



GRAND FORKS, NORTH DAKOTA EYEBALL MOBILE SHOOTOUT
Saturday, September 19, 2026
09:00 – 12:00 CST

Frequency - 7.268 kHz
Power Level - 30 Watts

The Mobile Shootout

One of the highlights of our annual Eyeball is the Mobile Shootout. Held on Saturday morning, it's a fun event that measures the performance of each participant's mobile station. Whether you're competing or just watching, the Shootout is always entertaining and a great opportunity to see a wide variety of mobile installations in action.

An effective mobile station requires more than slapping an antenna on your bumper and connecting it to a radio. Your vehicle, antenna location, grounding and bonding, construction quality, and other factors impact your signal strength. There are many ways to construct a mobile station, and the Shootout provides an opportunity to compare your station's performance to others under the same conditions.

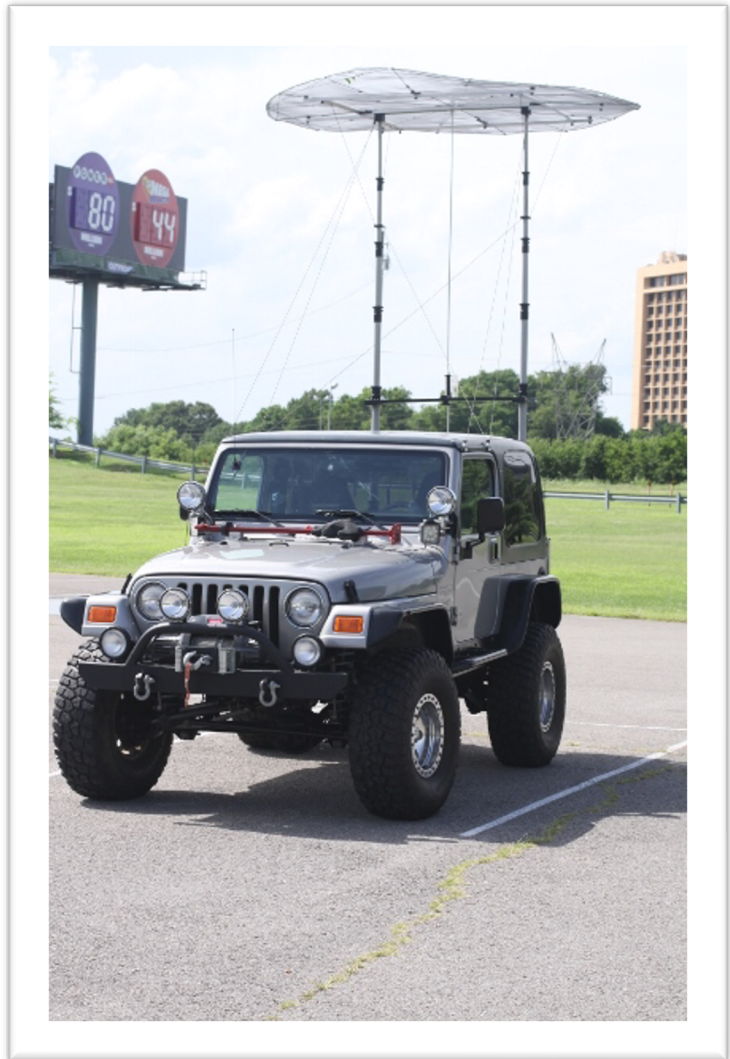
So, who are the mobile big guns on our nets? Who among them is the "Top Gun?" We all have our opinions, but the Shootout is where we'll find out. By testing every station under the same conditions, we'll see whose mobile setup delivers the strongest signal. When the smoke clears, only one operator will be wearing the "Top Gun" hat. Will it be you?

Shootout History

The Mobile Shootout was conceived by Tom Bates, AA1NZ, and first held at the 2002 New Jersey Eyeball. Tom proposed the idea to Club President Bill Martin, WM4SG (SK), to add another fun activity to the Eyeball schedule. The event was an immediate success, and Tom served as Shootout Master through 2009. Lon Martin, KOWJ, who had assisted with previous Shootouts, took over from 2010 through 2015.

In recognition of their dedication and contributions to the Mobile Shootout, the Board of Directors named Tom and Lon Shootout Masters Emeritus in 2019, granting them permanent VIP status within the 3905 Century Club. Between 2016 and 2018, Bill Dobson, N3WD, Roger Goodreau, W3ROG, Marty Blaise, AG5T, Roger Callewaert, W9ROG, and Clay Mayrose, WA6LBU, helped organize and conduct the Mobile Shootout. We are grateful for their time and dedication to keeping this tradition alive.

The Shootout was not held in 2019 and 2020 due to venue logistics and the Covid-19 pandemic. In 2021, Dwight Greenberg, WF4H (SK), and Ben Goldfarb, AE4NT, successfully revived the event at the Mississippi Eyeball. Although the Shootout was not held in 2022, we strengthened our planning process and returned in 2023 with a successful event at the Triangle, Virginia Eyeball.

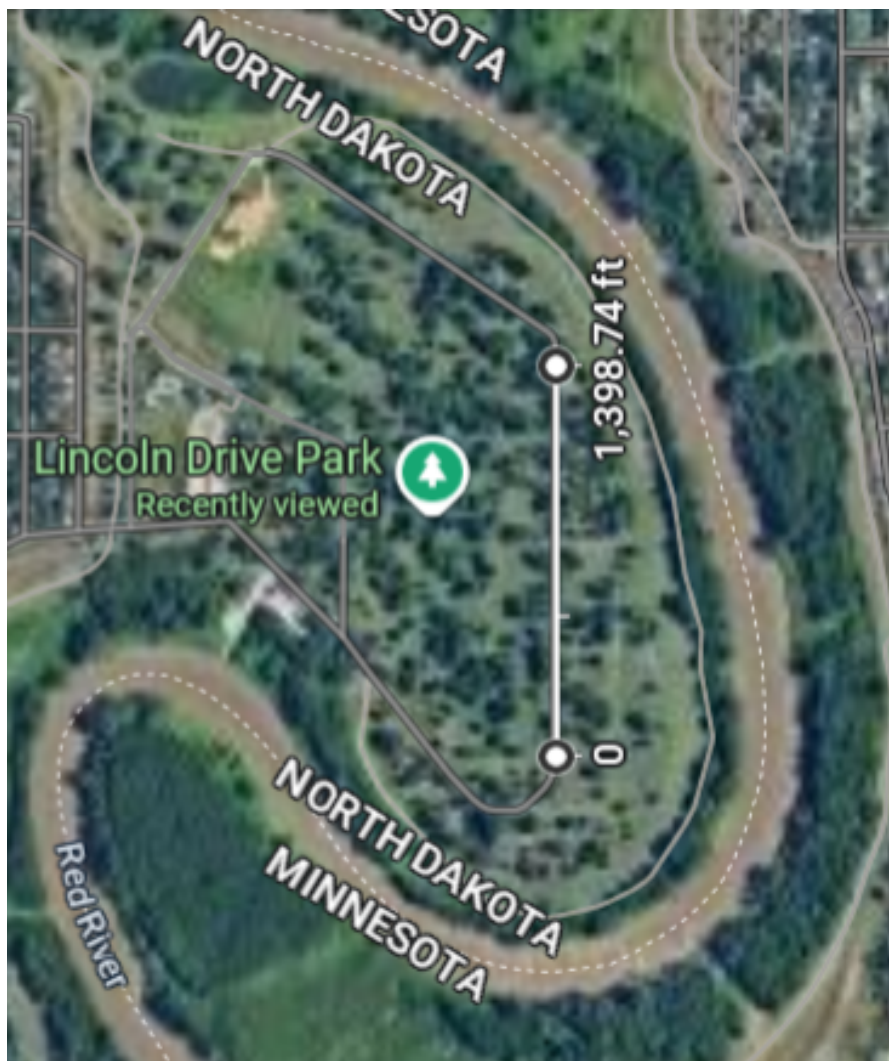


The tradition continued in 2024 at the Laconia, New Hampshire Eyeball and in 2025 at the Guthrie, Oklahoma Eyeball. Both events were well attended and continued the spirit of friendly competition that has made the Mobile Shootout one of the highlights of our annual Eyeball.

This year Joe Firtton, KA0BMX will be conducting the shoot out at the Eyeball in Grand Forks, North Dakota.

What to Expect at This Year's Event

This year's shootout will be at Lincoln Drive Park in Grand Forks, North Dakota.



The location provides good terrain for the shootout.



Only those who have registered and paid for the Eyeball may participate in the Mobile Shootout. Please register in advance through the Eyeball website at 3905ccn.org/registerShootout.php. Registration closes at 2400 UTC on Friday, September 11, 2026. Late registrations may be accepted at the discretion of the Shootout Master.

The Shootout begins at 9:00 AM CDT. Participants will meet at the Eyeball location, where we will travel as a convoy to the Shootout site. The Shootout crew will arrive earlier to prepare the course.

During the competition, one vehicle will be staged at the shooting line while the next is positioned in the on-deck area. We'll continue in that manner until every contestant has completed an official run.

The Shootout is expected to conclude by noon. If all official measurements are completed early, the remaining time may be available for experimentation, additional testing, and discussion of mobile installation techniques.

2026 Shootout Rules and Procedures

Registration - To participate in the Mobile Shootout, you must first be registered for the Eyeball. Please complete the online Shootout registration form before the registration deadline. A registration form is also included at the end of this document for your convenience.

Frequency - The Shootout is normally conducted on one of our SSB Early Net frequencies, which is announced before the Eyeball. For the 2026 Shootout, the operating frequency will be **7.268 MHz**.

Power Level - The Shootout is conducted at a power level of **30 watts**, and contestants will use their own transmitter as the RF source. A volunteer will insert an in-line wattmeter between the transmitter and antenna and help you adjust your transmitter to exactly 30 watts. Because you will be using your own equipment, you should know how to configure your radio for a continuous, unmodulated transmission. We recommend using **RTTY** mode. Contestants must also provide access to the antenna connection so the wattmeter can be installed.

Tuning. - To ensure accurate and consistent measurements, contestants who are not being tested should keep their radios turned off. The only radios operating during the Shootout will be the current contestant's radio, the reference station, and volunteer handheld radios unless otherwise directed by the Shootout Master.

Testing - When it's your turn, drive your vehicle to the designated testing position. You may orient your vehicle in any direction you choose. Range assistants will tell you when to transmit, and you will make three transmissions of approximately five seconds each.

- **Important Note** - Only your first official run will count toward the final standings, so make it your best one. At the discretion of the Shootout Master, additional runs may be permitted after all contestants have completed their official run, but only for the satisfaction of scientific curiosity.

Antenna Requirements - Contestants may use any mobile antenna of their choice provided it meets the following requirements:

- The antenna may not exceed **13.5 feet** measured from the ground to its highest point.
- If a capacitance hat is used, it may not exceed **eight (8) feet** in diameter.
- The entire mobile installation must be roadworthy. Contestants must drive to the Shootout with the same antenna and mobile installation they intend to use during testing. The vehicle must also be able to safely enter and leave the Shootout area and operate at normal highway speeds.

If there is any question regarding whether a mobile installation complies with these requirements, the Shootout Master and designated assistants will make the final determination. Their decision will be final.

After the Measurement - After completing your test, please move your vehicle away from the testing area and keep your radio turned off for the remainder of the Shootout unless directed otherwise by the Shootout Master. You are welcome to remain in the designated spectator area and observe the rest of the competition.

Adjustment Factors - Radio propagation conditions change throughout the day as the ground dries, humidity changes, and other environmental factors affect signal strength. To compensate for these changes, the Shootout uses a reference station to normalize the results.

The reference station is typically the first contestant tested. After that contestant's official score has been recorded, the vehicle will be moved to a location near the testing area where it will not interfere with the other contestants. At approximately 15 to 20 minute intervals, the Shootout Master will ask the reference station to transmit so the current propagation conditions can be measured.

Contestants tested after each reference measurement will have their scores adjusted to compensate for any change in propagation conditions. For example, if the reference signal decreases by 1 dB, then 1 dB will be added to the scores of the contestants tested during that interval.

Results - Results will not be announced or discussed during the Shootout. Winners will be recognized during the Saturday afternoon or evening awards presentation at the Eyeball. Complete results will be published later in the *Centurion* and on the Club website as part of the permanent Mobile Shootout record.

Prizes - The top three finishers and the last-place finisher will receive commemorative embroidered caps recognizing their accomplishments. The awards are **TOP GUN** (First Place), **BIG GUN** (Second Place), **SON OF A GUN** (Third Place), and **POP GUN** (Last Place).

Objections - Any objections or concerns regarding the conduct of the Shootout or a contestant's mobile installation must be raised during the event. Objections or concerns raised after the Shootout has concluded will not be considered. The Shootout Master and designated assistants will make the final determination on all questions and disputes. Their decision will be final.

The purpose of the Mobile Shootout is to have fun, learn more about what it takes to improve our mobile signals, and enjoy a little friendly competition.

Shootout Top Gun Champions (2003 to 2025)

Year / Eyeball	Winner	Antenna	Vehicle	Mount Position
2025 Guthrie, OK	KBOEL	Hamstick	Honda Odessy	Roof
2024 Laconia, NH	VE3CMB	Hamstick	Toyota	Rear Bumper
2023 Triangle, VA	KI7PM	Tarheel 100A-HP	2012 GMC 3500 Savannah	Left Rear Hitch Mount
2022 Brimfield, OH	Not held			
2021 Louisville, MS	KB3PU	Tarheel 200A	2015 Honda Accord LX	Hitch Receiver
2020 No Eyeball	Not held			
2019 Newark, DE	Not held			
2018 Edmond, OK	AE4NT (tie)	Tarheel 400A	2012 BMW X3	Hitch Receiver
	KB3PU (tie)	Tarheel 200A	2004 Honda Accord LX	Hitch Receiver
2017 Upperco, MD	WF4H	Scorpion	Toyota Tundra	Breedlove Mount, Center Bed
2016 Branson, MO	WB0PYF	Hustler	Van	Hatch Back
2015 Nashville, TN	WTOA	Scorpion SA6160	Dodge 1500	Mid-bed
2014 De Pere, WI	KD8NNU	Scorpion SA680 with large capacitance hat	Ram 1500	Mid-bed between bed rails
2013 Torrington, WY	KC0CL	Scorpion SA680	Ford Escape	Homebrew tubular mount, driver's side rear
2012 Ashland, NE	W9OO	Modified Hustler	Honda Civic	Beneath Rear Bumper
2011 Somers, CT	KC4YBO	Tarheel 200A	Town & Country Minivan	Hitch Receiver
2010 Vidalia, LA	K0WJ	Scorpion SA680 with 3-foot capacitance hat	Chevy Silverado	Mid-bed
2009 Vista, CA	KG6YVD	Tarheel 100AD	Chevy Avalanche	Left Rear Bumper (High)
2008 Hanover, PA	AA1NZ	Hi-Q	Full-size Crossover	Center Roof

Year / Eyeball	Winner	Antenna	Vehicle	Mount Position
2007 Guthrie, OK	KI7PM	Ameritron Screwdriver		Left Rear Bed Bumper
2006 Le Sueur, MN	KI7PM	Ameritron SDA-100	Ford Pickup	Left Rear
2005 Red Top Mountain, GA	N3WD	Tarheel Screwdriver	Ford F-150 Pickup	Center Rear Box (High)
2004 Wilsonville, OR	N7JY	High Sierra	Large Chevy SUV	High Bumper Mount
2003 Kansas City, MO	WQ1H	Hustler	Mid-size Car	Rear Trunk



2026 Annual Eyeball Grand Forks, ND Mobile Shootout Registration Form

Call Sign: _____ Name: _____

Mobile Installation Details

Vehicle Make: _____ Model: _____ Year: _____
Radio Make: _____ Model: _____
Antenna Make: _____ Model: _____
Mast Length: _____ Whip Length: _____
Cap Hat Design: _____ Location: _____ Diameter: _____
Type of Mount: _____
Mount Location: _____
Can you Adjust Power to 30W? Yes ☐ No ☐

E-Mail Forms and
Questions to
ka0bmx@gmail.com or
Register online at
3905ccn.org

For Eyeball Use Only:

Date Received: _____ Orientation of Vehicle: _____
Reading 1 _____ Reading 2 _____ Reading 3 _____
Adjusted Score: _____ Place: _____