



Everything Else in Ham Radio

Back to Basics 03/02/18

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What is “Everything Else”

- SOTA/POTA (Summits & Parks on the air)
- Working Satellites
- Contesting
- SDR (Software Defined Radio)
- WSPR (Weak Signal Propagation Reporting)
- RBN (Reverse Beacon Network)
- APRS (Automatic Packet Reporting System)
- QRP (operating with 5W or less)
- Digital Modes (PSK31, RTTY, FT8)
- Winlink (sending email via the HF bands)



What is “Everything Else”

- Propagations Reports
- Clusters
- Vanity Call Sign Tools
- Typical Band Characteristics



ARRL Tech License Privilege Expansion

Proposal sent to FCC 2/2818 :

<http://www.arrl.org/news/arrl-requests-expanded-hf-privileges-for-technician-licensees>

- HF SSB privilege on 75m, 40m & 15m
 - 75 Phone 3.9 - 4.0 Mhz
 - 40 Phone 7.225 - 7.30 Mhz
 - 15 Phone 21.350 - 21.450 Mhz
- Digital & RTTY on 80m, 40m, 15m & 10m



SOTA & POTA

<http://parksontheair.com>

<http://www.sota.org.uk>

Summits on the Air Joining In Online Resources Associations and Summits Blog Contact About SOTA Login



HB/BE-116 - Widdersgrind - by Markus, HB9HV/KP



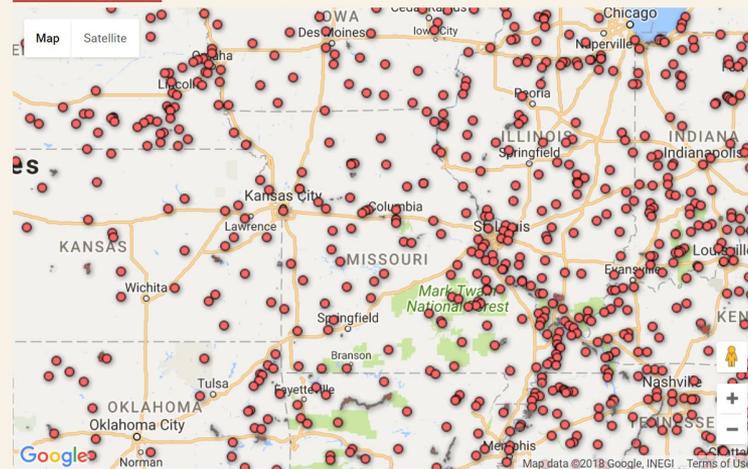
Welcome to **Summits on the Air!**

SOTA is an award scheme for radio amateurs that encourages portable operation in mountainous areas.

Quick links: [SOTAwatch](#) | [Database](#) | [Summit Listings](#) | [Shop](#) | [Mapping](#)

Map of Parks on the Air Entities:

This map shows all the entities within the Parks on the Air (POTA) program. Entities are highlighted in red; click on them to view details. [View a full screen map](#). We are also developing a searchable map which uses geo-location to find your closest entities. [Use the Activator Locator](#).





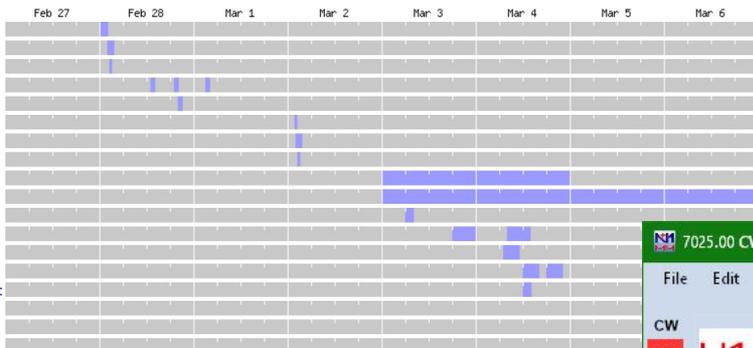
Contesting

<http://contestcalender.com>

Home 8-Day 12-Month Perpetual State QSO Parties CW QRP Log Due Dates Historical Alphabetical Customize

Follow @wa7bnmcalendar February 19 - 26, 2018 February 27 - March 6, 2018 March 7 - 14, 2018

- SKCC Sprint
- QRP Fox Hunt
- Phone Fray
- CWops Mini-CWT Test
- UKEICC 80m Contest
- NCCC RTTY Sprint
- QRP Fox Hunt
- NCCC Sprint
- ARRL Inter. DX Contest, SSB
- Novice Rig Roundup
- Wake-Up! QRP Sprint
- Open Ukraine RTTY Championship
- UBA Spring Contest, CW
- NSARA Contest
- SARL Hamnet 40m Simulated Emerg Contest
- R5GB 80m Club Championship, Data
- ARS Spartan Sprint
- AGCW YL-CW Party



<http://www.n1mm.com>



Software Defined Radio Hardware

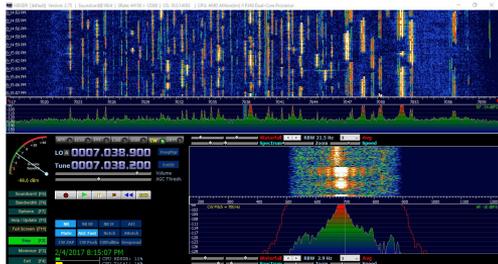


RTL-SDR - www.rtl-sdr.com. Amazon \$25 bucks, can be used with almost any SDR software package. Good cheap entry level dongle.

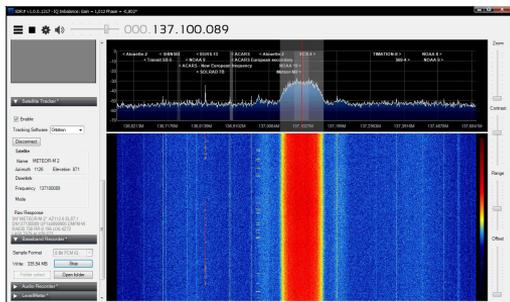


SDRPlay- www.sdrplay.com \$200, can be used with almost any SDR software package. Really good reviews with SDR community.

Software Defined Radio



HDSDR - www.hdsdr.de. Free SDR software, most popular, has built in drivers for most of the RTL-SDR dongles and IF output.



SDR# - www.sdrplay.com. Free SDR software. Designed to work with Airplay SDR, but will work with almost any RTL-SDR hardware.

For Mac and Linux try the following SDR packages : Linrad & GQRX



SDR - WebSDR

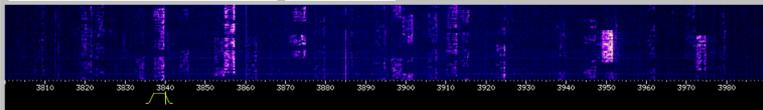
Welcome to the **KFS WebSDR** HF radio receiver system located 6 miles south of Half Moon Bay, California; maintained by Craig, W6DRZ, e-mail w6drz@arrl.net. A technical description, operating tips, propagation information, and a donation opportunity can all be found on the [ABOUT](#) page. More information on the worldwide WebSDR project can be found on www.websdr.org.
Note: On older browsers you need both *Java* and *JavaScript* enabled for this page to work properly. For a detailed discussion, click [here](#).

KFS WebSDR NEWS:

(2 Jan) As of the New Year, this system has been renamed **KFS WebSDR** to better reflect its history and location.
(27 Oct) Compact view of user display is now forced during the evening due to abuse.
(6 Dec) Thanks to K6JEK, W6YDG, WW6D, AEA Inc, and K8OLS for their recent donations.

Please log in by typing your name or callsign here (it will be saved for later visits in a cookie):

View: all bands others slow one band blind Allow keyboard:



Frequency: kHz

Band: 160 75 60 40cw 40ph 20

On trace by clicking dragging scrollwheel on the frequency scale.

Memories:

(new)



Volume:

Audio recording:

Signal strength plot:

Mode/Bandwidth: 2.80 kHz @ -6dB; 3.26 kHz @ -60dB.

PassBand Tuning (PBT): << IF shift << >> IF shift >>

<< low PBT >> low PBT high PBT << high PBT >>

Or drag the push-and edges on the frequency scale. PBT & IF Shift code by W6arr WebUI.

Waterfall view:

Or zoom with scroll wheel.

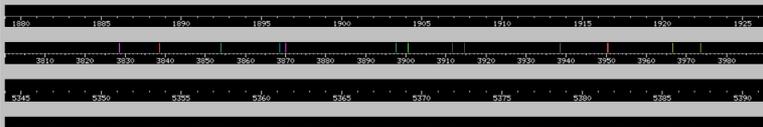
Speed:

Size:

View:

Hide labels

The KFS WebSDR is currently being used by 40 user(s) simultaneously: compactview

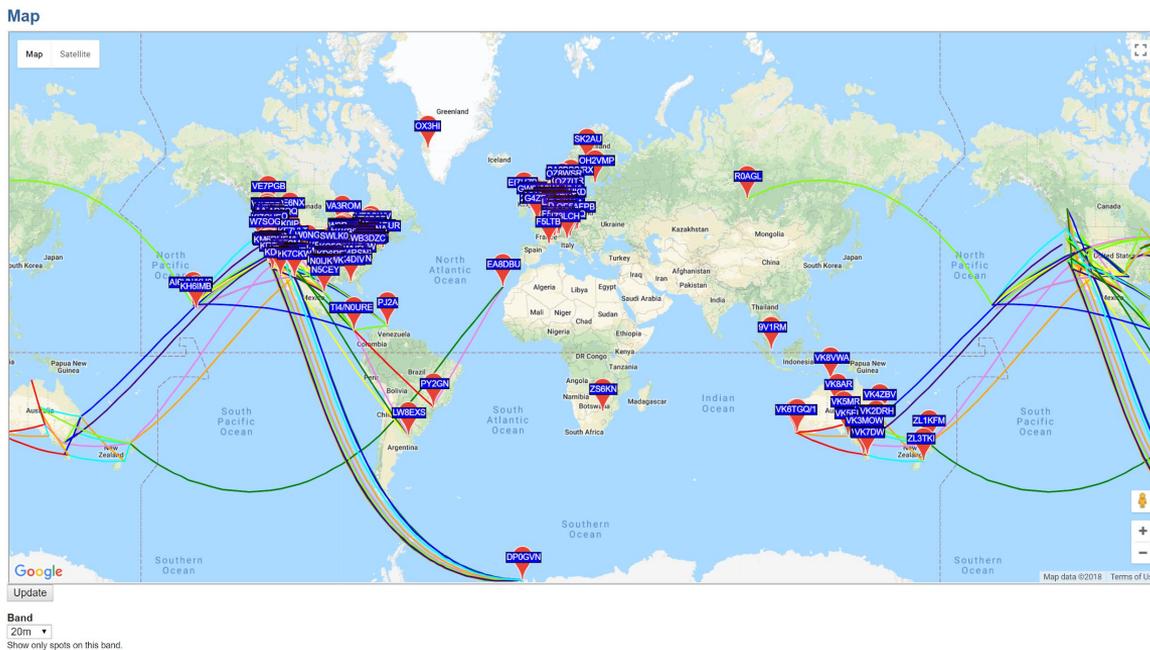


www.websdr.org



WSPR (Weak Signal Prop Reporting)

<http://wspnnet.org/drupal/wspnnet/map>





WSPR (Weak Signal Prop Reporting)

<http://www.qrp-labs.com>

QRP Labs

QRP Labs Shop

[Click here for Shop!](#)

News

[February 2018 newsletter](#)
[2017 archive](#)
[2016 archive](#)

Kits

[5W CW transceiver kit](#)
[Ultimate3/3S QRSS/WSPR kit](#)

- [Ultimate3S kit info](#)
- [Ultimate3 kit info](#)
- [Firmware version history](#)
- [Modifications](#)
- [Builders' photos](#)
- [Builders' videos](#)
- [Troubleshooting](#)
- [More technical info](#)
- [VE3KCL balloons](#)

[Ultimate relay-switched LPF kit](#)
[GPS receiver kit QLQ1](#)
[Low Pass Filter](#)
[Band Pass Filter](#)
[Si5351A synthesizer](#)
[OCXO/Si5351A synthesizer](#)
[Arduino shield](#)

Ultimate3/3S QRSS/WSPR kits



[Ultimate3S kit info](#)

The Ultimate3S QRSS/WSPR kit was launched in 2017. It can transmit a variety of QRSS and WSPR modes.

[Read more...](#)



[Ultimate3 kit info](#)

The Ultimate3 QRSS/WSPR kit was produced from 2015 to 2017. It was superceded by the U3S kit. The Si5351A synthesizer was restored with a modification.

[Read more...](#)



[Firmware version history](#)

The firmware is the same for the U3 and U3S kits. It also provides the operating manuals for download.

[Read more...](#)



RBN (Reverse Beacon Network)

REVERSE BEACON NETWORK

[welcome](#) | [main](#) | [dx spots](#) | [nodes](#) | [downloads](#) | [about](#) | [contact us](#)

Check out RBN's blog at: <http://reversebeacon.blogspot.com>, stay tuned!

Check out your signal compared to others, with the "Spots Analysis Tool". You can compare signals between up to 10 stations heard by a single reverse beacon on a given date.

Donate

Map Satellite

Map data ©2018 Terms of Use

160m / 80m / 40m / 30m / 20m / 17m / 15m / 12m / 10m / 5m / 2m

world wide / zoom to US / zoom to Europe / zoom to North Atlantic

showhide my last filters

no filter selected, showing all spots rows to show: 15 ▼

search spot by callsign

de	dx	freq	cq/dx	snr	speed	time
KM3T	CM8NMN	7031.8	CW CQ [LoTW]	25 dB	15 wpm	001tz 28 Feb
W1NT-2	CM8NMN	7031.8	CW CQ [LoTW]	22 dB	15 wpm	001tz 28 Feb
W1NT	N8EEN	7056.5	CW CQ	14 dB	19 wpm	001tz 28 Feb
W4AX	CM8NMN	7031.9	CW CQ [LoTW]	15 dB	15 wpm	001tz 28 Feb
KM3T-2	PS7HD	7051.0	CW CQ [LoTW]	15 dB	20 wpm	001tz 28 Feb
KM3T-2	W8OB	3536.5	CW CQ	23 dB	17 wpm	001tz 28 Feb
K3PA	W8OB	3536.5	CW CQ	25 dB	17 wpm	001tz 28 Feb
W3LPL	W8OB	3536.5	CW CQ	15 dB	17 wpm	001tz 28 Feb
W89V	W8OB	3536.6	CW CQ	30 dB	17 wpm	001tz 28 Feb
K2MFF-3	W8OB	3536.5	CW CQ	17 dB	17 wpm	001tz 28 Feb
KM3T-1	W8OB	3536.5	CW CQ	12 dB	17 wpm	001tz 28 Feb
W3OA	N8EEN	7056.5	CW CQ	19 dB	20 wpm	001tz 28 Feb
W3OA	W8OB	3536.5	CW CQ	12 dB	17 wpm	001tz 28 Feb
PR1T	PS7HD	7050.9	CW CQ [LoTW]	10 dB	20 wpm	001tz 28 Feb

options:
[showhide](#)

news
RBN blog: stay tuned!

we have 161 skimmers online

skimmers online:

- 3B8CW - 40m, 30m
- 3V/KF5EYY - no spot last 15min
- 7L4IOU - no spot last 15min
- 9A1CIG - 80m, 40m
- 9M2CNC - 20m
- 9V1RM - 20m, 17m
- AA4VY - 80m, 40m, 30m, 20m
- ADCC - no spot last 15min
- BD2FW - 40m, 20m
- BD4WN - no spot last 15min
- BG4GOV - 20m
- BG7BS - 40m, 20m
- BG8NUJ - 40m, 20m, 15m
- BH4RRG - 40m
- CT1BOH - 60m, 40m
- DB2MMO - no spot last 15min
- DF4XX - 40m
- DJ3AK - no spot last 15min
- DJ9IE - 60m, 40m
- DK0KX - no spot last 15min
- DK0TE - 40m
- DK3UA - no spot last 15min
- DK8NE - no spot last 15min
- DK9FP - 60m, 40m
- DL0WX - 40m
- DL1RNN - 40m
- DL3KR - 80m, 40m
- DL4RCK - 40m
- DL8LPS - 40m
- DL9GTB - no spot last 15min
- DO4DXA - 60m, 40m
- DP5G - no spot last 15min
- E28AC - 40m, 20m
- EASWU - 40m, 30m
- EA6VQ - no spot last 15min
- EC1CT - no spot last 15min
- ET3AA - 40m, 30m, 20m
- FAKJL - no spot last 15min
- FR8RS - 40m
- F8SDO - 40m
- FOIIT - 160m, 40m
- GLLUJ - 80m, 40m, 20m
- G4DPF - no spot last 15min
- G4HSO - 40m
- GW8IZR - 160m, 80m, 80m, 40m
- HAV1HF - 40m, 30m, 6m, 2m

<http://reversebeacon.net>



APRS (Auto Packet Reporting System)

<http://aprs.fi>

The screenshot shows the aprs.fi website interface. The main map displays a network of APRS stations in the St. Louis area, with various call signs like WØRC, WØKJ, WØKJ-1, WØKJ-2, WØKJ-3, WØKJ-4, WØKJ-5, WØKJ-6, WØKJ-7, WØKJ-8, WØKJ-9, WØKJ-10, WØKJ-11, WØKJ-12, WØKJ-13, WØKJ-14, WØKJ-15, WØKJ-16, WØKJ-17, WØKJ-18, WØKJ-19, WØKJ-20, WØKJ-21, WØKJ-22, WØKJ-23, WØKJ-24, WØKJ-25, WØKJ-26, WØKJ-27, WØKJ-28, WØKJ-29, WØKJ-30, WØKJ-31, WØKJ-32, WØKJ-33, WØKJ-34, WØKJ-35, WØKJ-36, WØKJ-37, WØKJ-38, WØKJ-39, WØKJ-40, WØKJ-41, WØKJ-42, WØKJ-43, WØKJ-44, WØKJ-45, WØKJ-46, WØKJ-47, WØKJ-48, WØKJ-49, WØKJ-50, WØKJ-51, WØKJ-52, WØKJ-53, WØKJ-54, WØKJ-55, WØKJ-56, WØKJ-57, WØKJ-58, WØKJ-59, WØKJ-60, WØKJ-61, WØKJ-62, WØKJ-63, WØKJ-64, WØKJ-65, WØKJ-66, WØKJ-67, WØKJ-68, WØKJ-69, WØKJ-70, WØKJ-71, WØKJ-72, WØKJ-73, WØKJ-74, WØKJ-75, WØKJ-76, WØKJ-77, WØKJ-78, WØKJ-79, WØKJ-80, WØKJ-81, WØKJ-82, WØKJ-83, WØKJ-84, WØKJ-85, WØKJ-86, WØKJ-87, WØKJ-88, WØKJ-89, WØKJ-90, WØKJ-91, WØKJ-92, WØKJ-93, WØKJ-94, WØKJ-95, WØKJ-96, WØKJ-97, WØKJ-98, WØKJ-99, WØKJ-100. The interface includes a search bar, a list of stations, and a sidebar with navigation options.

Other SSIDs: NOKTK-9, NOKTK-10, NOKTK-11, NOKTK-12, NOKTK-13, NOKTK-14, NOKTK-15, NOKTK-16, NOKTK-17, NOKTK-18, NOKTK-19, NOKTK-20, NOKTK-21, NOKTK-22, NOKTK-23, NOKTK-24, NOKTK-25, NOKTK-26, NOKTK-27, NOKTK-28, NOKTK-29, NOKTK-30, NOKTK-31, NOKTK-32, NOKTK-33, NOKTK-34, NOKTK-35, NOKTK-36, NOKTK-37, NOKTK-38, NOKTK-39, NOKTK-40, NOKTK-41, NOKTK-42, NOKTK-43, NOKTK-44, NOKTK-45, NOKTK-46, NOKTK-47, NOKTK-48, NOKTK-49, NOKTK-50, NOKTK-51, NOKTK-52, NOKTK-53, NOKTK-54, NOKTK-55, NOKTK-56, NOKTK-57, NOKTK-58, NOKTK-59, NOKTK-60, NOKTK-61, NOKTK-62, NOKTK-63, NOKTK-64, NOKTK-65, NOKTK-66, NOKTK-67, NOKTK-68, NOKTK-69, NOKTK-70, NOKTK-71, NOKTK-72, NOKTK-73, NOKTK-74, NOKTK-75, NOKTK-76, NOKTK-77, NOKTK-78, NOKTK-79, NOKTK-80, NOKTK-81, NOKTK-82, NOKTK-83, NOKTK-84, NOKTK-85, NOKTK-86, NOKTK-87, NOKTK-88, NOKTK-89, NOKTK-90, NOKTK-91, NOKTK-92, NOKTK-93, NOKTK-94, NOKTK-95, NOKTK-96, NOKTK-97, NOKTK-98, NOKTK-99, NOKTK-100.



QRP

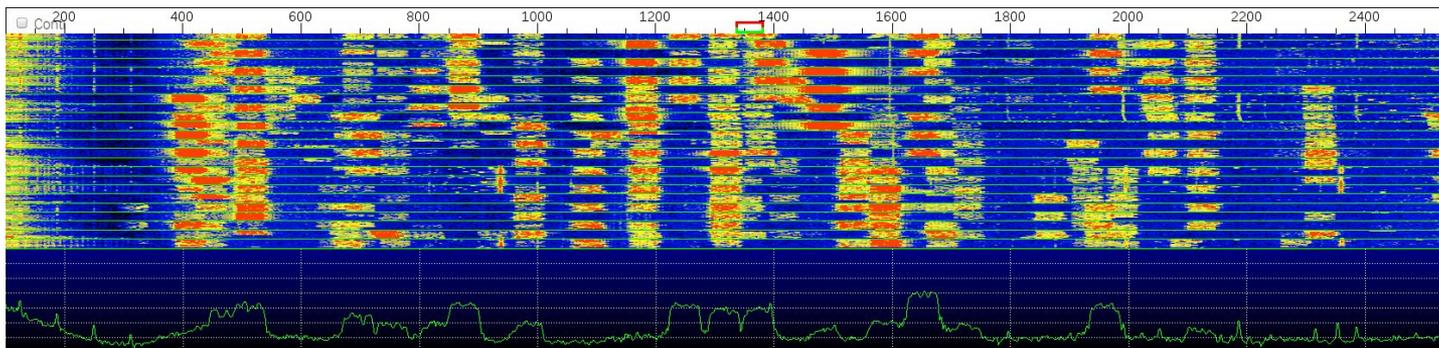
QRP - Operating at low power while attempting to make contacts. Power output is usually less than 5W for CW, 10W for SSB.



Digital Modes

Digital (USB is always used)

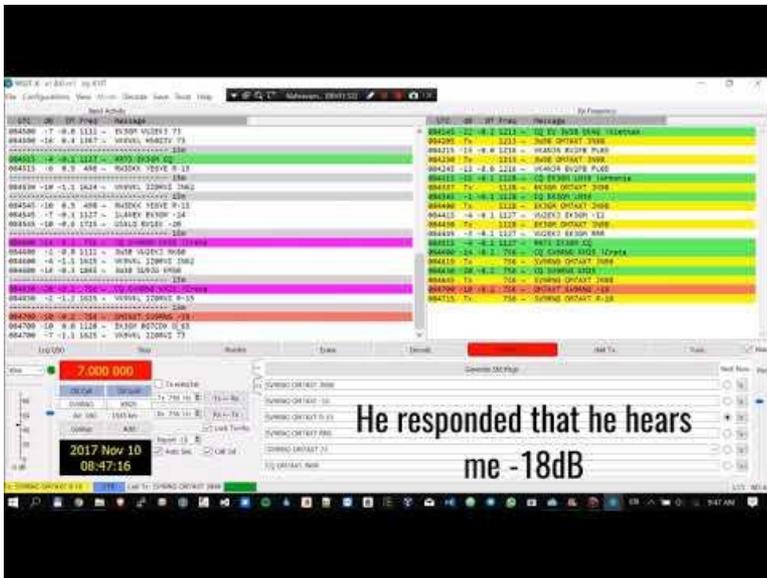
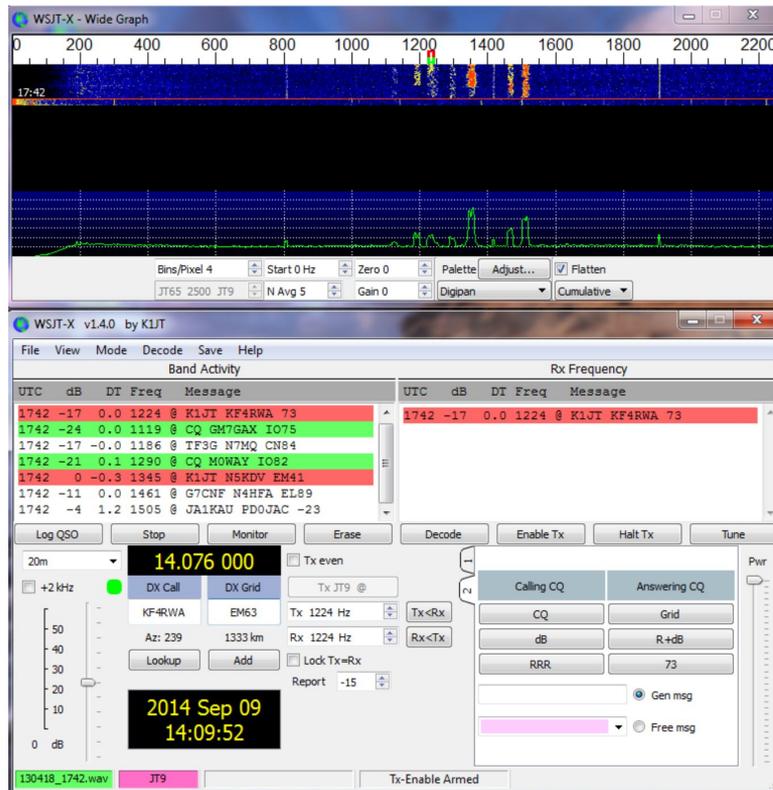
- PSK31
- RTTY
- JT65 & JT9
- FT8





Digital Modes - FT8/JT65 & JT9

<https://physics.princeton.edu/pulsar/k1jt/wsjt.html>





Digital Modes - FLDigi (PSK & RTTY)

<http://sourceforge.net/projects/fldigi/files/>

The screenshot displays the FLDigi software interface (version 3.23.18) running on a Windows operating system. The window title is "fldigi ver3.23.18 - K8JTK". The interface includes a menu bar (File, Op Mode, Configure, View, Logbook, Help) and a toolbar with buttons for Spot, RxID, TxID, and TUNE. The main display area shows the frequency "14070.000" and the call sign "VESTLW". Below this, there is a text area containing a message: "TU for the fb BPSK31 QSO on 20m, GL and gud DX, Jeffre1", "QSL info: QRZ.com", "Happy New Year", "Enjoy the remainder of the day", and "K8JTK de VESTLW 73 sk sk". The interface also features a waterfall display at the bottom, showing a spectrum of signals with a prominent yellow and orange signal at the current frequency. The bottom status bar displays "BPSK31", "s/n 23 dB", "imd -26 dB", and other parameters.



Winlink

<http://www.winlink.org>

The screenshot displays the RMS Express 1.3.13.0 - NØTKK interface. The main window shows an email message with the following details:

Date/Time	Message ID	Size	Source	Sender	Recipient	Subject
2018/02/24 22:26	ZNØKTUBMCRK	4	Sy...	SERVICE	NØTKK	Attention: Program Update Required

The message content includes:

Message ID: ZNØKTUBMCRK
Date: 2018/02/24 22:26
From: SERVICE
To: NØTKK
Source: SYSTEM
Downloaded from: Telnet:Wien.Winlink.org
Subject: Attention: Program Update Required

Some features available from the CMS have been disabled to avoid triggering issues within the version of your client program currently being used.
Please upgrade to the latest version as soon as possible to restore full functionality.
Visit: <https://www.winlink.org/WinlinkExpress> for download information.

A separate window titled "Telnet Winlink Session" shows the following log:

```
Exit Setup Start Stop Time to next Autoconnect = Disabled
*** Connecting to a CMS ***
*** Connected to Wien at 2018/03/02 23:22:11 ***
[WLNK-S:ØSPFWHJMS]
PO: 53866056
CMS>
PW: NØTKK
[RMS Express-1.3.13.0-B2FHMS]
.PR: 0611190
.WLNK DE NØTKK (EM48OU)
FF
FC EM ZNØKTUBMCRK 452 356 0
F=>49
FS Y
*** Receiving ZNØKTUBMCRK ***
*** ZNØKTUBMCRK - 461365 bytes received ***
*** Bytes: 401, Time: 00:00, bytes/minute: 205491 ***
FF
FQ
*** --- End of session at 2018/03/02 23:22:14 --- ***
*** Messages sent: 0, Total bytes sent: 0, Time: 00:01, bytes/minute: 0 ***
*** Messages Received: 1, Total bytes received: 401, Total session time: 00:01, bytes/minute: 12960 ***
*** Disconnected at 2018/03/02 23:22:19 ***
```



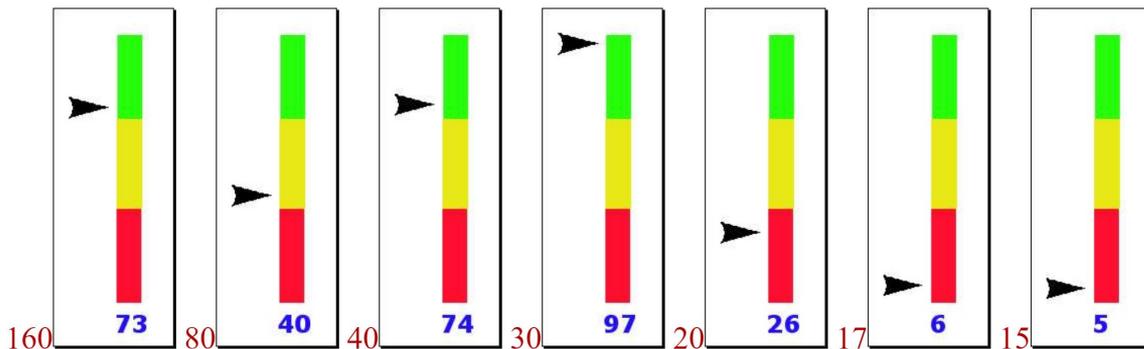
Propagation Reports

<http://www.hamqsl.com/solar3>

<http://www.bandconditions.com>

CONUS HF BAND CONDX

3/2/18 --- 23:25:00 GMT --- REPORT # 2810



BAND STABILITY LAST : 10 MINS HOURLY 24 HRS

Solar Data/Propagation
 Click to add to your website
Solar-Terrestrial Data
 02 Mar 2018 2316 GMT
 SFI 66 SN 11
 A 6 K 1
 X-Ray 02.7
 304H 93.9 @ SEM
 PF 0 EF 697
 Aurora 1/m 1.99
 Bz -0.9 SW 334.8

HF Conditions

Band	Day	Night
80m-40m	Fair	Good
30m-20m	Poor	Poor
17m-15m	Poor	Poor
12m-10m	Poor	Poor

VHF Conditions

Aur Lat	67.3°
Aurora	Band Closed
6m EsEU	Band Closed
4m EsEU	Band Closed
2m EsEU	Band Closed
2m EsNA	Band Closed
EHE Deg	Good

Solar Flare Prb 40 %
 HUF **LESS - SEASON BREAK**
 MS 8 6 42 18 100
 100 100 100 100 100
 Geomag Field VR QUIET
 Sig Noise Lvl 30-31
 HUF US Boulder 20,12
Current Solar Image

<http://www.hamqsl.com>
 Copyright Paul L. Herron, 2013



Propagation Reports

<http://www.voacap.com>

Grayline: 2018-02-28 00 : 24 Set Reset

Propagation Params

Es: No Model: Auto
 SSN: Min.TOA: 0.1 °

Today's Sunrise/Sunset Times (UTC)

	Transmitter		Receiver	
GND	06:10	18:17	03:02	15:09
D	05:47	18:40	02:39	15:32
F	05:16	19:11	02:08	16:03

Transmitter Site

QTH: << Select a location >>
 Name: TX Loc calc
 Latitude: 0.0000 [-90..90]
 Longitude: 0.0000 [-180..180]
 TX antenna: 10M: 3-el Yagi @ 15M (50ft) v
 12M: 3-el Yagi @ 15M (50ft) v
 15M: 3-el Yagi @ 15M (50ft) v
 17M: 3-el Yagi @ 15M (50ft) v
 20M: 3-el Yagi @ 15M (50ft) v
 30M: Dipole @ 10M (33ft) v
 40M: Dipole @ 10M (33ft) v
 60M: Dipole @ 10M (33ft) v
 80M: Dipole @ 10M (33ft) v
 TX power: 1500 W v
 TX mode: CW v
 Specials: Swap TX-RX Short-path v
 Current point: Set Home Unset Home

Receiver Site

QTH: << Select a location >>
 Name: RX Loc calc
 Latitude: 0.0000 [-90..90]
 Longitude: 47.0000 [-180..180]
 RX antenna: 10M: 3-el Yagi @ 10M (33ft) v
 12M: 3-el Yagi @ 10M (33ft) v
 15M: 3-el Yagi @ 10M (33ft) v
 17M: 3-el Yagi @ 10M (33ft) v
 20M: 3-el Yagi @ 10M (33ft) v
 30M: 1/4 wl Vert Gd Gnd v
 40M: 1/4 wl Vert Gd Gnd v
 60M: 1/4 wl Vert Gd Gnd v
 80M: 1/4 wl Vert Gd Gnd v
 Noise level: Quiet (153) v

Low-SSN Season Mid-SSN Season Hi-SSN Season

[Use the 24-hour prediction wheel](#) (= REL Short-Path)



Clusters

www.dxwatch.com

www.dxsummit.fi

www.dxheat.com

www.n1yz.com/HFNET_LIST.HTM

www.contestcalendar.com



Vanity Call Sign Tools

<http://www.ae7q.com>

1x2 & 2x1 callsign availability summary, by callsign region								
Callsign region	Currently available	Pending application	Expired < 2 yr	Canceled < 2 yr	Active		Total	
					Normal	Vanity		
1	0	2	140	44	1590	2306	4082	
2	0	8	218	38	1658	2160	4082	
3	2	10	207	40	1572	2251	4082	
4	0	9	185	39	1438	2411	4082	
5	0	7	200	34	1505	2336	4082	
6	4	7	241	47	1395	2388	4082	
7	0	5	219	47	1409	2402	4082	
8	2	5	254	42	1569	2210	4082	
9	1	1	183	49	1583	2265	4082	
10	0	7	214	38	1626	2197	4082	
11	734	0	14	6	156	130	1040	
12	2	0	13	2	120	97	234	
13	85	1	14	5	222	189	516	
Totals	830	62	2102	431	15843	23342	42610	

<http://wireless.fcc.gov/uls>

ULS Online Systems

All applications are operating properly.

NEW USERS REGISTER To use the FCC Online Systems, you first need to [Learn more](#)

ONLINE FILING LOG IN Apply for a new license, renew, modify, assign aut and more. [Forgot Password?](#)

NARROWBAND LOG IN **Modify Wideband Emissions:** Modify licenses to

LOG IN **Remove Wideband Emissions:** Modify narrowba licenses with frequencies that have both a wideba

SEARCH LICENSES Find licenses across all services.

APPLICATIONS Find applications.

ARCHIVES Find archived licenses using the **enhanced** license

QUICK LINKS

Help

- ▶ [Obtain Official ULS Authorization](#)
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Systems

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HF Basics - Band Characteristics

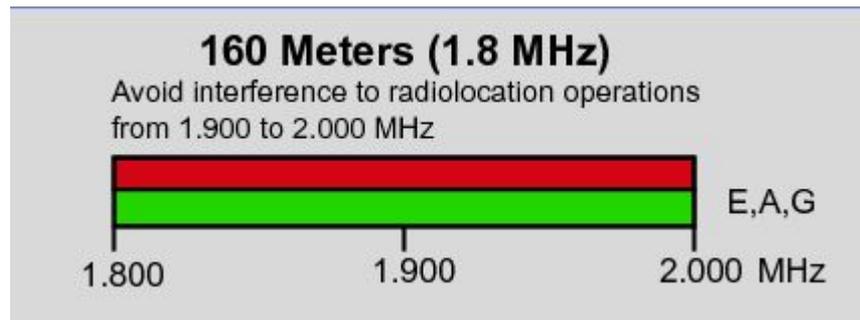
160m - Contest Band

Day : local (0 to 300 miles)

Night Summer : local

Night Winter : distant (+1000 miles)

Primarily an evening & night band, with the absence of lightning static crashes & good high antenna, you can talk to stations around the world.





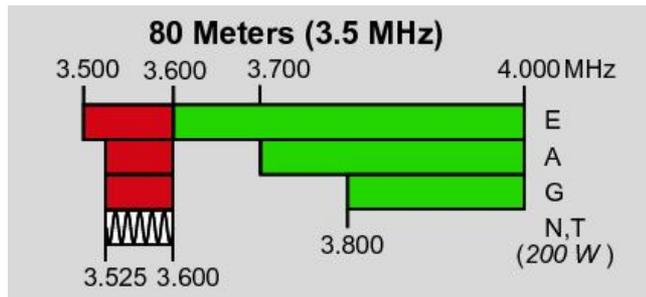
HF Basics - Band Characteristics

75m/80m - Contest Band

Day : local (0 to 300 miles)

Night : local to distant depending on height of antenna

Lots of “local & regional” nets found on this band and “rag chewing” during evening & night hours. Can be noisy during summer months with static crashes. Good for in state QSO party contests or ARES nets because they are local.



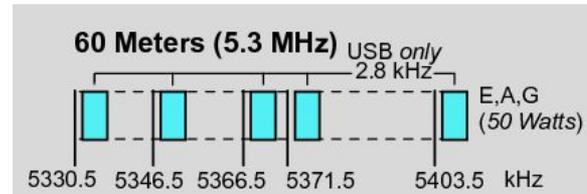


HF Basics - Band Characteristics

**60m - 100W or less, worldwide band as of 2016,
typically no contests on this band**

Day : local (0 to 300 miles)

Night : regional to distant (500 to 1000+ miles)



Cluster of 5 specific frequencies that amateur radio shares with the US Govt'. Amateur radio are secondary users.

No contest activity, acts like 80 and 40 meter bands.

Channel 5 (5405.0) is the defacto "DX channel".

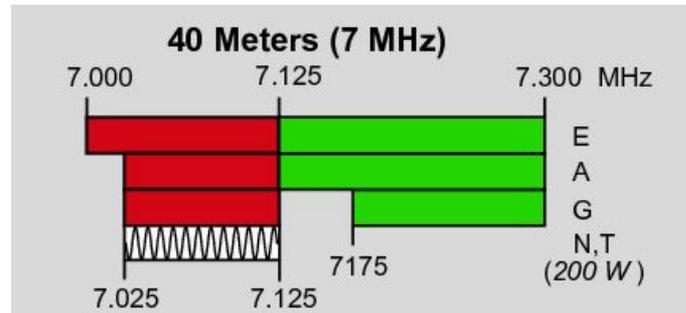


HF Basics - Band Characteristics

40m - Contest Band - **Starter Band**

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)



Depending on height of antenna, this band gets longer (goes further) as evening sets in. NVIS (near vertical incident skywave) as the antenna gets lower to the ground. Good for state QSO parties.

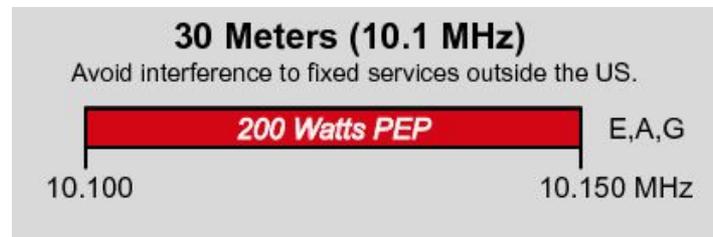


HF Basics - Band Characteristics

30m - 200W or less part of the WARC Bands (World Admin Radio Conf), no contests!

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)

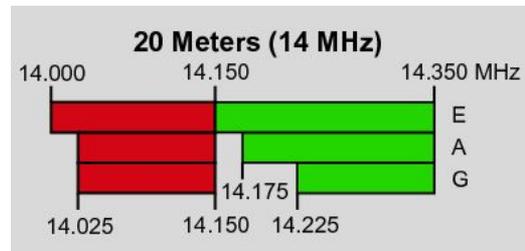


No contest band, acts like 80 and 40 meter bands. Must avoid interference to worldwide stations.



HF Basics - Band Characteristics

20m - Contest Band - **Starter Band**



Day : regional to distant (500 to 1000+ miles)

Night : distant (1000+ miles)

The most popular band in amateur radio. Lots of DX contacts are made on 20m. $\frac{1}{2}$ wave dipole above the ground is only 32 feet. Easy band to get a lot of contacts.

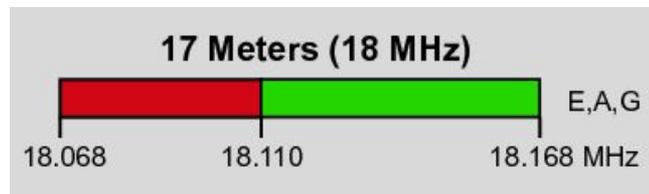


HF Basics - Band Characteristics

17m - Contest Band

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)



Very similar to 20m, very dependent on sunspots.



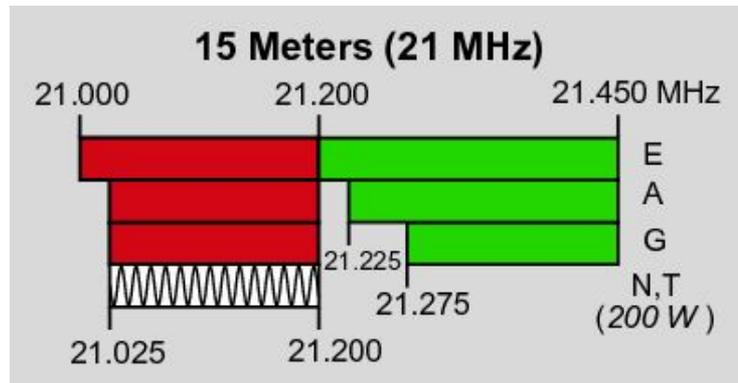
HF Basics - Band Characteristics

15m - Contest Band

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)

Acts like 20m but with less range.





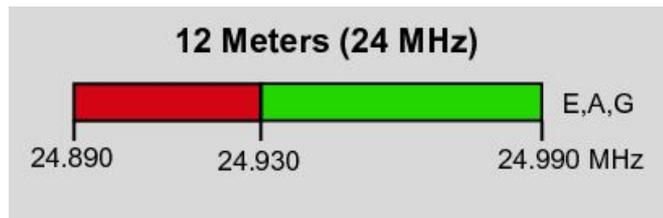
HF Basics - Band Characteristics

12m - WARC Band

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)

No contest band.





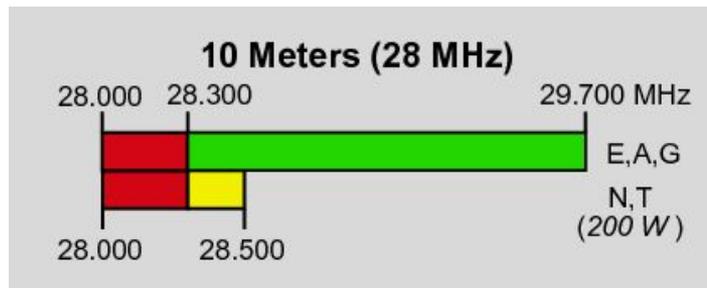
HF Basics - Band Characteristics

10m - Contest Band

Day : regional (300 to 500 miles)

Night : distant (1000+ miles)

Depends on sunspot cycles, active during the summer months.





Questions!