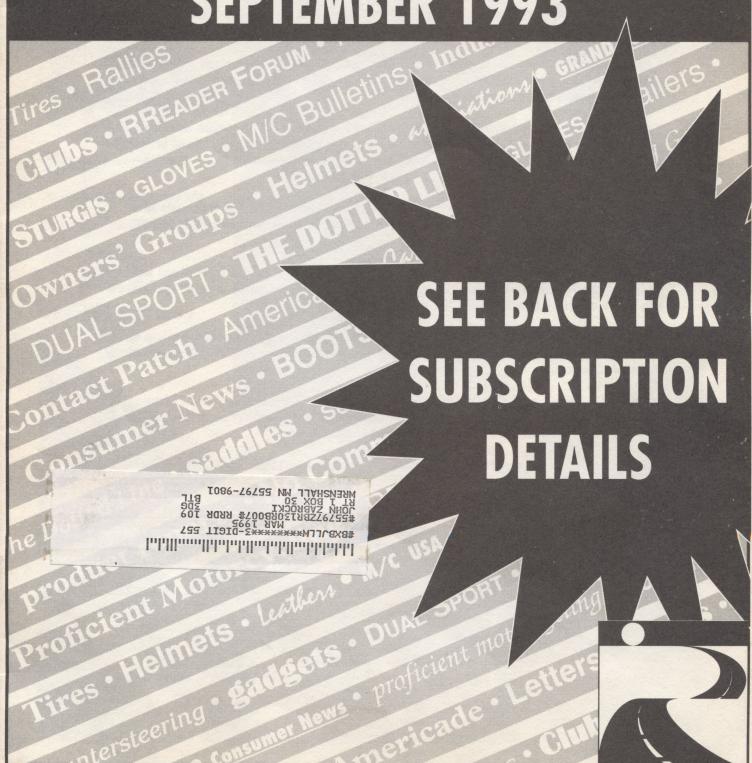
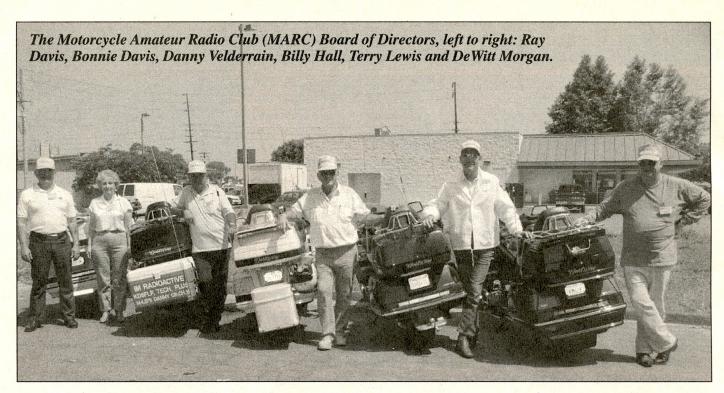
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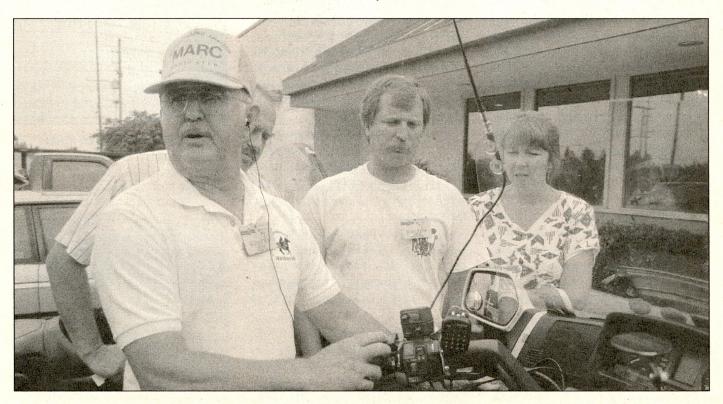
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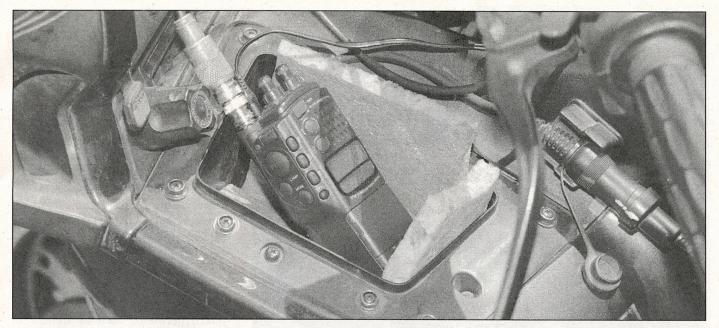




Article and Photos by Irwin W. Fisk



Club President Ray Davis demonstrates how a handheld unit is installed on a motorcycle.



For the easiest, cheapest and most temporary installation, you can simply drop a handheld unit in a fairing pocket and hook up a microphone, antenna and PTT switch.

The Marriage Of Ham Radio To The Motorcycle

ay Davis and his friends DeWitt Morgan and Danny Velderrain were sweeping the stragglers bringing up the rear of a 100-mile bicycle charity ride. As they reined in their Gold Wings to a wobbly pace at the end, the three expressed their frustration at often being out of CB radio range with their fellow riders helping with the event.

"The CBs just weren't doing it for us," says Davis. "At that point, we decided we needed to get our ham licenses."

Together they enrolled in an eight-hour class, sponsored by a local amateur radio club. Afterwards, the three of them took and passed the FCC's Technician exam. This "No Code Tech" license grants individual ham radio privileges in the VHF and UHF frequencies.

Meanwhile, they discovered other riders who shared their dual interests in motorcycling and amateur radios. Within months, the nucleus of MARC (Motorcycle Amateur Radio Club) was formed and held its first meeting. From

the beginning, the primary purpose of the organization has been to assist with charity events. Today, more than a hundred riders belong to the year-old club, making it one of the fastest growing motorcycle clubs in the country.

Although a call sign is not a prerequisite to joining, over 90 percent of the members are licensed hams.

The Advantages of Hamming-Up Your Bike

At one time, ham radio equipment was much too bulky and complicated to be considered seriously for use on a motorcycle. But times have changed. Today, several companies make small, lightweight and easy-to-use radios for the VHF/UHF frequencies, including the popular 144.00 MHz (2 meters), 220 MHz, and the 440 MHz. Two meters is the more popular, so more radios are made for this band.

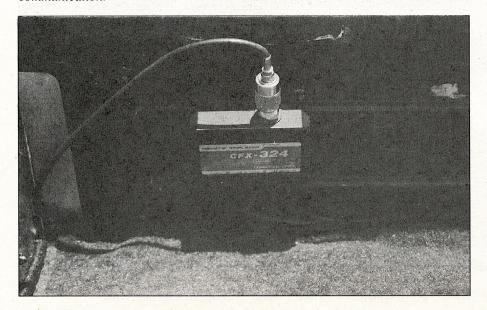
VHF/UHF radios have numerous advantages over standard Citizen's Band



The tiny ML-7 speaker/microphone unit is ideal for use on a motorcycle equpped with ham radio.



Danny Velderrain's 10-meter HF Ranger unit is capable of world-wide communication.



(CB). First, hams can tune across the VHF/UHF bands very much like a commercial radio, rather than being stuck with pre-determined channels. The number of available frequencies jumps from 40 on CB to hundreds with ham.

The second advantage is that of distance. Hams using the more powerful VHF/UHF rigs can easily talk 10 miles or more radio-to-radio, known as "simplex," and simplex is the low end on distance. Most hams operate through repeaters that are located throughout the country. A repeater receives and retransmits the weaker ham signal, thus boosting reliable communication to 50 or more miles.

Repeaters, in turn, are often joined into linked networks, such as Condor in California and Zia in the Southwest. By tying into these repeater networks, motorcycle riders using cigar box-sized mobile rigs can talk to other hams hundreds of miles distant.

Ham radio can turn idle miles into hours of great conversations with other hams. Three MARC members, including Davis, recently decided to make the Four Corners Ride to San Ysidro, California; Blaine, Washington; Madawaska, Maine, and Key West, Florida.

"It was amazing," says Davis, "except for certain wide open spots in Montana and South Dakota, we had repeaters all the way to Maine and, of course, down the whole East Coast. As soon as I would go on the air with, 'This is KD6FHN, motorcycle mobile looking for local information,' someone would come on the air asking me what kind of equipment I had on my motorcycle, where I was from and where I was headed. Sometimes we would talk for hours. This would go on from one town to the next."

How To Go About It

Whether your interest is in helping with charity events or just enhancing your communications ability, ham radio can be a definite plus for the touring motorcyclist. First, you need to obtain your No Code Tech license. Contact your local electronics store that sells ham radio gear. They can usually put you in touch with

A hidden tri-plexer permits three different VHF/UHF bands to operate off one antenna.

your local amateur radio club. Clubs routinely give classes and administer FCC tests for the various grades of licenses. If you can't find a club, call or write the ARRL (American Radio Relay League) and they can give you the name of someone to contact in your area.

Study guides can be purchased from your local outlet or from the ARRL. The No Code Tech study guide has the entire question pool, complete with answers. Upon passing, you will be issued your call sign by the FCC.

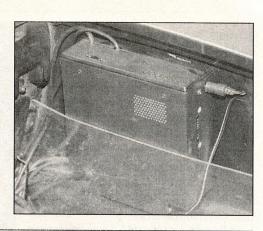
While waiting for your license, you can shop around for your VHF/UHF rig. If you are on a tight budget, you may want to opt for a handheld as your first radio. They look like a walkie-talkie, but have full VHF/UHF capabilities. Handhelds can be mounted on a motorcycle in such a way as to be easily detached for use when you are not on your bike. Two meter models start around \$250; dualband models with two meters and 440 MHz or 220 MHz capability run about \$450.

Installing a handheld on a bike is simple. In addition to the handheld, you will need a mobile antenna and a speaker/microphone such as the ML-7 Micless Microphone made by Comet. The mobile antenna connects to the top of your handheld, along with the microphone and speaker jacks of the ML-7. The ML-7's earpiece acts both as a microphone and a speaker. The ML-7's tiny push-to-talk switch is easily attached to the underside of the left handlebar.

Handhelds contain their own 12-volt rechargeable batteries, but you may want to consider a direct hookup with the bike's battery. All that's left to do is to attach a Velcro pad or a bracket to a handy place up front so the handheld can be held in place while riding, but easily detached for off-bike use. What could be simpler?

Regular VHF/UHF mobile rigs are more powerful than the handhelds. They are about the size of a cigar box and will usually mount neatly up front on most fully-faired touring rigs. The new tri-band models offer three bands (usually 144, 220, and 440 MHz) and have detachable faces. The small face is easily mounted up in the front of the bike, while the radio itself fits neatly into the luggage compartment. The radio is then connected via short lengths of coax cable to the detached face and the short VHF/UHF mobile

If you want to get really serious, a VHF/UHF tri-bander with a detachable faceplate allows the radio itself to be mounted in a trunk or saddlebag.





Parked together, the Motorcycle Amateur Radio Club bikes present a re-MARC-able array of antennas.

antenna. You can mount the antenna on the luggage compartment or substitute it for one of your bike's stock antennas.

Power is supplied by running leads to your battery terminals. A number of microphone/speaker arrangements are also available. Stock mikes can be used, or some riders use their existing helmet microphones by adding a switch to allow them to go back and forth between their ham rigs and their bike's stock radio/intercom system.

Once the ham bug bites, you will probably want to upgrade your license so you can get on the world-wide HF bands. MARC member Danny Velderrain, KD6FLP, upgraded his license from a No Code Tech to a "Tech Plus" by simply passing a five-word-per-minute code test in addition to the No Code Tech written test. He now sports a 10 meter Ranger RCI 2950 on his Gold Wing, along with his VHF/UHF rig.

Riders utilizing 10 meters routinely talk to distant states and countries. Velderrain sums it up: "When you mention you are a motorcycle mobile, everybody wants a piece of you."



Ray Davis has mounted a Kenwood TS-50 with worldwide capabilities next to a Kenwood 741-A VHF/UHF tri-bander on his GoldWing.

Answering Some Questions About Adding Ham Radio To Your Bike

GENERAL

Advantages: More power. Models with detachable fronts are easy to install. Dual- or tri-banders offer versatility. Single-band models start at \$330.

Disadvantages: Dual and tri-band models are more expensive, with prices starting around \$500.

HANDHELDS

Advantages: Can operate on and off the bike. Models start around \$230.

Disadvantages: Lower powered than mobile rigs. Power is important when working with simplex.

FCC LICENSES

Novice: Pass a short written test and a five-word-per-minute code test. Permits operation on portions of the HF bands, including voice on a portion of 10 meters.

Technician: The "No Code Tech" requires passing a test that includes the written portions of the Novice and Technician class exams. Licensees may use portions of the VHF/UHF bands.

General, Advanced and Extra: These advanced licenses grant extra frequency privileges on the HF bands.

ORGANIZATIONS

Motorcycle Amateur Radio Club (MARC) Ray Davis, President 3 Lindberg, Irvine, CA 92720 (714) 551-1036

American Radio Relay League (ARRL) 225 Main Street Newington, CT 06111 (203) 666-1541

FREE CATALOGS

Ham Radio Outlet 1-800-854-6046 West 1-800-444-4799 Mid-West & East

Amateur Electronic Supply 1-800-558-0411