The Monitor

September 2003

Upcoming Events

TSRC Meeting Sept. 13, 2003, 9:00am
Regency Inn, WRJ, VT

TSRC Meeting Oct. 11, 2003, 9:00am
Regency Inn, WRJ, VT

Letter tto the Club

Dear TSRC,

I am VERY dissappointed with the decision to put a tone access on the Club's 2 meter repeater. Now 145.33 has even less activity than before the tone was added.

I thought the idea was to increase the operating activity on the repeater. Instead I feel the tone is a barrier to using the repeater.

In my opinion having a tone access to the repeater is counterproductive and unfriendly.

I now have 3 two meter radios that can't get on the repeater. Thanks alot!

73, Dave (KA1CRP)

60 Meter Review

By Ken, W1KRT

On July 3rd U.S amateurs got access to frequencies near 5 MHz for the first time since the ancient days of "200 Meters and Down". We didn't get a "band" in the traditional sense, but rather just five discrete operating frequencies, limited to upper side band only and not more than fifty watts effective radiated power.

What is Sixty Meters like? So far, the best analogy seems to be a VHF or UHF repeater, but with extended range and no time out timer.The five allowed frequencies, or "channels" (a term not normally applied to amateur radio HF operation)are not contiguous. That is, there are several kilohertz separating the channels.What this means is that there is no interference from stations on a different channel than you, unlike other HF bands where stations crowd each other, sometimes within just one or two kilohertz.On 60 meters stations are on the same frequency as you are, or you don't hear them at all.Also, there is only one mode authorized at this time, USB. You don't hear carriers from AM, digital signals, or cw. You hear either on-frequency SSB or just band noise. One exception to this utopia is the primary user of the band- the government. You can on occassion hear some data transmissions by non-amateur stations. They have priority; amateur radio is a secondary user of the frequencies. If you some non-voice signals, do not interfere with them! Contacts tend to be short, generally discussing equipment and antennas, but you will sometimes hear extended contacts, especially during daylight hours when occupancy is light. After dark, when ranges increase, more users appear and all channels are occupied, but the atmosphere is friendly and newcomers are welcomed into the conversations. No one "hogs" the frequency. There are no contests, nets, or pileups.

The power limitation- fifty watts e.r.p.- seems to be a good thing at this time. The FCC's reason for it was to lessen the chance of hams interfering with the government users.The beneficial effect is to level the playing field. A ham does not have to compete with other hams running kilowatts or broadcast stations running megawatts.And, since the limitation is EFFECTIVE RADIATED power, not input or output power of the transmitter, one can adjust transmitter power to make up for an inefficient antenna, such as a mobile station using just a seven or eight foot whip.The FCC's reference point is a standard dipole. If your antenna has gain compared with a dipole, you must reduce your transmitter power accordingly. If you have an inefficient antenna, such as typical for a mobile station, you can use more power.When using an antenna other than a dipole or equivalent, you must keep records of the gain calculation- either manufacturer's data or actual calculations.Of course, inefficient antennas are to be avoided whenever possible. Increased transmitter power will not help you receive any better.With no competition from the BIG GUNS, fifty watts is plenty of power.

Natural interference- static primarily- is almost as bad as on 75 meters. Fading seems to be worse. Ranges are quite good however. I routinely hear stations in an arc from Virginia-North Carolina up to the west and northwest to Michigan and Wisconsin.At night ranges increase, and many stations have worked England on the one frequency we have in common, 5403.5 kHz.As indicated above, mobile stations are able to hold their own with the fixed stations.

What does it take to get on ? Current amateur SSB radios are generally stable enough to keep the operator out of trouble. The authorized "channel width" is just 2.8 kHz, however, so check the specs on your rig's transmitted spectrum. If your radio is "hi-fi" you may need an audio filter to reduce the transmitted signal's bandwidth by restricting the audio spectrum applied to the modulator.As for frequency coverage- that is an ongoing process of experimentation and study. SGC has the modification for the SG-2020 radio on its

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website. The company fully supports the mod.Icom is "studying the issue" and will post information on its website. I have heard people on the band using Ten Tec, SGC, Icom, Kenwood, and Yaesu radios.I had to perform "micro-surgery" on my IC-746, removing a very tiny surface-mounted diode, to gain transmit capability on 5 MHz.Some radios can not be modified without great difficulty; some need only a magic code punched into the control panel.Information on needed mods is usually available on the Internet, but of course these mods are "at your own risk".It took me several days to work up the courage to remove the diode in my IC-746. I heard others on the air, though, so I had reason to believe there are no bad side-effects if the mod is done carefully.So far, so good. It works just fine.

The bottom line ? It's probably too early to tell, as new users come to the band daily. Sixty meters is certainly not for everyone. If you like to ragchew in a relaxed atmosphere and enjoy making new friends you will meet on the air routinely, you will enjoy sixty.Would I spend a lot of money to gain access to the band ? Probably not. I modified two radios I already own and put up a dedicated dipole made from wire, insulators, and coax from my junkbox. Net cost: $0.00.At such a great price how could I not get on the band ? Give sixty meters a listen. If you like what you hear, there is a good chance a little research on the Internet and some work on your radio may get you on at little or no cost.

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Part 97	http://www.arrl.org/field/regulations/news/part97/

Don't forget to check the TSRC Home Page!
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http://www.w1fn.org

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