

6 METER NET CHRONICLES

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Science Issue 4

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PURPOSE

The purpose of these TEARA 6 meter special science issues is to provide science related information for the benefit of the readers of the **6 METER NET CHRONICLES**.

The Topic For This Science Issue Is A Discussion Of One Wireless CW Code Practice System Configuration

TEARA (Triangle East Amateur Radio Association)

The Triangle East Amateur Radio Association meets the fourth Tuesday of each month, at 7:00 pm, in the social hall of the Wendell United Methodist church. Individuals start arriving around 6:00 to 6:30 pm and bring their dinner and socialize until the meeting starts at 7:00 pm. TEARA has very good programs of interest to hams. Please give the club a visit and consider becoming a member. TEARA does not meet during the month of December.

The next regular meeting of TEARA will be November 28, 2006 and the program topic will be **packet radio**.

Background

Have you wanted to simply practice morse code, CW, with a friend within your own home boundaries without running hard-wired electrical connections? Well this science issue will outline one system that works fairly well and most likely could be improved by one skilled in electronic circuits.

The Basic System Requirements

The basic system requirements are for multiple hams, or aspirants to be hams, to communicate over distances of 100-200 ft using a wireless transmitting and receiving CW code system. Our present system's configuration is shown in Figure 1.



Figure 1.

As compared to the opening photo, Figure 1 is its negative. We had all kinds of problems trying to get a good picture of our system's three components. A photographer we are not.

Our cordless localized CW practice system consists of two CW paddles, two sets of wireless headsets (including transmitter bases), and two MFJ-407D Deluxe Electronic Keyers. Note that only one set-up is shown in Figure 1 and that both of the sets used were identical. Also we know of no reason why one could not have 10 identical similar systems as long as they stayed within the 200-300 ft range specified by the wireless headset's transmitter.

The wireless headsets chosen were the Acoustic Research 900 MHz units model AW722 3615TD (actually someone else manufactures these units, what else is new). We tried three different wireless headsets before we found one that would work. It turned out that the cheaper model of the Acoustic Research brand (named above) was the set found to work best with our MFJ unit. The other models would not turn on and stay on when trying to transmit morse code.

Operational Considerations

The one problem that we did not solve was getting each wireless headset unit to transmit using the identical frequency. Although the units come with three sending frequency options, within the allowed FCC band, they are not all set to the same transmitting frequencies.

The internal electronics are composed of sub-miniature components, and we could not see how to change the unit's transmitting frequency without having available to us the circuit's specifications, which we tried to obtain but could not. So the bottom line is we have to slightly shift the tuning control on our headsets when the other person starts sending: a slight nuisance, but not too bad. I have marked each headset's frequency control, using a color-coding system, for the correct setting to pick up the other ham's CW signals.

I am sure some of you who are more efficient at basic electronics, especially in modifying subminiature components, could figure out how to get all of the wireless headset systems operating on the same frequency.

Concluding Remarks

We have found the system identified herein to be very useful. At least one of us has also found it a big help in simply practicing the sending of morse code information. It really does help to practice, while listening to your own code signals, using a single set-up.

If one of our readers elects to further develop, or already has developed, a wireless CW code practicing system we would love to hear of your experiences. We find just practicing code helps keep our brains function at a higher level, whatever that means?

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