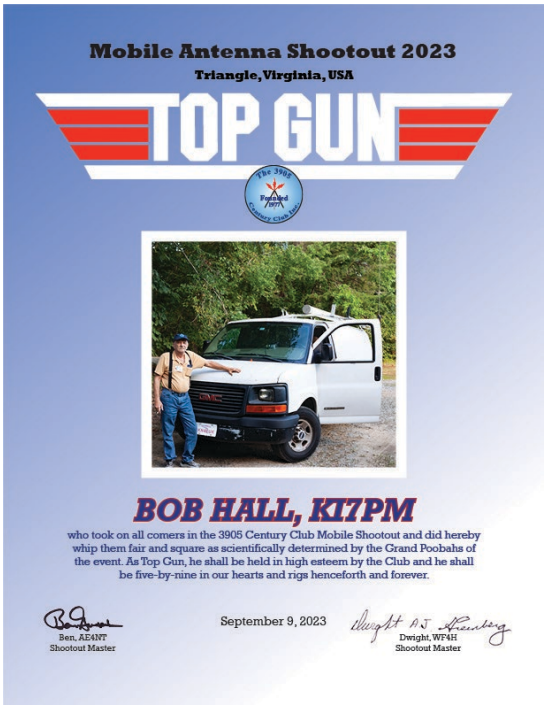
2023 Mobile Antenna Shootout Results!



Dwight and I presented embroidered winners' caps to the *Top Gun*, *Big Gun*, *Son of a Gun*, and last, but not least (I'm kidding – definitely, least), the *Pop Gun*. The *Top Gun* will also receive a printed award certificate honoring his accomplishment (shown here, at left).

TOP GUN: **Bob Hall, KI7PM (-57.74 dBm)**
BIG GUN: **Joe Wussler, WA0O (-59.70 dBm)**
SON OF A GUN: (daughter, really) **Lisa Neuscheler, KC1YL (-61.50 dBm)**
…and of course, our man of singular distinction, none other than our Chairman of the Board, who finished last:
POP GUN: **Clay Mayrose, WA6LBU (-66.87 dBm)**

A Few Comments on the Results

Adjusted measurements ranged from our Top Gun's -57.74 dBm to our Pop Gun's -66.87 dBm. First, second, and last place were very clear. **Bob, KI7PM** (-57.74) won by a substantial margin over **Joe, WA0O** (-59.70 dBm). For third place, **Lisa, KC1YL**, at -61.50 dBm edged out **Jay, N0PUI** (-61.74), and **Paul, W1IP** (-61.94). In fact, a mere 1.6 dB separated third and eighth places, so the closest competition was for Son of a Gun. At the bottom end, the nearest competitor for Pop Gun to **Clay, WA6LBU** (-66.87 dBm), was **Dwight, WF4H** (ninth place at -65.07 dBm). Thus, Clay won the last place distinction by a big 1.8 dB!

First Place: "Top Gun"

Our overall winner, **Bob, KI7PM**, is no stranger to the role of Top Gun. He won two years back-to-back in the early days of the shootout before he took a hiatus for sixteen years or so. Bob was Top Gun in 2006 at LeSueur, Minnesota and again in 2007 at Guthrie, Oklahoma. Now, in 2023, he's back!

In a conversation on Thursday of Eyeball Week, Bob told me about how he had solved the problem of a compromise shunt coil match on his Tarheel 100A. By using a variable matching box, he had been able to tune the antenna to close to 1:1 VSWR across several bands. I use the same antenna with a fixed shunt coil, so I can attest to the compromises that fixed shunt coil entails. If the inductance is optimal for 75 meters, it is out of whack for 40, and vice-versa. Bob has attacked that problem and achieved an optimal solution, which is certainly validated by the results of this competition. And the huge van serving as a massive capacitor plate couldn't hurt! Big Top Gun Congratulations to Bob – you're back on top of the heap!

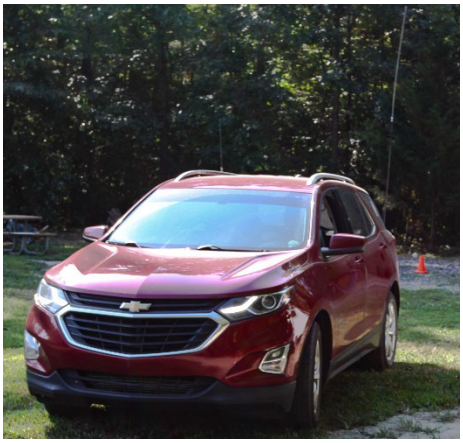
Second Place "Big Gun"

BIG GUN – JOE, WA0O

Joe, WA0O, with a large Scorpion SA-680, expected to do well. He wound up with the Big Gun hat. At the end of the competition, he tried a longer whip, which did not produce a significant difference. However, that is the fun of the mobile antenna shootout – finding out empirically how configuration tweaks and adjustments work for you. There is always something one can do to make the rig work better. Congratulations to Joe!

Third Place: "Son of a Gun" (Daughter, to be more accurate)

Aside from the fun of competition and bragging rights, this event can point out strengths and weaknesses in mobile antenna installations, as noted above. Our third-place winner, **Lisa, KC1YL,** proved that if you have the rest of your act together, a simple Hamstick can be effective. Kudos to Lisa for her excellent performance. I overheard **Paul, W1IP,** chiding Lisa, saying that he had shot himself in the foot by helping her tune her setup. Lisa beat out Paul by less than half a dB, the imputed cost of chivalry in 2023. Congratulations to Lisa!



SON OF A GUN – LISA, KC1YL

Last Place: "Pop Gun"

POP GUN – CLAY, WA6LBU

On the other end of the leader board, our Pop Gun winner, **Clay, WA6LBU** and immediate past reigning Pop Gun, **Doug NE0A**, used the same antenna and mounting technique, both on the Jeep rear spare tire. We can speculate on whether the issue is the mounting location or the antenna, but the results were clear in both competitions. Looking at the photo at right, Clay is using **Bob, KI7PM**, as a ground plane. We hope that pointing out these weaknesses will provide a positive benefit to these Pop Guns as they strive to improve upon their performance in the competition. Or not. When I announced Clay as the Pop Gun winner, he told me that this was the award he was shooting for. Co-shootout master **Dwight, WF4H**, had told me the same thing before the competition, but he missed the low water mark with his Hustler by 1.8 dB. Congratulations to Clay on achieving this ignominious distinction! The only way to go from here is up!

What Happened?

DAVE AND DEBBIE, AI4K AND K9DBB

Scorpions usually do quite well in this competition. **Joe, WA0O** won second-place honors with his SA-680. However, the mystery of why **Dave, AI4K**, finished eighth with the same antenna remains unresolved. We did not get the details of his installation, so we cannot compare the whip length, mount type and so forth between the two. Effective grounding and bonding of body panels might be the difference here, especially in Dave's Ford Ranger with its hybrid steel/aluminum construction, which presents some potential challenges in that area. Speculation aside, I wish I had had more time to talk with both gentlemen and Debbie to achieve a greater understanding of the differences.

Summary of Results

Thanks to all who participated in the event and to all who volunteered to make it a resounding success. Detailed results are presented below and will be permanently available on the Club website in due course.

Call	Adj. Signal (dBm)	Vehicle	Antenna	Mast	Whip	Cap Hat	Mount
KI7PM	-57.74	GMC 3500	Tarheel 100A-HP	7'6"	5'	None	Custom
WA0O	-59.70	Subaru Outback	Scorpion SA-680	57"	6'	None	Hitch Mount
KC1YL	-61.50	Chevy Equinox	Hamstick				Trunk Mount
N0PUI	-61.74	GMC Sierra	Hustler	54"	36"	None	Stake Bed Mount
W1IP	-61.94	Jeep Grand Cherokee	Diamond CL40	No idea	No clue	A what ?	K-400
K9GWS	-62.74	Mazda CX-9	Tarheel 400A	50"	72"	None	Hitch Mount
KU1V	-62.80	Jeep Grand Cherokee	Hamstick				Mag Mount
AI4K	-63.10	Ford Ranger	Scorpion Black Widow				
WF4H	-65.07	Toyota Tundra	Hustler 40HMS	3'	4'	None	Quick Disconnect
WA6LBU	-66.87	Jeep Liberty Sport	Little Tarheel II	18"	56"	None	Rear Tire Mount