

# 10M Mobile with Cycle 25

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The last time I went 10M mobile was back in 1982, with my Midland CB, which I had converted to 10M. This was done so I might have some fun on my daily commutes to college. And indeed, it was fun with a 98" SS whip attached to a real steel bumper of my 1975 AMC Gremlin. Never once was that setup visited by Murphy.

Leaving that Sunspot Cycle 21 era, I now fast forward to cycle 25, and the improving conditions once again on 10M, and I decided it was time to re-establish 10M SSB operations from the mobile SUV. I decided I'd rather monitor, or even talk to hams at some distance vs. the locals on the VHF and UHF repeaters while the sunspot count stays high this cycle.

The first order of business was deciding on a suitable radio for mobile, and in the end my selection was a Radioddity QT60. This radio did all modes except CW, but I've never desired to operate mobile CW in my busy metropolitan area. The 60 in the radios' name matches the maximum power level of 60W. I liked the FM repeater capabilities, and the fact the radio could be programmed from a computer.

As in 1982, I would arrange for the new 10M mobile setup to target the SSB section of the 10M spectrum, as I was going to be using a shortened CB antenna. The antenna I used was going to attach to a fender mounted NMO mount that had been in use for a UHF DMR radio. As I discovered with that UHF setup, I could only clear my garage door if the antenna was 29" or less.

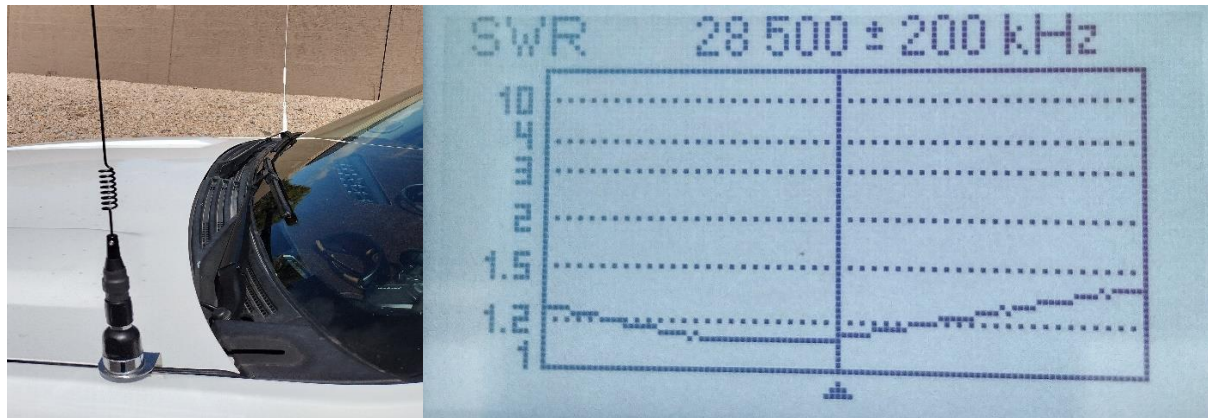
I already had coax runs to the fender NMO mount, and I had power runs established with the hookup of the prior DMR mobile radio. Even external speakers were mounted, and ready to plug into 1/8" speaker jack of QT60, although the internal speaker is plenty loud. That left the antenna as my remaining investment beyond the Radioddity QT-60.

After searching on-line for an antenna that met my height requirements, I ended up purchasing the RoadPro RP-550. There are other 2' long offerings but I started with RP-550 as I liked the slim look, and a couple reviews conveyed it was tunable into the 10M band. There are two metal rings at the base which are a part of tuning the resonance of the antenna for good SWR. The rings can move the resonance frequency about 400Khz.

The mount on this antenna was 3/8"X24 screw in, and my existing mount was NMO, so I also found need of an NMO to 3/8" adapter sold by Tram. Once the adapter and antenna were mounted on the SUV NMO mount, I took the supplied hex wrench and removed the whip. With the antenna analyzer hooked up to the other end of coax, and heavy steel wire cutters, I removed 1/2" sections of the bottom whip each and every time, then stuck it back in and re-measured. In the end, I had to shorten my whip 3-7/16". *[Caution: Do not just buy this antenna, and shorten this total amount, as your mount may be different, the location on your vehicle may be different, and your coax run could all alter the impedance and resonance point. Go slow, and incrementally.]*

With the antenna whip trimmed close to resonance, I then shifted to adjusting the two metal rings that move up and down the base, and do the fine tuning of SWR for 28.300 – 28.700 Mhz. After quickly attaining this match with the rings, I applied a 2" piece of heat-shrink tubing over the base and rings.

Following is a picture of the 10M mobile whip mounted with the UHF/VHF just visible on the far fender with the measured SWR readings.



At this juncture, I'm left with fine-tuning the programming of the QT60 that assists in my 10m mobile operation. I tend to leverage the SCAN function within a selected band, as well as turning off some beeps, echo, WX radio, and other features not desired on my radio. I can monitor both AM, and FM 10M signals with the radio, but the antenna SWR is not suitable for transmitting up that high in the band. If I had wanted 10M FM operation only, I believe the trimming exercise would have continued, only having to shift to the top of the whip, and continuing incremental cutting and measuring with the antenna analyzer. Yet, with the reasonable price of these whips, I may just buy another and tune it specifically for the FM section of the band. For now, I hope to work many of you as I return to 10M mobile.