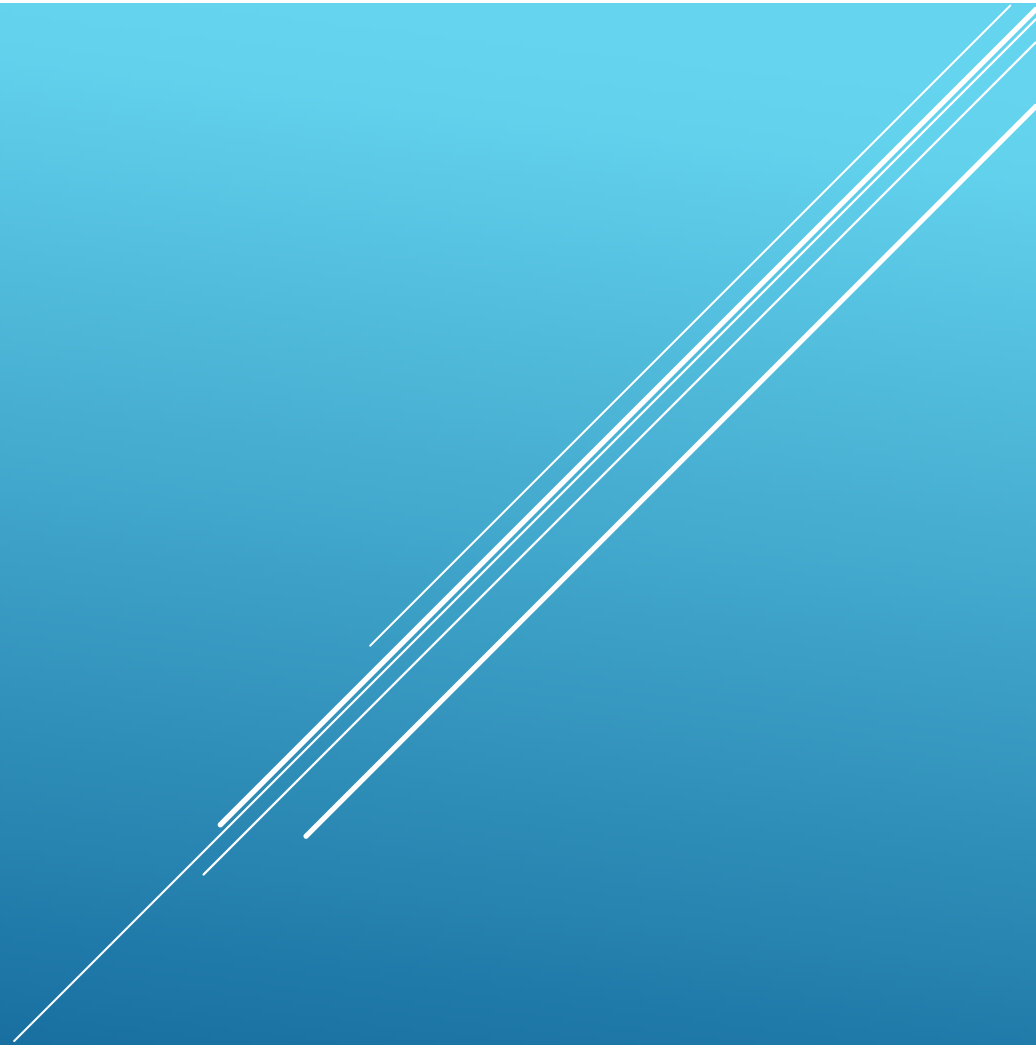


FIELD DAY 2016

Tippecanoe Amateur Radio Association



- ▶ Field Day is a contest, social gathering, and emergency preparedness drill all rolled into one.
- ▶ It's a chance to get on the air in a low or no pressure environment and Elmer or be Elmer'd by your fellow club members.
- ▶ It's a chance to try everyone else's gear in the real world to see what you like best.
- ▶ It's a chance to eat some delicious food.

WHAT IS FIELD DAY?

- ▶ The contest runs from 18:00 UTC (2:00pm EDT) on Saturday June 25, 2016 until 18:00 UTC (2:00pm EDT) on Sunday June 26th.
- ▶ Setup can begin on Friday, but you are only allowed 24 total hours of setup between Friday and Saturday.
- ▶ TARA operates as an “A” class station, which means we operate from emergency power. We have to use generators, solar, etc and we cannot use antennas which were installed before the beginning of setup.
- ▶ TARA more specifically operates as a “2A” station meaning we can have “2” transmitters on air at any given time.

HOW DOES IT WORK?

- ▶ The idea of the contest (like many others) is to contact as many other radio operators as you can during the contest period.
- ▶ We can only count a contact with each station once per band-mode. (20M CW is different from 20M Phone) This is why the networked logging is a good idea.
- ▶ The exchange is slightly different than most times you talk on the radio, which will be covered later.

HOW DOES IT WORK (MORE)?

- ▶ This year, we will be setting up at the Imagination Station in downtown Lafayette. Originally this was to be a joint event with IS, but that seems to no longer be the case.
- ▶ We will be outside (under a tent/shelter) in the North yard, next to the parking lot.
- ▶ Imagination Station will remain unlocked throughout the event for access to the restrooms, storm shelter, etc.
- ▶ The club station can be operated independently from the event stations outside.

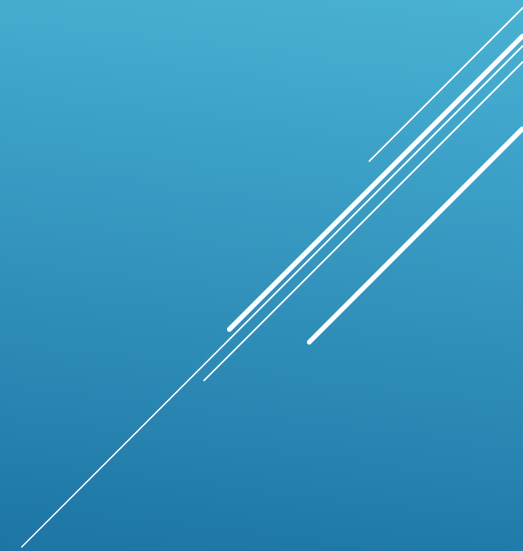
WHERE DOES ALL THIS HAPPEN?

- ▶ Any member, regardless of license class, is welcome to come get on the air during this event. All members can use privileges up to the highest rated member present at the event.
- ▶ That means Technicians can use HF, too!
- ▶ Most of the time, the stations are setup for two people, one operating and one logging. This gives you a chance to watch someone else operate first to help calm your nerves.

GETTING ON THE AIR

THE SETUP

Antennas, Feedlines, Tents, Oh My!

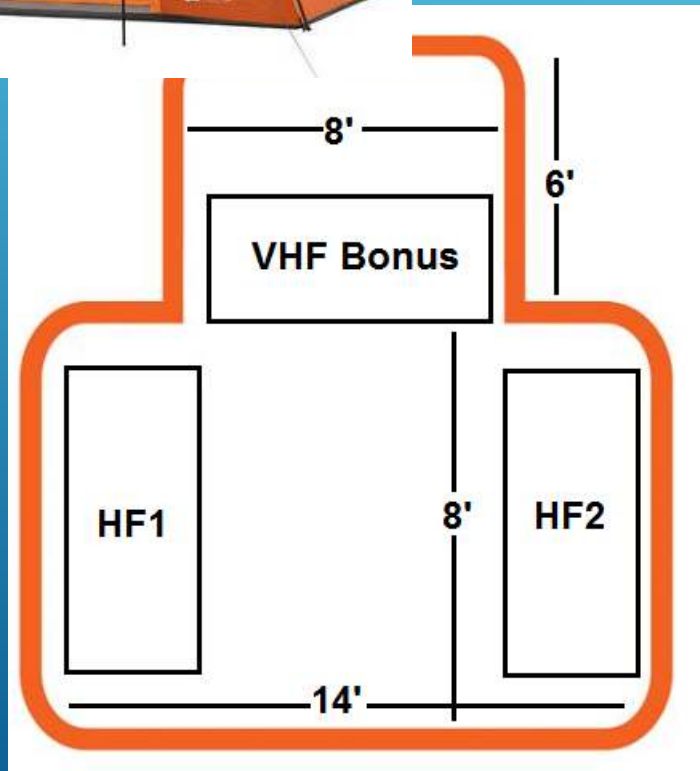




ANTENNAS

For HF, we will use the club's DX-CC Antennas in one of the configurations shown, depending on the supports available.

The red "X" marks the location of the mast supporting the 6M Moxon and 6/2/70 Triband Vertical antennas for the VHF station.



SHELTER

HF Phone Station:

- KC9SWV – Icom IC-7300

HF CW Station:

- K9JWI – Elecraft K2

VHF Bonus Station

- KD9EWM – Yaesu FT-991



HF1 – PHONE STATION

New Icom IC-7300 direct sampling
160-6 Meter transceiver.

Windows 7 Laptop

Transceiver integrated with N1MM
software for automatic
frequency/mode data in log.



HF2 – CW STATION

Elecraft K2/100 80-10 meter transceiver.

Windows Laptop.

Radio integrated with N1MM for automatic frequency/mode in log.



VHF BONUS STATION

Yaesu FT-991 160m-70cm
touchscreen transceiver with band
scope.

Windows Laptop.

Transceiver integrated with N1MM
software for automatic
frequency/mode data in log.

ON THE AIR

What should I say and hear?



STATION CALLING CQ

- ▶ CQ Field Day, CQ Field Day, this is Whiskey 1 Sierra, W1S, calling CQ Field Day and standing by.
- ▶ KC9SWV, please copy 2 Alpha, India November.
- ▶ 1 Delta India November, QSL. Thanks and good luck. QRZ?

STATION SEARCHING & POUNCING

- ▶ Kilo Charlie Niner Sierra Whiskey Victor.
- ▶ 2 Alpha India November, QSL. Please copy 1 Delta India November.

TYPICAL FIELD DAY EXCHANGE

- ▶ CQ Field Day, CQ Field Day, this is Whiskey 1 Sierra, W1S, calling CQ Field Day and standing by.

CALLING CQ

When calling CQ, it's a good idea to say "CQ Field Day". While Field Day is HUGE and 90% of stations on the air those two days are participating, no one has exclusive use of the bands...make your intentions clear.

Also, it's a good idea to say your call in both phonetic and standard letters to make sure you're heard clearly.

- ▶ Kilo Charlie Niner Sierra Whiskey Victor.

ANSWERING A CQ

This is a contest. It's fast paced and the bands are jam packed. You might not get through on the first call.

Just say your callsign in phonetics one time and wait to see if you were heard.

If the CQ'ing station doesn't hear anyone clearly enough, they might say "QRZ?" or "Again?" asking everyone to try again.

- ▶ Station Ending “Whiskey Victor”

I DIDN'T QUITE HEAR

A lot of times in a big pile up, you will only hear one or two letters clearly from a station.

The CQ'ing station might ask for you to repeat your call by saying “Station Ending” and the last letter or two of your call.

Just repeat your full call again in phonetics.

STATION CLASS

▶ KC9SWV, please copy **2 Alpha, India**
November.

ARRL SECTION

FIRST EXCHANGE

If the station hears you, they will repeat your call telling you that they're talking to you.

The should give you their station class and ARRL section. These both have to go in the log.

REPEAT FOR CONFIRMATION

- ▶ 2 Alpha India November, QSL. Please copy
1 Delta India November.

OUR ARRL SECTION

OUR STATION CLASS

YOUR REPLY

It's a good idea to repeat back to them what they gave you for Station Class and ARRL Section. If you're certain you heard correctly, you can skip this and just say "QSL".

Now, give them our Class and Section.

REPEAT FOR CONFIRMATION

- ▶ 1 Delta India November, QSL. Thanks and good luck. Whiskey 1 Sierra, QRZ?

CONFIRMATION

The CQ'ing station may or may not repeat back what you said. If they have any question, repeat again so they can hear clearly. The bands are packed and conversations overlap often. You may want to say it twice.

If they end their turn with "QRZ?", "Field Day", "CQ", etc that means they are done and wanting another station to call.

Rarely will a CQ'ing station expect or desire to hear you say "73" afterwards.

- ▶ Anyone operating from home is a 1D station unless they are operating from emergency power, in which case they are a 1E.
- ▶ If they don't know, they're probably 1D.
- ▶ Any station not in the US or Canada is logged as 1D for class and "DX" for their section.

ADDITIONAL EXCHANGE NOTES

- ▶ Class A – Club/Non-Club Portable
- ▶ Class AB – Club/Non-Club Portable Battery
- ▶ Class B – One or Two Person Portable
- ▶ Class BB – One or Two Person Portable Batt.
- ▶ Class C – Mobile
- ▶ Class D – Home Stations
- ▶ Class E – Home Stations (Emergency Power)
- ▶ Class F – Emergency Ops. Centers

STATION CLASSES

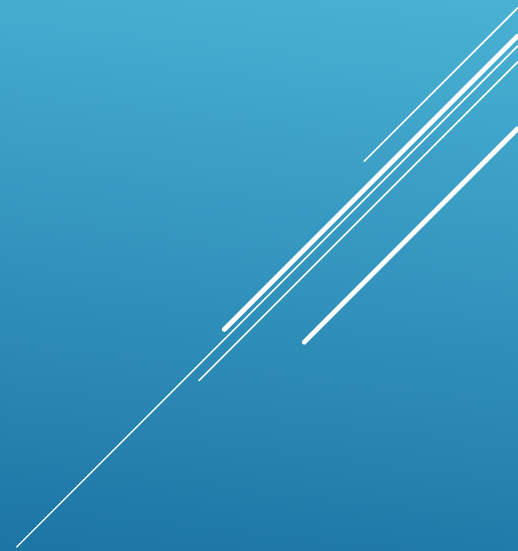
The following station classes are valid for logging.

Most of the stations logged in 2015 were Class A.

Second most popular was Class D.

THE SOFTWARE

N1What?





N1MM LOGGING

Because it is the best software for logging during a contest, TARA uses N1MM Logger for Field Day.

It allows rapid logging of pertinent contest information, automatic synchronization among stations, and automatic scoring and report generation.



DON'T WORRY!

It looks complicated, but it's not so bad if you break down what's happening with all those windows.

They each have a purpose and you don't have to use any of them except one to actually use the software.



THE ENTRY WINDOW

This is the bread and butter of the whole operation (after the initial setup is complete).

You simply enter the Callsign, Class, and Section of the station you contacted, then click "Log".

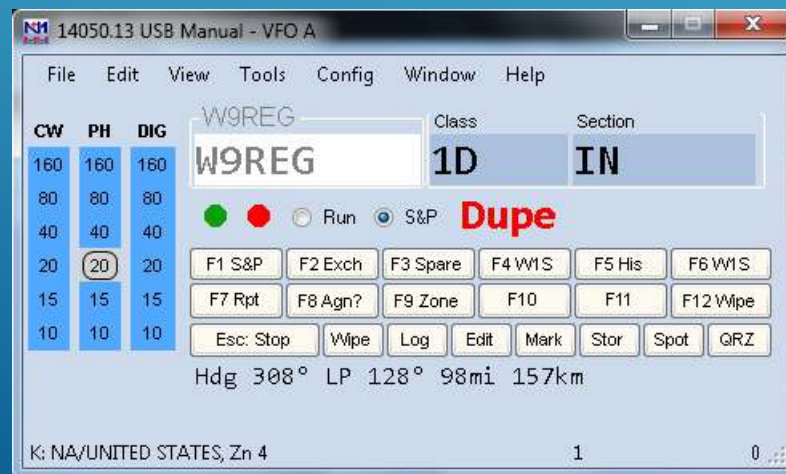
TAB or SPACE moves between each box, and hitting ENTER will log the QSO if all the boxes are filled.



DUPLICATE CHECKING

Call sign turns blue when it is a properly formatted call. N1MM has no way to check that it's CORRECT, only that it looks legit.

If you (or someone else) has already worked that station on the band/mode you're operating, the call sign will turn gray and a warning will show "Dupe".

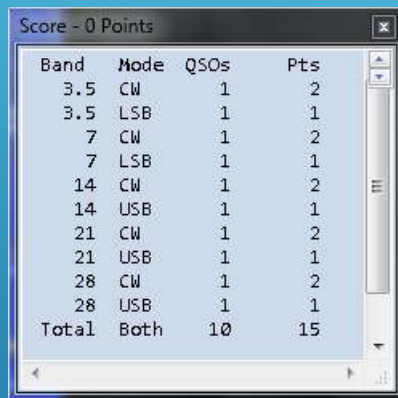


MM-DD HH:MM	Call	Freq	M...	E...	Sect	Pts	Computer
06-06 20:45	W9REG	14050.13	USB	1D	IN	1	ACERASPIRE4730Z

LOG WINDOW

The Log Window will show all stations worked by anyone on any band, since we are synchronizing over the network.

You can use it just like Excel to sort by clicking on each header to sort by Frequency, Callsign, Time, etc.



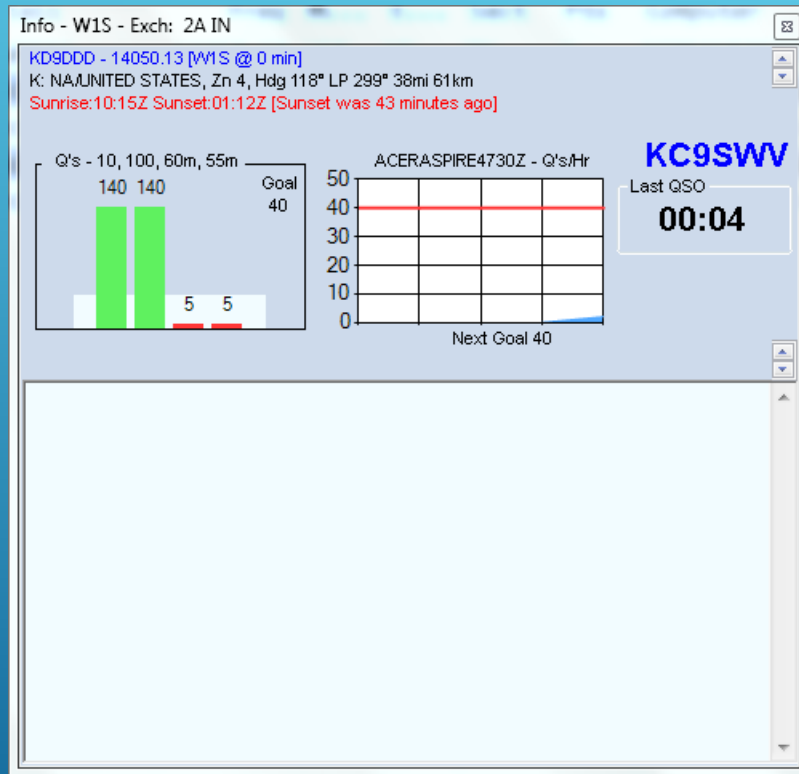
The screenshot shows a window titled "Score - 0 Points" with a table of QSOs and points. The table has four columns: Band, Mode, QSOs, and Pts. The data is as follows:

Band	Mode	QSOs	Pts
3.5	CW	1	2
3.5	LSB	1	1
7	CW	1	2
7	LSB	1	1
14	CW	1	2
14	USB	1	1
21	CW	1	2
21	USB	1	1
28	CW	1	2
28	USB	1	1
Total	Both	10	15

SCORE WINDOW

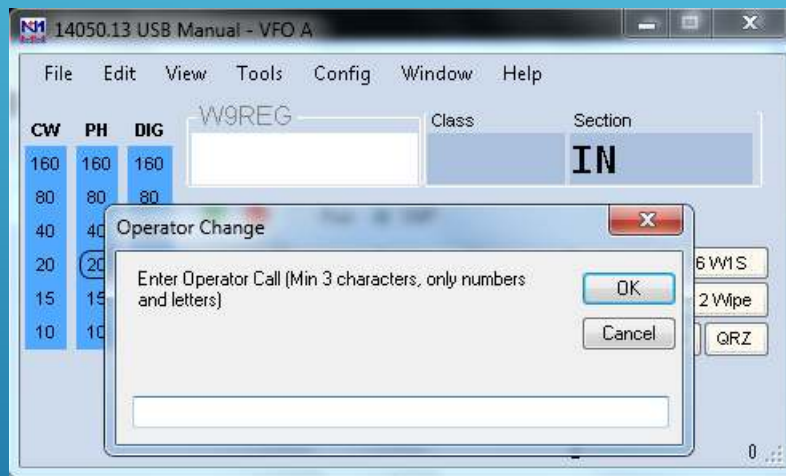
The Score Window will keep track of the number of QSOs per band/mode made for the entire Field Day operation.

You can see how we're doing in real time!



INFO WINDOW

The Info Window shows the club's progress towards the goals I set for this year. It tallies all the QSOs you have made and uses the time between each QSO to calculate a projected QSO/hr rate.



OPERATOR CHANGE

When you sit down at a radio as the operator, be sure to log in as such!

Simply press "Ctrl-O" and a window will pop up asking for your Callsign. This will mark all the QSOs you make in the log.

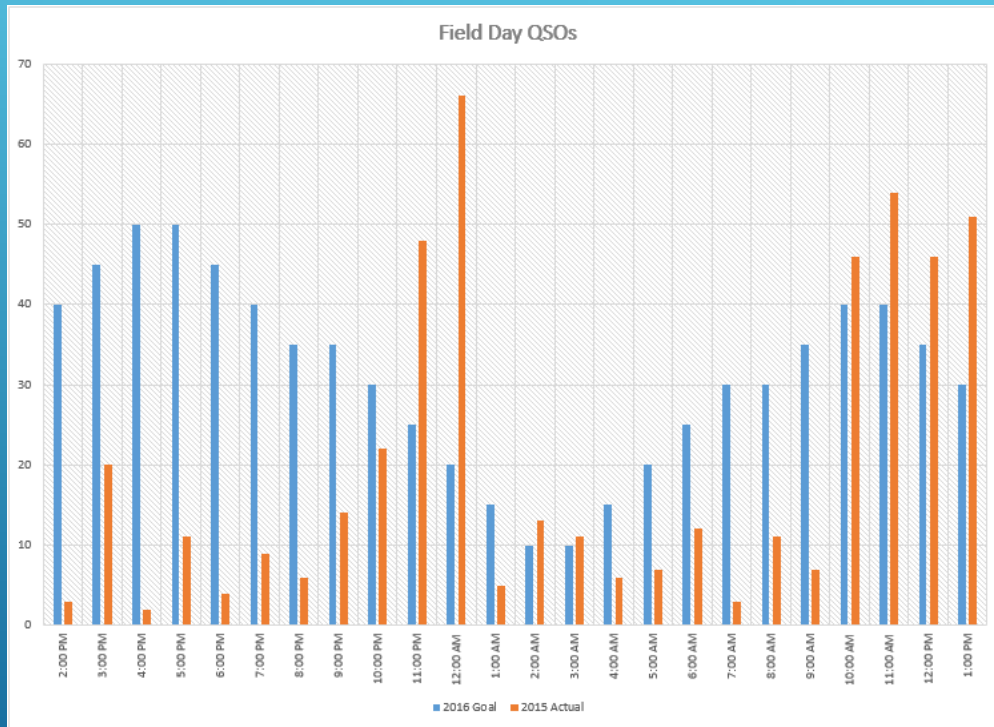
If we meet or exceed my goal of 3,000 points AND 750 actual QSOs, I will buy dinner for the person with the most QSOs (actual QSOs, not points) after Field Day.

Note: Don't worry, you won't have to eat dinner with me, I'll be giving a gift card for a restaurant!

2016 FIELD DAY GOALS

Ultra-Realistic Expectations, Amazing Results



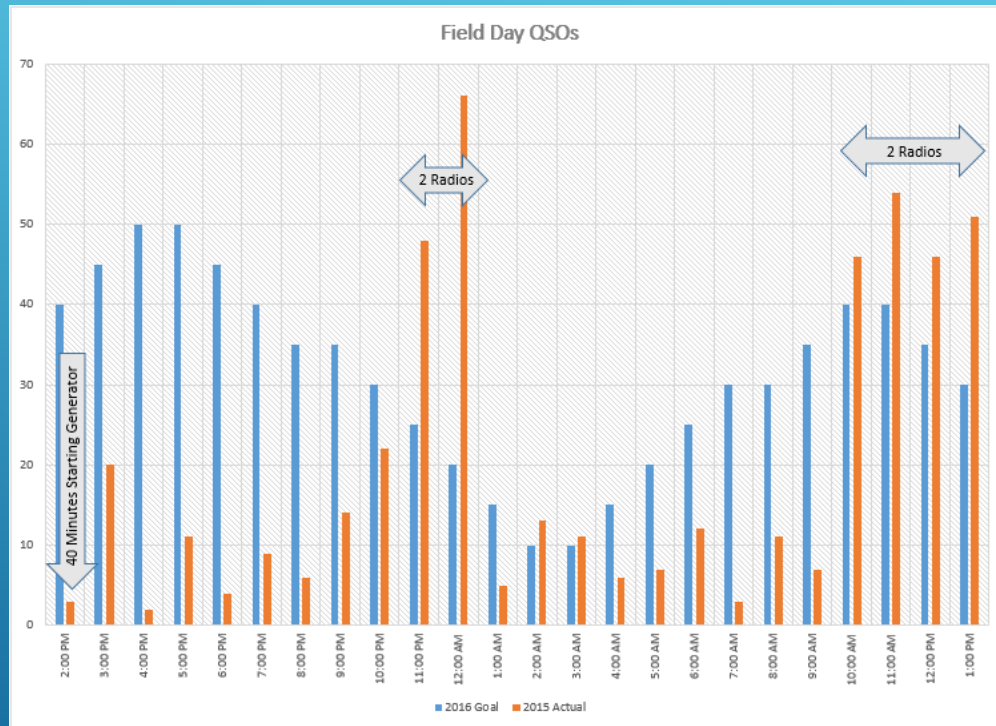


QSO RATE

Orange is 2015 Actual.

Blue is 2016 Goal.

What's going on here? Let's take a look...



ISSUES WITH QSO RATE

Key 2015 Issues:

- Lost 40 minutes of prime operating at begging try to secure and start generator.
- Only about (8) hours of (24) were both HF radios in operation.

45-50 QSOs per hour are clearly possible with both HF radios in operation!

Hour		Goal	
2:00 PM	2:59 PM	40	
3:00 PM	3:59 PM	45	
4:00 PM	4:59 PM	50	
5:00 PM	5:59 PM	50	
6:00 PM	6:59 PM	45	
7:00 PM	7:59 PM	40	
8:00 PM	8:59 PM	35	
9:00 PM	9:59 PM	35	Sunset
10:00 PM	10:59 PM	30	
11:00 PM	11:59 PM	25	
12:00 AM	12:59 AM	20	
1:00 AM	1:59 AM	15	
2:00 AM	2:59 AM	10	
3:00 AM	3:59 AM	10	
4:00 AM	4:59 AM	15	
5:00 AM	5:59 AM	20	
6:00 AM	6:59 AM	25	Sunrise
7:00 AM	7:59 AM	30	
8:00 AM	8:59 AM	30	
9:00 AM	9:59 AM	35	
10:00 AM	10:59 AM	40	
11:00 AM	11:59 AM	40	
12:00 PM	12:59 PM	35	
1:00 PM	1:59 PM	30	

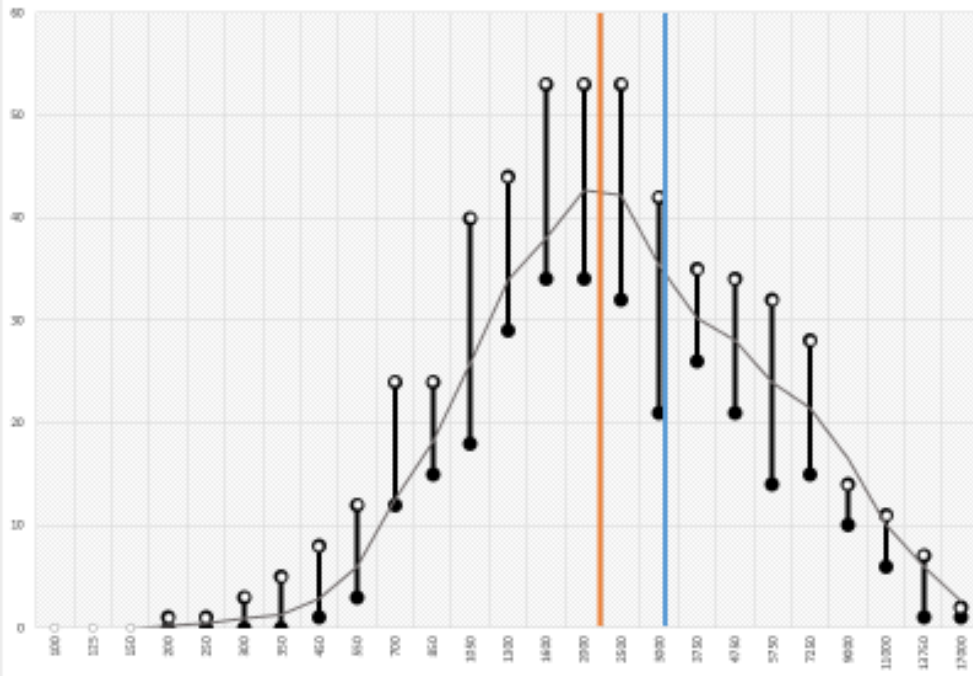
QSO GOAL BREAKDOWN

To make the target of 750 actual QSOs, we need to average around 30/hour. With peaks of 45-50 and lulls at night of only 10, this would still be possible.

We need operators at both HF radios all day, both days!

VHF contacts can help supplement these if the bands cooperate, but we can't count on that alone.

2010-2015 Class 2A Claimed Scores



TOTAL SCORE GOAL

Assuming we can make 750 actual QSOs, we should expect a score of approximately 3,000. Last year, we were just over the hump of the bell curve, but with a below-average score. A score of 3,000 would put us just above average!

- 5 Year Average Score = 2,833
- TARA is in 42nd Percentile.
- Goal is 32nd Percentile.
(Top 1/3 of Clubs)



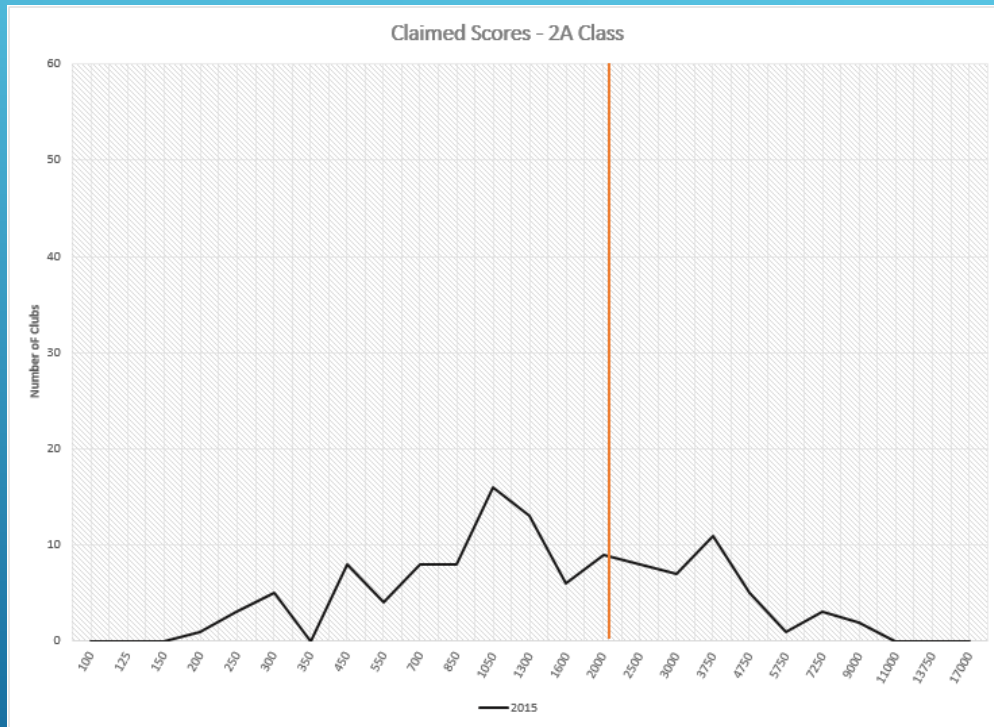
We Need You!
(To Run a Radio)

THE BIG PROBLEM

The biggest problem we have isn't our antennas, our location, our equipment, our knowledge, the food we serve, the weather, our shelter, our organization, or our ability.

Our biggest problem is that we're scoring ourselves as a 2A station, but spending most of our time operating 1A.

We need people to come out and operate a radio!



IF WE WERE 1A

Had our score from last year been asserted as a 1A club instead of 2A we would have been in the 28th Percentile.

(Yeah, we would have had a slightly lower score because we couldn't claim some of the bonuses.)