IPMBA

The 11th Annual Police on Bikes Conference & Product Exhibition

MAY 3 - 5, 2001

Cincinnati, Ohio

Hosted by the Cincinnati Police Division

COVER 1

IPMBA Remembers...

Police Officer Michael J. Dunman
Salt Lake City Police Department, UT

Cause of Death: Bicycle accident
End of Watch: July 17, 2000
Date of Incident: July 17, 2000
Age: 30
Tour of Duty: 5 yr
Suspect Info: Charged with negligent homicide
Weapon Used: Automobile

Officer Dunman was killed after his bicycle was struck by an automobile. Officer Dunman was on bicycle patrol in downtown Salt Lake City when a car veered across three lanes of traffic, hopped a curb, and struck him from behind. He suffered severe head injuries in the accident and died shortly after being transported to a local hospital. The driver of the vehicle was arrested and charged with negligent homicide.

Officer Dunman had been with the agency for five years and is survived by his wife, and three daughters, ages 5, 3, and 1.

Private First Class Frank M. Fidazzo
Morgantown Police Department, WV

Cause of Death: Bicycle accident
End of Watch: June 10, 2000
Date of Incident: June 09, 2000
Age: 44
Tour of Duty: 11 yr
Suspect Info: n/a
Weapon Used: No weapon

PFC Fidazzo died one day after being involved in a bicycle accident while training with the agency's bike unit.

PFC Fidazzo and other bike officer from several agencies were finishing a one week training series and were riding on a path in a city park when PFC Fidazzo's bike hit a hump, throwing him over the handlebars. He received serious head injuries and was transported to a local hospital where he died the next day. PFC Fidazzo had been with the bike unit for three years and had been with the agency for 11 years. He is survived by his wife and two children.

If any fallen bike officers have been omitted from this memorial page, IPMBA sincerely regrets the omission. Information courtesy of the Officer Down Memorial Page. Used with permission.

INSIDE cover 2

The 11th Annual Police on Bikes Conference & Product Exhibition

May 3 – 5, 2001

IPMBA

The International Police Mountain Bike Association
Baltimore, Maryland

(A)

Board of Directors

IPMBA

The International Police Mountain Bike Association
28 E. Ostend Street
Baltimore, MD 21230
PH: 410-685-2220 FX: 410-685-2240
Website: www.ipmba.org E-Mail: ipmba@aol.com

City of Cincinnati

Department of Safety
Division of Police

310 Ezzard Charles Drive
Cincinnati, Ohio 45214
(513) 352-3536
(513) 352-2949 (FAX)

Thomas H. Streicher, Jr.
Police Chief

February 19, 2001

Mr. Kirby Beck, President
International Police Mountain Bike Association
28 E. Ostend St.
Baltimore, Maryland 21230

Dear Mr. Beck:

The Cincinnati Police Division would like to welcome the police mountain bike community of the world to The 11th Annual Police on Bikes Conference and Product Exhibition in Cincinnati, Ohio. The City of Cincinnati and the Cincinnati Police Division are pleased to host this conference and share our city with police mountain bike officers from around the world.

Over the past year the Cincinnati Police Division has been busy preparing for the conference. Our officers have been working with the communities and businesses of Cincinnati to present a top-notch event for you. The communities and businesses of Cincinnati have always offered their full support to our bike patrol program and have dedicated their support to this conference. While you are guests here, we ask you to stop in the local businesses and while you are riding about the city take time to introduce yourselves to our citizens. Cincinnati is rich with bicycling enthusiasts who would be delighted to meet mountain bike patrol officers from around the world.

We have an exciting and busy week planned with a number of activities available for your enjoyment after the conference schedule is concluded each day.

We look forward to making your stay in Cincinnati enjoyable and sincerely hope that we can make The 11th Annual Police on Bikes Conference and Product Exhibition the best conference ever.

Sincerely,

Thomas H. Streicher Jr.

Colonel Thomas H. Streicher, Jr.
Police Chief
Cincinnati Police Division

Contents

ENCLOSURES (FOUND IN CANVAS BAG)

2001 Certificate of Attendance Form
2001 Police on Bikes Survey
2001 EMS Survey

International Police Mountain Bike Association

POLICE ON BIKES

IPMBA

Dear 11th Annual IPMBA Police on Bikes Attendee:

Welcome to IPMBA's 11th Annual Police on Bikes Conference & Product Exhibition. We are thrilled to welcome police, EMS and security personnel from around the United States, and even the world, to our premier event.

This year marks some new offerings for IPMBA conference attendees. Among the most exciting is Bicycle Rapid Response Team training, developed to deal with civil protests and illegal demonstrations. The success of deploying this type of bike team in response to large scale civil protests was highlighted in 2000 at the national political conventions held in Los Angeles and Philadelphia. We are pleased to offer you a unique opportunity to learn from those who were there.

We are also excited to offer you state-of-the-art training in some of the hottest topics in community policing, courtesy of the Tri-State Regional Community Policing Institute. This series of workshops will help make you and your bike even more effective as you serve your beat-community.

Don't miss the experts we have invited to make presentations on nutrition, injury prevention, firearms skills, and the effects of bike saddles on sexual function. Be sure to attend our always-popular Roundtable Discussions to meet, learn and share with others in your specialty. We are offering Roundtables for Administrators, EMS personnel, Campus Police, and Women's Issues. And all IPMBA Instructors are strongly encouraged to attend the Instructor Roundtable.

And finally, don't leave town early and miss Saturday's Mountain Bike Competition. Whether you are a competitor or a spectator, it is always a fun-filled end to the conference. Our vendors have donated some fabulous prizes for both the competition and the conference-wide drawings, including bikes, uniforms, panniers, helmets, and sunglasses, so be sure to let them know how much their support is appreciated.

I want to especially thank Lt. Dennis Meyer, Sgt. David Simpson, Sgt. Doug Wiesman, and Police Specialist Nate Young of the Cincinnati Police Division, Patrolman Roger Nelms of the Cincinnati/No. Kentucky International Airport Police Department, and the rest of the conference planning committee members for all of the hard work they have done in preparation for this event. Together with the IPMBA staff, they have put in hundreds of hours to make this a worthwhile and enjoyable training experience. Be sure to thank them at every opportunity.

Let's be sure to make this a safe event and ride and behave like the professionals we are.

On behalf of the Board and staff of IPMBA, welcome to Cincinnati! And thanks for making IPMBA the best public safety training organization anywhere.

All the Best,

Officer Kirby Beck, President
Coon Rapids Police Department (MN)

INTERNATIONAL POLICE MOUNTAIN BIKE ASSOCIATION • 28 E. OSTEND STREET • BALTIMORE, MD 21230
PH: 410-685-2220 • FX: 410-685-2240 • E-MAIL: INFO@IPMBA.ORG • WEBSITE: IPMBA.ORG

IPMBA

Dear IPMBA Conference Attendee:

The International Police Mountain Bike Association joins with the Cincinnati Police Division (CPD) in welcoming you to the "Queen City." After several years of anticipation and countless hours of work, we are pleased to present to you the 11th Annual Police on Bikes Conference & Product Exhibition.

As a "first-timer" myself, I would like to extend a special greeting to the other first-timers -- participants, members, and vendors -- who have chosen to attend this, the premier training event for public safety cyclists. Although this is your first time with us, I am confident that it will not be your last. I have been assured on more than one occasion that this conference will be the "best yet," and if it even begins to reflects the hard work and enthusiasm of Lieutenant Dennis Meyer, Sergeants Dave Simpson & Doug Wiesman, Police Specialist Nate Young, and Patrolman Roger Nelms, it surely will, and you first-timers will soon join the ranks of the "old-timers." As for you "old-timers," we will continue to add new topics and refine our offerings to meet your ever-evolving training needs and interests.

Upon joining the IPMBA staff late last year, I was immediately impressed with the level of dedication and loyalty demonstrated by IPMBA members. You are clearly passionate about police and EMS cycling, *and* IPMBA and its programs. I experienced your commitment in person at the instructor certification courses in New Orleans and Florida, and while staffing a booth at the EMS Today Expo in Baltimore. Your enthusiasm has increased my own excitement; IPMBA has a great future ahead, and I am proud to be a part of it.

Many thanks to all of you who have welcomed me so warmly to the organization. I have corresponded with many of you, and hope to spend some time during the next few days putting faces to names and e-mail addresses. As members, you are IPMBA's #1 priority, and program manager Keith Lorenz and I are dedicated to delivering the best customer service we can. We will work with all of you to fulfill IPMBA's mission to provide resources, networking opportunities, and the best, most complete training for public safety bicyclists.

Over the course of the next few days, please take a moment to say "thank you" to the red-shirted members of the Cincinnati Police Division for all they have done to offer you a great experience. Have fun, be safe, and we'll see you again on May 9-11, 2002, in Ogden, Utah. Its gonna be fun!

Maureen Becker
Executive Director

INTERNATIONAL POLICE MOUNTAIN BIKE ASSOCIATION • 28 E. OSTEND STREET • BALTIMORE, MD 21230
PH: 410-685-2220 • FX: 410-685-2240 • E-MAIL: INFO@IPMBA.ORG • WEBSITE: IPMBA.ORG

Introduction

General Information

Airport Transportation
The IPMBA shuttle will depart *promptly* on the hour (unless otherwise noted) from the 5th Street entrance of the Westin during the following hours. Please arrive at least 15 minutes early to load your luggage.

- Wednesday, May 2: 5:00pm-11:00pm
- Thursday, May 3: 5:30am-12:30pm (shuttles depart on the half-hour)
- Friday, May 4: 4:00pm & 6:00pm
- Saturday, May 5: 12:00pm-10:00pm
- Sunday, May 6: 6:00am-4:00pm

Shuttle service is also available via the JetPort Express, departing from the hotel on the hour and the half-hour (approx. $14 one-way).

Bicycles
Bike Check will be available on a 24-hour basis, starting Friday, April 27, at 8:00am and ending at 12:00pm on Sunday, May 6. Enter the bike storage area via the loading dock at the Vine Street entrance to the Westin. **Do not lose your claim check. Bikes will not be released without claim check or proof of ownership.** *Note: neither IPMBA nor the Westin accepts responsibility for the safety & security of the bicycles.* ***Lock your bike!***

Bikes are not permitted in sleeping rooms, public space, or meeting rooms unless specifically required for a workshop.

Bike Shipping: Contact Dave Thies, Going Mobile, (513-531-7467) to arrange for pick-up, packaging & shipping ($55). The hotel will arrange shipping for boxed bikes ONLY. Contact Guest Services.

Certificates of Attendance
In order to receive a Certificate of Attendance, you **must** complete the Certificate of Attendance Application Form (found in your canvas portfolio) and have it initialed by the lead instructor of each workshop you attend. You **must** attend a minimum of two workshops on Thursday and two on Friday in order to be eligible for a certificate. If you do not obtain an instructor's initials, you will not get credit for attending, even if you pre-registered. Return the completed application to the Command Center or mail it to the IPMBA office within two weeks of the conference. Certificates will be mailed approximately eight weeks after the end of the conference.

Command Center (CPD and IPMBA)
Level 3, Westin Hotel. Tel: 513-852-6825.
Open on a 24-hour basis, starting Sunday, April 29, at 8:00am and ending at 6:00pm on Saturday, May 5. "Information Central"-- conference details, schedule changes, local information, competition sign-up, messages, social activities, etc. Please direct all inquiries to the Command Center staff. If they do not know the answers to your questions, they will contact the appropriate person.

Competition -- Saturday, May 5
The obstacle course will be held at Yeatman's Cove Park (a short ride from the Westin) from 1:00pm - 3:30pm. Sign up for a time slot and teams at the Command Center. Awards will be presented immediately following the event. See page 56 for a complete list of rules and required equipment.

Continental Breakfast
Continental breakfast, courtesy of Kroger and hosted by the Cincinnati Police Division, will be served in the Fountain Square Hospitality Suite, 16th floor, from 6:30am - 7:30am on Thursday, Friday, and Saturday.

Exhibit Hall
The exhibit hall will be open on Level III of the Westin from 4:00-8:00pm on Wednesday; 11:00am-5:00pm on Thursday; and 11:00am-2:00pm on Friday. Please visit our exhibitors frequently and show them how much their continued support of IPMBA is appreciated.

FIREARMS

Handgun laws for non-resident police officers

Kentucky:

1) A non-resident police officer can carry a handgun concealed while on-duty.

2) A non-resident police officer can have a handgun in vehicle only, not on his/her person while off-duty.

Ohio:

1) A non-resident police officer can carry a handgun concealed while on-duty.

2) A non-resident police officer may not have weapon in his/her possession while not on-duty.

Disclaimer: State firearm laws are subject to frequent change and local jurisdictions may have their own regulations. The above information is not to be considered legal advice or a restatement of law. For clarification, please consult the local jurisdiction or the state laws and published ordinances -- firearms, available at www.atf.treas.gov/archives/publications/statelaws1997.htm. (source: Police Chat, home1.gte.net)

GUESTS

Individuals with GUEST badges will be admitted to the Opening Ceremonies, lunches, and the exhibit hall only. Eligible individuals (see page 55) may also register for the mountain bike competition.

HILL CLIMB EVENT -- FRIDAY, MAY 4

The hill climb event will take place at Mount Adams (a short ride from the Westin), starting promptly at 6:00pm. Sign up for a time slot and teams at the Command Center. Please see page xx for a list of bike equipment requirements.

- 5:30pm: Muster at the Westin's 5th Street Entrance
- 5:45pm: Ride to Hill Climb Starting Line
- 6:00pm-7:00pm: Hill Climb Event

HOSPITALITY

The Fountain Square Hospitality Suite (16th floor), sponsored by Bratwear and IBIS, and hosted by the Cincinnati Police Division, will be open from 6:00pm - 8:00pm on Thursday and Friday.

IPMBA MERCHANDISE

IPMBA's only licensed supplier of IPMBA logo merchandise, **Creative Creations,** will be available in the exhibit hall with IPMBA clothing, hats, mugs, etc. If you are looking for an item that they don't have, suggest it!

LUNCHES

On Thursday and Friday, lunches will be served in Presidential I, Level III, adjacent to the Exhibit Hall at the times listed on the main schedule (page 9). On Saturday, box lunches will be distributed in the Atrium Terrace, Level I. You **must** present your namebadge to be served and your lunch ticket to pick up your box lunch. **No exceptions**. Announcements will be made and prize drawings will be held daily.

LOCAL INFORMATION

The Local Information Desk (near the Command Center) will be staffed Wednesday, May 2, from 4:00pm-8:00pm and Thursday, May 3, from 8:00am-12:00pm to supply information on attractions, dining, transportation, and other visitor services. Tourist literature will be available at all times.

MECHANICAL SUPPORT

Mechanical support by *Going Mobile* bike shop will be available in the Bike Check area on Thursday from 9:00am-11:00am & 3:00pm-6:00pm, and on Friday from 8:00am-11:00am & 3:00pm-6:00pm. Tech support will also be available at the mountain bike competition site on Saturday from 1:00pm-4:00pm. *Going Mobile* will charge for parts but not labor for basic and emergency repairs.

NAME BADGES

All participants are required to wear namebadges during all conference activities. Namebadges are required for entry into workshops, the exhibit area, and lunches. Those with "Guest" and "Exhibitor" namebadges will be admitted to the Opening Ceremonies, lunches, and the exhibit hall only.

ON-BIKE WORKSHOPS

Please report to the Bike Check at least 15 minutes prior to the scheduled start time to pick up your bike and meet with the instructor. "Meet Here" signs for each workshop will be posted. Classes will depart from the Bike Check for the training locations promptly at the scheduled times.

OPENING CEREMONIES

Please plan to attend the Opening Ceremonies, Presidential I, Level III, of the Westin, from 8:00 - 8:45am on Thursday, May 3. The agenda can be found on page 10.

PARKING
Westin (covered valet parking): $17-$24/day
Fountain Square (covered self-park): $1/two hours; $3 each additional hour; max $15/day.
Paul Brown Stadium (uncovered self-park): $3/day; $20 for April 27-May 6. You MUST present your IPMBA confirmation letter or namebadge to the attendant to obtain a hangtag. Vehicles not displaying a hangtag will be subject to towing. Tractor-trailers/motorhomes are not permitted.

RESTAURANT DISCOUNT
The Albee Restaurant in the Westin is offering a 15% discount on dinner to conference attendees. You must show your IPMBA conference namebadge to take advantage of this discount.

SURVEYS
Please help us "keep our fingers on the pulse" of Police and EMS Cycling by completing either the IPMBA Police or EMS Cyclist Survey (found in your canvas portfolio), as appropriate. Return the completed surveys to the Command Center or mail them to the IPMBA office within two weeks of the conference. The results will be compiled and published in a future issue of *IPMBA News* and used to help develop new workshop topics for future conferences.

WHO'S WHO
To reach any of the key players listed below, call the Command Center at 852-6825. Command Center staff will contact the appropriate person for you.
- Dave Simpson, *Cincinnati Police Division*
- Nate Young, *Cincinnati Police Division*
- Maureen Becker, *IPMBA Executive Director*
- Keith Lorenz, *IPMBA Program Manager*
- Al Simpson, *IPMBA Education Director*

WORKSHOP SCHEDULE CHANGES
Please note: workshop times and locations are subject to change. Please check the official message board at the Command Center each day.

Changes/additions to the workshop schedule since publication in the registration materials:

Corrected Time:
Urban Drug Enforcement on Thursday will be from 1000-1050, *not* 1000-1150.

Additions:
Off-Road Riding Techniques will be offered Thursday 1400-1700 and Friday 0900-1200.

Vendor-Sponsored Informational Workshop will be offered as follows. See page 116 for details.
- Sweetskinz, Thursday 1000-1050
- Med. Research Laboratory, Thursday 1100-1150
- Police E-Bikes, Friday 0900-0950
- Bratwear, Friday 1000-1050

Correction:
Deadly Force Encounters (Thursday 1400-1550 and Friday 1000-1150) is classroom-based, not on-bike.

THANKS
IPMBA would like to thank the following local companies for their support in making the 11th Annual Police on Bikes Conference a success:

A&A Safety Inc.
Ashland Inc.
Budget/Ryder Truck Rentals
Cincinnati Flying Pig Marathon
Cincinnati Paperboard Corp.
Cincinnati Recreation Commission
Dusing Brothers Ice Manufacturing Co.
Emblem Enterprises Inc.
Fifth Third Bank of Cincinnati
Greater Cincinnati Convention & Visitors Bureau
Going Mobile Inc.
Graeter's Ice Cream
I.B.C./Hostess
Joseph Chevrolet
KHS Bikes
The Kroger Co.
La'Rosas Inc.
Louis Trauth Dairy
Motorola
Mr. Mugs Co.
Pepsi Americas
Professional Awards Service
Schumann Graphics
Serfas
Shur-Good Biscuit Co. Inc.
Skyline Chili Inc.
Westerman Printing

Conference Overview

Wednesday, May 2

Activity	Time	Location
Registration	4:00pm – 8:00pm	Level III, Westin Hotel
Exhibit Hall/Opening Reception	4:00pm – 8:00pm	Level III, Westin Hotel
Local Information Desk	4:00pm – 8:00pm	Level III, Westin Hotel
Airport Shuttle (departs promptly on the hour)	5:00pm – 11:00pm	5th St. Entrance, Westin
Bike Check	24 hrs	Loading Dock, Vine St. Entrance
Command Center	24 hrs	Level III, Westin Hotel

Thursday, May 3

Activity	Time	Location
Airport Shuttle (departs promptly on the half-hour)	5:30am – 12:30pm	5th St. Entrance, Westin
Continental Breakfast (courtesy of Kroger)	6:30am – 7:30am	Fountain Sq. Suite, 16th Floor
Registration	7:00am – 7:45am	Level III, Westin Hotel
Opening Ceremony (see agenda on following page)	8:00am – 8:45am	Presidential I Level III
Local Information Desk	8:00am – Noon	Level III, Westin Hotel
Workshops	9:00am – 1:00pm; 2:00pm – 10:00pm	See page 25. Updates at Command Center
Mechanical Support (courtesy of Going Mobile)	9:00am – 11:00am 3:00pm – 6:00pm	Bike Check (Loading Dock)
Exhibit Hall	11:00am – 5:00pm	Level III, Westin Hotel
Lunch	1:00pm – 1:50pm	Presidential I, Level III
Hospitality (hosted by CPD; courtesy of IBIS & Bratwear)	6:00pm – 8:00pm	Fountain Sq. Suite, 16th Floor
Bike Check	24 hrs	Loading Dock, Vine St. Entrance
Command Center	24 hrs	Level III Westin Hotel

Friday, May 4

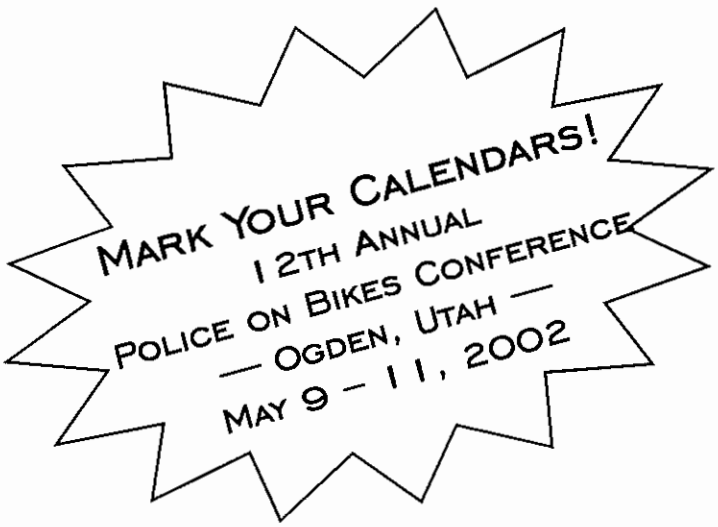
Activity	Time	Location
Continental Breakfast (courtesy of Kroger)	6:30am – 7:30am	Fountain Sq. Suite, 16th Floor
Workshops	8:00am – 12:00pm 1:00pm – 9:00pm	See page 25. Updates at Command Center
Mechanical Support (courtesy of Going Mobile)	8:00am – 11:00am 3:00pm – 6:00pm	Bike Check (Loading Dock)
Exhibit Hall	11:00am – 2:00pm	Level III, Westin Hotel
Lunch	12:00pm – 12:50pm	Presidential I Level III
Airport Shuttle (departs promptly on the hour)	4:00pm & 6:00pm	5th St. Entrance, Westin
Hospitality (hosted by CPD; courtesy of IBIS & Bratwear)	6:00pm – 8:00pm	Fountain Sq. Suite, 16th Floor
Hill Climb Event	Muster 5:30pm/Depart 5:45pm Competition 6:00pm – 7:00pm	5th Street Entrance Mount Adams
Bike Check	24 hrs	Loading Dock, Vine St. Entrance
Command Center	24 hrs	Level III, Westin Hotel

Saturday, May 5

Activity	Time	Location
Continental Breakfast (courtesy of Kroger)	6:30am – 7:30am	Fountain Sq. Suite, 16th Floor
Workshops	8:00am – 12:00pm	See page 25. Updates at Command Center.
Box Lunch Pick-Up (tickets required!)	12:00pm – 12:50pm	Atrium Terrace, Level 1
Airport Shuttle (departs promptly on the hour)	12:00pm – 10:00pm	5th St. Entrance, Westin
Mountain Bike Competition	1:00pm – 3:30pm	Yeatman's Cove Park
Mechanical Support (courtesy of Going Mobile)	1:00pm – 4:00pm	Yeatman's Cove Park
Mountain Bike Competition Awards Ceremony	4:00pm (approximately)	Yeatman's Cove Park
Bike Check	24 hrs	Loading Dock, Vine Street Entrance
Command Center	Closes at 5:00pm	Level III, Westin Hotel

Sunday, May 6

Activity	Time	Location
Airport Shuttle (departs promptly on the hour)	6:00am – 4:00pm	5th St. Entrance, Westin
Bike Check	Closes at noon	Loading Dock, Vine Street Entrance



Opening Ceremonies Agenda

Color Guard
National Anthem
Speakers
- *Thomas H. Streicher, Jr.*
  Chief, Cincinnati Police Division
- *Phil Heimlich*
  Councilman, City of Cincinnati
- *Roger McHue*, Director, Tri-State Regional Community Policing Institute
- *Joe Messmer*, Regional Vice President Mercedes-Benz, USA

Recognitions
Announcements of New Board and Officers
Closing

— **Master of Ceremonies:** *Allan Howard* —

SUPPORTERS


International Police Mountain Bike Association
POLICE
ON BIKES
IPMBA

Thank You

Please join us in extending a hearty "thank you!" to the following companies for contributing to the success of the 11th Annual Police on Bikes Conference & Product Exhibition.

Tri-State Regional Community Policing Institute

Bratwear Smith & Wesson

Olympic Uniforms/J. Marcel Bell Sports

Chiba Gloves/Global Sports Ibis, LLC Trek

Lane Sunglasses R&B Fabrications

Roy Tailor Uniform Company Repro-Med Systems

AMC Media EMS Magazine Law & Order

JEMS Communications Law Enforcement Product News

2001 IPMBA Conference Exhibitors

The Exhibit Hall will be open on Level III of the Westin from 4:00pm-8:00pm on Wednesday; 11:00am-5:00pm on Thursday; and 11:00am-2:00pm on Friday. Please visit frequently and show our exhibitors how much we appreciate their support. Be sure to say "Thanks for Coming Back" to all our "old" friends and "Welcome" to our "new" ones (marked below with an *.)

Blauer Manufacturing Company*
Bill Blauer
20 Aberdeen Street
Boston, MA 02215
Phone: 617-536-6606/*Fax:* 617-536-6948
Email: bblauer@blauer.com/*Website:* www.blauer.com
Product: Blauer is the premier manufacturer of uniforms, outerwear, rainwear, and accessories featuring Crosstech Bloodborne Barrier Protection by W. L. Gore.

Bratwear
Sally Swanson
3914 Portland Avenue
Tacoma, WA 98404
Phone: 253-471-1901/Fax: 253-471-2046
Email: sally@bratwear.com/*Website:* www.bratwear.com
Product: Best on the Beat Uniforms. Innovative, high-tech specialty uniforms, custom-designed and fitted to your specifications. Bratwear is fast becoming the uniform of choice!

Bell Helmets
Kathy Hoffman
1924 County Road, 3000N.
Rantoul, IL 61866
Phone: 800-494-4543/Fax: 217-892-2662
Email: khoffman0@cs.com/*Website:* www.bellsports.com
Product: Bicycle helmets available through the National Safe Kids Discount Helmet Program as well as models offered directly to Police Departments through a recently launched program.

Chiba Gloves/Global Sports Group
Gregg Moran
13750 McCormick Drive
Tampa, FL 33626
Phone: 813-855-3400/Fax: 813-818-7500
Email: chibaglvs@aol.com/*Website:* www.chibagloves.com
Product: Gloves for law enforcement police, sheriffs, bike patrol & line officer and other performance glove products.

Creative Creations*
John & Dawn Elkins
1014 River Acres
Tecumseh, MI 49286
Phone: 517-423-2673
E-mail: elk097@home.com
Product: IPMBA Merchandise.

Datamaxx Applied Technologies, Inc.
John Tedona
3780-A Peddie Drive
Tallahassee, FL 32303
Phone: 850-575-1023/Fax: 850-575-0689
Emoil: marketing@datamaxx.com/*Website:* www.datamaxx.com
Product: NCIC Workstations, CAD, Mobile Communications, Handheld Network Access, Document & Image Management.

Ear Hugger, Inc.
Bill Marshall
405 North 880 West, Suite C
Lindon, UT 84042
Phone: 801-785-9636/Fax: 801-785-9446
Email: billm@earhugger.com/*Website:* www.earhugger.com
Product: Safety headphones and headsets.

Fechheimer
Steve Schirtzinger
4545 Malsbary Road
Cincinnati, OH 45242
Phone: 513-792-1606/*Fax:* 513-793-6959
Email: agibson@fechheimer.com/*Website:* www.fechheimer.com
Product: Fechheimer manufactures a complete line of in-stock and custom uniforms, including shirts, trousers, sweaters, dress jackets, and bike patrol uniforms to meet all the specialized uniform needs of the public safety market.

Fuji Bikes
Kevin Moran
PO Box 60 118 Bauer Drive
Oakland, NJ 07436
Phone: 201-337-1700/*Fax:* 201-337-1762
Email: thart@fujibikes.com/*website:* www.fujibikes.com
Product: Bicycle Parts & Accessories.

Going Mobile*
Dave Theis
3950 Edwards Road
Cincinnati, OH 45209
Phone: 513-531-7467
Website: www.goingmobile.com
Product: Bicycle supplies & accessories.

Ibis LLC*
Bruce Hopfengardner
11 Barham Avenue
Santa Rosa, CA 95407
Phone: 800-283-0943/Fax: 707-532-1919
Email: info@ibiscycles.com/*Website:* www.ibiscycles.com
Product: The Ripley, a pivotless aluminum soft tail bicycle providing officers with 1.25" of maintenance free travel (received *Bicycling* magazine's top rating); and the Mojo, a steel legend providing exceptional ride, handling, and durability.

Kenda USA
Bryan Banks
7095 Americana Pkwy
Reynoldsburg, OH 43068
Phone: 866-KENDAUS/*Fax:* 614-866-9805
Email: bbanks@kenda.comtw/*Website:* www.kendausa.com
Product: Kenda USA will display bicycle tires and tubes, including the "POLICE" Knite Glo Tire, self sealing bicycle tubes, and the new Kenda Kno Flatsss, mulit-layered Aramid fiber tube protection liner.

Lane Sunglasses
Neal Dykstra
7640 N. 400 W
Rensselaer, IN 47978
Phone: 800-542-7850/*Fax:* 219-956-2112
Email: eyewear@netnitco.net/*Website:* www.lanesunglasses.com
Product: Protective Eyewear and Goggles.

Light & Motion*
Chris Wilcox
300 Cannery Row
Monterey, CA 93940
Phone: 831-645-1538/*Fax:* 831-375-2517
Email: cwilcox@lmindustries.com/*Website:* www.bikelights.com
Product: Mountain bike lights for police and EMS cyclists.

Michael's of Oregon
Kim Graham
P.O. Box 1690/1710 Red Soils Court
Oregon City, OR 97045
Phone: 503-655-7964/*Fax:* 503-722-5701
Email: kimg@unclemikes.com/*Website:* www.unclemikes.com
Product: Sidekick Professional Holsters, Belts, & Accessories for Law Enforcement.

Mocean
Bill Levitt
1635 Monrovia Avenue
Costa Mesa, CA 92627
Phone: 949-646-1701/*Fax:* 949-646-1590
Email: moceanbl@anl.com/Website: www.mocean.net
Product: Technical Law Enforcement and Standard Patrol Uniforms.

MRL/Medical Research Laboratories*
Bill Smirles
1000 Asbury Drive
Buffalo Grove, IL 60089
Phone: 847-520-0300
Email: mrl@mrlinc.com/*Website:* www.mrlinc.com
Product: LifeQuest Automated External Defibrillator, for when simplicity, reliability, & versatility are important. At only 4.5 pounds, this compact and portable AED can be transported quickly and easily, and deployed by almost anybody. The non-glare screen makes user prompts easy to view, and one large, illuminated button is all that is required for rescue. The LifeQuest promotes simple, immediate, no-hesitation administering of life-saving therapy.

National Bike Registry
Chuck Davis
1776 Fairway Drive
San Leandro, CA 94577
Phone: 510-665-0280/*Fax:* 510-665-0285
Email: cdavis@centricmedia.com/*Website:* www.nationalbikeregistry.com
Product: National Bike Registry has been helping law enforcement to return lost and stolen property since 1984.

National Institute for Occupational Safety & Health (NIOSH)
Michael Breitenstein
4676 Columbia Pkwy
Cincinnati, OH 45226
Phone: 513-533-8138/*Fax:* 513-533-8138
Email: mjb1@cdc.gov/*Website:* www.cdc.gov/NIOSH
Product: NIOSH, the federal agency which investigates workplace safety & health issues, will present tips for minimizing numbness and injury to the reproductive system and conduct demonstrations of bike seat pressure measurements. Sign your unit up for a health study.

NiteRider
John Haywood
8205 Ronson Rd. #E
San Diego, CA 92111
Phone: 800-466-8366/*Fax:* 858-268-9315
Email: jhaywood@niterider.com/*Website:* www.niterider.com
Product: Police Bicycle Lighting.

Olympic Uniforms/J. Marcel Enterprises
Mary Burke
5920 MLK Jr. Way South
Seattle, WA 98118
Phone: 206-722-1412/*Fax:* 206-722-1521
Email: reps@olyuniforms.com/*Website:* www.olyuniforms.com
Product: The highest quality bike uniforms available. Many styles of jackets, pants, shorts, & shirts in a wide assortment of colors.

Panasonic Computer Solutions Co.*
Dave Poulin
50 Meadowlands Pkwy, 2F-5
Secaucus, NJ 07094
Phone: 904-322-6944/*Fax:* 904-756-5131
Email: dave_poulin@P2C2.com/*Website:* www.panasonic.com/toughbook
Product: Panasonic Personal Computer Company will be displaying a selection of portable computers specifically designed for use by police departments. Panasonic is the #1 provider of portable computers to the public safety market.

Patrol Bike Systems
Mark Eumarian
P.O. Box 9308
St. Paul, MN 55109-0308
Phone: 651-773-8763/*Fax:* 651-773-8762
Email: patrolbike@earthlink.net/*Website:* www.patrolbike.com
Product: Law enforcement bicycles, accessories, equipment, and clothing.

Patrol Cycles LLC*
Murline Staley
1411 S. Houston Road
Pasadena, TX 77502
Phone: 713-472-0894/*Fax:* 713-472-8643
Email: murline@industrialbikes.com/Website:
Product: A new, exciting, affordable, custom POLICE bike -- the ENFORCER.

Police E-Bikes, Inc.*
Jack Stover
P.O. Box 429
Archibold, OH 43502
Phone: 419-445-0306/*Fax:* 419-445-5256
Email: tucker2@bright.net
Product: EV Global Electric Assist Police Bicycle.

Pro-Tuff Uniforms
KC Werner
P.O. Box 974
Roseburg, OR 97470
Phone: 800-547-0976/*Fax:* 541-673-4793
Email: info@protuff.com/*Website:* www.protuff.com
Product: Uniforms and rainwear.

R & B Fabrications, Inc.*
Ron Eakins
20128 Road 138
Oakwood, OH 45873
Phone: 419-594-2743/*Fax:* 419-594-2250
Email: rbfab@bright.net/Website: www.rbfab.com
Product: Bicycle panniers for police and paramedics, full line of interchangeable modular panniers to fit your requirements. Complete line of vests for police, EMS, & incident command systems. Manufacturer of complete line of fire, EMS, and police bags.

Roy Tailor Uniform Company
Don Blum
1830 Dalton
Cincinnati, OH 45245
Phone: 513-621-4787/*Fax:* 513-621-0483
Product: Uniforms, Body Armor, etc.

Rudy Rack*
Ryan Ruedebusch
P.O. Box 133
Plover, WI 54467
Phone: 800-434-6442/*Fax:* 715-344-6148
Email: ryan@rudyrack.com/*Website:* www.rudyrack.com
Product: Bicycle parking racks and bicycle storage systems.

Smith & Wesson
Dennis Fournier
2100 Roosevelt Avenue
Springfield, MA 01104
Phone: 413-747-3555/*Fax:* 413-747-3532
Email: dfournier@smith-wesson.com/*Website:* www.sw-psdw.com
Product: Smith & Wesson Public Safety Products, Mountain Bikes, Bike Accessories, Emergency Lighting Products.

Setcom Corporation
Carl Stambaugh
1400 N. Shoreline Blvd.
Mountain View, CA 94043+1385
Phone: 650-965-8020/*Fax:* 650-965-1193
Website: www.setcom.com
Product: Mountain Bike ComKits, Police Bicycle ComKits, Vehicular/Intercom Radio Mixers, Portable & Mobile Headsets, Portable & Mobile Helmet Kits, Police Motorcycle ComKit.

Sweetskinz, Inc. -- Police Specific Tires*
Todd Gogulski
2309-11 Wallace Street
Philadelphia, PA 19130
Phone: 215-235-3555/*Fax:* 215-235-8971
Email: todd@sweetskinz.com
Product: Bike tire designed for police use. Extra puncture protection through use of full-tread Kevlar belting to give the best resistance available. Tire has raised reflective lettering: POLICE 911. We offer a six-month guarantee on all police tires.

TLC Awards*
Don Glaser
P.O. 390
Norvelt, PA 15674
Phone: 800-593-6502/*Fax:* 724-423-8315
Website: www.awardpartner.com
Product: TLC provides ultra high value, fully custom award & recognition products. We put a complete award and recognition studio at your disposal to uniquely satisfy your every recognition need. Take a look at our unique products & enjoy our convenient service.

Trek Bicycles
Todd Heal
801 West Madison Street, Box 183
Madison, WI 53594
Phone: 920-478-4678 or 800-313-8735 ext. 4911/*Fax:* 800-443-8735
Email: police@trekbike.com/*Website:* www.trekbikes.com
Product: Police bicycles and accessories.

United Uniform
Kami Zinati
3200 S. Grand Avenue
Los Angeles, CA 90007
Phone: 213-746-8000/*Fax:* 213-746-2010
Product: Uniforms.

Vigor Sports, Inc.*
Jennifer Suarez
16818 Marquardt Avenue
Cerritos, CA 90703
Phone: 562-407-2184/*Fax:* 562-407-2189
Email: jennifers@vigorsports.com/*Website:* www.vigorsports.com
Product: Vigor Helmets will be displaying our police helmet line as well as some clothing that can be used by agencies.

Special Thanks to:

Cincinnati/Northern Kentucky International Airport Police Department (KY)

Florence Police Department (KY)

Forest Park Police Department (OH)

IPMBA's Finest

Instructor Biographies

Angiolillo, Dominic. *Ft. Lauderdale PD, Ft. Lauderdale, FL. Phone: 954-828-5700; E-mail: domcang@gate.net.* Dominic is a 19-year veteran of the Fort Lauderdale Police Department. He was first assigned to his department's bike patrol in 1993 and has served as Bicycle Patrol Coordinator for the past three years.

Beck, Kirby. *Coon Rapids PD, Coon Rapids, MN. Phone: 763-767-6481; E-mail: kirbyp42@aol.com.* Kirby is a 26-year police officer. He has been actively involved with teaching children bike safety for nearly 20 years. He has served as president of IPMBA since its independence in 1999 and prior to that, served as IPMBA representative on the League's board.

Blackington, Neil. *Boston EMS, Boston, MA. Phone: 617-538-5147; E-mail: blackington@bostonems.org.* Neil is a 23-year veteran of the City of Boston's Emergency Medical Service. He supervises and administrates a forty-person, 17-bike unit serving citizens through all four seasons.

Bowell, Jim. *Troy Fire Department, Troy, OH. Phone: 937-335-5678; E-mail: jbowell@erinet.com.* Jim attended the first IPMBA EMS Cyclist Course. He is the training coordinator for the Troy Fire Department Bike Program and authored their bike team policies and procedures.

Brady, Dave. *Alameda County Sheriff's Office/Dublin PD, Dublin, CA. Phone: 925-833-6670; E-mail: iracemtb@aol.com.* Dave has fourteen years in law enforcement. He is a certified firearms, rifle, and bicycle patrol instructor; and has four years experience with SWAT and the counter-sniper team. He is an expert downhill mountain bike racer and has won numerous gold medals in the California Police Summer Games.

Brown, Ed. *Orange County Fire/Rescue, Winter Park, FL. Phone: 407-249-6215; E-mail: efbro44@aol.com.* Ed is duly certified and has been involved in emergency services cycling for eight years, both as a police and EMS cyclist. He presently serves on IPMBA's Education Committee and is the EMS coordinator on the IPMBA Board of Directors.

Bullens, Jamie. *Dayton PD, Dayton, OH. Phone: 937-258-8048; E-mail: bullensj@aol.com.* Jamie is a 13-year veteran police officer currently assigned to the Dayton PD Community Policing Unit. He is an instructor for the Tri-State Regional Community Policing Institute and the coordinator of the Dayton PD bike patrol school. He is a certified IPMBA instructor and serves on the Education Committee.

Cassell, Cindy. *Nutrition Access, Cincinnati, OH. Phone: 513-553-2000; E-mail: sportnutri@aol.com.* Cindy is a lifetime athlete and a sports nutritionist specializing in nutritional needs for cycling and running endurance events. She is the owner of Nutrition Access and an assistant professor of nutrition at the University of Cincinnati.

Cosper, Stanley. *Tulane University PD, New Orleans, LA. Phone: 504-865-5381; E-mail: tinman@tulane.edu.* Stanley is an active IPMBA Instructor and the president of the Louisiana Police Mountain Bike Association.

Croissant, Eddy. *Tampa PD, Tampa, FL. Phone: 813-276-3595; E-mail: mtnbiker@tampabay.rr.com.* Eddy is lead instructor for the Tampa PD bicycle patrol and an IPMBA certified mechanic. He has taught at the past two IPMBA conferences.

Donovan, Pat. *Puyallup Fire Department, Puyallup, WA. Phone: 253-841-5401; E-mail: pndonovan@worldnet.att.net.* Pat has been involved with IPMBA and EMS cycling since the Tacoma Conference in 1998, and has published a magazine article about EMS cycling. He is a 16-year veteran of the fire service, serving the last four years as a fire captain and paramedic.

Elroy, Shon. *Norman PD, Norman, OK. Phone: 405-366-5341 ext. 52; E-mail: nemesis1144@cs.com.* Shon is the co-founder and lead instructor for the Norman Police Department bike team; a 14-year NPD veteran; a member of the NPD pistol team; and a senior firearms instructor.

Foster, Ashley. *MUSC Public Safety, Charleston, SC. Phone: 843-792-4196; E-mail: fosteram@musc.edu.* Sgt. Foster is a certified IPMBA instructor as well as a South Carolina Criminal Justice Academy certified instructor. His primary duties are as Departmental Training Officer and Bike Patrol Coordinator. His responsibilities include firearms/weapons instructor, training and maintaining the bike patrol, and overseeing the certification and re-certification of all officers within his department.

Ganzel, Dan. *Palm Beach County Sheriff's Dept., West Palm Beach, FL. Phone: 561-688-3700; E-mail: bikedeputy1@aol.com.* Dan is an 18-year veteran of the Palm Beach County Sheriff's Office. He has been an IPMBA Instructor for six years, an IPMBA member for seven years, and is an active off-road biker and surfer.

Gatlin, Nick. *Williamson County Hospital, Franklin, TN. Phone: 615-791-2092; E-mail: six6@concentric.net.* Nick is the program director of the Williamson Medical Center EMS in Franklin County, Tennessee. He has 20 years experience in EMS, and is in his third year of bike duty.

Goetz, Mike. *Seattle PD, Seattle, WA. Phone: 206-386-1850; E-mail: mgt1998@msn.com.*
Mike currently serves as vice president on the IPMBA Board of Directors.

Gonzales, Artie. *Topeka PD, Topeka, KS. Phone: 785-368-9075; E-mail: artieobo@aol.com.* Artie has been a member of the Topeka PD for 31 years, all in the patrol division. He has been a member of the bike unit since 1993 and a PCI since 1995. He has had extensive firearms training and is a firearms instructor. He currently serves as treasurer on the IPMBA Board of Directors.

Gonzalez, Thamy. *Miami-Dade PD, Miami, FL. Phone: 305-471-2736.* Thamy has been a police officer for eight years. She has been a PCI for three years and has taught at the last two IPMBA conferences. She has also taught in Jamaica and Brazil.

Gorski, Ron. *City of Scottsdale PD, Scottsdale, AZ. Phone: 480-312-3129.* Ron has been a bike officer with the City of Scottsdale for nine years and an IPMBA instructor for the past six years. He has attended eight IPMBA conferences. He has worked with several bike units in Arizona and organized an advanced bike class for the AZ POST. Each year the Scottsdale PD trains over 125 police officers on bikes.

Hamblin, Lou Ann. *Van Buren Township PD, Bellville, MI. Phone: 734-699-8930; E-mail: louannblackwidow@aol.com.* Lou Ann has been a police officer with Van Buren since 1992 and a police cyclist since 1993. She has been a PCI since 1997. She participated in and now co-instructs the PC Advanced Course. She is also a firearms and defensive tactics instructor.

Hawk, Christopher. *University of Illinois PD, Urbana, IL. Phone: 217-333-1216; E-mail: hawk1@uiuc.edu.* Chris has been a police officer since 1993 and an IPMBA PCI since 1997. He has several years experience in police and EMS service, especially with college and university departments.

Hickey, Scott. *Ft. Lauderdale PD, Ft. Lauderdale, FL. Phone: 954-828-5700; E-mail: skhick16@aol.com.* Scott has been a police officer for almost 15 years and a member of the Fort Lauderdale PD Bike Unit for four years. He has served as the assistant bike patrol instructor/coordinator for the past two years.

Hildebrand, David. *Denton PD, Denton, TX. Phone: 940-349-8181; E-mail: dnhildeb@cityofdenton.com.* David has been a police officer since 1990 and involved in bike patrol since 1996. He has instructor certifications in numerous areas, including cycling, firearms, and defensive tactics.

Hudson, Don. *Los Angeles PD, Los Angeles, CA. Phone: 213-473-7826; E-mail: mtbdh@webtv.net.* Don is a 20-year veteran of the Los Angeles PD and has been on bike patrol since 1993. He is the lead bike instructor for LAPD and a certified USCF bike mechanic. He is an avid cyclist and downhill mountain bike racer. He currently serves on the IPMBA Board of Directors.

Hunt, Chris. *East Ridge Police Department, East Ridge, TN. Phone: 423-867-3726; E-mail: chrish5553@msn.com.*
Chris has been in law enforcement for 13 years and an IPMBA Instructor since 1993. He has taught at the three out of the last four IPMBA conferences.

Johnson, Greg. *Rutherford County EMS, Murfreesboro, TN. Phone: 615-898-7789; E-mail: medisinemn@aol.com.* Greg has been a bike medic for Williamson & Rutherford Counties for the past five years. He is a Category 5 road racer and a mountain bike racer.

Johnston, Mike. *University of Utah PD, Salt Lake City, UT. Phone: 801-585-2677; E-mail: mikebikeut@hotmail.com.* Mike helped to develop the IPBMA PC Advanced Course with Gary McLaughlin in Moab, Utah. He has been a PCI since 1994 and is the Utah POST PCI and class coordinator.

May, Monte. *Kansas City PD, Kansas City, MO. Phone: 816-719-8438; E-mail: mlmay1@earthlink.net.* Monte is the patrol bureau bike coordinator for the Kansas City, Missouri, Police Department. He has been a part of the department's bike program for six years.

McLaughlin, Gary. *Sacramento PD, Sacramento, CA. Phone: 916-264-8290; E-mail: kellyl65@aol.com.* Gary McLaughlin is an officer with Sacramento Police Department and is one of the founders of the IPMBA PC Advanced Course.

Ranne, Ray. *Chicago PD, Chicago, IL. E-mail: fuzzycop@coppedalers.com.* Ray is an original member of the Chicago PD Bicycle Patrol Unit. He has eight years of bicycle patrol experience and has spent three years as mechanic. He currently serves as industry liaison on the IPMBA Board of Directors.

Reed, Donald. *Denver PD, Denver, CO. Phone: 303-475-4292; E-mail: corkybike@msn.com.* "Corky" has been a police officer for 15 years, a bike officer for eight years, and a certified IPMBA instructor for five years. He is also an IPMBA Instructor Trainer.

Ricciardi, Robert. *Palm Beach County Sheriffs Dept., W. Palm Beach, FL. Phone: 561-432-4750; E-mail: ricciardir@pbso.org.* Bob has been with the Palm Beach County Sheriff's Office for 14 years. He has been a certified IPMBA instructor for three years and an avid cyclist and fitness enthusiast for 24 years.

Richardson, TJ. *San Antonio PD, San Antonio, TX. Phone: 210-271-9601; E-mail: tjrichardson@hotmail.com.* T.J. is an 18-year veteran of the San Antonio Police Department and has worked on the Downtown Bike Patrol since 1992. He is the Bicycle Coodinator for his department, which has 400 bike-trained officers and 250 bicycles. He has been an IPMBA instructor since 1994, and currently serves as secretary on the IPMBA Board of Directors.

Roy, Jim. *Topeka PD, Topeka, KS. Phone: 785-368-9015; E-mail: jmr3321@aol.com.* Jim has been a police officer for 22 years; and a bike officer for six years until promotion to sergeant. He is a graduate of the Barnett Bicycle Institute for Mechanics; and a graduate of IPMBA's first Maintenance Officer Certification Course. He has been a certified IPMBA instructor for six years; was mountain bike competition team champion in 1998 and 2000; and has attended the last seven IPMBA conferences.

Ryerson, Loren. *Aspen PD, Aspen, CO. Phone: 970-920-5403; E-mail: lorenr@ci.aspen.co.us.* Loren is a 16-year veteran of the Aspen Police Department. He has been riding on patrol since 1987 and continues to ride in his current assignment as assistant chief.

Schneider, Robert. *Ann Arbor PD, Ann Arbor, MI. Phone: 734-994-2875; E-mail: tikitem@aol.com.* Rob has been a police officer for seven years, with Ann Arbor PD for the last four. He has been a certified IPMBA member since 1998, a certified IPMBA PCI since 1999, and an EMSCI since June 2000. He is a certified firearms instructor, FTO, and a member of both ASLET and IALEFI.

Schrader, Steven. *NIOSH, Cincinnati, OH. Phone: 513-533-8210; E-mail: sms4@cdc.gov.* Dr. Steven Schrader is the Chief of the Reproductive Health Assessment Section for the National Institute for Occupational Safety and Health (NIOSH). He and his section have conducted research on workplace conditions and their affects on male and female reproductive health for over 18 years. He has over 150 presentations, book chapters, and scientific publications; and has lectured throughout the United States, Denmark, Italy, England, Belgium, France, Russia, and Japan.

Simpson, Al. *Pomano Beach PD (Retired), Pompano Beach, FL. E-mail: mtnbike@gate.net.* Al is a 27-year veteran in police work, a certified EMT, and avid off-road bicycle rider. He has been a certified IPMBA instructor since 1995 and is an IPMBA Instructor Trainer. He currently serves as Education Director on the IPMBA Board of Directors.

Sipin, Thomas. *West Allis PD, W. Allis, WI. Phone: 414-302-8000; E-mail: escrima@execpc.com.* Tom is a PCI, LCI, and Instructor/Trainer for "Teaching Safe Bicycling." He has been a police officer for 21 years, including 6 years on the Tactical Unit. He is also an instructor in Firearms, Defensive Tactics, ASP, OC, Edged Weapon Defense, and Physical Training.

Tanner, Tom. *Ann Arbor PD, Ann Arbor, MI. Phone: 734-994-2875; E-mail: ttanner@ci.ann-arbor.mi.us.* Tom has been with the Ann Arbor PD for 16 years. He has been a bike officer since 1995, a PCI since 1996, and is a certified maintenance officer. He has taught at the last four IPMBA conferences.

Taylor, Bobby. *Alvin PD, Alvin, TX. Phone: 281-388-4370; E-mail: txbikecop@aol.com.* Bob has been a police officer since 1986 and a bike patrol officer since 1994. He has completed the PCID and MOC training and is his department's bike patrol coordinator. Since 1997, he has been the coordinator of the only IPMBA training course in the Houston-Galveston area.

Thompson, Patrick. *88th Security Forces Squadron/Bike Patrol Team, Wright-Patterson AFB, OH. Phone: 937-257-6959; E-mail: psthmson@aol.com.* Pat is the non-commissioned officer in charge (NCOIC) of the 25-member Wright-Patterson AFB bike patrol section. He has been an active road/mountain bike rider for the last 15 years.

Trujillo, Mitch. *Boulder PD, Boulder, CO. Phone: 303-441-3315; E-mail: trujillom@ci.boulder.co.us.* Mitch is a veteran of the Boulder Police Department's mall/bike unit. He is an IPMBA Instructor Trainer, a defensive tactics instructor, and coach for the Front Rangers Cycling Club, a program for at-risk kids.

Valdes, Tony. *Miami-Dade PD, Miami, FL. Phone: 305-715-5030.* Tony has been a police officer since 23 years. He has been an IPMBA PCI for five years, and has taught the PC course in Brazil and Jamaica.

Vonk, Kathy. *Ann Arbor PD, Ann Arbor, MI. Phone: 734-994-2911; E-mail: kvonk@ci.ann-arbor.mi.us.* Kathy has been a police officer for 13 years, a bike cop for nine, and a certified IPMBA instructor for eight. She is an HK firearms instructor, Redman Simulations Instructor, a Simunition Safety Supervisor, and a personal trainer. She has a BS in Exercise Physiology and a BA in Criminal Justice. She currently serves on the IPMBA Board of Directors.

Waugh, Richard. *Coral Gables PD, Coral Gables, FL. Phone: 305-442-1600; E-mail: rwaugh@pd.citybeautiful.net.* Richard is an 11-year veteran officer and has been a police cyclist for eight years. He has been a certified IPMBA PCI since 1995 and an EMSCI since 1999. He is an avid road cyclist and racer who enjoys traveling all over the world.

Whited, James. *University of Oklahoma PD, Norman, OK. Phone: 405-325-2864; E-mail: whited@oupd.ou.edu.* James has been a member of his department's bike unit for three years. He is currently working to develop a bicycle awareness class for the students and faculty of the University of Oklahoma, with the goal of creating a safer environment.

Woods, Tom. *Denton PD, Denton, TX. Phone: 940-349-7988; E-mail: tkwoods@cityofdenton.com.* Tom, a founding member and past president of IPMBA, has been in law enforcement for 21 years and bike patrol since 1990. Representing IPMBA, he started the first mountain bike patrol in the former Soviet Union in 1994; a 100-officer unit in Rwanda, Africa; and a unit in Tbilisi, Republic of Georgia.

What & Where


International Police Mountain Bike Association
Police On Bikes
IPMBA

Workshop Schedule, Locations & Instructors

Thursday, May 3

0800 – 0845 *Opening Ceremony* — All are welcome — *Presidential*

0900 – 1750 (01) PCI to EMSCI Transition Course — *Harding* (Bowell, Brown)

0900 – 0950
(02) Bicycle Seats and Sexual Function — *Harrison* (Schrader)
(03) EMS Scene Safety — *Garfield* (Donovan)
(04) Food, Fuel, & Cycling — *Hayes* (Cassell)
(05) Stretching to Prevent Common Bicycling Injuries — *Window* (Valdes)
(06) Yuuth Bicycle Education — *McKinley* (Beck)

0900 – 1050
(07) Conquering Urban Traffic — *Bike Check* (Gorski)
(08) Introduction to Community Policing — *Fountain* (Bullens)
(09) Suspect Contact and Apprehension — *Bike Check* (Reed, Trujillo)

0900 – 1250
(10) Beginning Maintenance — *Tyler Davidson I* (Tanner, Taylor)
(11) Bicycle Rapid Response — *Tyler Davidson II* (Hudson)
(12) Firearms Skills for Mountain Bike Officers — Shuttle @ 5th Street Entrance (Zink)

1000 – 1050
(13) PC Course Safety Considerations — *Garfield* (Hildebrand)
CHANGE (17) Urban Drug Enforcement — *Tyler Davidson II* (Croissant)
ADDITION Sweetskinz (Vendor Workshop) — *McKinley* (Gogulski)

1000 – 1150
(14) Administrative Issues of a Bike Unit — *Harrison* (Woods)
(15) Firearms Training for the Police Cyclist — *Hayes* (Hamblin)
(16) Minimizing the Impact of Bicycle Crashes — *Bike Check* (Angiolillo)

1100 *Vendor Area Opens*

1100 – 1150 ADDITION Medical Research Laboratory (Vendor Workshop) — *McKinley* (Smirles)

1100 – 1250
(18) Overcoming Urban Obstacles — *Bike Check* (Richardson, Waugh)
(19) Problem Solving — *Fountain* (Bullens)

1300 – 1350 (20) Lunch — *Presidential I*

1400 – 1450
(21) Continuous & In-Service Training — *Tyler Davidson I* (Ganzel, Ricciardi)
(22) EMS Specific Equipment Needs — *Garfield* (Donovan)
(23) Funding Sources for Bike Units — *Hayes* (Croissant)

1400 – 1550
(24) Conquering Urban Traffic — *Bike Check* (Hildebrand)
(25) Cultural Awareness:
Building Inclusive Communities — *Fountain* (Bullens)
(26) Deadly Force Encounters — *Tyler Davidson II* (Hamblin)
(27) Suspect Contact & Apprehension — *Bike Check* (Reed, Trujillo)

1400 – 1700 ADDITION Off-Road Riding Techniques — *Bike Check* (Hudson)

1400 – 1750 (28) Firearms Skills for Mountain Bike Officers — *Shuttle @ 5th Street Entrance* (Zink)

1500 – 1550
(29) Bike Fit — *Tyler Davidson I* (Whited)
(30) Food, Fuel & Cycling — *Hayes* (Cassell)

1500 – 1650 (31) Administrative Issues of a Bike Unit — *Harrison* (Woods)

1600 – 1650
(32) Design & Operation of a MTB Course — *Tyler Davidson II* (Richardson)
(33) PC Course Safety Considerations — *Garfield* (Ganzel, Ricciardi)

1600 – 1750
(34) Defensive & Pursuit Tactics — *Bike Check* (Tanner)
(35) Ethics — *Fountain* (Bullens)
(36) Slow Speed Drills — *Bike Check* (Brady, Croissant)

1700 *Vendor Area Clases*

1800 – 2150 (37) Officer Survival for Bike Patrol — *Bike Check* (McLaughlin, Vonk)

1900 – 2050
(38) PC Night Operations — *Bike Check* (Hudson)
(39) EMS Night Operations — *Bike Check* (Donovan)

Friday, May 4

0800 – 0850
(40) Stretching to Prevent Common Bicycling Injuries — *Fountain* (Valdes)

0800 – 0950
(41) Defensive and Pursuit Tactics — *Bike Check* (Reed)
(42) Drive Train Adjustment — *Windows* (Tanner)
(43) Introduction to Community Policing — *Tyler Davidson I* (Bullens)

0800 – 1150 (44) Officer Survival for Bike Patrol — *Bike Check* (McLaughlin, Vonk)

0900 – 0950
(45) EMS Roundtable — *McKinley* (Bowell, Brown)
(46) Design and Operation of MTB Course — *Tyler Davidson II* (Richardson)
(47) PC Course Safety Considerations — *Garfield* (Sipin)
(48) Funding Sources for Bike Units — *Hayes* (Ranne)
ADDITION Police E-Bikes (Vendor Workshop) — *Harding* (Stover)

0900 – 1150 ADDITION Off Road — *Bike Check* (Brady, Croissant)

1000 – 1150
(49) Conquering Urban Traffic — *Bike Check* (Gorski)
(50) Deadly Force Encounters — *Tyler Davidson II* (Hamblin)
(51) Headset Overhaul — *Windows* (Tanner)
(52) Instructor Trainer Update — *Harrison* (Beck, Goetz, Simpson)
(53) Minimizing the Impact of Bicycle Crashes — *Bike Check* (Angiolillo, Hickey)
(54) Problem Solving — *Tyler Davidson I* (Bullens)
ADDITION Bratwear (Vendor Workshop) — *Harding* (Swanson)

1100 *Vendor Area Opens*

1100 – 1150
(55) Administrators Roundtable — *McKinley* (Woods)
(56) EMS Course Safety Considerations — *Garfield* (Bowell, Brown)
(57) Pumpkins, Potatoes, & Peppers — *Hayes* (Cassell)

1200 – 1250 (58) Lunch — *Presidential I*

1400 *Vendor Area Closes*

1400 – 1450
(61) Bicycle Seats & Sexual Function — *Harrison* (Schrader)
(62) Pumpkins, Potatoes, & Peppers — *Hayes* (Cassell)
(63) Women's Issues Roundtable — *McKinley* (Hamblin)

1400 – 1550
(64) Advanced & Realistic Training for Bike Cops — *Tyler Davidson I* (McLaughlin, Vonk)
(65) Bottom Brackets — *Windows* (Tanner)
(66) EMS Scene Safety: Practical Applications — *Bike Check* (Brown)
(67) Overcoming Urban Obstacles — *Bike Check* (Waugh)

1400 – 1750
(59) Beginning Maintenance — *Fountain* (Angiolillo)
(60) Bicycle Rapid Response — *Tyler Davidson II* (Hudson)

1500 – 1550 (68) Effective Use of EMS Bikes — *Garfield* (Bowell)

1500 – 1650 (69) Firearms Training for the Police Cyclist — *Hayes* (Hamblin)

1600 – 1650
(70) Campus Policing Roundtable — *McKinley* (Hawk)
(71) Urban Drug Enforcement — *Tyler Davidson II* (Croissant)
(72) Youth Bicycle Education — *Tyler Davidson I* (Beck)

1600 – 1750
(73) Brakes — *Windows* (Tanner)
(74) Slow Speed Drills — *Bike Check* (McLaughlin)

1900 – 2050 (75) PC Night Operations — *Bike Check* (Hudson)

Saturday, May 5

0800 – 0850 (76) So You Want to Be an IPMBA-Certified Instructor — *Tyler Davidson II* (Goetz)

0800 – 0950 (77) PCI Roundtable — *Taft* (Beck, Simpson, Woods)

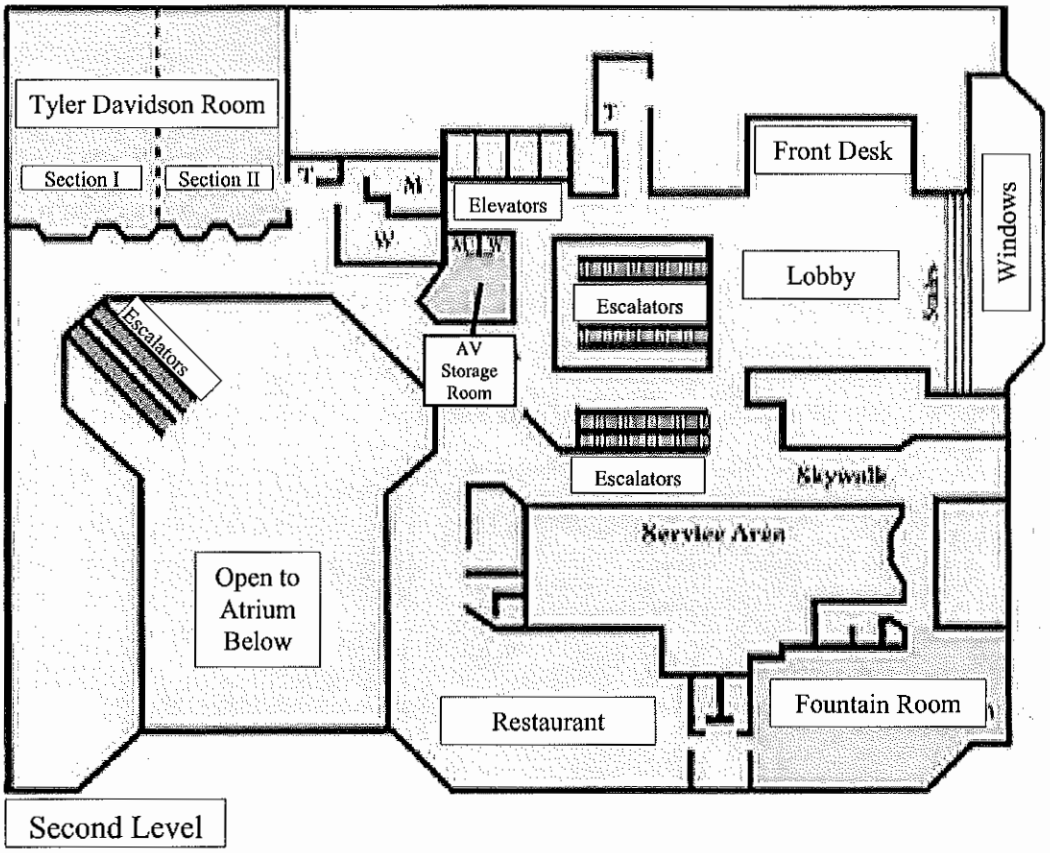
1000 – 1150 (78) Instructor Trainer Update — *Tyler Davidson II* (Beck, Simpson, Woods)

1200 – 1250 (79) Lunch — *Pick-up at Atrium Terrace*

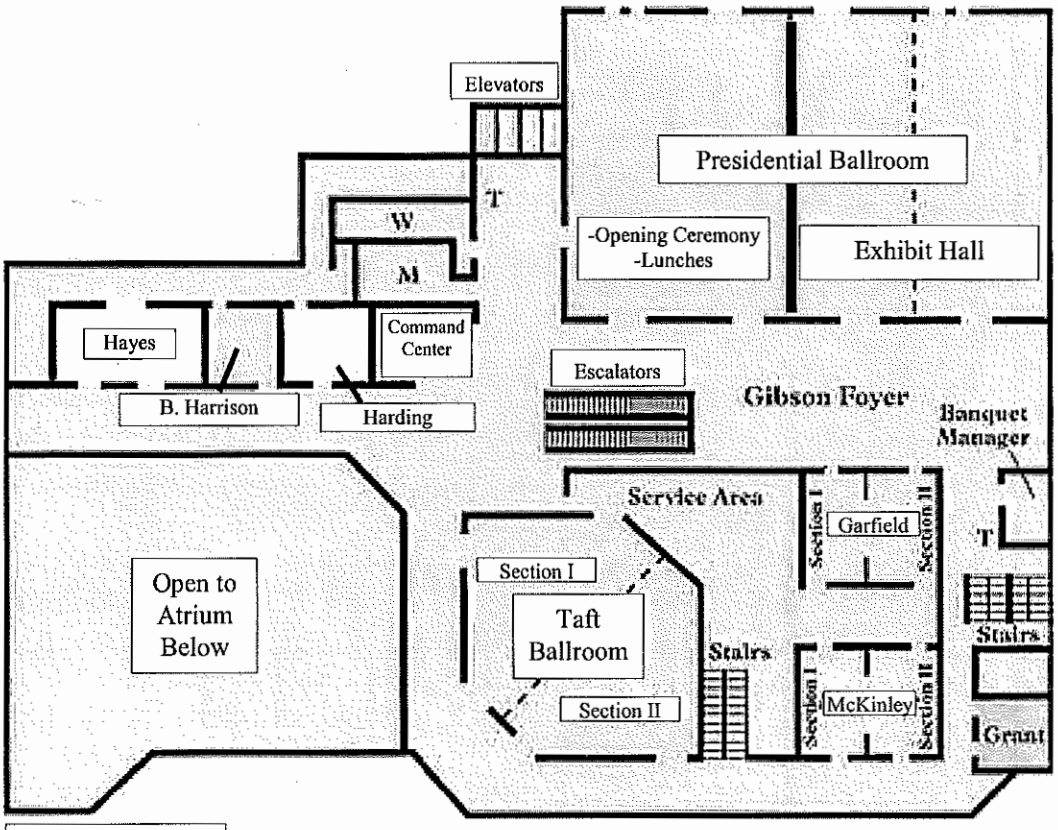
1300 (80) Mountain Bike Competition — *Yeatman's Cove Park*

1700 *Conference Closes – See you next year in Utah!*

Floor Plan



Second Level



Third Level

Workshop Handouts

Administrative Issues of a Bike Unit

Administrative Issues of a Bike Unit addresses such topics as general administration, policy considerations, funding, personnel selection, equipment, training, and legal issues.

Introduction

- The bike patrol squad is among the newest facets of modern law enforcement and considered by some to be a key element of the community policing movement. IPMBA memberships, requests for training, and media attention all reflect its continued growth and popularity.
- IPMBA was formed on the premise that it would be a network for new and old bike patrols (so they didn't need to "reinvent the wheel"); it would set training standards for the country; it would provide support for all bike patrols through continued research and updated training.
- Starting or operating a bicycle squad, in most cases, presents new challenges and many policy issues for the administrator.
- The points below will expose many of the common issues of deploying police officers on bicycles, along with solutions to many common pitfalls.

Administrative Issues

Justification

- Cost effective v. Squad cars
- Health benefits, morale
- Closer contact with citizens
- "Stealth" ability
- Community support, bike education and safety programs

Defining the Squad's Purpose

- Community policing agents—generalists
- Drug interdiction or street crimes unit—specialists

The Costs

- Capital outlay
- IPMBA Police Cyclist Course as basic training
- Bikes, uniforms, tools, racks, portable radios, speaker misc., special equipment
- Maintenance
- Long and short term
- In-house or local bike shop
- Replacement costs

"Selling it to the Rest of the Troops"

- Communicate a clear definition of the unit's goals and purpose
- Defeat the "special unit status" jealousy
- Communicate a clear definition of the expectations of the bike officers' and their function
- Ensure fairness in officer selection process

Deployment

- Full- or part-time
- Integrated with regular patrol units
- Call-driven
- High visibility, crime deterrent
- Directed patrol, specialized unit
- Specific crimes, "target areas"
- Visibility = crime deterrent, reduces citizen's perception and fear of crime
- Stealth = crimes in progress, interdiction
- Utilize crime stats analysis, "hot spots"

Logistics

- Where will the unit be based? Headquarters, store front?
- Will the bikes be primary mode of transportation?
- Will there be on-duty support for the riders?

Policy Considerations

Type of Policy

- General Order, Special Order
- Rules and Regulations
- Standard Operating Procedures

Unit Definition

- Policy Statement—purpose and objectives
- Define officer selection criteria
- Job tasks analysis (may be necessary)

Deployment Strategies and Parameters
- Hours of operation
- Adverse weather prohibitions
- Special assignment, general patrol, community policing

Officer Eligibility
- Define desired skills, qualities
- Define commitment, e.g., minimum two-year stay on unit
- Pre-requisite training
- Physical testing and medical examination requirements

Training
- Basic and on-going, in-service training
- Establish frequency of in-service training
- Firearms training
- Establish criteria and frequency of qualification testing for all unit members
- Administrative action for failure to requalify

Tactics as Related to Department Use of Force Coutinuum Policy
- Bike tactics must be in compliance with use of force policy
- Parameters for on-bike pursuits

Uniform Regulations
- What, when, where, how?
- In combination with regular gear?
- Off-duty special assignments?
- Training?
- ADA Considerations
- Reasonable modifications of equipment v. safety

FUNDING THE PROJECT

Current Bndget — "Shoe-horn it in"
- Assumes accurate assessment of needs
- Break down components to fit existing accounts and commodity codes

Formal Budget Packages
- Fits best with long range strategy
- Allows in-depth research and fine-tuning
- Could be based on existing unit's accomplishments, i.e., increased arrest rates, citations, fines, COP

Forfeitures and Seizure Mouey
- Include seized equipment as well as money
- Drug seizure funds directly applicable to specialized drug interdiction bike unit

Grants
- Department of Justice "COPS" UHP (universal hiring program)
- Other state, federal, and local government crime reduction, crime prevention, community policing grants
- Corporate law enforcement grants -- Target, Wal-Mart, Motorola

Donations
- Citizen groups, neighborhood associations, crime watch groups
- Business associations
- Civic organizations —American Legion, Lions, Shriners
- Local bike shops and bike clubs

Fund Raisers
- What is legal for your jurisdiction?
- Bike rodeos and safety presentations
- The old "stand bys" — raffles, car washes, bake sales
- Tee-shirts, bumper stickers

OFFICER SELECTION

- The unique and demanding role of bike patrol requires highly motivated officers
- Borrowing a theme from the U.S. Marine Corps sums it up best: "We're looking for a few good men and women"
- You want officers who will promote the unit in the eyes of the department and the public by their demeanor, activities, and accomplishments
- These officers are to be the foundation and continual fortification of the unit's success

Identify Desired Job Skills and Personal Qualities
- These can be specific to the unit's purpose and goals, i.e., COP, drug interdiction, generalized patrol
- Legal knowledge — drug laws, arrests without a warrant, search and seizure, use of force
- Interpersonal communications
- Bike officers can be highly visible
- Close contact with the citizens and media

Physical Capabilities
- Can the officer meet basic requirements and improve on same — cycling is new to many applicants

Employment History
- Attendance — doesn't abuse sick and vacation time
- Work ethic — results oriented, self-motivated, team player

Oral Board
- How suited to the unit's profile is the applicant?
- Desire to make the program a success
- Willingness to maintain high level of physical conditioning
- Personal appearance

Medical Exam, Physical Agility and/or Stress Testing
- Doctor's physical
- Body weight
- Heart condition
- Blood pressure
- Musculo-skeletal limitations

Treadmill Stress Test
- Aerobic capacity
- Overall fitness level

On-bike Test
- Created for future applicants once unit has formalized training

EQUIPMENT

Bicycles—Main Elements
- Quality of frame materials — strength and light weight is the goal
- Level of components — longevity, availability, and price of replacement parts
- Frame sizes — must fit a variety of personnel

Related On-Bike Equipment
- Toe-clips and straps or other pedal retention devices
- Headlights and tail light
- Rear rack and pack
- Cyclo-computer
- Tool kit, tire pump

Optional Equipment
- Suspension fork
- Bar-ends
- Carbon fiber wheels
- Emergency lights, sirens

Uniforms
- Vast array of materials available to suit many climates and weather conditions
- Can be manufactured to match regular uniforms
- Helmets must meet ANSI, Snell, or API recommendations
- Gun belts and accessories of the nylon web type

Tools
- For unit's maintenance and/or individual bike
- General maintenance or "basic bike shop"

Supplementary Expenses
- Painting bikes to match departmental scheme
- Storage facilities
- On-hand cache of replacement parts

TRAINING

The IPMBA Police Cyclist Course
- The best, most researched, solid, most standardized training available
- Over 400 active IPMBA Police Cyclist Instructors and Candidates available to teach
- Five states recognize it as their standard

Continual, In-Service Training
- Trainers as Police Cyclist Instructors
- Elements based on PC Course and exercises and tenets
- Should be mandated by policy for specific frequency, i.e., once monthly, etc.
- Should include off-road element

LEGAL ISSUES

Bicycle as a Vehicle — State Traffic Law
- Is the bicycle defined as a vehicle?
- What is the definition of a highway? A roadway?
- Are hand signals required while operating a bicycle?

Bicycle as an Emergency Vehicle
- Is the police bicycle considered an emergency vehicle?
- What are its exemptions to traffic controls, if any?
- Are they permitted on sidewalks?

Local Ordinances

- Traffic requirements and exemptions — bike paths, sidewalks
- Other agency exemptions — college campuses, parks
- Traffic signal tripping devices

Negligence

- Duty to take reasonable care
- Officer fails to do so
- The careless action causes injury

"Failed to Train"

- Agency has a recognized policy or is cognizant of reasonable, acceptable standards
- Agency's training does not meet those standards
- Agency shows an indifference — legacy of lack of continual training after the basic course

Note: The Administrators' Roundtable is a complementary component of this workshop.

NOTES:

Administrators' Roundtable

The Administrators' Roundtable provides an opportunity for administrators to discuss common challenges, and to share solutions and ideas.

Notes:

Advanced & Realistic Training for Bike Cops discusses the use of Simunition, RedMan protective gear, inert OC, and scenario-based training as they relate to police on bikes.

Another Look: Lethal Force Training for Law Enforcement

By Captain Phil Sanchez, Santa Monica Police Deparment

I recently read an article (*PORAC Law Enforcement News*, November 2000) titled "Why sight shooting fails in real life or death scenarios" by Mr. John Veit. In my opinion, the information was accurate and well written.

The physiological changes in the human body during a lethal encounter can impact the officer's performance during a lethal encounter. Cognitive thought process, manual dexterity, and vision are all impacted, which makes it difficult, if not impossible, to use sighted fire.

However, the law enforcement community continues to use training methods that do not adequately prepare police officers for the dynamics of a lethal encounter. The indoctrination process begins as early as the academy, where future law enforcement officers receive basic firearms and combat training. For the most part, cadets fire at static paper targets that pose no real or perceived threat.

Based in part on their academy training, cadets perceive a real lethal encounter mirrors the controlled conditions they have trained under. Unfortunately, those readers who have engaged in and survived a lethal encounter know otherwise.

An agency's obligation to training its personnel in the use of lethal force is a tremendous responsibility and is continually evaluated by agency executives throughout the United States. However, agencies often pick up right where the academy left off by using obsolete tactics in training their officers for a lethal encounter. Limited training budgets can also compound the issue and lull agency executives into believing their current protocol is sufficient as it meets basic combat requirements.

Recognizing the effects of stress on tactical performance

Preparing a law enforcement officer for a lethal encounter is not an easy task. It is imperative that agency executives, in conjunction with the department's training cadre, understand how the human body functions when subjected to critical stress. Only then can an advanced combat firearms course be designed around the officer's natural response.

When a police officer is faced with a lethal encounter, the human body undergoes several hormonal induced physiological changes caused by the immediate release of adrenaline into the body. Mortal danger creates fear which triggers the ultimate reactionary level of readiness known as the fight of flight response.

The powerful hormone adrenaline is released into the human body.[1] The conscious mind perceives danger and the primal brain reacts by increasing the metabolic rate, increasing blood pressure precipitously, and altering blood respiration.

Simultaneously, the body diverts blood flow into the large muscle groups and into the viscera because the body's internal system is reacting to the perceived danger.[2] As the adrenaline surge continues, the body's limbs become clumsier.

Fine and complex motor skills become difficult to master. Trembling can occur, and the officer's vision is impaired (tunnel vision) as the body prepares for the ultimate test.

The physiological effects of stress on the human body cannot be eliminated in a lethal encounter. However, departments can provide superior combat training by exposing their personnel to repeated realistic scenarios that, as much as possible, duplicate the stress of a real lethal encounter.

A possible approach toward improving combat firearms training

In order to better prepare police officers for a lethal encounter, departments should consider designing a combat firearms course that duplicates realistic stress capable of inducing a physiological change in the participant. Although opinions vary among combat instructors when discussing the mechanics of an officer involved shooting, most support the concept that a high-stress combat firearms course will improve an officer's decision-making skills and combat performance.

In order to achieve the stress level necessary to create a hormonal change in a training environment, the scenario should force the participant to make tactical decisions (shoot/don't shoot, access cover, retreat) while being subjected to adversarial fire (marking rounds, paint balls, wax bullets, etc.). Upon conclusion of the training scenario, the instructor should provide the participant with immediate feedback, positive or negative, concerning their performance.

If the officer's tactical performance was substandard, the concerns should be corrected and the participant reintroduced back into a like or similar lethal force scenario. Again, evaluation of the officer's performance is documented and feedback provided.

Clearly, force-on-force training for line personnel capable of inducing a physiological change in the participant's body is a significant step away from most training protocols.

Historically, special weapons teams and the military have utilized similar training protocols which have resulted in peak performance during lethal encounters. However, in an attempt to improve an officer's tactical performance in a lethal encounter, a diverse approach may be necessary.

The purpose of this article is not to condemn the current lethal force training utilized by police agencies. Rather, it is hoped that combat instructors will be encouraged to review their firearms training to ensure it is adequate and provides personnel with the necessary tools to perform well in the high-stress environment of a lethal encounter.

The dynamics of a lethal encounter continue to change. Adversaries often have access to high-powered weapons and are not confined by law or policies.

Therefore, in my opinion, alternative advanced training methods should be explored in an attempt to better prepare law enforcement officers for peak performance in the event of a lethal encounter.

Endnotes

[1]Bruce K. Sidle, *Sharpening the Warrior Edge,* PPCT Management Systems, Inc. (1995), 7.

[2]Massas Ayood, *Stress of a Gunfight,* Guns and Weapons for Law Enforcement (1995), 13.

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NOTES:

Bicycle Rapid Response

Bicycle Rapid Response involves intense Mobile Field Force-type training specifically designed for the bicycle patrol officer. You will learn the ins and outs of how to protect businesses, community members, and protesters during demonstrations. This four-hour block of instruction (one hour classroom, three hours on-bike) will be taught by L.A.P.D. bike patrol members who were instrumental in planning the bicycle deployment for the 2000 Democratic National Convention.

Notes:

Bicycle Seats and Sexual Function

Steven M. Schrader, Ph.D.

Bicycle Seats and Sexual Function will present research on the effects of pressure exerted on the groin by the bike seat nose. The relationships between bike seat designs, time in the saddle, and sexual function will be discussed. The equipment used to measure weight distribution will be demonstrated, and the warning signs of potential problems will be presented.

I. Introduction
   - A. National Institute for Occupational Safety and Health (NIOSH)
     1. Federal Agency
     2. Conducts Research
     3. Investigates Worksite Safety and Health Concerns
     4. Makes Recommendations to OSHA
   - B. People
     1. Research Team
     2. Information at our Booth

II. The Problem - Sexual Dysfunction
   - A. Short News Video Describing One Policemen's Health Problem
   - B. Terminology
     1. Impotence
     2. Erectile Dysfunction
   - C. The Anatomy – What might be causing the problem?
   - D. The Bicycle and the Pressure

III. Measurements of Bike Seat Pressure
   - A. The Bike Seat
   - B. The Seat Nose
   - C. Demonstration of Pressure Measuring Equipment

IV. Measurement of Erectile Function
   - A. Nocturnal Erections
     1. Psychological vs. Physiological Erectile Dysfunction
     2. Health Issues
   - B. The Rigiscan® Rigidity Assessment System

V. Reproductive Health Study of Bicycling Policemen
   - A. Overview of the Study
   - B. Results
   - C. Conclusions

VI. What About Female Bikers?
- A. Similar Complaints from Female Bikers
  1. Numbness of the Urogenital Triangle
  2. Sexual Dysfunction
- B. Anatomy - Blood Vessels and Nerves Similar

VII. Recommendations for Biking Policemen
- A. Use a Seat Without a Nose
  1. It appears the seat nose puts pressure on blood vessels in the perineum
- B. Do Not Take Rest Breaks Sitting on the Seat
- C. If Numbness Occurs, Dismount Until it Subsides
- D. Ensure Proper Bike Fit

VIII. We Would Like to Conduct Future Studies
- A. Repeat Our First Study
  1. Will We Get Similar Results?
  2. Others Seats give Different Results
- B. Conduct a Study of Female Biking Officers
  1. Need a Large Group of Females with Similar Riding
- C. Large Multi-Department Study Comparing Seat Types
  1. Traditional Seats
  2. Split Seats
  3. Seats without Nose

Steven M. Schrader, Ph.D.
Chief, Reproductive Health Assessment Section
4676 Columbia Parkway Phone (513) 533-8210
Cincinnati, Ohio 45226 Fax (513) 533 8138
e-mail: sms4@cdc.gov

Bike Fit

Bike Fit will demonstrate how you should set up your seat, handlebars, and bar-ends for proper fit -- which will help eliminate achy knees, bruised backsides, and numb hands.

I. Determining Frame Height/Size

A. The basic rule of thumb for choosing the proper frame size is to allow about 1.5" to 3" of clearance between the rider and the top tube while straddling the mountain bike. (Road bikes will only need about one-inch clearance)

- A rider is far more likely to be bounced off of the saddle during an off-road ride than a road ride. The added clearance between the crotch and the top tube is necessary to prevent injury should the cyclist's feet bounce off of the pedals.

B. Mountain bike frames are usually measured in inches from the center of the bottom bracket to the top of the seat tube.

- Frame sizes typically range from 15" to 22" but they do vary by manufacturer and model.
- Be aware that there is a type of frame that cannot be sized to body dimensions. This frame has a sloping top tube which slopes downward from the head tube to somewhere on the seat tube below the clamp. Ask the dealer for the manufacturer's stated frame size.

C. Road bikes are measured in centimeters from the center of the bottom bracket to the top of the seat tube. Average frame size is 56-60 cm.

D. Other dimensions of the frame are proportionate to the seat-tube length. Using the stand-over method of measuring is important for a comfortable ride.

II. Saddle Height

A. Saddle height is the single most important aspect of the body position on the bike. It influences how efficiently power is delivered from the legs to the pedals, in preventing knee injuries, and in overall comfort.

B. Setting Saddle Height:

- Sit on the saddle so you are comfortable, and place your heels solidly on the *bottom side* of the pedals. Your down leg should feel straight.
- Pedal backwards. If you feel your pelvis rocking from side to side in order to keep your heels at the bottom of the stroke, then the saddle is too high.
- Lower the seat until you can keep your heels on the pedals.
- Remain seated comfortably on the saddle and place the balls of your feet on the pedals as you normally would. The widest part of the foot should be over the center spindle of the pedal.

- With crank arms in the 6:00 and 12:00 position, legs should be about 95% extended at the bottom of the down stroke. Knees should not be locked or the leg perfectly straight.

C. Saddle Too Low:

- Will not allow the rider to "spin" the pedals enough to pump fresh oxygenated blood through their system and to the leg muscles.
- Quadriceps will not fully extend and contract nor will the hamstrings and gluteus muscles be utilized, thus all the power sources available will not be used.
- The rider will feel uncomfortable and tire sooner.

D. Adjustments To Saddle Height:

- After initial set-up, adjustments should be made in small increments.
- Raise or lower the seat post only one centimeter at a time to give legs and knees a chance to adapt to a new position.

III. Saddle Tilt

A. With proper saddle height, start with saddle parallel to the ground. Use the Allen wrench or other tool that is designed to fit the bolt on your seatpost where it clamps the saddle rails.

B. If the nose of the saddle is too high:

- It wll cause discomfort to the genital area as the body leans forward.

C. If the nose of the saddle is too low:

- It will tilt the pelvis forward and force the body weight forward onto arms, wrists and shoulders, and genital area, eventually causing fatigue or pain.The rider will constantly feel like they have to push themselves back.

D. If the saddle is parallel to the ground, it will properly support the body weight:

- Rider should be centered on the saddle, with arms and shoulders flexed and relaxed.
- Saddle should support the majority of body weight.

IV. Fore and Aft Saddle Adjustment

A. Set Saddle Tilt

- With the cranks in the horizontal position (3:00 and 9:00), the forward knee should be directly over the pedal.
- A plumb line dropped from the front of the bony protrusion [at the top of the tibia (front lower leg bone) and just below the kneecap (patella)] should intersect the pedal at the pedal's axle, or just slightly behind it.
- Loosen the seatpost clamp and slide the saddle forward or backwards, depending on the direction the plumb line needs to go.
- Re-tighten the clamp with the proper tool.

B. Correct Fore and Aft Positioning
- Provides more power from the muscles in the back of the legs.
- Puts less stress on the knees.

C. Re-Check Saddle Height
- The rails of the saddle that clamp to the seat post are on an angle from front to rear.
- As the saddle is moved on the rails, the height of the saddle changes.

V. HANDLEBAR HEIGHT

A. Adjustment is a matter of personal preference.

B. The lower the bars, the more aerodynamic you are at higher speeds.

C. For police or EMS patrol purposes, a more upright position is advantageous to keep body weight off arms and wrists and afford a higher observation platform.

D. Usually very little adjustment is available for a mountain bike stem, especially for the threadless-type. To change the height, replace the stem with one that has the correct rise (degree of the angle of the stem from parallel to ground), and reach (the distance it moves the handlebars away from the saddle).
- Many officers find they are more comfortable with a higher rise and a shorter reach.
- Most mountain bikes, including the police package bikes, seem to come with a racing-style stem with a lower rise and longer reach.

VI. SAFETY WARNINGS

A. Never raise a seat post or handlebar stem higher than the "max. adj." marks that are inscribed on them by the manufacturer.
- There has to be a sufficient amount of post or stem inside the frame to support the stress and weight.
- If there is not enough stem or post inside the frame, the stress of weight could break off the top part of the tube, and a crash will likely result.
- A properly adjusted stem will put your back at about a 45° angle to the top tube while riding.

Campus Policing Roundtable

The *Campus Policing Roundtable* provides a forum for campus police to discuss issues unique to policing in an academic setting. Come away energized with fresh ideas and an excellent network of contacts.

Notes:

Continuous and In-Service Training

Continuous and In-Service Training for bicycles should be as common as other in-service training. The points below provide bicycle personnel with an understanding of the need for continuous training and the various types of supplemental training available.

- **Liability.** This term usually will open doors to training for departments that don't take their bicycle program or the necessary training seriously. Don't let "failure to train" be an issue in any potential case.

- **Skill Maintenance.** "Use it or lose it." Periodic in-service training will help bike personnel maintain the necessary level of competence, especially in skills that are not used on a daily basis. It will help satisfy liability issues as well as maintain a strong and effective bike unit.

- **Skill Evaluation**. It is very important that periodic skill evaluations take place in any police or EMS training area. A high percentage of injuries are the result of operator error or lack of skill. This means they are either doing it wrong or just not good enough to get the job done. Periodic performance evaluations can correct and improve skills, reducing the risk of injury.

- **Skill Development.** Do not overlook skill development, improving an officer's existing skills or teaching them something new. It can also mean an opportunity to put various skills together or training that allows the officer to "experience" something in a controlled environment (mock scenes) rather than on the streets for the first time.

Ideas for skill development

To get good ideas for your in-service training, look in this conference manual. You will find at least twenty different in-service training topics. This is a big selling point of IPMBA conferences; each year you attend, you will be given the resources you need to conduct departmental in-service training.

It is very important that credible people conduct in-service training. There are many resources that can be used to provide quality training. Develop relationships with cycling groups, hospitals, your local bike shop, and other parts of your department as well as any IPMBA Instructors in your area. If you are interested in conducting in-service training for your department, consider applying to become an IPMBA certified Instructor.

Notes:

Conquering Urban Traffic focuses on lane selection, proper positioning, and the various challenges to riding safety in busy urban traffic.

"CYCLISTS FARE BEST WHEN THEY ACT AND ARE TREATED AS DRIVERS OF VEHICLES"
-Basic tenet of *Effective Cycling*

This means that cyclists need to do on their bicycles what they would do in a car; by doing so, their actions will be predictable. A majority of auto/bicycle accidents occur when cyclists are not following this basic tenet.

Bike Handling & Vehicular Cycling Skills

Basic principals of vehicular cycling:

- Obey the rules of the road
- Be predictable: lane position, right side, straight line, avoid unexpected swerves
- Be visible: proper lane use, clothing and equipment, lighting and reflectors
- Be alert and aware: defensive driver, constant vigilance-condition yellow
- Communicate: other drivers/cyclists, hand signals, voice, lane position, eye contact

Balance & Steering

- Special considerations: avoid slippery-danger spots when possible, upright-90 degree angle when crossing tracks, pedals balanced
- High speed turns: brake before, not during; inside knee-pedal up
- Instant turns: collision avoidance
- Slow speed balance and turns: momentum-speed control, lower center of balance with high pedal force while dragging rear brake
- Rock dodge
- Scanning/shoulder checks: signaling doesn't prevent accidents
- Track stands

Braking

- Planned braking: downshift - ready to start off, power pedal position unless stealth approach
- Braking basics: pedals 3&9, 2-3 fingers, both brakes-front more effective, wet conditions require longer distance
- Maximum braking: most effective and dangerous, pedals 3&9, body position BACK AND DOWN

Shifting and Gear Use

- Spinning: 360 deg., 75-100 rpm, most efficient, aerobic = high pedal speed, low pedal force; anaerobic = low pedal speed, high pedal force
- Cross gearing: inside out, outside in, use center chainring to avoid
- Anticipate shifting needs: hills, stop signs

VEHICULAR STYLE LANE USE

Bicycles are Vehicles, Subject to the Same Rights and Responsibilities as Other Road Vehicles

- Speed rule: Slower traffic stays to the right
- Bicyclists "1/3 of the lane" rule: When traveling on the roadway as a cyclist, you should remain in the right most lane going in the direction you want to go and in that third of the lane that is closest to your intended direction of travel. Ask yourself, "Am I going left, right or straight ahead?" *Appropriate 1/3 of the rightmost lane that goes to your destination.*
- As far right as practicable: Approx. 3' from curb, 3' "wobble lane", 3' from parked cars, cars 3' from bikes.

What Lane Would You Be In If You Were Driving a Car?

- Safest to "take the lane": Same speed as other traffic, narrow lane unsafe for car and bike next to each other, merging or changing lanes to prepare for turning, stopped in heavy traffic, stop signs, signals
- Turns and merging: Look, signal, look - move
- Ride Assertively...Know Your Rights, Exercise Your Rights, Be Able and Ready to Perform Emergency Maneuvers

Hazards and Common Crashes

- Surface hazards
- Visual hazards
- Moving hazards

Statistics

- 50% of bike crashes are falls, no other vehicle involved
- 15% of bike injuries, fatalities involve motor vehicles
- 50% of fatal bike/motor vehicle crashes happen at night

Bike vs. Motor Vehicle Crashes

- Motorist unexpected turn - FYR
- Motorist overtaking bicyclist
- Motorist stop and go - FYR
- Bicyclist disobeying traffic sign
- Bicyclist FYR
- Bicyclist wrong-way riding
- Bicyclist illegal/inadequate lighting

Group Riding

- Be predictable
- Communicate: movements, hazards, traffic
- Transition correctly: "1's" move out and in; "2's" stay right
- Be alert and safe
- No "Group think"

Remember...bicycles are vehicles and have a legal right to the road.

Ride as far right as "practicable." This **does not** mean as far to the right as possible, but instead means as far to the right as is safe depending on conditions (traffic, width of road, etc.)

Legal Issues

- Is it legal to ride two abreast in your state/jurisdiction?
- Are police-EMS bicycles considered emergency vehicles in your state/jurisdiction?
- Are there any requirements (visual, audible) for that status?
- Can bicycles operate legally on the sidewalks in your state/jurisdiction?

We have to do our job and we enjoy doing it on a bicycle, but remember Rule #1:

We go home safe to our families at the end of our shift.

Cultural Awareness: Building Inclusive Communities

Cultural Awareness: Building Inclusive Communities reviews the importance of cultural diversity as a necessity for success in creating community partnerships. It offers the opportunity to experience the cause and effect relationship of cultural and human diversity. Community Police Officers must display an understanding of differences within the communities they serve.

Topics to be discussed include:

1. Cultural differences in a community.
2. How personal experiences and identities affect one's ability to work with others who are perceived as "different".
3. The responsibility of all individuals to help create an environment which respects and benefits from diversity and the awareness of other cultures.

Courtesy of the Tri-State Regional Policing Institute, Cincinnati, Ohio. The Tri-State Regional Community Policing Institute (RCPI) is committed to facilitating collaboration between law enforcement, education and community partners. Through the use of technology and interactive learning, the RCPI aims to enhance the development of community partnerships.

Notes:

Deadly Force Encounters

Deadly Force Encounters examines several police cyclist-involved deadly encounters, including shootings, vehicle assaults, training accidents, and traffic accidents. Each incident will be analyzed and discussed, and survival training techniques will be presented.

Sources of Information

- Officer interviews
- Police reports
- Media and trade publications
- The *Complete Guide to Police Cycling*

Deadly Force Encounters Overview and Discussion

- Los Angeles, CA
- Tempe, AZ
- Detroit, MI
- Minneapolis, MN
- Fairchild AFB, DC
- Ocala, FL
- Norfolk, VA
- New Orleans, LA
- Denver, CO
- Salt Lake City, UT
- Woodhaven, MI
- Lee's Summit, MO
- Medical University of South Carolina, SC

Tracking Commonalties in Deadly Force Encounters

- Daytime vs. night time
- Multiple officers vs. single officer
- Alcohol and narcotics involved
- Weapons used
- Etc.

Investigated Police Cyclist Involved Shootings

Officers Killed in the Line of Duty

Defensive and Pursuit Tactics

Defensive and Pursuit Tactics demonstrates why and how the suspect on foot has many advantages over the bike-mounted officers. Learn and practice proven defense and pursuit tactics for the bike cop.

Upon successful completion of this course, the student will be able to:

- Explain various bike-officer specific safety considerations during suspect contact.
- Explain and demonstrate various defensive tactics.
- Explain and demonstrate two dismounts.
- Explain and demonstrate two take downs.
- Explain safety considerations during foot pursuits.

Notes:

Design and Operation of a Mountain Bike Competition Course

Design and Operation of a Mountain Bike Competition Course provides information on how to prepare, design and operate a successful, safe, yet challenging mountain bicycle competition that both the participants and spectators will enjoy. This material will help you prepare for a small, regional competition or a grand national event. We suggest you start small if this is your first event and build on your experience. A large event can be a great venue to showcase the police bicycle as viable tool and to enhance community relations, but beware! An event like this takes on a life of its own, and a large event can become overwhelming.

I. Preparation

A. Site Selection

In determining the site for your competition keep these basic criteria in mind:

- Is the area accessible and friendly to spectators?
- Can the course be "closed" to prevent pedestrians and/or vehicles from entering?
- Is there enough room for setting up obstacles?
- Are there any natural obstacles that can be used?
- What hazards are present and can those hazards be eliminated?

If the competition will be held in conjunction with another event or festival, you may have limited choices for setting up your course, but you may greatly benefit from the exposure and presence of the community already attending the main event.

B. Sponsorship

If you are planning a small competition between a handful of local agencies, or if your competition is part of a larger event, you might not need sponsors. There are, however, certain necessities that you may not be aware of until you need them, and then you must determine how to fund them. Here are a few areas in which sponsorships may be beneficial:

- Printing for flyers, registration forms, banners and signs
- Prizes for the competition winners
- Postage for mailing the flyers to agencies and media
- Insurance -- an absolute must, to cover the liability of all involved
- Refreshments for competitors, staff and/or volunteers
- T-shirts or other memorabilia

In a large event, you could use several sponsors, each helping out with a specific need or providing a special service. Many businesses or corporations are willing to provide items or services that they already produce, but there are always things that require cash. For those items, both planned and unplanned, you may need a title sponsor who is willing to finance the event up front.You may gain some operating income from registration fees, but that revenue will not be realized until close to the event and therefore cannot be counted upon to finance advance expenses.

Potential sponsors include:

- Printing companies, to provide the printing of registrations and flyers
- Sporting goods stores, to supply prizes and giveaways
- City of_____. Having a city entity as a sponsor can facilitate many logistical needs. The parks department can provide the course location, bleachers, PA systems and possibly some obstacles. The police department may be able to help you obtain transportation, traffic support and media coverage. The fire department can provide EMS and/or triage for those minor scrapes and cuts that seem to always happen in a competition.
- Local restaurant or deli, to provide food for competitors staff or volunteers. They may benefit from the event if they

are permitted to set up a booth and sell refreshments to the spectators.
- Soft drink distributors, to offer water or soft drinks at the event. As much as we may want to have our local beer distributor involved, it may be best to keep that sponsor for something after the event.
- Business districts, homeowners associations and corporations, to provide volunteers to staff the registration and help with set-up and tear-down.

Another possibility may be a non-profit organization. Why a non-profit? The competition can be held as a benefit for that non-profit, possibly making all registration fees and donations by other sponsors tax-deductible. By bringing attention to the cause and needs of that non-profit organization, you may ensure the participation of other organizations. The American Lung Association, the MS Society, and your local Children's Shelter or Battered Women Shelter are all well-accepted non-profit organizations that need help. Avoid organizations such as labor and religious organizations.

C. Staff

No one person can successfully run a bicycle competition. It requires the combined effort of numerous individuals, each doing his or her part to ensure that all aspects of the competition are handled effectively. The size and composition of your staff depends on the size of the event. Here are some suggestions:

- *Commander:* a lieutenant, captain, inspector or upper level manager who has the power to assign responsibilities and demand performance. Volunteers are great and essential, but you can only ask so much from them. Give your commander a list of things that need to be accomplished and let him/her assign those duties to key personnel for you.
- *Swag Master:* someone who is good at begging and can work with sponsors to get the most services and prizes possible.
  Media Manager: a marketing-minded person to develop the flyers and registration forms, and to works with local media for event coverage. This person may also take responsibility for video taping or photographing the event for follow-up stories and promotion of future events.
- *Facilitator:* a person who can get things done. The facilitator coordinates volunteers and does all the legwork necessary to ensure all the logistical needs are met and the event goes smoothly.

D. Safety and Liability Considerations

Liability is an issue heavy on the mind of any event manager. Taking precautions that ensure the safety of the participants and spectators will greatly reduce the liability of all involved. Here are some areas to consider:
- *Waivers:* makes sure all participants, including staff and volunteers, sign a waiver. The waiver should indemnify your agency, the facility, sponsors, staff, and volunteers. Have someone in your departments' legal section assist you with drawing up a waiver that is appropriate and includes any legal terminology to lend credence to the waiver in court. See the waiver used by IPMBA (attached) as an example.
- *Rules/Guidelines:* provide a written copy of the rules and guidelines to the participants to ensure that they are made aware of what is expected of them and what they can expect from you. Be sure to include an explanation of how the event is timed and judged, as well as the equipment required. See the rules and standards used by IPMBA at the annual competition (attached) as an example.
- *Safety Officer:* this person is endowed with absolute authority to stop the competition at any time if they feel that a safety violation or hazard is present. This person is also responsible for ensuring that all participants have the required safety equipment (e.g., helmet) prior to entering the course.
- *Safety Spotters:* personnel stationed near any obstacle that has even a moderate potential for crashes or mishaps. Any obstacle with a high potential for crashes should be eliminated to ensure the safety of all involved.
- *First Aid:* first aid kits must be readily available, and, if possible, EMS and/or other medical personnel should be present to assist with injured persons.
- *Insurance:* check with your local bike shop or IPMBA for a reference to an insurance broker who may be able to provide a liability policy for the event. The cost may be high, but it is outweighed by the possibility of a lawsuit that could cost millions.
- *Weapons:* if the officers participating will be wearing their duty belts, require them to keep their sidearms holstered and secured at all times. *Note: IPMBA does not endorse the inclusion of any live fire exercises in any competition course. Any competition manager who includes live fire exercise does so at considerable risk and should obtain insurance that covers the use of firearms.*

III. The Competition

Now we get to the meat of the competition; the course itself. In designing your course, keep foremost in your mind that there is one thing for certain in a competition course: **speed = danger = injuries.** Anyone can get on a bicycle and pedal as fast as they can, but there is more to police/EMS bike use than speed. The goal is to create a course that will showcase and challenge the competitors' riding skills, not create a course on which crashes will be commonplace. Your course should challenge the competitor's ability to negotiate the common and uncommon obstacles that he or she might encounter while responding to a call in an urban setting.

A. Natural Obstacles: In choosing a site for your course, attempt to locate an area which possesses built-in urban obstacles. Trees, hills, curbs, staircases and ramps are all part of the urban gauntlet we run everyday. If these obstacles are present, use them to their fullest extent and add in other obstacles as needed.

B. Manufactured Obstacles: If you are limited to open parking lot for your competition site, there are many obstacles that can be constructed to simulate some of the conditions bike unit members encounter. Here are a few possibilities:

C. Cone Obstacles: The possibilities for cone obstacles are limited only by your imagination and the number of cones you have at your disposal. A cone can be used as the obstacle itself, or as a tool to change the contestant's direction or to slow him/her down before entering a more technical obstacle where speed would be dangerous. Sample cone obstacles include:

- *Lock-to-Lock:* Right out of the police cyclist course, this is a simple "W" that can be used as the obstacle itself or to turn the contestant in an "about face" toward a new obstacle. You can make it loose at the entrance and make it gradually tighter and more technical before the exit. See Diagram #1.
- *Slalom:* A basic maneuver, good for slowing down the participant. For an added twist, have a 90-degree turn built in to change direction. See Diagram #2.
- *Offset Serpentine:* A more technical version of the slalom. This obstacle takes up both space and time, but is a good test of balance and a good opportunity to help the participant regain his/her breath before going on to a more physically demanding obstacle like a hill or sprint. See Diagram #3.
- *Turns and Decision Maker:* Turns are often needed in tight obstacle courses such as a parking lot with limited space where the course may have to weave back and forth for distance. The decision-maker is just a turn that can go both ways, leaving the participant to figure out which way is more advantageous. See Diagrams # 4a/4b.
- *Keyhole:* This is a tight, technical obstacle that works well when you need the participants to do an "about face" and return in thedirection from which they just came. To add a twist to the Keyhole, put a pallet or other small obstacle to cross at the entrance/exit. See Diagram #5.
- *Teardrop:* The name tells you this one can leave you crying. Cones are set similar to the Keyhole, but with a turn at the entrance/exit. This is set in a relatively tight pattern and used to test the slow maneuverability and balance of the participants. If penalties are assessed for knocking down cones, this is where to watch for them. See Diagram #6.

D. Fences/Walls: If a fence, wall, or guardrail is part of the natural terrain of the course, use it to test the dismount and remount skills of the participants. Avoid any unstable fence, as it will take some abuse as the contestant and bicycle cross over it. If you build one, ensure that no sharp objects protrude from any part of it and that it is sturdy enough to take the abuse. See Diagrams #7a/7b/7c.

E. Limbo Bar: Self-explanatory. Two posts set upright with a cross bar set on the EXIT side of the obstacle. The cross bar should be made of a very lightweight material (1/2 inch PVC pipe works well) and set at or about 50 inches high. See Diagram #8.

F. Balance Beam: This is the ultimate test of balance and handling. A short one (no more than 12 feet) does not offer much of a challenge. The true test of balance is to create a beam that is at least 30 feet in length and that uses planks of different widths: narrow, wide, narrow. The beam does not necessarily have to be raised to be effective. If it is elevated, keep the height at 4 inches or less. See Diagram #9.

G. Teeter-Totter: Sounds kind of silly. How often does the average bike officer go over a teeter-totter in the scope of

duty? Probably never, but the obstacle itself is eye candy for spectators and a psychological obstacle for the officer. You need a relatively wide and sturdy board (2 x 10 or 2 x 12) and some wood block for a pivot point. Make sure that the overall height of the teeter-totter does not exceed 18 inches and that the pivot is offset so that the approach side of the plank is always in the down position when no rider is on it. For an extra challenge, tie two or three teeter-totters together with rope to create a moving balance beam effect. See Diagrams #10a/10b.

H. Washboard: Create a washboard obstacle using parking blocks or by securing wood blocks to a long section of plywood. If you choose to use parking blocks, set a cone obstacle just before it to reduce participant's speed. See Diagrams #11a/11b.

I. Pallets: Pallets can be secured together to build walls or stairs and can be set on end to create narrow passages and turns. If participants will be riding over them, pick sturdy ones made of oak and reinforce them so they will not break from the abuse. Have extras for replacements when one on the course breaks. See Diagrams #12a/12b/12c.

J. The Finale

It is one thing to ride all-out on the obstacle course and have a good run time, but patrol and EMS personnel have a job to do at the end of the ride. The finale should include a dismount and some simple action to be performed by the competitor to mark the end of the run. Possibilities include: tagging a cone to mark an apprehension, dragging a dummy or sand bag to a location to simulate moving an officer to safety, performing a short sprint on foot to simulate catching an imaginary suspect, or assisting a "victim" in need of medical attention. It is advisable to have the dismount and final exercise performed in a grassy area or in an area padded with mats to reduce the risk of injury. Competitors are usually exhausted and may have developed muscle memory in their legs that makes performing on foot difficult. It is not uncommon for the competitor to fall.

Sample Waiver

POLICE ON BIKES, INC. d/b/a INTERNATIONAL POLICE MOUNTAIN BIKE ASSOCIATION (IPMBA) RELEASE AND WAIVER OF LIABILITY, ASSUMPTION OF RISK, AND INDEMNITY ("AGREEMENT")

In consideration of being permitted to participate in any way in the Bike Pursuit Competition ("Competition") of the 11th Annual Police on Bikes Conference, designed by the International Police Mountain Bike Association, I, for myself, my personal representatives, assigns, heirs, and next of kin:

1. **Acknowledge**, agree, and represent that I understand the nature of the Competition and that I am qualified, in good health, and in proper physical condition to participate in the Competition. I further acknowledge that the Competition will involve negotiating obstacles, and the hazards of obstacles are to be expected. I further agree and warrant that if at any time I believe conditions to be unsafe, or if I feel unprepared for any aspect of the Competition, I will immediately discontinue further participation in the Competition.

2. **Fully understand** that: (a) **bicycling and bicycle competitions involve risks and dangers of serious bodily injury, including permanent disability, paralysis, and death ("risks")**; (b) these Risks and dangers may be caused by my own actions or inactions, the actions or inactions of others participating in the Competition, the condition in which the Competition takes place, or **the negligence of the "Releasees" named below**; (c) there may be **other Risks and social and economic losses** either not known to me or not readily foreseeable at this time; and **I fully accept and assume all such risks and all responsibility for losses, costs, and damages** I incur as a result of my participation in the Competition.

3. **Hereby release, discharge, and covenant not to sue, now or in the future**, IPMBA, the hosting police and/or EMS agency, their respective administrators, directors, agents, officers, members, volunteers, and employers, other participants, any sponsors, advertisers, and, if applicable, owners and lessors of premises on which the Competition takes place, (each considered to be one of the "**Releasees**" herein) **from all liability, claims, demands, losses, or damages on my account caused or alleged to be caused in whole or in part by the negligence of the "Releasees" or otherwise, including negligent rescue operations; and I further agree** that if, despite this **release and waiver of liability, assumption of risk, and indemnity agreement I**, or anyone on my behalf, makes a claim against any of the Releasees, **I will indemnify, save, and hold harmless each of the Releasees** from any litigation expenses, attorney fees, loss, liability, damage or cost which any may incur as the result of such claim.

I understand that **IPMBA requires bicycle helmets to be worn by all participants at all times while on-bike**, including the Mountain Bike Competition. I agree to wear a helmet at all times while I am riding a bike.

I have read this agreement, fully understand its terms, understand that I have given up substantial rights by signing it and have signed it freely and without any inducement or assurance of any nature and intend it to be a complete and unconditional release of all liability to the greatest extent allowed by law and agree that if any portion of this agreement is held to be invalid the balance, notwithstanding, shall continue in full force and effect.

Printed name of participant:_____

Signature: _____ Date: _____

Emergency Contact Name: _____

Emergency Contact Phone Number: _____

International Police Mountain Bike Association

Annual Mountain Bike Competition Rules & Standards

I. Course Design:

A. The obstacle course shall be a short course, covering no more than one standard city block. The course is to be conducted as a time trial, not a race. No more than one competitor may begin the course at any one time, and starts will be spaced 1-1.5 minutes apart.

B. The hill-climb event shall be no more than three city blocks. The course shall be closed to motor vebicle traffic for the duration of the event. No more than four individuals (two teams of two) may be on the course at any time.

II. Obstacle Course Safety Cousiderations:

A. A Safety Officer shall be designated to oversee all aspects of course from design layout to final running of competition to ensure that there are no substantial risks to the participants. The Safety Officer is autonomous and his word absolute. There is no higher authority.

B. The Safety Officer shall review and conduct a trial run of the course prior to approving it for use by participants.

C. The Safety Officer shall ensure that each participant conducts a full bicycle safety inspection prior to the event.

D. The Safety Officer shall ensure that all weapons are secured in the holster prior to the event. Firearms, other than being holstered on the officers' duty belts, have no involvement in this event.

E. An EMS unit will be present at all times to provide treatment and/or transport for injuries.

F. Safety spotters will be placed throughout the course. They have the authority to shut down the course to address safety concerns. If a safety spotter calls the course "cold," any riders on the course must stop immediately. Riders will be permitted on the course when the course is called "hot."

III. Eligibility

A. Only sworn law enforcement officers and certified EMS personnel are eligible to participate in the Annual Mountain Bike Competition.

B. The Competition is open to all registered pre-conference and conference participants; both those with regular and guest registrations.

IV. Obstacle Course Administration

A. Entrants will participate as teams of two, three, or four, depending on the total number of entrants.

B. Each participant will be timed individually. In order to keep the outcome of the team competition in suspense, the members of a team will not compete consecutively, i.e., the first member in each team will run the course, then the second member in each team, and so on, until the last member of each team has run. The team with the best combined time wins the team competition. The individual with the best time wins the individual competition.

IV. Course Rules

A. Each participant may pre-ride the course one time and one time only.

B. All participants must ride through the cone maneuvers. A five-second penalty will be assessed for each cone knocked over and/or foot dab.

C. All other obstacles must be negotiated on bike or on foot, at the discretion of the rider.

D. A fall or damage to the bike as a result of a fall or operator error are not grounds for a re-ride. A judge may award a re-ride in the event of a flat tire or other unforeseeable mechanical failure, if the rider was impeded by a spectator or another rider, or if the course is called "cold" due to some safety concern.

V. Uniform and Equipment Requirements *(Note: only those items marked with an * are required for the hill climb event.)*

A. Police
- Mountain bike equipped with street/combination tires* (26 x 1.5-2.2; off-road tires not permitted)
- Rear rack* and full size rack bag (bag can be empty)
- Pedal retention devices*
- Uniform with full Sam Brown (duty belt), including weapon in a duty holster and at least one pair of handcuffs
- Body armor protective vest
- Helmet, gloves and eye protection*

B. EMS
- Mountain bike equipped with street/combination tires* (26 x 1.5-2.2; off-road tires not permitted)
- Rear rack* and pannier loaded with 15 pounds (standardized by bottles filled with sand.)
- Pedal retention devices*
- Helmet, gloves, and eye protection*

VI. Categories:

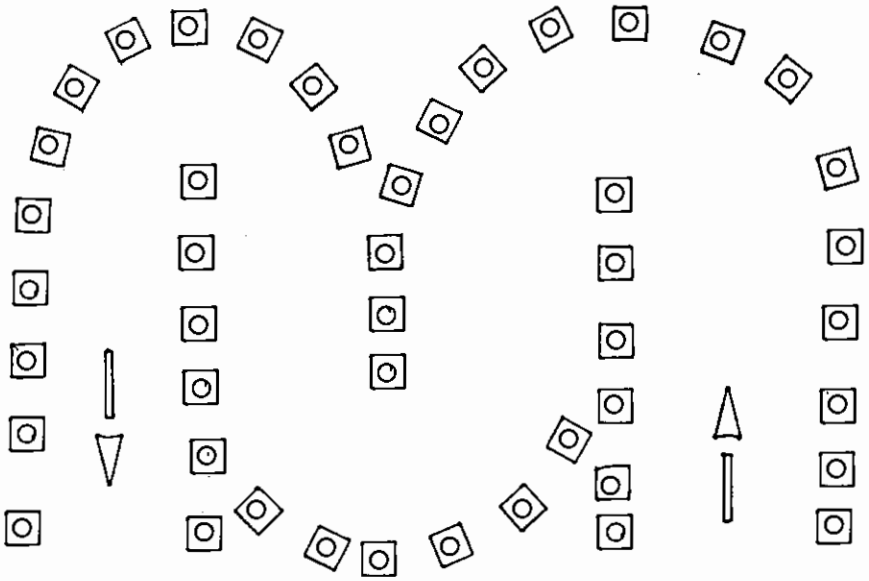
A. Police Obstacle Course
- Best team time
- Best individual time in the following categories:
- Male under 30
- Male 30-39
- Male 40 plus
- Female under 35
- Female 35 +

B. EMS Obstacle Course
- Best team time
- Best individual time: Male/Female (age categories can be added if there are enough participants)

C. Hill-Climbing Event
- Best team time. Teams are comprised of two individuals; age categories determined by combined age of team members (under 70 and 70+.)

Diagram #1

Lock to Lock



End Narrow
3-4 feet

Start wide
5-6 feet

Slalom

Diagram #2a

5'-6' centers

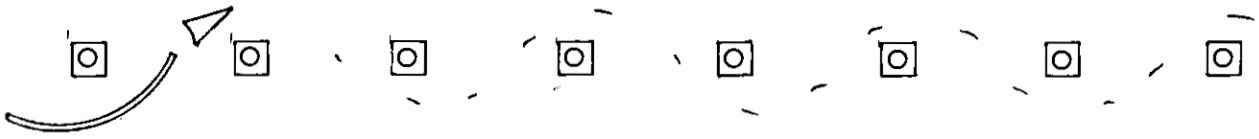
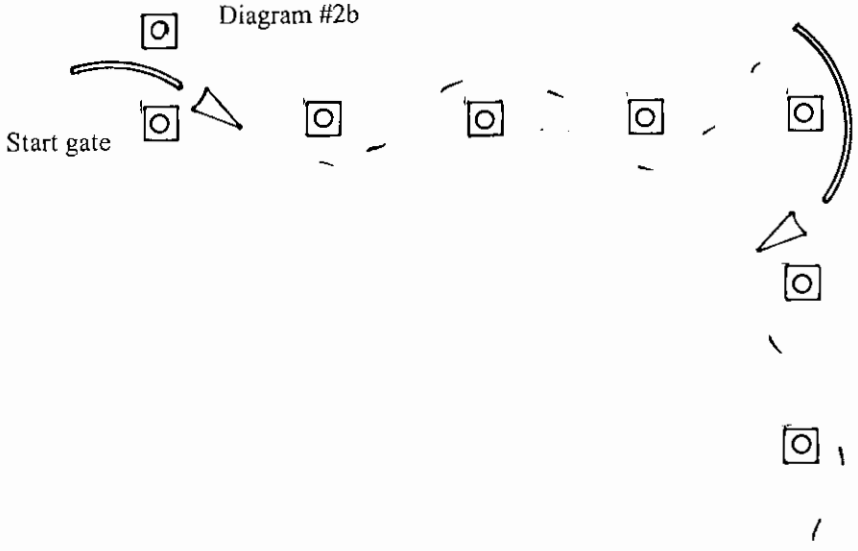


Diagram #2b

Start gate



Off-Set Serpentine

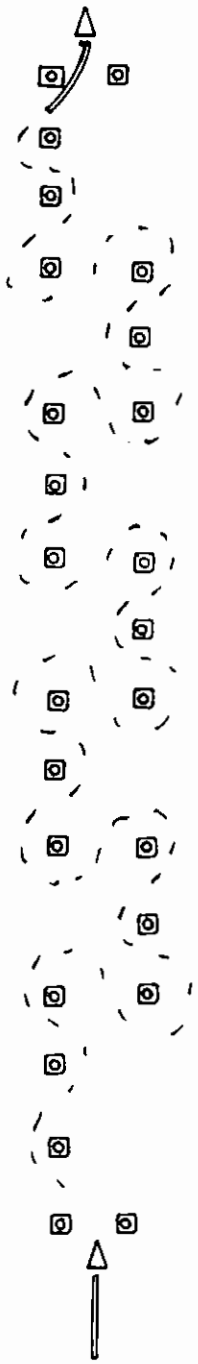


Diagram #3

Cones set at 5-6 feet

Turns

Decision Maker

Diagram #4a

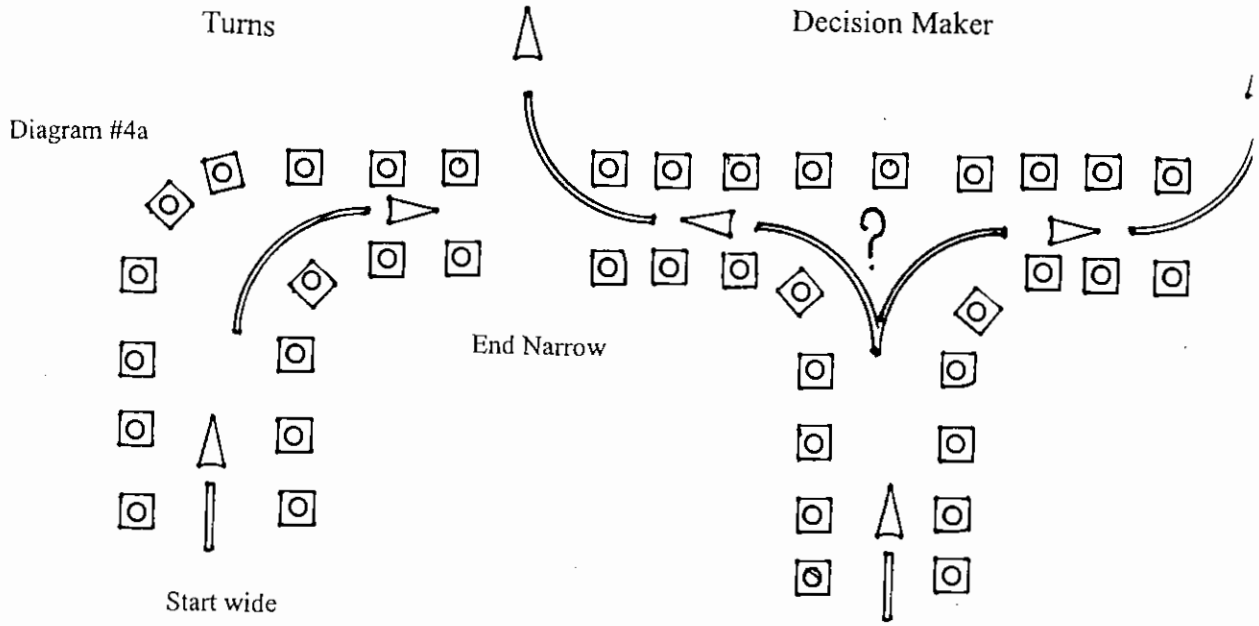
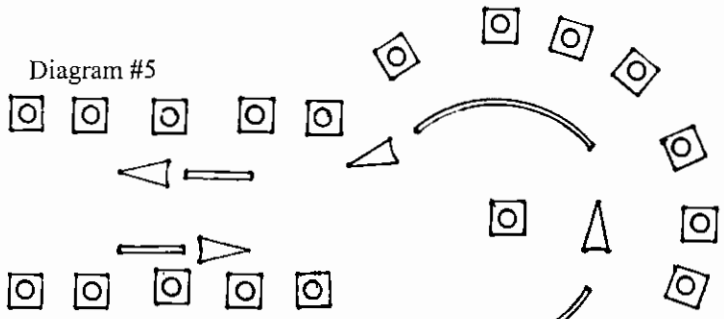


Diagram #5

Keyhole

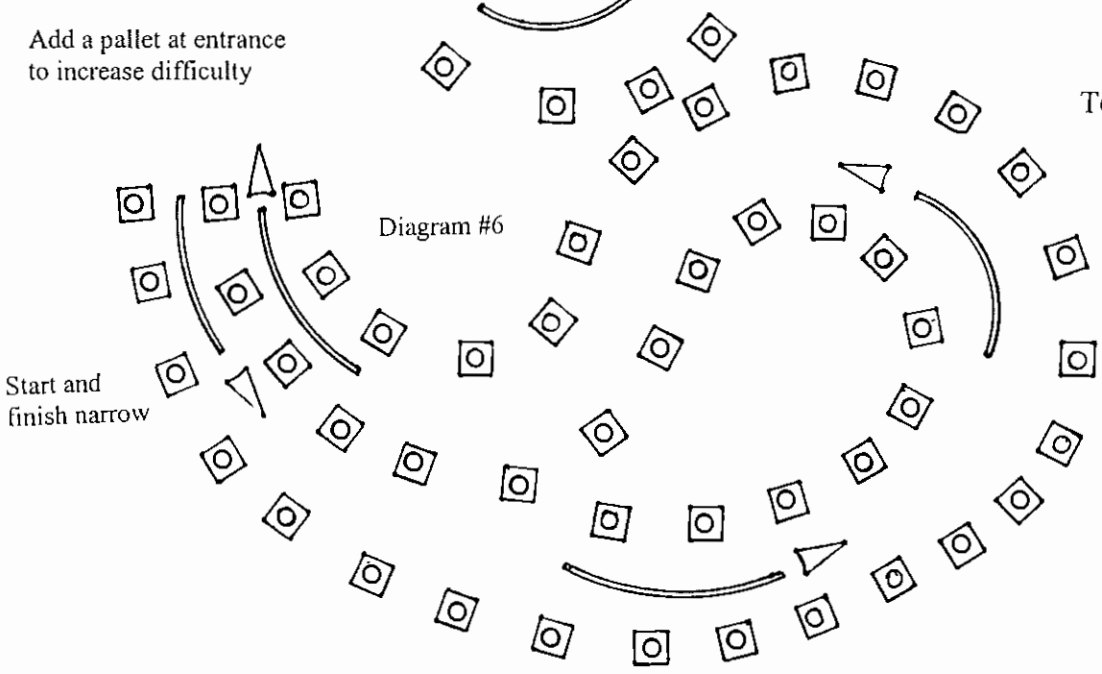


Tight Turn

Add a pallet at entrance
to increase difficulty

Teardrop

Diagram #6



Tight Turn

Start and
finish narrow

Fences/Walls

Diagram #7a
Chain link fence

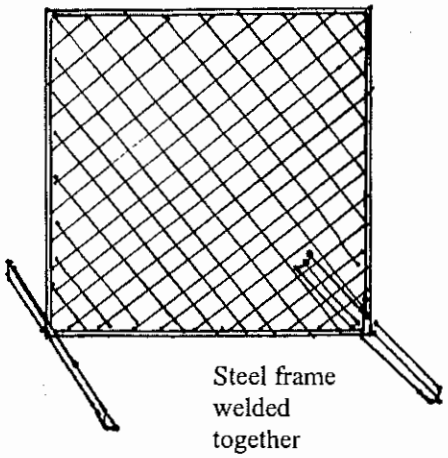


Diagram #7b
Guard rail

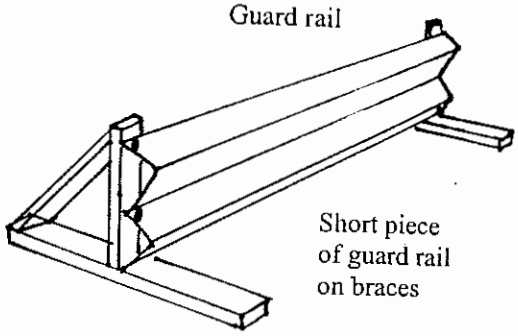
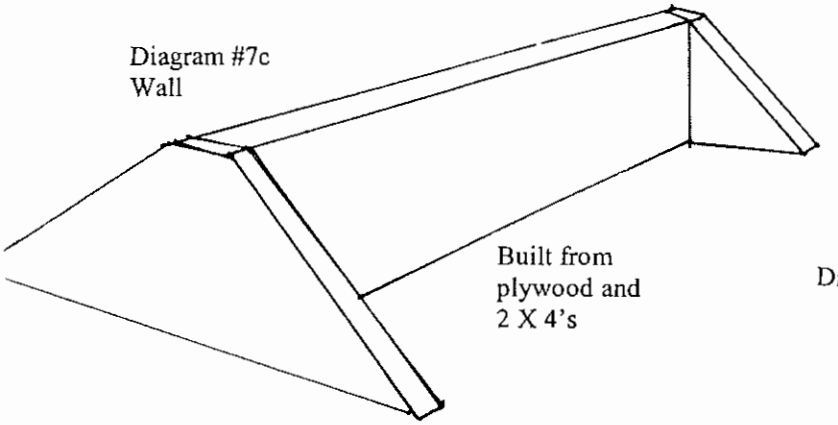


Diagram #7c
Wall



Limbo Bar

Diagram #8

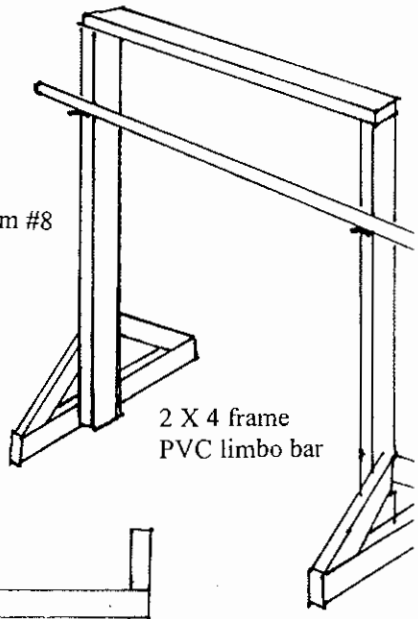
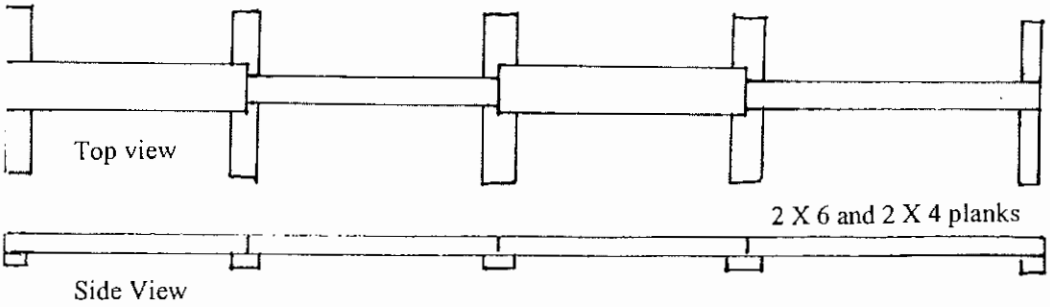


Diagram #9

Balance Beam



Teeter Totters

Diagram #10a

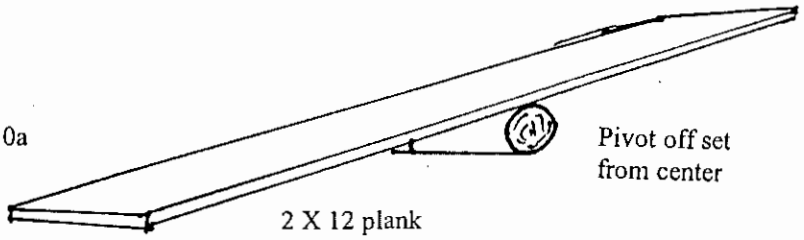
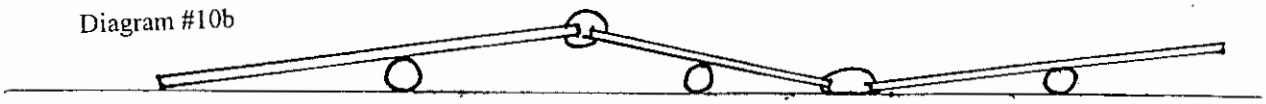


Diagram #10b



Washboards

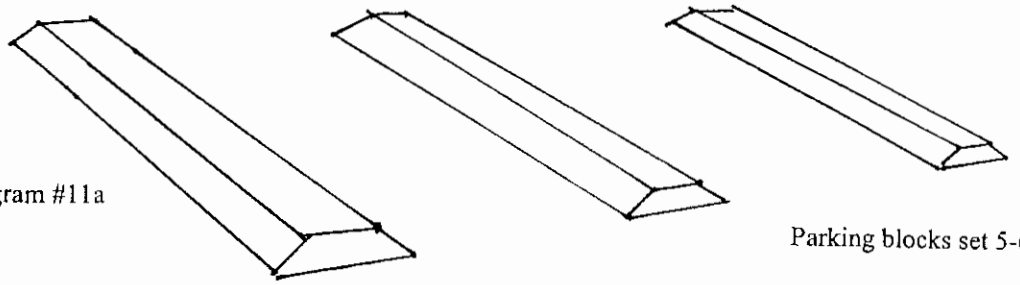
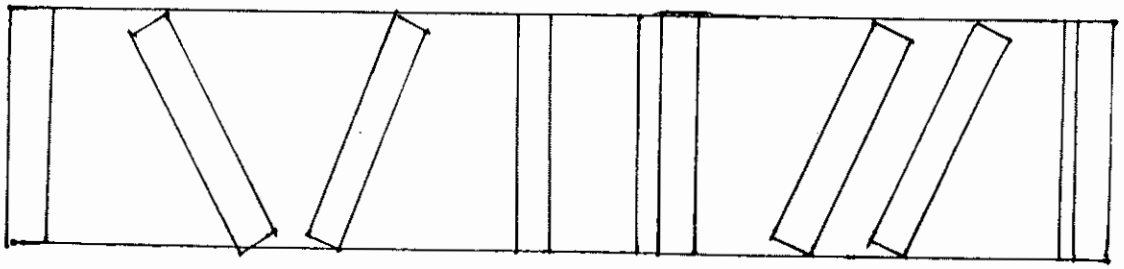


Diagram #11a

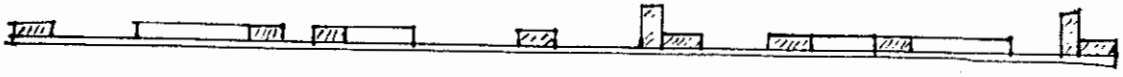
Parking blocks set 5-6 feet apart

Diagram #11b

2 X 4 planks nailed to plywood



Top view



Side View

Pallets

Diagram #12a Staircase

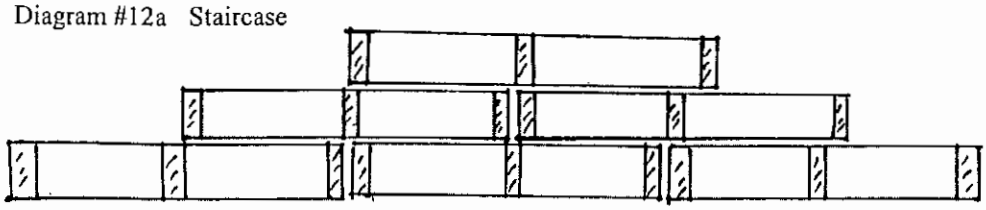


Diagram #12b Mound

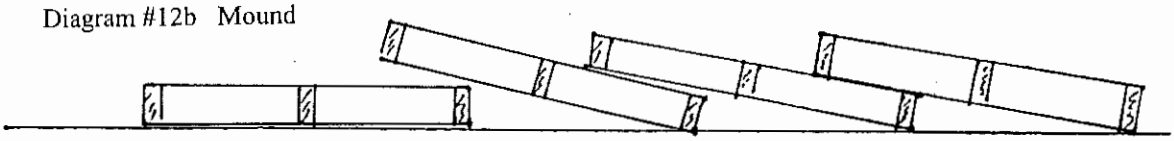
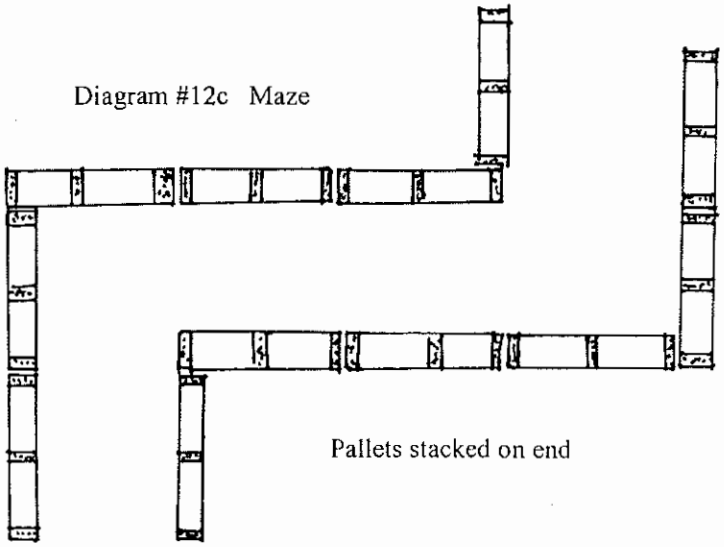


Diagram #12c Maze



Pallets stacked on end

Effective Use of EMS Bikes

Effective Use of EMS Bikes explores this unique niche and offers hints for effective deployment of EMS bike personnel. "Effectiveness" is determined by the extent to which something produces a desired result. The more favorable the result, the more effective the action. As far as EMS bikes are concerned, some uses will prove to be more effective than others. Effective EMS bike utilization is a matter of matching the needs of certain locations and circumstances to the unique capabilities of a bicycle.

Bicycles have many advantages over other means of delivering emergency medical care. They are quiet, maneuverable, efficient and small. They can access areas that larger vehicles cannot. When necessary, a bike can be carried over obstacles or terrain that would stop most other forms of transportation. Bikes offer many of the advantages of foot travel, but are much faster. All of this makes them ideal for EMS work in many venues, including:

- Major Sports Events
- Parades and Festivals
- Marathon Runs and Charity Walks
- Shopping Malls
- Tourist Areas
- Concerts
- Political Rallies and Public Speaking Events
- Trade Shows

Each of these locations involve high concentrations of people. Obviously, a bicycle's size and mobility make it ideal for such applications. Bikes have proven to be a very effective means of delivering medical care in these situations.

Some locations do not necessarily have high concentrations of people, yet can prove to be just as appropriate for bicycle EMS. These areas present a different kind of problem, usually access. Tbe terrain may be too rough or obstacle-ridden for other vehicles, or may have areas that restrict the size of vehicles that can pass through them. Although such areas are not always crowded, there may be peak times during which they attract large numbers of users. Such areas include:

- Walking Trails
- Parks
- Golf Courses
- Off-Road Cycling Trails
- Bike Paths
- Airports
- Amusement Parks
- Beaches
- Smaller Sports Events
- Race Tracks
- Natural/Manmade Disasters
- Search and Rescue

All of these can benefit from EMS bike team use. There are probably countless other locations where bikes can be the best choice for delivering your services, but all of them may present the same kinds of considerations that these do.

After you decide what type of events to ride, you must determine your equipment needs, which may range from basic to complex. Some items to carry are:

- Oxygen
- Monitor/AED
- GPS
- Water
- Basic BLS Supplies
- Intubation Equipment
- Splinting Material
- ALS Supplies

All of the aforementioned situations are concerned with your ability to transport you and your equipment to a patient who needs your help. But, there are other ways to measure the "effectiveness" of EMS bicycle use.

One of the first things that new bike team members discover is that all those people you pass in your ambulance each day would actually like to talk to you. They want to say "thank-you" for taking care of their mother last year. They want to know why a fire engine pulled up when they called for an ambulance last week. They want to know why you chose your profession, how much training you have, what is in your bags, and if you can work *their* next event! If you were not on a bike, they would never have asked you anything about your job.

Any discussion of the effectiveness of EMS bikes has to include the public relations aspect of having a bike unit. Most teams begin selling their program to administrators by making mention of this, but it is hard to comprehend the public reaction until you actually get the team out there.

When it comes to interaction with the public, smaller events are usually better than large ones. Try working some youth athletic events and riding some walking trails. Put your team in situations where you can be the center of attention, rather than those that let the event overshadow the presence of the team. Small events are much different than large ones, where your focus is more on response and patient care. The effectiveness of your public relations aspect will help determine whether or not your program will survive.

While the capabilities of bikes are a major factor in deciding where and when to use them for EMS work, it at least as important to assess the capabilities of those who will be using the bikes. Riders who are incapable of using the bike to its potential can destroy the effectiveness of a bike program. Training is absolutely essential, not a luxury. Untrained bike operators are a danger to themselves, the public, and the effectiveness of the team. Every member of your team should be certified through the IPMBA Emergency Medical Services Cyclist course, and continue to practice what they have learned. If you are going to improve, the learning never stops.

The effective use of EMS bikes requires a lot of research. This conference offers a tremendous amount of information about equipment choices, procedures, scene safety, nutrition, bike skills, and the list goes on and on. All of this is designed to make you and your team more effective. While you are here, talk to other bike unit members. Attend the roundtable discussions. Share what you are doing and keep your eyes and ears open to new ideas. Always strive to keep learning *and* teaching, and we will all be more effective.

EMS Course Safety Considerations

EMS Course Safety Considerations focuses on the safety precautions instructors must take while teaching the EMS Course. This workshop can help keep your class safety record intact and your liability risk low.

BASIC RULES OF SAFETY

Equipment

IPMBA requires four pieces of safety equipment which MUST be used by EMSC students throughout the class. *These rules are established by the IPMBA Governing Board and Education Committee. They are irrevocable without IPMBA Governing Board approval.*

- A mountain bike in good mechanical condition that fits the student properly
- A properly fitted bicycle helmet – approved by ANSI, Snell, ASTM, or CPSC
- Protective eyewear
- Pedal retention devices – toe clips/straps, Power Grips, or clipless pedals with appropriate shoes

All bicycles used shall be mountain (or all-terrain) bikes that have been built to withstaud the rigors of EMS work and training.

Bicycles used for training MUST be properly sized for the rider.

Bicycles used for bicycle team training should have the following equipment:

- All equipment required by the State Vehicle Code for the state in which the training is being conducted
- Equipment to repair a flat tire
- Road compatible tires, not "knobby" off-road tires
- Water bottle and holder
- Toe clips or pedal retention devices – ***mandatory***

Students should be required (or encouraged) to use the following safety equipment at all times when operating their bikes during the training course:

- An approved bicycle helmet – ***mandatory***
- Shatter-resistant eye protection – ***mandatory***
- Pedal retention devices – ***mandatory***
- Cycling gloves or appropriate palm protection
- Chamois-equipped cycling shorts or underwear
- Appropriate cycling shoes
- Sunscreen skin protection

Bicycles used for night riding exercises MUST be equipped with appropriate front and rear lights:

- Lighting must conform to all laws applicable in the state in which training is being conducted.
- A minimum five-watt front light is recommended.
- An active rear light, steady or flashing, is recommended.
- Additional retro-reflective material on the bike and/or uniform is recommended.

The Instructor should conduct a pre-training inspection of all bicycles, safety equipment, and clothing to assure that they are serviceable and conform to course standards and mandates.

- Make sure the bike is safe for the student to ride in all of the drills.
- Check for a properly sized frame.
- Check the frame for obvious cracks, fissures or broken welds
- Check the braking system
- Check to ensure that the seatpost is past the minimum insertion line

SITE SELECTION

Confine training to restricted areas, away from the public and other EMS personnel.

- Try to keep students in areas which are restricted to the public.
- Keep students away from moving vehicles and pedestrians.
- Do not have students share parking lot space with moving cars during drills.
- Do not allow students to practice on sidewalks or do stairway ascents in the presence of civilian pedestrians.
- Discourage other EMS personnel from passing by and "commenting," as such behavior can interfere with your training effort.

Exception: *during training rides it is appropriate to have students use public roads that have the "gnarliest" (but not dangerous) traffic available.*

Site selection for drills and simulations should consider the following:

- Minimal obstructions, although some "obstructions" are necessary to create a real world feeling.
- Minimal interference from other training exercises; do not set exercises so close to one another that riders may collide. Have adequate "run out" areas for riders.
- Minimal surface hazards; screen area for holes, loose gravel, oil, etc.
- Accessibility for emergency vehicles.

Site selection for off-road rides should consider the following:

- Select a clearly marked course or trail; and/or arrange for a guide who is familiar with the area.
- Select an area with minimal use of trail by other users (this may be difficult or impossible to control).
- Select a trail that offers options to students with less developed skills, so they may choose to walk or carry their bikes if they do not feel comfortable attempting to negotiate an obstacle.

The Instructor should inspect training sites aud drills prior to initiating any drills, scenarios, or testing.

- Pre-ride all drills and cone courses for any potential problems
- Inspect open grassy areas for holes, unevenness, soft spots, etc.
- Pre-ride off-road sites and trails

DURING THE COURSE

Each Instructor should establish appropriate instructor–to–student ratios:

- 1:6 is ideal
- MUST NEVER exceed 1:10

Road Rides, Drills, and Off-Road Rides

When conducting a road ride, **an EMSCI cannot observe students from the front of the line.** The instructor must remain somewhere in the middle or the rear to effectively evaluate the students' riding skills.

- Have an assistant be the group leader, or change leaders among the group.
- Keep the speed of the group at a comfortable pace for the level of the group.
- Ratio should be reduced when students are performing higher risk techniques such as the ones listed here. This can easily be accomplished by making sure students proceed one at a time, enabling 1:1 supervision.
  - Maximum braking
  - Stair descents
  - Sliding stops/dismounts
  - Stairway ascents

Some exercises may require a higher ratio of 2:1 or 3:1, requiring the use of "spotters." Students in the class may serve as spotters.

- Spotters may enhance a student's confidence on difficult exercises.
- Spotters may help reduce or prevent injuries.
- Spotters should be positioned properly, out of the way, but in place to catch students if necessary.

During off-road rides, keep the following guidelines in mind:

- Keep the rider in front in sight, but leave 4-5 second "time gap" between riders.
- Have lead rider/students shout "right" or "left" at forks in the trail.
- Have an instructor (or other **skilled** rider) with EMS radio or cellular phone capabilities serve as a "sweep" rider to ensure that no student is inadvertently left on the trail.

The Instructor MUST maintain an appropriate level of discipline and control over students at all times:

- Lead by example – act like a professional.
- And remember – it is **your** butt that is on the line if anything happens, not theirs.

EMS Night Operations

EMS Night Operations teach EMS personnel on bikes how to safely and effectively operate during nighttime emergencies. Skills discussed and practiced will be to show the effectiveness of reflective and lighting equipment, both for scene and patient work. EMS Scene Safety techniques will be utilized, as well as working with different bike lighting systems.

See EMS Scene Safety Handout.

Notes:

EMS Roundtable

EMS Roundtable will let EMS personnel get "down and dirty" in discussions of what works and what doesn't, as well as problems, issues, and concerns unique to EMS. Come see what you can beg, borrow, and steal from y our fellow bike-mounted EMS!

Notes:

EMS Scene Safety

EMS Scene Safety discusses the unique concerns of EMS bike teams who frequently arrive at accident scenes before other public safety personnel. Learn how to evaluate the scene, maintain equipment for use, and minimize the risk of equipment loss.

Equipment

- Heavy duty kick stand with large platform for added stability
- Quality lighting system, at least 20 watts; helmet lights
- Removable panniers
- High visibility uniforms that are distinguishable from the police officers
- Remote access radio systems with boom mikes and ear pieces
- High visibility rear bicycle light

Bicycle Positioning

- The bike is a good barrier to use between you and curious onlookers.
- As you approach a scene, evaluate it for potential safety issues so that bicycle positioning can occur quickly; look for and make use of natural barriers.
- Remember: while using the bike as a divider, lighting and equipment needs to be readily accessible; helmet-mounted lighting systems and removable panniers can provide the necessary flexibility.
- Practice approaches in different scenerios and set-ups on a regular basis.

Factors

- Availability of support units
- Time of day
- Lighting
- Size of crowd
- Demeanor of crowd
- Nature of injuries (fall, fight, shooting, etc.)
- Criticalness of injuries
- Natural barriers

EMS Scene Safety: Practical Applications

EMS Scene Safety: Practical Applications puts the principles learned in EMS Scene Safety -- scene evaluation, equipment maintenance, and risk minimization -- into action through drills and practice.

Notes:

EMS Specific Equipment Needs

EMS-Specific Equipment Needs provides bicycle medics with the proper tools and knowledge necessary to effectively stock and maintain medical bicycle equipment. This is an interactive class showing what equipment different agencies use and how it is carried. A variety of panniers and rack styles will be displayed and their EMS applications discussed.

Upon successful completion of this workshop, students will be able to:

- Identify specific medical equipment available for use on bicycles.
- Discuss the role the environment plays on the selection of equipment and the method it is packed.
- Describe the role state and department protocols play in determining the equipment to be carried.
- Explain the need to prioritize equipment choices in accordance with the level of care that is intended to be administered.
- List pros and cons of specific equipment as it relates to space availability.
- Describe the basic methods of packing equipment on the bicycles.
- Describe methods of restocking and resupplying bicycle packs.

Pannier and Rack Bibliography: *(Contact information will be provided the workshop)*

Madden

Performance

Schwinn

Bike Nashbar

Ortlieb

Lone Peak

Headland

(Note: IPMBA does not endorse or recommend any brand or brands of equipment. Equipment displayed is at the discretion and preference of the workshop presenter)

Notes:

ETHICS

Ethics examines ethical issues, questions, and problems related to Community Policing. Emphasis will be placed on the consequences of ethical and unethical behavior and the roles of moral development and personal character in the professional life of a community police officer.

Topics to be discussed include:

1. Concerns facing law enforcement today.
2. The need for law enforcement executives to learn to lead differently then they have in the past.
3. How law enforcement officers have the ability to choose their own responses.
4. Commitment, Principles and Values.
5. The difference between right and wrong.
6. Why certain police officers go bad.

Courtesy of the Tri-State Regional Policing Institute (RCPI), Cincinnati, Ohio. The Tri-State Regional Community Policing Institute is committed to facilitating collaboration between law enforcement, education and community partners. Through the use of technology and interactive learning, the RCPI aims to enhance the development of community partnerships

NOTES:

Firearms Skills for Mountain Bike Officers

IPMBA is proud to have Heckler & Koch present *Firearms Skills for Mountain Bike Officers*. This course explores realistic firearms deployment during high-risk situations. A range-based course presented by Gene Zink, assistant director of training for Heckler & Koch International Training Division, this course requires 150 rounds and a handgun. *Limited to 24 students per session.*

From Heckler & Koch:
"At Heckler & Koch, we are committed to providing thorough and comprehensive instruction of the highest standard. HK Weapons, Tactical, and Armorers Training Courses are designed as intensive, hands-on classes for the military and law enforcement community."

Notes:

This course will be held at the Cincinnati Police Division firing range. Please report to the 5th Street entrance to the Westin at least 45 minutes prior to the start of the course to load shuttles for transportation to the range. Wear your full duty uniform and bring your bike with you.

Firearms Training for Police Cyclists

Firearms Training for the Police Cyclist introduces you to the IPMBA Bicycle Firearms Training Course through video and discussion with IPMBA firearms instructors. This workshop will provide with valuable arguments to convince your management of the need for high-quality, bicycle-specific firearms training.

Introduction
- Instructor Profile
- Review Course Content

Videos of Past Courses of Fire
- Indoor and Outdoor

Justification for this Class
- The Special Needs of Bike Officers

Equipment
- Differences
- Limitations
- Secondary Weapons

Officer Safety Issues
- Vulnerability Concerns
- Weapon Retention

Tactical Issues
- Tactical Riding Tips (Calibre Press)
- Last Year's Survey Results

Shooting from a Moving Mountain Bike
- Tactical Issues
- Survey Results
- Police Marksman Article

Police Cyclist Involved Shootings
- Address and Review

How Courses and Exercises are Commonly Designed
- Training Philosophies
- Surveys, Statistics
- Officer's Field Experiences
- Supreme Court Decisions

Required and Optional Equipment
- Sample Form

Waivers and Forms, Etc.
- Lethal Force Justification
- Sample Liability Forms
- Range Safety Rules

A Sample Course of Fire
- Various Phases
- Objectives
- Slide Presentation

Scenario-Based Training
- Instructor/Participant Check-off List for 1999 Scenarios
- Problem with Wearing Athletic Supporter and Riding Redman Gear

Firearms Instructors on Mountain Bikes
- Article

Closing Statement and Questions
- Works Cited and Acknowledgements

Food, Fuel & Cycling

Dr. Cindy Cassell

Food, Fuel, & Cycling will teach you about the pleasure and power of food for hungry cyclists. This informal "how to" session will address your questions and concerns regarding what to eat for sustained biking energy as well as for daily living. Presented by Dr. Cindy Cassell, a specialist in nutritional needs for cycling and running endurance events. Cindy is the owner of Nutrition Access and an assistant professor of nutrition at the University of Cincinnati.

Special Nutrition Needs of the Athlete

The type and amount of energy burned depends on the intensity, duration, and frequency of exercise. Fuel sources for the body are carbohydrate, protein, and fat.

A high-performance diet, providing athletes with the right fuel, is one high in carbohydrate, moderate in protein, lower in fat, with plenty of fluids.

Carbohydrate is stored in muscle and liver as glycogen, and is the preferred source of energy for the exercising muscle. To provide this source of energy, the diet needs to be centered on carbohydrate sources including pasta, rice, whole-grain breads, milk, cereals, fruits and vegetables.

Protein is needed for the building and maintenance of muscle tissue. Protein is a poor source of energy for the athlete and, contrary to popular belief, excess protein does not build more muscle. While the athlete's protein needs are higher than those of the sedentary person, studies show protein needs can be easily met through the diet (see *Training Table*). Protein sources include meat, fish, poultry, dairy products, and nuts.

Fat is also an energy source for athletes. However, fat cannot be converted to energy as rapidly as carbohydrate and requires more oxygen to burn. Dietary intake of fat (readily stored as adipose tissue) tends to be too high for most Americans. Limiting high fat foods, such as salad dressings, chips, and doughnuts, from the "others" group first, and considering some lower-fat selections from the core food groups, will help keep fat consumption within a desirable range.

Training Table
Applying the food group system to training tables provides an easy tool for meeting the energy needs of athletes.

Food Group	Teens	Adults
Milk	4	2-3
Meat	2	2
Fruit	2-4	2-4
Vegetable	3-5	3-5
Grain	6-11	6-11

Fluids
Fluid replacement is critical for the athlete. Dehydration severely limits athletic performance. Heat stroke, organ damage, and possible death may result if fluid is not consumed at regular intervals during exercise. Make sure athletes:

- Drink cool, rapidly absorbed fluid before, during, and after practice and competition.
- Drink about 2 ½ cups of fluid two hours before exercising.
- Drink about 1 ½ cups of fluid 10-15 minutes before exercising.
- Drink at least ½ cup of fluid every 10-15 minutes during exercise.
- Never restrict fluids during exercise.
- Weigh before and after practice. For every pound lost, drink two cups of fluid.

Water vs. Sports Drinks
Water is always appropropriate for fluid replacement. However, for endurance athletes expending large amounts of energy for more than 60-90 minutes, a sports drink may be beneficial.

Cynthia Cassell, Ph.D., RD, LD.
Nutrition Access, 2652 State Route 132, New Richmond, Ohio 45157.
Sportnutri@aol.com; www.nutritionaccess.org; 513-553-2000

Instructor Trainer Update

The Instructor course is changing rapidly, and you don't want to be left behind. This session will provide an in-depth look at the new course and its requirements, and give you all the information you'll need to know to successfully certify the next generation of instructors. *(Instructor Trainers are those who teach IPMBA's Instructor Course.)*

Notes:

Introduction to Community Oriented Policing

Introduction to Community-Oriented Policing addresses the philosophy and origins of Community Oriented Policing, the duties of the COP officer, and the future of policing. The goal of the course is to provide the student with the opportunity to discuss the history of Community Policing and to provide a foundation for understanding Community Policing.

The philosophy and strategy of Community Policing goes hand-in-hand with Cops on Bikes. The one-on-one approach of law enforcement today requires law enforcement personnel (Bike Officers) to police differently than they did in yesteryear.

Topics to be discussed include the:

1. Historical Significance of Community Policing.
2. Definition of Community Policing.
3. Identification of the Partners needed to successfully implement Community Policing.
4. Differences between the Community Role and the Police Role in Community Policing.
5. Definition of the roles of a police officer in Community Policing.

Courtesy of the Tri-State Regional Policing Institute, Cincinnati, Ohio. The Tri-State Regional Community Policing Institute (RCPI) is committed to facilitating collaboration between law enforcement, education and community partners. Through the use of technology and interactive learning, the RCPI aims to enhance the development of community partnerships.

Notes:

MAINTENANCE TOPICS

A clean bike is a happy bike. A corny little line but a true one. You would not go out on the street with a dirty weapon or a car with a flat tire. So, why go to work with a dirty bike? We are not referring to the cosmetic dirt. It is the heavy dirt, oil, string, wire and small branches that can make the components non-operational. The bike may not need a barrel adjustment or cable adjustment, but more often than not, adjustments are made without even cleaning the bike. So what happens when the bike is finally cleaned? Whatever problem you thought you fixed is even more messed up. The first rule of maintenance is "**start with the basics**" -- keeping the bike clean and properly lubricated.

The second rule of maintenance is **"don't try to fix what you don't understand."** It may seem simple, but with bikes, a little goes a long way. The materials used in the manufacturing process are lightweight; therefore, they have brute strength but are not very forgiving. In addition, these lightweight materials can be very expensive, so repairs tend to be more economical than replacements.

The third rule of maintenance is **"never try to fix anything without the correct tools."** Some people think that a knowledge of the problem and the ability to fix it are enough. But even the most knowledgeable person runs the risk of damaging equipment if the correct tools are not used.

By remembering the three rules of maintenance and following the basics, you can be an effective maintenance officer.

I. HOW TO CLEAN A BIKE

It is neither difficult nor time-consuming to clean a bicycle. The only materials needed are: a biodegradable cleaner, several clean rags, and both a small and a mid-sized brush. Remember: clean from the top down.

- Check cable housings and cables, brakes and shifters for excess dirt, grease, and proper angle, set and crimps. Check housings for "pull thru" and cable ends for fraying.
- Check the seat post and quick release.
- Check brake pads, arms, and straddle cable. Check for smooth operation of the springs. Check pad wear and alignment to the rim, including the tire sidewal.
- Clean front derailleur and check for smooth operation. Ensure that the derailleur has not slipped down or turned.
- Clean chain using brush or chain cleaner. Check chain flex for possible replacement.
- Clean cassette, paying close attention to any foreign material between cogs. Check to make sure that the cassette is not loose, as a loose cassette can cause improper wear.
- Clean front chain rings and check for any abnormal wear.
- Clean rear derailleur and check alignment.
- Clean and wipe down the entire bicycle. Check all moving parts to make sure the are snug and tighten as necessary (pedals, cranks, bar ends, handlebars, brake levers, shift levers, rack, lighting system, etc.)

II. LUBRICATION

Always use a high-quality **bicycle** lubricant. All lubricants are not the same. Bicycles require a wax-based lubricant to minimize the amount of foreign material.

Lubricate all pivot points, chains, and cables. **Do Not Overlube.** A drop in the right place is enough. To lubricate cables, follow these steps:

- Release the tension on the cable.

- Pull the housing from the hangars.
- Slide the housing over the exposed part of the cable.
- Lightly lube the cable.
- Slide the housing back over the lubricated area and secure the cable.
- Basic Maintenance

III. Basic Maintenance

A. ABC Quick Check
- **A**ir
- **B**rakes
- Crank
- **Quick** Releases
- A slow ride to **Check** gearing.

B. Flat Tire Repair
- Check tire for possible cause of the flat.
- Separate one side of the tire from the rim.
- Remove the tube from inside the tire, valve stem last.
- Check inside the tire and rim for possible cause of the flat.
- Put air into the tube and locate the hole.
- Repair tube with patch kit.
- Inflate the tube slightly.
- Replace the tube into the tire, valve stem first.
- Secure tire to rim and inflate to 15 psi.
- Check for exposed tube.
- Fully inflate tire.

C. Front and Rear Derailleur Adjustments
- Remember that the barrel adjustments are fine-tuning mechanisms to avoid cable adjustments. By turning the barrel adjustments, the distance the cable must travel increases, therefore increasing cable tension. This is necessary when the chain will not move to the next larger chain or cassette ring due to cable stretch. **There is no such thing as cable shrink.**

D. Brake Adjustments
- The barrel adjustments on the brakes work the same as those on the cables. If the brake levers close down to the handlebars more than is preferred, increase the distance the cable must travel, therefore increasing cable tension. Minor adjustments can be made using a fine tuning screw located on the side of the brake arm. This is used if one pad is hitting the rim before the other.

E. Headset Adjustments
- A loose headset is easily detected during the ABC Quick Check. Hand snugging is a good short-term fix, but tools will ultimately become necessary. By securing the lower nut to where the side-to-side handlebar movement feels "sticky," it will be possible to close down the upper nut and then back the lower one off into it. The pressure between the two helps keep the headset tight.

F. Bottom Bracket Adjustments
- Check to determine whether one or both arms move side-to-side. One arm movement indicates that only that arm is loose and can be quickly tightened. Movement in both arms indicates that the bottom bracket is either loose or damaged. If tightening the cup does not solve the problem, replacement of the bottom bracket is necessary.

G. Front and Rear Hub Adjustments
- Side to side movement of the axle indicates that the cones are loose. They can be secured quickly and easily using the same principles described in the section on headset adjustments (#5 above.)

IV. An Effective Maintenance Officer

An effective maintenance officer should be able to complete the tasks listed below. Each department has different expectations of its maintenance officer, based upon manpower and available time.

A. Brakes
- diagnosis of brake problems
- barrel adjustments
- cable replacement
- caliper service
- brake shoe replacement

B. Derailleurs
- diagnosis of derailleur problems
- barrel adjustments
- cable replacements
- derailleur alignment

C. Bottom Bracket & Crank
- diagnosis of problems
- tightening crank arms
- tightening bottom bracket
- tightening pedals
- tightening chainrings

D. Headset
- diagnosis of headset problems
- tightening headset
- overhauling headset

E. Hubs
- diagnosis of hub problems
- tightening cones
- overhauling front and rear hubs

F. Wheel Truing

Notes:

CABDA Service School
Bicycle Inspection & Lubrication Checklist

Pre-Ride Inspection and Lubrication *(to be completed before every ride. Note: always follow the manufacturer's maintenance schedule and torque specification.)*

I. INSPECTION

A. Frame: not damaged or dented

B. Bars/Stem: secure (torqued)

C. Brakes: work correctly
- brake levers secure
- cables not rusted or frayed
- casing seated correctly
- cable routed correctly
- shoes positioned correctly and not worn
- pivot bolts secure (torqued)

D. Changer: work correctly
- shifting control secure
- cables not rusted or frayed
- casing seated correctly
- cable routed correctly
- changers secured (torqued)
- changers not damaged

E. Seat/Seatpost: adjusted and secure

F. Crankset: bottom bracket adjusted correctly
- crank arm/sprockets secure (torqued)
- pedals secure (torqued)
- check chain for stretch/cracks/broken link plates
- pins seated correctly

G. Wheels: clean of dirt and grease
- freewheel/cassette secure
- wheel true
- hub adjusted correctly
- wheel center to fork/stays
- tires aired/not worn

H. Reflectors: all eight on bicycle

I. Headset: adjusted correctly

J. Suspension:
- all binder bolts torqued
- front: check for damage/cracks; check suspension sag
- rear: check stays/pivots for damage/cracks; check suspension sag

III. LUBRICATION

A. Brakes:
- brake lever pivots
- brake caliper pivots
- cable/casing (where applicable)

B. Changer:
- front/rear changer pivots
- shift controllers
- cable/casing (where applicable)
- delrin guide (if applicable)

C. Chain: cleaned/lubricated

D. Suspension: *(Note: see manufacturer's specifications and suggestions.)*
- lube pivots/bushings, and spring type
- adjust suspension sag accordingly

CABDA Service School
Bicycle Tune-Up Checklist
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All bicycles should have a tune-up at the start of the cycling season and be overhauled at least once per year, more frequently depending on riding conditions.

I. External Lubrication Prior to Tune-Up
- cables greased or replaced
- brake caliper pivot points lubricated and cleaned
- brake lever pivot points checked and lubricated
- front and rear derailleur linkage cleaned and lubricated
- chain cleaned and lubricated

II. Cone Adjustmeuts
- front and rear wheel cones
- fork checked
- bottom bracket checked
- brake caliper pivot points checked
- derailleur linkage checked and adjusted where possible

III. Lock Nut Tightness
- axle nuts, front and rear wheel
- stem and binder bolt
- pivot bolt locknuts (brakes)
- derailleur mounting bolt, front and rear
- seatpost clamp bolt and seat bolts
- fork head lock nut
- bottom bracket lock ring
- crank arm bolts and nuts
- pedals, left and right

IV. Adjustments
- gear adjustment, front and rear
- brake adjustment, front and rear
- wheels trued
- chain checked for stretch/wear (use Park Tool chain checker)

Notes:
- All cone and bearing adjustments should be made to turn freely with no trace of sideplay.
- All lock nuts should be secured according to manufacturer's recommended torque.
- Recommended Lubrication:
  Pivot points: spray lube with teflon base (e.g., Finish Line)
  Grip Shifts: lube specifically for Grip Shift (e.g., Finish Line)
  Cable Grease: Finish Line
  Chain Lube: Finish Line

Park Tool Torque Specification Table (Guidelines only. Always check manufacturers specifications.)

Item	Foot Pounds	Inch Pound
BMX handlebar binder bolts	20	240
BMX stem binder bolt	14-15	170-180
Bottom bracket fixed cup	20-25	240-300
Bottom bracket lockring	20-25	240-300
Brake levers on drop handlebars	5-6	60-72
Brake levers on MTB handlebars	3-5	36-60
Cable carrier pinch nut	4-6	48-72
Cantilever arm pinch nut/bolt	3-4	36-48
Cantilever brake caliper mounting nut	2	24
Cast-type BMX brake lever	3-5	36-60
Centerpull caliper mounting nut	1-3	12-36
Chainring bolts	4-6	48-72
Clamp-mount shift lever bolt	2-2.5	24-30
Cotterless crank arms	25-30	300-360
Crank arm dust caps	4	48
Crank extractor into crank arm	15-20	180-240
Dia-Compe cantilever and U-brake smooth-stud shoe anchor nut	6-8	72-84
Dia-Compe U-brake mounting bolt	4-5	48-60
Double-bolt integral seat clamp bolts	6-8	72-96
Drop handlebar binder/bolt	17-20	205-240
Dropbar stem binder bolts	12-14	145-170
Front axle nuts (wheel mounting)	15-20	180-240
Front derailleur cable pinch	3-4	36-48
Front derailleur mounting bolt	3-4	36-48
Handlebar end-mounted shifter	4	48
Headset locknut	minimum 25	minimum 300
Hook strap tourist brake lever	2-3	24-36
Hub locknuts	15-18	175-220
Mounting nut on threaded stud brake shoes	4-5	48-60
MTB multiple-handle binder bolt	5-7	60-84
MTB single-handlebar binder bolt	15-20	175-240
MTB stem binder bolt	14-15	170-180
Nonintegral seat clamp nuts	11-14	130-170
On Park Tool CR-2 tool installing cotter pins	minimum 18	minimum 220
One-piece bottom bracket fixed cone	minimum 25	minimum 300
One-piece bottom bracket locknut	20	240
Pedal installation	30	350
Pedal locknuts	8-10	100-125
Pull-up strap tourist brake lever	5-6	60-72
Rear axle nuts (wheel mounting)	20-25	240-300
Rear derailleur cable pinch	3-4	36-48
Rear derailleur to hanger	6-7	72-84
Rollercam cam plate pinch nut	4-6	48-72
Rollercam roller locknut	3-4	36-48
Seat post binder bolt	6-8	72-96
Shimano cantilever smooth-stud shoe anchor nut (old-style)	4-6	48-72
Shimano "M" system shoe anchor nuts	6-8	72-96
Shimano U-brake mounting bolt	4-6	48-72
Sidepull caliper cable pinch	4-6	48-72
Sidepull caliper mounting nut	6-7	72-84
Sidepull caliper pivot locknut	4-6	48-72
Single bolt integral seat clamp bolts	10-12	120-145
Stem-mounted shift lever bolts	2-2.5	24-30
Strap-type BMX brake lever	2-3	24-36
Thumbshifter mounting bolt	1-1.5	12-18
Tourist handlebar binder bolt	17-20	205-240
Tourist stem binder bolt	12-14	145-170
U-brake caliper arm pinch bolt/nut	3-4	36-48
Valve nuts	finger tight only	
XC and Sport/9000 rollercam arm mounting bolt	4-6	48-72
XCD rollercam arm mounting bolt	2-3	24-36

CABDA Service School
Bicycle Tune-Up Checklist

Front Changer Installation/Set-up Procedure

Prior to making front changer settings, cables should be greased, and changer pivots lubricated. Check that bottom bracket cable guide is free of contaminants, where applicable. Always put chain on inside front/rear sprockets before following these procedures.

Note: Lubricate before starting.

A. Loosen cable anchor bolt.
B. Height setting: Set outside plate of changer 2-3mm of clearance over outside sprocket (see fig.1).
C. Set outside plate of changer parallel with chainrings (see fig.1).

Note: Before continuing, chain must be on largest rear sprocket.

D. Locate low gear limit screw.
E. Set inside low gear with low gear limit screw.
   -- Inside chain plate should clear inside changer case by 1.5mm (see fig. 2).
F. Deactivate shifting control.
G. Thread adjusting barrel out 3-4 turns (if available.)

Note: Before continuing, pull on cable with pliers, activate/deactivate shifting control until shifting control is in low position. Check to make sure casing is seated correctly in the lever and cable stops.

H. Connect cable to and tighten cable anchor bolt.

Note: Pre-stress cable, then pull slack out of cable.

I. Shift to outside of rear sprocket.

Note: On triple front chainrings, shift to center sprocket.

J. Reverse outside high gear limit screw 2-3 turns.
K. Slowly shift to outside chainring.
L. Using the shifting control, set the outside chainplate 1.5mm to clear outside changer cage (see fig. 3).
M. Turn high gear limit screw in, to set limit of travel.

Note: When setting the limit setting of the high/low gear, the chain should be at the straightest position. If front changer deactivation is in high gear on front sprocket, reverse the procedures from step 4 through 13.

Rear Changer Installation/Set-Up Procedure

Prior to making rear changer settings, cables should be greased, and changer pivots lubricated. Check that bottom bracket cable guide is free of contaminants, where applicable. Always put chain on inside front sprocket (on triple chainrings, put chain on inside or center sprocket) and outside rear sprocket, before following these procedures.

Note: Lubricate before starting.

A. Loosen cable anchor bolt.
B. Locate high gear limit screw.
C. Set outside high gear with high gear limit screw.
   -- Chain should be centered on the outside sprocket (see fig. 1a).
D. Deactivate shifting control.
E. Thread adjusting barrel in completely, then turn adjusting barrel out 3-4 turns (on changer).

Note: Before continuing, pull on the cable with pliers, activate/deactivate shifting control until shifting control is in high gear position. Check to make sure casing is seated correctly in the lever and cable stops, as well as cable end is seated in lever.

F. Connect cable to and tighten cable anchor bolt.

Note: Prestress cable, then pull slack out of cable.

G. Slowly shift to 2nd outside sprocket.
H. Center chain to 2nd outside sprocket with the adjusting barrel (see fig. 2a).

Note: Shift slowly and repeatedly from the outside high gear sprocket to the 2nd outside sprocket to check if setting is correct. Shift to 2nd inside low gear sprocket before continuing.

I. Reverse inside low gear limit screw 2-3 turns.
J. Slowly shift to inside sprocket.

K. Using the shifting control, center the chain on the inside sprocket (see fig. 3a).
L. Set inside low gear with low gear limit screw.

Bottom Bracket Adjustment

A common bottom bracket problem today exists mainly with the Shimano-style sealed units. After several hundred miles of use (water can influence this), it is possible for one of the bottom bracket cups to loosen. The problem usually presents itself as a loud "knocking" or "creaking" sound, usually under load or while climbing. Because of the sealed nature of the unit, it is not causing damage, but it needs to be fixed.

To fix:
A. Remove both crank arms with the proper crank arm extractor.
B. Remove the adjustable cup side (non-drive side) of the bottom bracket (you will be removing one of two cups).
C. Tap the exposed end of the bottom bracket spindle with a hammer on the **drive side**, forcing the entire sealed unit to come out of the non-drive side.
D. You will then have one left cup and one sealed unit.
E. Remove the remaining drive side cup.
F. Grease the inside of both cups (the side that rests against the sealed unit.)
G. Re-install the drive-side cup until only several threads are showing (remember: it is a left-hand thread.) This measure will ensure that the sealed unit will be easy to install.
H. Place the sealed unit into the BB shell (make sure R is on the right, and L is on the left.)
I. Re-install the non-drive side cup until only several threads are showing.
J. Tighten the drive-side cup to 470-600 lb/in.
K. Tighten the non-drive side cup to 470-600 lb/in.
L. Re-install the crank arms.

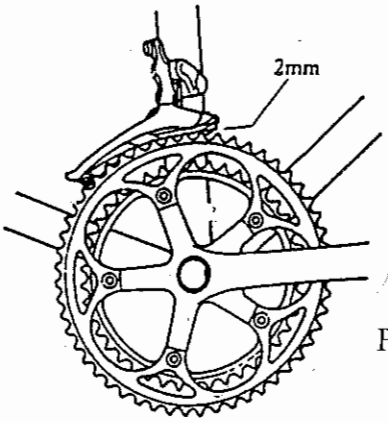


Fig. 1

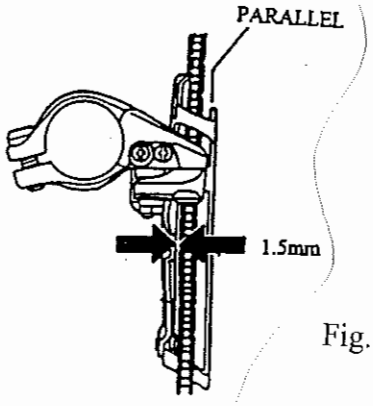


Fig. 2

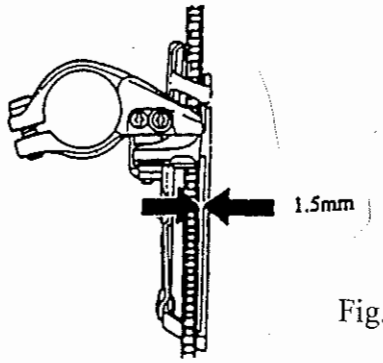


Fig. 3

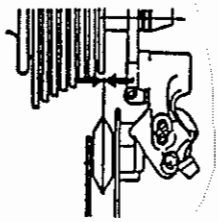


Fig. 1a

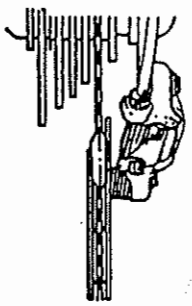


Fig. 2a

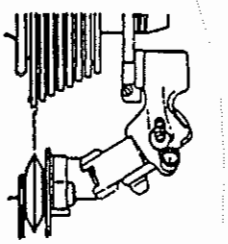


Fig 3a

Bicycle Checkout Log

Name & Number	Bicycle Number	Time Out	Time In

Bicycle Trouble Report

Officer:	Date:
Problem:	
Work Performed:	
Repaired by:	Date:

Bicycle Trouble Report

Officer:	Date:
Problem:	
Work Performed:	
Repaired by:	Date:

Bicycle Repair Log

Bicycle Number	Issued to (Name)	Date	Notes

Minimizing the Impact of Bicycle Crashes

Minimizing the Impact of Bicycle Crashes prepares cyclists for the inevitable "biff" before crashing. Landing techniques to prevent and/or minimize injuries from side, "endo," and angled bicycle falls are explained, demonstrated, and safely practiced.

The three most common falls

- **Lateral Fall.** Cyclist falls sideways off of the left or right side of the bicycle. Usually, the least serious type of fall, in terms of injury to the cyclist. Arises from a loss of balance.

- **Front (over-the-handlebars) Fall.** Cyclist is thrown forward, and over the handlebars of the bicycle; referred to as an "endo," standing for end-over, in cycling jargon. Also called a "face-plant." May result in serious injury, based on the intensity of the fall. Arises from the exaggerated forward transfer of the cyclist's body weight, usually during rapid, uncontrolled deceleration of the bicycle, resulting in the bicycle's front tire becoming the fulcrum for the cyclist's launch over the handlebars because the rear tire is unweighted and subsequently raised off the ground.

- **Angled Fall.** Cyclist is thrown forward at a 45-degree angle, off of the front of the bicycle. May result in serious injury, based on the cyclist's inability to break his fall. Arises from the bicycle's front tire turning greater than ninety degrees to the left or the right, causing the bicycle's forward movement to abruptly stop. As with the endo-type fall, the front tire, which now becomes perpendicular to the original direction of travel, becomes the fulcrum for the cyclist's partial ejection from the bicycle, as the rear tire is lifted off of the ground. The cyclist is vaulted forward at a 45-degree angle, usually in the direction that the front tire is turned. The inherent danger in the angled-type fall is that the cyclist becomes entangled with the bicycle during the fall, thus reducing his ability to break his fall.

Causes of the three most common falls

- **Lateral Fall.** Dragging the rear brake; track standing; slow riding; engaging or disengaging from pedal retention devices; "high-siding" during power slides; traversing wet, slippery surfaces.

- **Front (over-the handlebars) Fall.** "Weight forward" body position of the cyclist during a panic stop; during the use of the bicycle's front brake only; while descending stairs and/or other declines; when the bicycle's front tire strikes an immovable object head on (curb, parking block, stair, etc.); and during a high speed, front tire blowout.

- **Angled Fall.** Instant turns, in which the turning angle is over-exaggerated; curb and stair climbing, where the front tire lands on top of the curb or stair at an angled position, instead of straight; turning maneuvers in cone configurations that require a tight turning radius; traversing from a firm surface onto an extremely soft surface (sand, mud, etc.); in draft line and/or group riding, when the front tire of the cyclists's bicycle strikes the rear tire of the bicycle in front of it; the bicycle's front tire gets caught in a crack and/or crevice that is perpendicular to its intended direction of travel.

The dynamics of the cyclist's body during the most common falls

- **Lateral Fall.** The side of the cyclist's head is prone to hit the ground before the rest of the body; tendency for the cyclist to attempt to break the sideways fall with the arm and/or leg; cyclist's elbow may be pinned between the body and the ground on impact;

cyclist's knee may be pinned between the bicycle frame and the ground on impact; cyclist is highly susceptible to "road rash."

- **Front (over-the handlebars) Fall.** One of two body dynamics positions will occur, depending on how the cyclist reacts at the inception of the endo. Either the cyclist will be thrown forward in an unobstructed "head-first" prone position, which is not recommended, or an obstructed "somersaulting" sitting position, which is recommended.

- **Angled Fall.** The front and top of the head, as well as the face, are prone to hit the ground, resulting in head and neck injuries; the cyclist's shoulders impact with the ground resulting in a fractured collarbone and/or dislocated shoulder; the cyclist's upper torso (chest area) impacts with the ground and/or the bicycle's handlebars, causing internal trauma and/or rib fractures; the cyclist's lower torso gets tangled with the bicycle's frame, causing pelvic, hip, and leg injuries; the cyclist hits the ground with such intensity that the wind is knocked out of him; tendency for the cyclist to incorrectly break the angled fall with the hands, causing fractures and dislocations.

UNDERSTANDING THE KINETICS OF INJURY-MINIMIZING LANDING TECHNIQUES

LANDING TECHNIQUES TO PREVENT OR MINIMIZE INJURY

- **Lateral Fall.** The cyclist should attempt to remain on the bike, keep the body in a straight line, and relax the body prior to, and during impact, with the ground. The cyclist's chin must be tucked into the chest and the head tilted away from the direction of the fall.

- **Front (over-the handlebars) Fall.** If the cyclist can recognize that an endo is about to occur, the body weight must be shifted backwards into the "panic stop" position to offset gravity's forward thrust. Unless specifically trained in this manner, *the average cyclist won't prevent an endo.* Upon reaching the point of no return at the start of an endo, the cyclist's chin must be tucked into the chest. The cyclist must tuck the upper torso to somersault forward over the handlebars, going with the gravitational thrust rather than resisting it. The cyclist should attempt to somersault off of the bicycle in a straight line, which will enhance his ability to remain in the tucked position. The cyclist should strive to land in a sitting position when impacting with the ground. The cyclist's buttocks, not back, should be the primary point of contact with the ground. The cyclist should relax the body upon impacting with the ground. The cyclist's legs should be kept straight in the seated landing position, as a bent leg is likely to strike the cyclist in the face on impact with the ground. The cyclist's fists should be clenched and placed in the lap upon impact with the ground. *Note: Cyclists with martial arts backgrounds will unconsciously "slap out" the ground on impact. This is discouraged, as it will lead to hand and arm injuries.*

- **Angled Fall.** Because of the tendency for the lower torso to get tangled with the bicycle frame, the cyclist impacts with the ground in the prone position. The only effective way for the cyclist to lessen the impact of the angled fall is to cushion the fall with the forearms, while bridging the upper body. The cyclist must close the hands into fists to prevent hand injuries and tense the forearm muscles to withstand the impending impact. The cyclist must turn the clenched fists to "palms down" position, and upon impact, bridge into a modified "push-up" position. ("Modified" in that the forearms, instead of the hands, are used to support the upper torso.) The cyclist must tuck the chin into the chest, turn the head to the side and exhale upon impact, as "having the wind knocked out of you" is likely.

Off-Road Riding Techniques

Off-road Riding Techniques presents a unique opportunity to simultaneously learn, practice, and utilize virtually all of the skills that bike personnel must possess to effectively do their jobs.

Learning Objectives

- *Braking techniques to enhance control.*
- *Bike positions to enhance control.*
- *Lifting front wheel and clearing obstacles.*
- *Attack position for ascents and descents.*
- *Climbing techniques.*
- *Turning on dirt.*
- *Off-Road Riding, incorporating all of the above.*

Off-Road Techniques

Learning off-road techniques will improve your bike handling skills. The ability to climb on dirt hills, go over obstacles, brake effectively, and control the bike by body position can come in handy while on duty. With practice, these skills will make you a more effective cyclist.

Braking Techniques

- Attack Position, also known as the emergency braking position.
- Pedals at 3 & 9 position, stand slightly above the seat and slide with your rear over the rear hub, pressing down with the insides of your legs, so as to increase the weight on the rear tire. Bend your elbows and lower your chest towards the top tube, using your arms and legs as shock absorbers and to hold your body weight to the rear. This will help you control the bike and prevent endos. Use both brakes, front harder than rear, but let off front if rear starts to skid. Remember: on dirt your tires skid much more easily, so apply brakes accordingly.
- Off-road, you can also use your rear brake to make turns. This is almost like doing a power slide, but only held long enough to slide the back wheel a short distance. This is an effective technique, but can be dangerous if done incorrectly.
- Bike Positioning. This can make the difference between making it up a hill or not, or not going over the handle bars.
- Learning to stand up while riding is a must. Adjusting your weight forward or back can remove or add weight to the tires. Allow your bike to float under you. This makes going over obstacles easier.

Lifting Front Wheel

- Place the gears in 2/2. While riding straight (slowly), place your power foot in the one o'clock position. Simultaneously, slide your rear back (putting more weight on the rear tire), lean back, pulling back on the handle bar and pushing down on the pedals.
- Remember, all you have to do is raise the front wheel up a few inches and you can clear most obstacles. Speed is our friend when going over obstacles.
- After your front wheel clears an obstacle or lands on top; stand up on the pedals, shifting

your weight forward to allow the rear wheel to roll over the obstacle.

Climbing Techniques

- The idea in climbing is to continue spinning for as long possible. On short/small hills, pick up speed prior to beginning the climb. As you start to climb, shift to a lower gear to allow yourself to continue spinning. On longer or steep climbs, shift down one gear at a time and remain seated as long as possible, sliding your rear forward on the seat. This will maintain weight on the rear tire and not let it lose traction. Use your handle bars to help you climb. Pull down on them with each stroke, as if you are trying to drive them towards your cogs. Do not lift up on your handle bars, as this unweights your front tire and you will lose steering control.
- If you have to stand, do not stand straight up, as you will unweight your rear tire and begin to lose traction. Instead, stand in the attack position, keeping your chest close to the handle bar and keeping your rear over the seat as much as possible, thus keeping weight on the rear tire and maintaining traction.

Turning on Dirt

- On dirt you tend to slide a lot more than on asphalt, which can be both a detriment and an advantage. Positioning on the bike makes all the difference as to how fast you can safely turn. Learning to counter steer can make it easier to turn in tight places and allow you to set up the bike for the next obstacle.
- As on the road, a lot of turns are done by simply leaning the bike. Off-road, you will want to keep your pedals even when going over rough terrain. Stay in the attack position and lean the bike. Use the handle bar, moving it back and forth as necessary to avoid obstacles. This position allows you to float over obstacles without hitting one of your pedals.
- Another position is to put the outside pedal at the 6 o'clock position, leaning the bike into the turn, while angling your body to the outside of the turn. This puts more weight on the contact patches of the tire and allows you to make the turn quickly. This position, however, is not good in rough areas as your pedal can hit an obstacle and throw you off balance.

FIVE TIPS TO REMEMBER . . .

- PRACTICE ALL TECHNIQUES.
- THE MORE FAMILIAR YOU ARE WITH THEM, THE MORE COMFORTABLE YOU WILL FEEL USING THEM.
- KNOW THE TRAIL YOU ARE USING. IF YOU COME UPON AN UNFAMILIAR HILL OR DROP, LOOK AT IT BEFORE ATTEMPTING IT.
- RIDE WITHIN *YOUR* ABILITIES, NOT THOSE OF YOUR FRIENDS.
- IT IS BETTER TO BE SMART THAN END UP IN THE HOSPITAL. IF YOU DON'T FEEL COMFORTABLE ATTEMPTING AN OBSTACLE, WALK THE BIKE, DON'T RIDE IT.

RIDE SAFE!

Officer Survival for Bike Patrol

Officer Survival focuses on surviving high-risk patrol, including armed conflicts in the day and night. It provides participants with information on job-related injuries and death among police officers in hopes that such awareness may make the officers safer in their daily lives.

The following information is drawn from a report from California POST on 31 felonious killings and 23 accidental deaths of California peace officers killed between the years of 1990-1994.

Deaths to police officers from 1990-1994:

- Handling of domestic violence
- Resulting from vehicle pullover enforcement contacts
- During warrant service and undercover operations
- While off duty
- During contacts with pedestrians
- During response to major crimes in progress
- Victims of an assault/robbery
- While transporting a prisoner

Officer Demographics

"Typical" victim: male, white, mid-career, 37 years old, 5'10", 200 lbs. Average length of law enforcement career: 10.2 years.

Demographics were not the critical factor in deaths. Instead, poor tactics, poor judgement, overconfidence, complacency, and "rushing in" without a plan contributed to the majority of the felonious peace officer murder cases.

Suspect Demographics

"Typical" murder suspect: male, 32 years old, 5'8", 162 lbs. One-third were under the influence of drugs and/or alcohol.

Average suspect had a criminal record, carried a handgun, was in the process of or had just committed a crime when confronted by the victim police officer. Nearly three-fourths of known suspects had documented arrest records averaging 4.8 prior arrests. One-fifth of the suspects had documented street gang affiliation and over one-fourth were on probation or parole.

Tactical Constraints

- In four-fifths of the cases, the victim peace officer deaths were preventable.
- In three-fourths of the cases, the victim peace officer knew there was a potential for violence.
- Poor positioning was a primary factor in the death of 84% of the cases.
- In two-thirds of the cases, cover was not available or was initially used, then abandoned.
- Seven deaths resulted from abandoning cover.
- Four deaths occurred after the officer deviated from a pre-determined approach plan.

Equipment and Weapon Information

- Thirty of the thirty-one victim peace officers were murdered with firearms; two-thirds with handguns.
- Five were in uniform and not wearing body armor; three are likely to have survived if they had been wearing armor.

A STUDY CONFIRMS THAT BODY ARMOR IS THE SINGLE MOST EFFECTIVE PASSIVE SAFETY EQUIPMENT AN OFFICER CAN UTILIZE.

- One-half of the suspects carried semi-automatic weapons, shotguns, rifles or assault rifles.
- Three-fourths of victim peace officers carried semi-automatic service handguns; two-thirds of the officers had access to shotguns but didn't use them.
- Fewer than one-half of the officers were able to draw and fire their weapons in response; of those, five officers killed the suspects in the shootouts.

The most disturbing assessment is that 81% of the deaths were preventable; compared with 63% and 68% in similar previous studies. To some extent, this increase may be attributed to the increased awareness of the officer's safety tactics.

TRAINING TACTICS

The finding that no officers were killed as a result of their firearms being taken away represents a significant improvement and validates the use of improved equipment and weapon retention training.

• OFFICER SAFETY GUIDELINES •

GENERAL CONDITIONS

1) Master the basics. The key to surviving sudden and deadly attacks is approaching *every* contact, no matter how repetitious, with officer safety and tactics in mind.
2) Be aware of the hands. Awareness and control of the hands continues to be a universal safety point.
3) Be aware of and use cover. Awareness and use of available cover continues to be a basic tactical consideration during every situation.
4) Be aware of distance and positioning. ID, plan, then move to positions that are advantageous when making law enforcement contacts and wait for assistance if you requested it!
5) Use communication systems. Know and understand your agency's communications limitations and always transmit appropriate, accurate safety and tactical information.
6) Practice drawing and shooting with the weak hand. Officers need to know how to draw, accurately fire and reload their primary firearms with their weak hands. Carrying of a second weapon that is accessible to the weak hand is a tactical consideration.
7) Wear your body armor. Body armor is the single most effective piece of passive safety equipment that a peace officer can utilize, but it should never replace proper tactics when handling high risk incidents.

PATROL GUIDELINES

1) Be aware that suspects have guns. The key is finding a balance between acting and being too cautious and being effective, yet safe.
2) Call in contacts. Regardless of assignment, dispatch should be notified of all contacts including the nature and location of the stop.
3) Maintain a position of advantage. Officers need to ID, plan, then move to a position of advantage.
4) Consider varying vehicle approach. Recommend that officers consider varying their approach tactics.

PEDESTRIAN CONTACTS

1) Evaluate options when preparing to approach. Officers should carefully evaluate the options of either approaching or directing the pedestrian to the safest position for contact.

2) Get assistance when making an arrest. Regardless of the violation, officers should have assistance once the decision is made to make an arrest.

3) Be aware of the dangers of foot pursuits. Officers should consider the totality of the circumstances before initiating a foot pursuit.

DOMESTIC DISPUTES/DISTURBANCES *(rank as the most dangerous law enforcement contact)*

1) Be prepared for an emotional response. Officers need to recognize and be ready to deal with the emotions and extreme volatility.

2) Use a tactical approach when handling all calls. Officers need to respond, approach and handle these types of calls as they would any crime-in-progress call.

HIGH RISK CALLS/SPECIAL OPERATIONS

1) Train. Continual evaluation of law enforcement tactics and frequent recurrent training are critical in overcoming complacency and minimizing the number of peace officers injured or killed.

2) Use proven tactics for high risk crime responses. Every officer needs to recognize the importance of utilizing proven officer safety tactics.

3) Be mentally prepared. Beware of complacency and/or overconfidence. Mental preparedness can significantly help peace officers avoid unnecessary dangers.

BUILDING SEARCH/ENTRY

1) Treat all special operations as very dangerous. Officers must acknowledge that no amount of evidence or arrest should ever take precedence over officer safety.

2) Tactical teams must plan and train together. Tactical teams should have frequent team training in high risk tactics, utilization team/officer capabilities.

OFF-DUTY

1) Apply good judgment.

2) Weigh potential for injuries.

3) Realize what you don't have when you are off duty.

4) Consider options in appearance when off duty.

5) Consider carrying an off-duty firearm.

General Summary of Statistical Findings

These are only "general" findings based on a reading of several studies conducted within the last two decades. All conclusions are subject to change.

Officers

- Age of most slain officers: 30's
- Experience of most slain officers: 7 - 10 years
- Assignment of most slain officers: uniform patrol

Offenders

- Most offenders are younger than officers.
- Offenders are often under the influence of drugs and/or alcohol.

Assaults/Shootings

- Most assaults occur during "*routine*" police activities (traffic stops, disturbances, arrests).
- Most assaults/shootings (approximately 2/3s) occur in *at night or in low light.*
- Most assaults/shootings are *not premeditated.*
- Most shootings occur *at close range* (less than 10 ft).
- Most shootings generally *last less than five seconds.*
- Most common murder "weapon": *handgun.*

Other Significant Findings

- "Active Duty" peace officers are more likely to die from health-related causes (e.g., cancer, cvd) than from duty-related causes (e.g., gunshots, traffic collisions).
- More peace officers die in suicides than in the line of duty.

Significant Conclusions

- We keep making the same mistakes.
- We need ongoing tactical training.

Notes:

Overcoming Urban Obstacles

Overcoming Urban Obstacles is designed to teach bicycle officers how to safely and effectively negotiate obstacles found in an urban environment. This workshop will include: going up and down curbs, going down several stairs, going up two to three stairs, going up and down steep obstacles; how to operate bicycles safely in the presence of pedestrians and motor vehicles; and the proper techniques for small jumps and going up larger sets of stairs.

Handling the Obstacles

When negotiating basic obstacles such as curbs, bumps and small stairs it all comes down to balance, gearing, and weight transfer. If you successfully develop these skills, you should be able to handle going up or down any of the basic obstacles. It is also important to have "mental follow-through" for the obstacle you are about to negotiate. By imagining yourself on the other side or on top of the obstacle, you set yourself up for success.

Balance

- Balancing the bicycle side to side is very important when approaching any obstacle.
- Going too fast can cause some problems but going too slowly when approaching an obstacle may have catastrophic consequences.
- The best quote here is "a little speed is our friend."

Gearing

- You must be able to get immediate and sustained power to the pedal for the bicycle when going up an obstacle and you must make your initial gear change prior to the obstacle.
- Gearing is important when going down obstacles as well to avoid chain slap, which can cause your chain to come off. The more gearing distance your chain has to travel, the tighter the chain. This will protect you from chain slap.

Weight Transfer

- Weight should be back, consistent with a maximum braking position, when going down.
- Weight should be forward slightly when going up, de-weighting the back and allowing it to continue up and over the obstacle.

Note: If you cannot control the front end of the bicycle, your weight is probably too far back. If your rear wheel begins to slip, your weight is probably too far forward. Compensate for these things in small increments, as a little goes a long way.

Riding Style

The difference between good riders and great riders is the ability to ride loose. Bicycles are designed the way they are for a reason and all when you ride tight, all you do is fight the bike.

Hands: Secure but not tight ,with first two fingers covering the brakes.
Arms: Extended but loose elbows, acting as shock absorbers.
Legs: Close to the bicycle with feet in a 3/9 pedal position when not pedaling, knees bent to act as shock absorbers.
Bottom: Keep body loose enough so that you can slide your bottom back and forth on the seat; this is the best way to transfer weight on the bicycle.
Head. Assuming you haven't crashed, your eyes are still in your head. You should be looking beyond the obstacle to be prepared for and react to whatever presents itself. This is especially important for police officers because of the potential for bad guys to be the hazard or obstacle.

PC Course Safety Considerations

Introduction

IPMBA *Police Cyclist Training* prides itself on being state of the art, and the best of its kind in the United States, if not the world. With this pride comes the responsibility for a safe learning environment. The primary reason for *Police Cyclist* training is for the safety of bicycle patrol officers. We want them even safer in our training program than they will be working the street.

It is the responsibility of the *Police Cyclist Instructor* to ensure that the overall training environment is as safe as it can reasonably be, and to see that the basic safety rules set by IPMBA, the training facility, and the instructor him/herself are followed throughout the course.

It is the PCI's responsibility to assess the facility well before the class to determine the best and safest way to conduct the class; to learn any safety rules unique to the facility; and to establish whatever class procedures/policies are necessary to maintain a safe learning environment.

A major concern of police/public administrators is liability. *IPMBA Police Cyclist* training is no different. Instructors have to be concerned about liability both personally and for their agencies. Crashes can and will happen during bicycle training. When they do, will you be able to say that you did everything possible to prevent them and to minimize any injuries?

Basic Rules of Safety

IPMBA **requires** PC students to use four pieces of safety equipment, without exception. *These rules are established by the IPMBA Governing Board and Education Committee. They are irrevocable without IPMBA Governing Board approval.*

- A mountain bike in good mechanical condition that fits the student properly.
- A properly fitted bicycle helmet - approved by ANSI, Snell, ASTM, or CPSC.
- Protective eyewear.
- Pedal retention devices – toe clips/straps, Power Grips, or clipless pedals with appropriate shoes.

These rules are taken from those adopted by the *California Peace Officer Standards and Training* as guidelines for Bicycle Patrol Training.

These are ***guidelines only***; not every condition must be met before a training course can begin.

- Use these guidelines to help develop class rules and procedures,
- Consider them while doing pre-course preparation and site inspection.
- Employ them throughout the course of instruction as best you can to assure you are being safety conscious, and to reduce liability and risk.

IPMBA Training Safety Guidelines

Site Selection

Few, if any, facilities exist which are dedicated solely to bike patrol training. Therefore, PC Instructors adapt what is available to meet their needs.

- The training will be more "real world."
- Certain concerns may exist during various portions of the class.
- It will be necessary to determine the appropriate safety rules for the class and the facility and communicate them with the class:
  - Written on the board, flipchart, overhead, etc.
  - Provide a handout containing the safety rules and polices.

Confine training to restricted areas, away from the public and other police personnel:

- Try to keep students in areas which are restricted to the public.
- Keep students away from moving vehicles and pedestrians.
- Students should not share parking lot space with moving cars during drills.
- Students should not practice on sidewalks or do stairway ascents/descents or takedowns with

civilian pedestrians present.
    - May raise undue concern from the public who may not realize it is a training class, especially if students are in uniform.
    - Other police personnel passing by and "commenting" can interfere with your training effort.
- Exception: during training rides, it is appropriate to have students use public roads that have the "gnarliest" (but not dangerous) traffic available.

Site selection for drills and simulations should consider the following:

- Minimal obstructions – some "obstructions" are necessary to create a real world training.
- Minimal interference by other training exercises – avoid placing exercises so close to one another that riders may collide. Have adequate "run out" areas for riders.
- Minimal surface hazards – screen area for holes, loose gravel, oil, etc.
- Accessibility to Fire, Rescue and other emergency vehicles.

Site selection for off-road rides should consider the following:

- Select a clearly marked course or trail; and/or arrange for a guide who is familiar with the area.
- Select an area with minimal use of trail by other users (this may be difficult to control).
- Select a trail that offers options to students with less developed skills, so they may choose to walk or carry their bikes if they do not feel comfortable attempting to negotiate an obstacle.

The Instructor should inspect training sites and drills prior to initiating any drills, scenarios, or testing.

- Pre-ride all drills and cone courses for any potential problems.
- Inspect open grassy areas for holes, unevenness, soft spots, etc.
- Pre-ride off-road sites and trails.

EQUIPMENT SELECTION

All bicycles used shall be Mountain (or All-Terrain) Bikes built to withstand the rigors of police work and training. The following bikes are generally recognized as unacceptable for police work:

- Hybrid or cross bikes
- Road bikes
- "Found" or "seized" bikes with unknown history

Bicycles used for training MUST be properly sized for the rider.

Bicycles used for bicycle patrol training should have the following equipment:

- All equipment required by the State Vehicle Code for the state in which the training is being conducted.
- Equipment to repair a flat tire
- Road compatible tires, not "knobby" off-road tires.
- Water bottle and holder.
- Toe clips or other pedal retention devices – ***mandatory***

Students should be required (or encouraged) to use the following safety equipment at all times when operating their bikes during the training course:

- An approved bicycle helmet – ***mandatory***
- Shatter resistant eye protection – ***mandatory***
- Pedal retention devices – ***mandatory***
- Cycling gloves or appropriate palm protection
- Sunscreen skin protection

Bicycles used for night riding exercises MUST be equipped with appropriate front and rear lights:

- Lighting must conform to all state laws applicable in the state in which training is being conducted.
- A minimum five-watt front light is recommended.
- An active rear light, steady or flashing, is recommended.
- Additional retro-reflective material on the bike or uniform is recommended.

Instructors should identify appropriate clothing standards for students participating in the Police Cyclist training course.

- Strongly recommend chamois cycling shorts, or underwear
- Appropriate cycling shoes
- Students must be prepared with clothing to ride in any weather:
  - Hot – wickable, "breathable" fabrics
  - Rain – appropriate "breathable" rainwear
  - Cold – appropriate windproof "breathable" outwear; wickable inner layers.
- Students may wish, or be required, to wear their cycling uniform, including:
  - Firearm and web gear
  - Body armor – it can protect students in falls too!

The Instructor should conduct a pre-training inspection of all bicycles, safety equipment, and clothing to assure that they are serviceable and conform to course standards and mandates.

- Make sure the bike is safe for the student to ride in all of the drills.
- Bicycle inspection should pay particular attention to:
  - Properly sized frame
  - Braking system
  - Bearing sets
  - Seatpost - past minimum insertion line?
  - Drive train
  - Frame – any obvious cracks, fissures or broken welds?

ROAD RIDES, DRILLS, AND OFF-ROAD RIDES

The Instructor should reemphasize the safety rules immediately prior to riding exercises.

Instructor should establish appropriate Instructor-to-Student ratios:

- IPMBA Instructor-to-student ratio requirements:
  - **MUST NEVER exceed 1:10**
  - 1:6 is ideal

- When conducting a road ride, **an instrnctor cannot observe students from the front of the line.** The instructor should in the middle or the rear to effectively evaluate the students' riding skills.
  - Have an assistant be the group leader, or change leaders among the group.
  - Keep the speed of the group at a comfortable pace for the level of the group.

- Ratio should be reduced when students are performing higher risk techniques. This can be accomplished by making sure students proceed **one at a time,** which enables 1:1 supervision.
  - Maximum braking
  - Stair descents
  - Sliding stops/dismounts
  - Stairway ascents

- Some exercises may require a higher ratio; 2:1 or 3:1, requiring the use of "spotters." Students in the class may serve as spotters.
  - Spotters may enhance a student's confidence on difficult exercises.
  - Spotters may help reduce or prevent injuries.
  - Spotters may reduce liability.
  - Spotters may be other students.
  - Spotters should be positioned properly – out of the way, but in place to catch students if necessary.

During off-road rides, keep the following guidelines in mind:

- Keep the rider in front in sight, but leave a 4-5 second "time gap" between riders.
- Have lead rider/students shout "right" or "left" at forks in the trail.
- Have an instructor (or other **skilled** rider) with EMS radio or cellular phone capabilities serve as a "sweep" rider to ensure that no student is inadvertently left on the trail.

Instructors should be aware of physical fatigue factors which affect the ability of students to ride safely. Be aware of, or monitor, the following factors:

- Students' water intake and availability
- Students' nutritional (food) intake
- Extreme weather factors, such as heat, cold, or smog
- Obvious physical fatigue

The Instructor MUST maintain an appropriate level of discipline and control over students at all times.

- Lead by example – act like a professional
- It's **your** butt that's on the line if anything happens, not theirs.

NOTES:

PC Night Operations

Night Operations demonstrates and practices field-tested tactics and equipment developed to make night operations a safe and highly effective way to deploy bicycle patrols.

Introduction

Our police bicycles are our mode of transportation, but they are also so much more. Our bicycles are tools for self defense, obstacles for the "bad guys," and platforms from which we launch ourselves to get the "bad guys." It is important for all bicycle officers to realize the tactical advantages of bicycles as well as the hazards. This workshop will prepare the students to approach night patrols from a tactical standpoint to help keep the officer safe and improve officer safety.

Equipment

- *Lighting Systems.* Types of lights; wattage; batteries; on/off switches.
- *Uniforms.* Retro-reflective clothing; possible sources of noise; color options.
- *Bicycles.* Possible sources of noise; color options; use and positioning of reflectors.
- *Radio Systems.*

Use of Lights

- *Consideration of the following should be made when determining lights or no lights:* presence of other light sources; routine patrol or specific facts and circumstances; presence of vehicular traffic; known v. unknown areas; threat assessment.

Tactical Operations

- Positioning
- Use of cover and concealment
- Shadows and ambient lighting
- Knowing your district day and night
- Preparing your district for night operations
- On bike/off bike
- Riding surfaces
- Officer safety considerations

Notes:

PCI Roundtable

Police Cyclist Instructors Roundtable brings PCIs and the Board together for a free-wheeling discussion of experiences, training tips, and other topics relevant to teaching the IPMBA Police Cyclist Course.

Notes:

PCI to EMSCI Transition Course

PCI to EMSCI Transition Course is designed for experienced PCIs who wish to instruct EMS agencies. The course stresses the adjustments in both lecture and practical skills needed to accommodate the different needs of the EMS cyclist. This eight-hour transition course requires successful completion of both a written test and a practical skills check-off list.

Notes:

Problem Solving

Problem-Solving provides participants with an opportunity to learn and practice problem-solving using the S.A.R.A. model (**s**canning, **a**nalysis, **r**esponse, and **a**ssessment) and will discuss and practice the technique using actual community problems.

Topics to be discussed include:

1. Pro-active vs. Re-active Policing
2. S.A.R.A., a problem-solving model used in Community Policing
3. How to work through the four stages of S.A.R.A.
4. Utilizing the problem-solving model as an effective tool for interacting in the community
5. Root causes to problems

Courtesy of the Tri-State Regional Policing Institute, Cincinnati, Ohio. The Tri-State Regional Community Policing Institute (RCPI) is committed to facilitating collaboration between law enforcement, education and community partners. Through the use of technology and interactive learning, the RCPI aims to enhance the development of community partnerships.

Notes:

Pumpkins, Potatoes and Peppers: Preventing Injury Through Better Nutrition

Pumpkins, Potatoes and Peppers: Preventing Injury Through Better Nutrition

Cindy Cassell Ph.D., R.D., L.D.
Sports Nutritionist, Exercise Physiologist
Nutrition Access
513-553-2000
www.nutritionaccess.org

Research on Injury Avoidance

- What is injury avoidance
- Types of athletes who may benefit from better nutrition
- Endurance athletes
  - Typical diet for endurance athletes
  - Foods which may encourage eating better

Phytochemicals

- Compounds of plant foods that promote health
- Some research reports that phytochemicals enhance immune system
- Prevent some chronic disease
  - certain types of cancer
  - heart disease
  - age-related blindness

How do Phytochemicals Work?

- Act as antioxidants that fight disease-promoting free radicals
- Enhance immune system
- Cause cancer cells to die
- Enhance cell-to-cell communication

How do Phytochemicals Work?

- Detoxify carcinogens
- Repair DNA damage caused by smoking and other toxic exposures
- Alter estrogen metabolism

What Foods contain Phytochemicals?

- Phytochemicals are found in all plant foods — fruits, vegetables, whole grains, legumes, nuts, seeds and tea

Allyl Sulfides

- Sulfur compounds found in onions, garlic, shallots, chives and scallions
- May protect against heart disease, as well as fight bacterial and fungal infections

Dithiolthiones/indoles/isothiocyanates

- Organosulfur compounds found in green leafy vegetables such as broccoli and kale
- Powerful cancer-fighters

Carotenoids

- Beta-carotene, lycopene, lutein, zeaxanthin and cryptoxanthin compounds
- Research reports protects against cancer—lycopene for prostate cancer
- Enhance immunity
- Prevent blindness (lutein & zeaxanthin)
- Dark green, bright orange, yellow and red fruits and vegetables: carrots, spinach, kale, winter squash, peaches, nectarines, etc.

Phytoestrogens

- Formed by certain flavonoids, isoflavins and lignans
- Found in soy foods, flax seed and flax oil
- May protect against heart disease

Flavonoids

- A broad group of phenolic compounds - catechins and quercetin
- Protect against heart disease and cancer
- Foods include teas, onions and wine

Phenolic Acids

- Phenolic compounds are ellagic acids
- May decrease risk of developing cancer
- Foods with more phenolic acid are berries and nuts

How Much Do I Need to Eat?

- Is it possible to moderate your own food intake and maintain a natural weight?
- As infants...as we get older…
- As we begin to diet or control our food intake, eating habits become unnatural
- Diets teach people to focus on what to eat rather than on how to eat

What is Attuned Eating?

- Eating in response to physical hunger
- THINK ABOUT IT
- The mind-body connection for hunger and satiety
- "Hunger may originate in the body, but it is the mind that distorts it into destructive patterns that may lead to unnecessary weight gain." K. Kratina

Energy Balance for Athletes

- Energy Intake = Energy Expenditure
- Energy Intake
  - All foods and beverages consumed
- Energy Expenditure
  - All components of resting energy metabolic rate, thermic effect of food and energy expended with exercise

Nutritional Deficiencies

- Calorie Deficit?
- What about Protein?
- Quality of Protein?
- What about Fluids?

Slow Speed Drills

Slow Speed Drills will challenge you to master your bike-handling skills at slow speeds, which is essential for working in crowds and congested areas. This course involves new and entertaining cone maneuvers.

Notes:

So, You Want to Be an IPMBA-Certified Instructor

Since 1993, IPMBA has certified over 400 *Police* and *EMS Cyclist Instructors*, and we look forward to welcoming you to that elite cadre.

Becoming a certified *IPMBA Instructor* is basically a three step process: 1) complete an IPMBA *Police Cyclist* or *EMS Cyclist* Course and obtain IPMBA certification; 2) complete the *IPMBA Instructor* Application, making sure that you include all required materials, and submit it to IPMBA headquarters; and 3) register and attend a five-day *IPMBA Instructor* certification course within one year of acceptance into the Instructor program. Dates and locations of *IPMBA Instructor* Courses are announced on the website and in *IPMBA News.*

Upon submission, your *IPMBA Instructor* application will be reviewed by the IPMBA Education Committee. You will be notified of the committee's decision by mail. After receiving your notice of acceptance, you may register for an *IPMBA Instructor* Course.

Upon satisfactory completion of the five-day *IPMBA Instructor* Course, you will be issued an official *IPMBA Instructor* Certificate and a PCI or EMSCI number, authorizing you to teach the IPMBA *Police* or *EMS Cyclist* Course.

As a certified IPMBA instructor, you are expected to maintain the high standards of instruction demonstrated in the *IPMBA Instructor* Course. You may retain your active status by 1) maintaining membership in IPMBA, and 2) teaching a minimum of one *Police* or *EMS Cyclist* Course per year and submitting all coursework to IPMBA in a timely manner.

In addition to offering *Police* and *EMS Cyclist* Courses, certified instructors are eligible to teach courses and present workshops at IPMBA's Annual Police on Bikes Conference. They may also apply for *Police Cyclist Advanced* and *IPMBA Instructor Trainer* certifications as opportunities become available.

In order to apply for certification as an *IPMBA Instructor,* you must:

- have completed the IPMBA *Police or EMS Cyclist*™ Certification Course taught by an active, certified IPMBA *Police or EMS Cyclist Instructor.*
- have scored at least a 90% on the written portion of the *PC/EMS Cyclist* Course examination.
- be an IPMBA-certified *Police or EMS Cyclist.*
- be a current member of IPMBA.
- be a current member of a police or EMS bicycle unit.
- have a minimum of one year full-time or two years part-time experience on bike duty.
- be a fully commissioned law enforcement officer with full arrest powers OR an active EMT or paramedic.
- have read and be able to demonstrate extensive knowledge of the information contained in the *Complete Guide to Police Cycling.*
- have the endorsement of your certifying *IPMBA Instructor.*
- have the endorsement and support of your department.

IPMBA Instructor Application Packets are available through the IPMBA office. Call 410-685-2220 or email ipmba@aol.com.

Note: *Effective April 1999, the five-day IPMBA Instructor Course replaced the multi-step candidacy/practice teach method and the Police Cyclist Instructor Development (PCID) Course. All current instructors (except those who have completed the PCID), Instructor Candidates (PCI/EMSCICs), and inactive instructors (those who have not taught in over one year must pass the IPMBA Instructor Course by May 2002.* ***All new applicants must complete the IPMBA Instructor Course within one year of acceptance.***

Stretching to Prevent Common Bicycling Injuries

Stretching to Prevent Common Bicycling Injuries will review basic muscle anatomy and demonstrate stretching techniques that help prevent strains and injuries that can take you off the bike and put you behind a desk.

STRETCHING AND FLEXIBILITY

INTRODUCTION

Human movement is more enjoyable when the body is flexible and capable of performing without restriction. Nowhere is this potential flexibility more apparent than when we watch little children place their toes in their mouths or their legs behind their heads. Such agility reminds us that our flexibility is far less than it once was. One way to regain this flexibility is to regularly practice flexibility exercises.

Stretching has been popularized through sports and through activities such as dance, exercise classes, television fitness programs, video cassettes, yoga classes, and books and publications. Therapeutic exercise also plays a crucial role in the treatment of disease or injury, and specific exercises have significant impact in preventive medicine.

Although I urge everyone to stretch either to enhance athletic performance or simply to stay healthy, stretching incorrectly can cause more harm than benefit. Stretching should be a painless, peaceful experience. Active people understand the importance of good health and seek methods to improve their abilities by including stretching techniques into their daily schedules. But even those who are ill or who have been inactive for a period of time can discover the body's capacity for recovery by engaging in flexibility and strength building exercises.

FLEXIBILITY

- Flexibility, the common synonym for joint range of motion, is a major consideration in sports ability, physical fitness, comfortable posture, and physical medicine.
- Good health should be the number one priority of every human being, and flexibility is an important adjunct to build and maintain optimum health.
- Flexibility is related to body type, sex, age, bone and joint structure, medical history, and other factors beyond an individual's control. (A note of interest: Studies show that women, on the average, are more flexible than males at the same age.)
- The primary obstacles to flexibility are the musculature and fascia surrounding a specific joint. If the muscles, tendons, and connective tissue surrounding a joint are encouraged to elongate *on a regular basis*, normal joint range of motion will be retained.
- Sedentary living habits and the repeated (habitual/overuse) use of flexor muscles are often major reasons for lack of complete range of motion.

PURPOSE OF STRETCHING

- To increase and maintain complete range of motion.
- To help improve the capacity for activity. Stretched muscles require less energy for completion of movements.

- To relieve muscle-joint stiffness associated with the aging process.
- To elongate the fascia, which provides the binding support system to stabilize muscles, organs, and most body tissue.
- As a major part of the pre-activity warm-up to increase tissue temperature through an increased metabolic rate.
- As part of the warm-down process to increase blood flow to the fatigued area, eliminate toxic waste products from cells, reduce soreness, increase muscle relaxation, and improve flexibility.
- To help provide greater potentials for physical and athletic skills.

REASONS FOR LACK OF FLEXIBILITY

- Muscle imbalance. Many times the agonist *(prime mover)* muscles are far weaker than corresponding antagonist (*opposing*) muscles on opposite side of joint. This is particularly true of the overdeveloped muscles of weight trainers who often concentrate on certain muscles without regard to all the muscles in a joint.
- Overuse of the muscle without maintaining complete range of motion. Activities that are constantly performed without stretching will result in tight joints and muscles.
- Muscles such as the calf, quads, and hamstrings shorten from continuous stress of activities such as running, jumping and cycling.
- Effects of aging. Aging affects tissue elasticity as muscle mass atrophy occurs.
- Inactivity is a major cause of muscle weakness, which results in hypertonicity (a condition in which the muscle becomes too toned - hard and nonpliable) and inelasticity of less used muscles

STRETCHING

The following information is an overview of stretching techniques presented in various journals and books, which describe and illustrate specific instructions.

Ballistic Stretching

- The use of bouncing, rebounding, bobbing, or rhythmic motion to increase range of motion.
- Ballistic stretching is sometimes employed in sports such as gymnastics, karate, and dance. An example is the hurdlers stretch, which employs bobbing of the trunk toward an extended leg to stretch the hamstrings.
- This technique is contraindicated for extremely weak or paralyzed muscles. Rapid movement can also cause pain and increase the possibility of muscle or tendon rupture.
- This type of stretch is *not recommended* by most experts.

The Stretch Reflex

- The stretch reflex is a regulatory mechanism of the nervous system that helps enable the body to maintain muscle tone and posture.

- It is activated as a defensive protection mechanism in an attempt to avoid over-stretching and to help prevent muscle-tendon injuries.

- If you do not have adequate flexibility for a required movement, the stretch reflex contraction exerts force against the desired movement, and more energy is required to overcome the stretch reflex force, increasing the possibility of injury.

- Stretching and warm-up exercises increase the ability of the tissues to lengthen, enabling joints to move through a greater range before meeting this resistance from tension and muscle contraction activated by the stretch reflex.

Passive Stretching

- In passive stretching the individual makes no contribution or contraction.

- Passive stretching employs a partner who extends the mobility-range gradually to the utmost position. This assistant provides continuous external assistance just below the pain threshold for as long as one minute.

- Passive stretching should be a slow, steady movement, using gentle force to lengthen the soft tissues. Careful movement of the tissues will help prevent pain to the patient.

Active Stretching

- Active stretching is accomplished using your own muscles, without any assistance from an external force.

- Active stretching or exercise occurs when muscles produce movement without application of additional external resistance. An example of active stretching is standing upright and slowly lifting one leg (stretching hamstrings).

- The major disadvantages of active stretching are that it may initiate the stretch reflex.

- A *modified* version called *active-assisted stretching* has become increasingly popular. With active-assisted stretching, the range of motion is completed by a partner or device (inner tube or towel) when one's limit of flexibility is reached.

Static Stretching

- Static stretching has been used for centuries by those involved in yoga.

- It is the most widely used method of flexibility training.

- Stretching is achieved by applying a low force, over a long duration to improve flexibility.

The stretch is divided into two phases:

The Easy Stretch:
In the Easy Stretch position, which lasts 10 to 30 seconds, you stretch to the point where you feel mild tension and relax as you hold the stretch without bouncing. You find the degree of tension that is comfortable. The Easy Stretch reduces muscular tightness and readies the tissue for the developmental stretch.

The Developmental Stretch:
The purpose of the Developmental Stretch is to fine tune the muscles and increase flexibility. You move

slowly into the Developmental Stretch until you feel a mild tension, and then you hold it from 10 to 30 seconds. You exhale as you bend forward and then breathe rhythmically for the duration of the stretch.

The Tighten-Relax-Stretch Technique (also a Static Stretch)

- Tighten the muscles with static-isometric (*non-moving*) muscle tension. Keep the position for 10 to 30 seconds.
- Relax 2 to 3 seconds.
- Stretch out the muscle gently, as far as possible. Stay in this position for as long as you can tighten the muscle (10 to 30 seconds).

The Proprioceptive Neuromuscular Facilitation (PNF)

Contract-Relax (CR) Technique

- This type of stretching utilizes the natural physiological fact that a muscle contraction is normally followed by relaxation of the opposite (antagonistic) muscle(s).
- The object of the PNF method is to purposefully stimulate the neural mechanisms of contraction and relaxation.
- The contract-relax technique (also called hold-relax technique) starts with the athlete's tight muscle group (antagonist) in a lengthened position (stretched).
- Assume that your hamstrings are tight. The tight hamstrings are first gently stretched and gradually contract isometrically, building to a less than maximum effort for 6 to 15 seconds against a partner's resistance or a rope/wall.
- Because the contraction is isometric, there is no change in the muscle's length or movement of the joint.
- This contraction is followed by a brief period of relaxing the hamstrings. Then the partner slowly lengthens the tight muscle group (hamstrings) by passively moving the extremity *a little further* through its gained range of motion.
- The rationale for the contract-relax technique is that the initial contraction of the antagonists (hamstrings) in the stretched position is thought to promote a subsequent relaxation phase of the same muscle.

WARM UP

- Warm-up stretching is important to help prevent muscle strain or tears that can occur from sudden over-lengthening of the musculotendinous unit.
- The primary purpose of a warm-up before physical activity is to raise the deep temperature within the body and to lengthen contracted muscle and fascia fibers.
- Warm-up time can last from 10 to 45 minutes or more, depending on the activities to be performed and the stress and strain associated with them.
- The preliminary warm-up should include gentle general exercises, walking, jumping rope, running in place or using the stationary bicycle. This warms the muscles and prepares them for stretching.
- During this time, tissues are infused with blood, oxygen, and nutrients. The length of time spent on this phase should be commensurate with the stiffness or inflexibility of the joint being stretched.

- *Stretching* as a warm-up for the athlete is designed to enhance the athlete's performance, prevent injury, and reduce recovery time. Stretching permits the athlete to train at a higher level without discomfort.

COOL DOWN

- Following vigorous activity, allow the body systems to slow down gradually and let the heart rate decrease to pre-exercise levels.

- Post-workout stretching reduces muscular tension and helps prevent or delay the onset of muscle soreness and fatigue, which are often caused by body waste fluids that accumulate in the muscle tissues, causing stiffness and discomfort.

- After major activity, the following steps are important for maximal recovery in the shortest possible time.

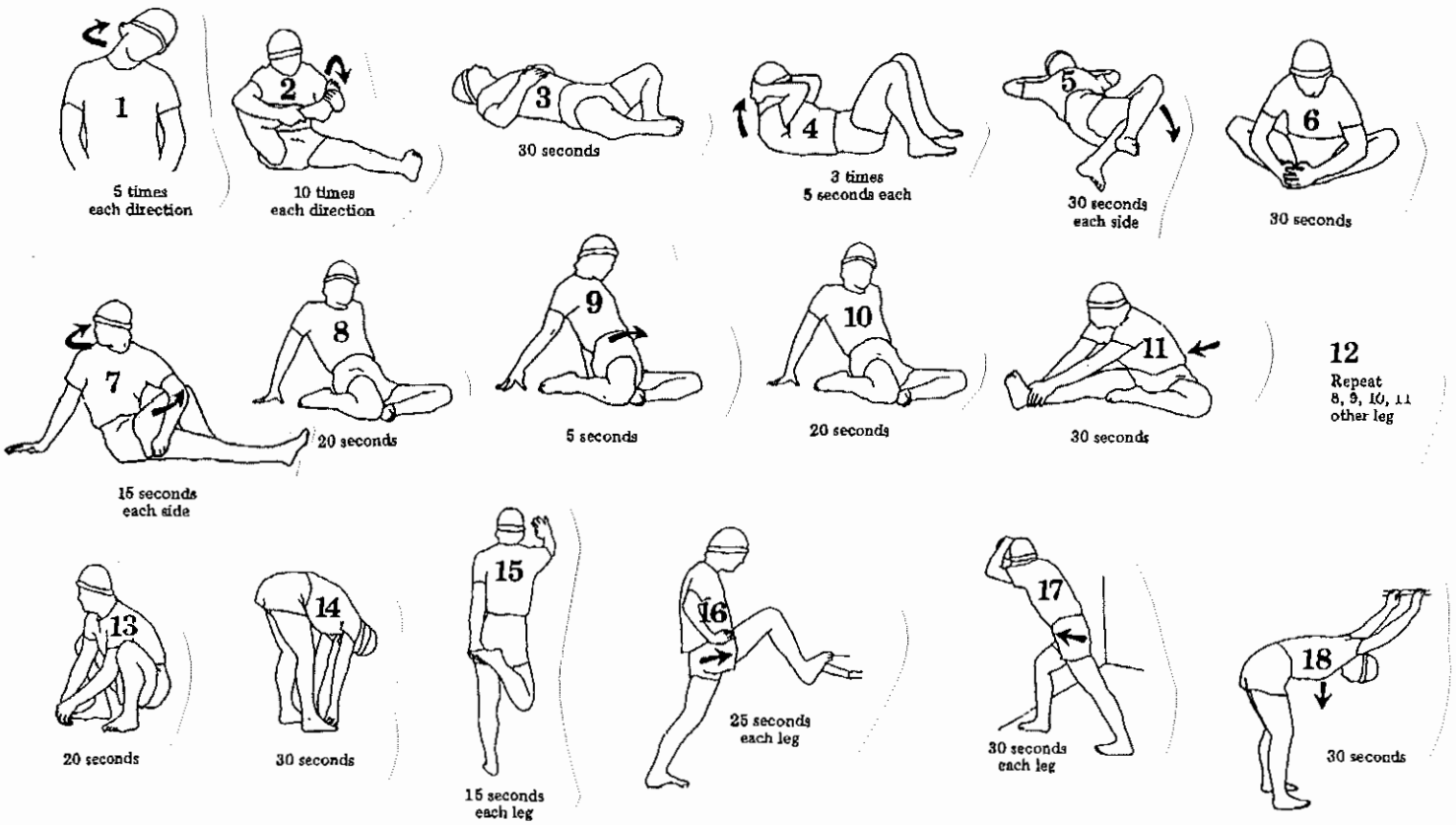
- Gradually decrease the intensity by using slower body motions.

- Incorporate isolated specific stretching movements to decrease waste materials in the tissues, and increase blood flow, oxygen, and nutritional levels to the pre-fatigue levels as soon as possible.

- Drink plenty of fluids and practice gentle deep breathing to help return the body to the pre-exercise levels as soon as possible following the activity.

- The warm-down is also an excellent opportunity to work on flexibility as tissue temperature will be at its highest level. This facilitates a deeper stretch, with less chance of injury.

References: *Active Isolated Stretching*, by Aaron Mattes; *Stretching*, by Bob Anderson; *Sport Stretching*, by Michael J. Alter



Suspect Contact and Apprehension

Suspect Contact and Apprehension explores the patrol bicycle as more than just a mode of transportation. As a tool, the bike affords the officer with several tactical advantages. It is quick and silent. It provides access to areas that are difficult, if not impossible, to access by patrol car. It can be the upper hand during subject contacts and foot pursuits. This block of instruction explores ways to employ the patrol bicycle during pedestrian and motorist contacts. It is necessary for officers to understand and practice the skills unique to bicycle officers that will enhance their safety during such contacts.

I. The Contact-Cover Technique
- A. Approach/Placement Issues
- B. Contact Officer
- C. Cover Officer

II. Pedal Retention
- A. Tactical Considerations
- B. Clip-in, Clip-out Practice

III. Mounts & Dismounts

A. Half Dismount (aka "Crossover Dismount") & Mount (Scooter Push)
1. Tactical Considerations
2. Procedure
3. Practice & Placement

B. Rolling Half Dismount (aka "Cyclocross Dismount") & Rolling Mount (aka "Cyclocross Mount")
1. Tactical Considerations
2. Procedure
3. Practice & Placement

C. Top Tube Dismount
1. Tactical Considerations
2. Procedure
3. Practice & Placement

D. Bottom Bracket Dismount
1. Tactical Considerations
2. Procedure
3. Practice & Placement

E. Rear Wheel (aka "Hook") Slide Dismount
1. Tactical Considerations
2. Procedure
3. Practice & Placement

IV. Three Levels of Contact
- A. Level One: Low Probability of Risk, Most Common, Routine Contact
  Example – Tourist asking for directions.
- B. Level Two: Reasonable Suspicion Contact, Expectation of Hostility/Resistance
  Example – Alcohol violation.
- C. Level Three: Probable Cause Contact, Weapons/Aggressive/Assaultive Level Contact
  Example – Wanted felon.

V. Contacts and Stops

Nothing in this lesson will supersede the student's previous training and department policies and procedures for arrests. Nor is this section meant to imply that there is only one way to approach, contact, and arrest suspects. These procedures are simply methods that have been found useful by bike patrol officers around the U.S. They are taught here to give officers basic techniques to use.

A. Pedestrian Stops

1. Basic Guidelines

- Work in Pairs (recommended)
- Approach (pre-planned is best)
- Positioning
- Create a Barrier
- Defensive Maneuvers
- Power Pedal Position
- Search & Arrest Tactics
- Awareness
- Communicate
- Teamwork
- Know Your Environment

2. Practice/Scenario

B. Runuing Suspect Pursuits

1. Basic Guidelines

- "Police, Stop"
- Mechanical Advantage
- Communicate
- Distancing
- Teamwork
- Dismount
- Bike Carry
- Use of Force
- Know Your Environment

2. Practice/Scenario

C. Motor Vehicle Stops

1. Basic Guidelines

- Cover
- Location & Environment
- Audible/Visible Signals
- Park & Approach
- Contact Considerations
- Control

2. Practice/Scenario

D. Motor Vehicle Pursuits

1. Basic Guidelines

- Persistence
- Communicate
- Safety Considerations
- Department Protocol

VI. Conclusion

Officers on bicycles can often be more effective at arresting suspects and patrolling high crime areas. When properly used for patrol, or for tactical advantage when pursuing or arresting suspects, patrol officers must be aware of certain techniques and practices to make their job safer and more effective. Pedestrian stops, motor vehicle stops, and pursuits are all techniques that an effectively trained bicycle patrol officer can perform.

NOTES:

URBAN DRUG ENFORCEMENT

Urban Drug Enforcement illustrates how the mobility and stealth of the bicycle-mounted officer can be used in innovative and effective ways to address the problems associated with illicit drugs and round up the bad guys.

WHAT CAN YOU AND YOUR ALLIES DO?

Ultimately the idea is to make the area involved more uncomfortable for the bad guys and easier to work in for the good guys. How do you do that?

- Resecure all vacant properties and properly post
- Have property owners sign "Trespass Orders."
- Clear away commonly used brushy areas.
- Control access to certain areas by fences, etc.
- Improve lighting in the area.
- Clean and paint the area (grafitti).
- Instruct citizens on how to watch for dealing patterns.
- Provide citizens with forms for documenting persons/vehicles.

THE LAW ENFORCEMENT RESPONSE

You've basically got two choices, either the high profile or stealth approach. There are benefits to both.

High Profile

- Good visibility for businesses to see you.
- Acts to suppress the criminal activity.
- Will eventually move the problem somewhere else.
- Will still be able to find things and make arrests.

Stealth/Surveillance

- Poor visibility, but when they do see you, you're arresting someone (intimidation).
- Suppresses criminal activity over time.
- Will move the problem -- to jail.
- Higher conviction rate because of case quality.
- Much higher arrest numbers.
- Allows you to learn players, establish patterns of dealing, etc.
- They never know when you're around.

The reality is that neither approach alone is best. It takes a combination of the two, in addition to several other tools, to be effective at solving problems for the community in the long term. *A good estimate of the time spent is 70% surveillance and 30% high profile.*

ENFORCEMENT

High Profile Enforcement

The nice thing about high profile enforcement is that all it takes is the officers and their bicycles. But, the officer should:

- Know the risks.
- Always watch the hands.
- Pay attention to what persons drop as you come into an area.
- Where, what or who persons move away from as you come into the area.
- Have a plan in advance.
- **Communicate!!!**

Stealth/Surveillance Enforcement

This style of enforcement can bring out the kid in all of us. You're watching them but they don't know it. Surveillance is very valuable to suppress street level dealing because it makes the dealers very paranoid and because you have already established your probable cause before you even approach them.

Surveillance Needs

- A concealed location from which to watch
- Binoculars (10x40 minimum)
- Activity log sheet
- VHS video camera with telephoto lens
- Extension cord
- Tripod for camera

Note: Video equipment is not essential, but it more than pays for itself with the cases that get settled without going to court.

Surveillance Tips

- Whenever possible, use at least three officers.
- Locate and use multiple surveillance locations.
- Vary your approaches whenever possible.
- Pay special attention to their hands.
- Don't be in a hurry.

Dealing with Multiple Targets

- It is not uncommon for there to be two or more people dealing together and very common for buyers to be together. Always go for the drugs first, buyer and dealer.

Where the Drugs Are Kept

It might be easier to ask, "where they are not kept?", because anyplace that they can fit, they could concievably be hidden. Ultimately, good surveillance techniques will yield the dealer's and the users' hiding spots. Yet another good reason to always watch the hands.

Common Hiding Places

- Pockets, especially the small pockets in pants; watch for dealers/users with fairly big holes in their pockets, they're dumping.
- Mouth
- Shoes and socks
- "Banco del Crotcho"
- Inside clothing, especially jacket linings and pant waists

Special Care for IV Drug Users

Drug enforcement is risky and doing it on a bicycle is especially risky, and there are certain risks that go beyond the job. Dealing with IV drug users means dealing with syringes. Syringes are a wonderful way to transmit all kinds of nasty bugs -- the worst of which are HIV and Hepatitis. Here are some ways to minimize your risk:

- Always ask the person about syringes before patting them down.
- Never arrest for simple possesion of syringes.
- Always look where your hand is going to go before it actually goes there.
- Consider asking them to remove all syringes themselves, but only from a safe distance, and only cooperative persons.
- Consider handcuffing the subject before checking for syringes, but first check your department policy.
- Know your department's policy on syringes as weapons.

NOTES:

VENDOR-SPONSORED INFORMATIONAL WORKSHOPS

IPMBA is pleased to offer our vendors a chance to "strut their stuff" in this series of product update or demonstration sessions. These companies have chosen to take advantage of this unique opportunity to provide an in-depth look at their products, answer questions, and solicit your input. Please attend these sessions armed with suggestions for new products and/or improvements to existing ones. This is your chance to find out what's new and to tell our vendors what you need to be more effective on the streets.

THURSDAY 1000-1050:
POLICE SPECIFIC TIRES

Learn the advantages of Police Specific Tires (PST) made by Sweetskinz and how they will help improve your performance.
Sponsored by: Sweetskinz, Inc. -- Police Specific Tires
Contact: Todd Gogulski, 2309-11 Wallace Street, Philadelphia, PA 19130
Phone: 215-235-3555/*Fax:* 215-235-8971
Email: todd@sweetskinz.com
Product: Bike tires designed for police use. Extra puncture protection through use of full-tread Kevlar belting to give the best resistance available. Tires have raised reflective lettering: POLICE 911. We offer a six-month guarantee on all police tires.

NOTES:

THURSDAY 1100-1150:
HOW TO PACK 15 POUNDS OF EQUIPMENT INTO A 5-POUND PACKAGE

Come see the latest technology advances in monitor/defibrillators/AEDs allowing full monitoring/defibrillation capability in a five-pound package. Includes a discussion of the American Heart Association's new initiative into Law Enforcement-based Early Defibrillation Programs and funding opportunities. MRL will be accepting grant applications for one of their new five-pound LifeQuest Monitor/Defibrillator/AED.
Sponsored by: MRL Medical Research Laboratories
Contact: Bill Smirles, 1000 Asbury Drive, Buffalo Grove IL 60089.
Phone: 847-520-0300/*Fax:* 847-520-0303
Email: mrl@mrlinc.com/*Website:* www.mrlinc.com
Product: LifeQuest Monitor/Defibrillator/AED

NOTES:

FRIDAY 0900-0950:

NEW TECHNOLOGY FOR ELECTRIC POLICE PATROL BIKES

Sponsored by: Police E-Bikes, Inc.
Contact: Jack Stover, P.O. Box 429, Archibold, OH 43502
Phone: 419-445-0306/*Fax:* 419-445-5256
Email: tucker2@bright.net
Product: EV Global Electric Assist Police Bicycle

NOTES:

FRIDAY 1000-1050:

UNIFORM SELECTION: WHAT YOU NEED TO BE THE BEST ON THE BEAT

Sponsored by: Bratwear
Contact: Sally Swanson, 3914 Portland Avenue, Tacoma, WA 98404
Phone: 253-471-1901/*Fax:* 253-471-2046
Email: sally@bratwear.com/*Website:* www.bratwear.com
Product: Best on the Beat Uniforms. Innovative, high-tech specialty uniforms, custom-designed and fitted to your specifications. Bratwear is fast becoming the uniform of choice!

NOTES:

Women's Issues Roundtable

Women's Issues Roundtable focuses on the issues, challenges, and opportunities specific to female law enforcement professionals, especially those on bike patrol.

Notes:

BICYCLE SAFETY EDUCATION PLANNING WORKSHEET

Consider the following when planning your Bicycle Education efforts.

- **Audience:** Age, Experience, Previous Training, Special Problems
- **Venue:** School, Daycare, Service Group, PTO, Youth Group
- **Special Concerns**: Recent crashes/problems, geographic concerns, why you were invited

Learning Objectives

Define your objectives by considering the information listed above, Cross-Fisher findings, local crash facts, and other factors relevant to your audience.

- Helmet Usage - education and encouragement
-
-
-
-

Program Description/Program Specifics

- Who:
- What:
- Where:
- When:
- Why:
- How:

Material and Equipment Needs

- Space requirements:
- AV equipment:
- Videos:
- Props:
- Other:

Time Table

- Schedule activity:
- Develop timetable to plan:
- Promote event:
- Locate equipment:

Community Support

- Who is providing materials?
- Who is providing funding?
- Who is getting volunteers?
- Who are the volunteers?

Evaluation

- Results
- Feedback
- Successes
- Changes for future training

CONCEPTS FOR YOUTH BICYCLE EDUCATION

Problems Associated with "Traditional Approaches"

- Lack of interaction and motivation
- Lack of hands-on or on-bike training (Passive vs. Active)
- May not address the needs and local hazards the students face
- School/teachers seldom involved, except as observers
- Many programs are based solely on "rules of the road" and some *horror* stories

Bicycle Education Options

- Commercial bicycle education programs containing video, lesson plans, and handouts
  - *Basics of Bicycling*
  - *Comprehensive Bicycle Education Program*

- "Homemade" programs
  - Lecture only: passive and often boring
  - Slide Shows: use recognizable scenes from the community
  - Video programs: effective with large groups only with a video projector
  - Games: a great way to get everyone to participate
  - Demonstrations: active and attention-getting

Potential On-Bike Education Program Sponsors

- School or daycare
- PTO
- Civic or youth groups
- Police or local government
- Neighborhood or community association
- Bicycle clubs or shops
- Charity rides

Overall Goals of On-Bike Education Programs

- Traffic skills designed to prevent crashes vs. balance skills
- Learning-oriented vs. competition-oriented
- Skills stations vs. non-stop circuit course
- Involve parents and teachers as much as possible
- *Have Fun*

Traffic Skills to Emphasize

- Driveway Rideout/Search at Driveways
- Stop Sign Rideout/Search at Intersections
  - Unexpected Left Turn/Rear Scan and Signaling
  - Unexpected Left Turn/Rock Dodging
  - Unexpected Left Turn/Passing Parked Vehicles
  - Trapped at Signal/Semaphore Exercise (Yellow light means stop)

YOUTH BICYCLE CRASH FACTS

Introduction
Nearly 90% of all car/bike crashes involving children are the result of predictable events. Whether they are in Orlando or Los Angeles, children on bicycles commit the same errors which lead to these few common crash types. Education based on recognizing these crash types and teaching traffic-based skills designed to avoid them can reduce these predictable and common crash types. **This training is best done with the children on bikes in situations that simulate conditions of traffic.**

The Cross Study
In the 1970's, two behavioral scientists, Drs. Kenneth Cross and Gary Fisher, conducted a study for the National Highway Traffic Safety Administration. The report they released was titled, *A Study of Bicycle-Motor Vehicle Accidents – Identification of Problem Types and Countermeasure Approaches*. The report identified unique behaviors or problems, and ways to reduce them, and thereby reduce bicycle/car crashes. The report uses certain terms, definitions, and concepts that police bicycle safety educators should be familiar with and use.

Definitions
- **Accident:** A term used to describe an event where one or more vehicles or parties are involved and damage or injury occurs. This term is used now primarily for reporting purposes. The word "accident" implies that the event was an unavoidable occurrence. ***Crash*** is the preferred term among safety professionals. All but a very few crashes are unavoidable.

- **Crash:** The preferred replacement for the word "accident." Crash factors can be studied for common characteristics to learn how to avoid future occurrences.

- **Safety Product:** An element or package of actions (countermeasures) designed to reduce crashes. It can involve any of the elements of traffic safety: engineering, education, or enforcement.

- **Fault:** Police are often asked to determine who was "at fault" in a crash. Police determine the ***factors*** and ***errors*** that resulted in the crash. Fault is most appropriately determined by courts, juries or insurance companies.

- **Cause:** The factors that resulted in the crash, as determined by investigation. For example, the failure of person to adequately search ahead, plan for and then take corrective action are causal factors. Cause can result from the actions of one or more people involved. Fault implies that only one person caused the crash.

- **Conspicuity:** The quality or property of attraction and visibility. Comes from the word conspicuous. Lights, reflectors, fluorescent clothing and devices, and position relative to traffic all contribute to a cyclist's conspicuity.

- **Accident/Crash Class/Type:** The scientific breakdown of separate crashes into mutually exclusive conditions and factors that provide highly defined and repeatable patterns or types. Crash class plays a role in the development of safety products.

Bicycle Crash Types
Note: only a small percentage of bicycle crashes are even reported.

- Over 500,000 people are injured on bicycles each year in the U.S.

- Crashes resulting in injuries requiring medical treatment are reported to the police in about one out of every ten incidents.

- How many here have ever been injured while riding a bicycle? How many reported it to the police?

- Reporting requirements: According to all traditional reporting systems, such as FARS, USDOT and state

systems, the accident must involve a **motor vehicle** in order to generate a report and be counted as an accident statistic.

- Most bicycle crashes do not involve motor vehicles. For example:
  - Bike Overturn
  - Bike Off-road
  - Bike-Fixed object
  - Bike/Bike
  - Bike/Pedestrian
  - Bike/Dog

- If police *are* called to the scene, these are reported as public accidents, not vehicular accidents, and do not get reported to the traditional record keeping sources.

- Still more go unreported because those involved deem them minor, do not want the police involved, or do not want their insurance companies or the neighbors to know, etc.

- Statistics are deceiving as to the true number of bicycle related injuries. Even deaths may not be reported accurately if they do not involve a car.

- Medical reporting will provide a more accurate sense of the true numbers. Case in point: a 1988 Milwaukee Children's Hospital Study revealed that 3,500+ patients were treated for bike-related injuries, while the entire state of Wisconsin reported only 1,800 bicycle related injuries in their official crash data. *(source: Susan Cavalich, former Bike Coordinator, WI DOT)*

- While more children are **killed** as pedestrians each year, more children are injured while bicycling than in any other activity, except perhaps inline skating and riding scooters.

BICYCLE /MOTOR VEHICLE CRASHES
Who is most commonly involved? Is there a pattern?

Statistics
- 80% of the bicycle crashes involve injuries to males.
- Nearly half of all fatal crashes occur in low light or nighttime conditions.
- In 2/3 of the cases, drivers said they did not see the bicyclists in time to avoid the crash.
- Only 15% of all bicycle crashes involve motor vehicles, but 85% of the fatalities involve motor vehicles.
- Head and/or neck injuries are the primary cause of death in 80- 85% of bicycle fatalities.
- Head and/or neck injuries are involved in about 75% of all bike crash-related permanent disabilities.
- Late afternoon hours show a higher frequency of bicycle/motor vehicle crashes.

The Ken Cross-Gary Fisher Study
The study examined Bicycle/Motor Vehicle accidents from urban and suburban areas of Orlando, Los Angeles, Denver, and Detroit. Cross & Fisher studied 753 non-fatal and 166 fatal crashes, conducting interviews with persons involved and making on-site inspections. Their data resulted in the distinguishing of 36 unique problem types, and 7 general classes. This research is summarized in a 1978 AAA document entitled *Bicycle-Safety Education – Facts and Issues* (1978). Though based on 15-year old research, this data is believed to be as valid today as the day it was published.

General Information on Children's Bike Crashes.
- The three common crash classes described below, together with wrong-way riding, account for nearly 90% of the motor vehicle/bike crashes involving children.
- In most crashes involving children, the primary error is committed by the child, and the driver does not or cannot adjust for the child's error in time to prevent the crash.

- A significant number of these crashes occur in residential neighborhoods in which children with poor traffic skills do not fear riding.
- The number of fatal crashes involving children is dropping; however, the number of adults killed on bicycles is increasing. Alcohol is a factor in many of those crashes.
- An additional factor complicating these accident types is riding on sidewalks and side paths. Bicyclists on sidewalks are often not noticed by motorists. When bicycles enter or cross a roadway, problems arise and crashes occur.
- Bike crash studies from a large southern Florida city, which has one of the highest per capita bike fatality rates, shows that nearly 60% of the fatalities involved sidewalk cyclists.

MOST COMMON ACCIDENT TYPES INVOLVING CHILDREN – THE BIG THREE

Class A – Bicyclist Midblock Rideouts [Fatal 15 % Non-Fatal 14%]

- **Type 1** – Residential driveway/alley rideout
- **Type 2** – Commercial driveway/alley rideout
- **Type 3** – Pre-crash route parallel to road then out a driveway or alley apron
- **Type 4** – Pre-crash route parallel to road, entry over curb or shoulder

Primary Errors:
- Failure to stop and search.
- Failure to yield right of way
- Inability to judge closing speeds of approaching vehicles
- Following peers/"Groupthink"

Class B – Bicycle Rideout-Controlled Intersection [Fatal 12% Non-Fatal 17%]

- **Type 5** – Bike Rideout, intersection controlled by sign
- **Type 6** – Bike Rideout, intersection controlled by signal, phase change
- **Type 7** – Bike Rideout, intersection controlled by signal, multiple threat

Primary Errors:
- Failure to obey traffic control device
- Failure to search and see oncoming vehicles
- Inability to judge closure speed
- Failure of wrong way cyclist to see the stop sign
- Cyclist entering on a yellow light trapped by the light

Class E – Bicyclist Unexpected Turn or Swerve [Fatal 16% Non-Fatal 14%]

- **Type 18** – Bicycle Unexpected Left Turn, same direction. *(Note: people may use this crash type to **justify** riding against traffic. This crash type is preventable if the cyclist scans behind prior to moving out into the traffic lane.)*

Primary Errors
- Failure to search or scan traffic to the rear before moving out into the traffic lane
- Failure to signal intention to turn or change course
- Failure to keep watch and recognize hazards in time to respond to them
- Failure to take the entire lane, if necessary, to avoid hazards, opening doors, etc.
- Inability to hear the sound of vehicles approaching from the rear due to headphone use

A Word About Wrong Way Riding

- Nearly 1/3 of all car–bike crashes involve cyclists riding against traffic.
- Cyclists riding against traffic are outside of the area normally searched by drivers. They are essentially invisible as they approach an intersection.
- Traffic control devices are placed for viewing by drivers on the right side of the street. Wrong way riders are threat to other cyclists too!
- All of the crash types are aggravated by wrong way riding.
- 90% of the car-bike crashes involve actions or conditions that happen in front of cyclists, yet many cyclists' greatest fear is what is coming up behind them. They put themselves into dangerous situations by trying to "be safe."
- Riding on the right is the law in all 50 states!
- Teach children **and their parents** to always ride **with** traffic.

Youth Bicycle Education Ideas For Practitioners

Traditional Approaches and Why they Fail

"Traditional Education" conducted by police only

- Lyceum, small group, or classroom presentation
- Presenter comes in, tells a few horror stories, quotes a few laws, and shows a movie
- Bike Rodeos have a competition format and primarily feature balance skills

Problems associated with "Traditional Approaches"

- Lack of interaction and motivation
- Lack of on-bike experiences
- May not address actual problems such as those contained in the Cross Study and/or community bike crash analyses
- School/teachers are seldom involved, except as observers
- Many presentations are based solely on "laws" rather than the practical problems faced by cycling kids

New Approaches: Planning and Creativity are the Keys to a Better Way!

Objectives/Considerations

- Ages: Needs and problems are often different at different age and experience levels.
- Problems and Goals
- Cross Study findings/Community crash study
  - Problems in the area, or recent events
  - Prior training/education
- Audience Size
  - Lyceum (large group of over 100 people)
  - Medium group (30-100, up to several classrooms together)
  - Small group (fewer than 30 people)

- Timing
  - Contact the school administrator early to reserve the date.
  - Reserve times, grades attending, arrange for AV equipment, etc.
  - The average attention span for a classroom session is about 45 minutes.
  - Allow additional time if the presentation is active (on-bike).

- Program Content
  - Lecture
  - Movie
  - Demonstration
  - Games
  - Slide Presentation
  - Hands-on Exercises
  - On-bike

On-Bike Programs

- Potential Sponsors
  - School
  - PTO
  - Civic Group
  - Police or Government
  - Bike Club or Bike Shop
  - Neighborhood or Community Association

- Overall Goals
  - Target skills designed to prevent crashes and injuries
  - Traffic skills vs. pure balance skills
  - Learning-oriented, not competition-oriented (Don't score it!)
  - Scenarios as realistic, yet safe, as possible
  - Involve parents/teachers as much as possible, so they learn also
  - Skills stations vs. non-stop circuit course

- Examples of On-Bike Events
  - Large Bicycle Jamboree
  - Smaller Neighborhood Rodeo
  - On-bike, on-road training

"Rodeo" Skills Stations: Learning Goals and Objectives

- Driveway Rideout
  - Walk bike to the end of driveway
  - Mount bike, assume power take-off position
  - Search: look left, right, left again
  - Assessment and problem solving
  - Recognize and compensate for visual obstructions

- Stop Sign Rideout
  - Stop bike at sign (Quit Moving!)
  - Put foot down for balance
  - Place other foot in power take-off position
  - Search and Assess: look left, right, left; forward and over left shoulder for cars

- Rear Scan (Unexpected Left Turn)
  - Ride straight line 3' to 4' lane, right side of street
  - Ride straight while scanning over shoulder
  - Assess hazards while scanning to the rear
  - Signal a left turn and turn safely, placing hand back on handlebar before turning *(Note: if you are working with very young children, consider not having them signal. They often focus more on the signaling and forget the more important skill of search behind them.)*

- Rock Dodging Skill (Unexpected Left Swerves)
  - Search for surface hazards
  - Quickly steer front tire around the hazard while remaining in the same linear path
  - Develop the skill by turning on each side of the hazard
  - Avoid a wide swerve into the path of traffic approaching from the rear

- Parked Car Exercise (Unexpected Swerves)
  - Recognize the potential hazard of parked cars
  - Search the interior and look for signs of potential movement or door opening
  - Search to the rear before moving into traffic lane, signal intention to move left
  - Assume lane position slightly wider than an opened car door
  - Maintain the lane position, don't zig zag

Optional Exercises

- Traffic Signal Exercise (This requires a signal light at the training site)
  - If approaching on green: search left, right, left and forward *before* entering intersection
  - If approaching & light turns yellow: **stop. Yellow means STOP to a cyclist.**
  - If crossing the intersection & light turns yellow: hurry so you don't get trapped.
  - If stopped at a red light, follow the steps for the stop sign rideout

- Bicycle Security Station
  - Explain importance of bicycle security and registration
  - Demonstrate various locking devices and their proper use
  - Emphasize that the child is responsible for the security of the bike, not the police

- Helmet Demonstration Station
  - Show different type of helmets, including "cool" styles
  - Demonstrate proper helmet fit
  - Demonstrate the effectiveness of a helmet with an egg

- Rules of the Road/Find the Hazards Station
  - Hands-on quiz of road or visual hazards to increase knowledge and awareness
  - Quiz on the importance of following the rules of the road to avoid crashes

- "Police Cyclist" Cone Course Challenge
  - Set up a PC Course Cone Course such as the Offset Serpentine or Lock to Lock

- Slow Races
  - Set up two side by side lanes of cones. The last one to the end without touching a foot to the ground wins.

"THE BIKE IS RIGHT" - THE BICYCLE SAFETY GAME SHOW

When teaching bike safety in a large or small group classroom setting, a game is a wonderful way to involve all of the children. Children are typically familiar with a game show format, which truly does involve everyone who hears the question (who among us does not try to the answer the questions as Regis Philbin reads them on *Who Wants to Be a Millionaire?)*. The same thing works for kids. "Game shows" are a great way to test information you have passed on to them. When you explain the answer, they are being lectured to and they don't even realize it! You may use "The Bike Is Right," or you can invent your own game.

Equipment/Persons Needed:

- Two bike horns or bells
- A scoreboard and scorekeeper
- Chairs (optional)
- Microphone: to announce "Come On Down" to the contestants and to read the questions
- Questions on bicycle safety that emphasize the important learning points
- Contestants
- A judge to determine first "honk"
- A Master of Ceremonies – MC

Number of Players:

This game is suited to two players (or two teams of up to four children) who should be selected in advance with the assistance of teachers or the principal. Avoid shy kids as well as cut-ups. It is best if the kids do not know if they are the contestants in advance.

Time:

Usually 20-30 minutes

Rules of Play:

1. Players are seated or standing, holding the horns or bells.
2. The MC reads the question and the player honks the horn if he/she knows the answer.
3. If the person knows the answer, a point is awarded. If not, the other person gets to try to answer the question. If he/she answers correctly, a point is awarded.
4. If two horns honk at the same time, the judge must call "first honk". The judges ruling cannot be contested. Pick a respected teacher to be the judge.
5. The player, or team, with the most points at the end of the game wins.
6. Do what works and have fun!

Learning Points:

1. Everyone watching the game, contestants and spectators, is involved in the learning because they all hear the questions.
2. After each question, the MC is given a chance to better explain the answer. The kids don't even realize they are hearing a lecture.
3. Everyone should get a prize: "There are no losers when you practice bike safety."

A Note To Parents: Bicycle Safety is Everyone's Concern

Bicycling can and should be a fun and safe means of travel for you and your children. Your direct involvement and periodic supervision regarding bicycle education is essential if your child is to master the necessary traffic skills for safe bicycling. This is true even if they only ride on your local street!

After your child has learned to balance and control a bicycle, you should immediately begin to teach basic traffic skills. Remember that your child will be riding his/her bicycle in the same traffic mix as those operating motor vehicles. Below are the most common errors children make while riding a bicycle, and how you, as a parent, can reduce the likelihood of an injury. Your job of teaching your child to ride a bicycle doesn't end when you can quit running along beside them. That is when the real work begins!

Remember this most important safety advice: **You *and* your child should always wear a helmet whenever you ride bikes.**

Driveway Rideout

In fifty percent (50%) of all bicycle crashes involving children under nine years old, the child is killed or seriously injured while riding out of his/her own driveway.

Teach your child to always walk the bicycle from the garage to the edge of the road, and begin his/her trip only after searching for traffic -- first left, then right, and then left again. Consider painting a line at the end of the driveway to act as a reminder for your child to stop and search for traffic before entering the street or roadway.

Stop Sign Rideout

Thirty three percent (33%) of serious bicycle injuries involving children thirteen years old or under are simply a failure to stop for a stop sign in their own neighborhood. Many adults glide through stop signs, setting a poor example. Children do not possess the mental skills to quickly search for traffic and determine the closure speed of oncoming traffic, without first stopping at the sign. A full stop is necessary **every time**. Take the time to walk down to an intersection with your child. Explain that he/she as an individual must search for traffic, and not to rely on a friend. Tell them not to expect the driver of a motor vehicle to always stop at a stop sign.

Sudden Left Swerve

Thirty-three percent (33%) of children age thirteen and under are seriously injured when making a sudden (and unexpected) left swerve across one or more lanes of traffic. The child may be responding to road debris, a dog in a yard or simply wants to go see a friend across the street. They fail to look behind them to see if there are cars about to overtake them.

Take your child to a parking lot, or other safe place, and teach him/her to search over the shoulder without swerving into traffic. Teach them to do this before they move out into the traffic lane or make a left turn. Establish this rule: NEVER change lanes or make a left turn without conducting a proper rear search. Remember -- this skill takes practice.

Riding Against Traffic

Children riding against traffic are frequently involved in accidents at intersections and driveways because motorists do not expect them to be there. As a result, bicyclists become "invisible" to motorists at intersections and driveways. As a result, the motorist will turn into or in front of them. Very few bike accidents occur when a bicyclist, who is going straight, is struck from behind by a motorist. Most rear-end crashes happen when the cyclist swerves in front of the motorist. **You are never safer riding against traffic**. It is against the law to ride against traffic **in all fifty states**.

Riding At Night and Inclement Weather

Never allow your child to ride after dark, even if his/her bike is equipped with a good lighting system, and especially if the bike has reflectors only. Nearly half of bicycle fatalities occur at night, or during reduced light hours, even though only three percent (3%) of the bicycling community rides at night.

Encourage your child not to ride during inclement weather, as it hampers conspicuity as well as the ability to control the bike. Tape "phone change" inside his/her helmet and give instructions to call home for a ride if fog, rain, or other serious weather conditions create dangerous riding conditions.