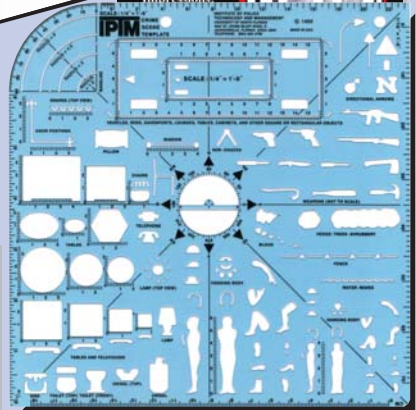
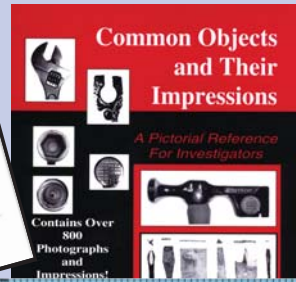
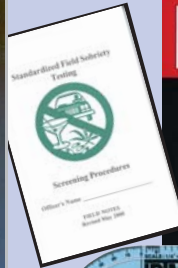
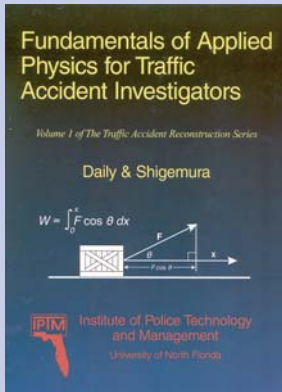


# Institute of Police Technology and Management



## Publications and Materials Catalog

## ***New in this edition:***



### ***Books - Crash Investigation:***

- Advanced Techniques in Traffic Crash Investigation
- Advanced Traffic Crash Analysis
- Crash Photography (with Nighttime Photo Techniques)
- Damage Profiling and Physical Evidence: A Tutorial
- Fundamentals of Traffic Crash Reconstruction: Volume 2 of the Traffic Crash Reconstruction Series)
- Rollover Crashes of Motor Vehicles and Heavy Trucks
- Vehicle-Pedestrian-Bicycle Collision Investigation Manual

### ***Books - Speciality Publications:***

- Common Objects and Their Impressions
- Detecting Deception: Polygraph Instruments, Standards, Procedures - For the Practitioner
- Firearms and Ballistics for Physician and Attorney
- Gang Control that Works: A Police Investigator's Perspective
- In-Car Video User's Manual for the Patrol Function
- Photography and Digital Imaging in Law Enforcement
- Report Writing for Law Enforcement and Corrections
- Speed Measurement in Traffic Law Enforcement: From Radar to Laser
- The Successful Oral Interview for New Hire, Promotion and Transfer in Law Enforcement
- The Water's Edge: A Manual for the Underwater Criminal Investigator

### ***CD-ROMs:***

- Special Problems in Traffic Crash Reconstruction - 2005

### ***Training Tapes and DVDs:***

- Radar: A Basic Understanding

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## Crime Scene Template

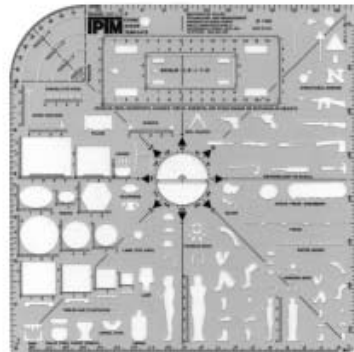
Now you can cover the entire crime scene with an 8 inch plastic square!

This template enables the investigator or crime scene technician to draw an infinite array of structures and objects to scale using scaled cut-outs and straightedges. In addition, objects can be drawn in their proper location on a diagram by the convenient polar coordinate system (use of a distance and direction from a reference point).

With its assortment of objects commonly associated with a crime scene, the template is ideal for making a rough sketch at the scene. Later, you can use the template to render a highly accurate scale diagram. Non-scaled cut-outs are included for those items that would otherwise be too small to be recognized.

The template:

- Is made of flexible, yet extremely durable blue plastic
- Measures 8 inches by 8 inches
- Fits into a pair of rings on any standard size 3-ring binder
- Includes both U.S. and metric scales
- Includes non-scaled cut-outs of the following:
  - Weapons
  - Certain items of furniture
  - Bathroom fixtures
  - Telephones
  - Blood spots
  - Shrubbery
  - Human body - adult & child  
(front/rear and side views)
  - Arms and legs
  - Directional arrows
  - Windows
- Includes an instruction card:
  - Explaining the scale ( $\frac{1}{4}$  inch = 1 foot)
  - Explaining the cut-out symbols
  - Illustrating the use of polar coordinates



Price: \$9.95 per template; shipping weight: .16 lbs each

Order 10 or more templates and the price is just \$8.85 per template

For all Canadian template orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

IPTM's aeroBlitz Aircrash Investigation Templates, designed by R.W. Rivers, will assist you in making sketches or diagrams at an air crash scene when you need to show positions of the aircraft involved, damage to the aircraft, locations of victims and other evidence.

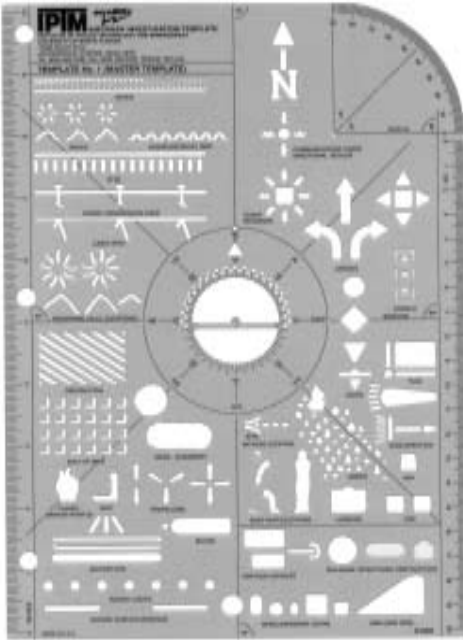
The aeroBlitz templates work in a series. A Master Template (No. 1) contains non-scale cut-outs of items that can be used at any crash scene, including landscape features, debris, aircraft parts, luggage, body parts and nearly every conceivable item, other than the aircraft themselves, that may be needed in a sketch. This template comes with an instruction booklet that applies to the entire set.

The other nine templates contain the front, top and side silhouette cut-outs of specific aircraft in two scales, one reduced from the other by fifty percent. Most of these templates can also be used to make non-scale drawings of aircraft similar in design to the one selected.

The types and models of aircraft for templates 2 through 10 are listed below:

- No. 2 Single-propeller, low-wing civilian pleasure and executive aircraft (Beechcraft Bonanza 33/35/36)
- No. 3 Single-propeller, high-wing pleasure and executive aircraft (Cessna 210 Centurion)
- No. 4 Twin-propeller, low-wing pleasure and executive aircraft (Cessna Titan)
- No. 5 Twin-jet executive and commercial aircraft (Learjet 35/36)
- No. 6 Large commercial jet aircraft with swept wings and underwing engines (Boeing 747)
- No. 7 Large commercial jet aircraft with swept wings and rear side-mounted engines (McDonnell Douglas DC-9)
- No. 8 Large commercial jet aircraft with swept wings and underwing engines (Airbus A310 B different silhouette configuration than Boeing 747)
- No. 9 Light-duty, single-rotor helicopter (Bell 206 JetRanger)
- No.10 Military jet fighter/bomber aircraft (McDonnell Douglas F-15 Eagle)

Specifications: All templates include both Imperial and metric measurements, are constructed of flexible, yet extremely durable blue plastic and fit easily in a 3-ring binder. The Master Template measures 10¼" x 7½" and Templates 2 through 10 each measure 10"x5".



*Master Template (No. 1)*



*Template No. 7 (DC-9) is also suitable for non-scale diagrams of similar aircraft such as the Aerospatiale Caravelle, BAe One-Eleven, Fokker 1000, McDonnell Douglas MD-80, Tupolev TU-154 and Boeing 727 (with the addition of the third engine).*

- Price: A set of all 10 templates with an instruction manual costs \$139.95; shipping weight: 2.25 lbs per set  
The Master Template (No. 1) only: \$23.95 per template (an instruction manual is included); shipping weight: .25 lbs each  
Templates 2 through 10: \$17.95 per template (does not include an instruction manual); shipping weight: .25 lbs each

For Canadian orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

# Templates/Tools

## **blueBlitz** Traffic Template

Designed for use by law enforcement officers, the blueBlitz Traffic Template is also ideally suited for use by traffic engineers, attorneys, insurance claims adjustors and all persons concerned with traffic crash investigation and scale plan drawing. This template contains the symbols most frequently required for traffic crash diagrams including motorcycles, pedestrians, automobiles and commercial vehicles. It is available in either U.S. or metric scales and can fit easily in a standard 3-ring binder.

### U.S. Scale Template:

- Template is prepared in 10 ft. and 20 ft. scales
- Radii can be drawn in 1 ft. increments from 1 - 100 ft. on the 10 ft. scale or in 2 ft. increments from 2 - 200 ft. on the 20 ft. scale

### Metric Scale Template:

- Template is prepared in 1 cm = 1 m and 1 cm = 2 m scales
- Radii can be drawn in increments from 0.1 - 25 m on the 1 cm = 1m scale or in 0.2 - 50 m increments on the 1 cm = 2 m scale

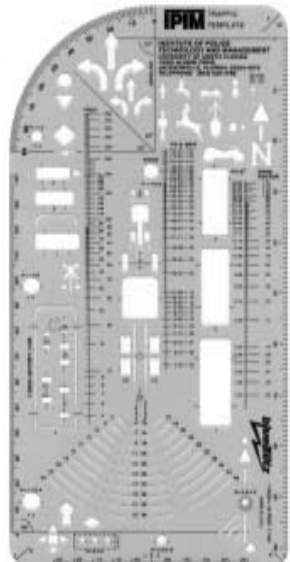
### Symbols:

- Motorcycles - side and top view
- Pedestrians - front/rear view and top view facing forward
- Automobiles - various sizes
- Commercial vehicles - trucks, tractors and trailers
- Circles and arcs of various radii
- Animals
- All vehicle cutouts are cross-referenced to corresponding wheel sizes

### Special features:

- Material is both pliable and damage-resistant
- Non-reflective blue color gives markings high visibility
- Clearly illustrated instruction booklet makes use simple
- Speed nomograph with easy-to-read numbers
- Clinometer for use on grades up to  $\pm 25\%$
- Protractor

This template was designed by Inspector R.W. Rivers, who retired in 1985 as Officer-in-Charge of the Traffic Branch in the Province of British Columbia after serving 32 years with the Royal Canadian Mounted Police.



Please specify either U.S. or Metric scale when ordering. A complimentary blueBlitz Instructor's Guide will be included with orders of 30 or more blueBlitz Traffic Templates.

Price: \$8.95 per template; shipping weight: .25 lbs each  
Order 10 or more and the price is just \$7.85 per template

For all Canadian template orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

## **blueBlitz** Traffic Template Instructor's Guide

If you are using the blueBlitz Traffic Template, this guide is just what you need to train your personnel to take full advantage of all the template's features.

Although an easily understood instruction manual accompanies each template, the Instructor's Guide contains a packet of matrix sheets from which an instructor can make overheads on a copy machine. The overheads specifically point out all of the features of the template and the proper way to use them. In addition, the Instructor's Guide contains a quiz for the students to take after completing the lesson.

The template and the Instructor's Guide were designed by Inspector R.W. Rivers, who retired in 1985 as Officer-in-Charge of the Traffic Branch in the Province of British Columbia after serving 32 years with the Royal Canadian Mounted Police.

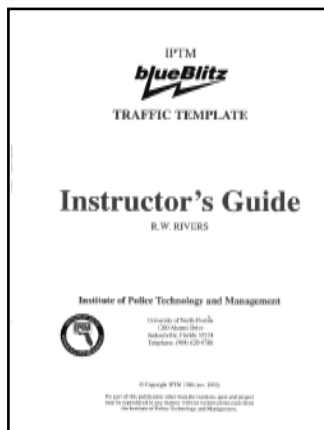
The blueBlitz Traffic Template is not included with the Instructor's Guide and must be purchased separately.

Please specify either U.S. or metric scale when placing your order.

Price: \$9.95 per guide; shipping weight: .44 lbs each

For Canadian orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

*Note:* A complimentary blueBlitz Traffic Template Instructor's Guide is included with any order of 30 or more templates.



# Templates/Tools

## *m|n|Blitz* Field Sketch Template

The IPTM miniBlitz Field Sketch Template is designed to fit in the shirt pocket of the investigator who needs to make quick sketches at the crash scene. The template includes non-scaled cut-outs of the most popular shapes associated with a crash scene. Although the objects will not be drawn to scale, they will be more consistent and much more recognizable than if they were drawn by freehand.

The miniBlitz template includes non-scaled cut-outs of the following:

- vehicles
- persons
- animals
- shrubs
- signs
- stop lights
- directional arrows
- angles
- lines
- curves
- circles

Features of the template include:

- 90-degree protractor
- Convenient size - only 3<sup>3</sup>/<sub>4</sub>"x4<sup>3</sup>/<sub>4</sub>"
- Straight-edge distance scales in both feet and meters
- Instruction card explaining symbols and use of the template

This template was designed by R.W. Rivers, creator of the popular blueBlitz Traffic Template.

Price: \$4.95 per template; shipping weight: .06 lbs each

Order 10 or more templates and the price is only \$3.95 per template

For Canadian orders, please contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

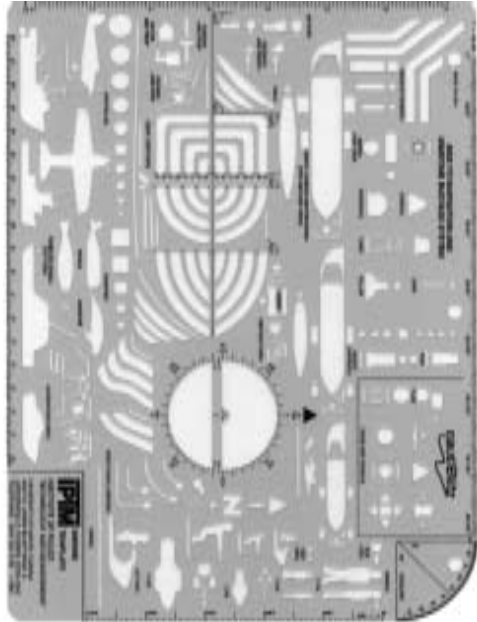


## nautiBlitz Marine Template

IPTM's nautiBlitz Marine Template is a versatile aid to drawing scale diagrams of marine crashes. The template will enable you to render nearly any type, shape and size vessel—from a canoe to a tanker—with cutouts showing a top or side view.

The nautiBlitz template includes cut-outs of the following:

- boat superstructures
- sails
- rudders
- outboard motors
- airplanes
- vehicles
- boat trailers
- jet skis
- water skiers
- swimmers
- people
- whales
- manatee
- waves
- signs
- buoys
- bridge fenders
- radar obstructions
- directional arrows
- circles
- squares
- rectangles



Features of the template include:

- Straight-edge distance scales in both feet and meters
- 90-degree protractor
- Compass rose
- 8"x10½" size that fits easily in a standard 3-ring binder
- Instruction card explaining symbols and use of the template

Designed by R.W. Rivers, this quality instrument promises to do for marine crash investigation what the popular blueBlitz has done for motor vehicle crash investigation.

Price: \$14.95 per template; shipping weight: .19 lbs each  
Order 10 or more and the price is only \$13.85 each

For Canadian orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

## **rigBlitz** Commercial Vehicle Traffic Template

The rigBlitz Commercial Vehicle Traffic Template is another quality instrument designed by R.W. Rivers expressly for drawing sketches or scale diagrams of crashes involving commercial vehicles. It is prepared in two scales:

U.S. scale: 1 inch = 120 inches and 1 inch = 240 inches

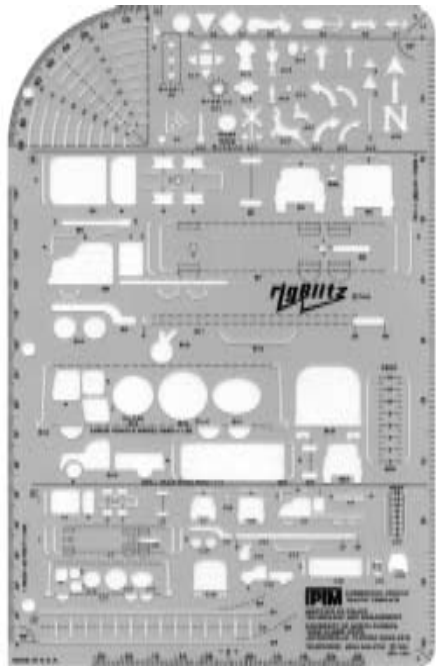
Metric scale: 1 centimeter = 100 centimeters and  
1 centimeter = 200 centimeters

The cutouts allow any type and shape of cab and truck body or tractor and trailer to be drawn in any configuration.

So that you do not have to swap between multiple templates, the following cutouts are also included:

- automobiles
- railroad engines
- railroad cars
- railroad tracks
- traffic signs
- traffic signals
- turn arrows
- motorcycles
- people
- animals

In addition, the rigBlitz Commercial Vehicle Traffic Template has a protractor for measuring and constructing angles and comes with an illustrated instruction manual.



Please specify U.S. or metric scale when ordering.

Price: \$11.95 per template; shipping weight: .19 lbs each  
Order 10 or more templates and the price is \$10.95 each

For Canadian orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.

**Instructor's Guide for the**  
**rigBlitz Commercial Vehicle Traffic Template**

This guide enables agencies to conduct their own training sessions in the use of the template. The guide, available in either U.S. or metric scale, has been prepared for IPTM by R.W. Rivers, the designer of the rigBlitz Commercial Vehicle Traffic Template.

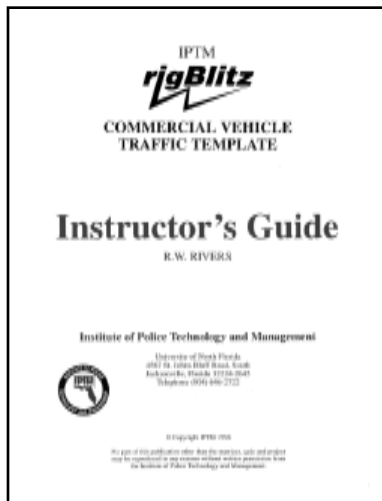
The rigBlitz Commercial Vehicle Traffic Template is not included with the Instructor's Guide and must be purchased separately.

Please specify U.S. or metric scale when ordering.

Price: \$9.95 per guide; shipping weight: .44 lbs each

*Note:* A complimentary Instructor's Guide will be included with any order of 30 or more rigBlitz Commercial Vehicle Traffic Templates.

For Canadian orders, contact the Pacific Traffic Education Center (PTEC) at (604) 528-5805.



## Grade Gauge – Roadway Slope Measurement Device

IPTM's Grade Gauge is an instrument that the traffic crash investigator (or reconstructionist) can easily use to measure the grade or slope elevation of a roadway or the slope of any surface.

The Grade Gauge fits in the glove compartment of any vehicle. You can take a reading with the gauge in less than five seconds by simply placing the gauge on the roadway where the slope is to be measured, adjusting the arm that gives the reading and returning to the safety of the shoulder to interpret the reading.

Highly accurate, the slope can be read to the nearest half degree. By entering your reading in degrees into a pocket calculator and pressing the tangent button, you can obtain an answer in percent, which can then be used in the various speed formulas requiring this information.

Price: \$39.95 per gauge; shipping weight: .66 lbs each

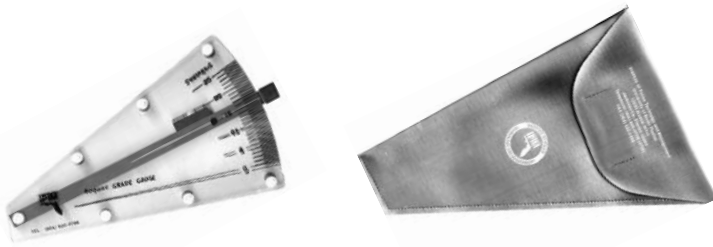
*And don't forget the...*

## Grade Gauge Pouch

The Grade Gauge Pouch is a handy carrying case made from supported vinyl with a cloth lining and a secure Velcro closure. It will protect your Grade Gauge for years to come.

Price: \$7.95 per pouch; shipping weight: .13 lbs each

For all Canadian template orders, contact Pacific Traffic Education Center (PTEC) at (604) 528-5805.



## 360-Degree Counter Clockwise Protractor

For years, conservation of linear momentum was taught using the four (4) quadrant system. To handle all possible occurrences, four (4) formulas were required. IPTM has come to the rescue by making available its 360-Degree Protractor for calculations in both left and right hand Cartesian systems.

This protractor makes it easy for investigators to measure angles required for applications of linear momentum, applied physics, WinCrash<sup>®</sup> and WinSmac<sup>®</sup>. Crash investigators will find the protractor an invaluable tool in their daily work.

Price: \$4.95 per protractor; shipping weight: .25 lbs each  
Order 10 or more, and the price is only \$4.50 each



# Books: *Crash Investigation*

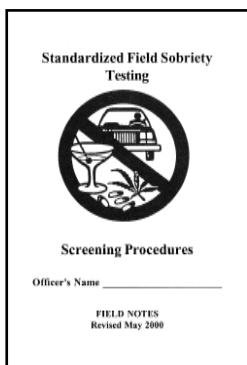
## Standardized Field Sobriety Testing Note Pad for Administering the SFST

IPTM's Standardized Field Sobriety Testing Screening Procedures note taking pad will allow you to administer any SFST in a standardized and systematic manner. Each notepad includes testing instructions for the National Highway Traffic Safety Administration approved SFST battery, which includes Horizontal Gaze Nystagmus, Walk and Turn and One Leg Stand. Two alternate tests, Finger to Nose and Rhomberg are also identified. These instructions can be read verbatim to each and every subject that is asked to perform an SFST exercise or task.

The notepad contains 20 individual tear-out sheets, so you can document the results of the subject's performance on each exercise and attach the sheet to his/her alcohol influence report. As a bonus, 7 additional tear-out sheets are available for field notes.

For several years, this field-taking pad has been used by police officers involved in DUI enforcement.

Price: \$2.00 per notepad; order 10-99 and the price is \$1.80 per notepage;  
order 100 or more and the price is just \$1.60 per notepad;  
shipping weight: .09 lbs each



## Advanced Techniques in Traffic Crash Investigation

by David E. Brill

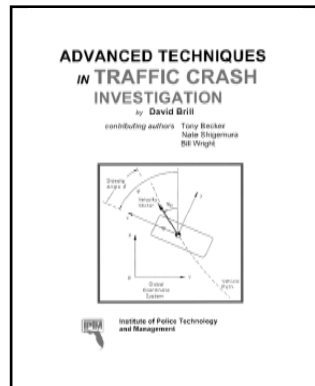
Any traffic crash gives you the opportunity to apply a multitude of complex formulas to determine exactly what happened. And although the variables surrounding each crash scene may be numerous, you need to be able to thoroughly analyze the data to reach an accurate conclusion.

IPTM's *Advanced Techniques in Traffic Crash Investigation* manual was written to help you further your knowledge in the field of crash investigation. The author, David Brill, wastes no time in delving into topics such as vehicle dynamics, energy, collinear momentum and much more. Numerous pictures, diagrams, charts and formulas accompany the examples, which are worked out in both imperial and metric measurements, to help enhance your crash investigation skills.

Used in our *Advanced Traffic Crash Investigation* course, this manual is an excellent resource if you wish to reacquaint yourself with the advanced skills to investigate collisions, or if you wish to prepare yourself to take IPTM's *Traffic Crash Reconstruction* course.

The topics covered in the manual are listed below:

- Vehicle Dynamics
- Energy
- Tire and Lamp Analysis
- Lamps
- Time-Distance
- Mathematics
- Vectors
- Collinear Momentum
- Airbornes



David Brill is a twenty-one year veteran of law enforcement and draws on his experience as a former traffic crash investigator for the Florida Highway Patrol. As both an adjunct and full-time member of IPTM's staff, he has taught crash investigation courses since 1994. In this book, he has been assisted by Tony Becker, Nate Shigemura and Bill Wright – all experienced crash reconstructionists who are now active as traffic crash consultants – to bring you the most up-to-date information available on crash investigation.

Specifications: 333 pages; 8½"x11"; coil bound

Price: \$48.00 per book; shipping weight: 2.38 lbs each

Order 10 or more manuals, and the price is only \$44.00 per manual

# Books: *Crash Investigation*

## **Advanced Traffic Crash Analysis**

by Neil F. Robar and George L. Ruotolo

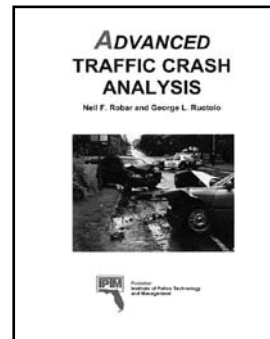
Filled with the latest technology, techniques and information in the field of traffic crash investigation, IPTM's *Advanced Traffic Crash Analysis* is an expanded and updated version of its predecessor, our popular *Advanced Traffic Crash Investigation* manual.

The authors, Mr. Neil Robar and Mr. George Ruotolo, present material that goes far beyond the basics taught in at-scene investigation courses. This manual contains updated photos, charts and formulas in the more advanced areas of crash investigation as well as five new chapters that deal with safety belt examinations, crash data retrieval systems, forensic visual perception, energy, and trial preparation and courtroom testimony.

The new text will be used by IPTM in our *Advanced Traffic Crash Investigation* course. It can also be used as a reference and training guide if you wish to brush up on your skills in this field.

The book's nine chapters are as follows:

- Mathematics Review
- Vehicle Damage Analysis
- Safety Belt Examinations and Occupant Restraint Systems
- Crash Data Retrieval System
- Forensic Visual Perception as it Affects Nighttime Traffic Crashes
- Laws of Motion and Vehicle Dynamics
- Acceleration and Deceleration
- Energy
- Time and Distance
- Airborne Equations
- Conservation of Linear Momentum and Vector Analysis
- Photography
- Advanced Measuring and Diagramming
- Trial Preparation and Courtroom Testimony



About the authors:

Neil Robar retired at the rank of lieutenant from the Hollywood (Florida) Police Department, where he either commanded or worked in every division and unit. For five years he was the coordinator of IPTM's Traffic Crash Investigation and Reconstruction section. Mr. Robar is now a private consultant in traffic crash investigation and reconstruction and he continues to teach at all levels in the area as an adjunct for IPTM.

George Ruotolo is retired from 21 years of service in New York State law enforcement and police training. From 1980 to 1985, he oversaw all police instructor certification for the State of New York. He is now a private consultant to law enforcement, the legal profession and insurance companies. He has been providing expert testimony for both the plaintiff and defense in civil court since 1981 and has consulted with prosecutors and defense counsel on criminal matters.

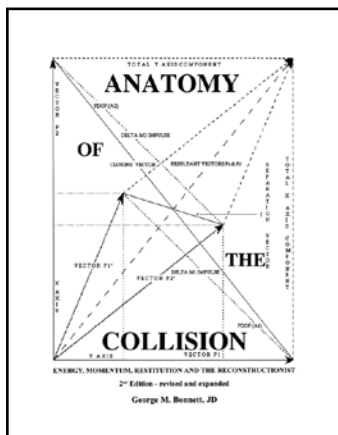
Specifications: 361 pages; 8½"x11"; spiral bound; includes photos, drawings, diagrams and charts and contains a glossary of technical terms and an index

Price: \$48.00 per manual; shipping weight: 2.38 lbs each

Order 10 or more manuals, and the price is only \$44.00 per manual

**Anatomy of the Collision:  
Energy, Momentum, Restitution and the Reconstructionist**  
(2nd Edition)

by George M. Bonnett, JD



Newly updated, this manual builds upon the cutting edge book on crash reconstruction entitled *Anatomy of the Collision*, first published in 1999. The author has revised the manual to include new chapters that deal with Stiffness Coefficients, The Problem with Turns, The Problem with Constants, Beyond Crash3, and Understanding Delta V from Damage.

Mr. Bonnett has retained the 8 collisions -- which have a total of 44 variants -- from the original work, examining each in detail with respect to energy, restitution, momentum

and damage. The in-depth examination using different approach and departure angles, different speeds and weights, and different restitution values provides you with a critical look at how momentum, energy and restitution influence the mechanics of a collision.

Since the material covered aggressively deals with the hard questions that plague all reconstructionists, you will still be able to find the examination of formulas for both restitution and energy from translational and rotational motion, the examination of delta V from damage, secondary slap, coefficients of lift and drag, rotation, inertia, uniform circular motion and calculation of PDOF angles as in the original manual.

George Bonnett is a combat-proven Marine Corps aviator turned police officer, turned attorney, turned crash reconstructionist, turned software developer (REC-TEC). For George, survival and success have always depended on resourcefulness and minute attention to detail. You will find these qualities very much alive in this 2006 edition.

Specifications: 307 pages; 8½"x11"; coil bound

Price: \$39.95 per book; shipping weight: 2.0 lbs each

# Books: *Crash Investigation*

## Commercial Motor Vehicle Crash Investigation

by David Brill

Finally, an all-inclusive manual for investigators of commercial vehicle crashes!

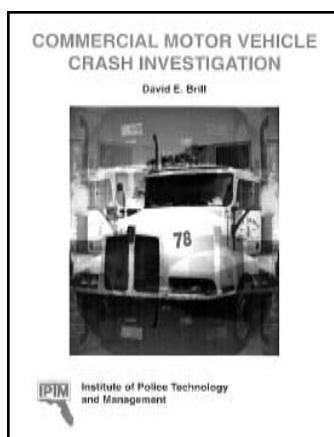
*Commercial Motor Vehicle Crash Investigation* gives you practical methods that can be used when approaching these complex investigations. You'll learn techniques to properly and accurately calculate the vehicle's speed, how to conduct a post-crash inspection, how to ensure that both the vehicle and the driver are in compliance with the Federal Motor Carrier Safety Regulations, and much more.

This manual was not written as a book on commercial vehicle enforcement. Rather, it is a guide that will enable you to competently approach and investigate a traffic crash involving a commercial motor vehicle.

The book includes the following chapters:

- Inspection of Commercial Motor Vehicles
- Commercial Motor Vehicles and Common Carriers
- Hours of Service
- Parts and Accessories: Post-Crash Inspection
- Hazardous Materials
- Introduction to Dynamics

The author is David Brill, a twenty-one year veteran of law enforcement. In this book, he draws on his years of experience as a traffic homicide investigator with the Florida Highway Patrol. Mr. Brill now trains investigators around the country as an instructor for the Institute of Police Technology and Management.

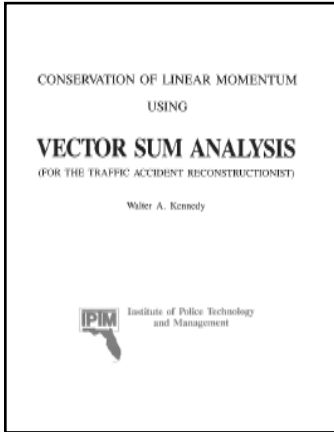


Specifications: 222 pages; 8½"x11"; spiral bound

Price: \$34.95 per manual; shipping weight: 1.31 lbs each

## Conservation of Linear Momentum Using Vector Sum Analysis

by W.A. Kennedy



It is difficult for even the experienced reconstructionist to visualize the momentum components of colliding vehicles. To conquer this problem, W. A. Kennedy has drawn a series of “pictures” that present a graphic solution to the momentum equations.

In this book, the author uses a coordinate system to graphically illustrate the vector components of the vehicles involved. To clarify the graph, he uses a distinct color for each vehicle and provides an explanatory text, complete with the momentum formulas and all of the variables needed, to solve the problem.

The graphical solutions provide an alternative to formulas in determining pre-impact and post-impact vehicle speeds. They also provide a check on the accuracy of computations that use formulas and enable the crash reconstructionist to gain a clear visual impression of the vector components present in collisions.

After a brief introduction, Mr. Kennedy addresses the following topics:

- Post-Collision Scene Data and Trajectory Analysis Using the Right Hand Coordinate System
- Vectors and Vector Analysis
- Post Impact Analysis
- Pre-Collision Scene Data and Trajectory Analysis
- Pre-Collision Side of Equation
- Post-Collision Data and Trajectory Analysis Using the Left Hand Coordinate System

Walter A. “Butch” Kennedy served 17 years with the Jacksonville Sheriff’s Office and was awarded the Medal of Merit for Bravery in 1983. While there, he was assigned as Academy instructor in crash investigation and reconstruction and tactical police driving. Mr. Kennedy has been a member of the faculty at IPTM teaching crash investigation and reconstruction courses throughout the country.

Specifications: 32 pages; 8½”x11”; spiral bound

Price: \$12.95 per book; shipping weight: .56 lbs each

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## **Crash Photography (with Nighttime Photo Techniques)**

by Jan Bobe, Ulrich Fasse and Larry Fasnacht

Did you know that a good tripod is the most important camera accessory for a crash photographer? If not, then perhaps IPTM's publication, *Crash Photography (with Nighttime Photo Techniques)* can help solve other problems you may have experienced when taking pictures in less than ideal conditions.

A collaboration by three authors who have extensive knowledge in crash reconstruction and photography, this booklet begins with a brief overview of the basics of photography. From there, they discuss shutter times, apertures and f-stops for both daytime and nighttime photography. The issue of camera positioning is addressed and actual photos are used as examples to show you not only what to do, but also what not to do when taking pictures.

The authors recommend options that you may use to overcome adverse lighting conditions. They discuss the different types of light and how artificial lights in various locations can improve the quality of a photo. They also offer ways to avoid both backlights and stray lights on wet roads and suggest rules for photographing scenes in snowy, rainy and foggy conditions to get good results.

A section of the booklet is devoted to various problems with modern cameras. The authors point out which features will and will not work in crash photography situations and make recommendations as to which features are absolutely essential when purchasing a camera for dead photography.

The booklet is divided into the following sections:

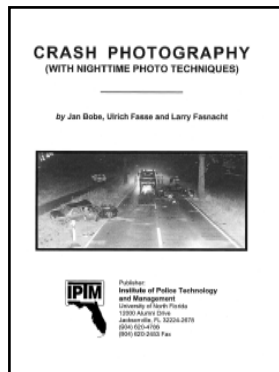
- Basic Thoughts on Crash Photography
- How a Photo is Made: The Secret of the Black Box
- Doing a Crash Photo
- Camera Position
- Night Photography
- Disruptive Factors
- Modern Electronic SLR Camera
- Final Remarks

Jan Bobe holds the position of Polizeihauptkommissar in the Gütersloh (Germany) Police. He has served over 20 years in law enforcement, taking a keen interest in traffic crash investigation and reconstruction and in making the work of the responding officers easier and more effective.

Ulrich Fasse holds the position of Polizeikommissar and is the training officer for photography, photo and video documentation, traffic crash investigation and photogrammetry at the Erich Klausner Police Training Institute in Stukenbrock. Larry Fasnacht has been in law enforcement since 1978 and is currently a police officer and traffic crash reconstructionist with the Papillion Police Department in Nebraska. He has experimented with long shutter times and simple but effective photographic techniques suitable for use by a patrol car officer.

Specifications: 19 pages, 8½"x11", saddle stitched, 38 photos

Price: \$9.95 per booklet; shipping weight: .28 lbs each



## Damage Profiling and Physical Evidence: A Tutorial

by Jan Bobe, Ulrich Fasse and Larry Fasnacht

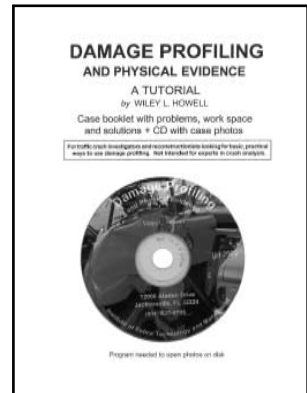
IPTM's publication, *Damage Profiling and Physical Evidence: A Tutorial*, offers traffic crash investigators and reconstructionists a unique way to practice the skills necessary to become proficient in damage profiling. The booklet is accompanied by a CD-ROM containing pictures of real-life crash scenes designed to sharpen your observation skills.

The principle behind using the tutorial is simple. For each case, you are given information that you would normally receive as an investigator. Then, you look at a series of photos, make notes about what you observe and state your conclusion. Finally, you compare your notes to the actual findings provided by the author. Each case requires you to determine specific details by viewing only the damage that the photos show.

The author, Wiley Howell, is quick to point out that damage profiling of any crash will not yield results of determining speed at impact. Rather, it will help you determine whether or not the results of the formulas used in reconstructing the crash are accurate, based on the evidence at the scene. He wrote the tutorial to teach you how to become observant when looking at the evidence before you.

The cases in the booklet are as follows:

- 1 - Bus and skidmarks
- 2 - Truck striking utility pole
- 3 - Vehicle with extensive damage
- 4 - Unknown striking vehicle
- 5 - Another unknown striking vehicle
- 6 - Colliding vehicles and speed
- 7 - Vehicle rollover
- 8 - Crash with other information provided
- 9 - Two colliding vehicles
- 10 - Determining fault in a car/tractor-trailer collision



Wiley Howell is a 24-year veteran of the Tampa (Florida) Police Department. After retirement, he established his own reconstruction business while teaching traffic crash courses at IPTM. Mr. Howell has been ruled an expert in both criminal and civil courts over several thousand times throughout his career as a police officer and in private enterprise.

Note: A photo program is needed to open and view the photos on the CD-ROM.

Specifications: 32 pages, 8-1/2"x11", saddle stitched, includes a CD-ROM

Price: \$15.95 per booklet; shipping weight: .56 lbs each

# Books: *Crash Investigation*

## Derivations Manual for Formulas Used in Traffic Accident Investigation and Reconstruction

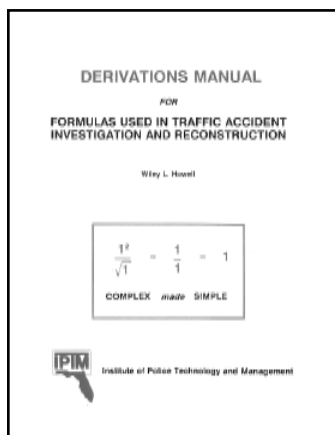
by Wiley L. Howell

This manual was written to help police crash investigators and reconstructionists understand the derivation of the formulas used in traffic crash investigation and reconstruction. All common variations of the ways a formula may be written are included in the manual.

The manual is divided into two sections. The first is a short review for those needing a refresher course in basic math. The operations (including those involving algebra and trigonometry) required in deriving the formulas are explained in detail.

The second section is devoted to formula derivations. Each operation required in the derivation of each formula has been shown in a separate step. (Occasionally a simple and obvious operation has been combined with one other operation.) Where appropriate, the principle(s) of physics on which the formula is based is explained.

These explanations make it possible for the derivations to be followed and understood by persons who do not have a background in physics and engineering, or even extensive knowledge of mathematics. The manual will also be of value to private investigators, trial attorneys and insurance adjusters.



Wiley Howell is a 24-year veteran of the Tampa (Florida) Police Department. After retirement, Mr. Howell established his own reconstruction business while teaching traffic crash courses at IPTM. He has been ruled an expert in both criminal and civil courts over several thousand times throughout his career as a police officer and in private enterprise.

Specifications: 182 pages; 8½"x11"; spiral bound

Price: \$29.95 per book; shipping weight: 1.25 lbs each

## Equation Directory for the Reconstructionist

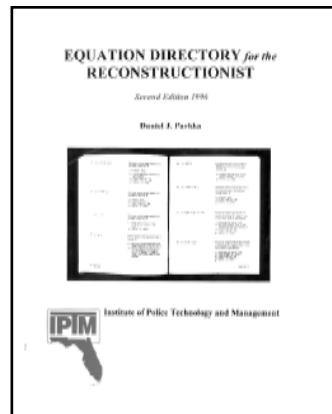
by Daniel J. Parkka

This book puts over 550 crash reconstruction formulas right at your fingertips! With the *Equation Directory for the Reconstructionist*, you can quickly and easily locate a formula that solves for a needed unknown variable when other variables are known.

Here's how it works. The Table of Contents lists the specific categories used in crash reconstruction. Simply find the category for which you need an equation and turn to the page number indicated. Not only does the author, Daniel Parkka, reveal the possible equations associated with the topic, he explains what value will be returned by that particular equation. In addition, he lists all of the variables used in each formula as well as the unit of measure that should accompany the solution.

Listed below are the categories included in the book:

- Acceleration/Deceleration Factor and Rate
- Braking Efficiency
- Center of Mass
- Collinear Avoidance
- Collinear Collision
- Damage
- Distance
- Energy
- Force
- Grade and Superelevation
- Gravity
- Heavy Truck Impact
- Lane Change
- Mass
- Momentum
- Motorcycle Impact



In addition to the formulas, Mr. Parkka includes tables to help you understand the different variables that may be used in an equation, depending on the traffic crash situation. For example, in the Pedestrian Impact chapter, you will find the following tables: Pedestrian Walking Velocities, Pedestrian Velocity as a Function of Approaching Vehicle Proximity, Pedestrian Accelerations and Sliding Pedestrian Deceleration Factors.

The directory is not intended to be an instructional text; rather, it simply groups equations generally used by reconstructionists and puts them in one location. The directory will also be useful when verifying computer program calculations.

Daniel J. Parkka is a traffic crash reconstructionist who has received state-of-the-art training in his profession. He currently manages his own crash consulting business.

Specifications: 186 pages; 8½"x11"; perfect bound

Price: \$39.95 per book; shipping weight: 1.81 lbs each

# Books: *Crash Investigation*

## **A Format for Successful Accident Reconstruction Report Writing**

by George L. Ruotolo

Mr. Ruotolo has developed a simple format that can be used by anyone who needs to write a crash investigation report.

He starts by addressing the basics of report writing. Although some of the information may seem elementary, it is included as a reminder and referenced later in the booklet. He outlines the three basic types of reports that can utilize his framework and offers an explanation of each.

The report format is then dissected and the contents and purpose of each of the eleven sections that comprise the entire report are described in detail. Regardless of which report type you are creating, Mr. Ruotolo explains what should and should not be included within each section and why. A sample crash reconstruction report is included to enable you to see how the sections tie together in support of the ultimate conclusion.

Mr. Ruotolo's topical format approach, rather than chronological approach, to report writing will handle every traffic crash case logically and naturally. In fact, so versatile is this format, that it lends itself equally well to reports in certain other areas of police work, such as arson investigation.

Mr. Ruotolo is retired from 21 years of service in New York State law enforcement and police training. From 1980 to 1985, he oversaw all police instructor certification for the State of New York. He is now a private consultant to law enforcement, the legal profession and insurance. His experience in courtroom testimony spans 12 years and he has provided expert testimony for the prosecution in criminal cases.

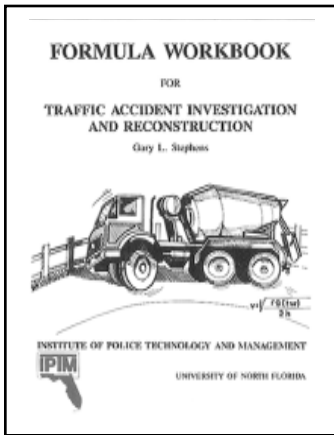
Specifications: 42 pages; 8½"x11"; coil bound

Price: \$17.95 per book; shipping weight: .56 lbs each



## Formula Workbook for Traffic Accident Investigation and Reconstruction

by Gary L. Stephens



*A vehicle leaves a level roadway and goes airborne. The vehicle travels 50 feet horizontally and falls 5 feet vertically. What is the vehicle's speed when it becomes airborne?*

Do you know the correct formula to use to solve this problem? If not, then IPTM's *Formula Workbook for Traffic Accident Investigation and Reconstruction* may help. The book, written by Gary Stephens, was designed as an aid to sharpen and update the skills needed to solve mathematical problems relating to traffic crash investigation and reconstruction. Mr. Stephens presents 56 formulas that you will be able to apply with both ease and accuracy.

Examples are provided to show the use of each formula and the mathematical calculations required. The author then gives you the opportunity to try your hand at solving a series of problems that call for the selection and use of the appropriate formula(s). The problems range from those dealing with the familiar skids to those involving deceleration on curves, motorcycle lean angles, weight shifts and many other factors. Solutions for the solved problems, given as examples, are presented in a simple, logical format.

The book will be especially useful to the investigator who has previously completed formal training in this area and now wishes to review that material or discover and strengthen any weak areas in his/her knowledge.

Mr. Stephens also includes the following tables in his book:

- Braking percentages for vehicles
- Trigonometric functions
- Formula recognition chart

Gary Stevens served as a police officer and certified traffic crash reconstructionist in Oklahoma from 1972 to 1983. He has instructed at the the Oklahoma Department of Public Safety and Oklahoma State University in crash investigation, DWI enforcement and selective traffic law enforcement. He is a charter member of the Society of Traffic Accident Reconstructionists and has conducted research into the characteristic marks left on skidding tires by vehicles equipped with an anti-lock braking system.

Specifications: 267 pages; 8½"x11"; spiral bound

Price: \$34.95 per book; shipping weight: 1.5 lbs each

# Books: *Crash Investigation*

## Fundamentals of Applied Physics for Traffic Accident Investigators

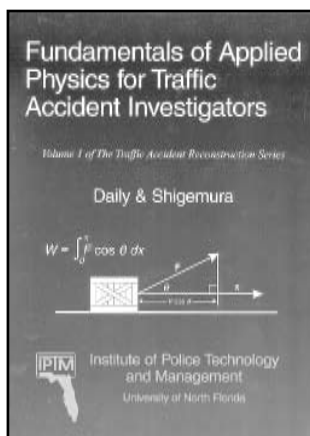
By John Daily and Nathan S. Shigemura

This book introduces and explains the principles of physics that find application in traffic crash investigation and reconstruction, primarily those derived from Newton's three laws of motion and the work-energy theorem. Formulas based on these principles are presented and illustrated with examples.

*Fundamentals of Applied Physics for Traffic Accident Investigators* is divided into two parts. The first part is devoted to the basic principles of mathematics. After that, you'll learn about the conservation of linear momentum, tire forces, rotational mechanics, accelerometers and skid testing, uniform circular motion, problems in time-distance and much more. The book is simply and instructively illustrated.

The following is a partial listing of the chapters included in the text:

- General Arithmetic
- Elementary Algebra
- Elementary Geometry
- Elementary Trigonometry
- Elementary Calculus
- Vectors
- Physics Basics
- Center of Mass and Torque
- Work and Energy
- Power



About the authors:

John Daily is a graduate mechanical engineer with an extensive background in physics as well as a law enforcement officer with many years of experience in traffic crash investigations and reconstruction.

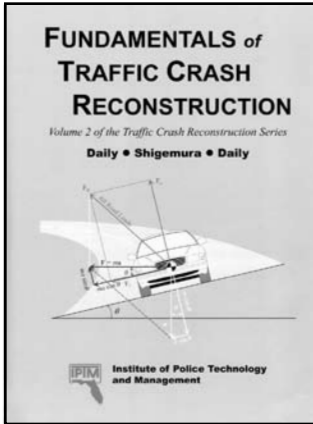
Nathan Shigemura is a certified crash reconstructionist by the State of Illinois and holds full accreditation from the Accreditation Commission for Traffic Accident Reconstruction (ACTAR). He has been teaching courses in all levels of crash investigation and reconstruction for IPTM since 1989.

Specifications: 441 pages; 8½"x11"; spiral bound

Price: \$59.95 per book; shipping weight: 2.81 lbs each

## Fundamentals of Traffic Crash Reconstruction Volume 2 of the Traffic Crash Reconstruction Series

by John Daily, Nathan Shigemura, Jeremy Daily



With over 400 pages of new materials, this revised manual is sure to become a “must have” for every reconstructionist. It is a comprehensive resource that features easy to follow discussions, examples and crash tests specifically conducted for this text.

The book is divided into two parts. In Part I, you are given a sound foundation with the mathematical topics and concepts of physics essential for the crash investigator. The topics are presented in a logical progression in order to guide you toward applications involving greater detail and an increased number of factors.

In Part II, you will find in-depth discussions on topics specific to crash reconstruction including, but not limited to, friction and acceleration factors, time-

distance relationships, collision analysis using damage momentum, damage energy analysis and even calculus. New to this edition are topics such as spin analysis, rotational mechanics, crash analysis, rollovers, and a stronger emphasis on vectors and vector notation.

This manual, originally titled *Fundamentals of Traffic Accident Reconstruction* and published by IPTM in 1988, has been completely revised to provide you with the most topical information available. With over 750 pages, the book contains numerous diagrams, pictures, formulas and examples. In addition, mathematical solutions are solved in both US and SI measurements. Exercises at the end of each chapter will allow you to practice your skills.

### About the authors:

John Daily retired at the rank of sergeant after more than 25 years with the Teton County Sheriff's Office in Wyoming. He holds a BS degree in Mechanical Engineering and has been responsible for investigating many vehicular homicide cases for his agency as well as for other departments from around the state. Mr. Daily has been an adjunct instructor with IPTM since 1982 and has been instrumental in writing texts that serve as the basis for several of IPTM's classes.

Nathan Shigemura retired in 2002 as a sergeant from the Illinois State Police, where his duties included crash investigation instructor, reconstructionist and supervisor of the statewide Traffic Crash Reconstruction Unit. He holds a BS degree in Electrical and Electronic Engineering. Mr. Shigemura has been an adjunct faculty member at IPTM since 1989 and has co-authored texts with John Daily which are used in several of IPTM's courses.

Jeremy Daily holds an MS degree in Mechanical Engineering and is currently working on his Ph.D. in the same field. He has gained firsthand practical experience investigating and reconstructing traffic crashes alongside his father, John. Using novel techniques, Mr. Daily has conducted research leading to an advanced shot marker system, a web-based trajectory simulator, analytical sensitivity analysis and refinements of the so-called Monte Carlo simulation method.

Specifications: 768 pages; 8½"x11"; hard cover

Price: \$75.00 per book; shipping weight: 4.5 lbs each

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# Books: *Crash Investigation*

## **A Guide to Deposition and Trial for Police Officers and Private Sector Reconstructionists**

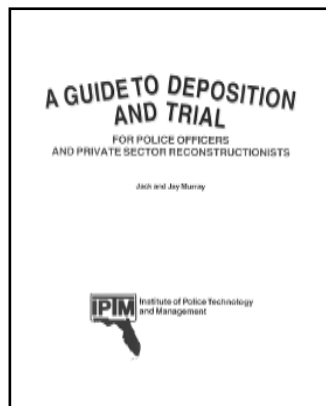
by Jack and Jay Murray

This book is much more than just a checklist of what to do or not to do when giving testimony. It provides valuable, practical information you may use if called upon to give a deposition or appear in court.

Although specifically geared toward the officer or reconstructionist, *A Guide to Deposition and Trial for Police Officers and Private Sector Reconstructionists* is an excellent review of the standards expected by anyone involved in litigation of any type. Not only will you find detailed information on what to wear and how to act, you will learn how to answer questions in a credible manner when giving testimony. The authors also give you an overview of the legal process and explain what qualifications are needed to be an expert witness.

The authors present all this information to you in the following chapters:

- The Litigation Process
- Appearance
- Witnesses
- Depositions
- Trial
- Terminology
- General Tips on Testifying
- Qualifying an Accident Investigator or Reconstructionist



About the authors:

Jack Murray holds an MBA from the University of Connecticut. He received formal training in crash reconstruction and has been called to give expert testimony in numerous cases. He is listed in *Who's Who in the World* and *Who's Who in American Law* and is a certified instructor by both the Texas Board of Private Investigators and the Texas Insurance Board.

Jay Murray received his J.D. from Texas Wesleyan University, where he received the Order of the Barrister and was named in *Who's Who in American Law Schools*. He is a member of the Board of Associates of the Texas Trial Lawyers Association and the Association of Trial Lawyers in America.

Specifications: 49 pages; 8½"x11"; coil bound

Price: \$21.95 per manual; shipping weight: .56 lbs each

## **A Guide to Determining Occupant Seating Positions from Physical Evidence and Injury Patterns**

by Joseph N. Cofone

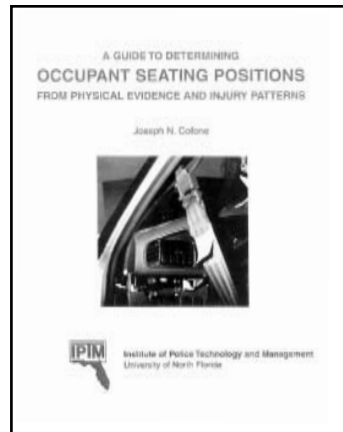
If you are a traffic crash investigator or reconstructionist who handles crashes that involve severe injuries or fatalities, then this book is for you.

The question of who was sitting where in a vehicle is crucial to determining how and why the crash occurred and who is to be charged or held liable. Especially important is determining who was driving. The author shares the expertise he has acquired and makes a proven method for investigating crashes. He leads you step-by-step through an actual case that embodies many of the issues typically confronting an investigator.

In this book, you'll find detailed information on:

- Developing an investigative plan to accomplish set objectives
- The effects of physics on the severity of occupant impact
- Pre-impact vehicle dynamics and dynamics of the crash
- Kinematics - the movement of occupants inside the vehicle
- Collecting, handling and preserving evidence, including cross transfers
- Correlation of occupant injuries to vehicle interior damage
- Reaching conclusions in regard to the objectives

Joseph N. Cofone is a sergeant with the Fatal Accident Investigation Unit at the Bergen County New Jersey Prosecutor's Office. He has received awards in police traffic safety and crash investigation and reconstruction and is a founding member of the New Jersey Association of Accident Reconstructionists.



Specifications: 59 pages; 8½"x11"; coil bound; 22 black and white photos; 3 diagrams

Price: \$19.95 per book; shipping weight: .56 lbs each

# Books: *Crash Investigation*

## **Handbook for the Accident Reconstructionist**

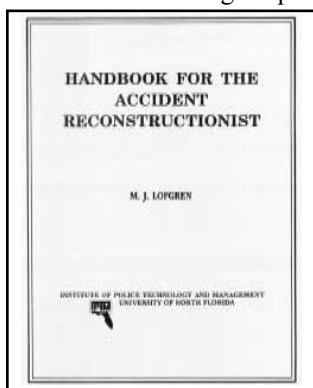
by M.J. Lofgren

Mr. Lofgren consolidates many of the scientific techniques used in crash reconstruction and puts them together for you in one reference manual. He simplifies formulas, where possible, and explains the principles behind each. He also includes examples and works step-by-step through each problem.

If your math skills are a bit rusty, Mr. Lofgren includes a 104-page appendix devoted entirely to a course in refresher mathematics. From there, he delves into the equations used for determining speed, kinetic energy, weight shift and other aspects of crash reconstruction. As a bonus, he'll tell you which formulas will come under scrutiny in court and which have already been tested.

*Handbook for the Accident Reconstructionist* includes the following chapters:

- Geometric Construction
- Minimum Speed from Skidmarks
- Fall Speed
- Derivation of the Vault Formula
- Derivation of the Critical Speed Formula
- Kinetic Energy Equation
- Derivation of the Radius Equation
- Quadratic Equations
- Time-Distance Equations
- Perspective Grid Photography
- Conservation of Linear Momentum
- Weight Shift
- Miscellaneous Formulas



M.J. Lofgren is a consultant to various law enforcement agencies in several states as well as to insurance companies and law firms that require crash reconstruction for use in civil litigation. After serving 21 years with the Minnesota State Patrol, he now conducts seminars in crash investigation and reconstruction for police officers, judges, attorneys, law enforcement agencies, insurance companies, major corporations, motor fleet safety organizations and civic groups. He has investigated over 1,000 vehicle crashes and has tested vehicles ranging in size from mini-compacts to tractor-trailer rigs.

Specifications: 318 pages; 8½"x11"; spiral bound

Price: \$24.00 per manual; shipping weight: 2.13 lbs each

## **Impact Velocity from Conservation of Linear Momentum for the Traffic Accident Investigator and Reconstructionist**

by W.A. Kennedy

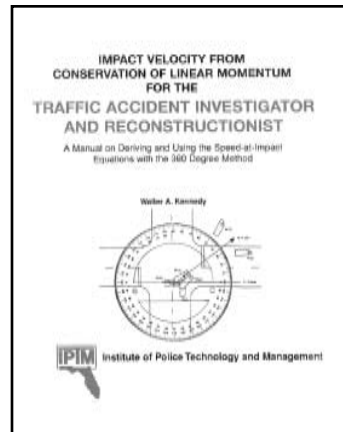
This manual brings you the mathematical solutions to two-vehicle collisions that require the application of momentum. The author reduces the complex topic of linear momentum to a series of simple steps that use the 360-degree method of angle measurement and illustrates every step with easy-to-understand diagrams.

With this manual, you can learn how the speed-at-impact formulas are derived, what information is required for their use and how they can be applied to a variety of situations to solve for the pre-collision speed of each crash vehicle. The author, W. A. Kennedy, also discusses vehicle dynamics in collisions and lays the groundwork for the advanced study of momentum.

Six practical momentum problems enable you to test your understanding of the topic after you have read and studied the manual.

The book includes the following chapters:

- Conservation of Linear Momentum
- Newton's Laws of Motion
- Data Required to Solve for Impact Velocity
- Cartesian Coordinate System
- Vectors
- Negative Vectors
- Determining Momentum
- Use of Subscripts to Identify Vehicles
- Change of Momentum Equation
- Derivation of Linear Momentum Equation
- Measuring Approach and Departure Angles
- Use of Trigonometric Functions
- Derivation of the Speed-at-Impact Equations from the Linear Momentum Equation
- Using the Speed-at-Impact Equations
- Practice Problems
- Use of Equipment



Walter A. “Butch” Kennedy served 17 years with the Jacksonville (Florida) Sheriff’s Office and was awarded the Medal of Merit for Bravery in 1983. While there, he was assigned as Academy instructor in crash investigation and reconstruction and tactical police driving. Mr. Kennedy has been a member of the faculty at IPTM teaching crash investigation and reconstruction courses throughout the country.

Specifications: 66 pages; 8½”x11”; spiral bound

Price: \$24.95 per book; shipping weight: .94 lbs each

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## Inspection of Motorcycles After Impact

by Neil F. Robar

Due to the unique nature of motorcycle crashes, it is the motorcycle itself that often holds the clues as to why the crash occurred. Many scenes lack marks on the roadway or witnesses who can aid in the reconstruction process.

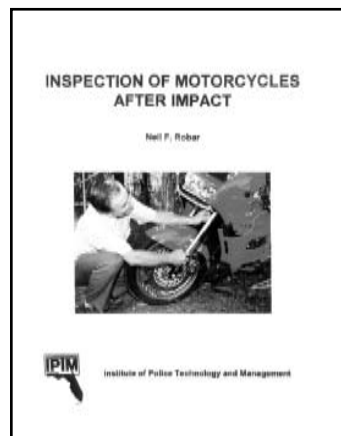
In his book, *Inspection of Motorcycles After Impact*, Neil Robar describes the components of a motorcycle and shows you which defects, malfunctions and faulty adjustments to look for so that more accurate and comprehensive investigations can be made. He also makes you aware of the impact damage certain components may sustain and what this damage can reveal about the collision.

Mr. Robar includes the following topics, which are further subdivided into numerous sections:

- Photo Evidence
- Front End Assembly
- Rear Section of the Motorcycle
- Center of Motorcycle
- Accessories and Miscellaneous Items

The book also contains four forms that can be photocopied as needed that will be useful in the inspection of motorcycles:

- Motorcycle Dimension Sheet
- Motorcycle Damage Severity and Location Profiles
- Photo Log
- Accident-Involved-Motorcycle Inspection Checklist



Neil Robar retired at the rank of lieutenant from the Hollywood (Florida) Police Department, where he either commanded or worked in every division and unit. For five years he was the coordinator of IPTM's Traffic Crash Investigation and Reconstruction section. Mr. Robar is now a private consultant in traffic crash investigation and reconstruction and continues to teach at all levels in the area as an adjunct for IPTM.

Specifications: 56 pages; 8½"x11"; spiral bound; 41 photos, 4 drawings and 4 inspection forms

Price: \$19.95 per book; shipping weight: .56 lbs each

## **Insurance Fraud and Motor Vehicle Collisions**

by Robert A. DuBois

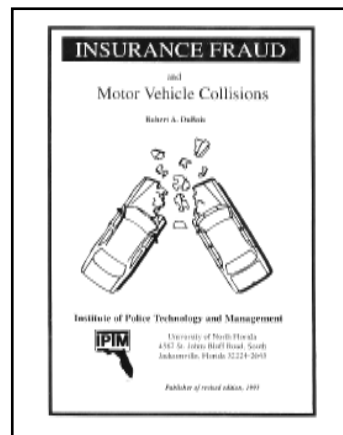
This manual tells you exactly how people are getting away with millions of dollars in fraudulent claims. The author wastes no time in presenting typical fraudulent claim scenarios and what can be done to disprove them. He also explains expert ways to get to the truth of any collision.

You will find practical information that can be used by everyone involved in settling a claim. For law enforcement officers, it pinpoints the kinds of evidence that typically show an intent to defraud. For insurance company representatives, it describes the crucial information that can be brought to light by the crash investigator or reconstructionist. Doctors and medical personnel will find explanations of the types of injuries favored by perpetrators of fraud while personal injury attorneys will find highlights of the circumstances that are likely to accompany the filing of fraudulent claims resulting from staged or alleged motor vehicle crashes.

In addition to the scenarios, the author includes an interviewing checklist, a behavioral profile of a liar, a vehicle damage checklist, definitions of common medical terminology and multiple diagrams showing how cars should react in particular collisions. And since photographs lend credibility and substance to a claim, an entire chapter is devoted to photographing the scene.

Other chapters in the manual include:

- Insurance Fraud Schemes
- The Investigation
- The Damaged Vehicle
- Occupant Kinematics



Robert DuBois is president of a consulting firm specializing in crash reconstruction. Among the many positions he has held in his law enforcement career include chief instructor of both At-Scene Traffic Crash Investigation and Advanced Traffic Crash Investigation courses for the New Hampshire Police Academy, chief instructor of Advanced Traffic Crash Investigation for the New Hampshire Police Standards and Training Council and commander of the Technical Accident Reconstruction Unit of the New Hampshire State Police.

Specifications: 128 pages; 8½"x11"; spiral bound

Price: \$39.95 per manual; shipping weight: 1.19 lbs each

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# Books: *Crash Investigation*

## **The Investigation of Automobile Collisions with Wooden Utility Poles and Trees**

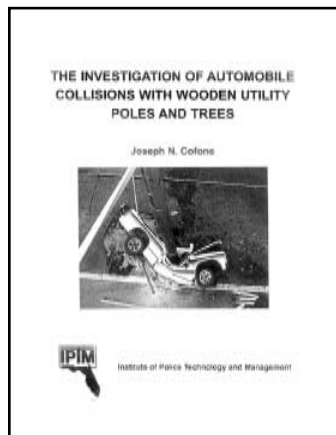
by Joseph N. Cofone

Automobile crashes with wooden utility poles and trees are probably the most common of all fixed object collisions. This manual introduces the traffic crash investigator to the methods of conducting a successful investigation of a crash between a vehicle and a wooden utility pole or other stationary object. Certainly central to the investigation is determining how fast the vehicle was traveling. The author addresses this concern by presenting equations that can be used to determine a sensible estimate of the vehicle's speed at the time of impact.

In addition, Mr. Cofone leads you step-by-step through a case scenario, where he points out what to observe at the crash scene, which measurements to take of the vehicle and which formulas you should use to calculate the vehicle's speed at impact.

The book includes the following chapters:

- Information About and From Utility Poles
- Vehicle Collision Dynamics
- Measuring Vehicle Crush
  - Determining the Involved Surface
  - Determining Height of Damage
  - Location of Station Marks and Establishment of Baseline
  - Consideration of Free Space
  - PDOF Considerations
- Measuring Various Damage Patterns
  - Centered Frontal Impacts
  - Frontal Offset Impacts
  - Side Impacts with Vehicle Bowing
  - Side Pocketing
- Collision Speed Estimates
- Manually Computed Speed Estimates
- Computer Aided Speed Estimates
- Practical Applications



A glossary of terms and a listing of reference materials is included.

Joseph N. Cofone is a sergeant with the Fatal Accident Investigation Unit at the Bergen County New Jersey Prosecutor's Office. He has received awards in police traffic safety and crash investigation and reconstruction and is a founding member of the New Jersey Association of Accident Reconstructionists.

Specifications: 56 pages; 8½"x11"; coil bound; 22 illustrations (black and white photos, figures, tables and charts)

Price: \$19.95 per book; shipping weight: .16 lbs each

## **The Investigator's Guide to Tire Failures**

by R. J. Grogan

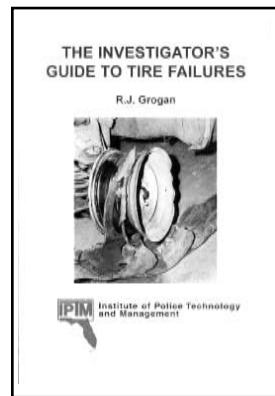
In light of the recent publicity given to tire failures and the surrounding litigation, this book will assist reconstructionists, private investigators and trial attorneys in determining whether the failure was the cause of, or a result of, a crash.

The first officer on the scene may have noted: "Driver said the left rear tire blew out and caused him to swerve into the oncoming traffic lane." But what caused the tire to fail at that crucial moment? Road hazard? Excessive road wear? Improper use of tire? Improper repair of a flat? Driver abuse? Tire defect?

The savvy investigator may look into these matters, but it is imperative for the reconstructionist to do so. The reconstructionist must know how to examine the tire and the adjacent parts of the vehicle for evidence, if present, that would pinpoint the cause of the failure.

To assist you in this task, forensic tire expert Rex Grogan updated his unique guide for the investigator in 1999. The following is just a few of the chapters included in his book:

- Introduction to Tire Markings
- Tire Construction and Manufacturing Methods
- How a Tire Works
- Basic Examination Techniques
- Tire Photography
- Penetrations and Punctures
- Impacts
- Fatigue or Casing Break Up
- Cuts, Scores and Abrasions
- Adhesion Defects
- Tread and Belt Separations
- Broken Beads



In addition, the author includes Load and Speed Codes; Temperature, Treadwear and Traction Codes; ECE Type Approval Codes; a Tire Investigation Form and a Car Tire Markings Chart.

Rex Grogan spent 32 years with Dunlop, Ltd. of the United Kingdom as a Specialist in the investigation of tire failures and the assessment of the legal implications. Now retired, he is an independent tire consultant and his testimony as an expert witness is constantly sought in courtrooms today.

Specifications: 273 pages; 6"x8½"; perfect bound; 75 photos (4 color); 26 drawings; 7 charts and an index

Price: \$45.00 per book; shipping weight: .69 lbs each

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## Lamp Examination for Traffic Collision Investigators

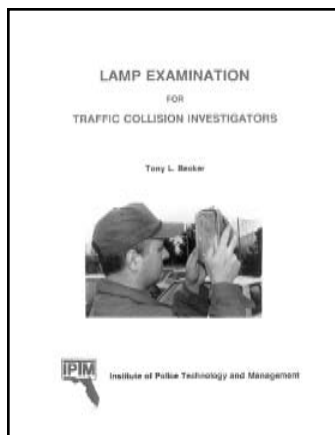
by Tony L. Becker

This manual is a must for the traffic crash investigator who needs to determine if a collision was due, in part or by whole, to a vehicle lamp failure. Since an important part of the investigation is determining whether a bulb was or was not lighted at the moment of impact, Mr. Becker leads you through the procedures that should be followed in an investigation.

Beginning with the basic designs, materials and components of various bulbs that an investigator will encounter, the author uses photographs and drawings to explain the differences between a normal lamp and a broken one. He goes into detailed descriptions on how to examine a lamp and determine what caused the failure or breakage. In addition, he also gives you an introduction to the use of fiber-optic technology being used for vehicle lamps.

The manual includes the following chapters:

- Lamp Basics
  - Introduction
  - Normal Lamp
  - Filament Failure
  - Cold Shock
  - Hot Shock
  - Hot bulb Break
- The On-Scene and Follow-Up Investigations
  - Securing the Scene
  - Evaluation of the Scene
  - Follow-up Examination
  - Investigator Examination
- New Fiber-Optic Lighting Technology
- Conclusion



A Lamp Inspection Form that may be reproduced for personal or departmental use is also included.

The author, Tony Becker, is a 20-year veteran of law enforcement. He is the Chief Deputy Coroner (Traffic Crash Reconstructionist) for McLean County, Illinois and a private consultant in crash reconstruction.

Specifications: 37 pages; 8½"x11"; coil bound; 39 photographs (6 in color) and 4 drawings

Price: \$21.95 per book; shipping weight: .56 lbs each

## Mathematics for the Traffic Accident Investigator and Reconstructionist

by Nathan S. Shigemura

If the thought of solving for an unknown variable in an equation sends shivers down your spine, you can now relax. *Mathematics for the Traffic Accident Investigator and Reconstructionist* is designed to dispel the fear that you may have when it comes to mathematics. The author, Nathan Shigemura, presents the relevant material needed to be an effective crash investigator or reconstructionist in a light, easy-to-understand fashion and provides a foundation in mathematics that will enable you to make the most of the evidence at hand.

Although comprehensive, Mr. Shigemura does not ignore the basics, so if you lack a background in mathematics, you can easily follow the material presented. Amply illustrated with diagrams and examples, the text begins with arithmetic, continues with signs and fractions, solves for unknown variables and concludes with a study of vectors.

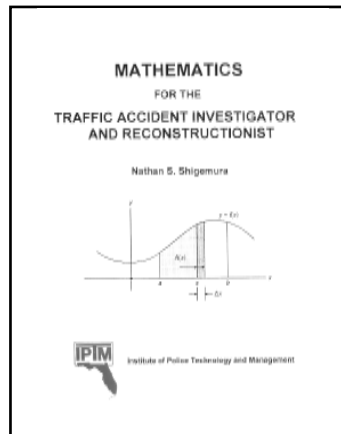
The book includes the following chapters:

- General Arithmetic
- Elementary Algebra
- Elementary Geometry
- Elementary Trigonometry
- Elementary Calculus
- Vectors

Nathan Shigemura is a certified crash reconstructionist by the State of Illinois and holds full accreditation from the Accreditation Commission for Traffic Accident Reconstruction (ACTAR). Apart from his official duties, he performs crash analysis for both prosecution and defense in civil cases. Mr. Shigemura has been a certified instructor since 1985 and has been an adjunct instructor for IPTM since 1989, teaching courses in all levels of crash investigation and reconstruction.

Specifications: 157 pages; 8½" x 11"; spiral bound

Price: \$29.95 per book; shipping weight: 1.06 lbs each



# Books: *Crash Investigation*

## Motorcycle Accident Investigation

by Albert T. Baxter

Any crash involving a motorcycle adds a unique dimension to the investigation. Investigators and reconstructionists must understand the complexity of a motorcycle in order to determine the cause of the crash.

IPTM's *Motorcycle Accident Investigation*, authored by Albert Baxter, will assist you in this area of crash investigation. In addition to serving as a reference source for information relevant to motorcycle crashes, the manual is a comprehensive storehouse of information concerning nearly every aspect of the motorcycle, including its involvement in collisions, what the investigating officer needs to look for in the investigation, the formulas to be used in the calculations and the proper techniques to use to examine the motorcycle and analyze the crash scene data.

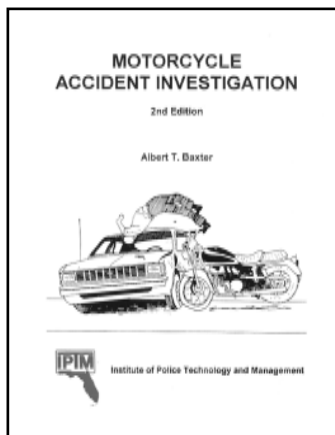
Mr. Baxter explores the various types of motorcycles and their operation. He also discusses helmets and related safety equipment as well as state laws relating to the operation and use of a motorcycle.

The manual includes the following chapters:

- Introduction to Motorcycles
- Types and Operation of Motorcycles
- Accident Scene Data
- Helmets and Other Equipment
- Motorcycle Dynamics

In addition, the author provides the following appendices:

- Hurt Motorcycle Study
- State Motorcycle Laws
- Motorcycle, Helmet and Tire Manufacturer Information
- Glossary
- Motorcycle Specifications



The manual also includes numerous photographs, diagrams and charts that have been reproduced with great clarity.

Albert Baxter was a member of the Philadelphia Police Department for 26 years before retiring at the rank of lieutenant. He is certified by the State of Pennsylvania as an instructor in traffic crash investigation and is also a qualified state inspection mechanic. Mr. Baxter is a founding member of the National Association of Traffic Accident Reconstructionists and Investigators (NATARI).

Specifications: 348 pages; 8½"x11"; spiral bound

Price: \$49.95 per manual; shipping weight: 1.50 lbs each

## Photographing Vehicles for Litigation

by Jack Murray, CLI, CFE

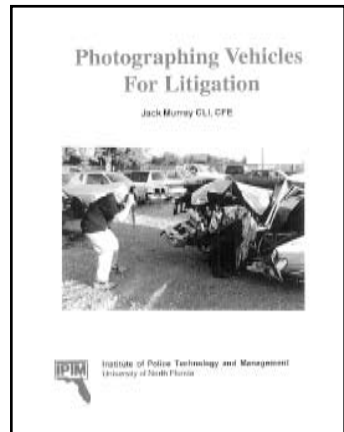
The author has written this text to give you a better understanding of how to photograph a vehicle that has been involved in a collision. He discusses the angles from which to take the picture as well as lighting conditions and the types of equipment to use to get a high quality photograph. He points out mistakes to avoid while emphasizing the fact that to get the best results, you must understand what you are ultimately trying to show with the picture.

The book is an excellent source of photographic information for police, private investigators, attorneys and insurance claims adjusters. It covers the main considerations of phototaking for courtroom use and contains many procedures and tips that are useful in crash photography regardless of whether the photo is shown in court or not.

The book includes chapters on the following:

- Exterior Photos
- Interior Photos
- Bumpers
- Trace Evidence
- Courtroom Presentation
- Equipment
- Resources

Jack Murray holds an MBA from the University of Connecticut. He received formal training in crash reconstruction and has been called to give expert testimony in numerous cases. He is listed in *Who's Who in the World* and *Who's Who in American Law*. He is a certified instructor by both the Texas Board of Private Investigators and the Texas Insurance Board.



Specifications: 40 pages; 8½"x11"; coil bound; 34 photos; 7 diagrams and 2 checklists

Price: \$19.95 per book; shipping weight: .56 lbs each

## Reconstructing Truck Accidents from Tire Marks: Determining Truck Speed at Rollover

by Frank Navin

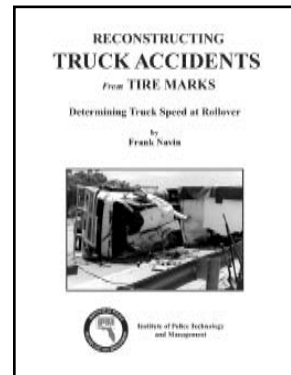
“Truck collisions can become very complex very quickly... The trick in reconstructing [these] collisions is to simplify them to the point that there are recognizable limits.” - Frank Navin, Ph.D.

In order to successfully investigate a crash in which a truck has rolled over, you must have a handle on the underlying engineering mechanics involved. IPTM's latest manual, *Reconstructing Truck Accidents from Tire Marks: Determining Truck Speed at Rollover*, written by Dr. Frank Navin, will help you understand what is involved in the reconstruction of these special types of collisions, which ones can be reconstructed with a good degree of certainty and how to approach the investigation.

Previously performed rollover experiments are included to help you better understand the forces and mechanics involved when investigating simple truck crashes. From there, Dr. Navin shifts his focus to more complex rollovers, specifically those involving trucks hauling moving loads, such as liquid, partial loads and hanging meat. In addition, he points out the data you need to collect if you suspect hydroplaning was involved. As Dr. Navin continues to explore the intricacies of the truck rollover, you will be presented with numerous formulas, charts and diagrams to help you solve for different variables during the reconstruction process. He even provides five reconstruction examples with an analysis of each.

You will find all this information contained within the following chapters:

- 1 - Trucks at the Limit
- 2 - Friction Circle
- 3 - Coefficient of Friction
- 4 - In-Line Braking
- 5 - Tractor-Trailer Jackknife and Other Skid Marks
- 6 - Trucks on Their Side
- 7 - Simple Truck Rollover
- 8 - Complex Rollovers
- 9 - Hydroplaning
- 10 - Example Reconstructions



Frank Navin, Ph.D. is Professor Emeritus at the University of British Columbia, Department of Civil Engineering, where he taught Transportation and Road Safety Engineering from 1972 until his retirement in 2003. He also headed the Transport Canada Reconstruction Team at UBC for 15 years and has lectured on Road Safety and Collision Reconstruction around the world and still remains the president of Synectics Road Safety Research Corporation in Vancouver, British Columbia.

Manual specifications: 145 pages; 8½x11”; spiral bound

Price: \$24.95 per manual; shipping weight: 1.05 lbs each

## Rollover Crashes of Motor Vehicles and Heavy Trucks

by Joseph N. Cofone

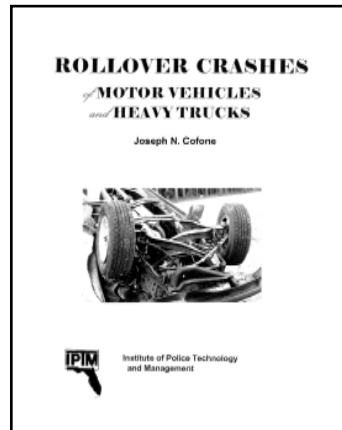
IPTM is pleased to offer this publication that deals specifically with rollover crashes. Authored by Lt. Joseph Cofone, the book, *Rollover Crashes of Motor Vehicles and Heavy Trucks*, will provide you with the basic knowledge and understanding you will need to investigate these types of events.

The book presents many of the equations you will need to determine how the rollover occurred, as well as the techniques available to recognize, record and interpret the physical evidence. You will learn why similar vehicles behave differently under the same set of conditions and what role friction plays in the onset of a rollover. To illustrate his text, Lt. Cofone has included numerous diagrams and photos.

The manual contains the following chapters:

- General Vehicle Roll Dynamics
- Estimating Roll Speed on a Level Surface
- The Three Phases of the Rollover Event
- Trip Speed
- Number of Rolls and Vehicle Path
- Rollover Caused by Vehicle to Vehicle Impacts
- Occupant Kinematics in Rollover Crashes
- Rollover Events Involving Heavy Trucks

This book will be of great value to crash investigators and reconstructionists as well as trucking industry safety officers and insurance investigators.



Joseph Cofone is a lieutenant with the Fatal Accident Investigation Unit at the Bergen County New Jersey Prosecutor's Office. He has qualified many times in a court of law as an expert in traffic crash reconstruction. Lt. Cofone has received awards in police traffic safety and crash investigation and reconstruction and is a founding member of the New Jersey Association of Accident Reconstructionists.

Specifications: 109 pages; 8-1/2"x11"; coil bound; 16 photos; 25 figures; 8 tables

Price: \$24.95 per book; shipping weight: 1.06 lbs each

# Books: *Crash Investigation*

## **Seat Belt and Air Bag Systems Manual for Traffic Crash Investigation and Reconstruction**

by R. W. Rivers

This IPTM publication takes a comprehensive approach to determining a motorist's safety restraint status at the time of the collision.

The author, R. W. Rivers begins by explaining the physics involved in a crash situation. He uses diagrams to illustrate how occupants are expected to move both with and without the use of safety belts and the physical evidence that can be obtained to reveal who was driving. He then discusses the significant role that injuries play in determining whether safety belts were used. A listing of injury categories as well as definitions and explanations of the types of injuries most likely to occur during a collision is also included.

Mr. Rivers continues by classifying the three types of seat belts and discussing their individual components. He provides technical information on the entire restraint system, including the floor anchor assembly, the pillar assembly, the internal safety belt, the webbing material and the buckle. Numerous photographs are included to show you how the belts should look under normal wear and the marks that should be apparent after a collision.

Lastly, Mr. Rivers defines the different types of air bags and the mechanics involved in their deployment. He explains what injuries can be attributed to the inflation of the bag as well as the added precautions investigators should take when examining an air bag that did not deploy during the crash.

The book contains the following chapters:

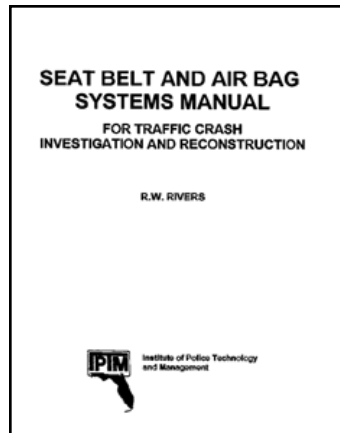
- Seat Belt and Air Bag Safety Systems
- Contact Points
- Injuries
- Seat Belts
- Air Bags

This manual will be invaluable to police officers, crash investigators, reconstructionists, private investigators, trial attorneys and insurance adjusters as well as those involved in laboratory vehicle safety restraint analysis.

R. W. Rivers is recognized worldwide as a leading authority on traffic crash investigation and reconstruction. He retired in 1985 as Officer-in-Charge of the Traffic Branch in the Province of British Columbia where he was employed extensively in general police work, highway patrol, crash investigation, planning and research, and training and development. Mr. Rivers is the author of several internationally acclaimed textbooks.

Specifications: 106 pages; 8½" x 11"; coil bound; 33 diagrams; 38 photographs; 4 tables; website list and index

Price: \$21.95 per manual; shipping weight: .63 lbs each



## Speed Analysis for Traffic Accident Investigation

by R.W. Rivers

Central to any crash investigation is the determination of the speed(s) of the vehicle(s) involved. *Speed Analysis for Traffic Accident Investigation* will assist you in this task by demonstrating the application of over 50 formulas used to calculate speed.

The author has revised and expanded the earlier edition of this training and reference manual dedicated entirely to the topic of speed analysis. He provides examples of each type of analysis for a variety of situations and illustrates the manual with easily understood diagrams.

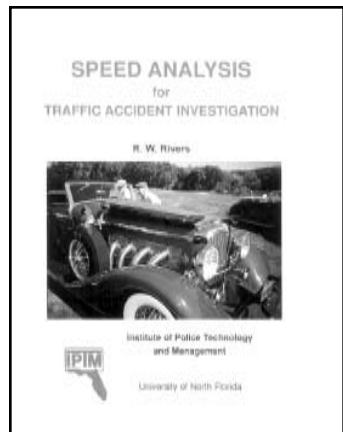
The book includes the following chapters:

- Vehicle Behavior Involving Physics (Vehicle Mechanics and Dynamics)
- Coefficient of Friction and Drag Factor
- Slide-to-Stop Speed
- Speed from Yaw Marks, Falls, Vaults, Flips & Vaults and Combined Speeds
- Acceleration and Deceleration
- Momentum Speed Analysis Using the 360-Degree Method

The author, R.W. Rivers, is recognized worldwide as a leading authority on traffic crash investigation and reconstruction. Inspector Rivers retired in 1985 as Officer-in-Charge of the Traffic Branch in the Province of British Columbia where he was employed extensively in general police work, highway patrol, crash investigation, planning and research, and training and development. He is the author of several internationally acclaimed textbooks.

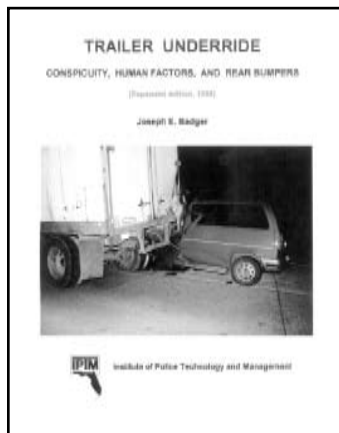
Specifications: 238 pages; 8½"x11"; spiral bound; illustrated with diagrams and 58 formulas

Price: \$39.95 per manual;  
shipping weight: 1.38 lbs each



## Trailer Underride: Conspicuity, Human Factors, and Rear Bumpers

by Joseph E. Badger



This manual puts everything you need to know about trailer underrides in one location. Not only will you find diagrams and photos that describe and illustrate situations in which underride collisions typically occur, you will also find the encouraging results of better trailer visibility now required by law.

In this revised 1998 edition of *Trailer Underride: Conspicuity, Human Factors, and Rear Bumpers*, Joseph Badger explains why most underride crashes occur at night and how these crashes frequently result from the motorist's failure to perceive - until too late - the nature of the object blocking

the path, such as a trailer angled across the motorist's lane of travel (resulting in a side underride) or the motorist's failure to gauge the distance to the back of a slow-moving rig traveling in the same lane (resulting in a rear underride).

The author also discusses the preventive measures that have been effective in either preventing these collisions or in reducing their severity — such as better conspicuity of tractor-trailer rigs, better training for both truck drivers and motorists in respect to nighttime visibility and underride crashes, better training of law enforcement officers who may be called to the scene of an underride crash and the installation of better underride guards on trailers. In addition, Mr. Badger addresses the countermeasures that have been tried and failed.

Joseph Badger is a nationally known expert in the field of crash reconstruction. He retired from the Indiana State Police after 20 years, during which he spent the last 10 as the senior crash reconstructionist. He is accredited by the Accreditation Commission for Traffic Accident Reconstruction (ACTAR) and is a member of several reconstruction organizations. He currently maintains a private consulting business.

Specifications: 73 pages; 8½"x11"; coil bound

Price: \$24.95 per manual; shipping weight: .56 lbs each

## **Training and Reference Manual for Traffic Accident Investigation**

by R.W. Rivers

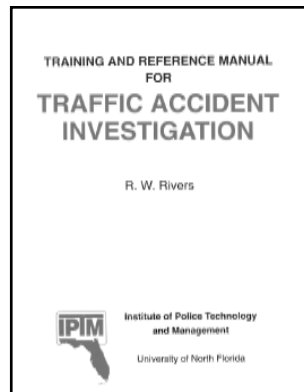
The key to any successful traffic crash investigation lies in the knowledge the investigator possesses. Mr. Rivers provides this knowledge by leading you step-by-step through the investigation process. Topics such as how to inspect a vehicle, how to photograph a vehicle and crash scene, how to estimate the speed of a vehicle and how to interview a witness or victim are discussed in detail. He also devotes time to the environmental factors and human elements that may contribute to a crash.

Throughout the manual, Mr. Rivers defines the most common traffic terms. He does this in an attempt to establish uniformity among investigators. Whenever possible, he provides the reasons why a procedure is performed in a particular manner.

In addition to being the basis for IPTM's *At-Scene Traffic Crash/Traffic Homicide Investigation* course, this manual can be used as a reference by those currently involved in crash investigations, those who need a refresher course and those who wish to enter the field of traffic crash investigation.

The nine lessons are listed below:

- Introduction to Traffic Accident Investigation
- Traffic Accident Series of Events
- The Human Element
- Environmental and Trafficway Factors
- Vehicle Inspections
- Speed Estimates (formulas)
- IPTM Traffic Template
- Field Measurements and Scale Diagrams
- Accident Photography



R.W. Rivers is one of the foremost practitioners of crash reconstruction. He retired in 1985 after serving 32 years with the Royal Canadian Mounted Police. As well as being the author of several internationally acclaimed textbooks, Mr. Rivers is also the designer of IPTM's "blitz" series of traffic templates, which aid investigators in drawing diagrams of crash scenes.

Specifications: 558 pages; 8½"x11"; perfect bound

Price: \$45.00 per manual; shipping weight: 3.25 lbs each

Order 10 or more, and the price is only \$38.00 per manual

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# Books: *Crash Investigation*

## Vehicle-Pedestrian-Bicycle Collision Investigation Manual

by Tony L. Becker  
(2nd Edition)

This manual is a must for the on-scene investigator, crash reconstructionist or private investigator involved in determining the cause of any crash involving a vehicle and a pedestrian or bicyclist.

Amply illustrated with photographs, charts and diagrams, IPTM's *Vehicle-Pedestrian-Bicycle Collision Investigation Manual*, written by Tony Becker, will provide you with the information you need to know about pedestrian dynamics as well as the proper steps to take to conduct an on-scene or follow-up investigation of the collision site. To demonstrate his techniques in crash reconstruction, the author includes one of his own case reports of an actual incident involving a pedestrian and vehicle.

Now in it's second edition, you will still find the procedures for documenting evidence and making a collision analysis as well as the special considerations of steps and procedures needed for handling nighttime collisions. Yet you will also discover an entire chapter devoted to the special considerations that must be given to crashes involving bicycles.

All this information is contained within the following chapters:

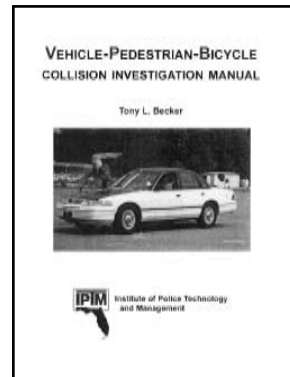
- On-Scene Investigation
- The Pedestrian-Bicyclist
- The Vehicle
- The Analysis
- Bicycle Crash Investigation
- Appendix 1 (Profile and Data Sheets)
- Appendix 2 (Sample Report)

In addition, the author has included 12 different forms which may be reproduced as needed: Data Sheets for Vehicle Contact, Pedestrian/Vehicle, Pedestrian/Truck, Bicycle, and Pedestrian Injury; Vehicle Collision Contact Sheet; Deformation Profile Sheet; Bicycle-Vehicle Crash Investigation, Collision Scene Field Measurements; and both Objective and Subjective Nighttime Visibility Measurement forms.

Tony Becker has over 25 years of law enforcement experience, the last 10 of these as a certified death investigator for the McLean County, Illinois, Coroner's Office. He currently works as a private law enforcement trainer and traffic reconstruction consultant.

Manual specifications: 122 pages; 8½x11"; glossary of medical terms; formulas are in both imperial and metric measurements

Price: \$21.95 per manual; shipping weight: .63 lbs each



## **Alternative Work Schedules**

by W. L. Booth

In these times of shrinking budgets and limited manpower, it is important to utilize the available manpower efficiently. It is also necessary to schedule resources to adequately respond to peak levels of activity...all while keeping a handle on overtime costs.

This book has been written for managers who need a quick and easy method of establishing alternative work schedules to maximize the effectiveness of their agencies or businesses. It eliminates the complicated theory and nearly impossible statistical formulas used when typically designing alternative work schedules.

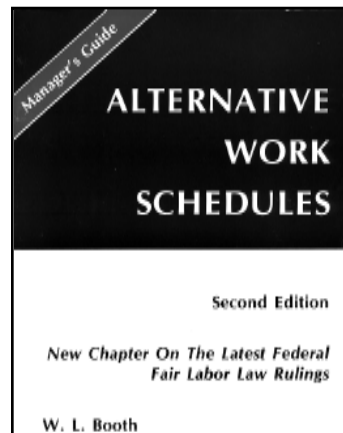
The author presents twenty-one different options covering eight, nine, ten, eleven and twelve hour work days and discusses the advantages and disadvantages of each. To assist you in choosing a schedule that is right for your agency, the author includes a Table of Statistical Characteristics that provides data such as the number of weekends off an employee receives with a given schedule, the amount of compensatory time earned annually for each employee and possible shift hours. Also included is a narrative that compares that particular schedule with other schedules.

This manual equates to a large staff study on alternative work schedules. Your agency will save days, even weeks, developing possible schedules by simply using the sample schedules that are already included in the book. As an added bonus, a package of the basic schedules will be shipped with your order for you to use and/or copy as needed.

And don't forget the Federal Fair Labor Standards Act when designing an alternative work schedule. This manual includes the information you will need to evaluate a work schedule that is in compliance with the F.L.S.A.

Specifications: 267 pages; 8½"x11";  
perfect bound

Price: \$29.95 per manual;  
shipping weight: 1.81 lbs each



## **Bombs: Defusing the Threat**

by William J. Borbidge III

Bomb. In today's society, that word gains attention like no other. Just the threat of such a device can be disastrous if you are not prepared. But what is the correct response to a bomb threat?

*Bombs-Diffusing the Threat* provides the specific steps that should be taken when any organization, regardless of size, receives a bomb threat. The author stresses the importance of taking the threat seriously and of the liability that can result if a decision is made to ignore the threat.

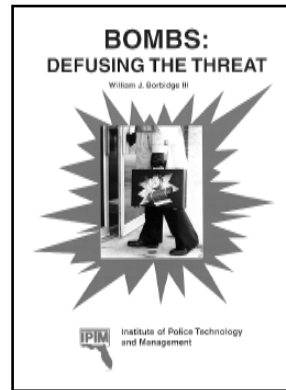
Mr. Borbidge begins by telling you how to handle the receipt of the threat. He even provides a Bomb Threat Checklist that can be photocopied and placed near every telephone in your organization. He explains the importance of having a Bomb Threat Response Plan and provides all the information you need to set up a command center, including the selection of personnel, locations and equipment that may be necessary.

The author devotes chapters to both searching methods and evacuation procedures in order to ensure the safety of all employees. In addition, he describes security measures you can take to prevent a person from planting a bomb, or at the very least, making it very difficult.

The book contains the following chapters:

- Receiving the Threat
- Responding to the Threat
- Searching
- Evacuating
- Bombs in the Mail
- Improving Physical Security
- After the Bomb, Disaster Recovery

This manual is a must for those in private industry, government, education, law enforcement and any others who are involved in the safety and security of employees and buildings.



William J. Borbidge III has been a police officer with the Philadelphia Police Department since 1981. He has been with the department's Bomb Disposal Unit since 1986. He is a second-generation bomb technician and has received training from the FBI and the U.S. Army's Hazardous Devices School as well as investigation training from the Bureau of Alcohol, Tobacco and Firearms and the U.S. Postal Inspection Service. During his years with the Philadelphia Bomb Squad, Officer Borbidge responded to over 700 bomb-related assignments.

Specifications: 125 pages; 8½"x11"; perfect bound

Price: \$39.95 per book; shipping weight: .88 lbs each

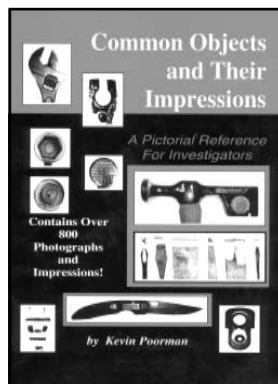
## Common Objects and Their Impressions A Pictorial Reference for Investigators

by Kevin Poorman

You've just found a victim who has three unusual marks on their neck. Would you be able to quickly assess that the weapon used was a serving fork? You might, if you are armed with a copy of IPTM's publication, *Common Objects and Their Impressions: A Pictorial Reference for Investigators*, by Kevin Poorman.

The book was written to help you take the guesswork out of deciding what type of weapon was used in a particular crime. Mr. Poorman includes images of over 200 common objects and the more than 600 impressions that can be made from the different parts of those weapons.

From wrenches to rolling pins, screws to spoons and hangers to handguns, the author has included a wide array of everyday items that can be used to inflict wounds and death. His book will be useful to forensic pathologists, criminal investigators, crime scene technicians, child abuse investigators, bloodstain pattern analysts, tool mark examiners, forensic dentists, prosecutors and students of the forensic sciences.



Kevin Poorman has been a criminal investigator for 20 years with the US Air Force Office of Special Investigations. He is a court-qualified expert in crime scene processing and crime scene reconstruction. As an adjunct faculty member, Mr. Poorman has taught courses in law enforcement, criminal justice and forensic sciences at Central Texas College, the University of Maryland and The George Washington University.

Specifications: 134 pages; 8½"x11"; coil bound

Price: \$29.95 per book; shipping weight: 1.19 lbs each

## Detecting Deception: Polygraph Instruments, Standards, Procedures - For the Practitioner

by Theodore Ponticelli

We've come a long way since the days when donkeys and rice were used to predict when a person was lying. And as man became more scientific, so did the methods. In one of IPTM's latest manuals, *Detecting Deception: Polygraph Instruments, Standards, Procedures - For the Practitioner*, you will learn how a skilled polygraph examiner can determine whether or not a person is telling the truth.

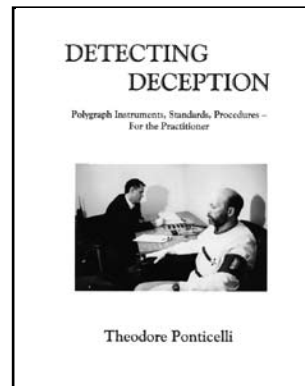
The author, Theodore Ponticelli, addresses the essential factors that are needed for a proper polygraph examination and explains each in detail. He explains the reasons why understanding physiology and the changes that occur in a person during a test are crucial to accurate interpretation.

Mr. Ponticelli also describes the basic rules of test question formulation, standard chart markings, different test formats and the interpretation and analysis of each test. He offers advice on how the practitioner should act before, during and after the test and how to confirm the results.

This book was written for entry-level polygraph examiners as well as more accomplished practitioners who may need to consult such a work. It will also serve as a comprehensive reference for the legal and law enforcement communities who may need to understand the applied theory of detecting deception.

The book includes the following chapters:

- History of Detecting Deception
- Applied Theory of Detecting Deception
- Polygraph Instrumentation
- Physiology as Applied to Detecting Deception
- Normal and Abnormal Psychology (Abbreviated)
- Subjectivity-Objectivity
- Test-Question Formulation
- Polygraph Testing Formats
- Polygraph Examination Procedures
- Standard Chart Markings
- Polygraph Chart Interpretation and Analysis
- Validity and Reliability
- Confirmation Procedures
- Interpreting Body Language
- Polygraph Countermeasures
- Polygraph Case Studies
- Polygraph Problem Solving



Theodore Ponticelli is a forensic polygraphist who has been a full member of the American Polygraph Association for over 30 years. He has administered more than 10,000 criminal polygraph examinations and has testified as an expert on polygraph procedures. Mr. Ponticelli graduated from the Polygraph Examiner Training Program of the US Army Military Police School in 1966, where he later served as the administrative officer and principle instructor. In 1980 he founded the National Academy of Lie Detection, where he was Director of Resident Instruction until 1984, training more than 600 polygraph examiners.

Specifications: 241 pages; 8½"x11"; perfect bound

Price: \$39.95 per book; shipping weight: 1.5 lbs each

## **Dodging Bullets** **A Strategic Guide to World Class Protection** by Thomas A. Taylor

Protection - the duty of the bodyguard. A bad day on the job could result in bloodshed. Whether protecting a President or a celebrity, the bodyguard is only successful when his or her protectee is safe.

In this revised edition of *Dodging Bullets - A Strategic Guide to World-Class Protection*, Thomas Taylor outlines the standards for anyone involved in the protection industry. Throughout the book, he uses examples of both successful and failed assassination attempts to demonstrate what a bodyguard should and should not do. You will be amazed at how the slightest missed detail by a bodyguard can result in injury or death.

Mr. Taylor uses historical facts as well as numerous proverbs, verses and ancient quotes to illustrate how a bodyguard can achieve a world-class level of protection. He stresses the importance of how being prepared, remaining professional and keeping one's distance from the protectee - while still remaining within arm's reach - is the only way to be truly effective.

This book is a must read for anyone who is part of the protection industry, including Secret Service agents, police officers assigned to a mayor or other dignitary or private sector bodyguards assigned to a celebrity or CEO.

The book includes the following chapters:

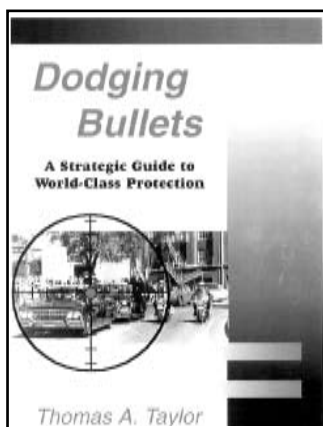
- Soak up Six for the Boss
- Politics vs. Protection
- Peril of the Profession
- Protective Protocols
- Deadly Predictions
- Bodyguard of Lies
- The Readiness is All
- Know the Enemy
- Anatomy of an Ambush
- The Suddenly Scenario

The author also includes a glossary of terms, a selected bibliography and a listing of ancient quotes that still apply to modern day protective operations.

Thomas Taylor is a 30-year veteran of the Missouri State Highway Patrol. He has served on the protective details for four governors and has worked closely with the Secret Service agents for Presidents Ford, Carter, Reagan, Bush and Clinton and for Pope John Paul II. He was twice elected President of the National Governor's Security Association by the detail leaders for every governor in America.

Specifications: 308 pages; 5½"x8½"; perfect bound

Price: \$29.95 per book; shipping weight: 1.06 lbs each



## Firearms and Ballistics for Physician and Attorney

by Jules C. Ladenheim, M.D. and Eric D. Ladenheim, M.D.

Have you ever wondered about the physical differences between revolvers, pistols, rifles and shotguns? What about the types of wounds a particular weapon leaves in its target? For some, knowing how firearms work and what types of dangers can be avoided can mean the difference between life and death.

IPTM's publication, *Firearms and Ballistics for Physician and Attorney*, written by Dr. Jules Ladenheim and Dr. Eric Ladenheim, will be of value to anyone who needs to be familiar with the types of wounds inflicted by a particular firearm and the characteristics of the weapon.

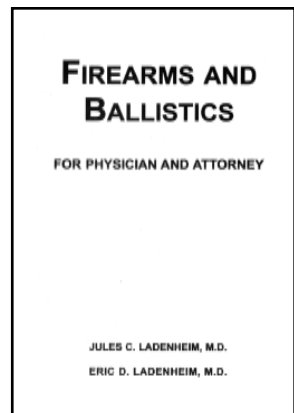
The authors begin by describing some of the most common types of firearms used today and the specific features of each. After the overview, they delve into different types on the market. For example, under the chapter "Pistols," you will find information on both single and double action pistols and the cartridges and ammunition used by each.

But the doctors don't stop there. Did you know that an unexploded bullet in a victim could detonate in the operating room or from exposure to ultrasound or other medical equipment? The last three chapters are devoted to ballistics — the study of the flight of the projectile from the moment it has been fired until it comes to rest — to provide information about what physically happens to a bullet once it has been fired and what type of damage and evidence physicians should consider when examining a shooting victim.

The book includes the following chapters:

- Revolvers
- Pistols
- Rifles
- Shotguns
- Assault Guns
- Antique Firearms and Air Guns
- Cartridges
- Internal Ballistics
- External Ballistics
- Terminal Ballistics

The authors, Jules C. Ladenheim, M.D. and Eric D. Ladenheim, M.D. are both very knowledgeable about gunshot wounds, guns and ammunition, whether used for military or civilian purposes.



Specifications: 306 pages; 5-1/4" x 8-1/4"

Cost: \$39.95 per book; shipping weight: .69 lbs each

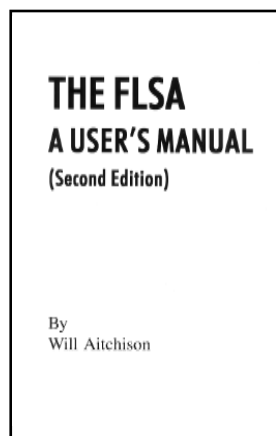
**The FLSA – A User’s Manual**  
**(Second Edition)**  
by Will Aitchison

The Fair Labor Standards Act, or FLSA, is generally known as the minimum wage law. *The FLSA - A User’s Manual* is a comprehensive text of this law. From the history of its development to the new revisions to a listing of internet resources, this book will prove to be a valuable reference manual for departments of any size.

The author, Will Aitchison, not only explores the legal terms of the Fair Labor Standards Act, but offers an explanation of the meaning of why and when revisions were made. He also includes footnotes with references to numerous cases and other sources.

There are thirteen chapters that address the following topics:

- The History Behind the FLSA
- The FLSA’s Overtime Provisions
- The FLSA and Collective Bargaining Agreements
- Computation of the Regular Rate Under the FLSA
- The Calculation of “Hours Worked” Under the FLSA
- Compensatory Time Off Under the FLSA
- The 7(k) Exemption
- Executive, Administrative, or Professional Employees Under the FLSA
- Recordkeeping Requirements Under the FLSA
- Remedies for Violation of the FLSA
- FLSA Resources on the Internet
- Excerpts from Regulations Under the FLSA
- Glossary of Citation Forms
- Table of Cases



Will Aitchison is an attorney in Portland, Oregon. He received his Doctor of Jurisprudence Degree from Georgetown University Law Center in 1976. Since Mr. Aitchison entered private practice, he has been representing labor organizations. He has served as both an arbitrator and a protem district court judge and has contributed numerous articles to various periodicals.

Specifications: 453 pages; 5¼” x 8¼”; perfect bound

Price: \$29.95 per book; shipping weight: 1.31 lbs each

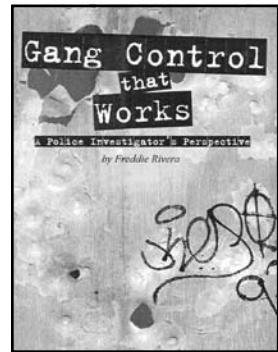
## **Gang Control that Works: A Police Investigators Perspective**

by Freddie Rivera

Not a single state in the U.S. has escaped some type of violence committed by gangs. With over three quarter of a million members, gangs have infiltrated their way into many cities in every state in the nation.

To help reduce the number of gangs and their violent, often illegal, activities, Officer Freddie Rivera has written an article entitled *Gang Control That Works: A Police Investigator's Perspective* to serve as a possible model for use by cities and towns throughout the country that are looking for a realistic way to manage gang activities.

After giving you a brief overview of gangs and violence across the nation, the author shifts his focus to the problem in Durham, North Carolina, where there is a high concentration of gang related activity and crime. To assess the underlying factors contributing to gang activity as well as to understand the community's perception of the gang problem, Officer Rivera conducted a survey in Durham to gather data on gangs. He provides you with the results of this survey in both narrative and chart form. He also offers explanations of several gang control programs that are currently working in other states.



Officer Rivera is Major Crimes Unit Investigator with the Durham (North Carolina) Police Department. Prior to being assigned to this unit in 2002, he was a Gang Investigator with the additional responsibility of providing gang awareness training for not only the department, but also for Duke Hospital in Durham, the Durham County School System and several other public service organizations in the community.

Specifications: 32 pages; 8½"x11"; saddle stitched

Price: \$9.95 per book; shipping weight: .28 lbs each

## **In-Car Video User's Manual for the Patrol Function**

by Kevin M. Morrison and Lon S. Arend

IPTM's *In-Car Video User's Manual for the Patrol Function* manual was written to help those in law enforcement understand the in-car video system and how to properly capture events in an objective and legal way to show others evidence of criminal activity.

Beginning with the comparison between what the camera interprets and what the human eye actually sees, the authors, Kevin Morrison and Lon Arend, quickly delve into the history of video taping in law enforcement and explain, in detail, the types of components that comprise an in-car video system. From there, they move on to the steps to take when using the system and share their expertise in areas such as when to start recording, optimal camera positioning and the differences between daytime and nighttime recordings.

Finally, the authors discuss the ways that video taped evidence is being treated in the courts today. They'll tell you about the admissibility of video and audio in the courtroom and provide you with their "10 Steps to Successful Prosecution." You will see that when used correctly, "...in-car video evidence can be an effective tool for the prosecutor."

The manual contains the following chapters:

- Video and the Human Eye
- History of Video Taping in Traffic Enforcement
- System Operation
- Uses for Police In-Car Video
- Legal Issues

About the authors:

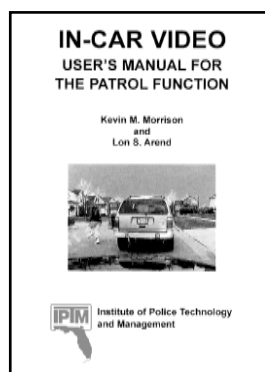
Kevin Morrison joined the IPTM staff in 1998 after 22 years with the Largo (Florida) Police Department. He has represented the Florida Police Chief's Association on the Florida Technical Review Committee for Speed Measurement Devices and has participated with the IACP Highway Safety Committee's Speed Measurement Advisory Technical Subcommittee. Mr. Morrison currently instructs IPTM's In-Car Video courses.

Lon Arend has been the supervisory Assistant State Attorney with the Twelfth Judicial Circuit in Desoto County (Florida) since 1997. He has received specialized training from the Florida Trial Lawyers Association, the National District Attorneys Association and IPTM. For his effectiveness in prosecuting DUI cases, Mr. Arend received the MADD Florida DUI Prosecutor of the Year Award in 1996.

Specifications: 88 pages; 5-1/2"x8-1/2"; spiral bound

Price: \$14.95 per manual; shipping weight: .25 lbs each

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## Lines of Defense Police Ideology and the Constitution

by Chuck Klein

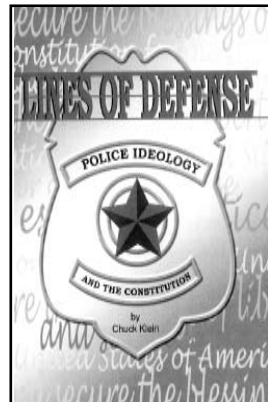
Part of protecting society is earning the trust and respect of its citizens. However, the public's confidence in the police has been fading. Highly publicized incidents and accusations of profiling continue to erode the public's trust.

In *Lines of Defense: Police Ideology and the Constitution*, the author discusses the issues of what police work once was, what it is today and what it needs to become in the future. He addresses the issues of trust and ethics and the roles they play in law enforcement.

And in as much as the man or woman who takes the oath of a police officer to support the U.S. Constitution must be familiar with the document upon which our form of government is founded and our laws are based, the author has included a second part to his manual, which presents you with the Declaration of Independence, the U.S. Constitution and its Amendments. He provides annotations to all three documents, explaining both the meaning and historical reasons for each section.

The book includes the following chapters:

- Trust
- Ethics
- Code of Ethics
- The Fourth Branch of Government
- Extrapolation and Projectors
- Loyalty
- Solutions
- Police Officers: Our Last Line of Defense
- Evolution of Rights and Wrongs
- The Declaration of Independence
- Constitution, Preamble and Articles
- Amendments to the Constitution
- The Pledge of Allegiance



Chuck Klein is a former police officer and an acclaimed author on police topics. He is a licensed private investigator, an NRA certified firearms instructor and an active member of both the American Society of Law Enforcement Trainers (ASLET) and the International Association of Law Enforcement Firearms Instructors (IALEFI).

Specifications: 203 pages; 6"x9"; coil bound

Price: \$34.95 per manual; shipping weight: .81 lbs each

## Photography and Digital Imaging in Law Enforcement

by Kevin Mello

In today's society, the emphasis on physical evidence in the courtroom is greater than ever. Quite often, a conviction can be made entirely on the basis of the photographs taken at the crime scene. As the demand for physical evidence increases, so does the need for well-documented photographs. With this in mind, Kevin Mello has updated his booklet, *Photography and Digital Imaging in Law Enforcement*, to help you get the best possible pictures from both SLR and digital cameras.

Mr. Mello begins by explaining the principles of light and the differences between how we see colors and how the camera "sees" colors. He then moves on to topics focusing on film speed, shutter speed, aperture settings, depth of field and flash photography. The basics of using an electronic flash and the descriptions of the six basic types of lighting used in forensic photography are discussed as well.

The author devotes an entire section to digital cameras — how they work, which type of file format is best for saving pictures, how to achieve a good exposure and how to use a fill flash to accent specific details. And if you are considering the purchase of a digital camera, Mr. Mello describes those features that will be particularly useful to law enforcement. He also explains why protecting the legitimacy of the digital images once they have been taken is not that different from traditional methods.

Regardless of the type of camera you decide to use, certain photos should always be taken at a crime scene. Mr. Mello not only tells you what photos should be taken, but in what order to take them. He also includes an appendix which lists the unique, individual features of different types of crime scenes that should be documented.

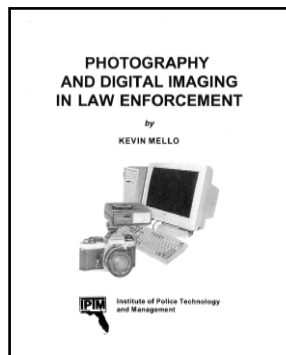
The book contains the following chapters:

- General Photographic Considerations
- Digital Technology
- Shooting a Crime Scene
- Photographing Injuries
- Night Photography

Kevin Mello has been a law enforcement officer since 1982. In 1985 he became a crime scene deputy with the Pinellas County (Florida) Sheriff's Office and worked with advanced forms of scene and evidence photography. Deputy Mello has taught Forensic Photography for the Florida Department of Law Enforcement, the Florida Division of the International Association of Identification, the Criminalistics Program at St. Petersburg Junior College and IPTM.

Specifications: 30 pages, 8-1/2"x11", coil bound; illustrated with 8 color and 33 black and white photographs

Price: \$9.95 per booklet; shipping weight: .56 lbs each



## Report Writing for Law Enforcement and Corrections

by John C. Bowden

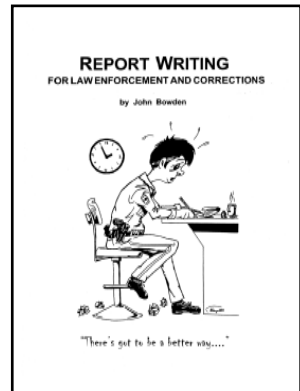
This book, revised in 2002, is a must for anyone who has ever struggled to write investigative reports. It provides a step-by-step process on how to write a report that ensures a perfect report the first time, every time and all the time. Since each report is "...a permanent written record which communicates important facts to be used in the future," it is essential to write every report clearly and accurately.

The author, John Bowden, has created a method that will improve the skills of both beginner and veteran report writers and eliminate the time spent rewriting reports. Called the Time Line Model, this method can be applied to any situation that calls for an incident-type report and used effectively by anyone having basic grammar and rudimentary writing skills.

*Report Writing for Law Enforcement and Corrections* includes the following chapters:

- The Report and the Report Process (Why Take a Report?)
- Reporting Procedures (What Are the Rules?)
- Basic Elements of Report Writing
- Grammar (Rules of the Road)
- Gathering the Facts (The Investigative Process)
- Report Structure (Basic Organization)
- Chronological Order (The Time Line Model)
- Writing the Report (From Notes to Report)
- Review the Report (Checking Your Work)
- Construction of a Report (Putting It Together)

The last chapter presents a case scenario which allows the reader to take on the role of an investigating officer and practice the skills presented in the text.



In addition, the book includes seven appendices with topics ranging from language basics to the rules of listening to examples of police jargon and street slang.

The book is a compilation of Mr. Bowden's teaching experiences over the last thirteen years. For other instructors of police report writing, this book will be ideal as a classroom textbook.

Book Information: 222 pages; 8½"x11"; coil bound

Price: \$29.00 per book; shipping weight: 1.31 lbs each  
Order 10 or more, and the price is only \$26.50 per book

## **The Rights of Law Enforcement Officers (Fifth Edition)**

by Will Aitchison

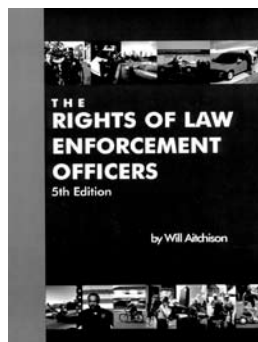
The role of today's officer is much more than law enforcement and crime prevention. In the course of any given day, you may be called upon to act as a social worker in a domestic dispute, act as a prosecutor in traffic law cases, provide emergency medical treatment or dismantle a lab used to manufacture drugs. In addition, you must keep abreast of current state and federal laws, changing departmental procedures and increasing job requirements.

While the majority of the public's focus remains on the rights possessed by criminals, the notion that law enforcement officers themselves have rights has been lost. These rights, which are often misunderstood or applied sporadically, are the subject of the extensively revised book, *The Rights of Law Enforcement Officers (5th Edition)*, published by The Labor Relations Information System, available now from IPTM.

In this edition, you will find references to hundreds of new cases decided in the last few years. Supporting case law and statutory citations make this an excellent reference tool for both police departments and attorneys. Also included with the book is a CD-Rom that contains the complete text of the book, hundreds of court decisions and a dozen state peace officer Bill of Rights.

The book includes the following chapters:

- Law Enforcement Officers and Collective Bargaining
- Disciplinary Standards and Law Enforcement Officers
- Procedural Rights in the Disciplinary Process
- Law Enforcement Officer Bills of Rights
- The Right to Privacy and the Regulation of Off-Duty Conduct
- A Law Enforcement Officer's Freedom of Speech Rights
- A Law Enforcement Officer's Freedom of Association Rights
- The Right to Engage in Political Activities
- Religion and the Law Enforcement Workplace
- The Rights of Law Enforcement Officers to Bring Civil Lawsuits
- Worker's Compensation and the Right to a Safe Working Environment
- Law Enforcement Officers and Employment Discrimination
- The Employment Rights of Disabled Officers
- The Fair Labor Standards Act
- The Enforcement of Officer's Rights



Will Aitchison is a Portland, Oregon attorney who has represented over 100 law enforcement and firefighter labor organizations in five western states. He graduated from the University of Oregon (Honors College) in 1973 and received his Doctor of Jurisprudence Degree from the Georgetown University Law Center in Washington, D.C. in 1976. After two years clerking for the chief justice of the Oregon Court of Appeals, Mr. Aitchison entered private practice. He has lectured on numerous occasions throughout the country on FLSA issues and topics concerning labor relations and personnel issues and has served as an expert witness and consultant in a variety of employment matters.

Specifications: 512 pages; 7"x10"; perfect bound

Price: \$39.95 per book; shipping weight: 2.38 lbs each

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## **Speed Measurement in Traffic Law Enforcement: From Radar to Laser** (2003 Edition)

by Kevin M. Morrison

This updated text explores the latest technology in speed measurement and is a must for anyone who wishes to expand his/her knowledge in the area of Radar or Laser speed measurement devices.

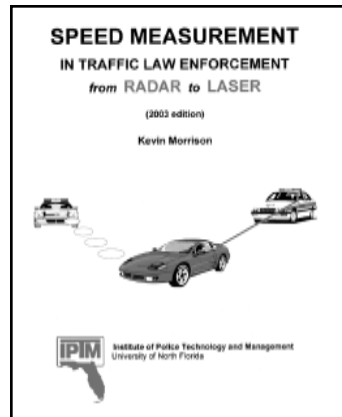
Mr. Morrison begins by discussing the speeding problem and how to combat it. He quickly moves on to Radar units - their history, development and evolution - and defines the terms used in connection with all speed measurement devices, including mathematical problems (with solutions) to illustrate his point. The operation of both stationary and moving targets as well as same-direction and target-fastest Radars are explained in detail. New to this edition is information regarding direction-sensing same direction moving Radar and its operation.

Once you have had a chance to understand how Radar works, the discussion of Lasers begins. Here again, the author starts with the history and moves to modern day Laser operation.

The book contains the following chapters:

- The Speeding Problem
- Radar: Historical Development
- Radar Operation
- New High Tech Radars
- Laser
- Time-Distance
- Speed Enforcement

All speed and distance references are shown in both U.S. and metric values. The book also includes numerous examples in each measurement system.



Kevin Morrison joined the IPTM staff in September of 1998 after 22 years with the Largo (Florida) Police Department. He has represented the Florida Police Chief's Associate on the Florida Technical Review Committee for Speed Measurement Devices and has participated with the IACP Highway Safety Committee's Speed Measurement Advisory Technical Subcommittee.

Specifications: 138 pages; 8½"x11"; spiral bound; includes photos, diagrams and numerous tables containing technical data

Price: \$24.95 per book; shipping weight: .75 lbs each

## **The Stalking Phenomenon: Preying on the Soul**

by Dr. Reid Kimbrough

Stalkers come from all walks of life. There is no specific age, race or gender. A stalker can be a spouse, a friend, a child or a stranger and can come from any type of family in any neighborhood. The truth is, anyone can be a potential stalker. And unfortunately, the majority of stalking cases are not reported to the authorities until a serious crime has been committed.

In this book, Dr. Kimbrough explains why victims are reluctant to inform the police that they are being stalked. He presents case studies of real life stalking incidents to show you how stalking may progress from being merely a bothersome series of encounters and incidents to a life-threatening situation that can psychologically devastate the targeted individual or potentially end in murder.

Dr. Kimbrough gives you an overview of the various types of stalkers - from the erotic to the schizophrenic to the psychopathic - and describes the characteristics, traits and patterns of each. He offers ways to profile a stalker and includes a Tactical and Risk Assessment checklist that can be used to perform a lethal threat assessment of the stalker. He also devotes a chapter to the juvenile stalker and provides a list of warning signs that may be used to predict the destructive behavior of these children.

Dr. Kimbrough offers tips to train others on how to reduce the likelihood of ever becoming involved with a stalker as well as methods for coping with a stalking incident before it gets out of hand. In addition, he provides appendices of current stalking laws, statutes and criminal codes.

The book includes the following chapters:

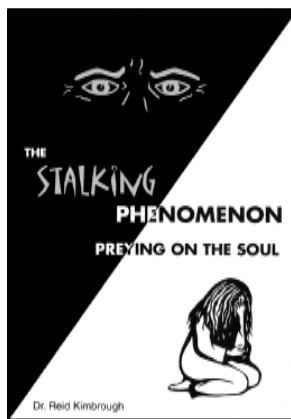
- What Is Stalking and Who Are Stalkers?
- Major Categories of Stalkers
- Cyberstalking
- Traits and Characteristics of Violent Offenders and Stalkers
- Subcategories of Stalkers
- Juvenile Stalking Patterns
- Case Files: Victims and Perpetrators
- Progressing Toward a Violent End
- Loners
- What Can be Done to Thwart the Stalker?

Dr. Kimbrough's career in law enforcement began during the 1980's. In the aftermath of an unfortunate incident in which he narrowly escaped being killed in the line of duty, he completed a Master's Degree in Psychology/Professional Counseling and a Doctorate in Behavioral Science with an emphasis in Psychology. He remains active in research and training in the law enforcement field and has worked with several police and sheriffs' departments around the country focusing on school violence, juvenile homicide, stalking investigations and Officers at Risk/Internal Affairs investigations.

Specifications: 320 pages, 7"x10"; perfect bound

Price: \$24.95 per book; shipping weight: 1.50 lbs each

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## **The Successful Oral Interview for New Hire, Promotion and Transfer in Law Enforcement: A Guide for Interviewer and Applicant**

by Joseph W. Johnson

Have you ever felt like you were the most qualified person for a particular position, only to learn that someone else got that job? Or maybe you were passed over for a promotion or transfer that you felt sure you would get? IPTM's publication, *The Successful Oral Interview for New Hire, Promotion and Transfer in Law Enforcement: A Guide for Interviewer and Applicant*, was written to help you get the job you are going after.

From tips on how to complete a job application and create a résumé to what you should know about the job before the interview, you will find guidelines on topics such as how to dress for the interview, what you need to take with you, how to properly respond to questions and what you should do after the interview. The author, Joseph Johnson, even provides lists of typical questions that may be asked of candidates searching for new jobs, transfers and promotions.

Although primarily written for applicants, employers will find the information in this book useful, as it will help them recognize the signs of a truly qualified candidate. Mr. Johnson has also included questions and tactics that will help the interview panel determine which candidates have the qualities they are seeking.

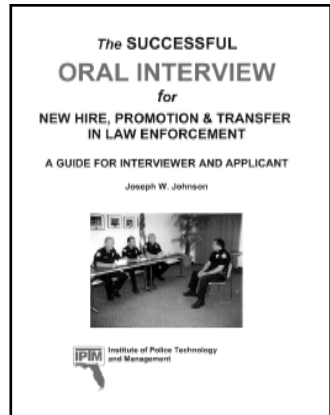
The author covers all of these matters in the following chapters:

- Three-Step Plan Overview
- A Quality Employee: What Does It Take?
- Job Searches
- Resume (bio) and Job-Related Letters
- The Oral Interview
- Dress for the Interview
- The Interview Process
- Reading the Panel Members
- Typical Questions at an Oral Interview
- How to See Through Canned Answers of Job Applicants
- Interview Practice Evaluation Form
- Job Search Contacts

The author, Joseph Johnson, retired with the rank of lieutenant from the Roseville (Michigan) Police Department after serving 26 years in areas that included patrol, traffic, narcotics, intelligence, internal affairs, command and administration. In addition to over 16 years of experience in assessment centers for police recruitment, Mr. Johnson has over 33 years of varied experience as an instructor, coordinator and training director in police training academies and community colleges and has presented police supervision and management programs, seminars and workshops nationally.

Specifications: 57 pages; 8½"x11"; coil bound

Price: \$12.95 per book; shipping weight: .56 lbs each



## **Successful Recruitment and Retention of Police Officers: A Guide for Public Safety Managers**

by Floyd S. Hulsey

In today's competitive job market, hiring qualified applicants often poses a major headache for the Police Supervisor. No longer can managers expect to fill a vacancy by simply placing an ad in the local newspaper. Recruitment methods today must be much more aggressive.

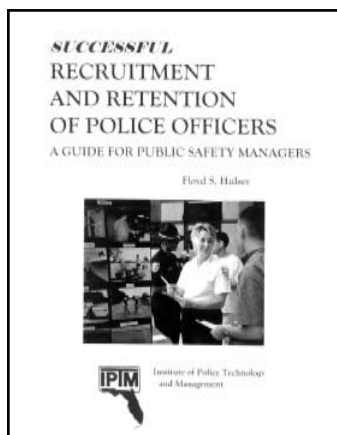
In light of this, Floyd Hulsey has written this book to help you attract the most qualified candidates to your agency. In it, you will find a wealth of information on both traditional and creative ways to recruit qualified applicants, how to improve the speed of the hiring process and how to market the benefits your agency can provide to potential employees.

This book is abundant in practical and economical methods that can be used immediately by your Police Recruiter, such as establishing an employee referral program and equipping your recruiter with the newest equipment available in order to present the most positive image possible. The author's advice holds true for agencies of any size, regardless of their geographic location.

Mr. Hulsey has organized all of his recruiting methods in the following chapters:

- Plan Strategically
- Newspapers Still Popular
- Magazines and Periodicals Productive
- Radio: A Versatile Media
- Be a Television Star
- Internet is Economical
- Publicity Methods Abound
- Advertising and Public Relations Agencies
- Internal Programs Entice Employees
- Legal Environment
- Measuring Results
- Determining Ways to Improve
- Recruiting is Important Function
- No Relief in Sight

In addition, he has included an appendix of Internet Web sites that may be useful to you in the recruiting process.



Floyd Hulsey became the Human Resources Director for the Polk County (Florida) Sheriffs Office in 1980 and today handles the recruiting, staffing, employee relations and benefits programs for more than 1,400 full-time law enforcement, technical, professional and detention employees. A published writer and a certified instructor in the Florida Department of Law Enforcement, he has served as a Public Information Officer, an Investigator for the Public Defender's Office, an Advertising Coordinator and a Public Relations Representative. Mr. Hulsey holds a bachelor's degree in Journalism and a master's degree in Public Administration.

Specifications: 108 pages; 8½"x11"; coil bound

Price: \$21.95 per book; shipping weight: .69 lbs each

## Verbal Judo: Redirecting Behavior with Words

by George J. Thompson, Ph.D.

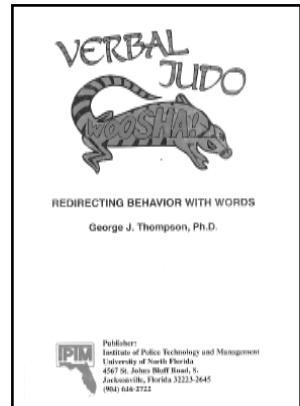
Originally developed to help police officers gain compliance without resorting to physical force, this book sets forth principles that can be applied by anyone who works with people, whether avoidance of the need to use force is an issue or not.

The principles parallel those on which judo is based. The book reveals these, and illustrates them ingeniously with descriptions of selected throws in judo, as the story — a trip through the Southwest of the USA — unfolds.

The book teaches the art of guidance, motivation, persuasion, supervision, negotiation, reassurance, enforcement and punishment. As an ancillary benefit—perhaps not consciously intended by Dr. Thompson — the book provides perhaps one of the best introductions to the core strengths of Japanese culture to ever appear in print.

The following chapters are included:

- The Limits of Force
- The Language of Guidance
- The Language of Motivation
- The Language of Persuasion
- The Language of Supervision
- The Language of Negotiation
- The Language of Reassurance
- The Language of Enforcement
- The Language of Punishment
- The Gentle Way of Words



George J. Thompson, Ph.D., is founder and president of the Verbal Judo Institute. Following a ten-year career as an English professor, he spent five years on the streets as a police officer. A holder of black belts in judo and Taekwondo as well as a certified Kubotan instructor, Dr. Thompson has reinterpreted the principles of judo to create a verbal art of persuasion that he calls Verbal Judo.

Specifications: 140 pages; 5¼”x8¼”; perfect bound

Price: \$6.95 per book; shipping weight: .50 lbs each  
Order 10 or more books and the price is only \$5.95 per book, or  
Order 100 or more books and the price is only \$5.50 per book

# The Water's Edge: A Manual for the Underwater Criminal Investigator

by Mike Berry

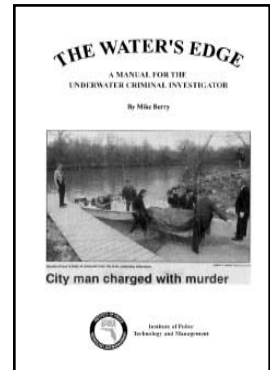
Did you know that a dead body found in the water can be extremely dangerous to an untrained diver? Or that searching for evidence underwater in zero visibility can be accomplished with a high degree of success if performed properly? IPTM's *The Water's Edge: A Manual for the Underwater Criminal Investigator* will provide you with the basic skills you will need to begin training in law enforcement recovery diving.

The author, Mike Berry, a professional diver who has managed over 1,000 underwater criminal investigations, has written this book to acquaint you with not only the physical and mental qualities a successful diver needs to possess, but also the proper equipment to use, how to communicate with other divers and how to thoroughly search underwater crime scenes. He'll even explain how to protect yourself from the hazardous conditions, both manmade and environmental, commonly faced by divers.

Mr. Berry has included over 300 photographs, charts and diagrams in his book. From the special considerations that need to be given for preserving decomposing objects to the proper way to salvage a vehicle that has been underwater, you will find answers to questions you probably never thought you'd ask about investigating underwater crime scenes.

He has organized all of this information in the following chapters:

- Readiness
- Establishing Your Crime Scene
- Crime Scene Photography and Sketching
- Chemical Contaminants and Polluted Waters
- Starting the Dive Operation
- Communications
- Medical Aspects
- Search Patterns
- Locating and Recovering Evidence
- Metal and Non-Metal Evidence Preservation
- Packaging and Submitting Evidence
- Fingerprints
- Body Movement in Water
- Body Recovery and Handling
- Vehicle Recovery and Light Salvage
- Special Search Procedures: Underwater Metal Detectors, Search Dogs and Dragging
- Courtroom Testimony



Mike Berry is an authority and trainer of international standing in underwater criminal investigation. He has assisted federal, state and local police administrators in their criminal investigations in and around water and has lectured throughout the U.S. and abroad on a wide range of police diving topics. In 1987, Mr. Berry founded Underwater Criminal Investigators, which has since acquired worldwide respect as a training company focused on developing true underwater criminal investigators. Mr. Berry is currently a First Sergeant with the Virginia State Police and serves as their Dive Team Coordinator and Head Diving Instructor.

Specifications: 347 pages; 8½"x11"; GBC bound

Price: \$44.95 per book; shipping weight: 2.38 lbs each

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## **Accident Investigation Involving DNA Comparison**

by Chris Wagoner

In this article, Mr. Wagoner describes how DNA samples collected from blood spatters on the inside and outside of a crash vehicle can be matched with DNA samples taken from the occupants in order to determine, with the aid of other evidence, where each occupant was seated and who was driving at the moment of impact.

He uses an actual case for examination and explanation of the following areas:

- Examining the crash vehicles for blood spatters and other evidence
- Comparing DNA samples to determine from which person each blood spatter came
- Determining the expected movement of the occupants in a side-impact collision
- Determining the seating arrangements of the occupants
- Evaluating a witness' statement in light of evidence contrary to the statement
- Proving who was driving
- Collecting DNA samples from blood spatters on the vehicles and occupants

Specifications: 7 pages; 8½"x11"; saddle stitched

Price: \$4.95 per article; shipping weight: .09 lbs each

## **Accident Investigation Involving Recovery of Vehicles from Water**

by Chris Wagoner

The author describes an actual case involving recovery of a vehicle from a canal where a number of critical mistakes were made in the initial investigation. After pointing out the errors and their consequences, he presents an approved method for dealing with similar cases.

Specific topics addressed include:

- Contacting a traffic homicide investigator immediately upon discovery of a vehicle under water
- Determining the type of recovery
- Recovering the vehicle
- Recovering and recording the evidence
- Preserving the evidence
- Working with the medical examiner and crime lab

Specifications: 7 pages; 8½"x11"; saddle stitched

Price: \$4.95 per article; shipping weight: .09 lbs each

## **Basic Photogrammetry for Crime and Crash Scenes**

by George M. Bonnett, JD

Frustrated that the cost of photogrammetry software and the necessary training far exceeds the limits on your budget? One of IPTM's latest articles, *Basic Photogrammetry for Crime and Crash Scenes*, written by George Bonnett, will show you the basics of two-dimensional photogrammetry.

Photogrammetry, or numerical rectification, is used to "map" various points on a single plane to the desired coordinate system. Numerical rectification is simpler than other techniques and the software required is usually much less expensive and easier to use. When dealing with crime or crash scenes, the desired coordinate system is usually a scale diagram and numerical rectification is ideally suited for this purpose.

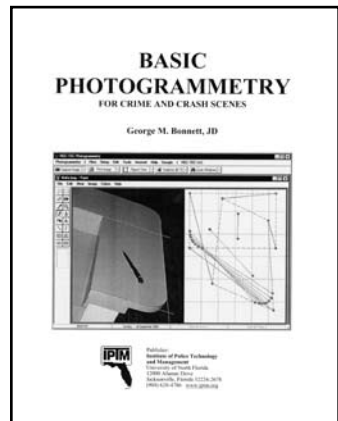
You will see that while a two-dimensional plane is a prerequisite, this plane need not be a horizontal surface and there is no requirement that the entire photograph be of a single planar surface. In fact, the basic requirements for two-dimensional photogrammetry are a single photograph and a scale diagram of a two-dimensional surface within the photograph that contains the object that is the focus of the process. Numerical rectification requires that four control or calibration points be located on the plane that can be matched to four corresponding points on the scale diagram.

Mr. Bonnett takes you step-by-step through three different exercises that will teach you the basics of using photogrammetry to obtain measurements from photographic images using numerical rectification. Since the topics of creating a scale diagram and forensic mapping are outside the scope of this article, the author assumes you have previous experience in these areas.

George Bonnett is a combat proven Marine Corps aviator turned police officer turned attorney turned crash reconstructionist turned software developer and author (REC-TEC). His whole life has depended on minute attention to detail. In this book, he gives you the benefit of his years of experience.

Specifications: 38 pages; 8½"x11

Price: \$9.95 per article; shipping weight: .22 lbs each



## Beyond Crash 3: Delta V from Damage

by George M. Bonnett, JD

This IPTM article, *Beyond Crash3: Delta V from Damage*, written by George Bonnett, looks at the future of damage analysis in traffic crash reconstruction.

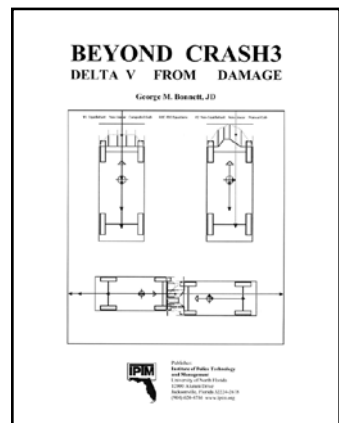
According to the author, the problem with Crash3 is that it is incapable of handling curved surfaces profiles and non-linear crush. One of the inherent basic assumptions in the Crash3 model is that all vehicles are “square,” meaning they are treated as rectangles. He also points out that the other weakness in the Crash3 model is that it treats the resistance to deformation as a linear function through the utilization of Hooke’s Law, which models the vehicle as a spring. Without being able to treat the vehicle as linear, the entire model would fail. You will see why Mr. Bonnett believes that because the resistance to damage is not linear in the real world of deforming vehicles, the very feature that makes the Crash3 system work is one of the primary weaknesses of the system.

The author offers a solution to the problem with Crash3 by dividing the individual elements created by two adjacent “C” measurements into three distinct zones and weighting the individual zones as their resistance to damage dictates. He will show you why creating these independent zones of resistance to damage in the same direction as the depth of the damage penetration not only enables a more accurate modeling of the resistance to damage, it removes the rectangular-vehicle assumption in the Crash3 model.

George Bonnett is a combat proven Marine Corps aviator turned police officer turned attorney turned crash reconstructionist turned software developer and author (REC-TEC). His whole life has depended on minute attention to detail. In this book, he gives you the benefit of his years of experience.

Specifications: 19 pages; 8½”x11

Price: \$7.95 per article; shipping weight: .22 lbs each



## Getting it Right in Accident Investigation and Reconstruction

by George L. Ruotolo

Central to any crash investigation is the accuracy in determining who was at fault and why the crash occurred. Too often, the first officers on the scene are not crash reconstructionists and do not have the proper training to identify those pieces of evidence necessary to reach a solid conclusion.

In his article, *Getting it Right in Accident Investigation and Reconstruction*, George Ruotolo outlines steps that provide possible remedies for avoiding incorrect conclusions of any traffic crash. While advocating specialized training for the investigators of traffic crashes, the author also makes a compelling case against decisions to issue a citation at the crash scene that may later prove to be detrimental in a court of law.

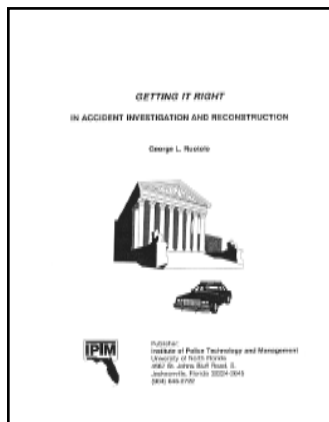
Early in the article, Mr. Ruotolo makes it clear that quick, inaccurate conclusions only cause embarrassment to the departments and undermine their expertise in the eyes of the public, to say nothing of the morale of the officers whose reports of the crash undergo rigorous scrutiny.

Topics in this article address the following:

- Possible Remedies for Wrong Determinations
- Reminders to Scene Investigators (First Responding Police Officer)
- Pitfalls for the Expert to Avoid
- The Reconstruction Process
- Summary

This article is a must for on-scene investigators, reconstructionists, police administrators, private investigators and trial attorneys.

George Ruotolo is retired from 21 years of service in New York State law enforcement and police training. His experience in courtroom testimony as an expert witness spans 12 years and he is now a private consultant to law enforcement, the legal profession and insurance companies.



Specifications: 14 pages; 8½"x11"; saddle stitched

Price: \$7.95 per article; shipping weight: .13 lbs each

## The Investigation of Fatal Pedestrian Hit-and-Run Collisions

by Joseph N. Cofone

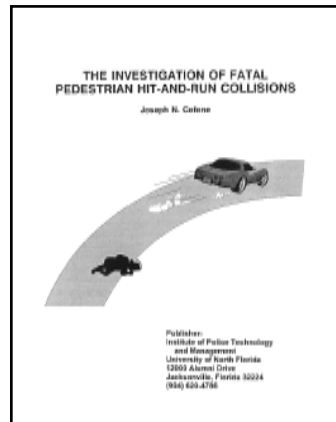
This article serves as a practical guide to investigating pedestrian hit-and-run collisions. Mr. Cofone begins by giving practical reasons for the importance of securing and controlling the scene of a crash from the earliest possible moment. He also addresses the types of evidence to expect on the roadway, how to collect and preserve it and what the evidence can mean to the investigation.

As the article continues, he explains how an autopsy of the victim can aid in determining the cause of the collision and how a forensic examination of the victim's clothing can be instrumental in revealing a description of the striking vehicle. And once a determination has been made as to the type of vehicle that was involved, the author outlines eleven methods that can be employed to search for that vehicle.

*The Investigation of Fatal Pedestrian Hit-and-Run Collisions* is not intended as a manual for reconstructing a crash. Rather, it addresses specific differences and special considerations that must be given to hit-and-run collisions that involve pedestrians. It also provides information on post-arrest vehicle examination and the legal considerations that should be met prior to a physical examination of the suspected vehicle.

The manual includes the following topics:

- The At-Scene Investigation
  - Securing and Controlling the Scene
  - Interviews
  - Scene Search
- The Follow-up Investigation
  - The Autopsy
  - Forensic Examination
- Vehicle Searching Methods
  - Radio Broadcasts
  - Press Conferences
  - Canvassing
  - Surveillance
  - Data Base Search



Joseph N. Cofone is a sergeant with the Fatal Accident Investigation Unit at the Bergen County New Jersey Prosecutor's Office. In addition to the awards he has received in police traffic safety and crash investigation and reconstruction, he is a founding member of the New Jersey Association of Accident Reconstructionists.

Specifications: 24 pages; 8½"x11"; saddle stitched

Price: \$9.95 per article; shipping weight: .16 lbs each

## Linear Momentum and Vector Sum Analysis Made Simple

by Wiley L. Howell

Wiley Howell knows the importance of keeping linear momentum equations simple for a jury. He wrote this book to help you make linear momentum equations simple and to introduce you to a less time consuming way to do vector analysis as a check on the accuracy of the answers obtained from using those equations.

He starts with the general Linear Momentum Equation and, using the 360-degree method of angle measurement, shows how it can be modified to give you the equations needed to determine the impact speeds of vehicles in any kind of collision: head-on, rear-end, right angle and acute angle. He also provides a handy vector-diagram check on the accuracy of your speed calculations.

Sections include:

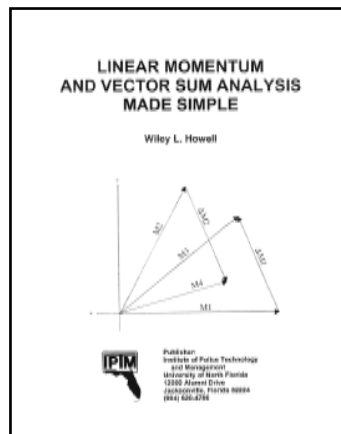
- Right Angle Collisions
- Angle Collisions
- Angle Collision with Multiple Departing Sections
- In-line Collisions
- Vector Sum Analysis

This book is recommended to anyone who must testify in a court case where speed has been determined by linear momentum.

Wiley Howell is a 24-year veteran of the Tampa (Florida) Police Department. After retirement, Mr. Howell established his own reconstruction business while teaching traffic crash courses at IPTM. He has been ruled an expert in both criminal and civil courts over several thousand times throughout his career as a police officer and in private enterprise.

Specifications: 29 pages; 8½"x11"; saddle stitched; 14 figures and diagrams

Price: \$9.95 per book; shipping weight: .22 lbs each



## Motorcycle Helmet Inspection After Impact

Second Edition

by Neil F. Robar

The inspection of a motorcycle helmet worn by a rider or found at the scene is a required procedure in a complete investigation of any crash involving a motorcycle.

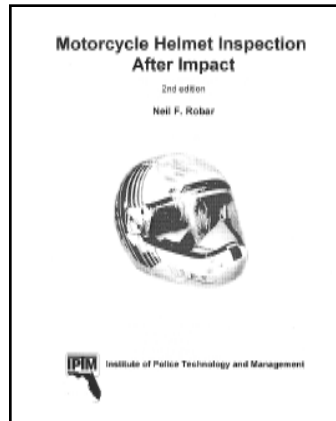
Mr. Robar begins his well-illustrated article by describing the types of motorcycle helmets available on the market and their merits from a safety standpoint. He discusses each component of a typical helmet in respect to its material and its specific function, and attaches due importance to the labels found in various places on the helmet.

The author then guides you through the steps of inspecting an impacted helmet after the helmet has been disassembled by a qualified laboratory or individual and directs your attention to parts that may fail or suffer damage. He explains, for instance, the correlation of damage observable on the outer shell to damage observable on the inner liner.

Sections address the following topics:

- The Helmet
- Types of Helmets and Their Components
- The Helmet's Function
- Why Inspect the Helmet
- The Motorcycle Helmet Inspection Process
- Inspection of Disassembled Helmet
- Final Report and Conclusions

He also includes a Motorcycle Helmet Inspection Log form that the reader may photocopy for practical use.



Neil Robar retired at the rank of lieutenant from the Hollywood (Florida) Police Department, where he either commanded or worked in every division and unit. For five years he was the coordinator of IPTM's Traffic Crash Investigation and Reconstruction section. Mr. Robar is now a private consultant in traffic crash investigation and reconstruction and continues to teach at all levels in the area as an adjunct for IPTM.

Specifications: 23 pages; 8½"x11"; saddle stitched; 17 black and white photos; 1 diagram and 1 inspection form

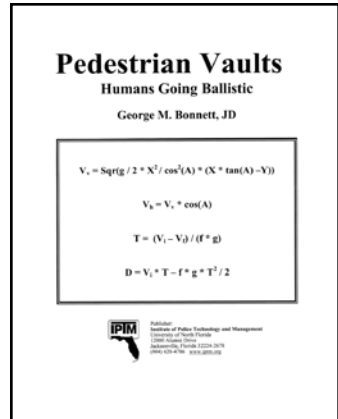
Price: \$12.95 per article; shipping weight: .16 lbs each

## Pedestrian Vaults: Humans Going Ballistic

by George M. Bonnett, JD

The pedestrian vault: complicated and controversial – the perfect topic for examination. It sometimes seems that everyone involved with crash reconstruction has discovered a formula or formula variant computing pedestrian vault speed and there are at least a half-dozen computer programs that primarily deal with pedestrian and/or bicycle vaults. In this article, Pedestrian Vaults: Humans Going Ballistic, George Bonnett offers you a solution to simplify the process.

Reconstructionists are aware that for any given launch angle and friction coefficient between the pedestrian and the surface over which he or she is sliding, the vault and slide components of the pedestrian vault are tied to each other. If the launch angle and surface friction are known for any given throw distance, then solving for the vault speed of the pedestrian is simply a matter of doing the mathematics. If the throw distance is kept as a constant, then the only way the eighty plus currently published pedestrian formulae can arrive at different solutions is by varying either the launch angle or the friction factor of the pedestrian. And as every pedestrian vault formula requires an input of the friction factor, the only remaining variable is the launch angle.



Because this fundamental relationship is based on physics principles, the only real difference between all of the existing pedestrian formulae is the assumed launch angle. Using only four basic equations found in any physics book, the author suggests the use of Finite Difference Analysis to solve for the uncertainty value of the computations. He will then show you how to work through the process to arrive at the correct solution to a sample problem.

George Bonnett is a combat proven Marine Corps aviator turned police officer turned attorney turned crash reconstructionist turned software developer and author (REC-TEC). His whole life has depended on minute attention to detail. In this article, he gives you the benefit of his years of experience.

Specifications: 20 pages; 8½"x11

Price: \$7.95 per article; shipping weight: .22 lbs each

# Articles

## Policy, Procedure and Rules and Regulations A Study of Administrative Guides in Law Enforcement

by George L. Ruotolo

This article was written to help administrators draft and implement effective administrative guides.

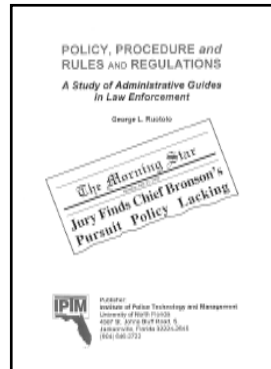
Beginning with a definition of administrative guides, the author continues by discussing the 6 types of guides that are used in departments of any size. He states the differences between each and advises you when a specific type should be used.

Throughout the article, Mr. Ruotolo provides examples from his many years of assisting department commanders and administrators in the development of agency guides and of instructing them in the techniques of policy development.

Major topics include:

- The Department Mission
- Innovative and Continuing Goals
- Program Objectives
- Police Policy
- Procedures
- Rules and Regulations

The article emphasizes the consequences of not providing guidance and direction to one's employees and/or department members in foreseeable situations and explains how well-written policies and procedures can withstand scrutiny in the courtroom.



Mr. Ruotolo is retired from 21 years of service in New York State law enforcement and police training. From 1980 to 1985, he oversaw all police instructor certification for the State of New York. He is now a private consultant to law enforcement, the legal profession and insurance. His experience in courtroom testimony spans 12 years and he has provided expert testimony for the prosecution in criminal cases.

Specifications: 20 pages; 8½"x11"; saddle stitched

Price: \$9.95 per article; shipping weight: .19 lbs each

## Right Handed 90-Degree Quadrant Method of Linear Momentum

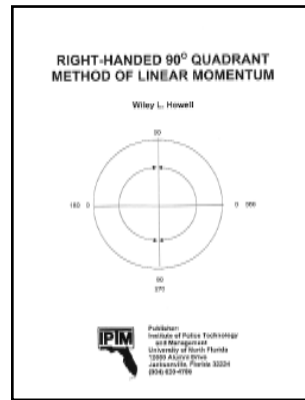
by Wiley L. Howell

Not everybody has gone over to the left-hand 360-degree way of doing linear momentum. Physicist and engineers – particularly those who do not regularly work in traffic crash reconstruction – may not even be familiar with this newer, easier, counterclockwise method.

In deposition and in court you may be asked equations based on the traditional 90-degree quadrant method and may be called upon to demonstrate that the 360-degree method – the method you normally use – produces the same results as the traditional method. This article gives you what you need to know to handle such occasions with confidence.

You will learn to do the following in a way appropriate for the 90-degree quadrant method:

- Construct a coordinate diagram
- Measure angles within each quadrant
- Insert sine and cosine values for approach and departure angles
- Assign a positive (+) or negative (-) sign to each sine or cosine value
- Assign a positive (+) or negative (-) direction to each momentum
- Construct and use linear momentum equations



As you must be able to demonstrate that the equations used in the 90-degree method yield identical results to those obtained by use of the 360-degree left-hand method (because ultimately the equations for both methods turn out to be identical), you will learn to make equations for the 360-degree method as well.

You will see that although either method allows you to show Vehicle 1 approaching from either direction on the X-axis, an approach from right to left used within the 360-degree method requires you to insert the appropriate sign for each momentum direction, as in the 90-degree method, and you will be shown an easy way to do this.

Wiley Howell is a 24-year veteran of the Tampa (Florida) Police Department. After retirement, Mr. Howell established his own reconstruction business while teaching traffic crash courses at IPTM. He has been ruled an expert in both criminal and civil courts over several thousand times throughout his career as a police officer and in private enterprise.

Specifications: 42 pages; 8½”x11”; saddle stitched; illustrated with diagrams

Price: \$12.95 per article; shipping weight: .28 lbs each

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# Correspondence Courses

## Understanding Delta V from Damage

by George M. Bonnett, JD

“Voodoo Physics,” “Black Magic,” “Sorcery,” “Wizardry,” and “Witchcraft” are just some of the terms of endearment that have been applied to the determination of speed from damage. The calculation of speed change, or Delta V, from damage has been shrouded in mystery for many reconstructionists. How is it done? Why is it done? How does it work? IPTM’s article, Understanding Delta V from Damage, written by George Bonnett, may help solve this mystery for you.

The author begins by discussing the limitations and attributes of the Crash3 damage analysis method of determining Delta V. He then provides you with each of the 16 steps required to determine Delta V. Mr. Bonnett also includes three different methods of determining the critical centroid of damage. The errors in two popular and published methodologies are explored and examined using both mathematics and computer graphics.



In addition to discussing and graphically proving a new method for using both equidistant and non-equidistant “C” measurements, the author shows you the computer algorithm used for the computations including centroid of damage. This method removes the mystery surrounding the determination of Delta V from damage so you can see why crush analysis can be a useful tool when investigating a collision.

George Bonnett is a combat proven Marine Corps aviator turned police officer turned attorney turned crash reconstructionist turned software developer and author (REC-TEC). His whole life has

depended on minute attention to detail. In this article, he gives you the benefit of his years of experience.

Specifications: 22 pages; 8½”x11

Price: \$7.95 per article; shipping weight: .22 lbs each

## **Correspondence Course in Speed Analysis for Traffic Accident Investigation**

This course is recommended for investigators who wish to professionalize their approach in the area of traffic crash investigation known as speed analysis. The course takes the student into more advanced speed analysis, covering in greater depth, the speed analysis topics introduced in IPTM's other correspondence course, *At-Scene Traffic Accident Investigation*.

It provides an excellent preparation for those who wish to enter the field of traffic crash reconstruction after completing advanced (technical) traffic crash investigation training. It also serves as a review of speed analysis for reconstructionists who have been away from the field for several years.

Topics include:

- Introduction to vehicle behavior involving physics, vehicle mechanics and dynamics
- Coefficient of friction and drag factor
- Slide-to-stop speed
- Speed from yaw marks, falls, vaults, flips and vaults and combined speeds
- Speed and speed change – acceleration and deceleration
- Field measurements related to speed analysis
- Introduction to momentum and speed analysis

The student is required to complete six individual lesson examinations and a final proctored examination covering the entire course. Upon successful completion of the course, IPTM will award a certificate to the student.

Price: \$425 – Multiple registration discounts are given when three or more students from the same agency register simultaneously. For additional information, contact IPTM at (904) 620-4786.

## Correspondence Course in At-Scene Traffic Accident Investigation

IPTM has designed this course to make the study of at-scene traffic crash investigation conveniently and economically available to law enforcement officers and other persons who require training at this fundamental level.

Equivalent to IPTM's regular *At-Scene Traffic Crash/Traffic Homicide Investigation* course, the correspondence course, revamped and updated in 1998, covers the following topics:

- Introduction to traffic crash investigation
- Traffic crash series of events
- The human element
- Environmental and trafficway factors
- Vehicle inspections
- Speed estimates
- IPTM traffic template
- Field measurements, scale diagrams and photography

The student is required to complete eight individual lesson examinations and a final proctored examination covering the entire course. Upon successful completion of the course, a certificate will be awarded and the student will become eligible to register in IPTM's regular on-campus course in *Advanced Traffic Crash Investigation*.

Price: \$425 – Multiple registration discounts are given when three or more students from the same agency register simultaneously. For additional information, contact IPTM at (904) 620-4786.

## Special Problems in Traffic Crash Reconstruction CD-ROM

This CD-ROM showcases one of IPTM's biggest events. Entitled *Special Problems in Traffic Crash Reconstruction 2000* from our conference of the same name, the CD-ROM shows video footage of a T-Bone crash between a 1986 Buick Park Avenue and a stationary 1988 Mitsubishi. It also contains segments on recording data, collision diagramming and analysis.

The CD-ROM is set up with a self-booting introduction that leads to a table of contents page allowing the user to choose from the following:

- High Speed T-Bone Crash Test Video
- Monitoring and Recording of the Collision Data
- Measuring and Computerized Collision Diagramming
- Momentum and Physics Calculations
- WinSmac<sup>®</sup> and WinCrash<sup>®</sup> Analysis

The "High Speed T-Bone Crash Test Video" segment allows the user to choose how to view the crash:

- Internal cameras show the driver's view of the collision and the point of view of the stationary vehicle
- External cameras show one aerial view and views from in front, behind and on the side of the stationary vehicle
- Each view can be run in either regular speed or slow motion

Both instructors and investigators will find the last four segments on the CD useful as it guides you step-by-step through the reconstruction process via slide show presentations.

This CD-ROM can be also used as demonstrative evidence in court as to how vehicles behave in a crash.

Price: \$49.95 per CD-ROM; shipping weight: .56 lbs each

*Note:* This item can be purchased as part of a set at a reduced cost. Please see page 86 for details.



## Special Problems in Traffic Crash Reconstruction 2002 - CD-ROM

IPTM's *Special Problems in Traffic Crash Reconstruction - 2002 CD-ROM* features the videos and analysis of the 6 motorcycle-to-car collisions that were orchestrated during our Special Problems conference in April 2002.

After placing the CD-ROM in your computer, simply choose from one of the following menu options:

- Day 1 - Motorcycle Crash Testing
- Day 2 - Motorcycle Crashes
- Day 3 - Human Factors
- Day 4 - Commercial Motor Vehicle Rollover Data and Testing
- Day 5 - Test Results on Staged Crashes
- Breakout Sessions

You will find videos of the crashes by choosing Day 1 or Day 2. Each collision can be viewed from four different camera angles. After playing each video, you may view selected pictures, review the data analysis and examine the data table for that crash.

Choosing Day 3 opens an Adobe PDF file that gives you a short review of the Human Factors involved in a collision. Opting for Day 4, you can view the PDF file created by Dr. Frank Navin concerning "Commercial Motor Vehicle Rollover Data and Testing." The test results, pictures, diagrams, charts and data analysis of each of the six collisions may be viewed as a slide show or as a PDF document by choosing Day 5.

Last but not least, the CD-ROM contains Powerpoint and/or PDF files of the 8 Breakout Sessions held during the conference. These include:

- Truck Instrumentation and Brake Systems
- Energy Methods in Collisions
- Case Law Updates
- Motorcycle Momentum
- Pole Impacts
- Rotational Mechanics
- Drag Sleds Study
- Trains

For your convenience, a copy of Adobe's PDF Viewer has been included on the CD-ROM for viewing the PDF files.

Price: \$49.95 per CD-ROM; shipping weight: .56 lbs each

*Note:* This item can be purchased as part of a set at a reduced cost.  
Please see page 86 for details.



## Special Problems in Traffic Crash Reconstruction 2004 - CD-ROM

IPTM's *Special Problems in Traffic Crash Reconstruction - 2004 CD-ROM* features the videos and analysis of the 3 staged collisions that took place during our *Special Problems* conference in April 2004.

Simply place the CD-ROM in your computer and you will have access to the following menu:

- Staged Collision
- Staged Collision
- Wednesday - Main Session
- Thursday - Main Session
- Breakout Sessions

The videos of the crashes will be found under both of the Staged Collision options. The first topic gives you options to view angled impact collisions between a 1993 Chevrolet Corsica and a 1989 Nissan 240 SX as well as a crash between a 1993 Chevrolet Corsica and a 1999 Mercedes Benz S-Class. The second Staged Collision option allows you to view an offset head-on collision between a 1997 Buick Regal and a 1994 Ford Escort from four different angles.

The CD-ROM includes PDF files of the 2 Main Sessions and the 4 Breakout Sessions held during the conference. These include:

- Uniform Circular Motion (as it applies to lateral lane changes)
- Uniform Circular Motion (as is applies to critical speed yaw)
- Commercial Motor Vehicle Download Data
- Stability Trac Control
- Travel Speed
- Multiple Vehicle Collisions: An Application of the Monte Carlo Method

Price: \$49.95 per CD-ROM; shipping weight: .56 lbs each

*Note:* This item can be purchased as part of a set at a reduced cost. Please see page 86 for details.



## Special Problems in Traffic Crash Reconstruction 2005 - DVD

IPTM moved on to bigger things when we crashed 4 different vehicles into a stationary tractor trailer during our *Special Problems in Traffic Crash Reconstruction* conference held in April 2005.

Using a tow cable system, we crashed the following vehicles into different areas of a Pine 48 ft. box van trailer with a 2004 Mack single axle day cab tractor:

- 1) A 1989 Plymouth Voyager SE into the left rear
- 2) A 1994 Jeep Cherokee into the right rear
- 3) A 1992 Nissan Sentra into the left rear dual tires
- 4) A 1993 Honda Accord into the right rear dual tires

We were again able to videotape these collisions and have assembled them on a DVD. In most cases, you can view a crash from several different angles. We even placed an in-car video camera in the Honda and the Jeep to give you the driver's perspective of the crash.

The crush profiles and speed and acceleration data spreadsheets are provided on the DVD for each of the vehicles. Pictures of the vehicles, taken both before and after their collisions, are also included.

Breakout session information can be found in PowerPoint, PDF and Word files. Topics presented during the conference included:

- \* Airborne (Vault) Validation Study
- \* Black Box Evidence
- \* Blood Pattern Analysis
- \* Critical Speed Yaw
- \* Drag Sled Analysis
- \* Glass Strength and Weakness
- \* Published Motorcycle Data
- \* Scene Mapping I (Speed Lasers)
- \* Scene Mapping II (Total Station)
- \* Victim Injury Analysis



Price: \$49.95 per DVD; shipping weight: .56 lbs each

*Note:* This item can be purchased as part of a set at a reduced cost. Please see page 86 for details.

## Special Problems in Traffic Crash Reconstruction CD-ROM Set

Over the years, IPTM's *Special Problems in Traffic Crash Reconstruction* conference has featured staged collisions for our students to investigate and reconstruct alongside of experts in the field.

We have captured the collisions on film and have created CDs/DVDs of the information presented during the conferences so that both those who had the opportunity to attend the conference, as well as those who could not be there, could benefit from the findings of the collisions.

IPTM has put together a package of the 2000, 2002, 2004 and 2005 discs and you can now order the entire set for one low price. Sold individually, these CDs/DVDs sell for \$49.95 each.

Since each conference focuses on different areas of crash reconstruction, you will find that the entire set covers a great deal of information on collisions between different types of vehicles. Listed below are the headline events for our CDs/DVDs:

- 2000** - High speed T-Bone crash between two automobiles (CD)
- 2002** - Six motorcycle-to-car collisions (CD)
- 2004** - Angled impact and head-on collisions between automobiles (CD)
- 2005** - Four automobiles crashing into different areas of a stationery tractor-trailer (DVD)

Price: \$129.95 per set; shipping weight: 2.24 lbs per set



## Radar: A Basic Understanding

This video is designed to provide the potential Radar operator with the basics of police traffic Radar.

The video will help Radar instructors in describing the Doppler Principle, setting up and testing Radar instruments, explaining legal issues and discussing the operational considerations for both moving and stationary Radar.

The video combines informative interviews with professional Radar instructors and actual footage of Radars in operation.

Segments include:

- Basic principles of Radar speed measurement  
The concepts of the Doppler Principle and the physics of radio waves
- Operation of specific Radar instruments  
The process of properly setting up, testing and reading the Radar instrument
- Legal and operating considerations  
What can affect the reading on your Radar and how to respond to judicial questions concerning the effects
- Both moving and stationary Radar operation  
Unique considerations of both moving and stationary Radar

Specifications: 33 minutes, 15 seconds

*Radar: A Basic Understanding*, is also available on DVD.

**Added Bonus:** As a free bonus on the DVD only, you will also get the video, *Laser Speed Management*, which contains footage of not only how lasers work, but also the principles behind them and how law enforcement can use Laser devices to detect the speed of a specific vehicle.

Price: \$129.95 per VHS Tape (Radar only); shipping weight: .56 lbs each  
\$129.95 per DVD (Radar and Laser); shipping weight: .56 lbs each

**Verbal Judo**  
**The Martial Art of Mind and Mouth**

by George J. Thompson, Ph.D.

Dr. George Thompson presents his Verbal Judo course before a live audience in this five-tape telecourse designed to teach the law enforcement community how to redirect behavior with words.

**Tape One** contains the course overview and goals. This tape is essential to acquaint administrators and other interested parties (city councils, training boards and others) with the benefits to be derived from the training.

Specific modules are as follows: Verbal Judo Overview; Goals of Verbal Judo; Professional Traits of Law Enforcement; The Goals of Law Enforcement; Force Options; Tactical Habit of Mind “Showtime”; Three Basic Types of People; Verbal Deflectors; The Three Tactical Principles and The Contact Professional.

**Tape Two** continues with an in-depth exploration of the The Tactical Skill of Listening; Perceived Reality is Everything; Harmonizing Role, Voice and Other Non-Verbals; The Three Deadly Arenas; Tactical 8-Step and Tactical 5-Step.

**Tape Three** covers the the topics of S.A.F.E.R.; RAP/RAM/RAT; The Art of Translation; The Four Appeals; L.E.A.P.S.; Paraphrase and Summary (as part of L.E.A.P.S.).

**Tape Four** explores Invervention Techniques; Quality Contacts; Verbal Judo Doesn’t Work; The Four Kinds of Cops; Verbal Judo Principles and Street Maxims - Roll Call Training!

**Tape Five** concludes the series with the topics: Inappropriate Car Stop; 8-Step Car Stop; 8-Step With a Difficult Person; 8-Step Car Stop With 5-Step Transition; Unprofessional Person Stop; 7-Step Subject Stop; 5-Step in a Correctional Setting; Inappropriate Custodial Contact; Professional Custodial Contact Using Professional Face.

These tapes can be used during role call training as a reinforcement of the idea of how to redirect physical behavior with words. The tapes can also serve as a review for trainers prior to a presentation of academy type classes.

Price: \$199.00 per tape; shipping weight: .56 lbs each

**SAVE!** A set of all 5 tapes is just \$599.00; shipping weight: 1.88 lbs per set

## **THE INSTITUTE OF POLICE TECHNOLOGY AND MANAGEMENT**

The Institute of Police Technology and Management (IPTM), University of North Florida, was established in January 1980 for the purpose of providing management, traffic and specialty training to municipal, county, state and federal law enforcement officers. Since its establishment, the Institute's role in the police community has expanded to include the publishing of texts and serving as management consultants to police organizations throughout the world. IPTM trains annually more than 14,000 civilian and military law enforcement personnel from throughout the United States and abroad.

IPTM offers a variety of management and specialty courses in community policing, drug law enforcement, police discipline, field training officer programs, media relations, internal affairs, traffic crash investigation, selective traffic law enforcement, laser and radar speed enforcement and street gangs.

IPTM is proud of its role as the leader in applying microcomputer technology to the law enforcement and highway safety disciplines. The IPTM microcomputer lab, one of the few facilities of its type devoted to law enforcement, is equipped with state-of-the-art computers, peripheral equipment and law enforcement software products. As a result of this laboratory, IPTM is able to conduct a series of innovative microcomputer programs tailored specifically to the needs of law enforcement managers and specialists. The combination of highly skilled instructors and practical "hands-on" training provide law enforcement personnel with a unique opportunity for meeting the needs of their agency.

The Institute's faculty consists of professionals who combine practical law enforcement technical and management skills with many years of police training experience and the academic backgrounds necessary to effectively train in-service law enforcement officers. The full time staff is supplemented by a highly qualified adjunct faculty from government, private industry and the academic community.

Participants who successfully complete the course of instruction in any IPTM program will receive an appropriate certificate to recognize their achievement.

## **ON-SITE TRAINING**

In addition to the courses offered on the University of North Florida campus, the Institute contracts with governmental units for on-site training. When a course is offered on a contractual arrangement, the Institute will be responsible for providing the faculty, student manuals and all materials relating to the administration of the course.

Due to budgetary constraints, an increasing number of police agencies are making use of this method of training. Each year, agencies throughout the United States contract with IPTM and over 6,000 students are trained off campus. Indications are that this trend will continue in the coming years.

All on-site training programs are tailored to meet the needs of the police agency or group of agencies. Should you have questions concerning on-site training programs, contact the Assistant Director.

## **INTERNATIONAL PROGRAMS**

The Institute's International Division offers a variety of services to foreign traffic police organizations. Among these services are specially designed programs on campus, in the contracting country, or a combination of the two. IPTM also conducts management and training need assessments and offers a comprehensive technical English as a second language program to those preparing for a course of study at the Institute.

IPTM International training programs can be designed for as few as ten students. The contracting country benefits by having a program designed specifically to meet its needs and the attendee does not waste valuable time studying areas that have no relevance to his/her organization. Program lengths may vary from a few weeks to several months depending upon the needs of the contracting organization.

The IPTM staff has extensive experience in designing and conducting these types of programs and in counseling and assisting foreign students. Several members of the IPTM staff have served as consultants throughout the world in assisting organizational and training needs for many organizations. It is this experience that allows IPTM to design programs that fit the specific needs of the client.

If you would like additional information about IPTM's International Programs, write or call:

### **Director**

**Institute of Police Technology and Management**

**University of North Florida**

**12000 Alumni Drive**

**Jacksonville, Florida 32224-2678**

**Telephone: (904) 620-IPTM (4786)**

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**Shipping Chart - Continental United States**

<b>Weight in Oz / Lbs</b>	<b>U.S. Standard</b>	<b>U.S. 2<sup>nd</sup> Day</b>	<b>U.S. Next Day</b>
0 - 8 oz	\$ 2.25	\$ 10.50	\$ 27.00
9 oz - 1 lb	6.50	10.50	27.00
1.1 - 5 lbs	8.10	17.30	39.50
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10.1 - 15 lbs	10.20	37.00	68.25
15.1 - 20 lbs	12.30	46.00	77.25

**U.S. Standard shipping (within the 48 continental United States):**

Ships via UPS or U.S. Mail with delivery in 5 to 10 working days

**U.S. 2<sup>nd</sup> Day shipping:**

Ships via UPS with delivery in 2 to 3 working days; *(cannot ship to a PO Box)*

**U.S. Next Day shipping:**

Ships via UPS with delivery in 1 to 2 working days; *(cannot ship to a PO Box)*

**Shipping Chart - Alaska, Hawaii & Puerto Rico**

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0 - 8 oz	\$ 2.25	\$ 14.85	\$ 16.50
9 oz - 1 lb	4.50	14.85	24.00
1.1 - 5 lbs	12.15	22.00	34.50
5.1 - 10 lbs	19.20	30.00	46.25
10.1 - 15 lbs	27.80	36.30	58.50
15.1 - 20 lbs	36.40	44.60	66.50

**Alaska, Hawaii & Puerto Rico Standard shipping:**

Ships via 1st Class/Priority mail or Air Parcel Post with delivery in 5 to 10 working days

**Alaska, Hawaii & Puerto Rico 2<sup>nd</sup> Day shipping:**

Ships via DHL with delivery in 2 to 5 working days; *(cannot ship to a PO Box)*

**Alaska, Hawaii & Puerto Rico Next Day shipping:**

Ships via DHL with delivery in 1 to 3 working days; *(cannot ship to a PO Box)*

# Ordering Information

## Shipping Chart - Canada

Weight in Oz / Lbs	Canada Standard Air Mail	Canada UPS Ground	Canada Express
0 - 8 oz	\$ 6.00	\$ 13.00	\$ 19.00
9 oz - 1 lb	6.00	13.00	29.50
1.1 - 5 lbs	16.75	16.20	42.00
5.1 - 10 lbs	22.75	19.70	52.75
10.1 - 15 lbs	27.75	23.55	64.50
15.1 - 20 lbs	33.25	27.95	76.25

### Canada Standard Air Mail shipping:

Ships via Air Parcel Post with delivery in 7 to 14 working days

### Canada UPS Ground shipping:

Delivery in 6 to 12 working days; (*cannot ship to a PO Box*)

***IPTM is not responsible for any brokerage charges, duties or taxes.***

### Canada Express shipping:

Ships via DHL International with delivery in 2 to 3 working days;

(*cannot ship to a PO Box*)

***IPTM is not responsible for any brokerage charges, duties or taxes.***

## Shipping Chart - International

Weight in Oz / Lbs	International Standard Air Mail	International Expedited
0 - 8 oz	\$ 6.00	\$ 26.60
9 oz - 1 lb	6.00	38.00
1.1 - 5 lbs	28.00	67.65
5.1 - 10 lbs	44.25	98.80
10.1 - 15 lbs	60.50	117.80
15.1 - 20 lbs	76.75	136.80

### International Standard Air Mail shipping:

Ships via Air Parcel Post with delivery in 10 to 30 days

***IPTM is not responsible for any brokerage charges, duties or taxes.***

### International Expedited:

Ships via DHL International with delivery in 4 to 7 days; (*cannot ship to a PO Box*)

***IPTM is not responsible for any brokerage charges, duties or taxes.***

**Institute of Police Technology and Management**  
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