Equipment Needs of the Police Bicycle Officer (PART II)

By Ofc. Allan Howard,
Dayton (OH) Police Department

(Part 1 of this series appeared in the February '94 issue of IPMBA News)

The $500 and up category of mountain bikes usually puts you into a high quality frame. Because the frame is the very heart of a bicycle, you should concentrate on buying a bicycle with a high quality frame. All the high end parts in the world will not take care of a lame frame. When you're on a budget, pick a bike that has a good frame and medium priced components. When, or if, the parts fail they can be replaced individually.

Common types of frame construction for mountain bikes in the $500 to $800 range are:

TIG-welded, Cro-moly steel. This is steel alloy tubing that has been TIG welded. TIG stands for Tungsten Inert Gas welding. This joining process involves heating the joint with an electric arc. The area becomes so hot the tubes actually fuse together. A steel filler is added to effectively produce the desired joint size and shape. The actual tube to tube bond guarantees integrity in the joint. When the steel is molten, it's prevented from reacting with oxygen by flooding the work area through the torch with an inert gas like argon. TIG welding is normally used on steel, aluminum, or titanium tubes. Steel is a tried and true performer, it rarely fails catastrophically.

Lugged, Cro-moly steel. Brazing is one of the more traditional ways of joining frame tubes together. Tubes are fit into sleeves called lugs and the entire joint area is heated with a torch. Silver or brass is then added to the joint. This molten material cools, hardens and joins the tubes together.

TIG welded, Aluminum. See description of the TIG welding process above. TIG welded aluminum frames usually use oversized tubing. Only certain grades of aluminum can be welded, other grades must be bonded. Aluminum has a couple of advantages over steel.

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The Eyes Have It

By Sgt. Ken Belden,
San Fernando (CA) Police Department

We all know how important it is to utilize all our safety equipment. We lace up our cycling shoes, pull on our riding gloves, don our properly fitted helmet and lastly, we put on our protective eyewear. Do we realize how important eyewear is?

Did you know your eyes' retinas chemically convert light through 100 million light receptors - the same eyes that make 100,000 adjustments a day. Or that overexposure to bright sunlight can cause a form of temporary blindness called keratitis?

Light, measured in nanometers, can be separated into two types. The first is visible light. Visible light spans the spectrum from violet (380 nm) to red (780 nm). The second type of light is invisible light: ultraviolet, infrared and blue light. This is the type of light that causes us problems.

Ultraviolet radiation is broken down into three categories: UVA (315 to 380 nm), UVB (290 to 315 nm) and UVC (100 to 290 nm). Some manufacturers offer UV protection up to 400 nm. Infrared rays, which most ophthalmologists agree are safe for most of us, occur at 760 to 10,000 nm. Blue light (400 to 550 nm) diffuses rapidly and causes a loss of contrast and makes it difficult for the eye to focus. To ensure visual acuity, blue light must be controlled by the lens of your eye protection.

Glass lenses have the best clarity, resistance to scratching and lack of distortion. The federal government requires lenses to be impact resistant. Photochromic lenses are glass lenses that contain UV sensitive chemicals that darken when exposed to UV light. The only drawback with these lenses is the inability to alter shades quickly with quick changes in lighting.

Plastic lenses are the most common and least expensive type of lenses used. UV filtration and durability vary.

Continued on page 4
IPMBA Progress a Result of Member Involvement

I'll apologize for the brevity of this column in advance. Right now I am preparing to teach two IPMBA Police Cyclist Courses, one here in Dayton, and of course, the one at our National Conference. As I prepare to go to San Antonio, I can't help thinking about the progress we have made as an organization. Our membership has increased ten-fold, and we're better trained and equipped than bike cops ever were before. We've made manufacturers sit up and take notice of what we want, not what they want to sell us. We've made all these "traditional" law enforcement administrators realize it's not a bad idea, it's an effective way to control crime. We've educated citizens to understand that if they want to control crime in their neighborhoods, they better support us in every way they can.

One of the most important things I think we've done is increase officer safety and reduce officer injuries. This is a direct result of our training program and the transfer of information amongst ourselves in IPMBA News.

No one person can take credit for these things because they've all come about as a team effort. Your IPMBA Board Members listen to you as they work to make the organization better. Your individual members, form the very base of the power we wield. Without you, we'd be as effective as a six-month-old, 135-pound rookie in the middle of a bar room brawl.

Help make this organization as strong as it can be. Encourage your friends to join and support our effort so we can add many more things to our list of credits. Until next time, don't let the bad guys or the pavement magnet get you.

- Allan

Becoming an IPMBA Police Cyclist Instructor

I just got back from teaching an IPMBA PC Course in Palm Beach County, Florida. Once again the class was a great success. I was joined by Officer Kirby Beck, a PCI from Coon Rapids Minnesota and Sgt. Joe Martin, a PCI from Hayward, California. While we all enjoy the opportunity to travel and teach, IPMBA's goal is to have IPMBA Police Cyclist Instructors in every state to provide quality training to all bicycle officers.

What does it take to become a certified IPMBA Police Cyclist Instructor (PCI)? To begin with, you must be a member of IPMBA. You must have successfully completed an IPMBA Police Cyclist Course taught by a certified IPMBA PCI and received a score of 86 or better on the written test. You must be an active police cyclist with at least one year full time or two years part-time experience on the bike. You must have a good understanding of John Forester's book Effective Cycling and should have above-average riding skills. While a full commission is not necessary to become a certified police cyclist, you must be a fully commissioned police officer to be an instructor.

If you meet these criteria you are eligible to become a PCI Candidate. Please call Robin Miller at IPMBA headquarters to receive a PCI application and questionnaire. The questionnaire and application must be filled out and returned to Robin with a $25 application fee and two letters of recommendation.

One letter of recommendation must come from the PCI that taught your original IPMBA Course. The other must come from your department. If you meet the minimum score on the PCI questionnaire and all the other requirements have been met, you will enter into the PCI Candidate (PCIC) program.

Next you will receive a PCI Instructor's Manual to review and assist you in preparing for your practice teach. You will have to organize and teach a four-day course with at least a 6 to 1 student to instructor ratio. This will be your practice teach. Upon completion of the practice teach you will have to write a review of the class and send in all evaluation forms and test score sheets. I will review this final package to make sure it is acceptable and then you will officially become a PCI.

I hope this will motivate some of you to work towards becoming certified PCs. My suggestion is to find others in your area that are PCs or want to become PCs and work towards a state course that is sponsored by your state training commission.

Good Luck!

- Gene Miller

Effective Use of Cover

By Jerry McCauley,
Palm Beach County (FL) Community Oriented Policing Association

As a defensive tactics and firearms instructor, I have found that many officers are still unfamiliar with the differences between cover and concealment. They can give the academy definition of each, but still lack the understanding of how to best utilize whichever is available.

One training exercise I use to point out the proper use of cover is a standard firearms-type drill. Using various sized objects for cover, have the officer run from one to another, using the object as best as he can to provide maximum protection. To make this drill effective, I have the officer start with an empty holster. The officer will, on command, move as quickly as possible to his new position. Once in place, the officer will simulate returning fire at a threat. For this drill, the threat is a video camera mounted downtown.

Two very enlightening things are discovered during these drills. One is that most bicycle officers do not remove their helmets prior to taking cover. This is probably due to the fact that the helmets are usually kept on during most encounters and are very lightweight, almost to the point of forgetting it's on. What the video picks up is an officer's helmet clearly giving away his location before the officer can return fire.

The second discovery is that most officers tend to "hug" their cover. This does not provide better protection and leaves the officer exposed when he finally peers out to locate the threat.

Knowing that a bullet will not penetrate your choice of cover is important, but getting behind the cover is equally important. The perspective of the video camera is very helpful and most officers can correct their own mistakes after watching themselves once or twice.

Making this exercise part of a scenario, including dialogues and communication, will provide an opportunity to incorporate several training points at one time. Also, you will have the officers react to the drill without forewarning.

LEAGUE OF AMERICAN BICYCLISTS
Bicycle Police in Japan

By Alan Parker

(Reprinted with permission from Australian Cyclist, magazine of the Bicycle Federation of Australia, June-July 1993)

Of all the mechanical means of transport the bicycle is the most convivial and friendly, so it should come as no surprise that Japan’s 70,000 community police still ride bicycles in this technically advanced nation. The Japanese system of community policing uses the bicycle patrol to its greatest advantage and this system is worth going back to in the inner and middle suburbs...because it not only combats crime but also builds community spirit.

The verdict of criminologists.

Some criminologists maintain that [the officer] operating out of his mini neighborhood police station (Kohan), who is very much a part of the local community, whose principal work vehicle is the bicycle, is most probably responsible for Tokyo’s reputation as the world’s safest city. For locals and tourists Tokyo feels very secure to be in, even late at night.

Around 40% of all Japanese police are involved in the local community and [the officer] is the backbone of the most efficient community policing system in the world (Bayley, 1990). In every precinct there is visible police presence. Police patrol their beats on foot or on a bicycle and are not alienated from the community due to being stuck in traffic in a four-wheeled box for far too long. For 30 years the combination of this unique system of community policing and an unemployment rate of less than 2 1/2% have resulted in a very low crime rate.

In high and medium density cities police are so much more visible if they are walking or cycling their beat, while in busy traffic when Japanese police are called to the site of a crime they nearly always go by bicycle as it is much quicker than by car. A visible police presence is reassuring for citizens and a constant reminder to the crook that he may get caught.

These cycling police spend some time cautioning child cyclists, and they take bicycle lighting offenses very seriously as they do other minor tasks of this type. All the while they are building up goodwill in the community.

The low crime rate in Japan is the real reason for the low level of cyclist harassment and the greater personal security when riding.

Protecting young cyclists from themselves.

Few child cyclists wear helmets in Japan but most of them have lights on their bicycles and they seem better disciplined in their riding. Today fewer than 40% of Australian cyclists have lights on their bicycles at night. This is the best example of the way traffic law is not enforced and denies cyclists the right to protection from themselves, under the law, as legitimate road users. This is particularly true for young cyclists who are very much at risk because of carelessness behavior and are indeed of some friendly advice from a local police patrol person.

In Australia the Geelong bikeplan established for the first time the importance of bicycle law enforcement and that the safety effectiveness of education programmes was very dependent upon enforcement. To quote the original report: "unfortunately, no amount of safety education will suffice on its own. Neither children nor adults will do the right thing automatically or consistently. Everyone has to be properly instructed and reminded often. Consequently continuous traffic safety education with enforcement on the road for both cyclists and car drivers is a must, logically leading bike riders into driver training."

The Victorian Police had some success in cautioning child cyclists in country areas where the local police were part of the local community, as they are in Japan, but in Melbourne where the police are mostly alienated from the community it was only applied to a smaller proportion of primary school children and hardly at all for secondary students. There are successful bicycle education programs running in Australian schools at both primary and secondary levels but the effectiveness is reduced by not having the police there to remind cyclists of their responsibility to obey traffic law. [Bike officers] urgently need to be reintroduced to ensure that this happens.

Equipment -continued from page 1

Aluminum won’t rust, and it has the ability to absorb some road shock without transmitting it to the rider.

Bonded, Aluminum. This process uses aluminum tubes that are glued to frame lugs with space age adhesives. The stated advantage of bonding is precise frame alignment. While the glue is cured, the frame remains in a jig that maintains proper alignment. In other joining processes heat can distort frame alignment. This typically is not a problem because these frames are re-aligned (coldset) after the joining process.

I have seen bonded aluminum frames literally come un-glued, some of which don’t involve any type of crash to cause them to fail. The only type of bonded aluminum frames that I’ve seen fail is a type that bonds aluminum tubes to cro-moly lugs. It appears bonding ferrous and non-ferrous metals together sometimes leads to joint failure.

According to a manufacturer who uses this process, their failure rate is miniscule compared to the number of frames they produce. I contend
Dear Editor,

The University of Wisconsin–Whitewater Police Department is happy to announce the expansion of our bicycle patrol program. For the past 18 months, two officers have, on occasion, used their personal bicycles to patrol the UW–Whitewater campus. The success of this limited bicycle patrol, along with the submission of numerous grant proposals, has led to the donation of $3,500 from various campus sources. Major contributions came from the UW–Whitewater Office of Residence Life and the student-managed Segregated University Fee Allocation Committee.

We have purchased two TREK Police Special mountain bikes along with the necessary accessories and uniforms to outfit two Police Officers. We will begin routine bicycle patrol as soon as the Wisconsin winter subsides.

Steve Camplin,
Police Officer IV

Dear Editor,

I have been a member of IPMBAA for one year. I anxiously await each issue of IPMBAA News, but I am curious about one thing. I see the Governing Board listed in every issue and I am not exactly sure what they do. Can you help me?

Curious in Kansas

Dear Curious,

The IPMBAA Governing Board is actively involved in many aspects of the Association. Elected by the members in attendance at the Police on Bikes Conference, Board members oversee the direction of IPMBAA activities. For example, they provide input into the Police Cyclist Course and IPMBAA News. In addition, the members of the Governing Board help plan the annual Police on Bikes Conference.

Eyes - from page 1

widely. CR-39 is the hardest plastic used and offers excellent optical quality and a high resistance to scratching. Polycarbonate is a soft plastic which is shatterproof and requires a scratchresistant coating. Polarized lenses are filters sandwiched between glass or plastic which remove glare but also reduce contrast.

Lens colors vary: Yellow is preferred for fog or flat light. Brown transmits truer colors than yellow. Green offers good color fidelity. Grey has the most even transmission of light. Stay away from mirrored models. They do reflect some infrared heat but offer little UV protection.

Make sure your glasses fit properly around your nose and along the temples. Quality hinges are made of metal secured with screws that also have a metal insert to the temple pieces. Also watch for the American National Standards Institute (ANSI) label which designates three categories of lenses: cosmetic, general purpose, and special purpose. Bicycle officers should only concern themselves with the latter.

For those with prescription glasses, such as myself, take care. If your optometrist cannot find what you want, many companies offer sports glasses that will adapt to your prescription lenses. Your vision is precious, so take as much time selecting eye protection as you would any other equipment you use: for your safety, health, and pleasure.

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Police Cyclist Lapel Pins

If you have taken an IPMBAA Police Cyclist Course and have become a certified IPMBAA Police Cyclist, you can order a pin to wear on your uniform. The pins are $5.00, and can be ordered by sending a check to the League, or calling 1-800-288-BIKE with your Visa or Mastercard number.

(The pin is gold with black writing and blue design)
Membership Guide

IPMBA Membership Questions?
We want to help!

IPMBA appreciates the support of its members and wants to provide the best possible membership service. The following guide is designed to give you information that will help you get the most from your IPMBA membership.

- **The International Police Mountain Bike Association (IPMBA)**

  IPMBA was formed in March 1992 as a division of the League of American Bicyclists. The purpose of IPMBA is to promote police training using bicycles as a viable, cost-effective tool; to act as a liaison between the members and the League; to build a network of bicycle officers; and to ensure that the League is aware of new developments in bicycle technology and training.

- **Membership Benefits**

  IPMBA members are automatically members of the League of American Bicyclists and receive:

  - full League benefits in addition to IPMBA benefits.
  - some of these membership benefits are outlined below:
    - **Bicycle USA magazine** — published eight times a year, this magazine keeps you in touch with the best of the "civilian" bicycling world...from touring and product information to descriptions of the League's education, advocacy, and recreation programs.
    - **Bikes for the Police** — members receive free bicycle transportation on select airlines when making flight reservations through the Sports National Reservation Center (800-426-4055).
    - **IPMBA News** — bi-monthly newsletter written especially for and by bicycle officers. Training tips, nutrition, unit notes, and other pertinent information is included in every issue.
    - **Discounted registration** to Police on Bikes Conference.
  - **IPMBA Programs**
    - **Police on Bikes Conference** — the annual meeting of the International Police Mountain Bike Association. Hands-on and classroom workshops on topics such as urban drug enforcement, advanced riding techniques, uniforms and equipment are scheduled during the three day Conference. An exhibit hall with bike patrol uniforms and equipment is open during the conference.
    - **IPMBA Police Cyclist Course** — a four day standardized training course developed for and by police bike officers. The course is taught by certified IPMBA Police Cyclist Instructors. Officers successfully completing the course are eligible for national certification by IPMBA.
  - **Police on Bikes Directory** — IPMBA maintains a directory of units with bike patrols. Survey results compiled each year include information on uniforms and equipment used, size of patrol, daily mileage, and other pertinent information.
  - **IPMBA Governing Board**

  Governing Board members are elected each year by members present at the Police on Bikes Conference. These eight officers supervise, control, and direct the affairs of the Association. In addition, these officers are actively involved in planning the annual Conference.

- **Membership Renewal**

  IPMBA solicits contributions in support of its work through membership dues and special contributions. Annual IPMBA membership is $35 for individuals and $40 for families. By renewing your membership promptly, you'll make sure you don't miss a single issue of IPMBA News and Bicycle USA — and you save IPMBA the expense of mailing you additional notices. If you receive duplicate renewal notices it is likely that our letters have crossed in the mail.

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**IPMBA MEMBERSHIP APPLICATION**

Name __________________________

Home Address __________________________

City __________________________ State _______ Zip _______

Telephone (____) _______

Police Dept. __________________________

Membership is $35 for an individual, $40 for family.

IPMBA membership is **not** offered to police departments.

Add $15 for postage to foreign countries.

Pay by check drawn in U.S. dollars from U.S. bank or international money order.

Enclose Payment or choose:

☐ VISA ☐ MasterCard

Card #: __________________________

Exp: Date: __________________________

Signature: __________________________

Make Check Payable to:
League of American Bicyclists
190 W. Ostend St., Suite 120
Baltimore, MD 21230-3755

1-800-288-BIKE (membership only)
(410) 539-3399

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**Spring Calendar**

| May | 14 | Champion Challenge '94
Virginia Beach, VA. Call O/C Steve Moog at (804) 474-8500.
15 | Bike the Beach '94, Rehoboth Beach, DE. (302) 227-2577.
21 | Police Mountain Bike Competition
Baltimore, MD. Call Lt. Fahrman at (410) 222-6135.
31-6/4 | IPMBA Police Cyclist Course
Ann Arbor, MI. Call O/C. Yonk at (313) 994-2911.

| June | 6-10 | IPMBA Police Cyclist Course
Maryville, TN. Call O/C. Welsh at (615) 983-4958.
IPMBA Police Cyclist Course
Bay City, MI. Call O/C. Yonk at (303) 994-2911.
14 - 17 | IPMBA Police Cyclist Course
Ithaca, NY. Call O/C. Myers at (607) 255-8946.

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**See Your Name In Print!**

Aside from joining IPMBA, there are many ways in which you can get involved and help support and strengthen bicycle patrols across the country. One way is to write an article for IPMBA News. We welcome articles from our members on any of the following:

- Training tips
- Patrol tactics
- Unique funding
- Legal information
- Equipment
- Community Relations
- and any other item of interest to your fellow bicycle patrol officers

If you have an idea or article you would like to share, please send it to Robin Miller, IPMBA Manager, 190 W. Ostend Street, Suite 120, Baltimore, MD 21230.
In the past year, the six-member Philadelphia Police bicycle patrol has made three dozen felony arrests, more than 60 misdemeanor arrests and responded to over 2,000 calls for service. The Bicycle Coalition of the Delaware Valley is pushing the Philadelphia Police Department to deploy officers on bicycles in neighborhoods outside their current Center City - South Street patrol area. (From Cyclopedia, March/April 1994)

The Omaha (NE) Police Bicycle Patrol is developing a program for At-Risk Kids. IPMBA member Officer Lowell Peterson is coordinating the program in conjunction with the Omaha Housing Authority and is making arrangements for a workshop where the bikes can be stored and repaired by the kids, for the kids. The Omaha Pedalers Bicycle Club has donated some repair tools for the project and has reinitiated the Friends of Police Bike fundraising effort to raise additional funds for the At-Risk program. (From the Omaha Pedalers Bicycle Club Newsletter, March 1994)

The Blackhawk Bicycle and Ski Club has provided funds for the purchase of an additional 'Trek' mountain bike for the Rockford (IL) Police bicycle unit. (From Spoke Signals, March 1994)

Orleans (MA) Police Department instituted a bicycle patrol in the summer of 1993, with terrific results. This year the department increased the patrol by one man, and expanded its gear and equipment.

Xenia (OH) Police Chief Claude Lyons says he wants bicyclists to know they are welcome in Xenia and is working to get the city's mandatory-sidepath law repealed. Ed Dressler, Greene County Park District Director, arranged a meeting at which Dayton's bicycle police officer extraordinary Allan Howard discussed bicycle law enforcement issues with Lyons and other city officials. Lyons says he hopes to get revised bike ordinances approved by the Xenia City Commission before the cycling season gets in full swing. (Reprinted from the Spoke 'N' Link, March 1994)

Anne Arundel County Police Department announces their Police Mountain Bike Competition to benefit Special Olympics. The date is set for Saturday, May 21, 1994 in Pasadena, Maryland and will include a five-mile timed race, obstacle course, and bike toss. For information call Lt. Jim Fahrman at (410) 222-6135. This is an event the whole family will enjoy!

The International Police Mountain Bike Association (IPMBA) would like to thank the following companies for donating products towards the Conference and Competition: Desert Sun Marketing, Gall's Inc., Klein Bicycles, NiteRider, Olympic Uniforms, Patrol Bike Systems, Respco, Trek Bicycle Corp., and West Coast Bicycle Innovations.

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