



Tuner's Topics

The Metric System

by SP4 Tuner Tropo

My directional antenna A7-903/G is 14.63 meters high with a 40 kilometer shot. Now, I wonder, just how high the antenna is and what the range is. I mean, meters and so forth don't really mean much unless you compare them to some measurement that is understandable.

The metric system is on our doorstep, so to speak. For communicators, certain aspects of the system are almost second nature—such as linear distances expressed in kilometers. But, in many cases, all of us have to mentally convert the metric distance measurement to feet, yards or whatever, to conceptualize and really understand that particular distance.

With the system, which was "devised" in the late 18th Century by European mathematicians, comes not only a whole new set of terms to express measurements of distance, area, volume, weight, pressure and temperature, but a need to change our way of thinking and perceiving. Otherwise, all of us will waste a lot of time going through the conversion process: motorists will run out of gas on

trips because they didn't realize that 2 liters of fuel would not carry them 300 miles; dinners will be late because the cook of the family spent hours determining just how many ounces were in a gram and how long it would take to cook the roast in a pressure cooker geared to kilopascals; farmers will buy too few seeds to plant their hectares; and none of us will know what to wear when the temperature is 26 degrees Celsius.

Once the basics of the metric system are mastered, though, they are generally easier to work with than the measurement terms and concepts we have traditionally used. Metric measurements are based on 10s; so, once you've gotten the concept that, for example, a meter is x-distance, then with simple multiplication by 10, you will know what a decameter is, then a hectometer, a kilometer, and so forth. The only trouble will be in expressing mentally what distance a meter is—the natural thing that comes to mind is "a little more than a yard," or "a little more than 3 feet." Be exact and don't mix "metaphors" in terminology: a meter is precisely 100 centimeters or 10 decimeters. Don't forget it.

