OPERATING FUN ON VHF-UHF

by Kay WT3P

A lot of hams today are looking for a challenge. Many of them could find it on the bands above 30 MHz, but outside the FM sub-bands.

There are many reasons why VHF-UHF may appeal to hams who're bored by whatever they're doing now. A great deal is not yet understood about radio propagation above 30 MHz. The higher the band, the more you must experiment and build your own equipment and antennas. If you don't have HF privileges for DXing, you can work stations far outside the local area on VHF-UHF, even work other countries . . . something you can't do on FM repeaters. You can earn operating awards and play in contests, if you want to.

VHF-UHF CONTESTS

VHF-UHF contests are held on weekends throughout the year. ARRL sponsors all-band contests in January, June, and September. Single-band "sprint" contests are held in April and May. There's a UHF-only contest in August. A 10 GHz cumulative contest is held on two weekends in August and September, and an Earth-Moon-Earth (moonbounce) contest is held on two weekends in the fall.

Other contests on the bands above 30 MHz are sponsored by CQ magazine and other organizations. Watch the contest columns in the ham magazines for dates and details.

Even if you are not particularly interested in competition, playing in contests is a good way to test your station's capabilities, improve your operating skills, and make contacts you can confirm to earn operating awards, such as VUCC.

ABOUT VUCC

The VHF-UHF Century Club (VUCC) award is offered by the ARRL for confirming required numbers of grid squares on each of the ham bands from 50 MHz on up. On 6 and 2 meters, you need 100 grids confirmed. On 222 and 432 MHz, it's 50 grids, and so on.

UM, GRID SQUARES?

The earth has been divided into 1° x 2º latitude / longitude rectangles commonly termed grid squares. Each is identified by a unique combination of letters and numbers. Most MARC members live in the FM29 and FN20 grid squares.

Knowing your latitude and longitude, you can determine what grid square you live in by using a grid locator map, a chart such as the one on page 12-4 of the 1997 edition of the ***ARRL OPERATING MANUAL,*** or a computer program. Serious VHFers have their grid square locators printed on their QSL cards.

WHAT EQUIPMENT IS NEEDED?

VHF-UHF experimenting, award-hunting, and contesting are seldom done on FM. People usually use SSB and CW for these activities.

Many use all-mode rigs, either single-band rigs or one of the newer multi-band multi-mode transceivers such as the ICOM IC-706.

The alternative is a transverter, which uses an HF transceiver as an IF. VHFers who want to do CW/SSB on 222 MHz have little choice other than to transvert, since there are no all-mode rigs for that band.

As you move up into the microwave ham bands, you find more and more home-brew equipment on the air. Commercial ham gear scarcely exists, and the operators enjoy designing, building, and testing their own stuff.

You'll also need directional antennas with gain and amplifiers for the bands you want to use.

DO YOU NEED TO KNOW CW?

No, but it doesn't hurt. Helpful propagation Deacons on the bands above 30 MHz indicate band openings. Also, because a lot of VHF-UHF operating is "weak signal" . . . that is, signals barely above the noise floor . . . the bit about CW getting through when SSB doesn't is very true.

If you become interested in microwave communications or moonbounce, knowing Morse is essential. That's what they use.

Some propagation phenomena (such as aurora) make SSB signals sound like people are gargling instead of talking, while Morse code is easier to make sense of.

On the other hand, some meteor-scatter enthusiasts report that SSB works much better for them than CW.

You can definitely have a lot of fun on VHF-UHF without knowing or using Morse code. But some interesting opportunities open up if you know CW.

MARC AND VHF-UHF

A number of club members have VHF-UHF stations and enjoy helping introduce people to this kind of operating. Some of them are **Bob W3ZQN, Steve KDOVA, Bob N3JIZ, Pete N3WUM, Rob WI3S, Bruce N3JOV** (who has a design for a killer 6m homebrew Yagi), **Carter N3AO,** and **Kay WT3P.**

When will we enjoy a QSO with YOU?

TOWER CLIMBING SAFETY TIPS

Most ham radio antenna work is done in the worst weather . . . or so it seems. Anyway, here are all-season tower work safety tips from a professional tower rigger who spoke at the Pack Rats VHF Conference this fall. They could save your life!

- Wear hard hats and work boots - no sneakers and baseball caps, either on the tower or on the ground.
- Check all climbing belts for wear or damage.
- Have communication between workers on the tower and workers on the ground.
- Plan work carefully beforehand, and ask experts for advice.
- Take no shortcuts, and do not hurry the job.