

Driver Distraction and Fatigue



Awareness and Prevention



Objectives



1. Familiarize garrison personnel with human factor hazards other than DUI that negatively impact personal safety and command resources.
2. List specific risk control measures to increase personal safety during high-risk driving situations.



Overview



- ▶ Driver's situational awareness/hazards
- ▶ Specific high-risk situations
- ▶ Tips for minimizing risk



Types of Distracted Driving

THERE ARE THREE MAIN TYPES OF DISTRACTION

- Manual: taking your hands off the wheel
- Visual: taking your eyes off the road
- Cognitive: taking your mind off driving



The National Highway Traffic Safety Administration (NHTSA) estimates that there are at least **3,000** deaths annually in the U.S.



Distraction Top-10 List*



1. Texting
2. Talking on cell phone/smartphone
3. Eating/drinking
4. Passengers
5. Grooming
6. Reading, including maps
7. Using a navigation system
8. Watching a video
9. Adjusting radio/cassette/CD/MP3
10. Things outside the car



*National Highway Traffic Safety Administration (NHTSA)



Driver Reaction



BLUE
GREEN
RED
RED
BLUE
RED
GREEN
BLUE
GREEN
BLUE

BLUE
RED
GREEN
BLUE
RED
GREEN
GREEN
RED
BLUE
GREEN

RED
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BLUE
RED
BLUE
GREEN
GREEN
BLUE

RED
BLUE
RED
RED
GREEN
GREEN
BLUE
BLUE
BLUE
RED



Driver Reaction



BLUE
GREEN
RED
RED
BLUE
RED
GREEN
BLUE
GREEN
BLUE

BLUE
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RED
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GREEN
GREEN
BLUE
BLUE
BLUE
RED



Specific Driving Hazards



- ▶ Excessive speed (late for duty)
- ▶ Night – fog – weather
- ▶ Tailgating
- ▶ Following unsecure cargo
- ▶ Rubber-necking (gawking)
- ▶ Close to destination
- ▶ Distraction top 10 list



MENTAL DISTRACTION RATING SYSTEM

Even with your eyes on the road and your hands on the wheel, mental distractions dangerously affect drivers behind the wheel.

Mild Danger

Example: Listening to the radio or an audio book

Moderate Danger

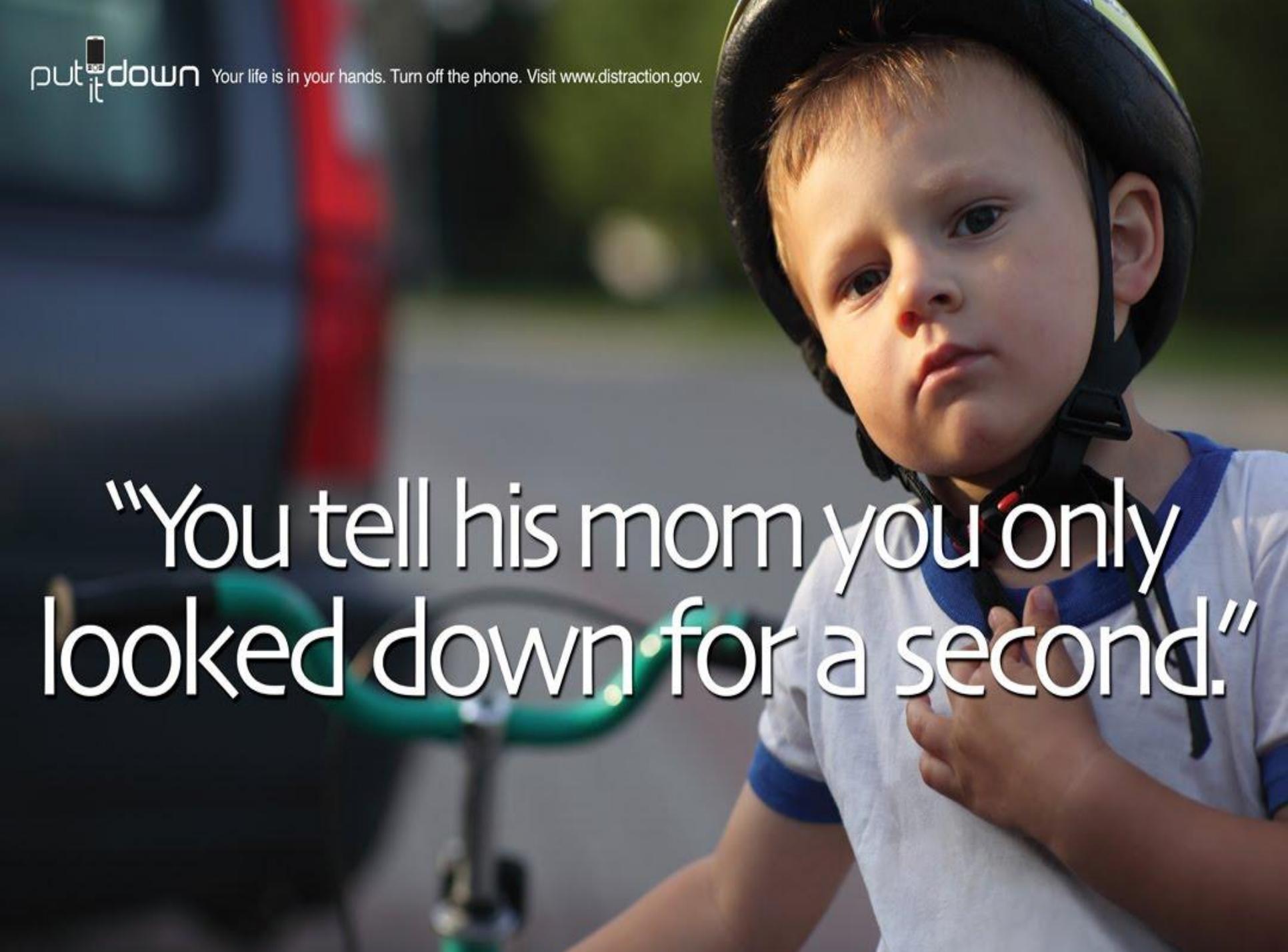
Example: Talking on a hand-held phone or a hands-free phone

High Danger

Example: Using voice-activated texting or email feature



put it down Your life is in your hands. Turn off the phone. Visit www.distraction.gov.



“You tell his mom you only looked down for a second.”



How to Avoid Distraction-Related PMV Accidents



- ▶ Know that loss of SA while driving can be deadly
- ▶ View distraction as a direct threat to your safety
- ▶ Keep your eyes on the road/pull over if needed
- ▶ Give yourself as much lead time as possible
- ▶ “Mode switch” during high risk situations
- ▶ Recognize when you are in a hurry & slow down
- ▶ **Avoid driving when drowsy**

Just Drive

DISTRACTIONS CAN WAIT

JustDrivePA.com



Tom Corbett, Governor

HOW MANY DISTRACTIONS ARE TOO MANY DISTRACTIONS?



DRINKING
COFFEE



USING A CELL
PHONE



YELLING AT CHILDREN
IN BACK SEAT TO
STOP IT RIGHT NOW



CONTORTING BODY
TO RETRIEVE
DROPPED BINKY



FINDING THE
RIGHT MUSIC



EATING FOOD
JILLIAN MICHAELS
DISSAPROVES OF



Driver Fatigue is Deadly



<http://youtu.be/mlcG2lnDmqk>



Driver Fatigue is Deadly



100,000 crashes annually due to driver drowsiness -NHTSA



Sleep is Important



- ▶ Sleep is a basic physiological need like food & water
- ▶ Sleep quantity/quality affects driver alertness
- ▶ Myth: “I can go on 4 hours of sleep”





Sleep-Alertness Relationship



Alertness Level

Blood alcohol equivalent = .05*

Depart USAG Ansbach at 1700 (after duty)

12 hour drive
Awake for 18+ hours

Arrive Naples, It at 0500

[Travel time to Naples, Campania, Italy](http://bing.com/maps)
bing.com/maps

A Ansbach, Bavaria, Germany

B Naples, Campania, Italy

11 hrs 36 mins
824 mi

[Turn by turn directions](#)

The map displays a route from Ansbach, Germany (marked with a green 'A') to Naples, Italy (marked with a red 'B'). The route passes through France, Switzerland, Austria, and Slovenia. Major cities shown include Amsterdam, Berlin, Warsaw, London, Brussels, Paris, Prague, Vienna, Bratislava, and Rome. The map is credited to Microsoft Corporation (2014) and Nokia (2013).

*Dawson & Reid 1997 and Williamson et al 2000



Sleep-Alertness Relationship



Alertness Level

Blood alcohol equivalent = .10*

Depart USAG Ansbach
at 1700 (after duty)

← 18 hour drive
Awake for 24+ hours →

Arrive Naples, IT
at 1030

[Travel time to Naples, Campania, Italy](#)
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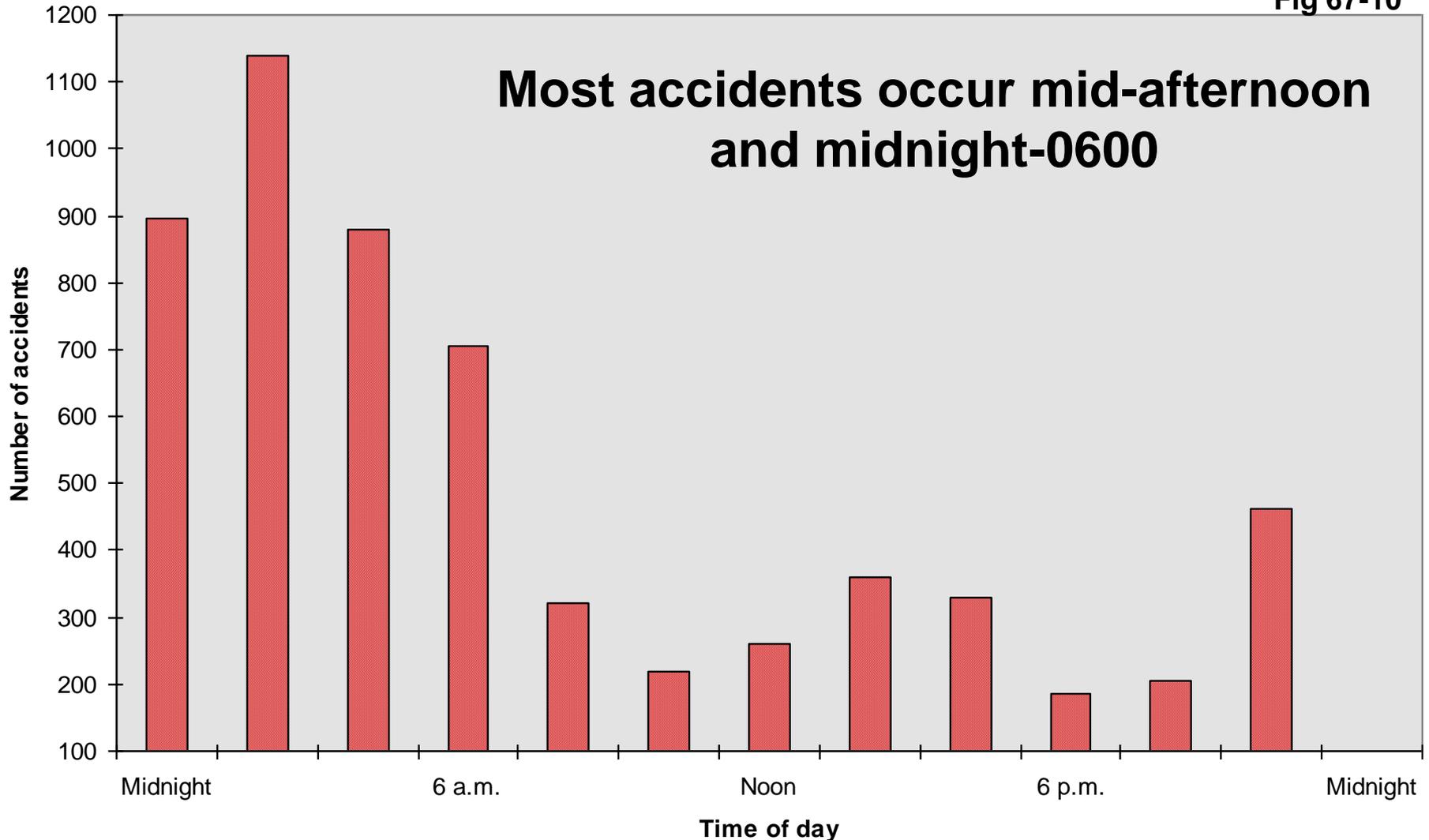


Variations in Driver Alertness Over a 24hr Period



International Data (N=6,052)

Fig 67-10





How Fatigue Affects Performance



- ▶ Slows reaction time
- ▶ Decreases motivation
- ▶ Increases forgetfulness
- ▶ Lack of patience
- ▶ Decreases attention span
- ▶ Increases simple mistakes
- ▶ Easily distracted
- ▶ Causes micro-sleep



MICRO-SLEEP IS LAST WARNING





How to Avoid Fatigue-Related PMV Accidents



- ▶ **Get a good nights rest before driving**
 - ▶ 7-9 hours required on average
- ▶ Take frequent breaks every 2 hours
- ▶ Heed the early warning signs
- ▶ Avoid medications that cause drowsiness
- ▶ Don't drive >10 hours without sleeping
- ▶ Caffeine improves alertness, however...
 - ▶ Caffeine should not be used in lieu of proper rest
- ▶ Drive with a companion





Summary

- ▶ Driver's situational awareness/hazards
- ▶ Specific high-risk situations
- ▶ Tips for minimizing risk



Questions?

Enjoy the Safety Fair