickly, so give them time to cross.
- 3.) HANDICAPPED PEOPLE. Visually handicapped people crossing the roads with white cane are pedestrians. The same are for persons confined in wheel chairs while crossing the streets. They should be given the greatest possible caution and attention. When you see handicapped people crossing the road, do not honk your horns.



# I. INTERNATIONAL TRAFFIC SIGNS

Traffic signs have important messages to convey. Their shapes and colors carry the same meaning everywhere.

***DANGER WARNING SIGNS*** – are intended to warn road users of a danger on the road and to inform them of it's nature.



## II. DRIVER'S SIGNAL

The law requires every driver to signal to the other driver when planning to turn left or right, slow down or stop, to change from one lane to another, to leave the roadway or to move out from a parked position.



## PROPER LANE - LEFT TURN

Vehicles making a left turn should be in the lane to the right of the center of the road. Vehicles making a left at an intersection should wait for a green light, move with caution into the intersection and when all on-coming traffic has cleared the intersection, complete the left turn.



## PROPER LANE – RIGHT TURN

Drive in the lane at the right edge of the roadway before making turn, unless signs or marking indicate otherwise.



## MAKING A STOP

Slow down and give the proper light or arm signal. Lightly tap pedal to slow down and signal with brake lights as warning. Signals maybe given by the hand-and-arm position or by brakde or signal lights. If vehicle is built so that hand-and-arm signals cannot be easily be seen, signal lights must be used. Signal your left or right turn during at least the last 100 feet before reaching the turning point, at highway speed it is best to signal at least five seconds before you change lanes. Check that you have safe clearance to the side, ahead and behind your vehicles, in addition to giving proper signals. Watch for signals from other drivers. Bicycle riders may give right turn signals with their right arm held straight out, pointing right.



## PEDESTRIAN SIGNALS

Motorists should be aware of pedestrian signal indications. They are used to control pedestrian traffic at intersections where there is conflict between vehicle and pedestrian movement. While these pedestrians are crossing the roadway, they have the right-of-way over all vehicles.

A pedestrian facing the green walk signal may proceed across the roadway in the direction of the signal.



A pedestrian facing a steady flashing “Don’t walk” signal should not start to cross the roadway. If a pedestrian has entered the roadway on the “walk” signal and the “don’t walk” signal appears, he/she should proceed as quickly as possible to a safe area. While doing this, pedestrians still have the right of way over vehicles.

Also a pedestrian should not cross the roadway when vehicular traffic has flashing green signal, unless he/she is facing a “Walk” signal.



### III. TRAFFIC SIGNAL

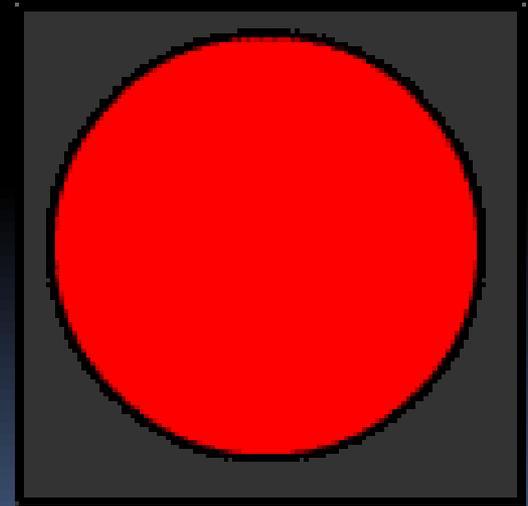
#### **RED SIGNAL**

Unless a sign indicates otherwise, a right turn maybe made on a red signal or from a one-way street to a one-way street provided the vehicle is first brought to a stop, and always subject to the right of way of pedestrians and other traffic.



## FLASHING RED SIGNAL

A flashing red signal means bring your vehicle to a stop and proceed only when it is safe to do so.





## YELLOW SIGNAL

A yellow signal indicates that the red signal is about to appear. Stop the vehicle if you can do so safely, otherwise you may proceed with caution.



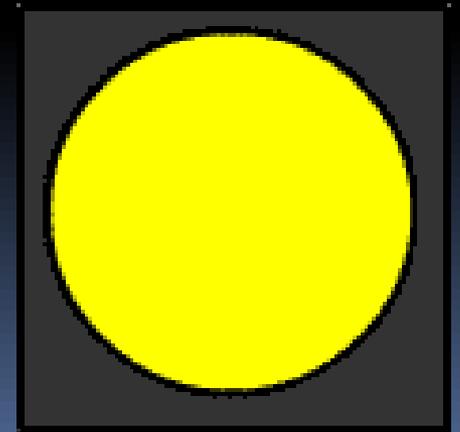


## **FLASHING YELLOW SIGNAL**

A flashing yellow signal means proceed with caution

## **FLASHING YELLOW BEACON**

When flashing a yellow signal is incorporated with an overhead beacon or a beacon located directly above a warning sign, it warns you to proceed with caution.





## YELLOW ARROW

In some traffic control signal, a yellow arrow appears after a green arrow. When the yellow arrow appears, it means the red or solid green signal is about to appear. Therefore, stop the vehicle safely, if can be done otherwise, proceed with caution.



## GREEN SIGNAL

A green signal means you proceed, provided you yield to pedestrian and other traffic lawfully using the intersection. When making a turn on a green signal, remember that the pedestrian crossing on the green signal have the right of way. Be sure that you do not block the traffic.





## FLASHING GREEN SIGNAL

When a flashing green signal or a left turn green arrow with a green signal is used, it permits the vehicle facing that signal to turn left, turn right or go through while opposing traffic faces a red signal.



## **GREEN ARROW WITH OR WITHOUT A RED SIGNAL**

When a green arrow is shown with or without a red signal, you may enter the intersection to move only in the directions shown by the arrow.



**THANK  
YOU**