FATAL EXIT
The Automotive Black Box Debate
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Life feeds back truth to people in its own ways and time

To my beloved children: Ariel, Kassia and Michael
One of the great pleasures of finishing a book is that it gives the author the opportunity to thank those who helped make the project a product.

I could not have generated the information, collected the photographs, or completed the project without the assistance and aid of others. I want to thank all of those who contributed to the successful completion of this book.

My first debt is, of course, to my three amazing children who encouraged me to discover my writing purpose and pursue it with intense passion and perseverance. I am grateful that they understood the world must know this story.

I am deeply grateful to my friend Mohsin Ali, former diplomatic editor for Reuters, who helped tremendously by serving as a guest lecturer to my college classes while I attended the many meetings. The hundreds of college students who participated in the research and surveys helped to get this book written. Unfortunately, some of these students perished in motor vehicle crashes. Many others were involved in crashes that caused them pain and injury. It was common to hear tragic stories on a daily basis. I constantly thank my college students and remind them that their involvement was important. What is written is never forgotten. I tell them that we learn more from our mistakes than from our successes. Hopefully, in this second century of motor vehicle travel, these students can experience the freedom to travel safely.

I received much support and advice, and sometimes the best advice came from the naysayers who told me I was wasting my time. Fortunately, I turned all their negatives into positives.

Many individuals are mentioned within, but this book is solely my project and all of the opinions expressed here (except for the direct quotations) are my own.

I do not speak or write for the automakers, government safety establishment, standards development organizations, or advocates—but I do include their own works in my book and also what others have commented about them. I do not bash any group for all are important and I am very careful to be factual. I express my grateful appreciation to those who gave permission to use news articles and extended quotations such as the National Academies of Sciences / Transportation Research Board (TRB), the New York Times, Automotive News and EE Times, the World Health Organization (WHO) and the World Bank.
Robert Kern, my literary agent in Chapel Hill, North Carolina and Cathy Faduska, my senior editor at IEEE Press / John Wiley & Sons, Inc. and Kay Ethier of Bright Path Solutions, Durham, North Carolina, helped craft the initial structure of my manuscript and greatly improved the book.

The entire point of an editor is to decide what is and what is not fit to print, and any book will have some selection criteria. Those criteria and the editor's judgment are its bias. The best that any author can do is make it as clear as possible why everything should be included so as to avoid "unbiased" reporting where no one can be portrayed as being wrong or opposing safety. No courage is required to publish a sanitized, non-critical version of events. To do otherwise requires a higher standard.

Vehicle and highway safety cannot be accomplished through the efforts of one person, a group, or a government agency. It is a shared responsibility among people who travel, the companies that provide transport, and the agencies that regulate travel. But, one person can make a difference toward the goal of safe travel.

Someday, when we are "actually all safer" while traveling in crash-proof vehicles on intelligent highways, I want to tell my children's children that I knew about this problem and did my best to erase it when I could.

I will tell them in life we have two choices, try or do nothing. To me it was impossible to witness the terrible pain and suffering and not get involved. Road safety is no accident.

Silence is the ultimate weapon of power in vehicle and highway safety. This book will break that silence.
CONTENTS

Acknowledgments vii
Foreword xi
Introduction xiii

I. SYMPTOMS OF A PROBLEM
   1  Question Everything 1
   3  Shifting Gears: April 1998–September 2002 37

II. SAFETY DEBATE
   4  NHTSA Call for Comments: October 2002 59
   5  Things Are Further Away in the Dark: December 2002 77
   6  Blowin' the Horn: January 2003 89

III. SOCIETAL ISSUES
   7  Cruise Control: February 2003 119
   8  Turn Signals: February to March 2003 159
   9  Speed Bumps: March to November 2003 191
  11  Pros and Cons and Customers of Safety Data and NHTSA Rulemaking 329
  12  The Road Ahead: Automotive's Second Century 373

       Glossary of Acronyms and Abbreviations 391
       Glossary of Terms 395
       Other Resources 403
       Standards 405
       Chronology 407
       Notes 413
       Bibliography 441
       Index 471
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On August 17, 1896, the first human life was lost in a motor vehicle crash.

Bridget Driscoll, a 44-year-old mother of two, was fatally struck by an auto-mobile as she and her teenage daughter were on their way to see a dance performance at Crystal Palace in London. Witnesses said the car was going “at tremendous speed.” (Back in those days, tremendous speed was eight miles per hour.) The driver, a young man giving free rides to demonstrate the new invention was, according to some, trying to impress a young female passenger. At the inquest, the coroner said, “This must never happen again.”

Of course, it’s happened since more times than we can bear.

According to World Health Organization (WHO) figures, road crashes throughout the world killed 1.8 million people and injured about 20 to 50 million more in 2002. Millions were hospitalized for days, weeks or months. Long term, perhaps 5 million were disabled for life. If current trends continue, the annual numbers of deaths and disabilities from road traffic injuries will, by the year 2020, have risen by more than 60%, placing motor vehicle crashes at number three on WHO’s list of leading contributors to the global burden of disease and injury. As recently as 1990, car crashes ranked ninth on that list.

While the alarming statistics that point to the rapid escalation of this worldwide crisis numb our minds to the gravity of the situation, stark headlines occasionally grab our attention. Imagine for a moment the convulsions of grief that gripped the residents of small-town Millington, Tennessee, when they opened their Sunday papers on the morning of February 29, 2004, and were greeted with the headline, Seven Teens Die in Car Wreck. In the dark early hours of that Sunday morning, a car occupied by seven teenagers went airborne after speeding over a small hill, hitting a tree, and killing Michael, Samantha, Trey, Lauren, Jessica, Crystal and Eric.

Our impulse might be to say, “This must never happen again.” But we know that it will. The key is, if we knew precisely why this happened, we might have the information necessary to see that it at least doesn’t happen as often as we’ve come to expect.

To address the problem not exclusively as a transportation issue but as the public health global trauma that it is, we need to gather better crash data via Motor Vehicle Event Data Recorders (MVEDRs) to improve road safety. Quality data are vital to solving the mysteries of car crashes and working to improve the
safety of our roads. Good science and good policy relies on good data. Without better data, the crisis will only continue to escalate, and the grief will only continue to mount.

_FATAL EXIT: The Automotive Black Box Debate_ takes the reader inside the automotive industry and the government highway safety establishment. It provides all the information you need to understand the technology, consider the politics, and make an informed decision about the need for better data.

Your informed input will serve as a catalyst toward advancing the goal of making safe travel on the world's roads a reality, instead of the deadly gamble it has been for over a century.
INTRODUCTION

In the midst of a late-night lightning storm some years ago, the unmistakable screech of tires and shattered glass woke me from my sleep. As I sat up in bed, sweating and shaking and unaware of my surroundings, I slowly regained my bearings and realized that what roused me was not anything in the waking world, but my own horrific dream. It was merely a dream, but the nightmare was rooted in the reality of my past, of car crashes that have shaped my life and altered my future.

And in this, I know I am not alone.

The odds are good that you are with me. Perhaps you've been in a car crash, or witnessed one, or suddenly lost someone dear to you on one of the world's roadways or highways. In all likelihood, you know someone whose life was turned upside down by a car crash. Maybe it was a friend of a friend, or the classmate of a daughter, or a former neighbor's child. If so, the illusion of automobile and highway safety has had a profound impact on you.

The truth is, though, that there is not a person alive in the civilized world who does not have a stake in the game of vehicle and highway safety. Statistically speaking, automobile crashes are the nation's largest public health hazard with over 3 million highway motor vehicle deaths in the United States since 1899. According to the National Highway Traffic Safety Administration (NHTSA), there were 6,327,252 crashes involving more than 24 million people in the United States in 2003. The victims suffered 2,889,000 injuries, and we mourned the loss of 42,643 men, women and children in those crashes. 193.3 million people drive, so for those of us behind the wheel, the stakes are obvious.

But even if you do not drive a vehicle, you surely ride in one. Your loved ones drive. You walk on the sides of roadways where cars and buses and trucks zip along at speeds that could take your life without a moment's notice. It is impossible not to be somehow impacted by the operation of 230,199,000 registered vehicles in our nation, all of which are potentially lethal weapons.

Perhaps you have never taken the time to ponder why it is that, as yet, there is no real solution to one of the most troublesome problems in contemporary civilization: motor vehicle injury and death. When you take the time to think about it, an obvious question is: why isn't someone doing something about all this? Of course, much is being done on many other issues besides MVEDRs. Or, another question might be: is there anything that CAN be done?