



# Bonner County Amateur Radio Club

January 10, 2024

VFW Post

1325 Pine Street, Sandpoint, ID 83864

18:00 hrs. – Informal Discussions & Eyeball QSO's

18:30 hrs. - Meeting

# Current Membership

## As of end 4<sup>th</sup> Quarter 2023

Total	65
Extra	17
General	33
Technician	15

## HF Operating Potpourri

HF Nets and the Maritime Net – Terry, N7BDL

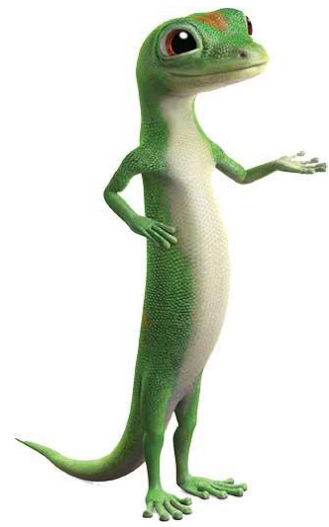
HF Bands through the UTC Day – Dave KE4EW

HF Modes and Spotting Networks – John K7SYS

About ten minutes per presentation

Questions at the end of all three presentations





GECOA



# GECO A

- International Amateur Radio Union (IARU)
- "Global Emergency Center Of Activity"
  - a place for passing emergency traffic when needed
- 21.360 MHz (15 meters), 18.160 MHz (17 meters), 7.240 MHz, and 7.060 MHz (40 meters), 3.985 MHz and 3.750 MHz (80 meters).
- 14.300 MHz (20 meters).
  - Intercon Net, PacSea General Traffic Net, Pacific Seafarers Net, and the Maritime Mobile Service Network.



# Maritime Mobile Service Network

- Formed in 1968 to “serve those who serve” during the Vietnam crisis.
- In those days, no MARS stations on Naval vessels.
- Net provided phone patches on Ham bands, primarily 20 meters.
- Greatly expanded role today, providing weather, emergency contact, health and welfare, and general communications to maritime and other interests.



# Maritime Mobile Service Network

- Over sixty individuals from all parts of Region 2.
  - Net Control Operators, management, IT support, back-up NCSs, folks on authorized leave.
- Sixty-two one hour shifts per week in winter, add seven during daylight saving time.
- Each operator takes a single hour, which can be a regularly scheduled or a relief shift.





## Maritime Mobile Service Network

- First purpose is to provide communications and support for maritime mobiles and overseas deployed service personnel.
  - Net continues to provide phone patches for maritimes.
- Propagation is a limiting factor, so the net relies heavily on relay stations to accomplish mission.
  - Literally hundreds of amateur stations in western hemisphere regularly check into the net, with many of them acting as relay stations.
  - Multiple NCS stations ordinarily monitor as well.
  - In most cases, we are able to communicate with maritime stations either directly or through a relay station



# Maritime Mobile Service Network

- Weather is passed along on the half hour.

FZNT01 KWBC 081555  
HSFAT1

HIGH SEAS FORECAST FOR METAREA IV  
NWS OCEAN PREDICTION CENTER WASHINGTON DC  
1630 UTC SUN JAN 08 2017

CCODE/1:31:04:01:00/AOW/NWS/CCODE  
SUPERSEDED BY NEXT ISSUANCE IN 6 HOURS

SEAS GIVEN AS SIGNIFICANT WAVE HEIGHT...WHICH IS THE AVERAGE  
HEIGHT OF THE HIGHEST 1/3 OF THE WAVES. INDIVIDUAL WAVES MAY  
BE MORE THAN TWICE THE SIGNIFICANT WAVE HEIGHT.  
ONLY YOU KNOW THE WEATHER AT YOUR POSITION. REPORT IT TO THE  
NATIONAL WEATHER SERVICE. EMAIL US AT  
VOSOPS@NOAA.GOV(LOWERCASE).

PAN PAN

NORTH ATLANTIC NORTH OF 31N TO 67N AND WEST OF 35W

SYNOPSIS VALID 1200 UTC JAN 08  
24 HOUR FORECAST VALID 1200 UTC JAN 09  
48 HOUR FORECAST VALID 1200 UTC JAN 10

.WARNINGS.

...HURRICANE FORCE WIND WARNING...  
.LOW 45N60W 987 MB MOVING NE 35 KT. FRONT EXTENDS FROM 46N58W TO  
31N69W. WITHIN 180 NM E OF THE FRONT N OF 34N WINDS 40 TO 50 KT.  
SEAS 13 TO 22 FT. ELSEWHERE OVER FORECAST WATERS WITHIN 480 NM N  
SEMICIRCLE...WITHIN 420 NM SW QUADRANT...AND WITHIN 360 NM E OF  
THE FRONT WINDS 35 TO 45 KT. SEAS 12 TO 18 FT. ALSO FROM 31N TO  
50N W OF 46W WINDS 25 TO 35 KT. SEAS 8 TO 14 FT.



## Maritime Mobile Service Network

- When not performing primary mission, we encourage general check-ins.
  - With normal propagation, an NCS will talk to between 20 and 25 stations during a typical hour.
  - The Maritime Net is a traffic net, so does not encourage “rag-chews.”
  - We do encourage stations to participate in the net by acting as relay stations
  - Typically as many as three or four stations will relay for the NCS during an hour
  - We also encourage land and aeronautical mobile stations to participate, as well as low power stations.

s/v Nereida  
off coast of Chile  
June 1, 2011



s/v Nereida – Capt. Jeanne Socrates  
Oldest woman to circumnavigate single handed  
KC2IOV

# Net Logger



**Logger Chat** H
NCS: **W3ENK**    Current UTC: **18:09:38**
 **Enable**
Loading Users...

**FULL CHAT** message

submit    reset    Quick Post smileys

18:03 **AI6GV:** and just like magic the noise vanished!

18:00 **AI6GV:** RR Bob. Thank you. I have the net. HOWEVER relief is requested. TOO much noise here now to hear anything.

18:00 **N5IOY:** Russ all yours nothing to pass...Bob 😊

17:57 **AI6GV:** Now I have a station on 14299.

17:57 **KZ5MV:** BTU Bob.

17:57 **N5IOY:** Got it Mike

17:55 **N5IOY:** Russ will pass it here at top 😊

17:54 **VA6FH:** Loud and clear here Mike.

17:54 **AI6GV:** transfewr here please hearing nothing

**Net Watch Logger**
NCS: **W3ENK**    Current UTC: **18:09:38**
 **Enable**

CALLSIGN	-NAME-	---LOCATION---	-----COMMENTS/TRAFFIC-----	STATUS	DATE	UTC
KM6JG	DAVE	Spirit Lake, ID		General Check-In	20170122	18:06
WA4PYS	Steve	Madison AL		General Check-In	20170122	18:05
AI6GV	Russ	San Marcos CA		Current MMSN NCS	20170122	18:00
KZ5MV	Mike/K9 Snickers	Beckley, WV (Was AC4MV & KZ4MV)		Relay	20170122	17:54

**Traffic Area ?**

SHOW TRAFFIC | POST

Station Traffic For Since

Logout

**LIST**
Search Callsign:  search
E-View Gray

Callsign:     Name:

Location:

Date/UTC: **20170122**    **18:09**    Status: General Check-In

Comments:

**NCS Only Data:**

Vessel Name:     Type: Select

Description:

POB: ?    Position:

Station	Traffic For	Since
<input type="text"/>	<input type="text"/>	<input type="text"/>

Traffic Text:

Submit
Reset
Edit Database
Full Entry  ?

**Search Results**

Search Data:

Vessel Data:

QRZ Lookup:  Search

FCC Lookup:  Search

ShipTrak:  Search

NW Lookup:  Search

W3ENK Log:  Search

Net Watch DB:  Search

WX Data:  Search

# MMSN website

The Maritime Mobile Service Network

"Serving Maritime Mobiles and Deployed Military Since 1968"  
12:00 p.m. - 10:00 p.m. ET on 14.300.00 MHz

*Where Emergency Communications is a Commitment!*

Sunday, January 22, 2017

**Net Information**  
About Us  
Awards  
Photo Album  
Weekly Schedule  
Net Control Information

**Useful Information**  
Phonetics  
Prowords  
Common Terms  
Emergency Terms

**Members Area**  
Net Controllers Area

**MMSN News**  
MMSN Newsletter  
Recent Events

**Sailors Area**  
Sailors Links  
Sailor Services  
Pirate Information

**Weather Area**

Be Sure to Visit These Sites

**ShipTrak**

  
International Boat Watch Network

**14300.net**  
14,300 MHz - A Great Frequency With a Great Purpose

**CLEARPOINT**

**Streaming Audio Information**

**Propagation Data**  
HF Propagation

Spaceweather.com  
Current Solar Activity  
D-Region Absorption  
Solar-Terrestrial Data

**Solar X-rays**  
**NORMAL**  
**UNSETTLED**  
Geomagnetic Field

**Contact Us**  
If you have questions, comments or ideas, please direct them to our *management*.

**Guest Book**  
Please Sign Our Guest Book

www.mmsn.org



[www.mmsn.org](http://www.mmsn.org)

[www.hwn.org](http://www.hwn.org)

\* [www.arrl.org/arrl-net-directory-search](http://www.arrl.org/arrl-net-directory-search) \*



# IF YOU ARE A NEW OR RECENT GENERAL CLASS UPGRADE:

## WELCOME TO THE HF FAMILY OF BANDS

- WHAT TO EXPECT FROM OUR HF AMATEUR RADIO BANDS
- A BRIEF LOOK AT THE CHARACTERISTICS OF EACH HF HAM BAND
- WHAT THE BANDS MIGHT LOOK LIKE OVER THE COURSE OF A UTC DAY

Each of these bands or family members has a different personality

*(Be sure to check Band Charts for mode/frequency allocations)*





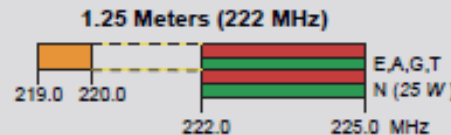
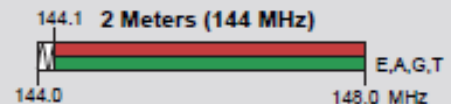
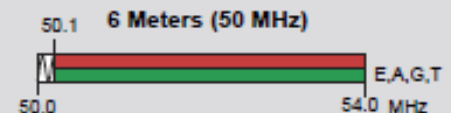
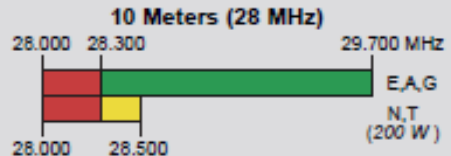
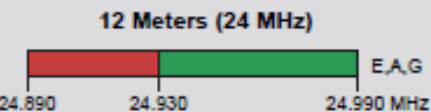
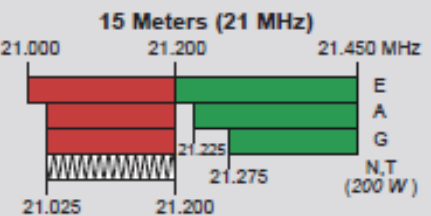
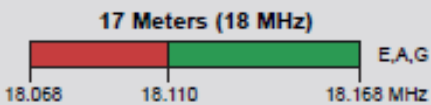
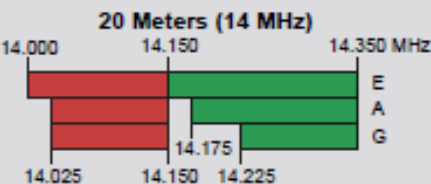
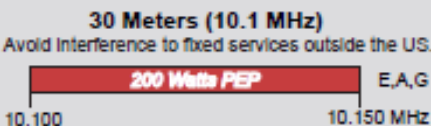
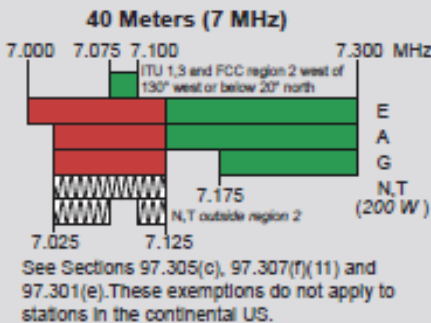
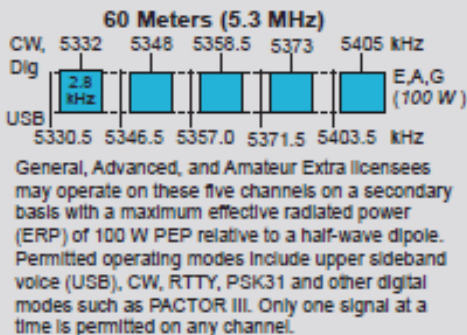
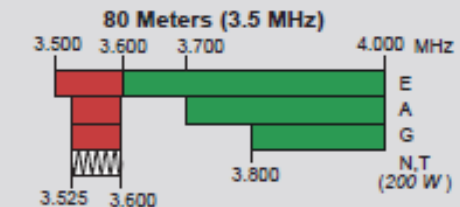
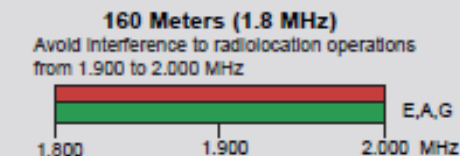
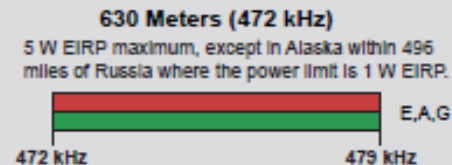
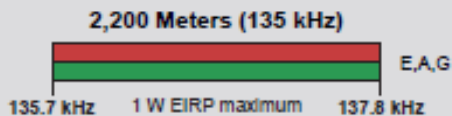
# US Amateur Radio Bands

**US AMATEUR POWER LIMITS** — FCC 97.313 An amateur station must use the minimum transmitter power necessary to carry out the desired communications. (b) No station may transmit with a transmitter power exceeding 1.5 kW PEP.

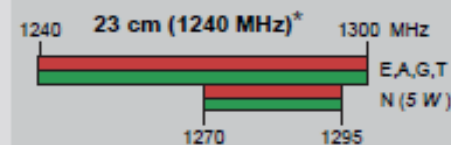
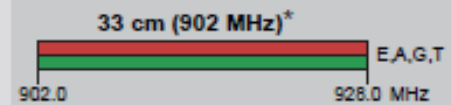
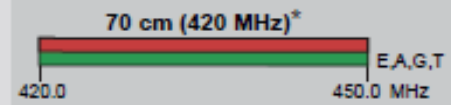


**ARRL** The national association for AMATEUR RADIO®

Amateurs wishing to operate on either 2,200 or 630 meters must first register with the Utilities Technology Council online at <https://uto.org/plo-database-amateur-notification-process/>. You need only register once for each band.



\*Geographical and power restrictions may apply to all bands above 420 MHz. See The ARRL Operating Manual for information about your area.



All licensees except Novices are authorized all modes on the following frequencies:

2300-2310 MHz	10.0-10.5 GHz ±	122.25-123.0 GHz
2390-2450 MHz	24.0-24.25 GHz	134-141 GHz
3300-3500 MHz	47.0-47.2 GHz	241-250 GHz
5650-5925 MHz	76.0-81.0 GHz	All above 275 GHz

± No pulse emissions

## KEY

### Note:

CW operation is permitted throughout all amateur bands.

NCW is authorized above 50.1 MHz, except for 144.0-144.1 and 219-220 MHz.

Test transmissions are authorized above 51 MHz, except for 219-220 MHz

- RTTY and data
- phone and image
- CW only
- SSB phone
- USB phone, CW, RTTY, and data
- Fixed digital message forwarding systems only

- E - Amateur Extra
- A - Advanced
- G - General
- T - Technician
- N - Novice

See [ARRLWeb](http://ARRLWeb) at [www.arrl.org](http://www.arrl.org) for detailed band plans.

## ARRL We're At Your Service

ARRL Headquarters:  
860-594-0200 (Fax 860-594-0259)  
email: [hq@arrl.org](mailto:hq@arrl.org)

Publication Orders:  
[www.arrl.org/shop](http://www.arrl.org/shop)  
Toll-Free 1-888-277-5289 (860-594-0355)  
email: [orders@arrl.org](mailto:orders@arrl.org)

Membership/Circulation Desk:  
[www.arrl.org/membership](http://www.arrl.org/membership)  
Toll-Free 1-888-277-5289 (860-594-0338)  
email: [membership@arrl.org](mailto:membership@arrl.org)

Getting Started In Amateur Radio:  
Toll-Free 1-800-326-3942 (860-594-0355)  
email: [newham@arrl.org](mailto:newham@arrl.org)

Exams: 860-594-0300 email: [vec@arrl.org](mailto:vec@arrl.org)



# **Traditional HF amateur bands are considered to be: 160/80/40/20/15/10 meters.**

In the early 1980's The World Administrative Radio Conference (WARC) added the 30, 17 and 12 meter bands for amateur use.

- Unlike the traditional HF bands
- Use very little spectrum compared to the traditional HF bands
- No contest activity on these bands
- Check band plan charts for modes/restrictions



# PROPAGATION TERMS – A REVIEW

## *Gray Line Propagation:*

- The transition region between daylight and darkness. Also referred to as the Terminator or Twilight Zone

## *Sky Wave propagation:*

- Commonly known as skip, is a kind of radio wave propagation. These waves are reflected or refracted back to the earth from the ionosphere

## *Ground Wave Propagation:*

- On some bands, These waves propagate over the earth's surface in low and medium frequencies. Also known as a surface wave



## 160 Meters ( 1.8 – 2.0 Mhz )

- Actually a Medium Frequency Band (300 kHz to 3 MHz)
- Referred to as “top band” (In the early days of amateur radio it was, in fact, the highest ham band)
- Just above the AM broadcast band (shares similarities)
- Localized communication during the day
- Long distance communications at night
- Very noisy during the summer months – quiet in the winter
- Normally requires large antennas



## 80 Meters ( 3.5 – 4.0 Mhz )

- Similar to 160 meters but with greater distances
- Also considered a nighttime band
- Reliable band, less subject to variations of the sunspot cycle
- Can be very noise prone to summer static but quiet in the winter
- Used a lot for regular net operations, message handling and "local rag chewing"



## 60 Meters ( 5.3 Mhz )

- Not actually a "Band" but a cluster of 5 frequencies or channels shared with government users.
- Operation is limited to USB voice and 50 watts maximum output
- Hams are secondary users of this band
- Must yield to interference problems with Government stations.
- Characteristics similar to 80 and 40 meters.



## 40 Meters ( 7.0 – 7.3 Mhz ) (NOTE: Always open somewhere)

- Summer daytime distances of 300-400 miles and night time distances of 1000 miles are very common
- Winter days with 500 miles or more are usual and night time conditions usually brings DX
- It is not as affected by the sunspot cycle like the higher bands
- Many nets frequent 40 meters both day and night
- Shared with short-wave broadcasts from countries outside of North America.
- Fairly easy to work DX stations with a modest station and antennas



## 30 Meters ( 10.100 – 10.150 Mhz )

- A lot like 40 meters
- Limited to CW and digital modes
- Power is limited to 200 watts output
- Band has slightly longer range than 40 meters
- Typical range for a contact is 1000 miles
- Popular band for QRPers





## 20 Meters ( 14.0 – 14.350 Mhz)

- Can be a VERY exciting band with some of the best DX found on any band
- At the bottom of the sunspot cycle, openings to other continents are short and less frequent
- Around the world daytime communications are possible
- During sunspot peaks, can be open around the clock
- Not useful for short-range communications



## 17 Meters ( 18.068 – 18.168 )

- Band conditions are very similar to 20 meters
- Shares similarities to the 20 and 15 meter bands
- More influenced by the sunspot cycle



## 15 Meters ( 21.0 – 21.450 Mhz )

- A lot like 20 meters but a bit more unpredictable
- More influenced by the sunspot cycle
- Less night time activity than 20 meters  
but can provide much greater distances at the peak of  
the sunspot cycle

(Note that these higher bands all share similar  
characteristics)



## 12 Meters ( 24.890 – 24-990 Mhz )

- Very heavily influenced by the sunspot cycle.
- At the bottom of the cycle, it is suitable only for very short distance groundwave communications only, for long periods of time.
- At the peak of the cycle, it is capable of communications over thousands of miles with a minimum of equipment.
- A nice mobile band when conditions are right.



## 10 Meters ( 28.0 – 29.7 Mhz )

- A fun band, when it is open conditions can be erratic
- Most heavily affected by sunspots
- Lots of DX activity for award hunters
- Easy contacts with minimum power and simple antennas
- Ground wave maybe up to 15 - 20 miles
- Numerous low power beacons exist worldwide to assist in checking for band openings



## Overview:

- 160, 80, 60, 40, and 30 meters are at their best during the winter
- 20, 17, 15, 12, and 10 meters are at their best during the summer
- The combination of day/night, summer/winter, and sunspot cycle variations keeps HF operation interesting
- You never know for sure from moment to moment what you are going to encounter when you tune the bands



## Six Meters (50-54 MHz):

- It has been said that:  
    "This is a great band if you like having Mother Nature pull your chain."
- Can offer just about any type of propagation
- Sporadic-E propagation likely the most common.  
    Peaks around the solstices, June/December
- Unexpected band openings and closings
- You can do almost anything that can be done on an HF band,  
    WAS, WAC and DXCC, etc.
- Need a way to monitor the band for openings



## To Summarize:

- Listen to the bands
- Learn their personalities
- Communicate
- Log your contacts

## For more information and discussions about the HF Bands:

The HF Bands – For HF Newcomers

Gary Wescom N0GW

<https://www.qsl.net/ad4dx/pdf/radio02.pdf>

[https://en.wikipedia.org/wiki/Amateur\\_radio\\_frequency\\_allocations](https://en.wikipedia.org/wiki/Amateur_radio_frequency_allocations)

## Beacon Information:

[https://www.dxzone.com/catalog/DX\\_Resources/Beacons/](https://www.dxzone.com/catalog/DX_Resources/Beacons/)







# Common Modes for HF Communications

# First a Disclaimer

- There are large number of modes in use on the HF bands
- We can't cover them all
- And it is a little like Fords and Chevy's – lots of *true believers*
- If I don't discuss your favorite it is from lack of time and not lack of interest
- Big Three (in no particular order) in terms of volume
  - Single Sideband (SSB)
  - CW (Morse Code via on/off keying)
  - Digital, specifically FT8/FT4

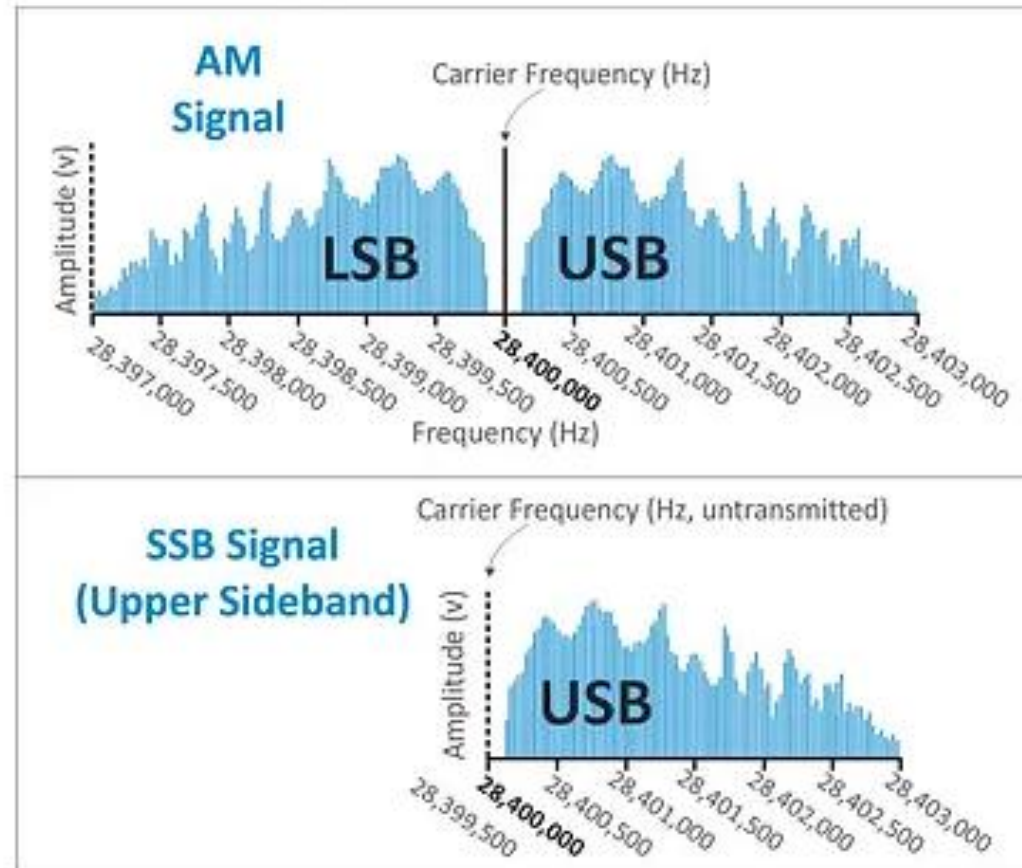
# SSB Talking Points

- Discovered in Bell Labs 1915
- First Amateur use 1930's
- "Duck Talk Wars" early 1960's
- By early 1970's SSB was dominate.

(History of Single Sideband in Amateur Radio, James W. Nash, K\$HMS/V31AW)

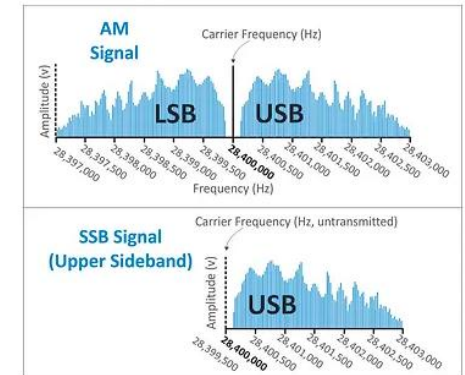
- By convention 40M and below Lower Sideband (LSB)
- Again, by convention above 40M including VHF/UHF Upper Sideband (USB)

# Single Side Band (SSB)



# Some SSB Tips

- Make sure you are on the correct sideband (LSB/USB)
- If on USB sometimes it is easier to tune by going up the dial
- Except during contests and working Dx most people like to operate on multiples of 250 KHz
  - Example: 28.400 MHz, 28.425 MHz, 28.450 MHz, 28.475 MHz, 28.500 MHz
  - During contest or in Dx pileups anything goes!
- Sometimes using narrower audio filters helps
  - Default on most radios is 2.7 KHz
  - If crowded reducing bandwidth to as little as 1.8 KHz can help with loss of audio fidelity increased



# Charlie Wobbly (CW)

- CW uses Morse Code but is not synonymous with Morse Code
- **C**ontinuous **W**ave 1913 Edwin Armstrong and Alexander Meissner
  - In theory a pure sine wave on a single frequency
  - No damping as with spark
  - Began replacement of spark in early 1920' spark outlawed in 1934
- Biggest headache – Key clicks (too abrupt a turn on and/or turn off)
- Other forms of CW exist
  - Modulated CW (MCW)
  - Sometimes found on FM repeaters for code practice
  - Esoteric variants
- Known for good performance under weak signal conditions
  - Traditionally, “Good ears” “Good Op”
  - Computers can takeover some the chores that used to be done with the human brain and hand (“Fist”)

# Using CW

- Can be used anywhere in the ham bands
  - Usually used at the bottom of any given band
  - Very bottom frequently “reserved” for Dx and seasoned users
  - Just below the phone band you can find people who send a little slower
  - Watch your band edges!
- Use narrow audio filters
  - 400 Hz is a good place to start
  - Can go higher, lower watch for “ringing” in older radios
- Decoders and Keyers
  - Keyers are helpful for repetitive tasks: calling CQ or a DX station
  - Decoders vary in effectiveness in Preppcomm we have a very good one!

# Digital Modes – Old and New

- Disclaimer – the current claimant of the “Duck Talk Wars”
  - Frequently cast in terms of which is best? CW? RTTY? FT8?
  - “True believers” on all sides – best to avoid and just use what you want
- The Old – RTTY (**R**adio**T**ele**T**ype)
  - Origin 190 year ago (Gauss and Weber 1833)
  - Baudot 6-bit code (Emile Baudot 1869)
  - Radio and Modem added (Teletype Corporation Model 14, 1928)

Ultimately, the Model 33 ASR became very popular with Hams.





# RTTY Today

- Now almost always software driven
  - FSK and AFSK
  - Software and Hardware modems
    - AEA PK-232
    - MMTTY by JE3HHT and 2-Tone by G3YYD
- Still popular with segments of the amateur radio community
  - Lots of contests
  - Few random contacts
  - Usually thought of as requiring more power
  - No error correction
  - Fading from the Dxpedition scene

# Digital Modes –Old and New

- The New – the large and expanding family of new soundcard modes
- Two basic branches of the family
  - The weak signal modes designed for minimal messaging over great distances and/or difficult conditions (WSJT-X and family)
  - The verbose modes designed for more complete messaging (JSCall, Fldigi and its many children)
- All or almost all feature error correction to varying degrees
- All have good to excellent weak signal performance
- Most require less power than traditional RTTY over the same path

# A Quick Overview of Major Players

- For Dx and Increasing number of contests
  - FT8 and FT4 as found in WSJT-X
    - FT8 runs 15 second cycles, usually 4 cycles per QSO
    - FT4 runs 7.5 seconds per cycle, again usually 4 cycles per QSO
  - MKS144 – again WSJT-X family
    - Designed for meteor scatter (bouncing signals off ionized trails left by meteors) on 6m and 2m
    - Use real-time transforms of signal (read a little more computer power)
- For more complex messaging
  - PSK31 family and JSCall
    - Keyboard-to-keyboard chats
  - MFSK 63 family
    - EmComm templated messaging, etc.
  - Olivia family
    - Intended as a replacement for RTTY
    - Olivia contest announced recently
- Good source to sort modes out: <http://www.w1hkj.com/modes/index.htm>

# What Else is Out There?

- FM – upper end of 10 Meters
  - Uses Standard FM
  - 10 Meter Repeaters (<https://www.qsl.net/kc4qlp/10meterrepeater.html> )
- AM – still around, the ultimate in good audio
  - Mostly on 160m, 75m, 40m (<https://www.arrl.org/am-frequencies> )
  - On 160m you will find old Collins broadcast radios shifted to amateur use
- Slow Scan Television (SSTV)
  - 40m (7.165 MHz), 30m (10.132 MHz) 20m (14.230 MHz)
  - International reference site (<https://www.pa8s.nl/knowledge-base/frequencies-for-sstv/> )
  - Software MMSSTV and others (<https://hamsoft.ca/pages/mmsstv.php>)

**ON AIR**

# How Do I Find Other Stations?

- Pick a band, pick a mode, pick an open frequency, then call CQ!
- Polite sequence: “Frequency clear? Is this frequency in use? CQ.....”
- General rule – make some signal



# ARRL Net Directory - <http://www.arrl.org/arrl-net-directory-search>

ARRL Net Directory Search

The number of nets found are: 50

Logbook of the World



[+ Learn More](#)

Find a Youth Net

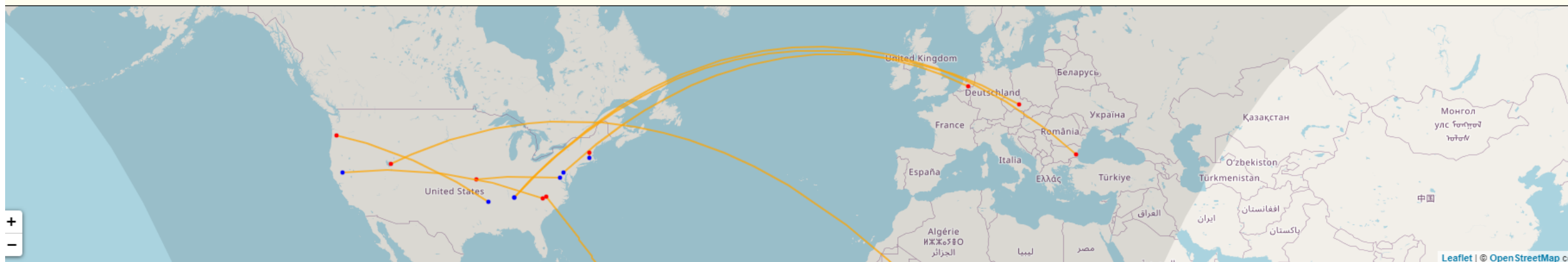


[+ Go Now](#)

All frequencies are listed in MHz.

Net Name	Frequency	Local Days	UTC Time	Time Zone
<a href="#">1721 Round Table group</a>	7.27	dy	2300	
<a href="#">3905 Century Club 40m SSB</a>	7.178	Dy	2330	
<a href="#">3905 Century Club Net</a>	3.904 3.580 7.053 7.2335 14.068 14.084	Dy	0000	
<a href="#">7235 Friendly Net</a>	7.235	Dy	1100	
<a href="#">Adventist Amateur Radio Network</a>	7.27	Sn	1400	
<a href="#">Cave Radio Net</a>	1.999 7.2425 3.996	S, Sn	2340	
<a href="#">Century Club Net WAS 40</a>	7.2335	Dy	0001	
<a href="#">Christian Amateur Radio Fellowship</a>	7.03	Dy	1200	
<a href="#">Clearing House Net</a>	7.23	Dy	1600	

# Reverse Beacon Network <https://www.reversebeacon.net/main.php>



630m  160m  80m  60m  40m  30m  20m  17m  15m  12m  10m  6m  4m  2m

cw  rtty  psk31  psk63

CQ  DX  BCN  /B  NCDXF

Max rows:  Max age:  Hours

New spots: 10

CW Speed: Min  Max

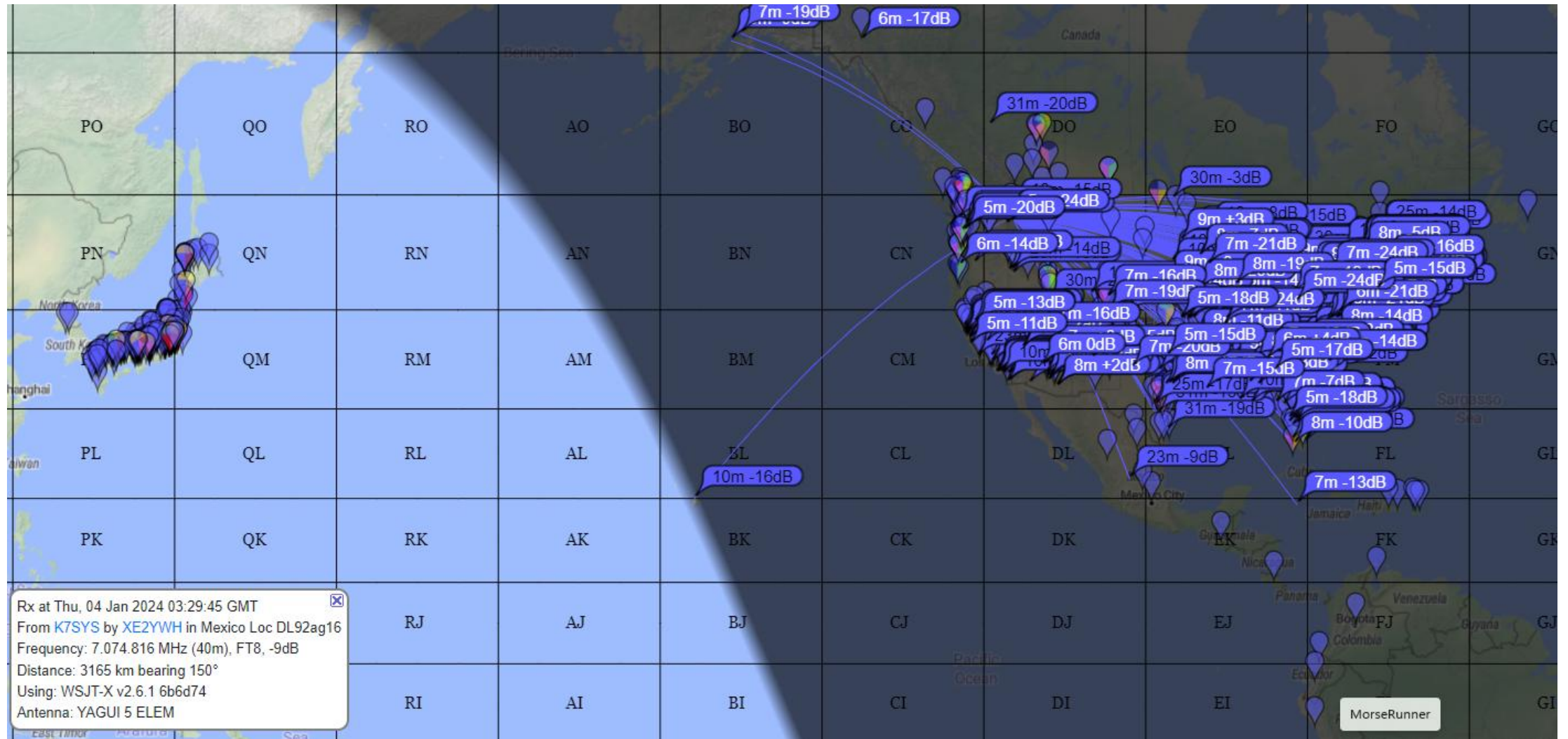
Spotter (de)  Spotted (dx)

Callsign:

spotter	spotted	distance mi	freq	mode	type	snr	speed	time	seen
NG7M	TN4AF	8154 mi	7041.7	CW	CQ	24 dB	33 wpm	0346z 04 Jan	now
K2PO/7	N5ER	1773 mi	7027.6	CW	CQ	11 dB	31 wpm	0346z 04 Jan	now
J11HFJ	JA2HJP/2	95 mi	7021.4	CW	CQ	15 dB	21 wpm	0346z 04 Jan	now
AA4VV	NP4TT	1513 mi	7037.2	CW	CQ	26 dB	32 wpm	0346z 04 Jan	now
W30A	KF6NCX	2233 mi	7040.4	CW	CQ	3 dB	23 wpm	0346z 04 Jan	now
AC0C-1	N2YO	924 mi	7041.5	CW	CQ	24 dB	37 wpm	0346z 04 Jan	now
KM3T-3	N1W	52 mi	7020.8	CW	CQ	18 dB	32 wpm	0346z 04 Jan	now
PE5TT	AD4EB	4423 mi	7027.0	CW	CQ	8 dB	36 wpm	0346z 04 Jan	now
OK4QRO	NY3A	4315 mi	7029.7	CW	CQ	11 dB	40 wpm	0346z 04 Jan	now
LZ3CB	AD4EB	5629 mi	7027.1	CW	CQ	11 dB	36 wpm	0346z 04 Jan	now



# PSKReporter - <https://pskreporter.info/>



# Spotting Networks – Raw Data

+ Filters

dx inc

Search

Spotter	Freq.	DX	Time	Info	Country
ZL3TRR	14074.5	CX6TU	04:11 04 Jan	FT8 RE66ej -> GF25xp	Uruguay
BG8PC	24915.0	BY8DX	04:10 04 Jan	WWA 2024 > ham.cm/wwwa	China
BG8GAM	14190.0	BY4DX	04:10 04 Jan	59	China
VE3WNO	7074.0	E24NY	04:10 04 Jan	FT8	Thailand
KJ4BIX	7153.0	TI4CF	04:09 04 Jan		Costa Rica
KJ4BIX	7153.0	TI2CF	04:09 04 Jan		Costa Rica
W8GJK	7075.6	XE2J	04:09 04 Jan		Mexico
BI4VIP	28022.0	BY4DX	04:09 04 Jan	WWA 2024 > ham.cm/wwwa	China
N2CG-@	5357.0	LY5W	04:08 04 Jan	FT8 KO15 FN20 NJ -11	Lithuania
VE3FAC	3575.9	N3IM	04:08 04 Jan		United States
YO9GDN	7153.0	TI4CF	04:07 04 Jan		Costa Rica
YB4PE	7135.0	8A0RARI	04:07 04 Jan	WWA 2024 > ham.cm/wwwa	Indonesia

04:11:56 04 Jan

Location

Share a spot

My call:	Callsign
DX:	DX
kHz:	kHz
Info:	Info

Share

<http://www.dxsummit.fi/#/>

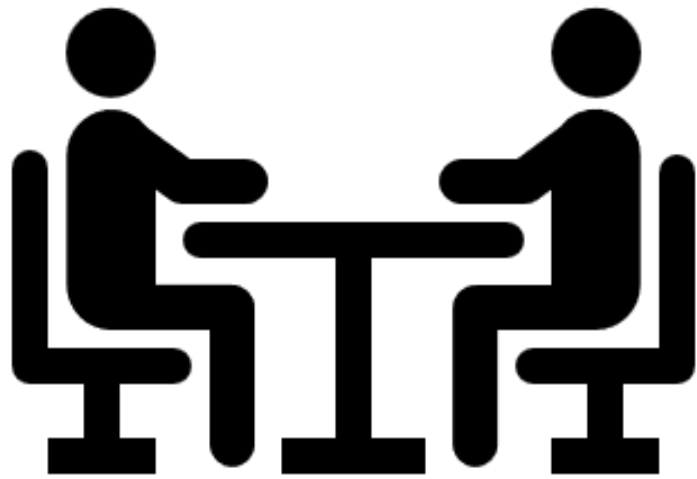
# Spotting Networks – Summarized Data

← → **WV 01-04 0305 Z** Outgoing spot Spot source status  
 SFI  History  Freq Cluster  
 A   K  Notes X Local Report Stats Prop Config Help

Callsign	Pfx	Freq	FirstTime	LastTime	RcvdTime	Source	Notes	Network	Band	Mod
K0INN	K	3,540.0	1/4/2024 0352	1/4/2024 0352	1/4/2024 0352	KK0U		NN1D	80M	CW
K3WJV	K	3,539.4	1/4/2024 0326	1/4/2024 0353	1/4/2024 0353	KK0U	CW	NN1D	80M	CW
DF2PY	DL	7,011.9	1/4/2024 0353	1/4/2024 0353	1/4/2024 0353	W7FW		NN1D	40M	CW
AF2F	K	7,029.0	1/4/2024 0304	1/4/2024 0353	1/4/2024 0353	KP4MV	CW	NN1D	40M	CW
N5RZ	K	3,537.3	1/4/2024 0323	1/4/2024 0354	1/4/2024 0354	KK0U	CW	NN1D	80M	CW
N8EA	K	3,538.5	1/4/2024 0341	1/4/2024 0354	1/4/2024 0354	KK0U	CW	NN1D	80M	CW
K4WSD	K	7,043.5	1/4/2024 0355	1/4/2024 0355	1/4/2024 0356	AG5ZN	CW	NN1D	40M	CW
K0WA	K	3,539.7	1/4/2024 0355	1/4/2024 0355	1/4/2024 0355	K4IU	CW	NN1D	80M	CW
K2SX	K	3,529.6	1/4/2024 0356	1/4/2024 0356	1/4/2024 0356	KK0U		NN1D	80M	CW
K6RC	K	3,523.8	1/4/2024 0356	1/4/2024 0356	1/4/2024 0356	KI7Y	CW	NN1D	80M	CW
N5AW	K	3,530.6	1/4/2024 0356	1/4/2024 0356	1/4/2024 0356	KV0I	CW	NN1D	80M	CW

<https://www.dxlabsuite.com/>

**ON AIR**



# BCARC Business Items and Activities

Annual Business Meeting

As required by law

For 501(c)3 in Idaho

&

Other Announcements

# Annual Business Meeting

- Call to Order by President Ailport
- Declaration of a Quorum by Secretary Conradi
- Election of Officers (New Business)
  - Slate of officers
    - John Ailport, K7BSV, President
    - Jim Moford, KJ7SEN, Vice President
    - Ken Conradi, KF7FDN, Secretary
    - Pat Cox, KJ7SJU, Treasurer
  - Nominations from the floor, if any
  - Call for vote

# Proposed Bylaw Changes (new Business)

- Note that these are not complete bylaws, only those sections with proposed changes
  - III. Membership (Delete in its entirety, it serves no purpose)
    - ~~C. A Guest is any individual or business that shares BCARC's mission and objectives but has not elected to become a member or who has not renewed their membership for the year by the end of the grace period (See IV.A below)~~
  - IV. Dues (Delete strike through section. There is no need for a grace period or inactive status as a member can rejoin or renew any time throughout the year.
    - A. Dues must be paid to the Treasurer....on or before the first meeting of the year. ~~A grace period may be extended to the third meeting of the year for renewal of membership~~
    - E. ~~Members not paying dues by the third meeting will be listed as inactive for the current membership year. Full membership status will be returned once dues are paid.~~

# Proposed Bylaw Changes (2)

- VI. Meetings (Delete the strike through section. Only officers are required to attend Board of Directors meetings. Other club members who desire to attend may also do so.
  - K. The officers, ~~Webmaster and others~~ will conduct a monthly meeting to plan future club activities, prepare for the next activity meeting (*and*) conduct club business that would only detract from a normal club meeting



# Financial Report (New Business)

- Bank balances

- Current OH checking balance (*less than half annual dues collected*)\$ 4346.58
- Current OH Savings balance (*with remainder of ARDC grant*) \$ 3908.02
- Total OH cash assets \$ 8,254.60

- Known recurring expenses

- Annual VFW Hall Rental \$ 300.00
- ARRL Club Liability Insurance \$ 200.00
- Post Office Box \$ 166.00
- Total known expenses (*excludes any projects, Field Day, etc*) \$ 666.00
- Example Field Day 2023 \$561 (food, etc.), Vertical \$600 \$ 1,161.00

# Annual Business Meeting (2)

- Call for other business
- Call to adjourn
- Motion and second
- “Meeting adjourned” President Ailport

Upcoming Activities – Winter Field Day  
January 27-28, 2024

- Just like FD in June but with a stronger EmComm emphasis
- Quick summary of rules
  - 100 watts max
  - SSB, CW, Digital (no FT8/FT4)
  - Class – number of transmitters on the air *simultaneously*
  - Category
    - Home –participating from or with 500 feet of a permanent livable residence
    - Indoor – away from home but in an insulated , weather protect structure on a permanent foundation
    - Outdoor – partly or full exposed location
    - Mobile – RV, car, boat, etc.
- Complete rules at <https://winterfieldday.org/rules.php>



# Upcoming Activities –Field Day June 23-23, 2024

## Jim Morford, KJ7SEN, Leader

- Team Leads Needed

- Digital (FT8/FT4) & CW
- FD Messaging
- Computer (Scott?)
  - Logging software configuration
  - Network
- Antenna
  - Selection
  - Placement
  - Install & Remove
- Safety Officer
- Media
- GOTA (?)

- Team Leads Confirmed

- SSB (John A, K7BSV)
- Bonus Points (Ken, KF7FDN)
- Logistics (Colleen, KK7KNL)
- VHF Bonus Stations (John K7SYS)
  - Satellite
  - 6 meters

Breakfast at Connie's Cafe  
323 Cedar Street, Sandpoint ID  
January 20, 2024  
09:00 hrs.

---

Next Meeting  
February 14, 2024  
VFW Post, Sandpoint, ID  
18:00 hrs. Informal Discussions and Eyeball QSO's  
18:30 hrs. Meeting  
Topic: QSO Part Operating Techniques

# End of the Online Portion of the Meeting

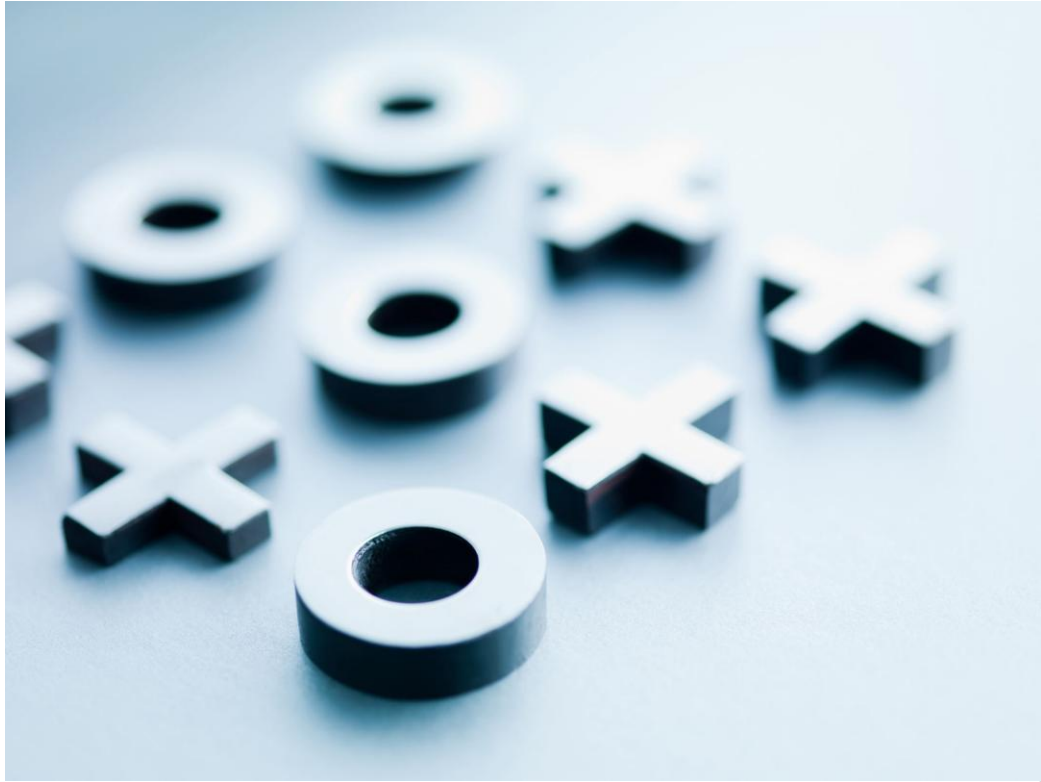
- Going to be playing a game or two
- Awfully hard to do on Zoom!
- Please join us next month either in person or on Zoom

# New for 2024 - 50/50 Drawing

- Completely voluntary effort to raise money for the club
- Purchase as few or as many tickets as you want 1\$/ticket
- Ticket drawn at the end of the meeting
  - 50% proceeds to the winning ticket
  - 50% proceeds to the club







# Tic Tac Code