Between the Lines - Volume 3, Number 3, 1995

Evidence of Refusal to Perform FSTs Challenged

Two state supreme courts, Massachusetts and Oregon, issued decisions this year holding that admission at trial of a defendant's refusal to perform field sobriety tests (FSTs) violates the right against self-incrimination under their respective state constitutions. In *Commonwealth v. McGrail*, 647 N.E.2d 712 (Mass. 1995) and *State v. Fish*, 893 P.2d 1023 (Ore. 1995) each court determined that evidence of the defendant's refusal to perform FSTs is testimonial evidence and such evidence is compelled by the government. In determining that refusal evidence is testimonial, both courts focused on the inference a refusal to perform FSTs communicates to the trier of fact. A refusal may infer a belief by the defendant that he/she will fail the tests. As a result of this inference the refusal communicates the defendant's state of mind, therefore, it is testimonial.

The courts note that the only alternative a defendant has is to perform the FSTs and run the risk of producing potentially incriminating evidence. Having to choose between two unattractive alternatives: (1) incriminate yourself by refusing the FSTs, or (2) incriminate yourself by performing the tests, equates to compulsion in the courts' reasoning. The decision in Massachusetts is particularly significant given that evidence of a defendant's refusal to take the breath test is also inadmissible at trial.

These cases illustrate how defendants can be afforded further protections under state constitutions than are granted under the United States Constitution.

Trainer Extraordinaire

This year's "Trainer Extraordinaire Trophy" was awarded to Jerry Landau, Special Assistant County Attorney in Maricopa County, Arizona. Jerry attended one of the first NHTSA "Train the Trainers" courses conducted in 1990 and he has participated in writing the curricula for both the **Prosecuting the Drugged Driver** and **Lethal Weapon: DUI Homicide** trial advocacy courses. Alumni of the Prosecutor Faculty Development Course (aka "Train the Trainers") cast their ballots at the third annual reunion held in July in Las Vegas.

Accident Reconstruction Perception - Reaction Time

by John Kwasnoski

The perception - reaction time (PRT) of a driver is often called into question in the prosecution of vehicular homicide cases; especially when alcohol is involved. The PRT is the time that lapses during the process of seeing, recognizing, deciding and acting. So a good starting question might be, "What is the 'normal' PRT for this particular driver ?"

The answer may not be the standard 1.0 or 1.5 seconds so often cited by accident reconstructionists because the PRT is unique to the situation, the crash environment and the particular driver. A "normal" or "average" PRT value taken from a statistical survey has limited use in most cases. Yet it is common to see an expert assign a PRT value to a driver and then continue on with calculations that "prove" the driver's culpability. By assigning a PRT value to a driver the reconstruction expert has "created" evidence; evidence that in many cases cannot be supported scientifically. Behavioral research yields a wide range of PRT values that make for good argument and the potential for reasonable doubt when challenged by a "human factors" expert.

Under cross examination a reconstruction expert might have to concede that a driver's PRT in the crash is not known to any degree of scientific certainty, although a range of possible PRTs might be determined in some cases based on the crash environment and physical evidence of the driver's action.

The basic lesson is this: **If the theory of guilt relies heavily on assigning a PRT value to the driver, you may have a problem.** If a high BAC is involved a toxicologist can usually testify that the alcohol tends to lengthen the PRT, a powerful inference for the trier of fact. Be aware however, that assigning a specific PRT is not scientifically defendable in most cases, and may have ethical implications as well. John Kwasnoski, a professor of forensic physics at Western New England College in Springfield, Massachusetts, reconstructs crashes and offers expert testimony.

Lethal Weapon: DUI Homicide

Would you like someone to take the math and mystery out of the kinematics of accident reconstruction? What about having someone show you how to destroy the defense's crafty calculations of burn-off rate? Or how about having the chance to practice your piercing cross examination in front of a video camera before you are in front of the jury? If any or all of this sounds appealing, then we have the course for you. **Lethal Weapon: DUI Homicide** offers experienced prosecutors activities and presentations that address issues faced both inside and outside of the courtroom, e.g., the role of the prosecutor at the scene of a fatality, getting victims to work with rather than against you, and common attacks against defense experts' reconstruction and toxicology theories. Participants receive a casefile to prepare in advance that contains police reports, accident reconstruction reports, hospital records, an autopsy report, photographs, a forensic lab report, a victim impact statement and other documents. During the trial advocacy component each prosecutor conducts every stage of the case on trial, including a sentencing hearing. This course was developed in cooperation with the National Highway Traffic Safety Administration. Please contact NTLC for additional information on upcoming courses, or if you would like to host the course in your state.

2100 to 1 Breath to Blood Ratio

The well established principle applied in breath test technology to convert breath alcohol content into blood alcohol content (BAC) is commonly referred to as "Henry's Law." In 1938 Dr. Rolla Harger of Indiana University applied "Henry's Law" to breath test analysis and formulated a ratio to determine the amount of alcohol in an individual's blood by measuring the amount of alcohol in the person's breath. The breath to blood ratio states:

• 2100 milliliters of alveolar air will contain the same weight of alcohol as does milliliter of pulmonary arterial blood.

Dr. Harger's research established the standard ratio of 2100 to 1 which has been accepted by the scientific community. A person's actual ratio can be influenced by factors such as the person's gender, body temperature and medical conditions. As a result defendants contend that the ratio is merely an estimate and seek to admit:

- General evidence of the variability of the ratio.
- Specific evidence of the defendant's actual ratio.

By demonstrating that the 2100 to 1 ratio is not the accurate ratio for a particular defendant, defense counsel hopes to convince the court that breath test results should be excluded.

Prosecutors have responded to these challenges with the following arguments:

- State per se statutes and regulations are clearly defined in terms of the standard ratio, 2100 to 1. The standard applies to everyone. The language of the per se state creates a criminal offense for driving with a particular amount of alcohol per 210 liters of breath, (which is equivalent to converting based on the 2100 to 1 ratio) therefore the standard ratio is applicable to everyone charged with a per se violation.
- Similar to radar device technology, the reliability and admissibility of breath test instruments have been established either by judicial notice or case law in accordance with each state's standard for admissibility of scientific evidence (i.e., the Frye standard or the relevancy/reliability standard)., The underlying scientific principles of breath test analysis, "Henry's Law" and the 2100 to 1 ratio, have been accepted by courts and the scientific

community. Courts have determined that the standard 2100 to 1 ratio is accurate and reliable, thus breath test results are admissible as scientific evidence.

If you are interested in a brief or case law on this issue, please contact NTLC.

Available Resources

Digest of State Alcohol-Highway Safety Related Legislation, 13th edition. An extensive reference source providing each state's laws related to impaired driving and alcoholic beverage control. The *Digest* includes tables that compare illegal and presumptive BAC levels, mandatory fines and imprisonment provisions, and license suspension and revocation time periods applicable to DWI convictions in each of the states. The text of the *Digest* is organized by state and updated yearly.

For information on how to obtain a free copy, contact NTLC at 703-549-4253.

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