

#### How Fast is TOO FAST?

A discussion on the

## Need for Speed

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### Love/Hate Relationship



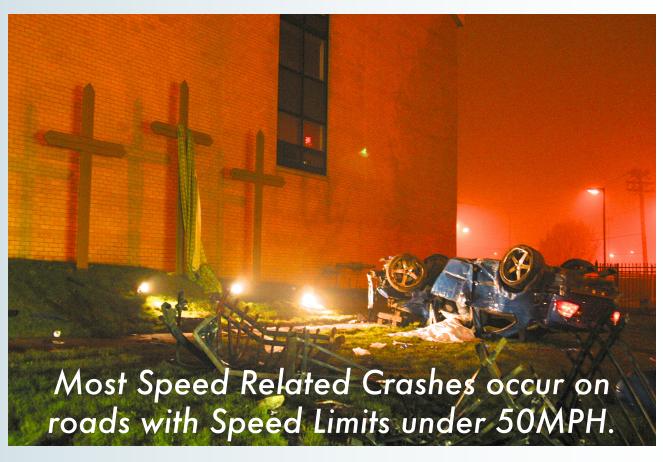




9 you're fine – 10 you're Mine!



#### Did you know?





# If you double your speed, your minimum stopping distance also doubles.

True or False?



#### Kinetic Energy Formula

• Ke =  $\frac{1}{2}$  m\*v<sup>2</sup>



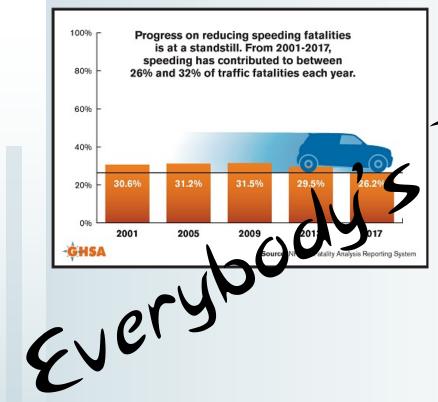
## It's Speed not Speeding

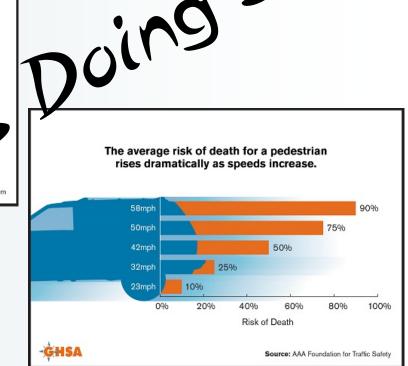
#### If you speed:

- You have less time to avoid crashes
- You have less control over the vehicle
- 3 It lengthens your stopping distance
- 4 It increases the likelihood of crashing and
- increases the severity of the crash



#### GHSA Report Speeding Away from Zero







#### But Not Me?





## Have you ever ....

- Have you ever run a yellow light?
- Have you ever weaved between lanes to be at the head of traffic?
- Have you ever driven 5 MPH or more over the speed limit?
- Have you ever been angry or upset thinking traffic was moving too slow for your liking?
- Have you ever tried to beat you arrival time on your GPS?



#### From the movie Starman, 1984





## How do you CONVERT MPH TO FPS?



## Think in fps not mph

- Miles per Hour
- Speed
- Scalar quantities possess magnitude only

- Feet per Second
- Velocity
- Vector quantity, incorporating direction with speed
- V = S \* 1.466
- 35mph = 51.31fps/s



How Fast is TOO Fast

#### CAN REDUCING YOUR SPEED BY JUST 3 MPH MAKE A DIFFERENCE?



## Yes!

6 meters = 20 feet Hit at 32 kph = 20 mph p/r 65 kph = 40 mph 60 kph = 37 mph 5 kph = 3 mph

20 is plenty!





How Fast is TOO Fast

## WHAT IS THE MOST COMMON TYPE OF CAR COLLISION?



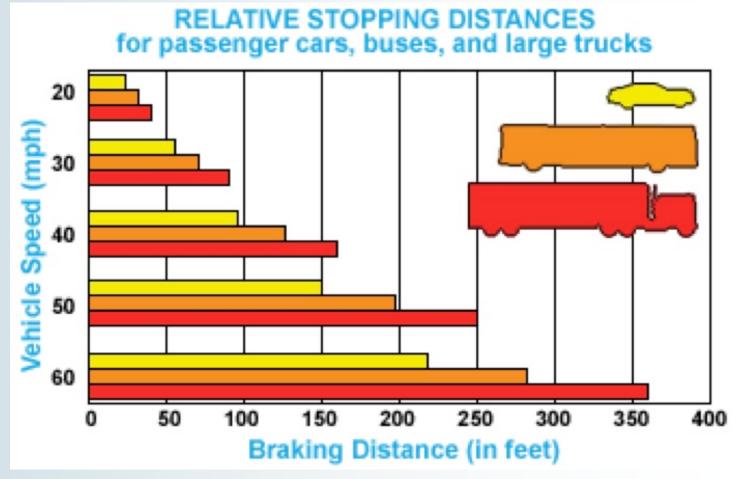
## Wipe Off 5!



p/r 65 kph = 40 mph 60 kph = 37 mph 20 Meters = 65 feet 5 Meters = 16 feet less 44 Meters = 144 feet at 65 kph or 40 mph



## Stopping Distance





### Are You a Safe Driver?





#### How much time do you Really Save?





#### 30-Mile Trip at different speeds

- 55 miles per hour
  - 32.7 minutes
- 65 miles per hour
- 27.7 minutes (5 minutes saved)
  - 75 miles per hour
- 24 minutes (8.7 minutes saved)



#### Do the Math

- Formula: Distance/mph x 60 (minutes)
- Example: 30/75 = .4 x 60 = 24 minutes
- This math assumes you can maintain a constant speed without slowing down for traffic, signals or curves in roads.



## Reality is ...

In reality, you'd probably save only 4 minutes, at best. And keep in mind, most trips are short. The average time saved on a 5-mile trip, driving 65 mph on a 45 mph posted road, is only 1.9 minutes.



We are literally killing ourselves with

## MAXIMUM EFFORT — LITTLE REWARD

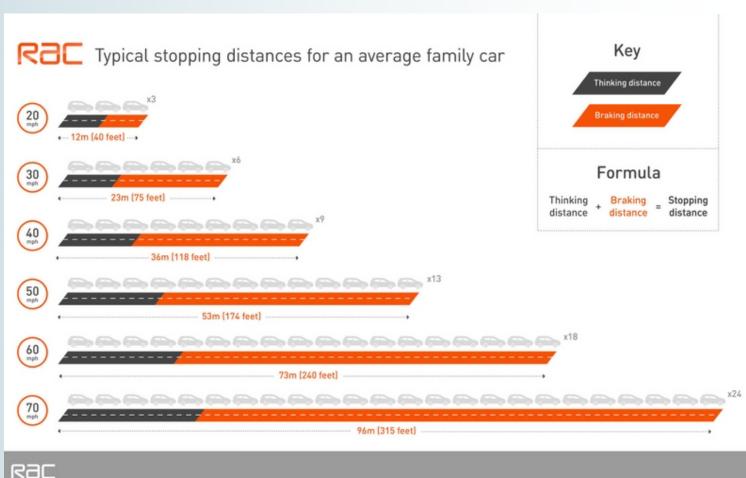


#### What is

## PERCEPTION-REACTION TIME?



#### Remember Braking Distance





#### Question?

DOES WEAVING BETWEEN LANES GET YOU TO YOUR DESTINATION SOONER? WHICH IS SAFER?



## YES & NO



## Mythbusters





What is the

PHANTOM TRAFFIC JAM?

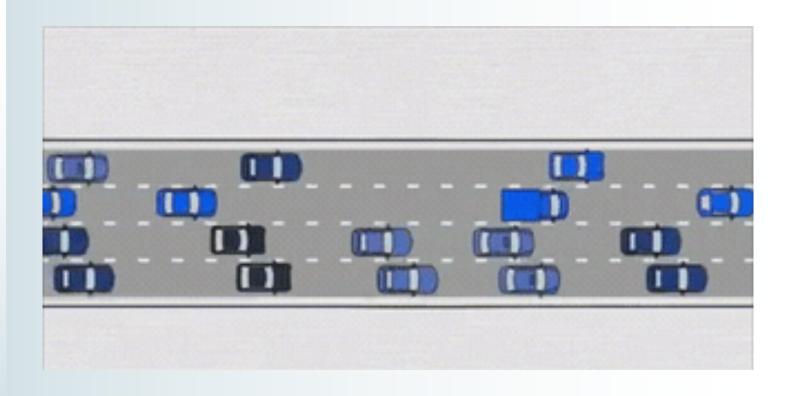


#### The Phantom Traffic Jam





## Cascading Failure





#### What it looks like in Real Life





## One Solution to the Traffic Wave Problem





## Variable Speed Limits





What is a

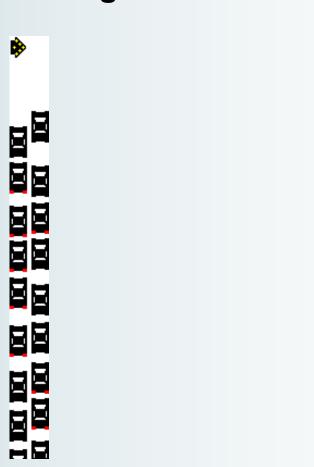
ZIPPER MERGE?



## The Merge

**Typical Merge** 

**Zipper Method** 











# "Yes, Mr Police Officer. I did see the speed limit. I just didn't see you."

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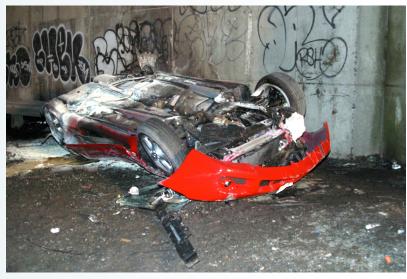


Your private parking space



## When it comes to Speed – Drivers Worry More About Getting Caught than Getting Hurt





The Best Safety Device is a Rear View Mirror with a Cop in it.

Dudley Moore



#### Tortoise or the Hare?





#### Slow and Steady Wins the Race





#### Your Speed Does Not Matter -Forward is Forward

## Please Drive Safely Thank You



