

## MOUNTAIN SPARK GAPS

The New Providence Amateur Radio Club, Inc.  
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### WHAT'S YOUR ANTENNA'S IMPEDANCE? - APRIL 12th. MEETING

With all the new antennas cropping up in the neighborhood, we've been hearing a lot of talk about measurements. Folks want to find out just what that massive beauty looks like electrically. One of the standard measurements is the input impedance of the antenna. Usually a bridge circuit is used to match the antenna impedance against a standard. When a match occurs at the same frequency, the bridge is balanced as indicated by a meter null. When the load (antenna) is pure resistance, a good null is obtained. If the load is reactive (capacitive or inductive instead of just resistive), the null is not at all sharp, and you are left wondering what to do.

Answer: Come to the April meeting of the 12th. and see an antenna bridge in operation that nulls for reactive loads and, moreover, tells you whether the reactance of the load is capacitive or reactive. No fooling!

Barry, W2PDG, has developed and built a little gem of a bridge which does the job - and you all know how well Barry describes things. We'll all be experts when he's done with us. Don't miss this very exciting meeting!

### FINDING TRUE NORTH

How do you find north to set that antenna rotator? That is, after you get the antenna tuned up. Barry, W2PDG, has the answer to that one too. It's called the method of "Local Apparent Noon" (LAN). What this means is that on every clear day in the year the sun is at its highest point at a particular known time. At that exact moment, the sun is exactly south of us and a stick (or a tower) will cast a shadow in the north-south direction. The exact moment (LAN) is not necessarily when our clock reads noon. But it can be found by adding the time of sunrise to the time of sunset (see local newspaper for the day you do the job) and divide by 2 (remember - 60 minutes to the hour!). Example: Sunrise = 0645; Sunset = 1725, then LAN =  $0645 + 1725 / 2 = 1205$  (Told you to watch that 60 minute addition, didn't we?). So, at 1205 that day, the pole will cast a N-S shadow. Mark it and you are done. Barry has a lot more detail of details if you need them. I tried it and my rotator is all set.

### WWV TO CHANGE FORMAT

Have you heard the good news about WWV? Starting on July 1, they will eliminate all Morse code, give time announcements every minute by voice, and transmit audio tones, 440, 500 and 600 Hz for 45 seconds intervals. No more silent periods. Other changes too, but these are the important ones, OK, CHU, what next?

### ARDEN, ex - WBSGPG, now K8SGZ IS ON THE AIR

Some club members have been keeping a schedule with Arden on Sunday evenings at 6:30 p.m. local time. Freq. 3827. Tune the 2M net to ask for QSY if you can't operate there. He'll be glad to hear from you, too.

FOR SALE - Keathkit DX60A - Phone and CW Transmitter.  
80-10, 90 watts phone - OK for CW Novice with crystal - \$55  
with mic and key. call D. Duft at 273-8876