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Lower Mast Size- 1 1/2"
Lower Mast Length- 16"
Whip Length- 34"

Total Length of Antenna in 6mt position- 50"
Total Length of Antenna in 40mt position- 56"
Freq. Coverage Continuous- 6mt thru 40mt
Power Rating- 500 watts P.E.P.
Typical SWR- 1.5 or less
Weight- 1.8 lbs.

LITTLE TARHEEL II

6-80 meter

\$349.+S/H

Specifications

Lower Mast Size- 1 1/2"
Lower Mast Length- 16"
Whip Length- 34"

Total Length of Antenna in 6mt position- 50"
Total Length of Antenna in 80mt position- 56"
Freq. Coverage Continuous- 6mt thru 80mt
Power Rating- 200 watts P.E.P.
Typical SWR- 1.5 or less
Weight- 1.9 lbs.

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Contest	Date/Time	Gathering Freqs (±10 kHz)	Information Exchange
Milliwatt Field Day Event	June 26 & 27 (Same times as ARRL Field Day)	3.560, 7.040, 14.060, 21.060, 28.060 MHz	Same as ARRL Field Day exchange
Summer Homebrew Sprint (CW)	July 11 2000-2400 UTC	3.560, 7.040, 14.060, 21.060, 28.060 MHz	RST, State, ARCI number or Your QRP power level

Fig. 1— Upcoming QRP contests. Give them a go and join the fun of QRP! For more information go to www.qrparci.org.

and a 40-watt-capable RF power-amplifier section that "loafs along" at 5, 10, or 20 watts output. It is a rig you can quickly connect to a 12-volt lantern battery and use "field day style" almost anywhere. For extra flexibility, the front panel has sockets for both a hand key and an electronic paddle. Further, T/R switching time when using the hand-key socket is close to full break-in, while T/R delay with the paddle socket is more akin to semi break-in operation. Some folks have expressed concern over T/R relay noise when operating full or fast break-in style, but thus far SGC reports no relay failures. Like good keys and paddles, they just keep on working with amazing reliability. If the fast relay T/R switching seems annoying, however, you can simply "latch" the relay by holding the mic's PTT bar down while transmitting.

Another SGC item you will surely hear more about in the future is the new SG-211 Mini SmarTuner. This 1.5" x 4.5" x 7" delight is a completely hands-free "plug and play" automatic antenna tuner especially designed for impromptu portable and/or mobile operations. It matches both balanced and unbalanced antennas with impedances from 0.3 to 6000 ohms, operates on internal AA batteries with an estimated life cycle of five years, and requires no rig control or interface cable. You just connect it to the antenna (typically at its feed point), route a regular 50-ohm coax cable from the SG-211 to your transceiver, and transmit. The mini SmarTuner automatically senses the band/frequency and tunes for a low SWR. Put this thing at the feed point of your portable antenna, and you are ready for no-fumbles backpacking on a moment's notice.

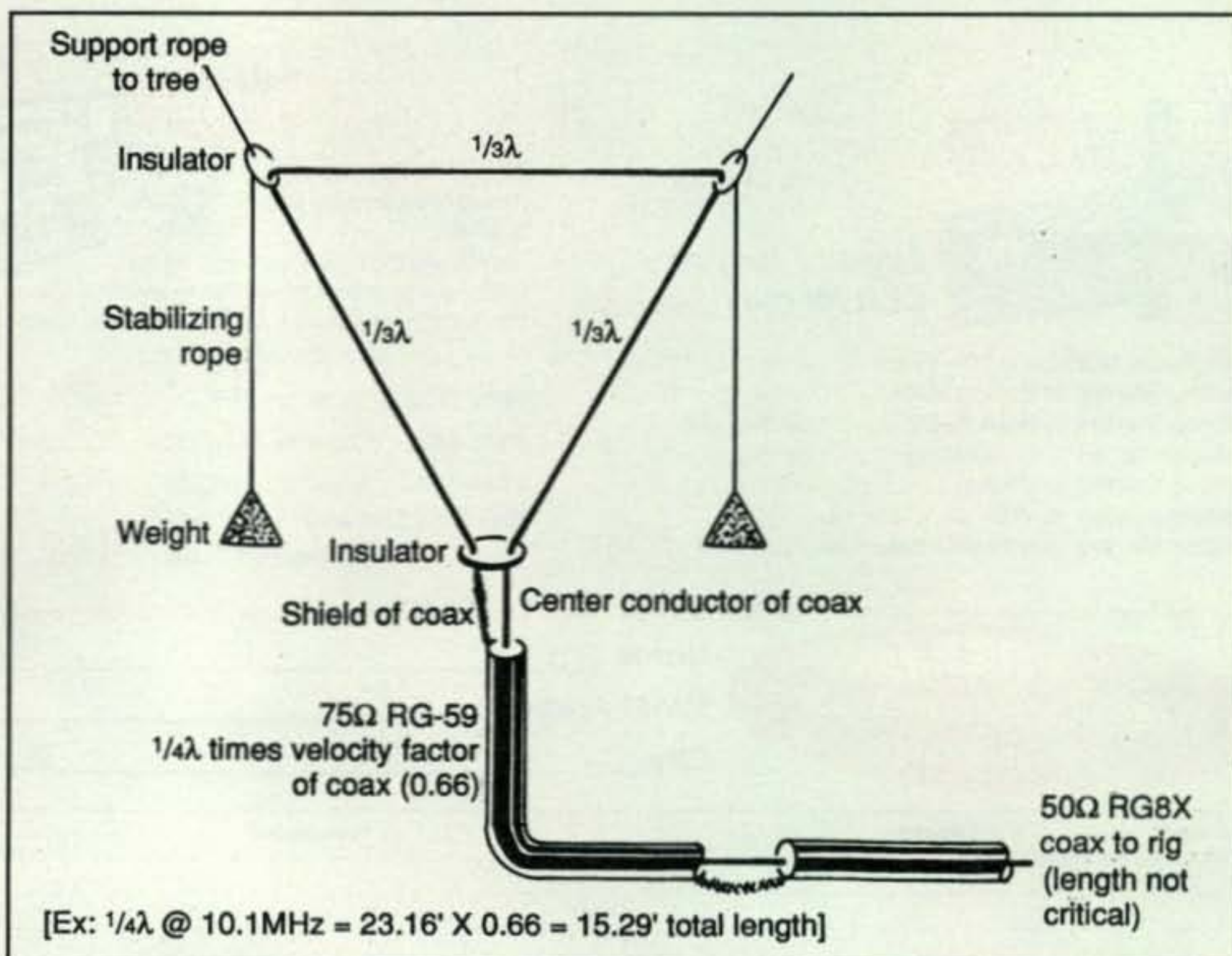


Fig. 2— The classic Delta Loop antenna, with a K4TWJ-added twist . . . err, invert. The apex is down rather than up, so the longest span of wire is high in the air, while the feed point is close to the shack. The overall result is a bigger signal regardless of the power level.

Wow! The SG-211 covers 1.8 to 60 MHz and handles up to 60 watts of power. More details on it, the ADSP speaker, and the SG-2020 transceiver are available from SGC at <www.sgcworld.com> or at 1-800-259-7331. Check them out.

Contesting with QRP

Ready to experience a double dose of lighthearted weekend fun with QRP? Join the Milliwatt Field Day activity running piggyback with the ARRL's traditional Field Day competition scheduled for June 26 and 27, and the QRP ARCI Summer Homebrew Sprint coming up July 11. You will meet some really sharp operators and surprise yourself at how well QRP "reaches out" at the same time! The Milliwatt Field Day event follows the same times, rules, and information exchanges as the ARRL's Field Day and also embraces CW, SSB, and digital modes of communication. Despite the name, you need not run only milliwatts of power to enter; the usual QRP level of 5 watts is quite acceptable. Grab your favorite QRP rig, a long-life lantern battery for power, a roll-up wire antenna, and head for the hills. It's that easy! Concerned about being "trampled" by the stronger signal boys? Operate within 5 or 10 kHz of the popular QRP frequencies of 3.560, 7.040, 14.060, 21.060, and 28.060 MHz, and you will make plenty of QRP QSOs—well, a respectable number anyway.

The Summer Homebrew Sprint is a short 4-hour, CW-only event that runs from 2000–2400 UTC on July 11. It is a terrific way to "get your feet wet in QRP," it is a "laid back" affair, and it is ideal for working a fair number of states via QRP in a single afternoon. Once again, you will find most of the activity within 5 or 10 kHz of 3.560, 7.040, 14.060, 21.060, and 28.060 MHz. Listen (closely, please) for stations calling CQ QRP or CQ Test or call your own CQ QRP if activity is sparse. The associated/QSO exchange is RST, state, and QRP ARCI number. If you do not have a number (are not a member of QRP ARCI), substitute your power level (example: 569, AL, number 1289 or 5 watts). There are numerous categories of entry, including all bands, single band, 5 watts, 1 watt, 250 milliwatts, and a new 20-times score multiplier for running 55 milliwatts of power. Wow—what a blast! More details on the contests, log entries, and the QRP International may be found at <www.qrparci.org>. Go for it, and listen for me, too. I will be the weak one running low power.

The Delta Loop—Inverted

A fair number of readers have asked us to revisit and answer some questions on the classic Delta Loop highlighted in our column a few years ago, so let's take another brief look at this ever-popular antenna (fig. 2). The Delta Loop utilizes a full wavelength of wire—twice the amount of a dipole—so it has more surface/capture area for "outworking" a regular dipole. I also prefer to mount it "inverted style" with its apex down rather than up, as it then fits between trees too close together to support a dipole. I also find the "inverted" position enhances performance by placing the greatest length of horizontal wire at the highest point for maximum signal radiation, while placing the feed point closer to the rig and minimizing feedline losses.

Several readers asked if small-gauge hook-up wire is suitable for making the Delta. Sure, provided it is large/strong enough to hold its full-loop weight and is not strained so it will snap as tree limbs move with the wind. I use black insulation-covered number 22 stranded wire for a 30-meter Delta Loop, and it disappears against tree backgrounds. Other readers asked if the RG-59

matching section can be deleted. Sure. Performance will drop ever so slightly and minimum SWR will increase to around 1.5:1, but an antenna tuner can sidestep that pitfall.

Answering another question, if the loop hangs or terminates near the shack window, the main (50 ohm) feedline can also be eliminated and the loop's feed point connected directly to an antenna with balanced output. Remember, however, you and your gear will then be within the antenna's induction field. Use QRP and stay alert to potential entanglements with RF feedback.

Finally, remember a real Delta Loop is a monoband antenna. You may be able to RF-load it on another band, but a specific-band dipole will probably outwork it. Heed our suggestions, and your cut-to-order Delta Loop will work like a champ.

On that final space-overflowing note, we must again bow out for another month. More gear reviews and several quick-brew mini-projects you will love are "in the works" for our following columns, however, so stay tuned for more QRP fun than the law allows!

73, Dave, K4TWJ

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