

World Above 50 MHz

Jon K. Jones, NØJK

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The **World Above 50 MHz** is a QST column devoted to on-the-air activities and technical discussions of the amateur bands above 50 MHz. It is especially concerned with CW, SSB, WSJT-X activity generally, radio propagation, DXing, technical innovations, and operating achievements.

History of the WA50

The World Above 50 MHz has appeared in QST for more than 60 years, making it one of the longest running columns. It originated as "On the Ultra Highs," which debuted in December 1939 under the direction of Ed Tilton, W1HDQ. There have been three name changes and five editors since its founding. The current name was adopted in 1976.

History of the WA50

Editor	Years
Ed Tilton, W1HDQ	1939-1960
Sam Harris, W1FZJ	1960-1967
Bill Smith, W5TVB	1967-1974
Bill Tynan, W3XO	1974-1992
Emil Pocock, W3EP	1992-2002
Gene Zimmerman, W3ZZ	2002-2011
Jon K. Jones, NØJK	2011-Present

History of the WA50

I have conducted the WA50 column since 2011. Gene Zimmerman, W3ZZ asked me to carry it on. He did an outstanding job with the column, and I hope he is proud of it today.

The World Above 50 MHz Standings

As of September, 2015 The World Above 50 MHz Standings listings are now being maintained by Ned Stearns, AA7A. Ned is well known on the air chasing DX on all bands, operating as part of DXpeditions all over the world, and running EME from home and abroad.

50 MHz and up WAS Lists

Worked All States is a prestigious award! Yet working all states at VHF and Above is an accomplishment that takes an extraordinary effort (often taking participants and their contacts beyond the Ionosphere – even to the moon and back). List here:

<http://www.arrl.org/50-mhz-and-up-was-lists>

WA50 DXCC ENDORSEMENTS

These endorsements are listed on the ARRL
DXCC page.

<http://www.arrl.org/dxcc-standings>

US 6 Meter Firsts

Six-meter stations from the 48 mainland United States have contacted 262 DXCC entities as of header date shown, according to the best available information. All claimed first two-way six-meter contacts must have been made no earlier than March 1, 1946, using any transmission mode between 50 and 54 MHz.

ARRL DXCC rules govern criteria for listing, including official six-meter authorization dates, new and deleted countries, and authenticity of expeditions. Illegal operations can not be recognized. Contacts must be valid, but do not require QSL cards. It may be necessary to verify some contacts at a later time.

6 Meter Firsts

Nowadays most 6 Meter “firsts” are made via EME. A recent noteworthy exception was Greg Clausen, WØLGQ (EN21) working Robert Felicite, 3B9FR Rodriguez Is. for a “6 Meter First” on February 18, 2023.



Trivia - I am on the 6 Meter “firsts” list. Can you find me?

VHF/UHF/SHF Distance Records

High interest in this due to new records set on the VHF and UHF bands during the recent “Heat Wave” tropospheric opening.

Frequency bands include Micrometer Radio (300 to 3000 GHz) and Light (3 to 30,000 THz). It does not include 50 MHz. Last update May 19, 2023.

VHF DX Records

Propagation modes are tropospheric refraction and ducting (including line-of-sight paths), divided into three categories: Tropo (A) (tropospheric modes across the Atlantic, Caribbean, and Gulf of Mexico); Tropo (C) (tropospheric modes across continental North America; Tropo (P) (tropospheric modes across the Pacific); Aurora (auroral scatter); Auroral E (auroral E); Sporadic E (sporadic E); FAI (E-layer field-aligned irregularities); IFS (ionospheric forward scatter); Meteors (meteor scatter); TE (transequatorial field-aligned irregularities); and Rain scatter (precipitation scatter).

VHF DX Records

Distance calculations are based on the centers of 6-place grid locators, as calculated by BD (the W9IP bearing and distance program). Distances shorter than 100 km may be calculated using more precise methods.

*Should the VHF DX records include **50 MHz** ?*

WA50 Column Changes

Due to page space limitations in QST magazine, the WA50 column (along with “How’s DX” are limited now to 2 print pages. This ends up being around 1,100 words with a couple of pictures or graphics. This limits how much can be reported on band activity and other topics.

WA50 Column Changes

The focus of the column is now “themes.”

A theme may be long-path propagation on 50 MHz. Another may be EME, TEP, or Aurora propagation. For the upcoming November WA50 the “theme” is the remarkable “Heat Wave” tropospheric opening in late August. The “theme” is the column lead and I look for people making contacts that are consistent with it.

WA50 Column Changes

I include individual reports of contacts. I like reports that “tell a story.” Unusual propagation, a small station working rare DX, or something that piques reader’s interest.

One example was Mike White’s 6 Meter antenna he used to work Hawaii during an F2 opening November 13, 2014.

K7ULS works Hawaii on 6 Meters



Stations like to see their call and reports in the WA50

Despite the internet chat rooms, slack, e-mail groups, etc. people like to see their call appear in QST in the WA50 and their report.

Perhaps the WA50 is a permanent chronicle of the World Above 50 MHz.



K7ULS WA50 report



The World Above 50 MHz

Jon Jones, N0JK, n0jk@ar1.org

Comments on the 4 Meter Band

6 and 4 meters present some interesting crossband opportunities.

I received more comments regarding the July WA50 column's lead "The 4 Meter Band — A New Challenge for VHFers?" than any other to date.¹ There is a lot of interest out there. Leif, LA9BM, mentioned that the new Icom 7100 will include 70 MHz in its European version. He also notes the excellent 4 meter antennas from InnovAntennas. They also make 6 meter designs (www.innovantennas.com).

Emil, W3EP, reminded me of the crossband work between 4 and 6 meters. This is one way for Canadian and stateside operators to participate on 4 meters. From the US, one would transmit to Europe on 6 meters and receive on 4 meters. Some may remember back in Solar Cycle 21, before many European countries had 6 meter allocations, US hams would transmit on 6 and listen on 10 meters for Europe. Emil compiled a list of East Coast 6 meter operators with 4 meter receivers (see Table 1).

Emil suggests transmitting to Europe on 50.185 MHz and listening on 70.185 MHz when conditions appear favorable. E_s would be the most likely mode, but crossband contacts have been made via F2. If Solar Cycle 24 takes off this fall, the months of November and December would be the most likely time

following Icom radios will receive on 4 meters: IC-706, FT-847, IC-7000 and IC-7100 as well as several Icom communications grade receivers.

Brian, WA1ZMS, has a new beacon operational on 4 meters — WG2XPN on 70.005 MHz. The Transmit frequency is 70.005 MHz CW. Effective Radiated Power is 3 kW from a 3 element Yagi at 15 meters high, aimed at 60° azimuth. The grid is FM07fm.

This beacon has already provided some amazing results as this letter from Joe, CT1HZE, attests:

Brian, WA1ZMS:

Your WG2XPN 4 meter beacon was received July 7, 2013 in GJ, DL, I, and ISO.

This is amazing! Distances > 7,000 km! I think we have seen for the first time clearly four hops via E_s on 4 meters today.

Joe, CT1HZE

On the Bands

50 MHz. "It was the best of times, it was the worst of times..." — C. Dickens, *A Tale of Two Cities*.

The month of June was a tale of two very different 6 meter bands. One brought amazing

(FN07) all logged Javi, LU5FF around 1900 UTC. Later N0LL (EM09) logged 9Y4D at 2109 UTC, P43A at 2122 UTC and YV1DIG at 2151 UTC. Dan, KF6A, also worked many of the Caribbean and South Americans. Bill, K0HA (EN10) worked CO, FG, P4, WP4, YV, 6Y and 9Y.

That evening Ed, N5DG, caught a great opening to Japan, logging 38 JAs. K0HA heard some of the JAs very weak. Sunday was good for DX as well. Mike, K7ULS, operating portable in Utah made 55 stateside contacts plus XE2JS, XE2X, XE2WK, CO2OU, CO2 and ZF1EJ. N7CW operating from the rare grid DM36 Sunday morning June 2 delighting FFMA grid chasers. N0JK mobile in EM28 logged CO2QU (EL93) at 0044 UTC on the 3rd. The E_s seemed to dry up after the first weekend of June.

Things picked up with aurora June 7 and the W0W grid expedition to EN48. They logged many stations that evening in the 8th and 9th call areas. Bill, K0HA (EN10), was busy during the aurora. He gave K9PG his first ever aurora contact on 6 meters. "My first ever AU QSO...pretty cool...sorry for being so weak...I'm working with a little 3 el Yagi up about 17 feet here." — Paul, K9PG (EN53). The next day Bernie, W3UR (FM19), and

September 2023, “A dream come true.”

Hi Jon,

I am writing this on Tuesday night, 08/15/2023. I came home from work and went out to get the mail and found the new September 2023 QST in my mailbox. I always enjoy reading your column "50 MHz And Above" in QST. After eating supper, I relaxed on my couch to read my new QST and when I turned to your column, I was so very pleasantly surprised. I couldn't believe that I was seeing my own callsign, and my contact with XE3N Mexico, featured in your column!!! You have made a long time dream of mine come true for me and I thank you so very much. This was a real thrill for me and so this issue of QST will definitely be a keeper...

Mike - NØALJ

WA50 editorial choices

Due to the very limited column space, I have to make hard decisions on what to include and what is not. Sometimes people are upset their report did not make it into the column. If I had my way – I would list every report I receive. There is also a column deadline. For the November, 2023 WA50 - the column had to be in to the ARRL editors by September 5.

Send your reports promptly !



The “World of 50 MHz ?”

There has been criticism the WA50 is too much about 6 Meters, and too much FT8!

Sometimes valid, during the summer sporadic-E season there is huge activity on 6 Meters. FT8 has become the primary mode. The FFMA is very popular.

I strive to include reports on the other bands, mention SSB, CW, FM and other contacts, and other modes of propagation such as EME.

The World Above 40 MHz ?

There have been suggestions to rename the column the WA40. I mention noteworthy 40 MHz contacts as space allows.

Editorial advise has been until the 40 MHz band is released to general US Amateur Radio use, it will remain the WA50.

WA50 Future

Solar Cycle 25 may end up much better than predicted. The WA50 will follow Solar Cycle 25's developments. Other “themes” such as EME will be in future columns.



SUGGESTIONS ??

HC8N 6 Meter Activity

- HC8 by Rick, HC8MD back in early 1980s during Solar Cycle 21. Now HC1MD/2
- Solar Cycle 22 by HC8K and HC8GR.
- Solar Cycle 23 by HC8N, HC8/XE1KK, HC8/LU8ADX and HC8GR.
- First HC8N 6M activity May 1999.
- HC8N on 6 Meters November 2000, and 2001 outside of the CQ WW CW contests.

HC1MD/2 2023



HC1MD/2 6 Meter station



HC8N Station November 2001

- Kenwood TS-690 at 50 watts.
- M2 6M7JHV at 15 meters.



Galapagos 6 Meter Prop

- F2 and TEP are main 6M DX propagation modes from HC8 during November.
- HC8N made over 3,000 QSOs on 6 Meters in 2021. 2,625 unique call signs. 952 Asian QSOs.
- In 2001 an op in Holland called Trey, N5KO at HC8N saying *"I am hearing the HC8GR/b."*
- Sporadic-E is a double hop path to much of North America as shown by Ecuador stations. FT8 can find Es more often. EME another mode.

NØJK and K1KI at HC8N 6M position November, 2001



HC8N



San Cristobal Is.



Galapagos in Solar Cycle 25

HD8M was on 6 Meters from Santa Cruz in March, 2023. Worked F2 to North America on March 2. Dxpeditons with 6 Meters are infrequent to the Galapagos Is. No resident HC8 6 Meter activity.

HC8 at Solar Cycle 25 peak ?? It doesn't take a big station to work F2. Remote station? RIB? (Rig In a Box, created by AA7JV, used at VP6A).

HC1DX March 2

WSJT-X v2.0.0 by K1JT

File Configurations View Mode Decode Save Tools Help

Band Activity

UTC	dB	DT	Freq	Message	UTC
192515	5	0.4	1311 ~	N0JK HC1DX -17	192500
192515	-2	0.4	1504 ~	CQ WD0EMR EM29	192530
192545	-4	0.6	371 ~	K5TRA HC2AO RR73	192515
192545	0	0.3	949 ~	KQ5U HC2DR +14	192532
192545	-15	0.5	1005 ~	CQ HC1DAZ FI09	192600
192545	8	0.4	1292 ~	N0JK HC1DX RR73	192545
192545	-4	0.4	1486 ~	CQ WD0EMR EM29	192600
192545	7	0.6	1956 ~	CQ HC2FG FI07	192615
192615	5	0.4	1288 ~	EB8AC HC1DX -03	

☐ CQ only Log QSO Stop Monitor Erase Decode

6m ● **50.313 000** ☒ Tx even/1st Tx 1645 Hz ☒ Hold Tx Freq

DX Call DX Grid Rx 1292 Hz

MFJ-9406 for HC1DX



HC8GR

