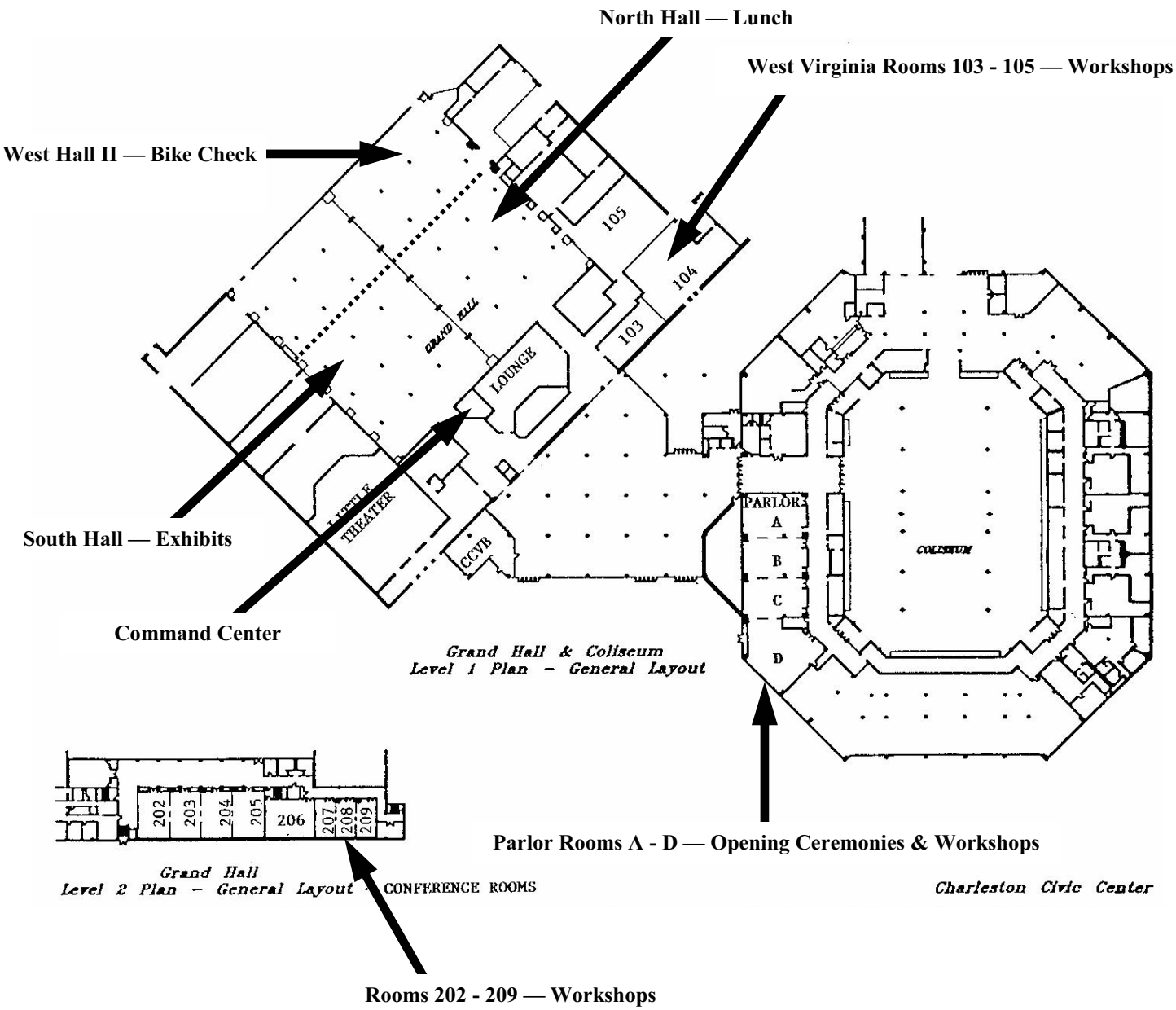
The 13th Annual

IPMBA Conference

& Product Exhibition

May 2003
Charleston, West Virginia

Hosted by the Charleston Police Department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The 13th Annual IPMBA Conference & Product Exhibition

May 22-24, 2003

STATE OF WEST VIRGINIA
OFFICE OF THE GOVERNOR
CHARLESTON 25305

BOB WISE
GOVERNOR

GREETINGS FROM THE GOVERNOR

As Governor of the State of West Virginia, it is my pleasure to welcome you to the Mountain State and the International Police Mountain Bike Association conference in Charleston.

West Virginia has some of the best bicycling terrain in the world and many enthusiastic individuals who take this great recreation to heart. West Virginia also is an annual leader in having one of the lowest crime rates in the nation. I'm confident that as the IPMBA conference unfolds around our Capital City this week you will see the best West Virginia has to offer.

If this is your first visit to West Virginia, I trust our state's hospitable people and attractive scenery will inspire you to return to what John Denver appropriately named, "Almost Heaven." If you have been here before, thanks for coming back.

Best wishes to all for a successful IPMBA conference, and may your visit to Charleston in Wild, Wonderful West Virginia be a fantastic one.

Very truly yours,

Bob Wise

GCIU 326-C

CITY OF
CHARLESTON, WEST VIRGINIA
POLICE DEPARTMENT

P.O. BOX 2749
CHARLESTON, WEST VIRGINIA 25330

It is my pleasure to welcome you to Charleston, West Virginia, for the 13th Annual I.P.M.B.A. conference. As host city, we are very excited and honored to have a conference of this distinction coming to our jurisdiction.

Charleston is the capital city of West Virginia, located along the Kanawha River in the beautiful Appalachian mountains. The city offers proximity to parks, a state forest, a downtown retail area with specialty shops as well as a major indoor shopping mall.

While you're in Charleston, not only will the officers assigned to the conference be willing and able to assist you, our entire department will be available to help with your needs.

It comes with great pride that I inform you that our state consistently ranks No. 1 in our country, according to the FBI's U.C.R. statistics, in lowest crime rate. This, of course, i a tribute year after year to our law enforcement men and women statewide and their dedication to their chosen profession.

Even though the focus of your stay in Charleston will be to train and improve yourselve professionally, I hope that you will take some time to enjoy the beauty of our mountainous city and state in an off-duty capacity.

I know you will undergo the highest quality law enforcement/EMS bike training our profession has to offer, and you will be in the perfect atmosphere to do that here in Charleston.

Once again, it is my pleasure to welcome you to Charleston. My department and its members will do everything within our power to make your stay here as pleasant, informative and hospitable as possible.

Sincerely yours,

Jerry W. Pauley
Chief of Police

Dear IPMBA Conference Attendee:

Welcome to Wild, Wonderful, West Virginia, and the 13th Annual Conference of the International Police Mountain Bike Association.

On behalf of the IPMBA Board, staff, and all conference attendees, I would like to extend my appreciation to Charleston Police Chief Jerry Pauley and the Charleston Police Department for their support. This event would not have been possible without their commitment and that of their community. Thousands of staff hours have been spent ensuring that you will enjoy an outstanding training experience.

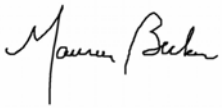
The words "thank you" do not begin to express my gratitude to Lt. John Shannon. When I first contacted John about the possibility of hosting the IPMBA conference, he was the sergeant in charge of the bike patrol. When I expressed some concern about the size of the bike unit, he informed me – rather emphatically – that what his unit lacked in size was more than made up for by the calibre of its members. In his words, he had "the best bunch of guys in the world – smart, enthusiastic, articulate, hard-working, and dedicated." I quickly learned that he was describing not only his bike officers, but also himself.

He went on to boast that he had been bike-trained by a very familiar person in IPMBA circles – Allan Howard of the Dayton Police Department, PCI #001. He said that Allan had proclaimed Charleston to be an awesome place to ride, and he vowed that someday he'd be back. If there was any doubt in our minds that Charleston was the place for the IPMBA conference, that erased it. After all, Allan Howard knows a little something about IPMBA and bike training. Allan, welcome back.

Welcome, everyone. Welcome instructors, attendees, exhibitors, guest presenters, family, friends, and especially our international contingent. You are what makes this conference – and this organization – great. It is you who develop the workshops, design the training, customize goods and services for bike duty, and freely share your knowledge and experience with others. It is you who continues to push the envelope of public safety cycling. It is you who transform an ordinary conference into a family reunion.

Our industry partners are an important part of the IPMBA family. Please take a moment to thank them for their ongoing support. These companies are committed to serving your unique needs, so please show your appreciation by patronizing them during and after the conference. They work very hard to provide you with a safe, comfortable ride.

Thank you for coming. Thank you for your continued support of the International Police Mountain Bike Association. Because of you, IPMBA is able to pursue its mission of promoting the use of bikes for public safety, providing resources and networking opportunities, and offering the best, most complete training for public safety cyclists.



Maureen Becker
Executive Director

P.S. Join us next year for the 14th Annual IPMBA Conference, May 6-8, 2003, in San Antonio. It's as big as Texas.

IPMBA Family and Friends:

On behalf of the Governing Board, the Executive Director, Lt. John Shannon and the entire Charleston Conference Team, I am happy to extend a hearty, "welcome to the conference." We hope your experience will be rewarding, educational and just downright fun. The staff of the Charleston Police Department and their supporters have spared neither expense nor effort to provide you with the best accommodations, the most challenging training locations and excellent overall support. Please take advantage of all they have done for you.

IPMBA strives to make each year's conference better than the one before; bringing you new workshops, improved topics, new vendors, and the most informed professionals from around the world. This year, there are no fewer than 32 new or improved workshops! That makes deciding which ones to attend a pretty hard task. Of course, the real favorites are back – all those hands-on, get down-and-dirty workshops that challenge your skills and push you to your limits. The exhibit hall is filled with new gadgets and solid vendors who provide the best in public safety cyclist products.

There are some great things to see and do while you are here. Bike polo is back, the IPMBA Competition has new challenges and there is a big bar-b-que planned for Friday night after the competition. The Kanawha State Forest is just minutes away and it boasts the greatest (and some of the scariest) mountain bike trails in the East. If that doesn't get your blood pumping, there are white water rapids to run, the scenic Upper Gorge to climb, and more singletrack in the area than you can ride in a month. There are some great restaurants to try out just around the corner from the host hotel and convention center. You may have to stay an extra day or two just to get it all in!

I want to thank you for being here. You are the reason IPMBA exists and why it continues to be the #1 organization for public safety cyclists. If there is anything that the board members and/or the Charleston Team can do to make your experience better, just ask. We will do our best to fulfill any reasonable requests – and maybe some unreasonable ones, too!

T.J. Richardson
President, IPMBA
Bicycle Coordinator, San Antonio Police Department

IPMBA. Doing it better, doing it first.

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IPMBA

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Charleston, West Virginia ~ May 22 - 24, 2003

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Enclosures (Found In Canvas Bag)
- 2003 Certificate of Attendance Form
- IPMBA Conference Survey
- Harvard School of Public Health Public Safety Cyclist Injury Survey

Conference Overview

Wednesday, May 21—Sunday, May 25

Wednesday, May 21

Activity	Time	Location
Bike Check	6:00am-midnight	West Hall II (Rear entrance, off Lee Street)
Command Center	6:00am-10:00pm	Main Level, outside South Hall
After Hours Command Center	*10:00pm-6:00am*	*Marriott Hotel Room 1614*
Check-In	2:00pm-8:00pm	Command Center, Main Level
Exhibit Hall	2:00pm-8:00pm	South Hall, Main Level
Opening Reception ***Sponsored by Cycle Source Group***	*6:00pm-7:00pm*	*Exhibit Hall*
Mechanical Support	5:30pm-7:00pm	Bike Check, West Hall II

Thursday, May 22

Activity	Time	Location
Continental Breakfast	6:30am-8:00am	Marriott Hotel Room 1614
Bike Check	6:00am-midnight	West Hall II, Main Level (Rear entrance, off Lee Street)
Command Center	6:00am-10:00pm	Main Level, outside South Hall
After Hours Command Center	*10:00pm-6:00am*	*Marriott Hotel Room 1614*
Check-In	7:00am-7:45am	Command Center, Main Level
Opening Ceremony *"Roll Call"*	8:00am-9:00am	Parlor Rooms, Main Level
Mechanical Support	9:00am-10:00am 4:30pm-6:30pm	Bike Check, West Hall II
Workshops	9:30am-12:15pm 2:00pm-10:00pm	Parlor Rooms & West Virginia Rooms (Main Level) Rooms 202-209 (Upper Level) Firing Range
Lunch	12:15pm-1:15pm	North Hall, Main Level
Exhibit Hall	12:00pm-6:00pm	South Hall, Main Level
Race the Trace Pre-Ride (open to all conference attendees)	5:30pm	Shuttle departs from Civic Center
Hospitality Suite	6:00pm-8:00pm	Marriott Hotel Room 1614
Night at the Racetrack	6:00pm Midnight	First shuttle leaves Civic Center Last shuttle leaves Racetrack

Command Center Phone Numbers
6:00am - 10:00pm: 304-357-7428
10:00pm - 6:00 am: 304-345-6500, Rm. 1614

Friday, May 23

Activity	Time	Location
Continental Breakfast	6:30am-8:00am	Marriott Hotel Room 1614
Bike Check	6:00am-midnight	West Hall II, Main Level (Rear entrance, off Lee Street)
Command Center	6:00am-10:00pm	Main Level, outside South Hall
After Hours Command Center	*10:00pm-6:00am*	*Marriott Hotel Room 1614*
Mechanical Support	7:30am-8:30am 3:30pm-5:30pm	Bike Check, West Hall II Competition Site (State Capitol)
Workshops	8:00am-12:15pm 1:15pm-3:15pm	Parlor Rooms & West Virginia Rooms (Main Level) Rooms 202-209 (Upper Level) Firing Range
Exhibit Hall	11:00am-2:00pm	South Hall, Main Level
Lunch	12:15pm-1:15pm	North Hall, Main Level
Parade to Competition	3:30pm	Civic Center
Mountain Bike Competition	5:00pm	West Virginia State Capitol Grounds
Cookout & Awards Ceremony	Immediately Following Competition	Capitol City F.O.P. Lodge #74 Shuttles depart from the Civic Center

Saturday, May 24

Activity	Time	Location
Continental Breakfast	6:30am-8:00am	Marriott Hotel Room 1614
Bike Check	6:00am-midnight	West Hall II, Main Level (Rear entrance, off Lee Street)
Command Center	6:00am-10:00pm	Main Level, outside South Hall
After Hours Command Center	*10:00pm-6:00am*	*Marriott Hotel Room 1614*
Mechanical Support	7:30am-8:30am	Bike Check, West Hall II
Workshops	9:00am-2:30pm	Rooms 202-204; Firing Range
Tour de Charleston	9:00am-11:45am	Tour departs Civic Center
Bicycle Polo Match	9:00am-1:15pm	North Charleston Rec Center
Box Lunch Pick-Up	1:30pm-2:30pm	Bike Check, West Hall II
Hospitality Suite	6:00pm-8:00pm	Marriott Hotel Room 1614

Sunday, May 25

Activity	Time	Location
Continental Breakfast	6:30am-8:00am	Marriott Hotel Room 1614
Bike Check	6:00am-noon	West Hall II, Main Level (Rear entrance, off Lee Street)
Command Center	6:00am-noon	Main Level, outside South Hall
Race the Trace	11:00am	Trace Fork Canyon

Deadline for Competition Registrations and Prize Entries (Surveys)
→ 9:00am FRIDAY ←

Opening Ceremonies Agenda

Thursday, 8:00am, Parlor Rooms, Civic Center

Color Guard

National Anthem

Pledge of Allegiance

Speakers:

Bob Wise, Governor, State of West Virginia

Jay Goldman, Mayor of Charleston

Jerry Pauley, Chief of Police,
Charleston Police Department

T.J. Richardson,
San Antonio Police Department

Recognitions

Introduction of New Board & Officers

IPMBA President Address

Closing

Master of Cermonies: Allan Howard

Just the facts...

Essential information for easily navigating your conference experience

Airport Transportation

Shuttle departure times and a sign-up sheet are posted at the Command Center. Please provide your flight departure time to the Command Center staff. Yeager International requires departing passengers to arrive one hour early. Please arrive at the shuttle at least 15 minutes earlier to load your luggage. **You must make your shuttle arrangements at least 24 hours in advance.**

Complimentary airport shuttle service is also available from the Marriott, the Embassy Suites, and the Elk River Town Center Inn. Shuttle service is available from each hotel. A reservation may be necessary; please enquire at the front desk of the hotel in which you are staying.

Bicycles

The Bike Check officially opens at noon on Friday, May 16, and closes at noon on Sunday, May 25. The Bike Check will be staffed in West Hall II of the Civic Center from 6:00am-midnight daily. To access the Bike Check between midnight and 6:00am, please report to the after-house Command Center in Room 1614 of the Marriott.

Access the bike check from the rear of the Civic Center, just off Lee Street. **Do not lose your claim check. Bikes will not be released without claim check or proof of ownership.** *Note: neither IPMBA nor the Civic Center 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: Greg Cook at Ridge Rider Bicycle Shop, 304-342-7430, located just a few blocks from the Civic Center. Shipping arrangements must be made in advance. The hotels will arrange shipping for boxed bikes ONLY. Guest Services.

Mechanical Support

Mechanical support, courtesy of *Ridge Rider Bicycle Shop* and *Charleston Bicycle Center,* will be available in the Bike Check area on Wednesday, May 21, 5:30-7:00pm; Thursday, May 22, 9:00-10:00am & 4:30-6:30pm; Friday, May 23, 7:30-8:30am & 3:30-5:30pm (at the competition site); and Saturday, May 24, 7:30-8:30am. The bike shops will charge for parts but not labor for basic and emergency repairs. They will have a limited selection of spare parts and other items available for sale. *Ridge Rider Bicycle Shop* is located a short distance from the Civic Center and hotels, 222 Kanawha Blvd. East, 304-342-7430. *Charleston Bike Center* is located across the river at 409 53 Street SE, 304-925-8348.

Bike Polo Workshops

Participants will depart from the Bike Check. Participants must purchase a polo mallet (approx. $25) from Bill Matheson. Bill can be reached at 803-292-3063 (cell).

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

(Charleston P.D. and IPMBA)

"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 or persons.***

The Command Center will be located on the main level of the Charleston Civic Center, just outside of the Exhibit Hall. It will officially open at noon on Friday, May 16, and close at noon on Sunday, May 25. It will be staffed from 6:00am – 10:00pm daily. To access Command Center staff between the hours of 10:00pm and 6:00am, please report to Room 1614 in the Marriott.

Who's Who

To reach any of the key players listed below, call the Command Center at 304-357-7428. The Command Center staff will contact the appropriate person for you.

Maureen Becker
IPMBA Executive Director
Jim Bowell
IPMBA Education Director
Artie Gonzales
IPMBA Conference Coordinator
Al Jones
Audio Visual Coordinator
Lt. John Shannon
Charleston Police Department

Continental Breakfast

Continental breakfast, courtesy of the Charleston Police Department, will be served in Room 1614 of the Marriott hotel, from 6:30 – 8:00am, starting Saturday, May 17 through Sunday, May 25.

Exhibit Hall

The exhibit hall will be open in the South Hall, located on the main level of the Civic Center, during the following hours: Wednesday, May 21, 2:00-8:00pm; Thursday, May 22, 12:00pm – 6:00pm; and Friday, May 23, 11:00am –2:00pm. Please visit our exhibitors frequently and show them how much their continued support of IPMBA is appreciated.

The Exhibit Hall opening will be celebrated with an Opening Reception on Wednesday, May 21, from 6:00-7:00pm.

— Sponsored by Cycle Source Group, distributors of Smith & Wesson Bicycles —

EVALUATION FORMS

Please help us to ensure the continued quality and improvement of IPMBA's conference programs. Evaluation forms will be distributed at each workshop. Please take a few moments to answer the questions completely and honestly, rating the calibre of the presenter, the relevancy of the topic, etc. Evaluation forms may be dropped in the box at the Command Center or given to any member of the IPMBA Board or staff.

FIREARMS

Handgun Laws for Non-Resident Police Officers: Handgun laws in the state of West Virginia allow non-resident police officers to carry a sidearm unconcealed both on- and off-duty.

GUESTS

Individuals with GUEST badges will be admitted to the Opening Ceremonies, lunches, and the exhibit hall only. Eligible individuals (see page 66) may also register for the mountain bike competition.

HOSPITALITY

The Hospitality Suite will be open in Room 1614 of the Marriott Hotel on Thursday and Saturday from 6:00-8:00pm.

LOCAL INFORMATION

Information on attractions, dining, transportation, and other visitor services will be available in the Command Center area throughout the pre-conference and conference.

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 and the Exhibit Hall only, unless prior arrangements for lunches have been made.

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.

LUNCHES

On Thursday and Friday, lunches will be served from 12:15-1:15pm in the North Hall, next to the Exhibit Hall on the main level of the Civic Center. On Saturday, box lunches will be available for pick-up at 1:30pm in the Bike Check. Your name badge will indicate which lunches you have selected. If you did not arrange for lunches in advance, you will not be admitted into the dining room.

PARKING

Covered guest parking is available at the Marriott ($4.50/day) and the Embassy Suites ($3.50/day). The Elk River Town Center Inn offers free parking to registered guests. Parking is also available at the Civic Center for $3 per day.

OPENING CEREMONIES

Please plan to attend the Opening Ceremonies, Thursday, May 22, starting promptly at 8:00am. Allan Howard, PCI #001, of the Dayton Police Department will serve as Master of Ceremonies and the results of the board elections will be announced. Come welcome Governor Bob Wise, Mayor Jay Goldman, and Police Chief Jerry Pauley to IPMBA! See the complete agenda on page 12. The Opening Ceremonies will be held in the Parlor Rooms.

POST CONFERENCE ACTIVITIES

Saturday & Sunday, May 24 & 25: ACE Adventure Center. IPMBA has partnered with ACE Adventure Center to offer IPMBA Conference attendees the chance to explore wild, wonderful, West Virginia. Shoot the rapids on one of America's best whitewater rivers, ride miles upon miles of scenic singletrack, or scale the heights of the finest rock-climbing area in the east. Each trip is an all-day adventure that includes an exceptional lunch in a scenic spot. Transportation will be provided to and from Charleston.

Option #1: New River Gorge Singletrack. ACE's 1400-acre site joins the 70,000-acre New River, where miles upon miles of fine trails and beautiful back roads await exploration. The trails will take you from stunning overlooks high above the New River before descending to explore the river's banks. $75.

Option #2: Climb & Rappel at ACE. Join a guide for a day of climbing and rappelling in the scenic Upper Gorge. The guide manages all aspects of the climbing site and equipment while you get out on the rocks. $85.

Option #3: The Gauley River – World-Class Rafting. This is an ideal trip for the experienced whitewater rafter. With over 50 Class II to V+ rapids, the Gauley offers plenty of excitement and some world-class wilderness scenery. This ride requires maximum teamwork! $89.

Option #4: The Lower Gauley – Simply Amazing. Stunning scenery waits around every bend. Magnificent vistas unfold before you as you ride huge waves and bottomless holes that will knock you around the raft. $87.

Option #5: Lower New River Gorge – True Whitewater Adventure. The Lower New River is the perfect trip for both first-timers and experienced rafters. This trip features big waves, over 20 Class II-IV+ rapids, and the New's famous "surfing holes." The takeout point is under the soaring 876-foot high New River Gorge Bridge. $80.

For more information or to make a reservation, contact Sandy Brown at 888-223-7238 x 126. Visit ACE at www.aceraft.com.

Sunday, May 25: Race the Trace, Trace Fork Canyon, South Charleston. Start time 11:00am. Entry fee: $35, includes t-shirt, BBQ, and a chance to win great prizes. Prizes for winners in the public safety class. All skill levels welcome. Advance registration is required; registration forms are available at the Command Center. For more information, call 304-746-7771 or racethetrace@hotmail.com.

RECREATIONAL RIDES

The Charleston Police Department, the Mountain State Wheelers, and the West Virginia Mountain Bike Association invite you to join them for a series of after-hours rides.

Thursday, May 22: Race the Trace Pre-Race Ride, Trace Fork Canyon, South Charleston. Shuttles will depart from the Civic Center promptly at 5:30pm. Open to all IPMBA conference participants.

Sunday, May 25: Race the Trace, Trace Fork Canyon, South Charleston. Start time 11:00am. Entry fee: $35, includes t-shirt, BBQ, and a chance to win great prizes. Prizes for winners in the public safety class. All skill levels welcome. Advance registration is required; registration forms are available at the Command Center. For more information, call 304-746-7771 or racethetrace@hotmail.com.

SOCIAL ACTIVITIES

Wednesday, May 21: *Exhibit Hall Opening Reception*, 6:00-7:00pm, Exhibit Hall.

Thursday, May 22: *IPMBA Night at the Tri-State Racetrack & Gaming Center*. First shuttle leaves the Marriott at 6:00pm, and the last shuttle leaves the track at midnight. *Hospitality Suite*, 6:00-8:00pm, Room 1614, Charleston Marriott

Friday, May 23: *Competition & Cookout*. The competition will be held on the grounds of the State Capitol starting at 5:00pm. The cookout and awards ceremony will be held at the Bank One plaza immediately following the competition. See below for details.

Saturday, May 24: *Hospitality Suite*, 6:00-8:00pm, Room 1614, Charleston Marriott.

SURVEYS

Please help us to serve you better by completing the survey found in your canvas portfolio. **You must complete a survey in order to be eligible for prize drawings.** Return your completed survey to the Command Center by 9:00am on Friday, May 23. All items donated for drawings will be awarded on Friday night during the post-competition bar-b-que. Only those who complete and return their surveys are eligible. Only one entry per attendee! You must be present to win.

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.

The following changes have been made since the workshop schedule was first published.

ADDITIONS:

Bikes Against Terror: The Israeli Experience
Thursday, May 22, 5:00-6:15pm and
Saturday, May 24, from 12:00-1:15pm

CORRECTIONS:

Thursday, May 22, 2003
Firearms Training for Police Cyclists
Overcoming Urban Obstacles
Defensive and Survival Tactics
Drive Trains
1400-1645 (not 1400-1815*)*
Officer Survival for Bike Patrol
1830-2115 (not 1800-2030)

Saturday, May 24, 2003
Traffic Enforcement for Bike Officers
0900-1315 (not 0900-1145)

CANCELLATIONS:

Friday, May 23, 2003
Officer Survival for Bike Patrol
0800-1215

IPMBA COMPETITION & COOK OUT

Friday
May 23

COMPETITION!

The annual IPMBA mountain bike competition will take place on the State Capitol Grounds, located approximately 1.5 miles from the Civic Center. The bike parade for all conference participants will stage outside the Civic Center at 3:30pm and will depart promptly at 3:45pm. If you are competing and unable to depart with the parade, please plan to arrive at the competition site no later than 4:15pm. The competition will begin at 5:00pm, following the course walk-through and safety briefing. Registration forms for the competition are due back to the Command Center by 9:00am Friday! See page 66 for a complete list of rules and required equipment.

PRIZE DRAWINGS!

Surveys are available at the Command Center and in your canvas bag. You must complete a survey in order to be eligible for prize drawings. Return your completed survey to the Command Center by 9:00am on Friday, May 23. Every conference attendee who completes a survey is eligible for prizes that will be drawn during the post-competition bar-b-que. You must be present to win. Only one entry per attendee!

COOK OUT & AWARDS CEREMONY!

Experience West Virginia hospitality at the post-competition cook-out, and enjoy food, beverages, and music, courtesy of the West Virginia Division of Tourism. This good, old-fashioned bar-b-que – cooked up by the Citizens Police Academy Alumni Association – will be held at the Capitol City F.O.P. Lodge #74, immediately following the competition. Shuttles will depart from the Civic Center.

Every Conference Participant is Welcome to Compete...
Or cheer...or eat...or win prizes!
(Or all of the above.)
But whatever you do, be there!

Conference Schedule: Thursday

Day	Start	End	Class	Room	Instructor
5/22	0800	0900	Opening Ceremonies	Parlor Rooms	Howard
5/22	0930	1045	Effective PowerPoint Presentations I	205	Hogancamp
5/22	0930	1045	Effective Use of EMS Bikes	207	Donovan
5/22	0930	1045	Introduction to Community Policing	208	Jones (RCPI)
5/22	0930	1215	Administrative Issues of a Bike Unit	WV 104	Woods
5/22	0930	1215	Brakes	WV 105	Roy
5/22	0930	1215	Conquering Urban Traffic	On-Bike	Reed
5/22	0930	1215	Deadly Force Encounters	202	Hamblin
5/22	0930	1215	Diagnosing & Correcting Rider Error	On-Bike	Schiffer
5/22	0930	1215	Firearms Skills for Bike Officers I	Range	Hildebrand
5/22	0930	1215	Funding Sources for Bike Units	203	Beck
5/22	0930	1215	Introduction to Off-Road Riding	On-Bike	Fletcher
5/22	0930	1215	Minimizing the Impact of Bicycle Crashes	On-Bike	Hickey
5/22	0930	1215	Slow Speed Drills	On-Bike	Johnson
5/22	0930	1215	Suspect Contact & Apprehension	On-Bike	Trout
5/22	0930	1215	Three-Mile Time Trial (Part I in class; continued on-bike)	204/on-bike	Ricciardi
5/22	0930	1215	Weapons & Tactics of Political Extremists During Special Events	WV 103	Goetz
5/22	0930	1645	PCI to EMSCI Transition Course	209	Brown, E
5/22	1100	1215	Advance Planning for Special Events	Parlor A	Williams
5/22	1100	1215	Advanced Problem-Solving	208	Jones (RCPI)
5/22	1100	1215	Bikes at the Pentagon, 9/11	Parlor C	Halsall
5/22	1100	1215	Drug Identification	205	Croissant
5/22	1100	1215	PC/EMS Course Safety Considerations	207	Bowell
5/22	1100	1215	Sports Drinks: Which One is Right for You?	204	St. Clair
5/22	1100	1215	Stretching for Injury Prevention & Peak Performance	Parlor B	Boggs (YMCA)
5/22	1400	1515	101 Uses for Zip Ties	WV 104	Woods
5/22	1400	1515	Bikes at the Pentagon, 9/11	Parlor C	Halsall
5/22	1400	1515	Drug Enforcement & Interdiction	205	Croissant
5/22	1400	1515	Eating Well for Peak Performance	204	St. Clair
5/22	1400	1515	EMS Specific Equipment Needs	207	Donovan
5/22	1400	1515	Health Effects of Occupational Cycling	WV 103	Schrader (NIOSH)
5/22	1400	1515	State and Local Anti-Terrorism Training	Parlor A	Jones (RCPI)
5/22	1400	1515	Youth Bicycle Education	203	Beck
5/22	1400	1645	Defensive & Survival Tactics	On-Bike	Foster
5/22	1400	1645	Drivetrain	WV105	Tanner
5/22	1400	1645	Firearms Training for Police Cyclists	202	Hamblin
5/22	1400	1645	Overcoming Urban Obstacles	On-Bike	Simpson
5/22	1400	1815	Advanced Skill Development	On-Bike	Gatlin
5/22	1400	1815	Introduction to Advanced Off-Road Riding	On-Bike	MacAyeal
5/22	1400	1815	Introduction to Maintenance	Parlor B	Goetz
5/22	1400	1815	Traffic Enforcement for Bike Officers (Part 1 in class; continued on-bike)	208/on-bike	Johnson
5/22	1530	1645	Advanced Bicycle Fit	WV 104	Ricciardi
5/22	1530	1645	Bike Unit Marketing 101	207	Trout
5/22	1530	1645	Design and Operation of a Mountain Bike Competition Course	Parlor A	Richardson
5/22	1530	1645	EMS Roundtable	208	Bowell
5/22	1530	1730	Law Enforcement Officers Flying While Armed	205	Croissant
5/22	1700	1815	Bikes Against Terror: The Israeli Experience	204	Satlow
5/22	1830	2115	Officer Survival for Bike Patrol	On-Bike	Vonk
5/22	2030	2200	EMS Night Operations	On-Bike	Donovan
5/22	2030	2200	PC Night Operations	On-Bike	Davala

Conference Schedule: Friday

Day	Start	End	Class	Room	Instructor
5/23	0800	0915	Basics of Wheel Truing	Parlor A	Roy
5/23	0800	0915	Health Effects of Occupational Cycling	209	Schrader (NIOSH)
5/23	0800	0915	Stretching for Injury Prevention & Peak Performance	204	Boggs (YMCA)
5/23	0800	0915	University 101	205	Trout
5/23	0800	1045	Administrative Issues of a Bike Unit	202	Woods
5/23	0800	1045	Deadly Force Encounters	206	Hamblin
5/23	0800	1045	Funding Sources for Bike Units	203	Beck
5/23	0800	1045	Slow Speed Skills	On-Bike	Brown, E
5/23	0800	1215	Advanced Off-Road Riding	On-Bike	May
5/23	0800	1215	Advanced Skill Development	On-Bike	Gatlin
5/23	0800	1215	Basics of Bicycle Polo	On-Bike	Matheson (BPAA)
5/23	0800	1215	Bicycle Rodeos: From A to Z (Part I in class; continued at local school)	208/school	Ganzel
5/23	0800	1215	Firearms Skills for Bike Officers II	Range	Hildebrand
5/23	0800	1215	Officer Survival for Bike Patrol **CANCELLED**	On-Bike	Vonk
5/23	0800	1215	Search & Rescue: A New Terrain to Tame	207	Burke (NASAR)
5/23	0930	1045	Advanced Bicycle Fit	205	Ricciardi
5/23	0930	1045	Bike Unit Marketing 102	208	Feavel
5/23	0930	1045	Women's Reproductive Health and Bicycling	209	Reutman (NIOSH)
5/23	0930	1215	Bearing Maintenance & Overhaul	Parlor A	Tanner
5/23	0930	1215	Conquering Urban Traffic	On-Bike	Goetz
5/23	0930	1215	Defensive & Survival Tactics	On-Bike	Foster
5/23	0930	1215	Minimizing the Impact of Bicycle Crashes	On-Bike	Hickey
5/23	0930	1215	Suspect Contact & Apprehension	On-Bike	Trout
5/23	1100	1215	Campus Policing Roundtable	208	Feavel
5/23	1100	1215	Continuous & In-Service Training	202	Woods
5/23	1100	1215	Effective PowerPoint Presentations II	205	Hogancamp
5/23	1100	1215	Sports Drinks: Which One is Right for You?	204	St. Clair
5/23	1100	1215	State and Local Anti-Terrorism Training	203	Jones (RCPI)
5/23	1100	1215	Women's Issues Roundtable	209	Hamblin
5/23	1400	1515	101 Uses for Zip Ties	205	Woods
5/23	1400	1515	Bicycle Events: An Untapped Funding Source	203	Weigold
5/23	1400	1515	Bicycle-Friendly AED's	207	Donovan
5/23	1400	1515	Bikes at the Pentagon, 9/11	Parlor A	Halsall
5/23	1400	1515	Drug Interdiction & Operations	208	Croissant
5/23	1400	1515	Eating Well for Peak Performance	204	St. Clair
5/23	1400	1515	How to Become an IPMBA-Certified Instructor	209	Simpson
5/23	1400	1515	Tell it to the Chief!	202	Ryerson

→ Lunch ←

Thursday & Friday: 1215 - 1315 in North Hall
Saturday: Box Lunch Pick-Up, 1330 - 1430 in Bike Check

Conference Schedule: Saturday

Day	Start	End	Class	Room	Instructor
5/24	0900	1145	Three-Mile Time Trial (Part 1 in-class; continued on-bike)	204/on-bike	Ricciardi
5/24	0900	1145	EMS Scene Safety with Practical Applications	On-Bike	Blackington
5/24	0900	1145	Firearms Training for Police Cyclists	202	Hamblin
5/24	0900	1145	Tour de Charleston	On-Bike	Davala
5/24	0900	1315	Traffic Enforcement for Bike Officers (Part 1 in-class; continued on-bike)	203/On-Bike	Johnson
5/24	0900	1315	Bike Polo Match	On-Bike	Matheson (BPAA)
5/24	0900	1315	Expert Off-Road Riding	On-Bike	Zaremba
5/24	0900	1315	H&K Firearms Skills for Mountain Bike Officers	Range	Vonk
5/24	1030	1145	Effective PowerPoint Presentations I	204	Hogancamp
5/24	1030	1230	Law Enforcement Officers Flying While Armed	203	Croissant
5/24	1200	1315	Bikes Against Terror: The Israeli Experience	202	Satlow
5/24	1200	1315	Effective PowerPoint Presentations II	204	Hogancamp
5/24	1330	1430	Instructor Roundtable	202	IPMBA Education Director

Have an Idea for a Conference Workshop?

IPMBA is actively seeking **new and exciting** workshops for the 14th Annual IPMBA Conference in San Antonio, Texas.

This is your chance to share your latest brilliant ideas or your tried-and-true techniques. Your proposal can be for a classroom or an on-bike session. Workshops range from 1.25 hours to 4.25 hours.

It's easy – just follow these steps!

Step One: *Contact IPMBA HQ.* Ask for a set of workshop proposal specifications.

Step Two: *Select a Topic.* Stop hoarding your in-service training ideas.

Step Three: *Be Creative.* Let your imagination run wild as you draft your proposal.

Step Four: *Write your Proposal.* Follow the guidelines carefully.

Step Five: *Submit your proposal to IPMBA HQ by August 1, 2003.*

Step Six: *Congratulate Yourself.* You've just taken the first step towards teaching at the IPMBA Conference! You will be notified of the Education Committee's decision in early fall.

SUPPORTERS

International Police Mountain Bike Association
POLICE
ON BIKES
IPMBA

IPMBA's Corporate Members

Support our Corporate Members

IPMBA proudly recognizes the following organizations for their continued support and assistance to IPMBA and the profession of public safety cycling. They have helped to ensure that we can continue our mission of providing education, training, and resources for public safety cyclists worldwide.

Alerte Systems
Gary Cason
800-728-1536
www.alertesystems.com
alerte@frii.com

Patrol Cycles LLC
Murline Staley
713-472-0894
www.patrolcycles.com
sales@patrolcycles.com

TIDALFORCE
Silvio Pappalardo
703-435-7102 x 179
www.tidalforce.com
silvio.pappalardo@wavecrestlabs.com

Trek Bikes
Jason Schumacher
800-313-8735 x 4911
www.trekbikes.com
Jason_schumacher@trekbike.com

To become a corporate member, contact the IPMBA office at 410-744-2400.

No express or implied endorsements are being made by IPMBA for any product, service, program, or organization.

Thanks

IPMBA would like to thank the following companies for their support in making the 13th Annual IPMBA Conference a success.

Branch Banking & Trust

Catenary Coal

Charleston Town Center Mall

Columbia Gas Transmissions

Dow Chemicals

West Virginia Division of Tourism

West Virginia Regional Community Policing Institute

West Virginia Water Company

Access Systems

Blue Creek Gas

Charleston Moose Club

Dick Corporation

Tri-State Roofing

Verizon

Wachovia Securities

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Bratwear

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Cop Pedalers

Cycle Source Group
(Distributors of Smith & Wesson Bicycles)

Electric Vehicle Technologies

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John J. Reid & Associates

Mocean

Muscle Products

Olympic Uniforms

Patrol Cycle LLC

R&B Fabrications

Rubel BikeMaps

Tri-State Regional Community Policing Institute

United Uniform

EMS Magazine

Journal of Emergency Medical Services

Law Enforcement Product News

Law & Order Magazine

Police Magazine

2003 IPMBA Conference Exhibitors

The Exhibit Hall will be open in the South Hall, located on the main level of the Civic Center, during the following hours: Wednesday, May 21, 2:00 - 8:00pm; Thursday, May 22, 12:00pm - 6:00pm; and Friday, May 23, 11:00am - 2:00pm. Please be sure to say "Thanks for coming back" to all our old friends and "Welcome" to our "new" ones (marked below with an *.)

Alerte Systems, Inc.
Gary Cason
243 S. Madison Ave.
Loveland CO 80537
Telephone: 800-728-1536; *Fax:* 800-635-1536
Email: alerte@frii.com
Website: www.alertesystems.com
Product/Service: Strobe & LED warning lights for law enforcement agencies. Applications for use include emergency, safety, and traffic control environments. Featuring Alerte's "Trail-Blazer" Bike Light Kit.

Bell Sports, Inc.
Kathy Hoffmann
1924 County Road, 3000 N.
Rantoul IL 61866-9512
Telephone: 800-494-4543 x 260; *Fax:* 217-893-9333
Email: khoffmann@bellsports.com
Website: www.bellsports.com
Product/Service: Bell Sports is the worldwide leader in the manufacture and distribution of bicycle helmets and active sports accessories. Exclusive distributor of the Smith & Wesson rechargeable flashlight.

***Bound Tree Medical, LLC**
Greg Garrison
6106 Bausch Road
Galloway OH 43119
Telephone: 800-533-0523; *Fax:* 800-257-5713
Email: info@boundtree.com
Website: www.boundtree.com
Product/Service: Bound Tree Medical, LLC, provides quality emergency medical products and comprehensive service to pre-hospital medical providers.

Bratwear
Sally Swanson
3914 Portland Avenue
Tacoma WA 98404
Telephone: 253-471-1901; *Fax:* 253-471-2046
Email: sally@bratwear.com
Website: www.bratwear.com
Product/Service: Performance products for professionals: custom-designed and manufactured uniforms & accessories for police, security, & EMS bicycle units. "Best on the Beat!"

Chiba Sports
Maryellen Sample
13750 McCormick Drive
Tampa FL 33626
Telephone: 813-855-3400; *Fax:* 813-818-7500
Email: chibasports@aol.com; *Website:* www.chibasports.com
Product/Service: Law enforcement and sports gloves.

Cycle Source Group (Smith & Wesson Bicycles)
Peter Carey
445 County Road 101, Unit E
Yaphank NY 11980
Telephone: 631-205-1430; *Fax:* 631-205-1435
Email: peterc@cyclesg.com
Website: www.cyclesourcegroup.com
Product/Service: Smith & Wesson public safety bicycles & accessories.

Electric Vehicle Technologies, Inc.
Ed Lee
7320 N. Linder Ave
Skokie IL 60077
Telephone: 847-673-8330; *Fax:* 847-673-1827
Email: elee@evtworld.com
Website: www.evtworld.com
Product/Service: EVT, Inc. will display the latest models of electric police and EMS mountain bikes.

Ergo, LLC
Thomas White
P.O. Box 659
Carnation WA 98014
Telephone: 425-333-6161; *Fax:* 425-333-6355
Email: daedalus@nwlink.com
Website: www.ergotheseat.com
Product/Service: Ergonomic bicycle seats.

Fuji Bikes
Kevin Moran
118 Bauer Drive
Oakland NJ 07436
Telephone: 800-631-8474; *Fax:* 201-337-1762
Email: kevintheelder@yahoo.com;
Website: www.fujibikes.com
Product/Service: Bicycles & accessories.

Golden West Communications
Jim Walker
3509 Main Street
Union Gap WA 98903
Telephone: 800-967-8124; *Fax:* 509-457-6748
Email: gwcsales@goldenwestcom.com
Website: www.goldenwestcom.com
Product/Service: The Bicycle Communications System (BCS) is a radio accessory designed specifically for bike patrols. The field-tested BCS offers clearer, more discreet, and safer communications.

Conference Exhibitors

***J & B Importers**
Lisa Humphries
11925 SW 128th Street
Miami FL 33186
Telephone: 800-666-5000; *Fax:* 800-666-5003
Email: lhumphries@jbimporters.com
Website: www.jbimporters.com
Product/Service: Bicycles, Accessories, Parts, & Tools

Medical Research Laboratories/MRL
Adrian Alvarez
1000 Asbury Drive
Buffalo Grove IL 60089
Telephone: 800-462-0777; *Fax:* 847-520-0303
Email: aalvarez@mrlinc.com; *Website:* www.mrlinc.com
Product/Service: MRL, Inc. manufactures sophisticated defibrillators, multi-parameter monitors and automated external defibrillators (AED's) for the treatment of sudden cardiac arrest and related cardiopulmonary emergency events.

Michael's of Oregon
Robert Gates
1710 Red Soils Court
Oregon City OR 97045
Telephone: 503-655-7964; *Fax:* 503-722-5701
Email: leahr@unclemikes.com
Website: www.unclemikes.com
Product/Service: Sidekick professional holsters, belts, & accessories for law enforcement.

Mocean
Bill Levitt
1635 Monrovia Avenue
Costa Mesa CA 92627
Telephone: 949-646-1701; *Fax:* 949-646-1590
Email: moceanbl@aol.com
Website: www.mocean.net
Product/Service: Technical Law Enforcement Uniforms

National Institute for Occupational Safety & Health
Michael Breitenstein
4676 Columbia Parkway
Cincinnati OH 45226
Telephone: 513-533-8290; *Fax:* 513-533-8198
Email: mjb1@cdc.gov
Website: www.cdc.gov/niosh/homepage.html
Product/Service: NIOSH, the federal agency which investigates workplace safety & health issues, has studied health effects of bicycling police officers. Tips for minimizing numbness and injury to the reproductive system will be available.

Olympic Uniforms/J. Marcel
Rachel Peterson
5920 M.L. King Jr. Way South
Seattle WA 98118
Telephone: 888-722-9222; *Fax:* 206-722-1521
Email: reps@olyuniforms.com
Website: www.olyuniforms.com
Product/Service: Supreme quality bike uniforms, water-resistant, waterproof, stretch & non-stretch fabrics; shorts, pants, jackets, shirts in a multitude of colors & styles, solid & dual-tone.

Patrol Bike Systems, Inc.
Mark Eumurian
P.O. Box 9308
St. Paul MN 55109-0308
Telephone: 800-208-2032/651-773-8763
Fax: 651-773-8762
Email: patrolbike@earthlink.net
Website: www.patrolbike.com/www.ebiketools.com
Product/Service: Law enforcement bicycles, bicycle equipment, accessories, clothing, etc.

Patrol Cycle, LLC
Barrie Gorton
3 Fl. No. 19, Shui Yuen Road, Lane 219
Tachia Taichung County, 437 Taiwan
Telephone: 886-4-2676-1611; *Fax:* 886-4-2683-7973
Email: kingg@cm1.hinet.net
Website: www.patrolcycle.com
Product/Service: Cycling shoes designed for law enforcement and public safety professionals.

Patrol Cycles, LLC
Hamid Hamadian
1411 South Houston Road
Pasadena TX 77502
Telephone: 713-472-0894; *Fax:* 713-472-8643
Email: sales@patrolcycles.com
Website: www.patrolcycles.com
Product/Service: Law enforcement bicycles made to your exact specifications, including color, logos, decals, and components, with a guaranteed lowest price. Large selection of parts and accessories.

***TIDALFORCE/Wavecrest Laboratories**
Heather O'Donnell
45600 Terminal Drive
Dulles VA 20166
Telephone: 703-435-7102; *Fax:* 703-435-7103
Email: sales@tidalforce.com
Website: www.tidalforce.com
Product/Service: TIDALFORCE electric bikes enable rapid response to crime scenes, move easliy through crowds, provide stealthy transportation, and expand an officer's area of operation.

Trek Bicycle Corporation
Jason Schumacher
801 W. Madison Street
Waterloo WI 53594
Telephone: 800-313-8735 x 4911; *Fax:* 920-478-2607
Email: jason_schumacher@trekbike.com
Website: www.trekbikes.com
Product/Service: Police issue bicycles

United Uniform
Kami Zinati
P.O. Box 555087
Los Angeles CA 90055
Telephone: 213-746-8000
Fax: 213-748-2010
Email: kami@uumfg.com
Website: www.uumfg.com
Product/Service: Manufacturers of quality police bicycle uniforms, pants, shirts, shorts, and jackets.

ACE Adventure Center
Richie Small
P.O. 1168
Oak Hill WV 25901
Telephone: 888-223-7238; *Fax*: 304-465-1692
Email: ace@aceraft.com; Website: www.aceraft.com
Product/Service: Adventure vacations at our 1400-acre resort offering rafting, mountain biking, horseback riding, kayaking, rock climbing, alpine tower, loding, dining, and more.

THANKS
Below is contact information for the non-exhibiting IPMBA Conference sponsors.

Cop Pedalers
Website: www.coppedalers.com
Product/Service: Bike Patrol Products & Accessories

EMS Magazine
Website: www.emsmagazine.com
Product/Service: EMS Magazine

Finish Line
Website: www.finishlineusa.com
Product/Service: Bicycle Care Products

J.L. Darling Corp.
Website: www.riteintherain.com
Product/Service: All-Weather Writing Papers & Products

JEMS Communications
Website: www.jems.com
Product/Service: Journal of Emergency Medical Services

John E. Reid & Associates
Website: www.reid.com
Product/Service: Street Crimes Seminars

Kryptonite Corporation
Website: www.kryptonitelock.com
Product/Service: Bicycle Locks & Security Products

Law & Order Magazine
Website: www.hendonpub.com
Product/Service: Law & Order magazine

Law Enforcement Product News
Website: www.law-enforcement.com
Product/Service: Law Enforcement Product News

Muscle Products Corp.
Website: www.voodew.com
Product/Service: Bike Lube & Gun Cleaner

Police Magazine
Website: www.policemag.com
Product/Service: Police Magazine

R&B Fabrications
Website: www.rbfab.com
Product/Service: Panniers and Rack Bags

Rubel BikeMaps
Website: www.bikemaps.com
Product/Service: Bicycling Street Smarts

Terry Precision Cycling
Website: www.terrybicycles.com
Product/Service: Bikes, Accessories, Seats, Apparel

IPMBA's Finest

Instructor Biographies

Beck, Kirby. PCIT #002T/EMSCI #017T. *Coon Rapids P.D., 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 is a past president of IPMBA and one of the authors of the *Complete Guide to Police Cycling*. He is one of IPMBA's founders and a member of the original instructor cadre.

Blackington, Neil. EMSCI #031. *Boston EMS, Boston, MA. Phone: 617-927-7035 (Pgr); E-mail: blackington@bostonems.org*. Neil is a 24-year veteran of the City of Boston's Emergency Medical Services. He supervises and administrates a forty-person, 17-bike unit serving citizens through four seasons. He has been an IPMBA instructor since 2000.

Bowell, Jim. EMSCI #001T/PCI #567T. *Troy Fire Department, Troy, OH. Phone: 937-335-5678; E-mail: jbowell@erinet.com*. Jim attended the first IPMBA EMS Cyclist Course and is the first officially certified EMSCI. He is the training coordinator for the Troy Fire Department Bike Program and authored their bike team policies and procedures. He helped develop the current EMS Bicycle Operations Course Manual and the EMS Bike Team Start-Up Information packet. He currently serves as IPMBA's Education Director.

Brown, Ed. EMSCI #002T/PCI #178T. *Orange County Fire/Rescue, Winter Park, FL. Phone: 407-249-6215; E-mail: efbro44@aol.com*. Ed is 28-year veteran of the fire/rescue service and has 21 years experience in law enforcement. He served on the IPMBA Education Committee for five years and currently serves as the EMS coordinator on the IPMBA Board of Directors. He has been an IPMBA-certified EMSCI since 1996.

Brown, Jeff. PCI #487/EMSCI #64. *Dayton P.D., Dayton, OH. Phone: 937-333-1108; E-mail: daypoblue@yahoo.com*. Jeff is a ten-year veteran of the Dayton P.D. He is currently assigned to the central business district's bike patrol unit. He is presently serving as a member of the IPMBA Industry Relations Committee.

Burkitt, Ron. PCI #488. *City of Hilliard PD, Hilliard, OH. Phone: 614-876-2429; E-mail: rburkitt@columbus.rr.com*. Ron has been with the Hilliard P.D. for 13 years, including seven years on bike patrol. He enjoys off-road riding and has been an IPMBA member for three years and an IPMBA instructor since 2001.

Croissant, Ed. PCI #366/EMSCI #086. *Tampa P.D., Tampa, FL. Phone: 813-931-6500; E-mail: mtnbiker@tampabay.rr.com*. Eddy is assigned to the Tampa Police Department's COP unit. He is an IPMBA PCI, a firearms instructor, a human diversity instructor, and an instructor for the FAA's Flying Armed course. This is his fifth year as an instructor for the IPMBA conference.

Davala, Chris. PCI #490/EMSCI #056. *Maryland State Police, Princess Anne, MD. Phone: 443-260-3700; E-mail: chrisdavala@earthlink.net*. Chris has been a Maryland State Trooper since 1998. He is a certified IPMBA instructor and an instructor for the drug & alcohol awareness program. Before becoming a police officer, he served in the Coast Guard and was trained as an EMT. He became an IPMBA PCI in 2001 and an EMSCI in 2002. He currently serves as membership coordinator on the IPMBA board of directors.

Donovan, Pat. EMSCI #025. *Puyallup Fire Department, Puyallup, WA. Phone: 253-841-5401; E-mail: bikemedic581@hotmail.com*. Pat has been involved with IPMBA since the 1997 conference in Tacoma, Washington. He is an 18-year career fire service member and is currently a fire captain and paramedic. He is known through the organization as an EMS cycling equipment guru and is a member of the IPMBA Industry Relations Committee. He has authored several articles for national EMS magazines, including one entitled *The Six P's of Purchasing Panniers*.

Feavel, Kurt. PCI #539. *University of Wisconsin @ Madison, Madison, WI. Phone: 608-262-4520; E-mail: kdfeavel@wisc.edu*. Kurt is a sergeant with the University of Wisconsin - Madison P.D.. He is co-founder of the UW Police Bike Unit and has served as its coordinator since 1992. He has been a LEBA instructor since 1994 and an IPMBA Instructor since 2001. He currently serves as his department's Crime Prevention Supervisor.

Fletcher, Mike. EMSCI #067. *Williamson Medical Center EMS, Franklin, TN. Phone: 615-791-2092; E-mail: mfletcher@wmed.org*. Mike is certified as a nationally registered paramedic. He has three years experience as platoon level training officer in US Army and has been a CPR/First Aid instructor for AHA for four years. He has been a guest speaker for pre-hospital management of the burn patient for five years and an IPMBA-certified EMSCI for two years.

Foster, Ashley. PCI #356. *MUSC Public Safety, Charleston, SC. Phone: 843-792-4196; E-mail: fosteram@musc.edu*. Ashley is a South Carolina Criminal Justice Academy and IPMBA certified instructor. His primary duties are as departmental training officer and bike patrol coordinator. He carries instructor certification in firearms and LTL weapons, defensive tactics, ground defense, spontaneous knife defense, and Simunitions.

Ganzel, Dan. PCI #097. *Palm Beach County S.O., W. Palm Beach, FL. Phone: 561-493-1118; E-mail: bikedeputy1@aol.com*. Dan is a 19-year veteran of P.B.S.O. He has been an IPMBA member for eight years, an IPMBA Instructor for seven years, and has taught at the last two conferences. He is an avid off-roader and surfer, and conducts bicycle safety education sessions and rodeos throughout Palm Beach County.

Gatlin, Nick. EMSCI #036. *Williamson Medical Center EMS, Franklin, TN. Phone: 615-791-2092; E-mail: bikemedic1208@comcast.net*. Nick is the director of the Williamson Medical Center EMS bike team. He has been in EMS for 22 years and on bikes for the past four. He also holds certifications from the Tennessee Board of Regents, the Tennesee Department of Health, the Tennessee Emergency Management Agency and the Associated Public Safety Communications Office.

Goetz, Mike. PCI #063T/EMSCI #003T. *Seattle P.D., Seattle, WA. Phone: 206-386-1850; E-mail: mgt1998@msn.com*. Mike currently serves as treasurer on the IPMBA Board of Directors. He is certified to teach IPMBA's PC, EMS, MOC, and Instructor Courses. He has been involved with police biking since 1988.

Gonzales, Artie. PCI#141. *Topeka P.D., Topeka, KS. Phone: 785-368-9075; E-mail: artieobo@aol.com*. Artie has been a member of the Topeka P.D. since 1970, 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 on the IPMBA Board as conference coordinator.

Halsall, Bob. EMSCI #082. *Arlington County Fire Dept., Arlington, VA. Phone: 703-228-7602; E-mail: rhalsa@co.arlington.va.us*. Bob is a 24-year veteran of the fire and EMS service. He currently serves as the EMS Education/Training Specialist for Arlington County F.D. He has taught the Paramedic Degree Program at Northern Virginia Community College and is a past BLS instructor. He coordinates up to 50 EMS bike teams for major events in the Washington, DC, area. His agency was on-site at the Pentagon on 9/11, as the Decontamination Unit.

Hamblin, Lou Ann. PCI #306/EMSCI #062. *Van Buren Township P.D., Belleville, MI. Phone: 313-699-8930; E-mail: louannblackwidow@aol.com*. Lou Ann is a firearms, defensive tactics, and IPMBA Police Cyclist instructor. She has 13 years of law enforcement experience and is an adjunct instructor for H&K. She also teaches at the local police academy. She is currently working towards a masters degree in Instructional Design & Performance Technology at the University of Michigan-Dearborn.

Hickey, Scott. PCI #383/EMSCI #080. *Fort Lauderdale PD, Fort Lauderdale, FL. Phone: 954-828-5700; E-mail: skhick16@aol.com*. Scott has been a police officer for almost 17 years and a member of the Fort Lauderdale PD Bike Unit for six years. He has served as the assistant bike patrol instructor/coordinator for the past five years. He has had experience teaching the IPMBA PC in such exotic locations as St. Croix and Iceland.

Hildebrand, David. PCI #404. *Denton P.D., Denton, TX. Phone: 940-349-7956; E-mail: david.hildebrand@cityofdenton.com*. David has been on bike patrol since 1996 and is currently assigned as a patrol sergeant on the evening shift. He holds instructor certifications in pressure point control tactics, ASP baton, firearms, Advanced Rape Aggression Defense, and law enforcement mobile video. He also teaches at a local police academy and has conducted the IPMBA PC in San Nicholas de los Garza, in Mexico.

Hogancamp, Bernard. PCI #498. *Homewood Police Department, Homewood, IL. Phone: 708-206-3433; E-mail: bhogan@icjia.org*. Bernie has been an IPMBA Police Cyclist Instructor since 2001. He is also certified to teach ASP, Firearms, CLAMP, Crisis Response, and Scenario-Based Training. He instructs in the Citizen's Police Academy & Explorer Scouts and offers training to a variety of other community groups.

Johnson, David. PCI #367. *Oshkosh P.D., Oshkosh, WI. Phone: 920- 236-9140; E-mail: djohnson@vbe.com*. David has been a police officer since 1993 and a police cyclist since 1994. He was certified as an IPMBA PC in 1997 and an Instructor in 1999. He is a Wisconsin certified firearms instructor. He currently serves as the director of the Oshkosh PD Bike Patrol Unit.

MacAyeal, Ian. PCI #592. *Aspen P.D., Aspen, CO. Phone: 970-920-5400; E-mail: ianm@ci.aspen.co.us*. Ian was certified as an IPMBA PCI in 2002. He has been an advanced off-road mountain biker for seven years, riding primarily in Colorado & Moab. He has extensive experience teaching off-road riding and skill building.

May, Monte. PCI #262T/EMSCI #009T. *Kansas City P.D., Kansas City, MO. Phone: 816-234-5510; E-mail: montemay@earthlink.net*. Monte is a ten-year veteran of the KCMO P.D. He has been a part of the department's bike unit for seven years, the last four as Bike Operations Coordinator. He currently serves on as Industry Liaison on the IPMBA Board of Directors. He has been an IPMBA-certified instructor since 1999 and recently earned the status of IPMBA Instructor Trainer.

McLaughlin, Gary. PCI #005T. *Sacramento P.D., Sacramento, CA. Phone: 916-264-8290; E-mail: garymcbike255@aol.com*. Gary McLaughlin is an officer with Sacramento Police Department and is one of the founders of the IPMBA PC Advanced Course. He is an IPMBA-certified Police Cyclist Instructor and a former member of the IPMBA Board of Directors.

Noftz, Steve. PCI #593. *Ohio University P.D., Athens, OH. Phone: 740-593-1911; E-mail: noftz@ohio.edu*. Steve is a lieutenant with the Ohio University P.D. He is OPOTA certified in firearms and O.C. He is an instructor for the University College Freshman Orientation Class. He manages the OU bike patrol program and is responsible for special events, department and community program development, and community relations.

Redford, Phil. PCI #447/EMSCI #065. *Wheeling Police Department, Wheeling, WV. Phone: 304-234-3664; E-mail: p.redford@worldnet.att.net*. Phil is a nine year veteran of the Wheeling PD. He raised the funds to develop the bike unit and has served as its coordinator for six years. He was certified as an IPMBA PCI in 2000 and an EMSCI in 2001. He currently serves as a member of the IPMBA Education Committee.

Reed, Donald. PCI #195T/EMSCI #038T. *Denver Police Department, Denver, CO. Phone: 303-475-4292; E-mail: corkybike@msn.com*. "Corky" has been a police officer for 17 years, a bike officer for 10 years, and a certified IPMBA instructor for seven years. He is also an IPMBA Instructor Trainer and a member of the IPMBA Education Committee. He has played a significant role in the development of the IPMBA Intermediate Police Cyclist Course.

Ricciardi, Robert. PCI #282T/EMSCI #078T. *Palm Beach County S.O., W. Palm Beach, FL. Phone: 561-432-4750; E-mail: ricciardir@pbso.org*. Bob is a 15-year veteran of the P.B.S.O. He has been an IPMBA Instructor for four years and is an IPMBA Instructor Trainer. He is also a firearms instructor and an LSU Academy of Counter Terrorism Trainer. He currently serves as the P.B.S.O. bike coordinator. He has been an avid cyclist and fitness enthusiast for 25 years. Before becoming a deputy, he owned and operated a pro bike shop for ten years.

Richardson, T.J. PCI #139T/EMSCI #010T. *San Antonio P.D., San Antonio, TX. Phone: 210-271-9601; E-mail: tjrichardson@hotmail.com*. T.J. is an 19-year veteran of the San Antonio Police Department and has worked on the Downtown Bike Patrol since 1992. He is the Bicycle Coordinator for his department, which has 450 bike trained officers and 270 bicycles. He has been an IPMBA instructor since 1994 and currently serves as president of the IPMBA Board of Directors. He hosted the IPMBA Conference in 1994 and will do so again in 2004.

Roy, Jim. PCI #175. *Topeka PD, Topeka, KS. Phone: 785-368-9075; E-mail: jmr3321@aol.com*. Jim has been a police officer for 23 years; and was a bike officer for six years until promotion to sergeant. He has been the bike unit supervisor for two years. 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 eight years; and was mountain bike competition team champion in 1998, 2000, and 2002. He has attended the last eight IPMBA conferences.

Ryerson, Loren. PCI #413. *Aspen P.D., Aspen, CO. Phone: 970-920-5400; E-mail: lorenr@ci.aspen.co.us*. Loren is an 18-year veteran of the Aspen Police Department. He has been riding on patrol since 1987 and continues to ride in his current position of Chief of Police. He has been an IPMBA Instructor since 2000.

Schiffer, Jason. PCI #483. *Bethlehem Police Department, Bethlehem, PA. Phone: 610-865-7187; E-mail: schiffer265@hotmail.com*. Jason has been a police officer for nine years, an IPMBA police cyclist for four years, and an IPMBA Instructor since 1999. He has served as a bike officer on the Community Services Unit for four years, and has been on night patrol for five years. He has attended the past four conferences and has placed first in his age group in the past two IPMBA competitions.

Schneider, Robert. PCI #364/EMSCI #021. *Ann Arbor Police Department, Ann Arbor, MI. Phone: 734-994-2875; E-mail: tikitem@aol.com*. Rob is an eight-year police veteran and has been with Ann Arbor for the past six years. He has been an IPMBA member since 1998, a PCI since 1999, and an EMSCI since June 2000. He is a certified firearms instructor, League-certified instructor, and FTO. He also serves as the department bike mechanic.

Simpson, Al. PCI #165T/EMSCI #005T. *Pompano Beach P.D. (ret), Pompano Beach, FL. Phone: 954-427-5121 (office); E-mail: mtnbike@gate.net*. Al has been an IPMBA member and instructor since 1995. Before retirement, he was the supervisor of the Pompano Beach Police Bike Unit. He served as the Education Director on the IPMBA Board of Directors from 2000-2002. He currently teaches extensively throughout Florida and the U.S., and has represented IPMBA at the INTERPOL show in Belgium.

Tanner, Tom. PCI #232/EMSCI #088. *Ann Arbor P.D., Ann Arbor, MI. E-mail: sgt343@aol.com*. Tom is an 19- year veteran of the Ann Arbor P.D. He has been a PCI since 1995, an EMSCI since 2002, and has instructed at the IPMBA Conference for the past six years. He has taught an array of maintenance courses and has assisted with the Maintenance Officers Certification Course for the past several years.

Trout, Michael. PCI #515. *Ohio University P.D., Athens, OH. Phone: 740-593-1911; E-mail: trout@ohio.edu*. Mike has been a police officer with the Ohio University P.D. for over seven years. He has been a police cyclist and IPMBA member since 1996 and an IPMBA Instructor since 2001. He is also a certified instructor through OPOTA, Rape Aggression Defense, and National Tactical Officers' Association.

Vonk, Kathleen. PCI #042/EMSCI #063. *Ann Arbor P.D., Ann Arbor, MI. Phone: 734-994-2911; E-mail: kvonk@ci.ann-arbor.mi.us*. Kathleen has been an IPMBA Instructor since 1995 and currently serves as vice-president of the IPMBA Board. She is an HK adjunct instructor and the primary instructor for the HK Survival Skills for the Mountain Bike Officer. She is a certified strength and conditioning specialist by the National Strengthe & Conditioning Assn., and is lead fitness instructor for Washtenaw Police Academy. She is a certified personal trainer, FTO, and is an instructor for firearms, RedMan simulations, and Simunitions.

Weigold, Steven. EMSCI #085. *St. Clair Township - New Miami EMS, Hamilton, OH. Phone: 513-896-9058; E-mail: sweigold@polezero.com*. Steven is a nationally registered paramedic and a captain with St. Clair Twp.- New Miami. He has been in Fire/EMS for 18 years and has extensive teaching experience. He is the founder, current coordinator, and three-year veteran of the department bike team.

Whited, James. PCI #393/EMSCI #048. *Oklahoma University P.D., Norman, OK. Phone: 405-325-2864; E-mail: whited@oupd.edu*. James has been a police cyclist for O.U.P.D. for four years and was certified as an IPMBA Instructor in 2000. He is currently working with the community to improve bicycle safety on the O.U. Campus.

Williams, Jr., Gene. EMSCI #072/PCI #597. *Cypress Creek EMS/Hempstead P.D., Houston, TX. Phone: 281-440-9650 x 156; E-mail: gwilliams@ccems.com*. Gene has worked as a paramedic, high-rise rescue specialist, deputy sheriff, and Federal agent. He has 18 years experience in law enforcement and 20 in EMS. He is co-founder of the Cypress Creek Advanced Tactical Team and is lead TEMS instructor. He serves as Special Operations Coordinator for Cypress Creek and is in charge of a 20-person bike medic team. He was certified as a PCI and EMSCI in 2002.

Woods, Tom. PCI #010T. *Denton P.D., Denton, TX. Phone: 940-349-7988; E-mail: tkwoods@cityofdenton.com*. Lt. Woods, PCIT #010, is a founding member and past president of IPMBA. He has been in civilian law enforcement for 23 years at Denton P.D. He has taught the IPMBA Police Cyclist course and introduced the concept of police bike patrols in the former Soviet Union, Rwanda, Africa; and the Republic of Georgia.

Zaremba, Darin. PCI #465. *Medina Police Department, Medina, OH. Phone: 330-723-8236; E-mail: dzaremba@mpd.medinaoh.org*. Darin was certified as an IPMBA PCI in 2000. He has co-instructed the HK Survival Skills for the Mountain Bike Officer. He is an avid off-road cyclist, races single-track and has placed in the top three for his age group in the past three IPMBA mountain bike competitions.

Guest Presenters

Boggs, Cindy. *Charleston Family YMCA, Charleston, WV. Phone: 304-340-3527; E-mail: ymgirl00@aol.com*. Cindy has worked in the fitness industry for over 23 years. She is the fitness coordinator and a fitness instructor for the Charleston Family YMCA. She hosted the T.V. fitness show *Shape UP* for five years and now writes a fitness column for the *Charleston Sunday Gazette-Mail*. She is a Master Trainer volunteer for the American Cancer Society and trains ACS employees on cancer prevention and cancer control through nutrition and exercise.

Breitenstein, Michael. *National Institute for Occupational Safety and Health, Cincinnati, OH. Phone: 513-533-8210; E-mail: mjb1@cdc.gov*. Michael is currently a Research Biologist in the Reproductive Health Assessment Section for the National Institute for Occupational Safety and Health (NIOSH). He has been with this group for over 10 years, and they have conducted research on workplace conditions and their effects on male and female reproductive health.

Burke, Paul. *National Association for Search and Rescue, Chantilly, VA. Phone: 703-222-6277 (NASAR); E-mail: redlaser@sbcglobal.net*. Paul is a retired First Sergeant with the Alaska State Troopers. His assignments included the Statewide SAR Coordinator for the Alaska Dept. of Public Safety, Criminal Investigator, Special Emergency Response Team member, and rural Alaska Trooper Post Commander. He is a qualified Public Safety Diver, Polygraph Examiner, and SARTECH III. He served on the NASAR Board of Directors from 1993-2002. He is currently the NASAR Western States Coordinator and is responsible for NASAR education in 24 states.

Jones, Al. *Tri-State Regional Community Policing Institute, Cincinnati, OH. Phone: 513-771-0782; E-mail: jonesa@greatoaks.com*. Al Jones was an officer with the Cincinnati Police Division for 26 years, serving in various capacities. He has presented hundreds of community crime prevention programs to groups throughout the Cincinnati, Ohio, area. He currently serves as a curriculum specialist and AV guru for the Tri-State Regional Community Policing Institute in Cincinnati.

Lowe, Donnie. *Seattle Police Department, Seattle, WA. Phone: 206-684-8279; E-mail: ray1469@hotmail.com*. Donnie is a sergeant with the Seattle P.D. He has been a police officer for 12 years and a police cyclist for eight. He has helped develop and refine SPD's bicycle crowd management techniques, and has been involved with every major crowd control incident in Seattle since the 1999 WTO.

Matheson, Bill. *Bicycle Polo Association of America, Aiken, SC. Phone: 803-292-3063; E-mail: bikepolo@duesouth.net*. Bill Matheson began playing bicycle polo in 1971, and his Boxwood Farm team won their first Cartier Challenge Cup in 1972. After concentrating on horse polo for 15 years, he returned to bicycle polo in the 1990's, then joined the Canadian Coalition of Poloists to compete in the 2000 World Championships in Delhi, India. His team won a gold medal in the 2002 world championships in Paris. He currently serves as Chairman of the Bicycle Polo Association of America (www.bicyclepolo.org).

Reutman, Susan. *National Institute for Occupational Safety and Health, Cincinnati, OH. Phone: 513-533-8210; E-mail: swr0@cdc.gov*. Susan is an epidemiologist and researcher with the National Institute for Occupational Safety and Health (NIOSH). She is an American Teachers of Preventive Medicine Post-Doctoral Fellow. She has conducted research on the effects of workplace conditions on reproductive health. She will be assisted by Dr. Kathleen Connell and Dr. Marsha Guess from the Albert Einstein Medical School.

Satlow, Michael. *Jerusalem District Police Dept., Jerusalem, Israel. Phone: 011-972-2-539-1234; E-mail: satlow_m@netvision.net.il*. Michael is an auxiliary officer for the Jerusalem District Police Department in Israel. He has been on the Civil Guard for eight years and a bike officer for three years. The Civil Guard was formed to supplement the police force, which faces car bombs, suicide bombers, and other acts of terrorism on a regular basis.

Schrader, Steven. *National Institute for Occupational Safety and Health, 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 & Health. He has conducted research on workplace conditions as they relate to male and female reproductive health for 20 years.

St. Clair, Linda. *Charleston, WV. E-mail: stclair859@charter.net*. Linda has worked in the field of nutrition, weight management, and wellness for the past 16 years. She taught undergraduate nutrition courses at the University of Charleston for four years and speaks to various groups regarding nutrition several times per year. She is the team leader of the obesity work group of the Kanawha Coalition for Community Health Improvement. She is also the wife of Charleston P.D. bike officer Chris St. Clair.

WORKSHOP HANDOUTS

101 Uses for Zip Ties

One Hundred and One Uses for Zip Ties will provide tips and tricks to help even the non-mechanically inclined cyclist make emergency repairs. Repairing your bicycle along the roadside using "duct tape and zip ties" is the mark of a self-reliant cyclist. The workshop will discuss the mythical "thin-air repair" that can get you rolling in the face of seemingly impossible odds, and rescue you from that embarrassing call back to the station for a ride. *Developed by Lt. Tom Woods, Denton (TX) Police Department.*

NOTES: _____

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. *Presented by Lt. Tom Woods, Denton Police Department.*

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 re-qualify

Tactics as Related to Department Use of Force

- Continuum 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 Budget — "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 Money

- 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

NOTES: _____

Advanced Bicycle Fit

Advanced Bicycle Fit will address the importance of selecting a bicycle based on the dimensions of not only the seat tube but the top tube as well. Frame angles, another key factor in selecting the proper type and size bike, will also be discussed. You will learn where to acquire the proper tools and how to use them in order to achieve more precise bike fit, and if time permits, participants will be fit to their own bikes. Cpl. Bob Ricciardi of the Palm Beach County Sheriffs Office (FL) will share the expertise he developed in nearly 10 years as a pro bike shop owner. Bike fit is essential to rider efficiency, minimization of injury, and comfort, so this workshop is ideal for all riders, including instructors and administrators who want to keep their bike unit members healthy, happy, and effective.

Basics of Bike Fit

A. Frame Type
- a. Mountain
- b. Road

B. Frame/Fork Geometry
- a. Measurements
- b. Angles
- c. Design/Function

C. Rider Physique
- a. Inseam
- b. Torso
- c. Foot Size
- d. Shoulder Width
- e. Bone Structure

D. Selection of Bike
- a. Measurement "Type"
- b. Frame Geometry vs. Rider Physique

Tools and Equipment

A. Bike Measurement Tools
- a. Analog Bathroom Scale
- b. Angle Finder
- c. Line Level
- d. Triangular ruler
- e. Small level
- f. Tape measure
- g. Stationary trainer

B. Rider Measurement Tools
- a. "Plum-glasses"
- b. Goneometer
- c. Plum-bob

Accessory Enhancements

A. Toe clips
B. Cleated Shoes
C. Saddle Choice
D. Stem Extension
E. Forks

Trends and Gizmos

Conclusion

Knowing the basics as well as some of the advanced concepts of bicycle fit will allow the rider to not only be a more efficient cyclist, but also experience a more enjoyable ride.

NOTES: _____

Advanced Planning for Special Events

Advance Planning for Special Events will prepare you to successfully plan and deliver emergency medical services for events of any size. Topics include establishing communications systems between field units, the command post, and main dispatch; the importance of "walking the site" prior to the event; creating and using site maps in PowerPoint, and maximizing resources for maximum coverage. *Presented by Gene Williams, Special Operations Coordinator, Cypress Creek EMS, Houston, Texas.*

PRE-PLANNING FOR SPECIAL EVENTS

Gene Williams Jr. PCI / EMSCI
Special Operations Coordinator

IPMBA

Objectives

- How to conduct a site survey
- Determine the proper equipment needs
- Implementation of proper logistics involved
- Ensure proper communication
- What is included in the Operational Plan
- Why a Medical Threat Assessment
- The importance of a back-up plan
- Coordinate with assisting agencies

Special Event

A large gathering of the public in a specific area that is usually confined by certain barriers that limits access to said area. The ability to respond to medical emergencies is severely limited due to barriers, topography, and crowd congestion requiring EMS to respond effectively using unconventional means.

Types of Special Events

- Concerts
- Parades
- Golf tournaments
- Races
- Fairs
- Malls
- Water sporting events

Unconventional Means

- Foot patrol
- Bicycle
- All Terrain vehicle
- Watercraft
- Sled
- Aircraft
- Horse

The Proposal

- Event sponsors will usually want a proposal from the providing agency to justify the cost of EMS coverage that you intend to provide.
- Do not quote a price or promise anything until you know all the facts concerning the event and you have done a site survey
- A proposal also reflects on your agencies professionalism

Site Survey

- To physically examine the entire area encompassing the event site.
- Request floor plans or maps of the area
- Ensure that you know what is going to change or be added when the event is held
- Locate secure site to set up your Command Post
- Check out Communications

Building

- Walk the outer perimeter
- Access / Egress locations
- Staging locations
- Stairs, elevators, escalators
- Treatment facility
- Pick-up points
- Barriers (what will be there that ain't now)
- What equipment is suited for the task

Parade

- Route
- Street closing
- Staging locations for unit
- How to evacuate the patients
- Number of spectators
- Number of floats
- Special considerations (fireworks)

Open Air Event (concert, festival, golf)

- Topography
- Restrictions on your response
- Pick-up points
- Maps
- Communications
- Barriers
- Number of attendees
- Equipment needs

Equipment

- Bicycle
- AED's (Access Cardio)
- Pediatrics / Geriatrics
- Supply stock (EMS / Tools)
- Rehab / Rotation schedule
- Command Post
- Communications
- HLS

Logistics

- Transportation of personnel & equipment
- Food / Water
- Proper clothing for weather
- Security of command post
- Storage of equipment overnight
- Communications with event staff
- Scheduling of staff
- Dedicated leadership & Dispatch
- Notification to other EMS and Hospitals

Communication

- Event staff can talk to you and visa versa
- Have dedicated dispatcher at CP to handle all traffic between event staff and EMS
- Make sure you can communicate with CP from anywhere within event area
- Headsets vs lapel mics
- Team assignments
- Extra batteries

Operations Plan

- Start with the dates and times of the event
- Note the number of medics for each day
- The number of dispatchers and support
- The support equipment that will be on hand
- The event location
- Who is coordinating the event and how to get in touch with him/her
- Type of staffing: EMT, EMT-I, EMT-P

- What specific equipment will be on hand
- Where is the equipment located and will it be secured
- Where is the CP
- Outline your communications procedure
- Scheduling
- Staging location for EMS personnel
- HLS location
- Medical equipment
- Uniform

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- Maps
- MTA (Medical Threat Assessment)
- Transporting agency
- Ambulance pick-up points
- Restrictions if applicable
- MCI response plan
- Hospital notification of increase in population
- Have a back-up plan if all goes to hell

Medical Threat Assessment

- Environmental Threats
- Animal Threats
- Plants
- Hazardous
- Biological
- Local Medical Facility
- Trauma Center
- Burn Center

- Pediatric Facility
- EMS Services
- Law Enforcement
- Veterinary Service (K-9, Horse Patrol)
- Schools near area
- Helicopter Plan

Operations Plan

Extended Special Events

THE TOUR CHAMPIONSHIP
October 29 – November 4, 2001

The Cypress Creek EMS Special Operations Division will be providing medical coverage for this event. The schedule times and staffing are as follows:

Monday:	0800 – 1800	4 Medics
Tuesday:	0630 – 1530	6 Medics
Wednesday:	0800 – 1800	4 Medics
Thursday:	0800 – 1800	10 Medics
Friday:	0800 – 1800	10 Medics
Saturday:	0630 – 1530	10 Medics
Sunday:	0800 – 1800	10 Medics

EVENT LOCATION: Champions Golf Club
14120 Champions Drive
Houston, Texas 77069
(281) 893-4653

COORDINATOR: This event is being coordinated by Gene Williams Jr., Special Operations Coordinator, Cypress Creek EMS (radio unit 5010). All questions or problems arising during this event should be directed to him. He can be reached on-site each day of the event or may be contacted via pager, (281) 397-3571 or by cellular telephone, (281) 732-5073.

STAFFING: Staffing for this event will be EMT, EMT-I, and Paramedic level members of the CCEMS Bike Team and members of the Cypress Creek Advanced Tactical Team. Adjunct staffing will include other members of CCEMS to man Gator-51 and MCV-1.

EQUIPMENT: MCV-1, the CCATT Truck and Gator 51 will be parked on-site on Sunday, October 28, 2001 and will remain on-site for the duration of this event. Extra bicycles will be on-site and be issued to those working the event that have no CCEMS bicycle. At the conclusion of the day, those bicycles will be secured inside the CCATT Truck. The CCATT truck is a fully functional MICU and may be used as the primary transport vehicle if deemed necessary by the Special Operations Coordinator. Transport of the injured or ill should be accomplished by an inservice CCEMS unit. Security will be provided at the site by the Harris County Sheriff's Department 24/7 during this event.

COMMUNICATION: MCV-1 will be staffed at all times by a CCEMS dispatcher who's responsibility is to maintain contact with the field medics, maintain contact with POA officials and law enforcement. MCV-1 will be equipped with a portable event radio and will relay all requests for assistance to the field medics, and vice versa. In the event of an injury or illness requesting medical transport to the hospital, the field medic will choose the closest pick-up point to his/her location. All requests for a CCEMS Medic will go through MCV-1. MCV-1 will then contact the Communications center and request a medic unit. MCV-1 will provide the Communications Center with type of injury, patient condition, and the pick-up point where the medic unit is to respond. In case of minor injuries, the field medic may request Gator 51 be dispatched to transport the patient to the main first aid tent and/or the clubhouse. Gator 51 may also be requested to transport a patient from the field to an ambulance pick-up point.

STAGING: CCEMS and its equipment will be staged off Bermuda Dune, to the southside of the clubhouse. The HLS is designated on the attached maps and the coordinates are documented. It will not be necessary to dispatch the fire department to land Lifeflight. The HLS is a secure site located on the adjacent golf course, southeast of MCV-1. Each morning, all medics will report to MCV-1 for equipment and briefing. At the end of the shift, all medics will turn in issued equipment and maps.

MEDICAL EQUIPMENT: All medics are responsible for ensuring that their bike medic bags are inventoried and completely stocked. All ALS bags should be inspected and expired drugs replaced. Gator 51 will be stocked with all c-spine equipment, portable O2, jump bag and cardiac monitor. Team 4 will be issued an AED. Please include plenty of Band-Aids and such, we use them often. There are two first aid tents, one is located to the southside of the clubhouse and the other is located at the 15th hole. Please refer spectators to those areas for minor problems.

UNIFORM:
- Bike Medics will wear their issued red biketeam pullover shirt, black bike shorts, black shoes, black socks, and helmet. Gloves are recommended.
- Tactical Bike Medics will wear their issued gray pullover shirt, black bike shorts, black shoes, black socks, duty belt with high rise holster and helmet. (Modifications to wear may occur due to the weather)

DO NOT WEAR ANY UNDERSHIRT THAT PROTRUDES FROM THE SLEEVES OF THE UNIFORM SHIRT.

MEDICAL THREAT ASSESSMENT: An MTA has been completed and will remain in MCV-1 during this event. The on-duty dispatcher should review this form at the beginning of his/her shift.

AMBULANCE PICK-UP POINTS

ALPHA – ENTRANCE INTO GOLF COURSE LOCATED OFF BERMUDA DUNES, 2/10 MILE EAST OF CHAMPIONS DRIVE. (KM 370B)

BRAVO – ACCESS GATE; CHAMPIONS DRIVE JUST NORTH OF T BAR M STREET. (KM 330X)

CHARLIE – 14102 BONNY BRIER DRIVE X MID PINES (KM 330X)

DELTA – 14210 BONNY BRIER DRIVE X EQUESTRIAN (KM 330X)

ECHO – 5919 SOUTHERN HILLS DRIVE X PARADISE VALLEY (KM 330X)

FOXTROT – 14235 INDIAN WELLS DRIVE X PARADISE VALLEY (KM 330X)

LIFEFLIGHT LANDING ZONE: **N 29 DEGREES 58.927 MINUTES**
W 095 DEGREES 31.687 MINUTES
(KM 370B)

PRIMARY EVENT CHANNEL: ADMIN 10

MCV-1: WILL BE DESIGNATED "COMMAND"

CCATT AMBULANCE: CCATT ONE

GATOR: GATOR-51

EACH TEAM WILL BE ADDRESSED AS: TEAM 1, TEAM 2, TEAM 3, ETC.

GENE WILLIAMS: RADIO # 5010

SPECIAL OPERATIONS DIVISION
EVENT SCHEDULE

MONDAY, OCTOBER 29:	TUESDAY, OCTOBER 30
1.	1.
2.	2.
3.	3.
4.	4.
5.	5.
6.	6.

Operations Plan

Short Duration Events
•A Few Hours
•All Day

Koman Houston Race for the Cure 2002

0730 – Woman's 5K Run
0745 – Coed 5K
0755 – Coed 5K Walk
0805 – 1 mile Coed Family Walk
Race Should end by 0930

Roving Team – Start to Mile 1: Peter Van Wijk EMT-P
Mike Downs EMT

Roving Team – Mile 1 to Mile 2: Jeff Doran EMT-P
Brandy Tomlinson EMT-I

Roving Team – Mile 2 to Mile 3: Gene Williams Jr. EMT-P
Barbara Chebret EMT

- All Medics should be in position by 0715 hours
- Roving Team will remain within there area of responsibility
- Gene Williams will have an event radio and relay calls to roving teams via CCEMS handhelds.
- Any contact should be relayed to Gene so event officials can be notified
- Complete patient report sheets as dictated by the injury

All Team members will be operating off Administration Channel 11. Gene's Cellular number is (281) 732-5073. See attached Map for details.

In Summary

- Do a complete site survey
- Know what changes will take place
- Check communications
- Logistics in order
- Proper equipment on hand
- Complete written Operational Plan
- MTA
- Have a back-up plan

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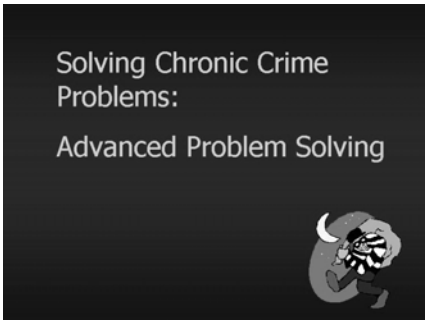
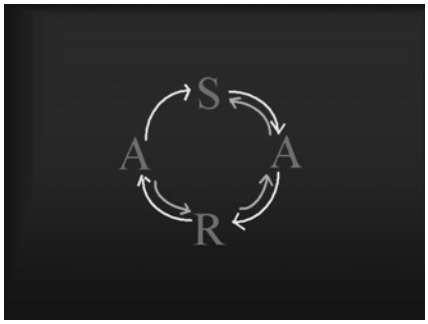
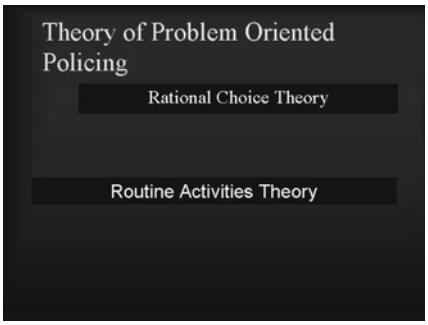
ARE THERE ANY QUESTIONS ?

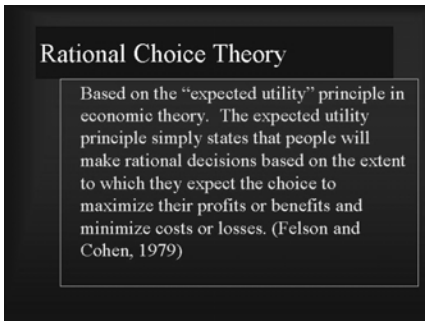
Advanced Problem Solving

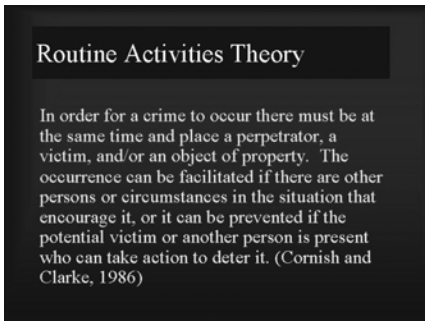
Advanced Problem-Solving will discuss the process of identifying problems in an officer's area of assignment, focusing on indicators outside of police organizations as well as police indicators. It will address how to integrate these indicators into the SARA process, and how to develop a logical hypothesis, a general goal statement, and customized responses for the problem. How the problem indicators lead to an effective evaluation of the problem solving effort will also be discussed. Upon completion of this unit of instruction, participants will be able to: 1. understand the theories that support problem solving; 2. list the criteria for quality in problem solving; 3. describe some of the examples of excellence in problem solving; 4. discuss the current expectations in policing for problem solving. *Presented by Al Jones, Tri-State Regional Community Policing Institute*

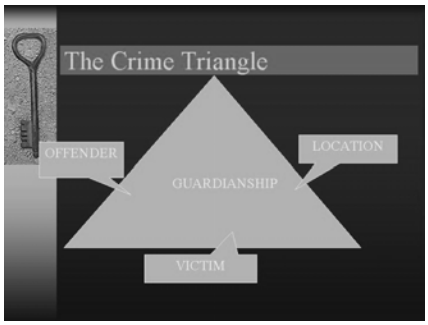


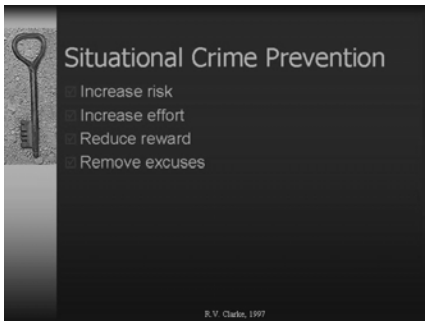


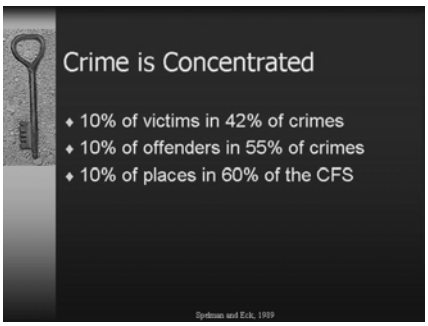


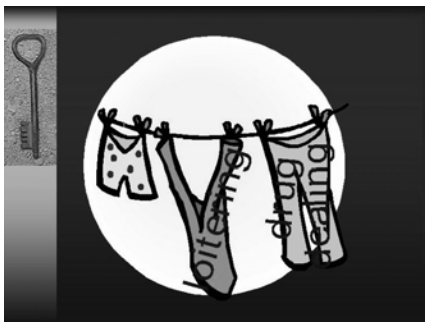


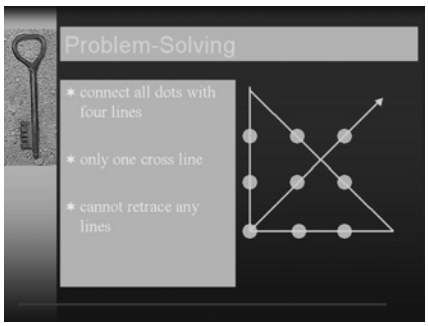












Advantages of Collaboration

- Improves Knowledge
- Broadens Community Contacts
- Saves Police Resources
- Transfers Responsibility to Residents
- Builds Support for Police
- Generates Funding and Supplies
- Builds Trust in Police
- Expands Response Options

Disadvantages of Collaboration

- Causes Frustration
- Creates Unwanted Responses
- Involves Personal Agendas

Victim oriented analysis

- Victim/offender relationship.
- Victimization rates.
- Any crime prevention actions taken by victim.
- Victim demographics.

Offender data/offender interview

- Number, type, location of prior offenses.
- Offender address, local problem or are offenders being drawn to the location.
- How targets are being selected, by victim actions or location issues.
- Offender demographics.

Location Analysis

- Group or map the locations
- Lighting patterns
- Access patterns
- Other aspects may contribute, obstructions to natural surveillance, where drugs are stashed, untended area,close to user population, close to equipment needs.

Other important questions to remember

- What responses have already been tried?
- Who do we need at the table to solve the problem?
- What is the teams best guess as to why the problem exists?

Principles of Analysis

- Analysis is based on common sense.
- There is no one way to do analysis.
- Individual problems require individual analysis.
- Analysis requires creativity and innovation.
- Analysis does not need to be complex.
- If you don't analyze you can't tailor the response.

Factor Analysis

- What is it about :
- People
- Equipment
- Environment or location
- Policy and procedures
- Measurement
- That is causing the problem of…..
- Why? For each factor

Blue Print for Problem Solving

- Indicators-Problem Identification-**Scan.**
- General Goal Statement & Hypothesis-**Analyze.**
- Actions taken-**Response**
- Did you accomplish your goal;Reduce the indicators-**Assessment**

Problem Solving Notes

- Required information
- If you don't analyze you can't tailor
- Departments are learning from each other

Other important questions to remember

- What responses have already been tried?
- Who do we need at the table to solve the problem?
- What is the teams best guess as to why the problem exists?

Principles of Analysis

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Criteria for Quality

- Interview people with problem behaviors
- Prioritize and identify the major problem
- Did you collaborate with stakeholders?
- Did you increase risk,effort and reduce reward to offender?
- Did you use least coercive measure first?
- Were you creative and effective?
- Did you leave a guardian?
- Skills and authority given to team members
- Did you document?

Expectations

What can you expect from POP?

Advanced Skill Development

Advanced Skill Development focuses on the "mental" aspects of riding. Many riders are hampered more by fear, frustration, and lack of confidence than by lack of skills. Through intense one-on-one contact and discussion, this session will demonstrate how "good" riders got that way by learning in small increments and building upon previously mastered simple skills. *Developed by Nick Gatlin, Williamson Medical Center, Franklin, Tennessee.*

Advanced Technical Skills
The term "advanced skills" means different things to every rider. For some, advanced means trackstanding or clearing a one foot curb. For others, it may mean clearing a five-foot drop or being able to climb the bike onto a picnic table. "Advanced" skills are generally those you haven't yet mastered. The key word is "yet".

Hardly anyone is good at everything. So how do you master those skills that you now find difficult? The answer has several steps.

Get In the Right Frame of Mind
It is amazing how well you can perform when you believe your riding goals are attainable. Preparing yourself mentally for a new task will go a long way toward helping you improve. The best riders are not afraid of the way it feels to lose control of the bike. The trick is to know when it is about to happen and what the bike will do at that moment. Knowing this will allow you to position yourself to minimize the danger when it is time to give up and try again.

Use the Bike to Prove the Goal Attainable
As a general rule, if you can demonstrate the skill by pushing the bike through it, you can ride the bike through it. Look at what the bike does as you push it through the required skill. Visualize what will be required of you to duplicate the action of the bike's motion. Where will your weight need to be? How hard must you pedal, and from what crank position? Will it require a lateral weight transfer as well as forward or back? What gear will work best? Picture yourself on the bike doing whatever is required.

Pushing the bike through the skill may also reveal potential damage to the bike. Maybe the idea of a bent chainring doesn't appeal to you. Some skills require riding on the chainring, and there are proper ways to do it. Still the potential for damage exists, and if you don't want to risk that, you'll want to avoid that obstacle. Pushing the bike may also reveal that this is a skill for which you are not prepared. Navigating stairs is a good example. If you go down and can't keep the rear wheel from lifting, it will require a lot of skill or a different technique to descend those stairs. If you're attempting to ascend those stairs and both wheels strike the edge of the steps simultaneously, it will require a great deal of riding ability to climb them. Let the bike show you what must be done before you attempt a new skill.

Take Baby Steps
If you're going to learn to climb stairs, start with a simple run of three or four steps. Don't make your first attempt on a steep set of twenty steps. You'll be setting yourself up for failure, frustration and probably injury. It is important to work your way up to more difficult maneuvers by mastering the basics first. The sense of accomplishment will build your confidence and help overcome the fear of failure.

Ride with Superior Riders
Riding with people who are better than you will help you in several ways. First, you will be able to see that the skill is actually attainable. If you watch someone else do it, there will be no doubt in your mind that it is possible.

Riding with better riders will also give you access to their expertise. Let them explain how they learned and what you need to do. You will also find that there may be different ways to ride the same obstacle. If one thing doesn't work, try someone else's way.

Finally, allow them to watch your attempts and make suggestions. Don't get frustrated when you can't follow their instructions. These things take time. Think back on how long it took you to learn to ride as a child. The explanations were simple. "Just turn in the direction you feel the bike falling, and lean to the side you want to go when you turn." That sounds simple enough, but it's a slow process figuring out how that feels. New skills are often that way.

Go Home Occasionally
Any time you start to feel frustration, go back to something you've mastered. Give your confidence a chance to heal. This will also give you a chance to regain your feel for the bike. Fifty failed attempts at the same thing will destroy your desire for success. You'll never learn to improve if you don't want to.

PRACTICE!
Don Hudson, formerly of the Los Angeles Police Department's bike unit, says, "Bicycle skills are perishable". This is absolutely true. Just because you could do something a few weeks ago, doesn't mean you'll be able to do it now. Practice every skill every time you get on the bike. This will keep you sharp and confident.

Unfortunately, most good riders will have "off days". Some days you just can't ride to your potential. Don't let it worry you. Usually a little time on the bike will bring you back, especially if you practice some easier skills while you're waiting for the magic to return.

Keep Pushing Yourself
It doesn't matter how good you are, you can always learn something new. Keep working on the skills you know and keep learning new skills. The more skilled you are as a rider, the easier it will be for you to ride in difficult conditions. You will also find that you will use your old skills to master new ones. In fact, some "advanced" skills are just several basic skills executed at the same time. Continue to build on your foundation, whatever it may be. No great rider started out that way.

A. Using the Systematic Approach to Obstacle Assessment

1. Get off the bike and look at the entire obstacle to determine the most difficult part. This is the "Key Move."

2. Walk the obstacle with the bike with one hand on the bars and the other on the saddle. Pay attention to how the bike will tend to behave as it encounters different forces upon it. While doing this, consider the following:

a. How do I need to position myself on the bike?
b. Where and how will I transfer my weight?
c. What gear is best for this maneuver?
d. Where should my pedals be, and will my gear choice allow them to clear the obstacle?
f. How much speed will I need?
g. If I must "bail out", where can I do it safely?
h. When will I need to use my brakes?

B. Is this Skill within my Current Abilities?

1. Visualize yourself riding the obstacle successfully. Imagine what a successful attempt will look like. Think of this as you begin.

2. If the attempt fails, re-evaluate the plan you formulated for the attempt. Was your execution of the plan flawed, or is the plan itself flawed? What was different about what you did as compared with what you imagined in step #3?

3. Concentrate on what you need to do and try again.

NOTES: _____

Basics of Bicycle Polo

Basics of Bicycle Polo will cover equipment, strokes, rules, and basic strategies of the great sport of bicycle polo. Horse polo is considered the oldest team sport known to man, having evolved in Persia some 2,500 years ago when victorious cavalrymen started swatting their vanquished opponents' skulls around with sticks. Bicycle polo had to wait for some clever chap to invent the modern bicycle, and the first known record of a game dates from 1894 in Ireland.

Just as cavalry troops used polo as training for the horsemanship skills needed in combat, Mountain Bike Police can use bicycle polo to sharpen their bike skills and have a blast doing it. Riding with one hand while performing deft maneuvers with a stick in the other might come in handy in quite a few situations, and bicycle polo helps the riding element become second nature. *Presented by Bill Matheson, Bicycle Polo Association of America.*

Top Ten Reasons Bike Polo is Better than Mountain Biking and Road Biking

10. It's hard to go mountain biking if you don't live in the mountains; but almost everyone has a soccer field at their local school or park;
9. There's no need to carry your drinks on your bike or your back; you're never more than 100 yards from a cooler;
8. Similarly, there's no need to carry all kinds of tools and spare parts with you; they're always a few yards away;
7. Polo bikes don't need all that fancy (and expensive) suspension, since the field should be relatively smooth;
6. Polo bikes don't need more than one gear, though sometimes it is nice to have a few for riding to the field;
5. When you fall off a mountain bike, you never know what you might land on; when you fall off a road bike, chances are you'll be going really fast and land on a very hard surface; when you fall on a bike polo field, there's usually plenty of nice, soft grass;
4. There is no chance of having to carry your bike more than a few yards, even if you break it to the point that it is unridable;
3. There is very little chance of being hit by a car;
2. Hitting the ball is a great way to take out your aggressions;
1. You get to play a game, not merely go for a ride.

Bill Matheson began playing bicycle polo in 1971, and his Boxwood Farm team won their first Cartier Challenge Cup in 1972. They repeated in 1973 and '74, at which point the trophy was retired. After concentrating on horse polo for 15 years, he returned to bicycle polo in the 1990's, then joined the Canadian Coalition of Cycle Poloists to compete in the 2000 World Championships in Delhi, India. They reached the final, and Matheson was awarded International Colours, along with two members of the victorious Indian team and one member of the bronze-medalist U.S. team. The Canadians repeated their silver medal performance in 2001 in London, losing to India by a single goal. They went on to win a gold medal in the 2002 Championships in Paris.

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Bicycle Events: An Untapped Funding Source

Bicycle Events: An Untapped Funding Source explores the possibilities of organizing a fee-based bike tour to raise funds for your bike unit. Bicycle clubs and charities have a long history of raising funds through bike rides, many of which started with just a few riders and now attract thousands of people and raise thousands of dollars. This workshop will address the planning, advertising, funding, staffing, and implementation of a bicycle tour, with an emphasis on developing a long-term funding source. Captain Steve Weigold of St. Clair Twp.-Miami EMS (Hamilton, OH), will share lessons he learned as the founder of the St. Clair Days Bicycle Tour, a fund-raiser for his EMS bike team.

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Bicycle Friendly AEDs

Bicycle-Friendly AED's. Captain Pat Donovan of Puyallup (WA) Fire Department is always on the lookout for the latest and greatest in equipment for bike medics. This year he will present his research on the newest technology available in lightweight, bicycle-friendly AEDs ideally sized for panniers.

Big things do come in small packages! With increased computer technology, cardiac monitoring and defibrillators continue to get smaller and more lightweight. In this session, students will see several different models of AED's and ECG monitoring devices, as well as other non-invasive devices.

This class will also be beneficial for police officers who carry AED's in their patrol cars or would consider carrying one in their rack bags.

Along with these new AED's, we will discuss changing our load configurations to carry this smaller equipment.

The following units will be displayed. Contact information will be provided during the workshop.

MRL _____

Cardiac Science _____

Access Cardio _____

Medtronics _____

Forerunner _____

Heartstream _____

Heartstart _____

Active ECG _____

Nonin _____

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

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Bicycle Rodeos: From A-Z

Bicycle Rodeos: From A to Z. Putting on a bike uniform automatically makes you an expert in putting on a bike rodeo, right? Learn how to plan and implement a bike rodeo first-hand, including where to get volunteer help, how to find funding, and what type of equipment is necessary. You will participate in conducting a rodeo at one of Charleston's local elementary schools and go back ready to serve your community's needs. *Presented by D/S Dan Ganzel of Palm Beach County (FL) Sheriff's Office.*

I. Is there a need for a bicycle rodeo in your area?
   1. How many bicycle - vehicle crashes have occurred in your town?
   2. Does your state have a bicycle helmet law?
      a. If so, do law enforcement officers enforce the law?
   3. Do the laws in your state define a bicycle as a vehicle?

II. Where can you set up a rodeo, and how much space do you need?
   1. Elementary school, black top, or indoor gym
   2. Public park
   3. Bicycle event
   4. You will need an area of about 250' X 200'.

III. What age group do you want to target?
   1. Pre-K?
   2. K thru 2nd grade?
   3. 3rd thru 5th grade?
   4. Kids of all ages?

IV. Who are you going to get to help you?
   1. Other bike officers
   2. Rotary Club
   3. Explorers (aka Police Cadets)
   4. Bicycle club
   5. Girl Scouts/Boy Scouts
   6. School teachers

V. What supplies and equipment do you need?
   1. Sidewalk chalk: one bucket
   2. Crime scene or surveyors tape: 2 to 3 rolls
   3. Poster boards 2 x 3: one per station
   4. Poster paint or color markers
   5. Twine or poly rope: 250'
   6. Traffic cones: 100
   7. Tables and chairs, possibly a canopy
   8. Cardboard props
      a. Bushes, cars, trucks, fence, stop signs, yield signs, storm drain
      b. Sponges 3 x 5 or tennis balls cut in half: 20-30
   9. Balloons
   10. Bicycle tools
      a. Air pump
      b. Bike work stand
      c. Miscellaneous tools
   11. Food?
   12. Goodies & Prizes
      a. Pencils, balloons, helmets, stickers, reflectors, T-shirts
   13. Certificates
   14. First aid kit
   15. Registration forms
   16. TV / VCR

VI. How many stations will you need?
   1. The bike shop
      a. Parents' orientation
   2. Seeing & being seen
   3. Chaos corners
   4. Demon driveway
   5. Crazy crossroads
   6. Who's there?
   7. Rock dodge / thread the needle
   8. Dodge-em drive
   9. Slow race

VII. Clean up & evaluations

Bike Unit Marketing 101

Bike Unit Marketing 101 is designed to help you break down some of the barriers between the your police department and your community. Ptl. Michael Trout and Lt. Steve Noftz of Ohio University P.D. will discuss various programs instituted by the O.U.P.D., including bike donations, training for campus facilities personnel using bikes during work, and bike safety education as examples of ways a bike patrol can enhance the relationships between local law enforcement

The workshop focuses on the campus setting but by no means is it limited to only campus law enforcement. The programs discussed have been very successful for the Ohio University P.D. in building rapport between our department and the community. Three programs will be discussed during the workshop. Before closing the workshop, the presenters will encourage others to briefly describe programs that are successful in their respective departments. Below is a list the programs that will be discussed:

Sgt. Charles A. Butcher Bicycles for Youth
This program is a bicycle donation program created for low-income families. Donated bicycles are provided to those who cannot afford to purchase them, creating positive community contacts when the bikes are donated and when they are given away. The workshop will describe how to start your own program and distribute bicycles to the community.

Facilities Management Program
This program was created to offer bicycle safety classes to university employees who choose a bicycle as their mode of transportation while at work. The program is geared towards supervisors and employees of the Facilities Management Department at Ohio University. The program promotes bicycle safety, vehicular cycling, hazard recognition, and obstacle clearing.

Kids on Campus
This program was created in conjunction with Ohio University to provide bicycle safety to low-income families taking advantage of summer and after school programs. The program teaches bicycle safety and also builds a rapport between young children and law enforcement officials. This programs also branches out to other local programs such as "Kidfest" and "Public Safety Day".

Program Sharing and Networking
We encourage all attendees to this workshop to share programs that are successful in their respective departments. It is geared towards information sharing and networking.

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Bike Unit Marketing 102

Bike Unit Marketing 102. How do you convince your campus population that you are the "real" police? How can you successfully educate your campus community about crime prevention, personal safety, and your bike unit? Successfully marketing educational programs as well as your own unit can help improve your credibility, increase confidence in your agency, and lead to stronger financial support. Come learn strategies to help you "sell" your programs and how and where to find the resources to implement them. Applicable to non-campus law enforcement agencies, too. *Presented by Sgt. Kurt Feavel, Crime Prevention Supervisor for University of Wisconsin-Madison Police Department.*

I. What can I do to get things going again?
- **A.** Are we meeting the needs of our community?
- **B.** Allow officers who are no longer interested to step down
- **C.** Recruit fresh, new aggressive officers
- **D.** Provide up-to-date training
- **E.** Provide tangibles that others desire

II. Marketing the unit
- **A.** High profile visibility
- **B.** Budget
- **C.** Composition
- **D.** Professional quality
- **E.** Responsible party or parties

III. Community involvement
- **A.** Active participation in community events
- **B.** Promotion of safe cycling
- **C.** Cross-departmental cooperation
- **D.** Rides for a cause
- **E.** Perception

IV. Reputation
- **A.** Host training opportunities
- **B.** In-house instructors
- **C.** Innovation
- **D.** Media coverage

V. Role of the supervisor
- **A.** Motivation
- **B.** Proper equipment
- **C.** Listening
- **D.** Encourage and reward
- **E.** Training

Note: See also Kurt Feavel's article in the April 2003 issue of Law & Order *magazine.*

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Bikes Against Terror: The Israeli Experience

Terror attacks, whether package bombs, car bombs, shooting incidents, or suicide bombings, will in the future become more and more a problem for law enforcement officers in the United States. Terrorists tend to seek out soft targets with the potential for large civilian casualties. For this reason, bikes, with their inherent qualities of speed, stealth and easy penetration of congested areas, offer an excellent proactive tool in the fight against urban terror. *Presented by Michael Satlow, Jerusalem District Police Department Civil Guard.*

I. General Information about Israel

A. Where's Waldo? – Finding Israel on the Map
B. A Geopolitical Overview of the Middle East
C. Jerusalem as Epicenter of Political, Ethnic, and Religious Strife

II. Policing in Jerusalem

A. The Normal Mix of Break-ins, Disturbing the Peace, Traffic Violations, Domestic Violence, etc.
B. Demonstrations: Political, Religious, etc.
C. Escorts and Security for VIPs: Israeli Government Officials, Visiting Foreign Dignitaries, Diplomatic Personnel, U.N. Personnel
D. Anti-terror Activity

III. Terror Attacks: Prevention and Response

A. Terror as Methodology, not Ideology
B. The Different Forms of Terror Attacks
C. Preliminary Intelligence as the Primary Key to Terror Prevention
D. What Makes a Package/ Vehicle/ Individual Suspicious
E. Approach of Suspicious Package/ Vehicle / Individual
F. Working With the Bomb Disposal Expert

IV. When All Else Fails: First Response to A Terror Attack

A. Establishing a Protective Perimeter
B. Checking for Secondary Charges
C. Dealing with the Press
D. Coordination with Rescue Teams

V. Conclusion

Terror prevention is a topic that will only grow in importance in the coming years. While never being able to fully eliminate terror threats, effective policing techniques can greatly reduce its impact. Bike patrol can be an important tool in this war against terror.

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Bikes at the Pentagon, 9/11

Bikes at the Pentagon 9/11: Could We Have Done More? In the wake of the 9/11 disaster at the Pentagon, fire, EMS, and law enforcement support arrived from multiple local and federal agencies. Bikes were used by the Federal Protective Service (Pentagon Police), but where they enough? This workshop will discuss the level of support provided by public safety cyclists and the level which, in retrospect, they could have provided. It will also address the need to look at the "big picture" in responding to large-scale catastrophic events, such as whether or not bikes are appropriate, what type of bike assistance (police and/or EMS) is appropriate and possible, the optimal number of bike teams, and the best means of transporting the bike team and equipment to the incident site. *Presented by Bob Halsall, Arlington County Fire Department.*

Introduction
- Nationally Registered Paramedic
- Involved in EMS for over 24 years including time as a volunteer
- Arlington County Fire Department for 20 years as a Firefighter/Paramedic.
- Flight Paramedic for 10 years
- ACFD Bike Team Founder / Coordinator and Trainer
- Certified EMS Cyclist; IPMBA & IAMBU
- IPMBA EMS Cyclist Instructor
- EMT- Basic Instructor for Virginia
- Advanced Life Support Coordinator for Virginia
- Faculty Adjunct Instructor for Paramedic Degree Program, Northern Virginia Community College for five years
- Spent eleven days at the Pentagon following the 911 attacks

Objectives
- We will take a look at the history behind the Pentagon.
- We will discuss the use of bikes at a catastrophic event and consider your support options, would bikes have worked at this event?
- We will determine how many bikes are too many.
- Discussion about transporting you bikes to the incident. What if you are assisting another jurisdiction? Can you get there?
- Determine what seems to work and what doesn't during a disaster such as the attack on the Pentagon.
- On September 11, 2001…Exactly 60 years before…
- World War II

A Concept Approved
- The Design
- Construction
- War Time Efficiencies
- One Wedge at a Time

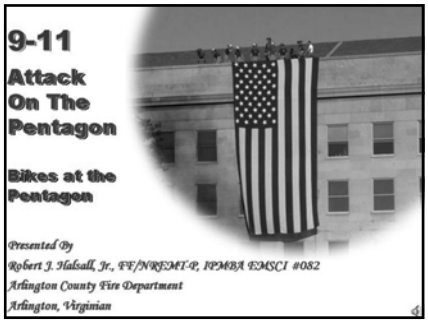
Pentagon Facts
- Pentagon Facts
- The Long Decline
- Renovation & Renewal
- Renovation Program
- Wedge 1

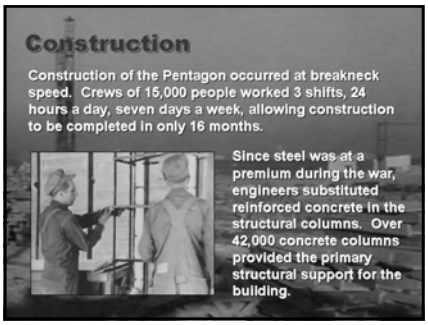
9/11
- Boeing 757
- 09:38 - Impact
- On Scene
- Initial Rescues
- Command Established
- Emergency Operations Command
- Triage
- Pentagon Military Clinic Emergency Team
- Arlington County Fire Department EMS Bike Team

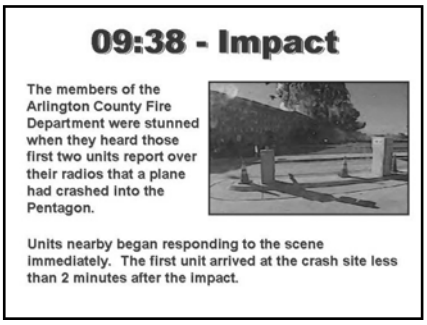
Order Out Of Chaos
- Defense Protective Service: Pentagon Police
- State & Federal Response
- Building Collapse
- Collapse Zone
- One Incident, Three Tragedies
- Evacuation
- Urban Search & Rescue
- Civilian Volunteers
- Media Encampment
- Scene Security
- Logistics
- The Old Guard
- Evidence Collection
- Presidential Visit
- Ongoing Search Efforts
- Increased Site Security
- Transition to Crime Scene
- Response From the Community

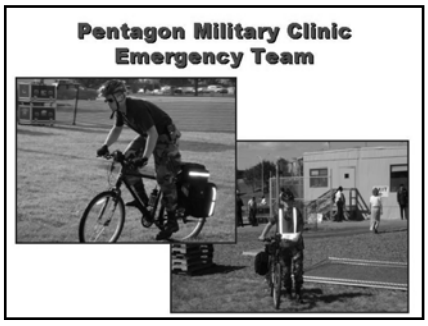
Discussion
- History is Created

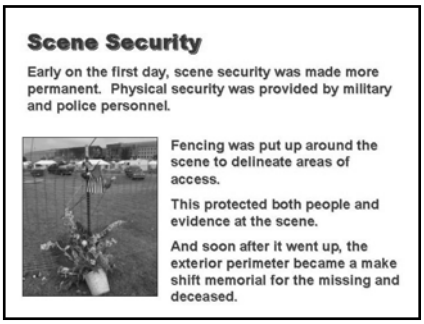
Slide Highlights …

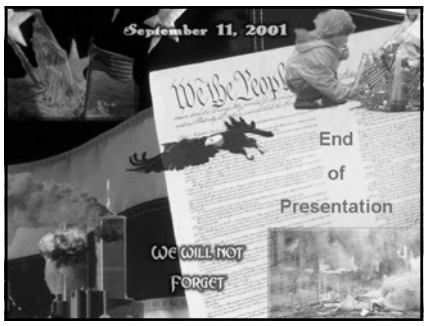












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Campus Policing Roundtable

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. *Moderated by Sgt. Kurt Feavel, University of Wisconsin at Madison.*

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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. *Presented by Lt. Tom Woods, Denton Police Department.*

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.

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Conquering Urban Traffic

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

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, presence of parked cars, 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 jobs and we enjoy doing it on bicycles, but remember Rule #1:
We go home safe to our families at the end of our shifts.

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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. *Presented by LouAnn Hamblin, Van Buren Township Police Department.*

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

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Defensive and Survival Tactics

Defensive and Survival Tactics will demonstrate techniques that can be used to counter the efforts of an assailant to disarm or assault a bike officer. Topics will include retention holsters, equipment placement and concealment, weapon retention techniques, landing techniques, use of the bike to temporarily "tie up" or slow down the suspect, and techniques for controlling a suspect while on the bike or the ground. *Developed by Sgt. Ashley Foster, Departmental Training Officer for MUSC Police Department, Charleston, South Carolina.*

Introduction: Operating as police cyclists, officers, especially those in highly urbanized areas (e.g., bar districts, housing projects, etc), have an increased potential of being assaulted. This is due to close contact with citizens and suspects as well as being without the protection of a patrol car. Various tactics can be utilized to counter attempts of a suspect to disarm and/or assault an officer. These tactics range from uniform and equipment selection to firearm and weapon retention techniques; and from falling/landing techniques to ground defense techniques. This workshop is intended to familiarize and expose the police cyclist to some advanced techniques, but is not intended to replace the constant training and practice of defensive tactics and ground defense needed for an officer to maintain his or her proficiency.

1. **Prior to Duty**
   - A. Preparation
     - 1. Mental
       - a. Leave personal problems at home
       - b. Be prepared for everything
       - c. Be well rested
     - 2. Physical
       - . Be physically fit
       - b. Practice proper nutrition and hydration
       - c. Be well rested
   - B. Uniform and Equipment
     - 1. Uniform
       - a. fits snugly
       - b. preferably made of stretchy and water resistant materials
     - 2. Body armor with shock and/or trauma plate
     - 3. Less lethal weapons secured
     - 4. Weapon retention
       - a. Minimum Level 2 holster
       - b. Level 3 is best and vital in ground defense encounters
       - c. Check duty belt, equipment, & holster for any damage
2. **On-Duty**
   - A. Know your surroundings/environment
     - 1. Bar districts and similar areas pose greater risk
     - 2. "Safe" areas during the day can be deadly at night
   - B. Use tactical movements around corners (WIDE SWEEP TURNS)
   - C. Maintain cover-contact principle (two-person teams)
     - 1. Ride offset, with one slightly ahead and with 2 to 3 ft. between sides
     - 2. Sweep and clear corners one at a time
     - 3. Utilize hand signals instead of verbal communication
   - D. Maintain radio contact with dispatch
3. **Attempted disarming (Generally occurs during low speeds)**
   - A. Left side weapons, baton, O.C., etc
     - 1. Left hand used to secure weapon
     - 2. Right hand applies REAR brake
     - 3. Cyclo-cross dismount to drive side
       - a. Pull suspect over/into bike
       - b. Create distraction/balance displacement technique
       - c. Control or disengage
   - B. Firearm retention at extremely low speeds
     - 1. Deadly force scenario
     - 2. Similar to attempted disarming on foot
     - 3. Requires two-hand retention
       - a. Weapon side hand forces weapon down
       - b. Non-weapon hand secures "hood"

4. Cyclo-cross dismount to non-drive side
    a. Pull suspect over/into bike
    b. Create distraction/balance displacement technique
    c. Control or disengage
5. Extremely dynamic technique
    a. Suspect's grip is usually stripped
    b. Higher speeds may cause officer to lose balance

C. Firearm Retention at moderate to high speeds
1. Rapid turn away from suspect
2. Emergency brake, apply low speed technique
    a. Requires two-hand retention
    b. Cyclo-cross dismount to non-drive side

D. Left-handed officers
1. Firearm retention
    a. Secure weapon
    b. Apply rear brake
    c. Cyclo-cross dismount to non-drive side
    d. Control or disengage
    e. Dynamic technique

4. Pushed/Forced to Ground

A. Falls/Landings
1. Forward rolls
2. Rear rolls
3. Right rolls
4. Left rolls

B. Falls/Landings (On-bike)
1. Maintain control
    a. Plant bars ends
    b. Lateral roll
    c. Maintain riding position
2. Roll Out (disengage from bike)
    a. Plant bars ends
    b. Lateral roll
    c. Disengage from bike as hips make contact with ground

5. **Ground Encounters**

A. Positions
1. High mount
2. Low mount
3. Guard

B. Movements
1. Lateral spins (left or right)
2. Crawls

C. Escape (Wiggle)
1. Leg hook/trap
2. Bridge
3. Leg toss
4. Roll out

Summary: The ability to implement the techniques we just practiced could one day determine if you and your partner go home at the end of the shift. These techniques are complex skills, which will require more practice on a regular basis. The best defense is a good offense, and our defense is our survival. Seventy to eighty percent of arrests involve a ground encounter; if you utilize these skills, suspects will have a less of an advantage. Bike patrol officers can use these defensive skills to counter a suspect's assault, and then take control of the suspect or create a safer reactionary gap to deal with the circumstances. By combining skills already ingrained in us with new skills or tools (e.g., bikes) and practicing/training, we are that much closer to making it home at the end of the day.

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. *Presented by T.J. Richardson, San Antonio Police Department.*

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 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 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.

- **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 the direction 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 IPMBA's Annual 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: _____

IPMBA 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.

II. Obstacle Course Safety Considerations:

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. If a rider does not complete a cone course obstacle cleanly, he/she will be required to go back and attempt the obstacle again. Failure to complete it a second time will result in a five-second penalty.

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

D. Falls, 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

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

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Annual Mountain Bike Competition Rules and Standards, Cont.

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 +

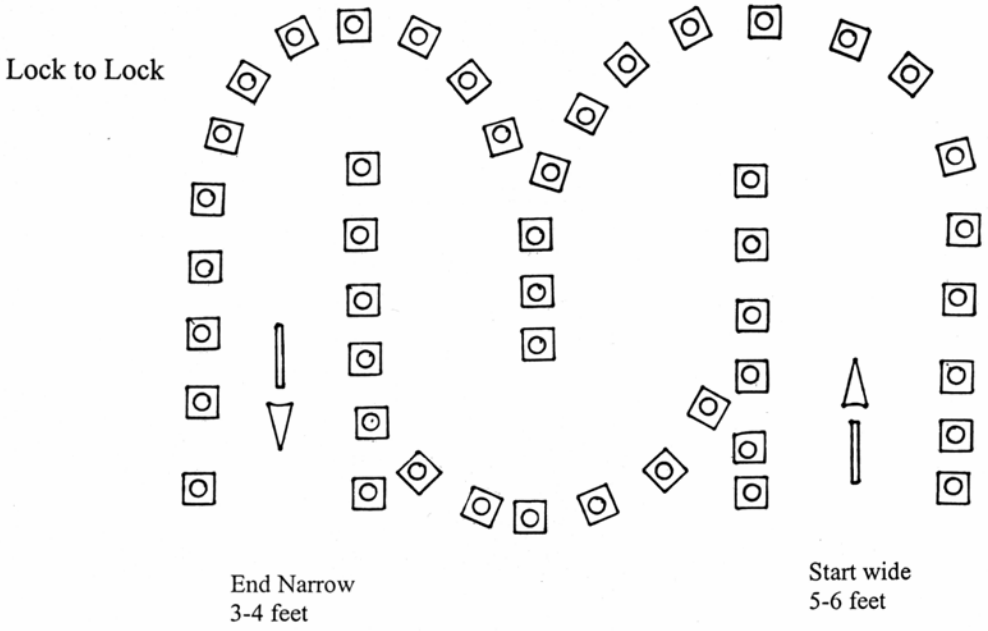
B. EMS Obstacle Course

Best team time

- Best individual time: Male/Female (age categories can be added if there are enough participants)

NOTES: _____

Diagram #1



Slalom

Diagram #2a

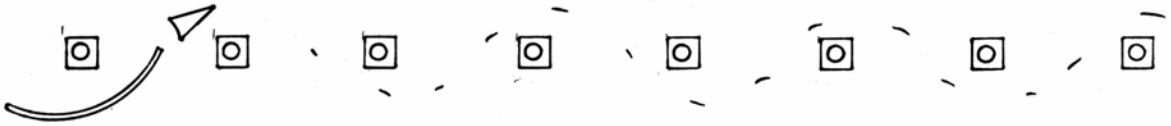
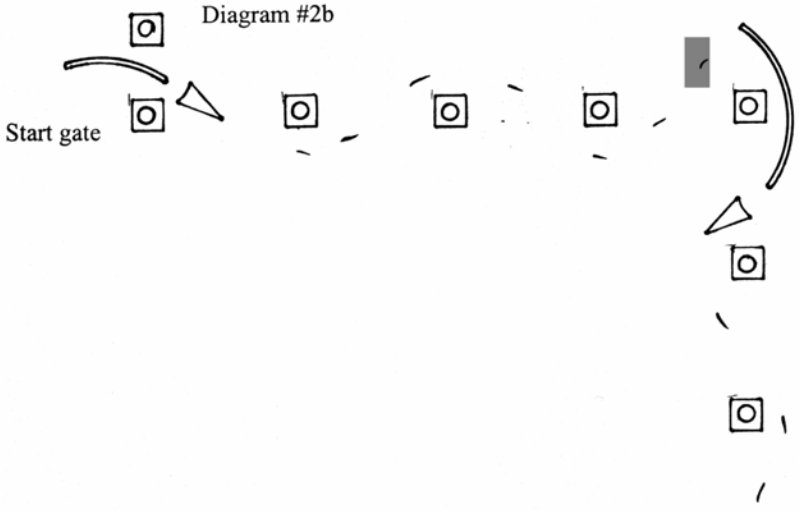


Diagram #2b



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Off-Set Serpentine

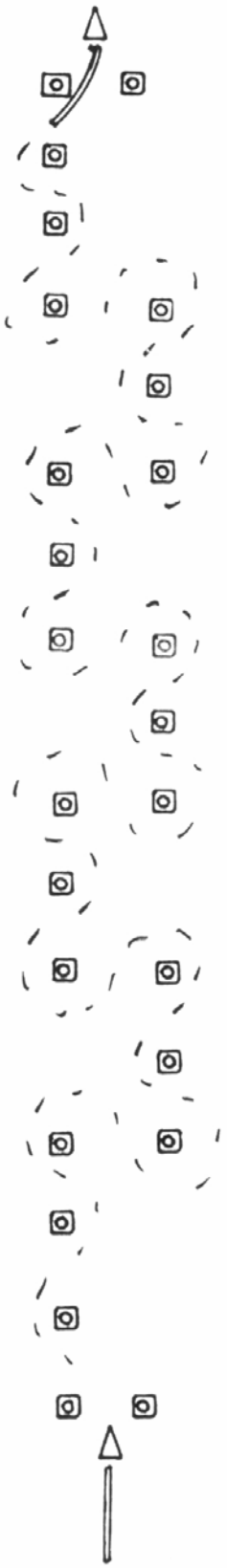
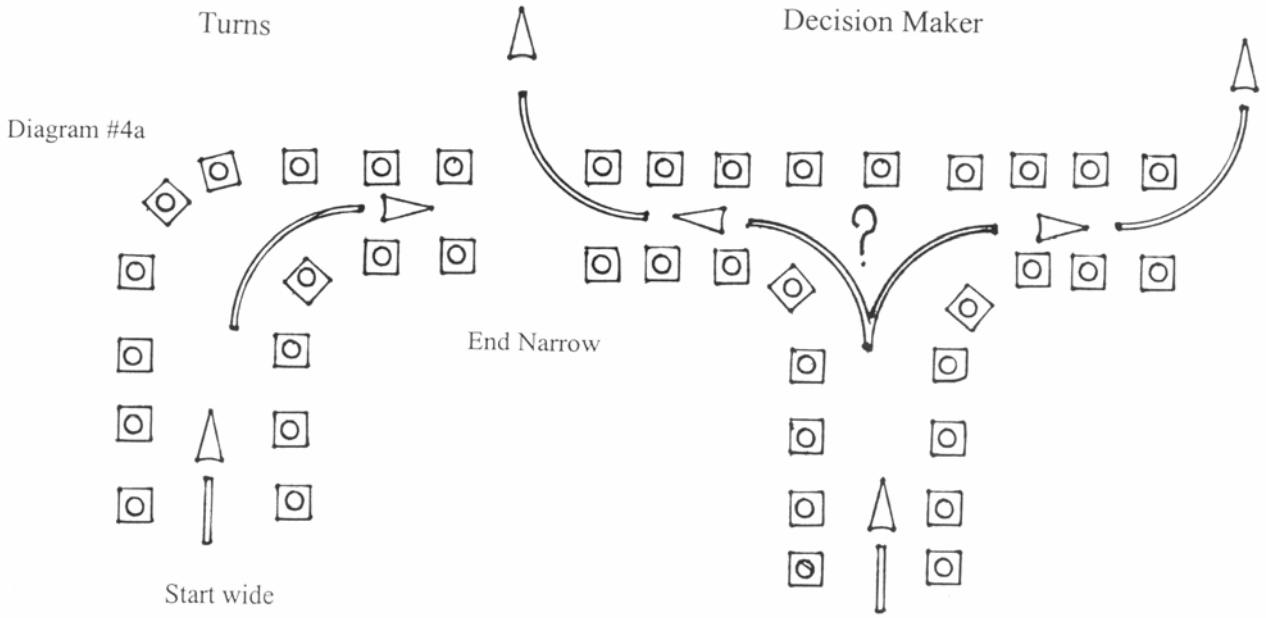


Diagram #3

Cones set at 5-6 feet



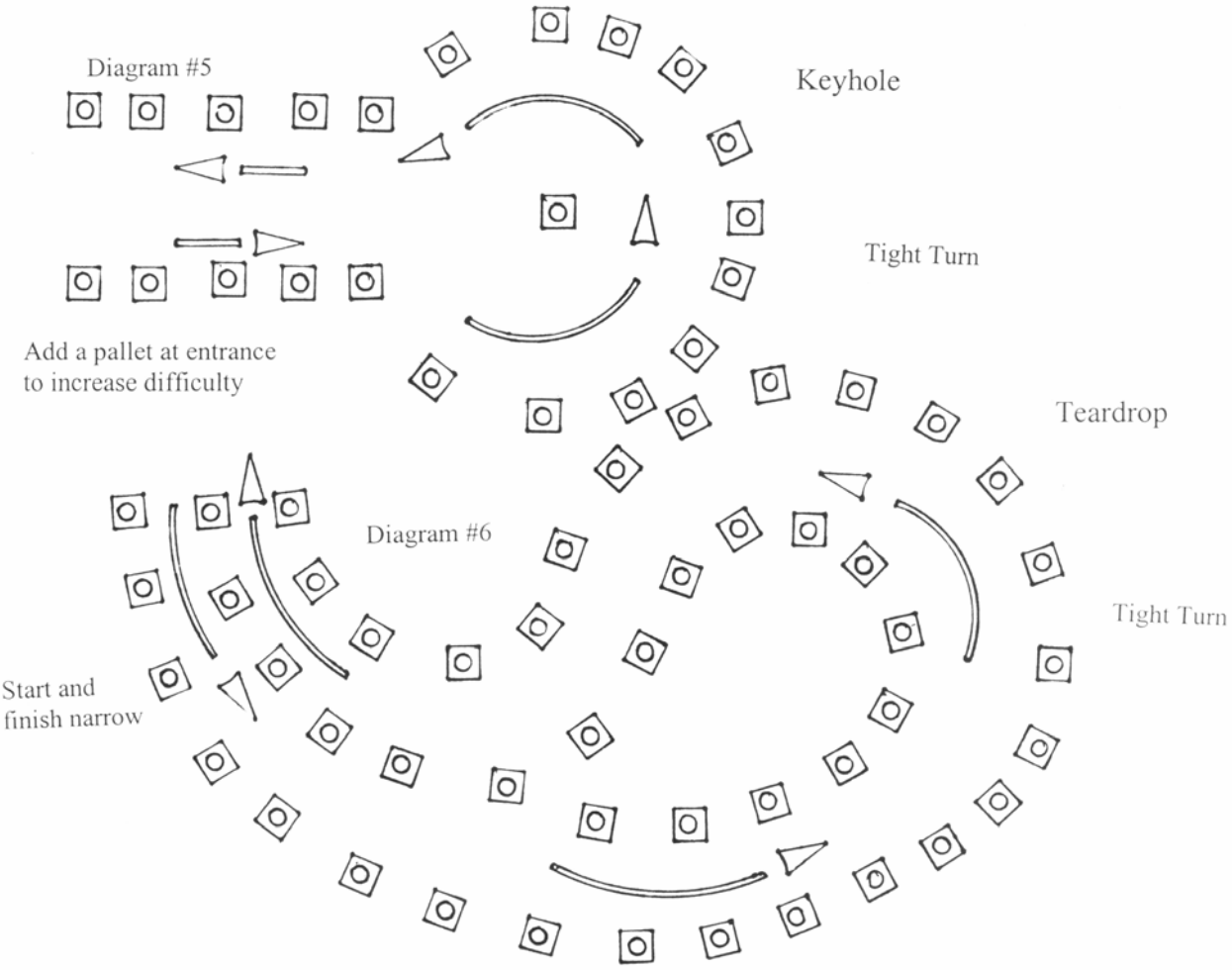


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Diagram #7a
Chain link fence

Fences/Walls

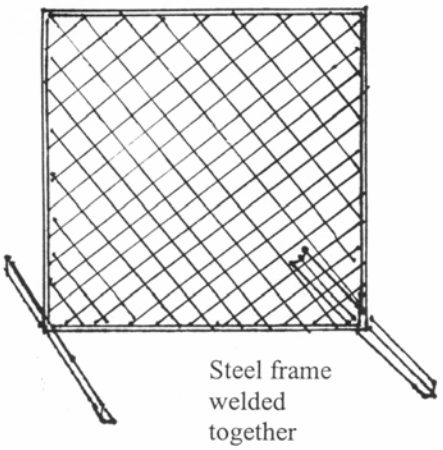


Diagram #7b
Guard rail

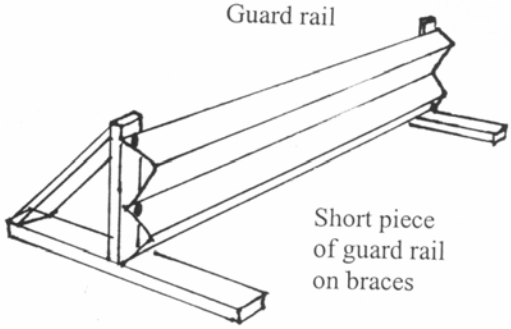
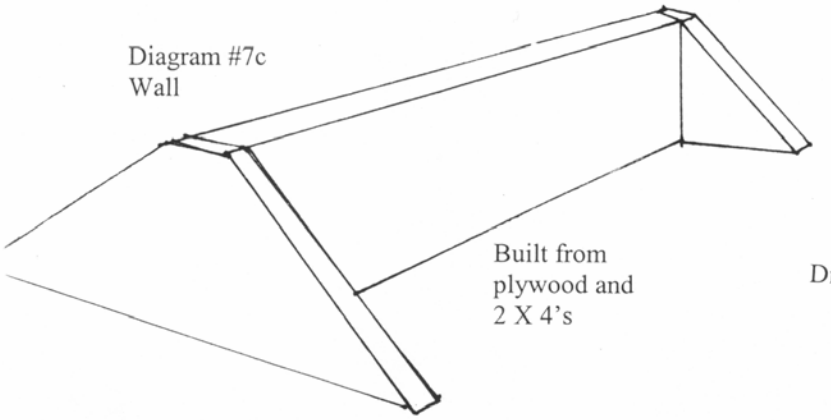


Diagram #7c
Wall



Limbo Bar

Diagram #8

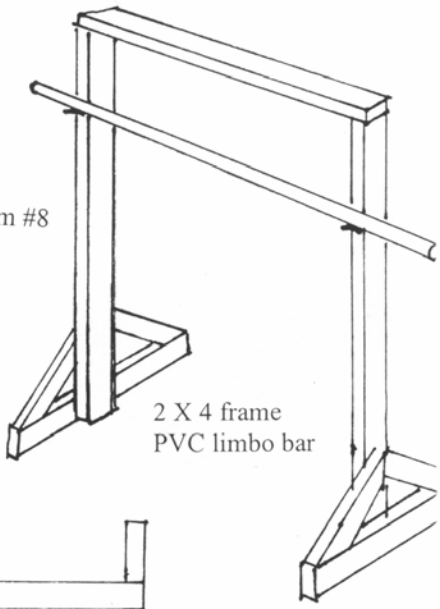
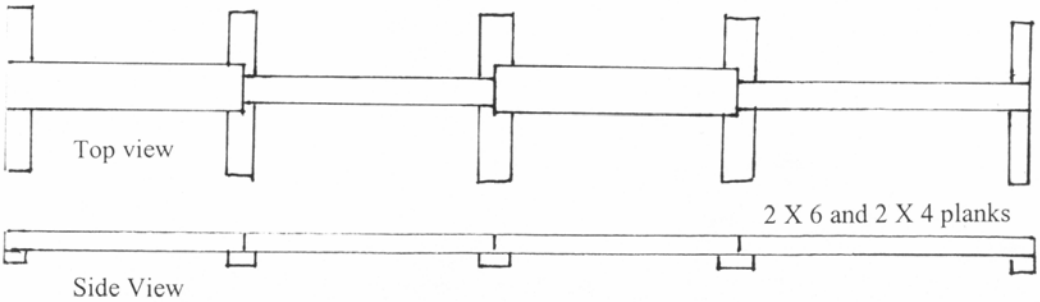


Diagram #9

Balance Beam



Teeter Totters

Diagram #10a

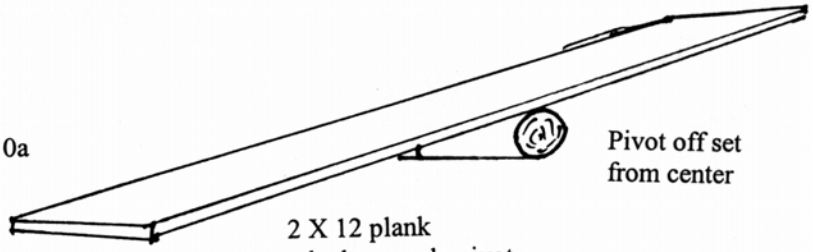
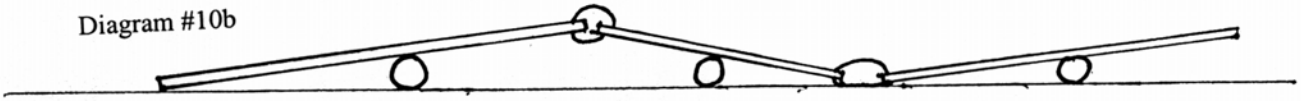


Diagram #10b



Washboards

Diagram #11a

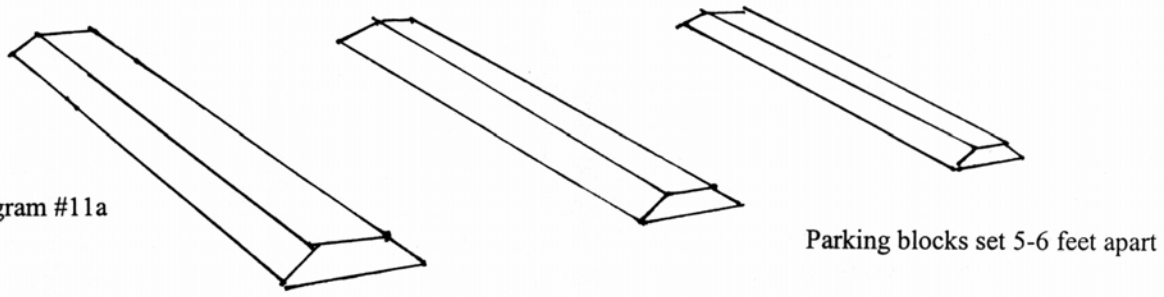
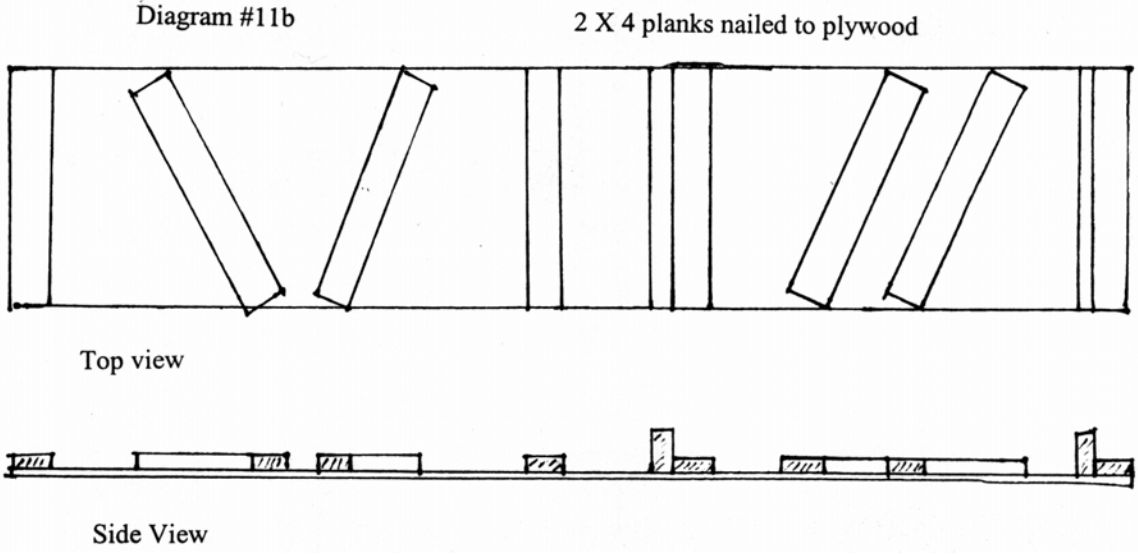


Diagram #11b



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Pallets

Diagram #12a Staircase

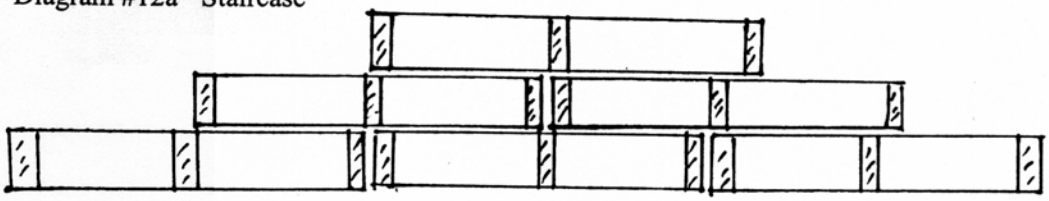


Diagram #12b Mound

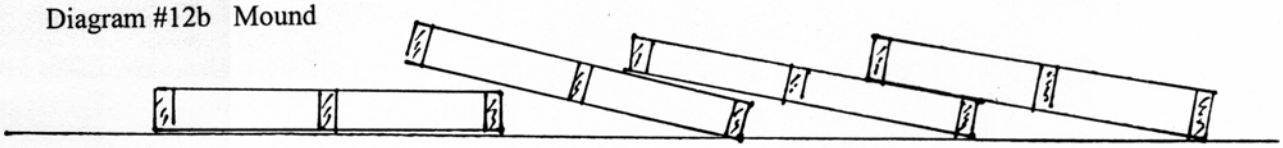
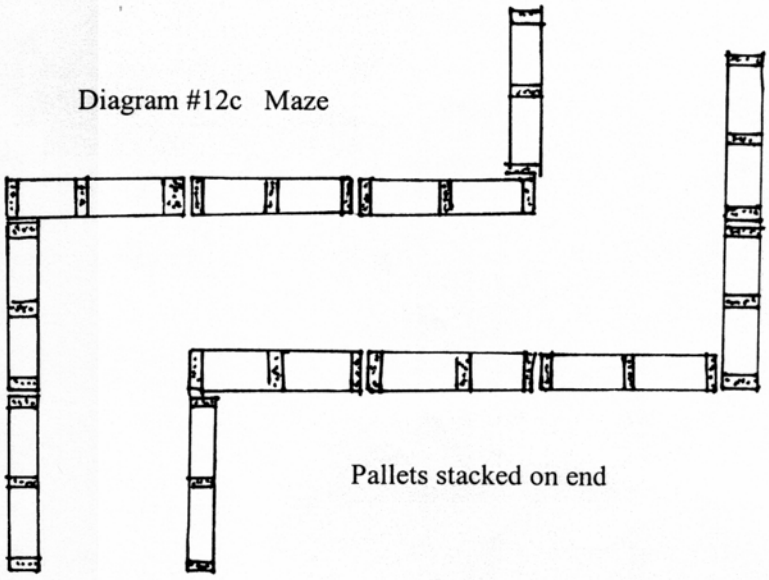


Diagram #12c Maze



Pallets stacked on end

Diagnosing and Correcting Rider Error

Diagnosing & Correcting Rider Error is designed to help IPMBA Instructors identify technical riding errors, give verbal direction to correct the mistakes, and demonstrate proper technique. The goal is to create cyclists who are capable of helping others become safer, more controlled riders. *Developed by Jason Schiffer, Bethlehem (PA) Police Department and Kathleen Vonk, Ann Arbor (MI) Police Department.*

I. Introduction

Diagnosing and Correcting Rider Error is designed to help IPMBA Instructors identify technical riding errors, give verbal direction to correct the mistakes, and demonstrate proper technique. The goal is to create cyclists who are capable of helping others become safer, more controlled riders.

II. Diagnosing and Correcting Rider Error

A. Difficult Task – Identifying a problem in a student's riding technique and explaining the technical change is fairly easy compared to making that correction permanent.

B. Muscle Memory vs. Motor Memory

1. No such thing as "muscle memory" – muscles do not have brains and cannot learn as many believe.
2. Motor Memory is a more correct term because movements are learned and stored by the brain.
   a. People actually learn physical skills by doing or by trial and error – through feedback – not by instruction.
   b. Because we learn by feedback, or signals to the brain, it is important that students practice correct techniques.
3. Complex Skills
   a. May need to be broken down into "simple" tasks.
   b. Allows the student to be instructed to correctly perform the task, thus receiving the correct feedback.
   c. As the brain receives feedback via results, it can store the information for later use.

C. Methods of Instruction (Directed Method and Guided Instruction)

1. Directed Method – most widely used
   a. Instructor shows or tells a student what to do
      1. If needed, the instructor locates what the student is doing wrong and gives the student a correction.
      2. The student then attempts to implement the change.
   b. Positive
      1. Students can quickly learn new skills.
      2. Works well for simple tasks
   c. Negative
      1. Retention level is low
      2. Repeatability of task is questionable
      3. Telling someone how to do something is the exact opposite of how people learn motor skills
      4. Leads to frustration
2. Guided Discovery
   a. Problem Solving
      1. Instructor sets up problems for the student to solve and discusses with the student what technical changes might help solve the problem.
      2. Instructor helps the student with mechanical suggestions to solve the problem.
      3. After the skill is learned in a block environment, the student must be quickly moved to a variable learning environment.
   b. Positive
      1. Allows students to permanently learn the motor skills by having the student solve the problem, rather than being told to make a technical change.
      2. There can be no learning without knowledge of results.
   c. Negative
      1. Can be time consuming, especially with large classes
      2. Manpower intensive

D. Instructor Responsibility

1. Knowledge of subject material (mastery)
2. Ability to perform <u>all</u> tasks required

E. Technical Riding Errors

1. Important that instructors learn as much as possible regarding proper riding technique so they can spot a student's problem.
2. Biomechanical movements of cycling are not necessarily intuitive to all riders.
3. Minor adjustments to technique can make a huge difference in control and proficiency.

F. Correct Mistakes in Form

1. Balance
   a. Stiff Upper Body
      1. Beginners are often too tight in the upper body.
      2. They lock their elbows and tense their arms so they can't go with the flow.
      3. Bend elbows to absorb shock
      4. Fear breeds tension
   b. Body Positioning
      1. Riding a bike is not a passive activity
      2. The bike goes where you look
      3. Understanding body position, center of gravity and weight transfer
      4. Sitting vs. standing

2. Driveline Manipulation
    a. Inefficient Pedaling
        1. Smooth movements
        2. High cadence
    b. Incorrect Shifting Techniques
        1. "Shift before you have to"
        2. A working knowledge of the bike's driveline is crucial
        3. Learn to anticipate the gear needed
        4. "Soft pedaling"
        5. Learn to listen to the feedback from the bike's driveline
3. Braking Techniques
    a. Brake modulation
    b. The more weight a tire carries the more braking power it has.
    c. Balance brake lever pressure and weight transfer.

III. Conclusion

Our job is to instruct public safety cyclists to become so proficient at the use of a bicycle that it's safe operation is automatic under stressful conditions.

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Drug Identification

Drug Identification, conducted by Officer Eddy Croissant of the Tampa (FL) Police Department, will familiarize officers with the different types of drugs that may or may not yet be available in their jurisdictions. Partner workshop to *Drug Enforcement & Interdiction.*

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Drug Enforcement and Interdiction

Drug Enforcement and Interdiction 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.
Presented by Eddy Croissant, Tampa Police Department.

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 (graffiti).
- 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 conceivably 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 possession 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.

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Eating Well for Peak Performance

Eating Well for Peak Performance. Eating well can be difficult for everyone, but public safety personnel encounter even more obstacles because of shift work, interrupted meals, uncertain meal times and discounted or free food at less than healthy establishments. Public safety cyclists have the additional challenge of replenishing energy expended during and after their often strenuous rides. This workshop will provide information on making good food choices in restaurants and the importance of timing food and fluid intake to maximize performance. *Presented by Linda St. Clair, MS, RD, LD, who has 16 years experience in the fields of nutrition, weight management and wellness. As the wife of a Charleston bike officer, Linda has first-hand knowledge of the challenges to proper nutrition on the job.*

I. Introduction

During times of high physical activity, such as bicycling for several hours, energy and nutrient needs, especially carbohydrate and protein, must be met in order to maintain body weight, replenish glycogen stores, and provide adequate protein for building and repair of tissue. Public safety biking presents several challenges to proper nutrition. Timing of meals is important to maintain energy levels, but shift work and the unpredictability of police work make scheduled meals an exception rather than the rule. Obtaining nutritious food while on patrol is difficult and fast food is often the food of choice. While good choices are possible at most restaurants, there are many pitfalls, too. Finally, current nutrition information is confusing – do you need more protein, fat or carbohydrate? Can you improve your diet with supplements? These are some of the areas that are of interest to the active public safety cyclist.

II. Adequate caloric intake

- A. The obesity epidemic
- B. Calculating your calorie needs
- C. Calculating your body mass index (BMI)
- D. Body composition versus body weight
- E. Weight reduction

III. Content of the diet

- A. Protein needs
  - 1. Sources of protein
  - 2. Calculating protein needs
- B. Carbohydrate needs
  - 1. How much is too much?
  - 2. Simple vs. complex
  - 3. Glycemic index
- C. Fat needs
  - 1. Long term energy source
  - 2. Health concerns
- D. Vitamins and minerals
  - 1. Food sources vs. pills
- E. Fluid

IV. The importance of timing of meals

- A. Meals eaten on-the-run
  - 1. Fast food restaurants
    - a. The supersized meal
    - b. Good choices with a limited menu
  - 2. Other restaurants
  - 3. Brown bag meal
- B. Quick energy snacks
- C. Foods for endurance
  - 1. Carbohydrates or fat for energy?
  - 2. Eating before, during after long periods of activity
- D. Fluids
  - 1. Replacing lost fluid
  - 2. Best fluids for energy
  - 3. How often and how much
  - 4. Caffeine and performance

V. Improving performance through good nutrition and healthy lifestyle

- A. The ABC's of good nutrition
  - 1. Balance
  - 2. Variety
  - 3. Moderation
- B. Alcohol Intake
- C. Supplements

VI. Conclusion

Public safety biking provides an excellent opportunity to maintain an active lifestyle. Eating well will help maintain the strong muscles, high energy levels and ward off fatigue. Regular foods can provide all of the necessary nutrients for active public safety cyclists as long as there is an understanding of nutritional needs.

Effective PowerPoint Presentations I

Effective PowerPoint Presentations I provides a step-by-step tutorial for the PowerPoint novice. At the conclusion of the workshop, you will be able to create a simple but effective PowerPoint presentation while avoiding the mistakes commonly made by novices. Sgt. Bernard Hogancamp of the Homewood (IL) Police Department will present the basics of navigation, creating slides; template, font and color selection; modifying text frames, special effects and sounds, and slide transitions.

Learning Objective: Upon completing this session, the student will be able to create a simple *PowerPoint* presentation, from the class synopsis to the finished product.

A. Navigating *PowerPoint* screens
B. Creating a slide
C. Selecting a template
D. Selecting fonts/colors
E. Modifying text frames
F. Special effects/sounds
G. Slide transitions

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Effective PowerPoint Presentations II

Effective PowerPoint Presentations II will focus on developing PowerPoint presentations for effective training classes and public or agency meetings. Sgt. Hogancamp will discuss ways to create presentations that neither dominate nor distract from the purpose of the training. You will learn how to avoid common mistakes and the importance of preparing back-ups.

Learning Objectives: Upon completing this session, the student will be able to base future presentations on a model designed to improve the impact of a seminar or class while avoiding the mistakes common to many overdone or flashy presentations.

A. Site setup
B. Selecting a template
C. Selecting fonts/colors/size
D. Slide layout
E. Sound usage
F. Common mistakes
G. Preparing backups

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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. *Presented by Pat Donovan, Puyallup Fire Department.*

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. The 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 Night Operations

EMS Night Operations teach EMS personnel on bikes how to safely and effectively operate during nighttime emergencies. Kills 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. *Presented by Pat Donovan, Puyallup Fire Department.*

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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 your fellow bike mounted EMS! *Moderated by Jim Bowell, Troy Fire Department.*

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EMS Scene Safety: Practical Applications

EMS Scene Safety: Practical Applications discusses and practices the unique concerns and skills needed by EMS bike units, which frequently arrive at accident scenes before other public service personnel. Learn how to evaluate the scene, maintain equipment for use, and minimize the risk of equipment loss. *Presented by Neil Blackington, Boston EMS.*

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 in your area
- 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 take use of natural barrierscan provice the necessary flexibility.
- Remember: while using the bike as a divider, lighting and equipment needs to be readily accessible; helmet-mounted lighting systems and removable panniers help with this issue
- 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

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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. *Presented by Pat Donovan, Puyallup Fire Department.*

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 during the workshop.)

- Arkel _____
- Inertia Designs _____
- Jandd _____
- Lone Peak _____
- Madden _____
- Old Man Mountain _____
- Ortlieb _____
- Performance _____
- Tubus _____

(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.)

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Firearms Skills for Bike Officers I

Firearms Skills for Bike Officers I is designed to familiarize the bike officer with the unique demands of firearms use by bike patrol officers. This session focuses on the how the addition of the bicycle and related gear affects techniques commonly used in patrol work. It will re-emphasize the importance of practicing bike skills so they become second nature. *Presented by firearms instructors Artie Gonzales, Topeka (KS) Police Department and David Hildebrand, Denton (TX) Police Department. Course requires 200 rounds and handgun, body armor, bike and mandatory safety equipment, and letter from your department authorizing you to participate in live-fire exercises.*

FUNCTIONAL AREA: During this unit of instruction, the student will practice hands-on application of firearms training in regard to bicycle patrol.

The following learning objectives are directed to this functional area. The student will develop and practice skills necessary for firearms training specific to the unique requirements of bicycle patrol.

LEARNING OBJECTIVE: The students will be able demonstrate the ability to manipulate their weapons while wearing their bike patrol gear.

A. From Holster
   a. Draw from holster and fire one shot in under two seconds

B. Reload Drills
   a. Lock back reload
      i. on target, fire one round, reload, fire second round in under three seconds
   b. Tactical reload
      i. Draw from holster and fire two rounds, tactical reload, two more rounds
C. One hand and off-hand shooting
   a. From holster, draw fire two rounds, three seconds
   b. Start with weapon in off-hand, two rounds, three seconds

LEARNING OBJECTIVE: The students will practice utilizing cover while performing reloads.

A. Lock back reload: same as above with no time limit
B. Tactical reload: same as above with no time limit

LEARNING OBJECTIVE: The students will practice dismounting the bike and firing from different positions.

A. Stationary: "clock" positioning
B. Moving dismounts
   a. Rolling dismount
   b. Hook slide
   c. Emergency stop
C. Attached to the bike
   a. Tires toward target, weapon side up
   b. Tires toward target, weapon side down
   c. Disengage, move to cover

EVALUATION: The students will be evaluated on their ability to operate their bicycles and manipulate their weapons while performing the aforementioned tasks.

Firearms Skills for Bike Officers II

Firearms Skills for Bike Officers II builds on the basics taught in *Firearms for Bike Officers I,* progressing to more dynamic movements from the bicycle. Participants will be exposed to situational and positional circumstances that emphasize the importance of having the ability to perform with both a bicycle and a firearm. *Presented by firearms instructors David Hildebrand and Artie Gonzales. Course requires 200 rounds and handgun, body armor, bike and mandatory safety equipment, and letter from your department authorizing you to participate in live-fire exercises.*

FUNCTIONAL AREA: During this unit of instruction, the students will practice hands-on application of firearms training in regard to bicycle patrol.

The following learning objectives are directed to this functional area. The students will develop and practice skills necessary for firearms training specific to the unique requirements of bicycle patrol.

LEARNING OBJECTIVE: The students will review dismounting from moving bicycles and manipulating their firearms accurately.

A. Moving dismounts
   a. Rolling dismount
   b. Hook slide
   c. Emergency stop

LEARNING OBJECTIVE: The students will demonstrate their ability to manipulate their weapons while placed in positions of possible falls.

A. Attached to the bike
   a. Weapon side up, tires toward target
   b. Weapon side down, tires toward target
   c. Repeat positions, disengage from bike, move to cover

LEARNING OBJECTIVE: The students will practice dismounting their bicycles and engaging a target from the scenario of a foot pursuit.

A. Drop-and-Spin target or equivalent with timer

LEARNING OBJECTIVE: The students will practice bike handling and firearm skills under simulated emergency response situations.

A. Cone course
B. Obstacle course

LEARNING OBJECTIVE: The student will become familiar with and practice shooting at distances.

A. Shooting at AFB at distances in excess of 70 yards.
B. Starting at 50-yard line and increasing as much as possible in 5-10-yard increments.

EVALUATION: The students will be evaluated on their ability to operate their bicycles and manipulate their weapons while performing the aforementioned tasks.

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. *Presented by Lou Ann Hamblin, Van Buren Township Police Department.*

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

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Funding Sources for Bike Units

Funding Sources for Bike Units addresses creative funding options for both new and existing bike units. Come listen to funding success stories, hints on how to overcome obstacles to obtaining funds, and share your own experiences.

Funding is available from a wide variety of sources. Obtaining it requires creativity and hard work. This information is designed as a starting point only. It provides advice on how to get started, describes a basic fundraising process, and identifies typical funding needs and potential sources. The rest is up to you. *Panel Moderated by Kirby Beck, Coon Rapids Police Department.*

Step I: Define the uses and the size of your bike team.

Step II: Determine your equipment needs and project the cost of that equipment. Minimize but do not understate the expected costs.

What does a bike team need, and how much does it all cost? Do your research, determine your needs, and devise a realistic estimate of how much it will cost to obtain and maintain the necessary equipment.

Consult IPMBA, IPMBA conference vendors who specialize in outfitting public safety cyclists, bicycle publications, local bike shops, on-line suppliers, and established bike teams to get the most accurate picture of both the initial outlay (usually big-ticket items) and on-going costs.

Bikes: How will your unit be used? How many members do you project? Will it be full-time or part-time? Will each member have his/her own bike, or will they be shared?

Bike Team-Specific Equipment and Accompanying Costs: Uniforms, helmets, gloves, eyewear, shoes, day and night operations, summer and winter operations, medical equipment, etc. Some equipment may seem unnecessary to the oblivious budget specialist but are essential to your everyday operations. Be prepared to justify why you need a certain type of equipment. Try to identify items likely to be rejected by your agency and focus your efforts on obtaining those items through your fundraising efforts.

Maintenance and Repair: Do not overlook the on-going expenses of maintenance and repairs. Weigh the pros and cons of a service contract with a local bike shop against those of maintaining the bikes in-house. Consider the amount and type of use (and abuse) the bikes are likely to experience.

Step III: Determine your training requirements. What type of training will your team members receive? How much does that training cost? Will the training fees be the responsibility of the agency or the team member? How many members will your bike team have? Is it more economical to have one or more individuals certified as IPMBA Instructors than it is to send all members to a training course provided by another organization?

Step IV: Develop a realistic budget. Your research will provide you with facts and figures on what it costs to fund a successful bike team. Use that information to develop a realistic budget. Your budget will help you plan your fundraising effort, sell it to prospects, and measure its success.

Step V: Identify what "funding" means to you and your department.

Policies and Procedures: Do not assume that your agency will appreciate your fundraising efforts. Familiarize yourself with any requirements and restrictions imposed upon donations of money and/or equipment by your agency or local governing bodies.

Cash Donations: Before you start, establish a procedure for receiving, processing, and allocating financial contributions for specific purchases. If possible, consider saving unrestricted funds to purchase equipment not donated by other sources.

Equipment Donations: Approach potential donors with a list of specific equipment and the projected costs. Do not accept items that you do not need and cannot use.

Benefits & Recognition: Be prepared to offer your donors something in return. Explain how their donation will ultimately benefit themselves, and put your plans for recognizing their contributions in writing. Make sure your plans are acceptable to your department and can be accomplished at no cost to you.

Step VI: Locate possible sources of funding.

Your Department/Agency: Traditional budget; unclaimed/ seized property auction.

Departmental Related Organizations: Police/Fire/EMS foundations, etc.

Government: Grants and monies may be available for local or national priorities, for example, federal transportation enhancement funding is available for bike safety education.

Civic Organizations: Approach community & neighborhood associations, civic associations (Lions, Elks), and business associations (chambers of commerce, marketing co-ops, downtown partnerships). They are often generous to organizations providing services to their communities. Be creative!

Corporate Sponsors: Never hurts to try. Some corporations will give sizable donations to generate publicity and goodwill.

IPMBA: IPMBA notifes its members whenever it becomes aware of any potential donors. The IPMBA conference always features a workshop on funding sources for bike units.

Local Bike Shops: Negotiate an exclusive supplier

arrangement in exchange for a discount on parts and/or labor. Offer to provide support for their events as part of the deal.

Fundraisers: Traditional fundraisers still work and are limited only by your imagination and energy. If your department permits this type of activity, it can be both fun and easy. Try selling t-shirts, bumper stickers, or other items; sponsoring a race, bike rodeo, or bike wash & repair; throwing a pancake breakfast or spaghetti dinner; or holding the ever-popular bake sale. Be sure to publicize your event to both the corporate and the residential communities.

Step VII: Review your department's policy on fundraising again.

Step VIII: Sell your unit to potential sources of financial and/or in-kind support.

Perspective: Try to see your agency through the eyes of the person you are asking for support. How has your agency benefited them in the past? How will your bike unit assist them in the future? Why do/should they care? Try to answer the question in their minds, "what's in it for me?"

Build Relationships: Don't expect to meet your financial goals overnight. Fundraising is not necessarily a quick process. It can take years, so cultivate important relationships within the community in the course of doing your job. Recognize all donors, no matter how small the donation; you never know the growth potential.

Develop a Pitch, and Stick with It: Be consistent in your needs, wants, and expectations. While it may be appropriate to tailor some of the details for a particular audience, don't change your story. Members of a community - especially a small one - do talk.

Success Sells: Paint a realistic picture of your bike unit. Describe how effective public safety cyclists are (or can be) in the community, provide samples of the type of media coverage you have received, and share your own heart-warming (or chilling!) stories that will make it hard for them not to support you.

Step VIII: Recognize your supporters at every opportunity.

NOTES: _____

H&K 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. *Presented by Kathleen Vonk, Ann Arbor Police Department. Courtesy of Heckler & Koch International Training Division. This course requires 150 rounds and a handgun.*

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: _____

Health Effects of Occupational Cycling

Health Effects of Occupational Cycling, presented by Dr. Steven Schrader and Michael Breitenstein of National Institute for Occupational Safety and Health, will address numbness and pain in the hands, feet, and groin area. New equipment for evaluating important pressure areas will be demonstrated.

I. Scientific Studies of Bicycle Health Effects

A. Injury From Falling on Top Tube
- 1. Male
  - a. Priapism - Sustained erections
- 2. Female
  - a. Swelling/bruising
  - b. Urinary problems

B. Accessory Testicles
- 1. Appearance of structures similar to testicles behind scrotum
- 2. Fibrous tissue

C. Numbness and Bicycle Saddles
- 1. Netherlands study
  - a. Both male and female riders
  - b. Questionnaires
  - c. Diagram part of saddle causing problem
- 2. Norway study
  - a. Amateur long distance cyclists
  - b. 20% penis numbness
  - c. 13% impotence
  - d. Hand and finger numbness
- 3. Germany study
  - a. Long distance cyclists
  - b. Genital numbness
  - c. 4% impotence
- 4. Massachusetts male aging study
  - a. > 3 hours of riding a week increase chance of erectile dysfunction
- 5. Boston female bicyclist study
  - a. 40 % women studied experience clitoral numbness

D. Effects on Female Genitals and Bicycle Saddle (Women only: attend *Women's Reproductive Health and Cycling* workshop on Friday at 9:30am)
- 1. Vulva swelling
  - a. Extensive training
- 2. California study
  - a. Compared traditional saddle with split saddle
  - b. Less discomfort, numbness, and pain from split saddle
  - c. Funded by Serfas

E. Effects on Penis and Bicycle Saddle
- 1. German study
  - a. Oxygen in penis was decrease with all saddles tested
  - b. Saddle with "no-nose" had smallest decrease in penis oxygen
- 2. Korean study
  - a. Traditional narrow saddle compared to wide short-nose saddle
  - b. Wide saddle has less effect on penis blood flow
- 3. Canadian study
  - a. Classical saddle
  - b. Saddle decrease penis blood flow, oxygen, & sensation

F. NIOSH Study
- 1. City police department
- 2. 94% had numbness to genitals or buttocks on occasion
- 3. Quality of erections during sleep were poorer than those of non-cyclists
- 4. Recommendations
  - a. Minimize pressure to perineum
  - b. Dismount during rest breaks
  - c. If numbness occurs, dismount until it subsides
  - d. Ensure proper bike fit

G. Body Configuration on Bike Saddle Designs
- 1. Compared traditional, split, and "no-nose" saddles
- 2. Compared where handlebars are gripped
- 3. Comfort, back angle and pelvis tilt evaluated.

II. Proposed NIOSH Study

A. Large Multi-Department Study
- 1. Would want about 100 male cyclists/ 50 non-cyclists
- 2. Repeat first study
- 3. Distribute "no-nose" seats to half of the cyclists & analyze in six months

B. Measurements for Male Study
- 1. Pressure
  - a. Saddle
  - b. Feet
  - c. Hands
- 2. Ability to feel vibration
- 3. Erection quality

C. Female Study
- 1. Need at least 25 female cyclists
- 2. Information at *Women's Reproductive Health & Cycling* - Friday 9:30am (women only)

Contact NIOSH – Steven Schrader 513-533-8210, sms4@cdc.gov.

How to Become an IPMBA-Certified Instructor

How to Become an IPMBA-Certified Instructor addresses the qualifications and procedures necessary for becoming an IPMBA-certified instructor. Current instructors are encouraged to attend for an update and to review the requirements for advancing to the level of Instructor Trainer. *Presented by Al Simpson, Pompano Beach Police Department (ret.).*

Since 1993, IPMBA has certified over 500 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 410-744-2400, email info@ipmba.org, or visit www.ipmba.org.

NOTES: _____

TO: **Prospective *IPMBA Instructor***

FROM: **Jim Bowell, Education Director**

The International Police Mountain Bike Association (IPMBA) has been providing world-class training to public safety cyclists since 1991. IPMBA prides itself on the quality of its training programs and holds its instructors to the highest standards of excellence. In order to maintain IPMBA's high standards of instruction, the Education Committee and Governing Board have developed the IPMBA Instructor Course, in which qualified individuals learn how to effectively and consistently teach IPMBA principles to their fellow public safety bicyclists.

Before you graduate and become certified by the International Police Mountain Bike Association Instructor, you must meet the criteria set forth below. Your Instructor Trainer must confidently give an affirmative answer to these questions to ensure that the integrity of the IPMBA Instructor cadre is kept at the highest standard. Completion of this course does not guarantee certification; meeting these standards of excellence does.

1. Do you know the material contained in the *Complete Guide to Police Cycling*? The material in the *Complete Guide* is a compilation of knowledge and experience and represents thousands of hours of public safety cycling. As IPMBA Instructors, you will teach the practical skills and knowledge contained within this book. The very lives of your students and the public they serve may depend on your grasp of that knowledge.

2. Can you present the material? To be an effective instructor, you must not only know the material, you must be able to present it in a clear and concise manner. You will learn techniques for presenting the material in both the classroom and in the field. You will be evaluated on those techniques at several stages throughout the course.

3. Do you possess instructor-quality riding skills? Students gain confidence in their own skills as they learn from an instructor who demonstrates exceptional cycling skills. Balance, stamina and smooth, flawless techniques are essential qualities that will win their confidence and motivate them to ascend to higher levels.

4. Do you possess good interpersonal skills? Do you communicate well with students and others? An instructor's demeanor is one of patience, understanding and support. Some students will not comprehend the material or learn the techniques as readily as others. You will need strong interpersonal skills and the ability to deliver constructive criticism as well as positive feedback.

5. Can you perform as a solo instructor? You must be able to deliver all the material, not just the parts of it that you like or in which you excel. Your students will look to you for a comprehensive course of instruction that will give them all the skills and knowledge they need to perform their duties as a public safety cyclist. You will be responsible for that instruction as you sign each roster that certifies that your course has been conducted in accordance with the requirements and procedures established by the International Police Mountain Bike Association.

As a candidate for this course, you have demonstrated the excellence, the desire and the will to become part of an elite group of individuals: IPMBA Instructors. It is the desire of this organization to provide you with the most comprehensive, up-to-date and quality-controlled instruction available; and to enable you to serve as a positive role model and representative of your department and IPMBA.

This will not be an easy course. You will be required to pass rigorous practical and written tests, so refamiliarize yourself with the material in the Complete Guide (available from Calibre Press, 800-323-0037), and practice every skill and technique. Train yourself to think about identifying and correcting improper technique. Above all, make sure that you feel confident that by the end of the course, you will be able to answer "yes" to each of the above questions.

If you have any questions about the course or your qualifications, please contact me at education@ipmba.org. Best of luck throughout this process. We look forward to welcoming you to our elite cadre of instructors.

Instructor Roundtable

Instructor Roundtable brings IPMBA Instructors and the IPMBA Board together for a free-wheeling discussion of experiences, training tips, and other topics relevant to teaching the IPMBA Training Courses. *Moderated by IPMBA's education director.*

NOTES: _____

Introduction to Community 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. *Presented by Al Jones, Tri-State Regional Community Policing Institute.*

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.

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Law Enforcement Officers Flying While Armed

Law Enforcement Officers Flying While Armed was developed by the FAA in the wake of 9/11. This session will present the revised federal regulations governing LEOs traveling armed and is mandatory for any law enforcement officer who has a need to fly armed (i.e., to carry a firearm on his/her person or in carry-on luggage). Regulations for carriage of firearms and ammunition in checked baggage will also be reviewed. Attendees will receive a certificate of attendance. *Presented by Officer Ed Croissant, Tampa (FL) Police Department.*

Conditions for Carrying A Firearm On Commercial Airlines

- Authorized by Your Agency
- You're A Sworn Law Enforcement Officer
- Have A Need To Fly Armed
- Completed A Flying Armed Training Program

Status That Determines Need To Carry Firearm On Aircraft

- Protective Escort
- Hazardous Surveillance
- Prisoner Escort
- FBI Special Agent
- LEO On Official Travel Required to Report to Another Location Armed and Immediately Prepared For Duty

Credentials For Proper ID

- Clear, Full-Faced Photograph Identification
- Containing Your Signature
- With Official Agency Seal or Agency Head Signature

Letter of Authorization

- Travel Dates and Itinerary for Flights
- Certification of FAA Training
- Reason for Being Armed
- Original Signature by LEO's Supervisor

STEPS TO BE TAKEN

- Now that you have prepared your Letter of Authorization, and you have a flight pass or ticket, follow these simple steps to avoid any delays.
- A few days before the flight, visit the ticket agent of the carrier that you are using.
- Bring with you the letter and photocopy of your certificate.
- Inform the agent of your flight date and that you are a LEO who will be flying armed.
- The agent will prepare the paperwork so that it will be at the ticket agent area at the time you check in.
- On the date of the flight check in as normal.
- The agent will give you the paperwork to board and for connecting flights.
- Do not pass through the metal detector, tell security that you are a LEO.
- You will be escorted around the metal detectors and be required to sign in and produce a valid ID.
- You will present your paperwork to the flight attendant and take your seat.
- The flight attendant will hand you a piece of paper before the flight leaves that will have seat numbers of other LEO's flying under the same status.

DO NOT MAKE CONTACT WITH THEM FOR YOUR SAFETY AND THEIRS.

Prisoner Restraint

- The level of restraint required/allowed by the air carrier is corporate policy, and varies from carrier to carrier.
- Prisoner Control:
  - The prisoner must remain under the direct control of a LEO at all times while being transported.
  - No alcoholic beverages served to the prisoner or escort.
  - If prisoner is served a meal, plastic utensils are to be used.
  - Prisoner and escort remain seated until all passengers have left the aircraft.
- Pressurized Containers
  - No person may carry tear gas, mace, OC spray, or similar chemicals on board a commercial aircraft, unless it is 4oz or less and in the checked luggage.

Firearm in Carry-On Baggage or Checked Baggage

- LEO's are not required to stow weapons in the checked baggage.
- Weapon must be unloaded.
- Declared when bags are checked in.
- Weapon placed in hard-side, locked container (you maintain the key).
- Weapon can be worn on your person.
- Firearm tag, if required, placed on the inside of the container.

Ground Security Coordinator (GSC)

- The Ground Security Coordinator is the best contact for the LEO regarding conflict resolution.
- The GSC interfaces with crew, LEO and other security.
- There is a GSC at each station of the carrier.
- The GSC receives threat information and disseminates it.
- The GSC is the best point person to resolve questions of a serious nature.

In-Flight Security Coordinator

- The pilot-in-command is the in-flight security coordinator, and is the final authority on board the aircraft.

Crew Training

- The aircraft crew has been trained to handle crisis situations.
- Let Them Do It!

Flight Crew Reaction to a Hijacking

- Personnel on the ground are covertly informed.
- May appear that the crew is "giving in."
- Everything will appear in slow motion.
- Everything that happens could be part of a resolution process.
- Safety of the crew, passengers and airplane is paramount.
- Crew is trained to avoid confrontation.

FAA's Federal Air Marshal Program

- This team will have sufficient numbers to handle a situation. Your assistance is to NOT get involved.
- Air marshals are specially trained.
- Their identity must be protected.
- Their purpose is to take active preventative action with minimal loss.

Proper LEO Reaction To A Hijacking

- Do not become involved unless asked by the crew.
- Keep a low profile — hide any ID.
- Prepare to be a good witness.
- Do not acknowledge outside noises.
- In an assault, STAY DOWN!!!
- Don't Get Shot!!!

Proper LEO Reaction to a Disturbance

- Only intervene when asked by the crew, or when life is clearly at risk.
- You may discreetly volunteer your assistance.
- You should NOT discharge a firearm on the aircraft.

Discharging A Firearm Could Cause:

- Fire on board.
- Damage to hydraulics, or electrical system.
- Damage to engines.
- Injury to an innocent person.

Professional Conduct is Essential

- No alcoholic beverages may be consumed by the LEO within 8 hours of the flight.
- Be aware of other LEO's onboard.
- Be discreet and do not display firearm.
- Absolute control over the firearm must be maintained.
- If firearm is in carry-on bag, do not leave bag unattended for any reason.
- DO NOT turn firearm over to a crew member.

If Denied Boarding With A Weapon

- Involve a ground security coordinator.
- Inform your supervisor.

Your Agency Will Notify FAA.

NOTES: _____

Introduction to Maintenance

Introduction to Maintenance introduces the concept that "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. *Presented by Mike Goetz, Seattle Police Department.*

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
Air
Brakes
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 ("E" above.)

Bicycle Inspection & Lubrication Checklist

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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)
- pins seated correctly
- check chain for stretch/cracks/broken link plates

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

II. 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

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 Adjustments
- 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

Examples of a Bicycle Check-out Log ...

Name & Number	Bicycle Number	Time Out	Time In

Bicycle Number	Issued to (Name)	Date	Notes

... a Bicycle Repair Log

Bicycle Trouble Report

Officer: **Date:**

Problem:

Work Performed:

Repaired by: **Date:**

... and a Bicycle Trouble Report

Maintenance Topics

Maintenance Topics are designed for those who have mastered the basics of bike maintenance and are ready for more in-depth knowledge and hands-on practice. These four sessions focus on specific areas of the bike. All sessions require a bike, bike stand, two towels, six grease rags, allen wrench set (including 8mm), and equipment as specified. *Presented by Tom Tanner, Ann Arbor (MI) Police Department and Jim Roy, Topeka (KS) Police Department.*

- Brakes (Intermediate): Replace cables, inspect brake pads, file worn brake pads, install new brake pads, fine-tune the brakes. Requires two brake cables and one set of new brake pads.
- Drive Train (Intermediate): Remove and clean chainrings, chain, rear cassette, shifter cables. Re-install parts, replace stretched cables, tune front and rear derailleurs. Requires two shifter cables & housings, new chain, chain checker or ruler/ tape, chain tool, chain puller.
- Basics of Wheel Truing (Advanced): Learn the basics of wheel truing both by truing off the rear and front brake pads and by using a truing stand. Requires spoke wrench that matches your spokes.
- Bearing Maintenance & Overhaul (Advanced): Learn to maintain, inspect, and replace axle and headset bearings. Requires cone wrench.

BIKE OFFICER'S MAINTENANCE CHEAT SHEET

PEDALS: Pedals are marked (R) and (L)

Right side pedal (drive side):	Clockwise = On Counterclockwise = Off
Left side pedal:	Counterclockwise = On Clockwise = Off

CRANK REMOVER: Right Hand Thread

BRAKE PADS: Cantilever Brake Pads: "toe" the forward end toward rim
V-Brakes: Pads hit rims evenly

BRAKE CALIPER TENSION SCREWS:
Turn screw inward to increase caliper width
Turn screw outward to decrease caliper tension on that side

BRAKE/SHIFTER BARRELS: Turn barrel adjustments **away** from lever to increase the tension, and stretch the cable.
Cables do not shrink

HIGH AND LOW LIMIT SCREWS:
Leave them alone, unless you know what you're doing
Counterclockwise turns, allows derailleur to increase travel (move farther)
Clockwise turns, reduce travel (move in)

HUB REPLACEMENT OR CLEANING:
Remove lock washers from the (LEFT) side of hub

BOTTOM BRACKET CUPS: Right side – Normal thread
Left side – Reverse thread

PRESTA STEMS: When airing up, screw the stem out then hit the spring to loosen the "O" ring inside.

Brakes

Adjustment of Brakes

Tools/Equipment Needed:

- "third-hand" tool
- needle-nosed pliers
- allen and box wrench sets
- phillips screwdriver
- brake/derailleur cables and housing
- cable cutter
- cable end caps
- lube
- repair stand

Of all the components on your bicycle, the brakes are the most essential for safety. Cable stretch, pad wear and improper caliper tension make braking ineffective.

Frayed cable, damaged cable housing and worn pads need to be replaced.

Cable (stretch adjustment/replacement)

When applying the brake, you should be able to place a finger between the lever and the handlebar grip.

(cantilever brakes)

If you are unable to do so, the cable tension needs to be adjusted.

There are barrel adjustments just beyond the brake levers on the cable path.

By turning these out (counter clockwise) from the brake levers, you decrease the distance the cable must travel, thereby closing the brake pads closer to the rim.

- Cable stretched beyond the point of adjustment via the barrel must be tightened using tools.
- Affix the "third-hand" tool to the brake pads, applying pressure against the wheel rim.
- Back off the barrel screw 1 ½ turns from the end of the brake lever to allow for fine tuning.
- Release the nut holding brake cable (non-quick release side).
- Pull cable taut with pliers.
- Re-tighten nut.
- Fine tune using the barrel adjustment.
- If, after adjustment, one spot on the rim rubs the wheel rim, the wheel needs to be checked and/or re-trued.

To replace a frayed cable, lubricate cable, and string it through housing, and follow steps 1-6 (above).

Cut the cable (with approximately 2 inches extra) and affix cable ends ***ONLY AFTER ALL ADJUSTMENTS HAVE BEEN MADE.***

Caliper Tension

- If one caliper is closing quicker than another, the tension adjustment screw located on the non-quick release caliper will fine-tune the tension.
- Turn screw inward to increase caliper tension on that side.
- Turn screw outward to decrease caliper tension on that side.

Pad Replacement/Adjustment

- Mountain bike brake pads *MUST* be replaced as a unit.
- "Toe in" the pad* (the forward end of the pads should hit the rim first when the brakes are applied).
- This will allow for full pad use as the forward energy of the wheel slightly rotates the pad forward.
- The difference between the front and rear of the pad, relative to the wheel rim, should be about 1/16th of an inch.
- Chirping or squealing brakes are almost always a result of improperly toed-in pads.

**Note: with V-Brake© style (linear pull) brakes, toe-in is not critical.*

Drive Train

Adjustment of Shifters and Derailleur
In 90 percent of the cases, improper shifting can be cured by fine-tuning cable tension using the barrel adjustment screws.

Occasionally the problem is a stretched chain
(See section on checking and replacing chains.)
If the aforementioned adjustments/replacements fail to solve the shifting problem, check for the following problems:

- Bent derailleur cage
- Bent drop out

Cable Replacement:
In the case of cable that is stretched beyond the ability to correct the problem using the barrel adjustment screws, or needs to be replaced, follow these steps:
1. Completely back off barrel adjustments, then turn them two revolutions (for fine-tuning later). Shift to the smallest freewheel cog and middle chain ring.
2. Starting at the shift lever, grease and string new cable through housing and derailleur nut (or pull existing cable) and tighten down nut.
3. Re-check the cable for slack, especially where it is exposed from the housing. *Note: cable should not be slack, but not "piano wire" taut either.*
4. With bike in the work stand, turn the pedals and shift through the gears to check for needed fine-tuning through using the barrel adjustments. Normally no more than 1/4 turn in either direction is needed.
If the chain is rubbing on the outside of the front derailleur cage, increase cable tension. If it is rubbing on the inside, decrease the tension.
If the chain is attempting to move onto a larger freewheel cog, decrease cable tension.
If the chain is attempting to move onto a smaller cog, increase tension.
5. Cut cable (two inches past lock nut) and crimp an end cap onto cable.

Chain Maintenance and Repair
The chain is a very essential component of the bike's drive train.

Failure to properly maintain the bike chain will cause sluggish operation of the bike and premature failure (broken chain).

The ability to repair a broken chain in the field will eliminate the need, and embarrassment, of having to call for an "ambulance" to "tow you in."

Chains should be replaced yearly (or every 1,500 miles) and/or periodically checked for wear.

An overly "stretched" chain will wear down the teeth of the freewheel cogs and/or chain rings, requiring a costly and premature replacement.

A worn chain may have shifting problems.

Tools/Equipment Needed

- Chain tool
- Link pins (for "hyper glide" chains only)
- Degreaser / rags / brushes
- Chain lubricant
- Six-inch piece of a coat hanger

Periodic Chain Maintenance
1. Degrease and clean chain
Use a commercial chain-cleaning device, or degreaser & brushes and rags, etc.
2. Check for wear. Use Chain Checker Tool or:
   - Hold a ruler to the outside plates of the chain.
   - Start the ruler on one of the pins that goes through the plates and follow along to the 12-inch mark.
   - This mark should line up with another pin. If the pin is past the mark by more than 1/8 inch, it is time to think about replacement.
3. Replace and/or lubricate chain.

Do not overly lubricate the chain.

Place a *single drop* of lube on each bushing.

If using a spray can, don't just spray the chain and turn the cranks. It over-sprays lube onto wheels, frame, and everywhere. Dropper-style bottles are best!

Turn the pedals for a minute or so, and shift up and down through the gears, to spread the lubricant evenly.

Wipe off excess lube with a clean rag.

Excess lubricant attracts dirt. Keep things clean!

Note! "Dry" lubricants (e.g., paraffin) tend not to "attract" dirt, and usually make cleaning easier.

Repairing/Replacing a Chain
1. Shift the chain to the smallest freewheel cog and the smallest chain ring to ease the derailleur spring tension on the chain.

2. Take a six-inch piece of coat hanger and bend the ends into "L's" about one inch long.

Pull the chain together to make a loop hang down and insert the ends of the wire tool into the chain from above, allowing the loop to exist without derailleur spring tension.

3. Shift the chain across the inside of the outermost wall of the chain tool, lining up one of the chain pins with the pin on the chain tool.

4. Slowly and steadily turn the handle of the chain tool clockwise, spiraling the pin of the tool and pushing the pin of the chain out through the side of the chain link.

5. DO NOT remove the pin from the chain completely (*except in the case of "hyper glide" chains, which must be fully removed.)*
6. Push the pin outward until the end of the pin is even with outermost part of the chain tool.
7. Turn the handle of the tool counter clockwise, back the pin of the tool out of the chain link.
8. Pull the links apart using a light twisting force.
9. Reassemble the chain using the steps in reverse. (*In the case of "hyper glide" chains, insert a new replacement pin.)*

Basics of Wheel Truing

To check if you wheel is out of true, or out of alignment, you can use the following test. Turn the bike upside down to rest on the seat and handlebars, and spin the wheels. Look to see if there is a wobble or if the wheel rubs or touches the brake pad at any point while it is spinning. Sometimes you can hold your finger adjacent to the brake pad and feel for areas of contact of the rim on your finger while the wheel is spinning. Wiping out, bashing the wheel on a big rock, or dropping your bike may cause a noticeable wobble, as you may have bent the rim and taken the wheel out of true. Sometimes you become aware of the wheel being out of true because it is rubbing on the brakepad.

It is a good idea to always lift up your bike before a ride and spin each wheel to make sure it spins freely and does not rub against the brake pad. If it does, and your pads are in the proper position, your wheel may need truing. Another test we do is the tone test. Take a small screwdriver and let it hit the spokes while spinning the wheel with the bike upside down. Each spoke should ring out melodically and not sound like a "thud" or "dull" sound. If one does, it may be a dead spoke and have no tension on it and require tightening. You can also grip each spoke individually and see if it wiggles or feels loose. Using the spoke wrench, these dead spokes should be tightened first and put under tension.

The best way to true a wheel is to take it off of the bike, remove the tire, tube, rim tape, and use a truing stand. This is best done in a bike shop, but is generally not needed for mountain bike riding and is often not feasible. Therefore, The Wrecking Crew has come up with a technique which will work in the field. You only need one tool: the appropriately sized spoke wrench. There are three sizes of spoke wrenches – you must have the right size for your bike! Consider carrying all three sizes when you ride so you can true any wheel on the trail or before a ride. It is usually a good idea to check your wheels for trueness after every couple of rides, especially if the wheel is new or the terrain is nasty. Again -- always have the right size spoke wrench for your bike!

If you have the spoke wrench, there is one more important thing to know – which way tightens the spoke! If you want to tighten a spoke, turn the wrench COUNTER-CLOCKWISE against the rim as you look from the hub to the rim. Unless you do this all the time, you will make mistakes and not turn the correct way. Do a test on one spoke and turn it a couple of turns to see the effect so you know how to tighten or loosen it.

Here is what you do:

Turn the bike upside down. Spin the wheel you are truing. If it wobbles, place your finger on the brake pad next to the rim so that you lighly touch the rim at every point except the area of the wobble. You will see that the rim is off to one side at a certain location. Next, remember that the spokes come out from both sides of the hub. Some come from the right side and some from the left. Naturally, tightening a spoke from the right side of the hub pulls the wheel to the right. Note that the spokes alternate right-left-right-left, etc. Tightening a spoke from the left side of the hub pulls the wheel to the left. O.K. If your wheel is warped out to the right, then you need to tighten the spoke connecting to the left side of the hub. Start with a slight adjustment - about a half a turn for the spoke at the wobble center, one quarter turn for the spokes on either side, one eighth of a turn for the next two spokes. Remember: these spokes are not next to one another because they alternate. You can also do the opposite and loosen spokes to affect the wobble, as sometimes you might have to loosen some spokes and tighten others in the wobble area to produce a true wheel.

When you finger test and vision tells you all looks even, and the wheel seems to spin true, you are almost done. But there are two more things – check the spokes for approximately the same tension by squeezing two at a time with your fingers, by wiggling, or by conducting the tone test. Finally, make sure that the wheel is reasonably centered between the forks (front wheel) or chainstays (rear wheel) and you didn't move the wheel too far to one side.

Bearing Maintenance and Overhaul

HUB OVERHAUL

A. Remove the wheel and extract the quick-release. (For rear wheels remove the cassette cogs, or freewheel).

B. Prepare the work area.
- Spread out a clean rag to catch ball bearings.
- Open a can or tube of hand cleaner and put out rags or paper towels.
- Pour an inch of solvent into an empty wide-mouth jar. Simple Green is relatively safe and effective, but make sure there is plenty of ventilation.
- Put at least two more clean rags and a couple of jar lids within easy reach.
- If you are installing new bearings, unwrap them and segregate the smaller, front ones from the rear ones and divide them into separate jar lids. Most front hubs take ten 3/16-inch balls per side, although some use nine 7/32-inch balls. Virtually all rear hubs use nine ¼ -inch balls per side.
- Set out a set of flat, open end wrenches called **cone** wrenches (sizes 13-14 mm and 15-16 mm), a wide blade screwdriver, and a plastic or wooden mallet.
- Set out your favorite bicycle grease, but keep it contained until you're finished splashing solvent around.

C. Clean the axle ends so that you can see the various parts. Hold the **left** (left side of the wheel as you are sitting on the bike) cone and locknut with the proper size cone wrenches. Turn the locknut counter-clockwise. Unscrew it, remove the lock washer, and unscrew the cone. Sometimes keyed washers rotate and jam against the axle thread. If this happens, grab the offending washer with a pair of pliers and turn it (countering the axle's rotation with the cone wrench on the right-side cone) until the key returns to its groove. Then slide it off. **Place each item on a rag in the proper order.**

D. Pull the axle out of the hub from the right side. Make sure that the bearings are not clinging to the greasy axle or cones, or fall out onto the floor. Remove the bearings from both sides with a magnet, or needle noise pliers. To contain runaway bearings, cup your hands over the hub shell openings as you flip the wheel. **COUNT** the bearings and keep them separated.

E. Clean all the parts. If you have solvent containers, clean the parts by placing them in the container and swishing them around. Clean them one at a time and keep them in order. If you are re-using the same bearings, clean them in the solvent or with a towel. Air dry or dry them with a clean towel. Wipe out the hub shell and, using the corner of a clean rag that has been dipped in solvent, scrub the bearing races. After cleaning, inspect the races and the cones for wear or pitting. When clean, the bearings should gleam. Patches of dullness indicate wear. When in doubt, replace them with the proper size.

NOTE: If you have to replace the cone on the axle (RIGHT SIDE), measure the amount of exposed axle, position the new cone the same distance from the end, and tighten it securely against the lock washer and locknut.

F. Wash your hands with cleaner and dry them thoroughly on a paper towel or towel.

G. Lubing and Reassembly
- Lay a thin bead of hub grease around right bearing race. Smooth it with your finger.
- Lay the cleaned or new ball bearings into the race, one at a time.
- Lay another heavy bead of grease over the balls. Smooth with your finger.
- Slide the axle into the hub. Make sure you do not push the bearings out.
- Flip the wheel and back the axle out to the edge of the race. Repeat the first three steps and push the axle through.
- Thread the left cone onto the axle by hand until it touches the bearings. Install the lock washer and locknut. Use cone wrenches to tighten the cone and locknut against each other.
- A perfect adjustment will have a tiny amount of play that will disappear when the wheel is clamped in the frame. Grasp the end of the axle and move it up and down to check this; also turn the axle to feel for smoothness. If you feel grinding or movement, loosen the locknut and try again.

H. Place skewer back into hub and place wheel back on the bike.

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. *Presented by Scott Hickey, Fort Lauderdale Police Department.*

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 cyclist'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.

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Off-Road Riding Topics

Introduction to Off-Road Riding 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. *Presented by James Whited, University of Oklahoma Police Department.*

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 .

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.

Introduction to Advanced Off-Road Riding is designed to propel the rider who has already mastered the core skills of off-road riding from the intermediate to the advanced level. Steep technical climbing, long rides, big drops, and fast, efficient trail riding will be emphasized. Weight and balance transfer, cadence and rhythm, brake usage, body and tire positioning, and determination will be discussed as the means to overcoming technically advanced terrain and improving stamina.
Developed by Officer Ian MacAyeal and Chief Loren Ryerson of Aspen (CO) Police Department.

Objective:
This class is designed to propel the intermediate off-road rider to the next level. As an advanced off-road rider, the public safety cyclist will have the tools to be more effective while patrolling the street.

Introduction:
"Advanced off-road riding" means advanced skill development of bike patrol tactics and technique. By honing your off-road riding skill and breaking through to the next level, you become a better and more confident rider on duty. This course will consist of some brief theory on off-road riding then will hit the trail for some practical on-bike skill development. Instructors will present a series of on-trail challenges designed to build confidence and increase technical skill.

These skills will include riding technical sections of trail, riding up and down steep and/or loose terrain as well as pedaling through and over natural obstacles. Shifting and braking dynamics and how they relate to the trail will also be emphasized.

Course Outline

1. Brief theory of off-road riding and how it relates to the public safety cyclist.
    A. Street skill
    B. Common hazards and obstacles
    C. Nutrition and endurance

2. Route planning, map overview and safety precautions
    A. Determine route
    B. Discuss on-trail workstations
    C. Discuss ride and what to expect
    D. Determine individual riders' off-road experience and level

3. Necessary equipment check and discussion
    A. Plenty of and proper food for the ride
    B. Proper and sufficient clothing for the ride
    C. Tools needed for basic trailside repairs and their functions

4. Discussion of advanced technical and endurance riding
    A. Choosing lines of travel
    B. Looking ahead and being aware
    C. Pedaling through and over obstacles
    D. Weight transfer and body positioning
    E. Mental, emotional and physical demands
    F. Questions?

On Bike Session

Trailside Workstations and Theory:

- Steep Climbs and Descents
- Switchbacks
- Root and rock sections
- Creek crossings
- Pedaling through mud, sand, loose rock or dirt
- Pedaling over large obstacles
- Hazard identification, awareness and/or avoidance
- Choosing lines of travel and scanning terrain
- Shifting through technical sections
- Braking through technical and variable terrain sections
- Assessing ability and risk factor
- Maximizing speed and endurance
- Mental preparation and focus
- Breathing and pushing the endurance limits
- Getting in "The Zone"
- Putting it all together for maximum off-road skill mastery
- Basic trailside repairs
- Post ride stretching and replenishing

Conclusion:
Public safety cyclists need these skills to be at their utmost peak performance on duty. By accepting the challenge to become an advanced off-road cyclist, you will find your effectiveness as a public safety cyclist will advance as well. Combining off-road technique with on-street patrol tactics allows you to utilize all of your tools and master your craft.

Advanced Off-Road Riding is designed for experienced off-road riders who wish to hone their skills and improve their stamina. This challenging and fast-paced class will prepare you to overcome even the most technical and formidable terrain and enable you to tackle terrain you used to think was unrideable. It will also address the need for proper nutrition, hydration, pacing, and recovery on long rides. *Lead by Monte May, Kansas City (MO) Police Department.*

NOTES: _____

Expert Off-Road Riding is geared to the rider who is comfortable and capable on all types of trails in any conditions. Riders will put their skills to the test on the most technically difficult and demanding trails in the Charleston area. Excellent physical condition, highly developed skills, and endurance are a must. *Lead by Darin Zaremba, Medina Police Department.*

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Officer Survival for Bike Patrol

Officer Survival for Bike Patrol 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. *Developed by Gary McLaughlin, Sacramento Police Department and Kathleen Vonk, Ann Arbor Police Department.*

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.
- 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

(ranked 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 2/3) 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.

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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. *Lead by Al Simpson, Pompano Beach Police Department (Ret.).*

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.

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PC/EMS Course Safety Considerations

PC/EMS Course Safety Considerations focuses on the safety precautions instructors must take while teaching the PC & EMS Courses. This workshop can help keep your class safety record intact and your liability risk low. *Presented by Jim Bowell, Troy Fire Department.*

BASIC RULES OF SAFETY

— Equipment —

IPMBA requires four pieces of safety equipment which MUST be used by PC/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 withstand the rigors of Police/ 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 PC/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 Police/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 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

— 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, Road Rides, Drills, and Off-Road Rides

When conducting a road ride, an IPMBA Instructor 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.

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PC Night Operations

PC 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. *Presented by Chris Davala, Maryland State Police.*

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

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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. *Presented by Ed Brown, Orange County Fire/Rescue.*

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Search and Rescue: A New Terrain to Tame

Search & Rescue: A New Terrain to Tame, presented by Paul M. Burke of the National Association for Search and Rescue (NASAR), will focus on the integration of two-wheeled assets into the SAR resource pool. The course will focus on the preparation and equipment required for bikes and riders, how SAR operations are conducted, and how police and EMS bicycle programs could effectively integrate with existing resources.

Objectives

- Integration of two wheeled assets into the SAR resource pool.
- Preparation and equipment required
- How SAR operations are conducted
- Police and EMS Bicycle integration with existing Programs

Integration of Two-wheeled assets into the Resource Pool

Existing SAR Resources

- Aircraft
- Helicopters, fixed wing, Ultralights
- Trained ground searchers
- Trackers, hasty teams, grid searchers
- Animals
- Air scent, trailing dogs, horses, goats?
- Search managers and staff

Existing SAR Resources

- Special competence resources
- Mountain Rescue, Swiftwater Rescue, Confined Space Rescue, Avalanche Experts, etc.
- Specialized vehicle responders
- Boats, snow machines, all-terrain vehicles,
- And Mountain Bikes!

Why Bicycles?

- Reconnaissance
- Terrain analysis
- Route search
- Messenger between teams
- Clue verification transport
- Team placement verification
- Hasty team for searches and rescues
- Able to repeatedly cover a trail during containment
- Resupply teams
- Move medical personnel in faster
- Increased probability of detection (PoD) in some cases
- Others?

Disadvantages of Bikes

- Difficult to use on steep trails
- Can't go cross country easily
- Can't carry as much gear as foot team
- More dangerous than walking
- Can't carry a litter while biking
- Decreased probability of detection in some cases

Probability of Detection…Huh?

- In a given search area, it is the number of clues found divided by the number of clues present
- Measured as a percentage
- Measure of effectiveness in SAR
- Based on many factors including
  - Size of clues
  - Terrain
  - Passive or Active Victim
  - Search Resource

Preparation and Equipment

Additional Equipment

- Handlebar mounted map case
- Handlebar GPS mount
- Bike computer

Repairs You Should Know

- Flat tire repair
- Chain repair
- Derailleur adjustment
- Seat adjustment
- Brake adjustment
- Headset adjustment
- Basic spoke and wheel repair

Searching with Bikes

- Bikes as a hasty team
- Team size
- Speed
- Trails that can be searched
- How to search

Bikes as a Hasty Team

- Bikes are ideal as a hasty team because of speed and capacity to travel lightly
- Also ideal for getting to the PLS to mark/preserve area, tracks, etc.

Team Size and Riding Style

- Two searchers is the minimum and four the maximum
- Recommend three-person teams for efficient searching
- Riders should ride in a "V" formation where there is room

Trail Searches

- Again, steep uphill isn't going to be worth it
- Evaluate the risk of technical trails at night against biker experience, light source, etc.
- Also keep task length of bikes in mind

How To Search
- Stop frequently (every 5-10 min) to do good voice checks, check the map, and evaluate the situation
- While riding try to keep an eye on the trail while glancing off for the subject.
- Also try to keep an eye out for tracks and other signs

Length of Operation
- Task Length from the SW Virginia Mt. Rescue Group
    - 1 to 2.5 hours or 8-12 miles during the day
    - 1-2 hours and 5-10 miles at night

When Bikes are Applicable
- Speed is essential
- Flat to moderately steep trails and roads
- When victim is using travel aids
- Distance to victims established camps
- Need to support field personnel

Teams and Extra Equipment
- Only 2-3 people should respond on bikes so that other can do the carryout.
- As in most rescue hasty teams a medical person is nice to have.
- Some rescue equipment can be carried (folded litter, med kit, ropes.)
- Try not to overload yourself

Other Services
- Bike Patrols in base camps
- Incident medical/safety support
- Disaster relief

Search in the Urban Environment
- Intro to urban searching
- Advantages to using bikes
- Tasks for bike teams
- Training for urban searching

Urban Search areas
- Excellent tool for repeatedly covering an area to contain a wandering subject or maintain a perimeter
- Quieter than vehicles, easier to listen for sound and a better view of ground for cutting sign
- Previous advantages (resupply, clue verification, etc)
- General SAR Bike Tasking
- Searching
    - Alleys
    - Right-of-ways
    - Abandoned roads
    - Parks
    - Large yards

Children
- Lost Person Behavior
    - wander aimlessly and use tracks and trails
- Bike Team Tactics
    - Search roadway and all small trails that leave a residence or roadway

Alzheimer Subject
- Lost Person Behavior:
    - usually found a short distance from road
    - Hidden from normal view

- Bike Team Tactics
    - search road paying attention to the sides of the road for the subject or clues
    - search all trails, tracks and alleyways adjacent to road
    - Stop to look under and inside of objects or structures

Despondents and Psychotics
- Lost person behavior
    - Often located on roads and wooded areas
- Bike Team Tactics
    - Repeatedly cover roads and trails through parks and wooded areas.
    - Look up, as well as around, for the subject

Training for Urban Searches
- Bike teams searching in the urban environment should be trained in city riding
- Training available from bicycle organizations as well as law enforcement bike teams.
- Cross training for wilderness/urban recommended

How SAR Operations are Conducted

Objectives
- Understand the First Alert
- Establish Management
- Prepare for Operational Periods
- Allocating SAR Resources
- Evaluate Clues
- Remain Flexible

First Alert
- Search is an EMERGENCY
- Initial Information
- Search Urgency
- Searching Data
- Planning Data
- Point Last Seen (PLS) or Last Known Position (LKP)
- Is this a Search?

Establish Management
- First on Scene is IC
- Delegate Authority
- Structure under ICS
- Consider Unified Command
- Designate Locations for CP,etc.
- Remain Flexible Throughout
- Know your Limits

Prepare for Operational Periods
- Identify Scenarios
- Information Management
- Planning and searching data
- Use Search Theory: $0 \leq P(E) \leq 1$
- P=Probability, E=Event,
- Basic Search Planning Probability Equation
- POA x POD=POS
- Establish Objectives
- Incident Action Plan

Allocating SAR Resources
- Organizing your Resources
    - Operations Section Chief
- Resource Priority
- Resource Categories
- Modes of Searching

Evaluate Clues
- Establish Planning Section
- Staff with Properly Trained Personnel
- Record ALL Clues
- Resolve All Clues
- Treat Clues as Evidence
- Alter IAP if Clues lead you to

Remain Flexible
- If leads develop, follow them to the end
- If you run out of leads, don't stop
- If you get tired, find help
- Hope for the best
- Remember, it could be a criminal event

Police and EMS Bicycle Integration with Existing Programs

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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. *Lead by Al Simpson, Pompano Beach Police Department (ret.) and Donald Reed, Denver Police Department.*

Slow Speed Drills are exercises that can challenge and improve the most basic of cycling skills: balance and handling. These skills are essential for working in crowds and congested areas and can mean the difference between catching or losing your suspect in a tight area or saving the life of a heart attack victim.

I. Balance

A. The balance in the bicycle lies in the base of the front wheel.
   1. Steering the front wheel back and forth maintains the balance of the bicycle.
   2. Compare to when you balance a baseball bat in the palm of your hand.
   3. Move the base of the front wheel to keep the bicycle upright.
   4. As you turn the front wheel to the left, the bike leans right and vice versa. This can throw you off balance. Lean in slightly to compensate.

B. Pedaling: It helps your balance to be constantly pedaling, lowering your center of gravity to the pedal area as opposed to the seat area.

II. Handling

A. Bike Positioning and Placement
   1. Front wheel must swing out and away from the object you are going around.
   2. The rear wheel tracks to the inside of a turn; it will always have a tighter turn radius than the front wheel.

B. Gear Selection
   1. Pick an easy, slow moving gear to pedal in and put light but constant pressure on the back brake.
   2. Pressure on the pedals will produce speed. Applying the brake keeps the bicycle slowed down enough to perform tight maneuvers.

C. Look Ahead
   1. Where you are is not as important as where you want to be.
   2. Look at the area and position that you want to be in. Where you look is where you will go.
   3. Imagine yourself already at a point ahead. This sets you up for accomplishment, not failure.

III. Exercise Drills

A. Cone Courses (See *Design and Operation of a Mountain Bike Competition* for diagrams)
   1. Set up cones in different shapes and designs; circles, curves, "L" or combinations of them all.
   2. Lanes vs. Lines
      a. Setting up a lane defines a space and design of turns that the cyclist must stay inside.
      b. Lanes can take on different shapes from straight to curves or a mix of both.
      c. Lines of cones such as a simple slalom are obstacle to practice movement around and obstacle.
      d. Split the cones for extra handling skill exercises.

B. Off-Canter Surfaces
   1. Slopes will force you to redefine your balance
      a. Side of a hill or underpass area.
      b. Build slopes out of plywood or other materials then add cones to it for extra challenge.

C. Track Stands
   1. Balancing the bicycle while moving extremely slow or stopped challenges your balancing skills.
   2. Pick a gear that is easy to pedal, but not too easy; middle chain ring, 1st, 2nd or 3rd gear.
   3. Turning the front wheel to one side will enhance stability, like skaters who turn one foot perpendicular to the other.
   4. Avoid looking down (where you look is where you go) look ahead or at the horizon.
   5. Find a slight incline to practice with, letting the bicycle move forward and back (Unicycle effect.)

Slow speed drills are exercises, and like all other exercises, they must be done repetitively to retain the skills that are learned. Exercise them on a regular basis so that you will have these skills when the situation demands it.

Sports Drinks: Which One is Right For You?

Sports Drinks: Which One is Right for You? "Energy" drinks targeted to cyclists and other athletes promise everything from increasing endurance and building strength to providing energy. It is difficult to distinguish the facts from fiction just by reading the labels. This workshop, presented by Linda St. Clair will show you how to make the right decision about fluid replacement beverages with regard to energy, caffeine, vitamin/mineral content and nutritional value.

I. Introduction

Sports drinks have become a popular and convenient way for active people to refuel during activity, as well as supplement their diet. The huge variety of drinks available today gives athletes many choices. Some drinks are developed to provide fluid replacement, while others are considered liquid alternatives to nutrition bars. Most products can be part of a well balanced diet, but label claims can make it difficult to decide which is best for you. Understanding the claims on a label is important in determining if the drinks will meet your expectation.

II. Varieties of Sports Drinks

- A. Calorie supplements
- B. Protein supplements
- C. Energy drinks
- D. Vitamin/mineral fortified drinks
- E. Caffeinated beverages
- F. Herbal supplements

III. Understanding Label Claims

- A. Ingredient list
  1. Carbohydrates
  2. Protein sources and digestibility
  3. Electrolytes
  4. Caffeine or guarana
  5. Other herbals
- B. Label claims
  1. Increased energy levels
  2. Enhanced physical and mental performance
  3. Weight loss properties
  4. Appetite suppressant
  5. Others
- C. Nutrition facts panel

IV. Food versus Drinks

- A. Situations in which food is not practical
- B. Electrolyte and energy replacement versus well-balanced diet

V. Water or Sport Drinks

- A. Absorption
- B. Replacement of lost nutrients
- C. Taste
- D. Carbonation

VI. Hydration – How Much is Enough?

- A. Timing of drinks
- B. Amount necessary to meet fluid needs
- C. Amount necessary to replace energy expended
- D. Caloric considerations
- E. Symptoms of dehydration
- F. Weather considerations
  - a. Hot and humid
  - b. Cold environments

VII. Evaluating Sport Drinks

- A. What claims are made?
- B. What are the product ingredients?
- C. Is the product safe?
- D. Is the product effective?
- E. Does the product contain banned substances (ephedra)?
- F. Is it affordable?

VIII. Websites

- A. www.consumerlabs.com
- B. www.supplementwatch.com
- C. www.cfsan.fda.gov/~dms/supplmnt.html

IX. Conclusion

For active adults, like public safety cyclists, the use of sports drinks may improve endurance and energy, especially when mealtime is unpredictable. But, the wide variety of drinks on the market today contains substances that may not be appropriate for some individuals. Careful label reading and an understanding of your fluid needs will lead to greater satisfaction with the selected product.

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State and Local Anti-Terrorism Training

State and Local Anti-Terrorism Training (SLATT) is a proactive, preventative training that assists the bike officer in understanding that, because of their ideological beliefs, terrorists pose an enhanced threat to officer safety. This training will help the bike officer identify and understand specific characteristics that distinguish terrorists from typical street criminals. *Presented by Al Jones, Tri-State Regional Community Policing Institute.*

What You Need to Know When Confronting Possible Terrorist Suspects

Know Your Adversary
- Law enforcement is dealing with a new enemy
- This ideologically driven criminal does not act, behave, or respond like a typical criminal
- This type criminal cannot be approached or treated like a typical criminal
- It is important that officers understand this is a new enemy, and to be effective and safe when addressing this threat, it is necessary to better understand this new enemy, how the enemy operates, and how you need to respond
- "If you know the enemy and know yourself, you need not fear the results of a hundred battles. If you know yourself and not the enemy, for every victory gained, you will also suffer a defeat. If you know neither yourself or the enemy, you will succumb in every battle."
- Typical Criminal
- Terrorist/Extremist

Domestic Criminal Extremists

Terrorist/Extremist "True Believers"
- "True Believers" have a different reality

Domestic Terrorist/Extremist Crimes
- Ambush, assault, murder
- Bombings
- Robbery
- Kidnapping
- Chemical and biological incidents

Domestic Terrorist/Extremist Encounters
- Assess the situation
- Conduct a visual frisk
- Slow the action down
- Defuse the situation while preserving dignity and self-esteem
- Traffic stops
- Warrant and summons service
- Harassment and intimidation

Traffic Stops
- Be alert for warning signs on the vehicle
- Be alert for associate "crash" vehicles
- Be alert for driver behavior warning signs
- Officer response

Warrant and Summons Service
- If serving at a residence, be alert for signs, vehicles, booby traps, physical security
- Warning signs after contacting subject
- Harassment and intimidation
- Many antigovernment extremists will attempt to harass or intimidate officers

al-Qaeda Training Video Analysis
- Recently captured video from Afghanistan demonstrates that this breed of terrorists is well-trained and deadly
- Apparently produced for al-Qaeda internal use and did not appear to be an external propaganda production
- Revealed al-Qaeda operatives engaging in intensive training exercises, including small-arms firing ranges, live-fire room entry, and numerous mixed live-fire/role-player-type scenarios
- Scenarios included
- Extensive use of role playing, scenario-type interactions
- Role players made aggressive moves simulating resistance at various points throughout the scenarios
- All such resistance was met with immediate and brutal countermeasures by the terrorists
- There was no presumed compliance on the part of the victims

Points Repeated Routinely Throughout Training Exercises
- Use of standard military small-unit tactics with multiple elements
- Coordination with sub-elements via hand-held FM radios
- Use of pickup trucks by the assault element to conduct raids/assassinations
- Use of motorcycles by the security element as a shooting platform for assassinations
- Use of explosives upon withdrawal from the objective
- Use of vehicle horn to signal withdrawal and initiation of explosives
- Detailed planning and rehearsal of all actions
- Exercise of aggressive prisoner handling procedures
- Multiple-man room entries
- Distraction devices used prior to room entry (flash-bangs)
- Multiple breach points into structures and individual rooms
- All scenarios were practiced live-fire, including those that involved role players

al Qaeda Training Video Analysis, cont.

- Weapons handling was NOT haphazard
- Specific weapons handling idiosyncrasies
- Specific scenarios targeting law enforcement
- Ambushes and assassinations
- Faked disabled vehicle with shooters concealed in trunk of car or truck bed
- Residential assassination
- Assassination on golf course

Specific Scenarios—Other Targets

- Two- and four-man live-fire room entry (two-man back-to-back technique) with target discrimination (shoot/no-shoot targets)
- Raid on compound—kidnapping
- Drive-up kidnapping of target walking down the street
- Use of tunnels/sewers/storm drains for infiltration and exfiltration during raids
- Rappelling from roof of building to enter upper floors was shown on more than one occasion
- Motorcycle drive-by target practice
- Raids on buildings with a large number of occupants—school or office building
- Raids followed a standard pattern
- Covert/surreptitious entry into building and movement to initial points

Officer Safety Issues

- If you find yourself in the middle of one of these attacks, there will not be time for SWAT to intervene on your behalf
- Compliance will only buy you very little time
- If you are identified as a potential problem to the terrorists, you will be shot!
- They are trained to spot law enforcement, security, and corrections officers
- If, by feigned compliance, you make it through the first cut, you can expect to be physically restrained and then controlled with threats to the rest of your group and other groups
- Your ultimate fate, if you do not resist, is to be ritually executed in front of the television cameras
- Best time to act is most likely at the initiation of the attack
- Plan on providing effective resistance at the first opportunity
- Remember, we are dealing with a new enemy—one that fights from the shadows
- An enemy that may possess deep beliefs that their cause is just, and you are the enemy
- As law enforcement officers, you are the enemy in a shadow war with terrorists
- Tactics you encounter may be unlike any you have seen in the past
- Follow your sixth sense—observe and call for back-up

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Stretching for Injury Prevention and Peak Performance

Stretching for Injury Prevention & Peak Performance focuses on flexibility as a key to physical fitness. Personal Trainer Cindy Boggs of the Charleston Family YMCA will discuss the muscle groups, how they interact, and why stretching is important to perform optimally and avoid injury. Proper stretching technique will be demonstrated and practiced. Come ready to get limber!

Stretching for Cycling-stretching can help--but it can also hurt. Stretching regularly will help you avoid tight muscles and injuries. But it can be a two-edged sword. The wrong type of stretching can lead to injuries.

Cycling has many healthful benefits. But, as with any exercise activity, it is not a complete exercise in itself. When you cycle, the muscles you move over and over to pedal the bike become stronger, tighter, and shorter. Often described as a "mid-range" activity, cycling involves a limited, repeated motion. During each stride, the leg is never fully straightened (locked) or bent to its fullest, so the muscles are never fully contracted or extended. This causes tightness, which contributes to any number of overuse syndromes: pain in the lower back, hamstrings muscles and knees. How does stretching help?

Stretching helps you adapt to the rigors of cycling. Cyclists who put in long hours on the bike are especially prone to what we call **"muscular rigormortis."** Unfortunately, one of the curses of hard riding is gradual loss of muscle elasticity and an overall decrease in joint flexibility. Stretching, which requires no special skill, enables cyclists to make their muscles and joints more adaptable to the rigors of cycling.

To improve performance: Since stretching improves flexibility and increases range of motion, well-exercised muscles and joints will undergo less severe stress in competitive conditions. The longer muscles and joints can perform without failure under stress, the longer you can cycle at your optimum speed. Muscles will last longer during activity before tightening up if pre-stretched correctly. Stretching reduces muscle soreness and stiffness during periods of intense workouts.

Recovery

The stiffness and tightness that are frequently felt after a ride can be brought under control, and even eliminated, with proper stretching after a workout. Stretching keeps the body fine tuned and hastens recovery.

To prevent injuries: Stretching is a form of preventive medicine, and all of the points mentioned thus far – reducing stress, improving flexibility, improving flexibility, adding in recovery – serve to prevent breakdown of your system, which manifests in discomfort or pain.

More About Performance

In his book *Road Racing*, Bernard Hinault, five time winner of the Tour de France, speaks to the benefits of a regular stretching in a cycling program. "Stretching just before competition, like a time trial, prepares the muscles for the effort by making them more supple and increasing their tone. The alternating pattern of contraction-relaxation is more completely guaranteed, enhancing your effectiveness if you must ride fast and gives you a more efficient style if you must ride for a long time."

Hinault further explains that "you will be able to raise your saddle and still be able to pedal with suppleness and retain good speed. You'll be able to do this because of an improved decontraction of the opposing muscles with each pedal revolution. The hamstrings, which instinctively attempt to hold back the descending leg, reap a great benefit from stretching. It is their imperfect decontraction that prevents you from raising your saddle enough." Raising your saddle will allow you to use a greater range of your leg muscles and puts less strain on your spinal column and lower back.

What's the Best Way?

You most likely know the answer to this question, and you know that "bouncing" isn't it.

One of the best ways to stretch is with static stretching, in which you stretch each muscle group slowly and gently, until a mild amount of tightness (not pain) is felt in the muscle. You maintain this position for about 30 seconds, or until the muscle begins to relax. As you hold the stretch, the feeling tension should diminish. If it doesn't, just ease off slightly into a more comfortable stretch.

After holding the easy stretch, move a fraction of an inch farther into the stretch until you feel mild tension again. This, the developmental stretch, should be held for another 5-30 seconds. This feeling of stretch tension should also slightly diminish or stay the same. If tension increases or becomes painful, you are over-stretching. Ease off a bit to a comfortable stretch. The developmental stretch reduces tension and will safely increase flexibility. Repeating this process a few times for each muscle group will give the best results.

The rapid, jerky movements involved in ballistic (bouncing) stretches are ineffective and can lead to injury. As you bounce, the muscle responds by contracting, to protect itself from over-stretching. Thus, an internal tension develops in the muscles and prevents it from being fully stretched.

Also, bouncing may cause tiny tears in the muscle, leaving scar tissue behind, which can make the muscles less flexible than they were before.

When You Should Stretch

Before and after cycling: I suggest that you experiment with stretching for 5-10 minutes before and after you ride. The areas of your body that tend to tire first are the ones that you should pay particular attention to in preparation for the ride. Bob Anderson's book, *Stretching,* contains many excellent stretching routines for cycling.

Hold only the proper tension in the muscles that feels good to you. The key to stretching is to be relaxed while you concentrate on the areas being stretched. Your breathing should be slow, deep and rhythmical. Don't worry about how far you stretch. Stretch relaxed and limberness will become just one of the many by-products.

Stretching will start the blood circulating through the muscles and warm them up to the tasks ahead. Once on the bike, though, don't forget to put in a good warm-up before any hard efforts.

During the ride: On numerous occasions after sitting in the saddle for several hours, specific parts of you body will begin to get tight and tired. On any ride, if you are losing efficiency, slow down and do several stretches to help your body to rest and stretch out the tightness. Make sure you practice these on-bike stretches at a safe speed and with no other cyclists around before you attempt them while riding in a group.

At other times: Two-to-five minutes of stretching, several times a day, is excellent for keeping the muscles fined-tuned and tension free. Stretching is not something to do just as part of a workout. If the timing of your workout doesn't allow for stretching – say you've got to squeeze your cycling into a tight noon hour – then any other time of the day is fine. At home you can stretch while watching TV. This is a particularly good time to do leg and back stretches and to massage and elevate your legs to reduce the feeling of tightness and fatigue after a hard ride. Stretching in the car or at the office are other occasions are also times to consider.

TIMES NOT TO STRETCH

There are times when stretching can do more harm than good. For example, when:

Injury is present: Stretching can lead to further injury if done to torn muscles or tendons. What they need is rest, not stretching exercises, to heal properly. Return to stretching once the injury has healed.

Muscles that are cold: While proper stretching will aid in warm-up, caution must be taken when muscles are cold. Wear tights while warming up in cool or cold weather and, maybe, warm-up by jogging or riding the bike for a few minutes before stretching. A cold muscle can be compared to a dry sponge. Trying to stretch is usually ineffective and can even result in small tears in the muscle cells. A warm muscle can be compared to a wet sponge, it has more flexibility and is more supple.

Joints that are extremely loose: Some individuals have a condition known as "ligamentous laxity," an extreme condition of looseness in the joints. These individuals need to apply caution and seek out medical advice before attempting an exercise and stretching program.

BENEFITS OF STRETCHING

It will take you a little over 8 to 10 minutes to do the stretching exercises listed above before and after your ride. That is just 10 minutes to keep injuries and tightness to minimum. As we stretch, we learn about our bodies and how they move and feel. And we learn how to take care of them to prevent injury and excess tension.

PREVENTING BICYCLING OVERUSE INJURIES

Although the modern bicycle has been around for more than 100 years, the popularity of recreational and competitive bicycling has gained momentum in the past two decades. As a result, the necessity of protective gear and clothing has been emphasized to decrease incidence of traumatic injuries. However, not much attention has been focused on preventing "overuse" injuries related to bicycling.

Overuse is the term used to describe an injury that is non-traumatic and unrelated to a particular incident. The most common overuse injuries encountered by cyclists include:

- **Neck and back pain**
- **Knee pain**
- **Problems caused by the handlebar**
- **Problems caused by the saddle of the bike**

Without proper intervention these types of injuries can result in decreased performance, participation and enjoyment for cyclists at any level of activity. The following tips are suggestions for treating and preventing overuse injuries.

Proper Bike Fit

If you only bike short distances or at a low intensity, proper bicycle fit is not a major concern. However, when a bike is used for high-performance cycling and long distances, proper fit becomes crucial. Important considerations include:

- **Frame selection**
- **Seat height and tilt**
- **Crank arm length**
- **Foot position**

An improper fit can disrupt normal body alignment and create a weak link in the system. For example, a cyclist may experience low back pain or knee pain if the seat is placed too far forward. Neck pain or numbness in the hands may result if the handlebar height or reach from the body is incorrect. Many bicycle shops fit cyclists for their bikes and suggest necessary adjustments.

Training Techniques

Poor training habits increase the risk of overuse injuries. To prevent injury, always protect yourself from cold weather and adequately warm up and cool down muscles. Mileage, frequency and intensity should be gradually increased since the onset of knee pain and saddle soreness is often related to sudden changes in riding distances. Weekly mileage increases should be limited to ten percent increments, especially when starting a bicycling program. When initiating a riding or training program, pedal resistance should be low, allowing for a high cadence (revolutions of the pedal). To decrease muscle stress and increase efficiency, the ideal cadence is 90 - 100 revolutions per minute.

Adequate Strength and Flexibility
Good flexibility of the hamstrings, quadriceps, hip flexor, iliotibial band, gluteal and calf musculature is required to decrease joint stress. For example, excessive tightness of the hamstrings or hip flexor muscles affects pelvic positioning on the bike seat, which may contribute to low back pain. Inflexibility of the quadriceps muscle or iliotibial band may result in knee irritation. Adequate strength in the following areas reduces risk of injury:

- **Good abdominal strength assists in supporting the lower back**
- **Proper strength in the neck extensors and upper back provides a stable base for the head and reduces stress on the spine**

Frequent Change in Positions
Cyclists are encouraged to change hand and neck positions frequently to reduce risk of injury. This is especially important for cyclists participating in all day or multi-day tours. Continual hand position changes decrease stress on the neck by altering the position of the head. It also reduces nerve compression in the palm which can cause ulnar neuropathy, a condition which involves hand weakness and sensation changes. A cyclist may also perform stretches on their bike of their neck, calves and hamstrings to ease stiffness commonly experienced with multi-day tours.

CYCLING STRETCHES
- **Never bounce your stretches.**
- **Hold each stretch for 15-20 seconds.**
- **Stretches should never hurt. Aim for pleasing tension.**
- **Avoid all stretching exercises that place stress on the lower back.**
- **Stretch within your abilities. Never make stretching competitive.**

Stretches you can do on your bike

CALF
- Stand on the pedals with the cranks vertical.
- Keep the leg and heel lowest on the pedals straight. Lower the heel of the stretching leg past the pedal platform.
- Hold~ then change legs.

QUADRICEPS
- Place your left hand in the middle of the handlebars.
- With your right hand, grasp your right foot.
- Gently pull your leg to touch your buttocks.
- Hold. Repeat the exercise with your left arm and left leg.

HAMSTRINGS
- Stand on the pedals with the crank horizontal.
- Keep both legs straight – the front leg will receive the stretch.
- Move forward over the handlebars – tilt your pelvis and lower your shoulders until you feel the stretch in your hamstring.
- Hold. Change the position of the pedals and repeat with the other leg.

Stretches You Can Do Off Your Bike

NECK
- Keeping your shoulders level, bend your head to one side.
- Hold ~ then repeat to the other side (do not rotate your head).

LEGS AND LOWER BACK
- Lie down on the ground.
- Keep your lower back pressed gently toward the ground.
- Hold one leg below the knee; pull it toward your chest.
- Hold. Change legs.

HAMSTRINGS
- Lift a leg to approximately waist height by resting it on a bench, fence or table.
- Keep the leg straight.
- Bend your body toward the leg. Bend from the hips and keep your back straight. You can bend your supporting leg if necessary.
- Hold. Change legs.

GROIN
- Sit on the ground with your feet together in front of you with legs bent at the knees.
- Keep your back straight.
- Gently press your knees down with your elbows.
- Hold. Repeat.

CALF
- Lean against an object such as a tree, wall or partner.
- Position one foot slightly forward of the other.
- Gently push forward from the hips.
- Hold. Repeat.

QUADRICEPS
- Kneel on your right leg and keep your left leg and pelvis pointing forward.
- Clasp your right ankle with your left hand.
- Keep your back straight and pull your right foot toward your gluteus.
- Hold and change legs (use a partner or object to aid in balance).

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.
Presented by Officer Michael Trout, Ohio University Police Department.

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 , e.g., Tourist asking for directions.
- B. Level Two: Reasonable Suspicion Contact, Expectation of Hostility and/or Resistance, e.g., Alcohol violation.
- C. Level Three: Probable Cause Contact, Weapons/Aggressive/Assaultive Level Contact, e.g., 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. Running 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.

Tell it to the Chief!

Tell it to the Chief! Thinking about putting together a proposal to start a bike unit or expand your operations? Facing budget cuts and/or challenges from risk managers? Having difficulty convincing your administration that training is essential? Chief Loren Ryerson of the Aspen (CO) Police Department is ready to share the chief's perspective, so come prepared to ask the questions you wish you could ask your chief. Chief Ryerson is an avid mountain biker and has been an IPMBA Instructor since 1997.

Loren Ryerson's contact information:

Loren Ryerson
Chief of Police
Aspen Police Department
506 E. Main Street, Suite 102
Aspen, Colorado 81611
970-920-5404
lorenr@ci.aspen.co.us

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Three Mile Time Trial: Pre-Course Fitness Evaluation

The Three Mile Time Trial is designed to provide bike unit administrators and instructors with a fitness evaluation tool that elevates the standard for public safety cyclists, eliminates unqualified applicants and reduces time spent on remedial training. This block of instruction will provide participants with a working model of the standard that is easy to implement with little or no change to the existing curriculum. It will further allow them to gain an understanding of the legal issues pertaining to officer fitness and civil liability as it relates to job performance and training issues. *Designed by Cpl. Bob Ricciardi, Palm Beach County Sheriff's Office, Florida.*

I. The Need for a Standard

A. The People
   a. Stop unfit officers "trying out" for the bicycle unit
   b. Prevent undedicated/unmotivated officers participating in the class
   c. Reduce generally uncoordinated/unskilled officers taking up valuable instructor time

B. The Unit
   a. Legitimize
   b. Positive recognition from the "Higher-Ups"
   c. Increase funding for equipment/training
   d. Raise the benchmark for the unit

II. Finding a Standard

A. Chris Carmichael (Lance Armstrong's coach) & Dr. Edmund Burke's standard
   a. Published in their book *Fitness Cycling*
   b. Recognized by *Bicycling* magazine

B. PBSO test sample group
   a. Cross section of men and women
   b. Both fit and unfit subjects

C. A test sample group from your own unit

III. Defending the Standard

A. Parker vs. District of Columbia

B. Canton vs. City of Ohio

C. Reduced likelihood of fit officers making health insurance claims/calling in sick

D. Positive acceptance and increased confidence from members of the community

IV. Implementation of the Standard

A. When to conduct the Time Trial
   a. Basic Cyclist Course
   b. In-Service Training

B. Materials/Training area needed
   a. Course
      i. Flat and paved
      ii. Starting/Stopping/Turn-around Points
      iii. Generally straight with little or no traffic
   b. Instructors/road guards
      i. Will vary depending on course layout
   c. Materials
      i. Radio communication
      ii. Traffic cones
      iii. Ground flags
      iv. Traffic vests
      v. Numbers
      vi. Stop watch
      vii. Necessary paper work and forms
   d. Condition of bikes to be used

V. Course considerations

   a. Proximity to training area
   b. Added time
   c. Techniques
      i. Pre-Trial "Basic Gearing" class
      ii. Riding techniques
   d. Heart monitors
   e. Instructor curve/bad weather

Conclusion

The Three Mile Time Trial will allow instructors and administrators to increase the effectiveness of their training as well as reduce both personal and departmental liability by ensuring a more effective and efficient bicycle officer.

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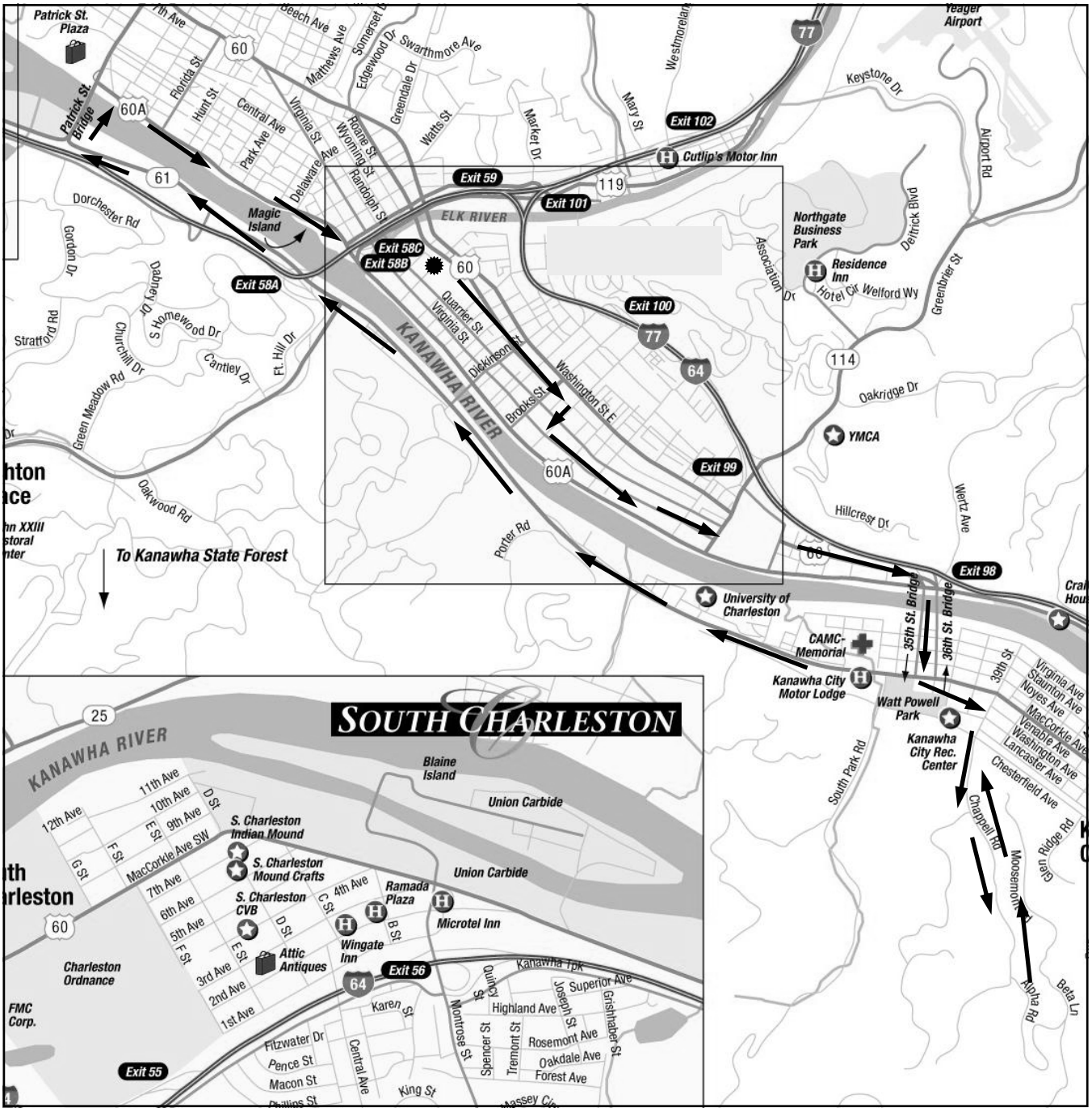
Tour de Charleston

Tour de Charleston, brings urban traffic and urban obstacles skills together on the streets of Charleston. Practice operating your bike in a real-world situation in which your goal is to get from point A to point B quickly and safety to apprehend a bad guy or save a heart attack victim's life. *Developed by Mitch Trujillo, Boulder (CO) Police Department and Jason Beckett, Charleston (WV) Police Department; lead by Chris Davala, Maryland State Police.*

The Tour de Charleston is a challenging tour of the city that winds 15 miles through the city, starting and ending at the Civic Center. Highlights include the ascents and descents of Davis Park, a jaunt through downtown alleys, the historical West Virginia State Capitol steps (site of the IPMBA competition), a one-mile scenic climb up Mt. Alfa, the University of Charleston campus, and Magic Island via the Kanawha River Walk. The tour will include challenges and tests of skill for all.



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Traffic Enforcement for Bike Officers

Traffic Enforcement for Bike Officers will address traffic enforcement from the perspective of the bike officer, with an emphasis on speed enforcement. Officer David Johnson of the Oshkosh (WI) Police Department will discuss the basics of conducting traffic stops from the bicycle, safety considerations, selecting appropriate areas, and tips for successfully running speed enforcement operations using bikes. The session will include an in-class presentation on techniques and safety, and practical, scenario-based exercises.

Traffic enforcement? How can an officer on a bicycle catch motor vehicles and enforce traffic law? It is neither as difficult or ridiculous as it seems. Obviously, agencies are not assigning bike cops to the interstate, but they are employing them in downtown settings where congestion is high and speeds are low. Officers can easily ride between lines of bumper-to-bumper traffic, looking down into the passenger compartment of the stopped vehicles as they slowly pass. Numerous drunk driving arrests and open intoxicant tickets can be tallied in areas where teens engage in the ever-popular hobby of "cruising." As a bonus, these traffic stops more often than not lead to other charges such as DWLS, open warrants, and drugs.

Bicycle-mounted officers are also utilized in residential areas, where speeding and stop sign violations are the most common complaint of residents. The team approach is used for such types of enforcement. One officer is stationed in a "not-so-conspicuous" location with a hand-held, battery-operated laser or radar unit. This officer reports speeds and descriptions to his partner(s), who is stationed a short distance up the street, ready to hand-stop the vehicle or wait near the next stop sign to initiate contact.

The suggestion of using bike officers for traffic enforcement raises a series of important questions: How does a police cyclist actually stop the vehicle? What does the officer do for cover during the approach and duration of the contact? And what if the driver doesn't stop in the first place, either intentionally or unintentionally?

The first consideration in initiating vehicle stops is how to capture the driver's attention. Without the luxury of overheads and air horns or sirens, the bike officer requires an alternative signaling device. Physical contact with the vehicle is discouraged since the police cyclist is extremely vulnerable, and it places the officer open to claims of vehicle damage. Several light/siren units have been designed specifically for police on bikes, and a whistle works well in the absence of one of these.

Once the driver has pulled over, the officer should always be cognizant of available cover, since the engine block of a police car is no longer available. Care should be taken in placement of the bicycle, to avoid damage to the bike by the vehicle, and to allow for a rapid retreat to cover if necessary.

A passenger side approach is preferred to the driver side approach for several reasons. First, because the officer does not have the protection of a patrol car with emergency lights activated to offset from the target vehicle, approaching on the passenger side gives the officer a certain measure of protection. Second, the passenger side approach comes as a surprise to the occupants of a stopped car, and it is not uncommon for a police cyclist to stand on the passenger side for several seconds and even minutes before being noticed by the occupants. This time affords the officer an enormous advantage - that of being in a position to act rather than react, whether the choice is to retreat or engage.

Once the officer has made contact, the driver can be requested to perform certain actions to improve the officer's physical safety, and tactical advantage. The officer can request that the driver activate the hazard lights on for more rear visibility. At night, the officer can request the driver to turn on the dome light and leave it on throughout the entire stop, providing the officer with the tactical advantage of being in the dark and looking into a lighted interior. The officer might also want to consider taking the keys to the vehicle, or, at minimum, having the driver turn off the engine. These actions make it slightly more difficult for the driver to flee.

After the officer has obtained the necessary information, the area in which the warrant check will be made and where the ticket will be written must be selected. Ideally, some immediate environmental cover will exist, behind which the officer can perform these routine police functions. If not, and if no other officers are available to assist, the officer might choose a location away from the bicycle since this is where the occupants might expect him/her to be.

Initially, if the driver does not stop and intentionally flees, officer safety must be the main priority. The police cyclist should rely on patrol vehicles to become involved to complete the arrest using high-risk tactics. Felony fleeing charges have become common in cases of police cyclist-vehicle pursuits, as discovered by the survey previously cited.

(Source: Kathleen Vonk, *Beyond Community Policing: The Crime-Fighting Effectiveness of the Police Cyclist. Law & Order* magazine, April 2002.)

Use of Police Bike Officers for Speed Enforcement

University of Illinois @ Urbana-Champaign: Bikes are used from time-to-time to enforce the campus-wide 25mph speed limit. A team of two bike officers set up on one of the main roads leading through campus. Officer #1 runs radar from an inconspicuous point on the sidewalk while #2 is stationed a bit further down on the road, usually near a stop sign or traffic signal. When #1 locates a violater, #2 makes initial contact at the earliest point available. Bike/car teams are also used; the bike officer stays out of sight with the radar and the officer in the squad car makes the contact. *Officer Chris Hawk, University of Illinois Police Department.*

Topeka Police Department, Kansas: The Topeka P.D. has a portable, battery-operated Z-35 radar gun which fits nicely into a bicycle rack bag. The bike unit, which works in the highest crime and drug area, frequently and successfully runs radar. The bike officer will often sit on a bus bench or other position near the curb of a busy street to run the radar. *Officer Artie Gonzales, Topeka Police Department.*

San Antonio Police Department, Texas: The San Antonio Downtown Bike Patrol frequently runs radar. The bike officer is positioned on a major one-way downtown street with a hand-held radar and communicates with another officer stationed 1.5 blocks away. The second officer initiates the stop and issues the citation. They also make several DWI/DUI arrests each month. *Officer T.J. Richardson, San Antonio Police Department.*

Oshkosh Police Department, Wisconsin: Bike officers are used for enforcement in parks in which speeding is a problem. An officer with a laser unit is positioned on a park bench along the road. The bike officers are positioned about .25 mile away, out of sight of the road but in visual contact with the laser operator. When the laser operator wants a vehicle stopped, he radios the bike officers with the speed and vehicle description. The bike officer then rolls out into the street and stops the vehicle as it approaches. *Officer David Johnson, Oshkosh Police Department.*

(Source: The IPMBA Member Listserve)

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University 101: Surviving in an Academic Environment

University 101: Surviving in an Academic Environment will introduce campus bike patrol members to the unique aspects of patrolling in an academic setting. Participants will gain insight into dealing with the diverse members of the campus community and resolving their sometimes competing interests. *Developed by Lt. Stanley Cosper, Tulane University Police Department, Louisiana, and presented by Mike Trout, Ohio University.*

Learning Goal:
To provide university/college bike units with the tools and skills necessary to effectively patrol in the campus environment.

Unit Objectives:
Upon successful completion of this unit of instruction the student will be able to survive on their campus or work with the following campus groups:

- University Administration
- Department Administration
- Student Government Association
- Facility Personnel
- Campus Staff
- On- and Off-Campus Residents
- Fraternities and Sororities
- Other Law Enforcement Agencies
- Neighborhood Children

Issues to be Addressed:
- Bike Thefts
- Pro-active Programs
- Community Policing

NOTES: _____

Weapons and Tactics of Political Extremists During Special Events

Weapons and Tactics of Political Extremists During Special Events s will introduce you to the world of extremists. What are they hoping to gain and why? This class will provide you with insight into the methods employed by political extremists before and during their protests to enable you to prepare for and counter their actions more effectively. *Presented by Officer Mike Goetz, Seattle Police Department.*

I. Background
- A. Examination of worldwide events
- B. Unconventional weapons and tactics
- C. Primary and secondary goals of the extremists

II. Weapons
- A. Improvised Incendiary Devices
- B. Improvised Chemical Irritants
- C. Improvised Field Weapons

III. Unusual Tactics
- A. Background
- B. The Focal Point Tactic
- C. The Doctrine of Direct Action
- D. Group Make-Up

IV. Counter-Surveillance
- A. Operation Cop watch
- B. Photographing LE
- C. Marking LE
- D. Monitoring of LE
- E. Lynching

V. Sabotage and Direct Action Techniques
- A. Jersey Barriers
- B. Banner Hanging
- C. Tri-Pods
- D. Human Chains
- E. Sleeping Dragons

VI. Communications
- A. Bicycles and Runners
- B. Nextel Telephones
- C. Family Radios
- D. Laser Pointers

VII. Logistics
- A. Vacant Buildings
- B. Construction Sites

VIII. Post Arrest Tactics
- A. Jail and Courthouse Solidarity
- B. Surrounding the Courthouse, Jails and Criminal Justice Buildings
- C. Production of Fictitious Documents and Credentials
- D. Safe Demonstration Areas
- E. Gas Masks

IX. Conclusion

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. *Moderated by Lou Ann Hamblin, Van Buren Township Police Department.*

NOTES: _____

Women's Reproductive Health and Bicycling

Women's Reproductive Health and Bicycling (for women only) will present reproductive health concerns that have emerged from studies of cyclists, with a focus on potential adverse effects, risk reduction, assessment methods, and future research. *.Presented by Dr. Susan Reutman of the National Institute for Occupational Safety and Health.*

I. Presenters: K Connell, M.D.[2]; B Lowe, Ph.D.[1]; M Guess, M.D.[2], S Reutman, Ph.D.[1]

II. Reproductive Health Concerns

A. Female Anatomy *vs*. the Bicycle
   1. Potential for circulatory, nerve, and/or soft tissue pressure effects or injury
   2. Reported female effects
      a. Studies of biking effects
         - irritation, burning or perineal/seat-bone pain or discomfort
         - pins and needles
         - perineal/clitoral numbness
      b. Case reports of "bicyclist's vulva" (competitive cyclists) and vulva abscess
      c. Study of injuries – bike frame top tube
         - swelling/bruising
         - painful or difficult urination and/or blood in urine
         - perineal numbness
         - pelvic fracture
         - urethral stricture
      d. Thermal nipple injury (women and men)
   3. Reported male effects
      a. Studies of biking effects on male genitals, erectile function
   4. Risk reduction measures
      a. Minimize pressure to perineum (riding position, saddle type)
      b. Dismount during rest breaks
      c. If numbness occurs, dismount until it subsides
      d. Ensure proper bike fit

III. Assessment Tools

A. Questionnaires – assess biking factors, genital symptoms, sexual function
B. Biothesiometry – measures genital sensory nerve function (sensation)
C. Biking pressure measurements – saddle, feet, hands (demonstration)

IV. Future Studies

A. New York Policewomen
B. IPMBA Women 2004?

National Institute for Occupational Safety and Health[1]

The Department of Obstetrics & Gynecology and Women's Health, The Division of Female Pelvic Medicine and Reconstructive Surgery, Montefiore Medical Center, The Albert Einstein College of Medicine.[2]

Youth Bicycle Education: What to Teach and Why

Youth Bicycle Education: What to Teach and Why, presented by Officer Kirby Beck of the Coon Rapids (MN) Police Department, will address the issue of car-bike crashes, one of the leading causes of death and severe injury to children under age 16. Learn the *real* factors in their causation and how to prevent them by conducting effective and targeted on-bike education. An excellent foundation for *Bicycle Rodeos: From A to Z.*

Objective:
This workshop is intended for public safety personnel who take part in educating youth in bicycling and bicycle safety. It will give them facts on the crash types that repeatedly affect young cyclists. With this information they will be able to put together education and training strategies that will provide meaningful and effective bicycle crash deterrence.

Introduction:
The Cross-Fisher Study was a comprehensive study that took place in the mid- 70's by two behavioral psychologists. It discovered that most fatal and non-fatal car-bicycle crashes were a result of behavior that was predictably repeated. The study grouped incidents into eight crash types of similar behavior and / or errors that resulted in these crashes. They determined in crashes involving children, the error was usually a result of behavior of the child cyclist. Children had little experience with traffic and that inexperience was a factor in many of the incidents. In crashes involving adults, who have more experience in traffic, the motorist most often makes the error in the crash.

The Cross Study also recommended a number of countermeasures, particularly as it related to children, intended to teach children how to avoid that dangerous behavior.

This workshop will examine the three crash types that most often affect children, and will examine the on-bike skills that should be taught as countermeasures to those crash types.

Attached are several addendums that describe and illustrate the crash types, describe an effective behavioral designed bike rodeo (skills course), and examine traditional vs. non-traditional bicycle education methods and ideas.

A separate workshop is being held that will actually teach bike rodeos and involve participants in its set up.

Conclusion: Too often, bike rodeos are actually balance skill "competitions" that fail to teach any traffic skills that will effectively reduce car-bike crashes involving children. Knowing the facts of how and why these crashes happen will allow educators to develop programs that will ultimately reduce bike crashes and related injuries and deaths.

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 that 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 in which 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 REPORTS AND DATA

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. These crash types are examples:

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. Please note that in some locations, bicycle injuries may be exceeded by injuries from inline skating and riding scooters.

BICYCLE /MOTOR VEHICLE CRASHES

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 seven 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 child commits the primary error, 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.

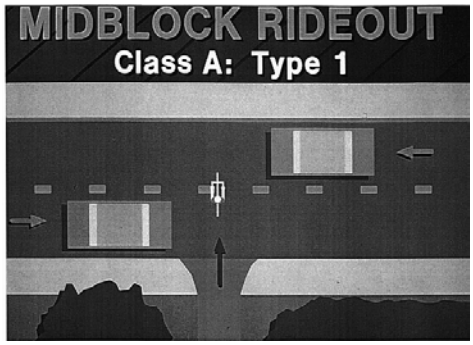
The number of fatal crashes involving children is dropping; however, the number of adults killed on bicycles is increasing. Alcohol is a factor in many of those crashes.

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 Ft. Lauderdale, FL, which has one of the highest per capita bike fatality rates, showed that nearly 60% of the fatalities involved sidewalk cyclists.

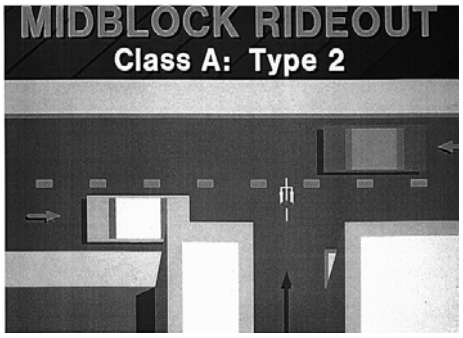
CROSS STUDY - MOST COMMON ACCIDENT TYPES INVOLVING CHILDREN

Class A – Bicyclist Midblock Rideouts
[Fatal 15 % Non-Fatal 14%]

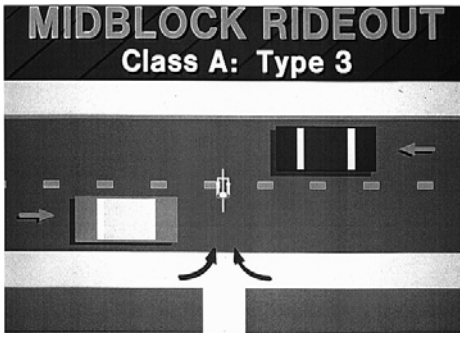
Type 1 — Residential driveway /alley rideout



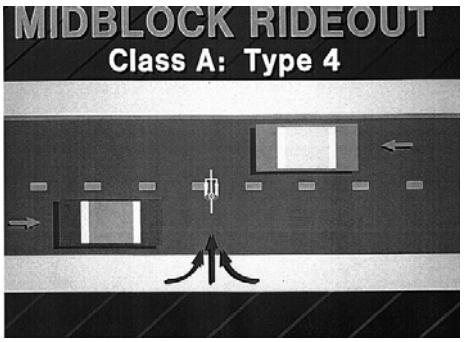
Type 2 — Commercial driveway/alley rideout



Type 3 — Pre-crash route parallel to road then out a driveway or alley apron



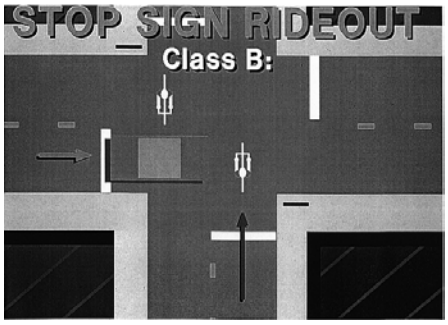
Type 4 — Pre-crash route to road, entry over curb or shoulder



Primary Errors for Class A crash type:

- Failure to stop and search for traffic.
- 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%]

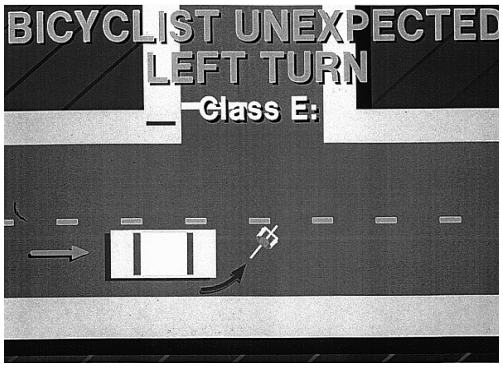


Type 5 – Bike Rideout, intersection controlled by sign
Type 6 – Bike Rideout, intersection controlled by signal, phase change
Type 7 – Bike Rideout, intersection controlled by signal, multiple threat

Primary Errors of Class B crash type:

- 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 for Class E crash type:

- 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."
- Wrong way cyclists present a danger to cyclists operating legally.
- 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

- 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 by students and perhaps the instructor
- 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.
- Training based on Cross Study findings or a community crash study
- Training considers problems unique to the area, or recent events or crashes
- Considers prior training/education of the students

AUDIENCE SIZE

- Lyceum (large group of over 100 people)
- Medium group (30-100 people)
- Small group (fewer than 30 people)

PLANNING AND TIMING

- Contact the school administrator early to reserve the date.
- Reserve times, grades attending, arrange for AV equipment, etc.
- Consider 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 or video
- Demonstration
- Interactive group games
- Slide or PowerPoint presentation
- Hands-on exercises
- On-bike skills training

ON-BIKE PROGRAMS

POTENTIAL SPONSORS

- School
- PTO
- Community 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. 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 too!
- 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 STATION
- 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
- Hold your line, maintain the lane position, and don't zigzag

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 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.

AN EXAMPLE OF AN INTERACTIVE GROUP GAME.

"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 – because everyone tries to answer. "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:

- Players are seated or standing, holding the horns or bells.
- The MC reads the question and the player honks the horn if he/she knows the answer.
- 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.
- 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.
- The player, or team, with the most points at the end of the game wins.
- Do what works and have fun!

LEARNING POINTS:

- Everyone watching the game, contestants and spectators, is involved in the learning because they all hear the questions.
- 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.
- Everyone should get a prize: "There are no losers when you practice bike safety."

AN EXAMPLE OF HANDOUT THAT CAN BE PROVIDED TO PARENTS AT RODEOS OR OTHER EVENTS.

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. You are NEVER old enough to *not* need a helmet.**

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

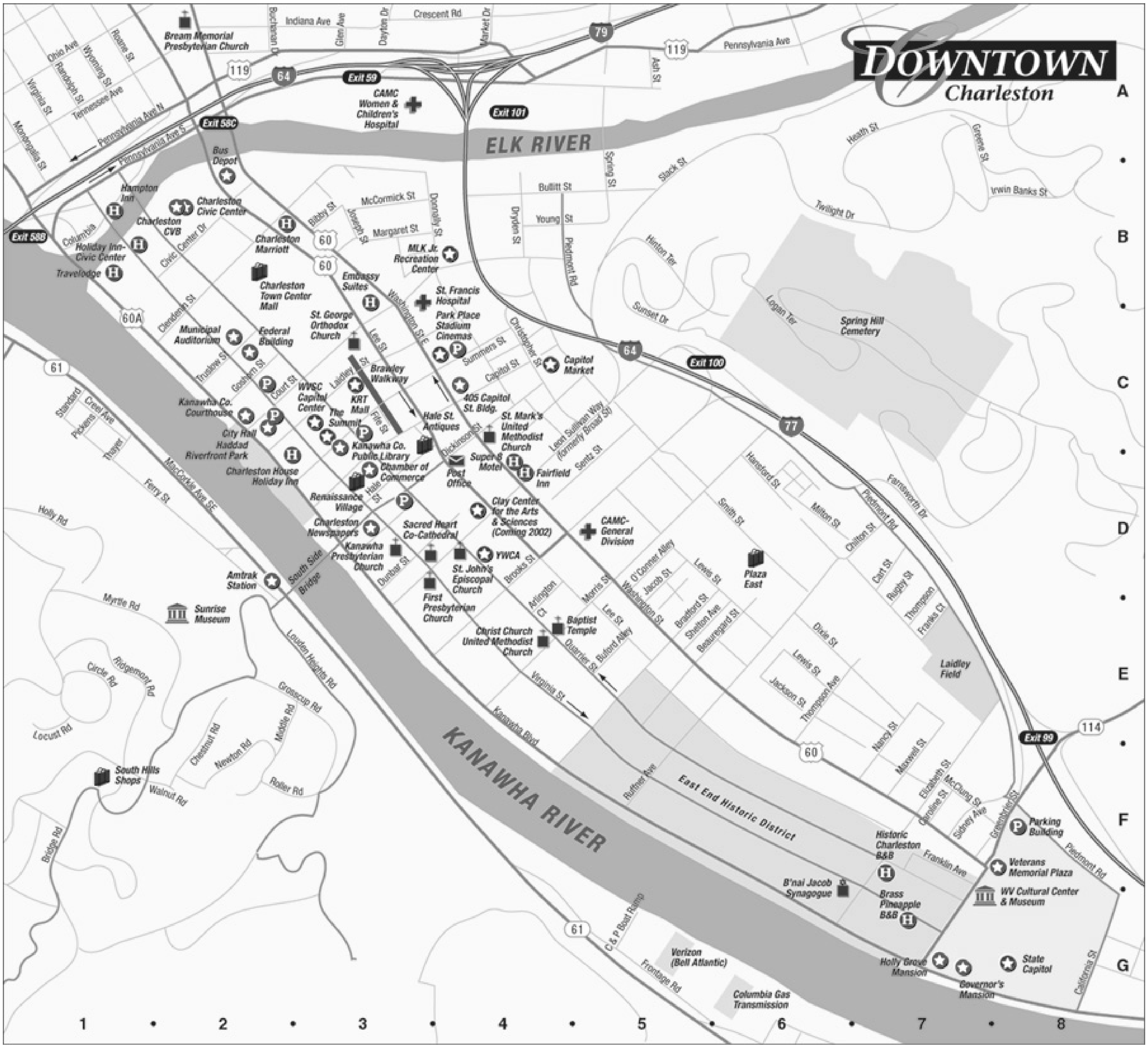
Children riding against traffic are frequently involved in accidents at intersections and driveways because motorists do not expect them to be there. As a result, bicyclists become "invisible" to motorists at intersections and driveways. As a result, the motorist will turn into or in front of them. Very 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.

NOTES: _____



Downtown Charleston

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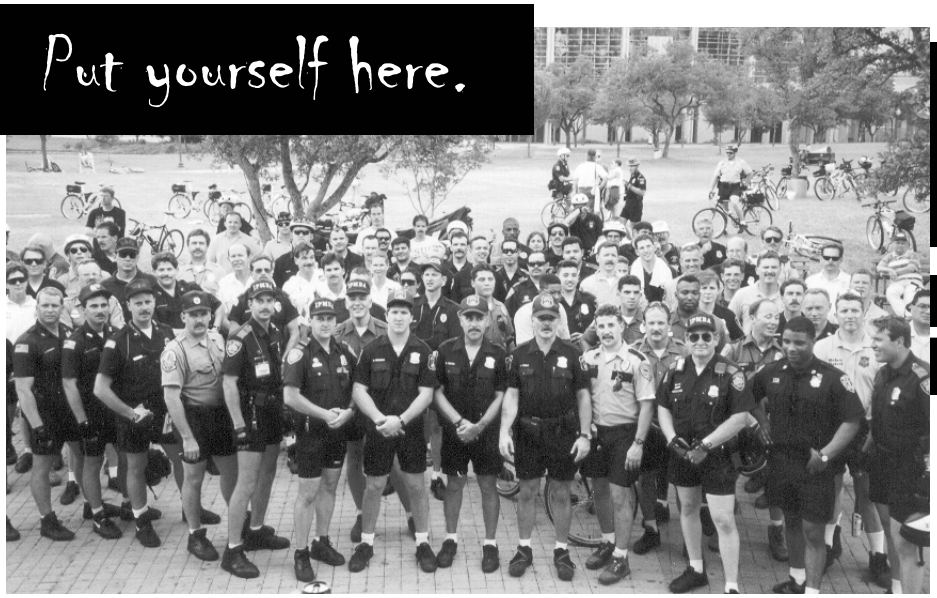
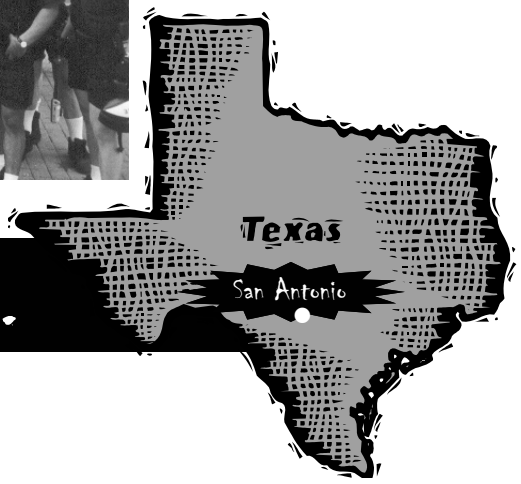


1994 IPMBA Conference, San Antonio.

The 14th Annual IPMBA Conference San Antonio

May 6 - 8, 2004

Pre-Conference courses begin May 1&2.



Its as big as Texas.