### 2024 March 21 Announcements – Operating Events, Propagation, DX and ARRL Letter

These notes are posted to the SMARC website, <u>https://w4olb.org/</u>, after the Thursday Evening Net. Click on "Info" and then "Operating Events" on the drop down menu. The format is PDF and the highlighted links are directly clickable. Only the last four weeks of announcements are retained.

#### \*\*\*\*\* Operating Events \*\*\*\*\*

From the WA7BNM Contest Calendar website come the following operating events or contests that may be of interest to SMARC members and other Amateur Radio operators. Links to the rules and regulations for each event may be found at <u>https://contestcalendar.com/index.html</u>. Select the "8 Day Calendar."

# NOTE: All times are EDT (UTC-4), unless otherwise noted, although most are listed at the WA7BNM Contest Calendar website as UTC. Translations to the correct days have been taken into account.

- Weekly Sprints or Short Events:
  - NCCC (Northern CA Contest Club- both are tonight, Thursday) FT4 Sprint 9:00 to 9:30 PM Website: <u>https://www.ncccsprint.com/ft4ns.html</u> Sprint Ladder (CW) 10:30 to 11:00 PM Website: <u>https://ncccsprint.com/rules.html</u>
  - Radiosport World Weekly RTTY Test Thursday 9:45 to 10:15 PM Website: <u>https://radiosport.world/wrt.html</u>
  - K1USN Slow Speed Tests (SST CW max 20-wpm) Friday 4:00 to 5:00 PM and Sunday 8:00 to 9:00 PM EDT Website: <u>http://www.k1usn.com/sst.html</u>
  - Worldwide Sideband Activity Contest Monday 9:00 to 9:59 PM EDT Website: <u>https://wwsac.com/rules.html</u>
  - Phone Weekly Test (SSB) Tuesday 10:30 to 11:00 PM EDT Website: <u>http://www.perluma.com/Phone\_Fray\_Contest\_Rules.pdf</u>
- Operating event for the entirety of 2024
  - CQ Magazine DX Marathon, 160M to 6M using CW, Phone and Digital modes, no QSL required. Website: https://dxmarathon.com/rules/2024/
- State QSO Parties: None. See <u>https://contestcalendar.com/</u>
- > Other activities of possible interest.
  - Maidenhead Mayhem Sprint: Friday 03/22 8:00 PM to Sunday 03/24 7:59 PM. CW, SSB and digital, 160M to 10M (legacy only). 100-Watts maximum output power. Exchange is 2-

character grid field (e.g., EM for most of us). For rules and operating hour limits see <u>https://w9et.com/rules.html</u>.

*General CAUTIONS*: Contests are allowed *only* on the "legacy" bands; there are *no* contests on 60M, 30M, 17M and 12M. Watch the band edges corresponding to the privileges of your license class and the phone edges with respect to LSB (160M to 40M) and USB (20M to 10M). Be aware of the digital modes upper frequency segment limits on each band. The lower 100-kHz segments of 6M and 2M are reserved for CW, i.e., *no* phone.

### \*\*\*\*\* Propagation \*\*\*\*\* [K9JU]

The following information is from the HF Clock ("HamClock" by WB0OEW. For build information and computer code see ). <u>https://www.n1fd.org/2023/08/24/hamclock/</u>

- Also, see <u>https://www.wm7d.net/</u>, <u>https://spaceweather.com/</u> and <u>https://www.solarham.net/</u> websites for further details.
  - The Solar Flux Index (SFI)<sup>1</sup> is 197 (127 last week and 176 yesterday).
  - The Wolf (Sunspot) Number <sup>2</sup> is 120 (86 last week) from nine Active Regions (four last week and eight this morning). Number of individual sunspots = Wolf number [10 \* (number of AR)] or, 120 [10 \* 9] = 30.
  - As of 6:30 PM ET today, the geomagnetic field at minor geomagnetic storm <sup>6</sup> level (G1) with a Kp <sup>3</sup> of 4.67; the Hp30 <sup>12</sup> index was 4.00 indicating an active level. Between 4:00 and 6:30 PM ET (period ending times), in 30-minute increments, the Hp30 was 4.33, 3.00, 4.00, 3.33, 4.33, and 4.00, ranging from an unsettled to active geomagnetic field.
  - X-ray solar flare <sup>4</sup> activity in the last 48-hours had been moderate with many low to mid level C-class flares. There were three short lived M-class flares (M2.1, M7.4 and M2.0) all from AR 3615 and did not have effected us. The AR is south of the equator of the sun and complex. Another AR is 3614 in the northeast quadrant and bears watching for possible flare activity. Keep an eye on <a href="https://www.solarham.net/">https://www.solarham.net/</a> and <a href="https://www.solarham.net/">https://w
  - The solar wind <sup>9</sup> parameters: the wind speed has increased and is moving from 350 km/sec to 400 km/sec; the density had increased to almost 8 times normal; and the B<sub>z</sub> component of the Interplanetary Magnetic Field <sup>16</sup> was quite negative earlier today, returned to positive values and is now back negative. How come? A CME<sup>10</sup> went past earth at 10:30 PM ET last night. The result was seen on 10M FT8 with fewer signals from Europe that were weaker that what has been observed in recent days.
  - Summary: Radio propagation conditions for daytime DX should be good to very good on the upper HF bands (20M to 10M); nighttime DX should be good for 80M to 30M once any effects from the CME and the solar wind subside.

For up to date info, stay tuned to <u>https://www.solarham.net/</u>, <u>https://spaceweather.com/</u> and <u>https://www.spaceweatherlive.com/</u>

- <sup>1</sup> Solar Flux Index (SFI): See <u>https://glossary.ametsoc.org/wiki/Solar\_flux</u>
- <sup>2</sup> Wolf [Sunspot] Number: See <u>https://en.wikipedia.org/wiki/Wolf\_number</u>.
- <sup>3</sup> K<sub>p</sub> is the planetary K-index. See <u>https://www.swpc.noaa.gov/products/planetary-k-index</u>.

<sup>4</sup> Solar flare definition and classes at <u>https://www.spaceweatherlive.com/en/help/what-are-solar-flares.html#:~:text=A solar flare is defined as a sudden%2C,up in the solar atmosphere is suddenly\_released. Also, read <u>https://www.space.com/solar-flares-effects-classification-formation</u>.</u>

<sup>5</sup> Radio Black Out categories may be found at the SMARC website under "Files" and "Documents."

<sup>6</sup> Geomagnetic Storm categories may be found at the SMARC website under "Files" and "Documents."

<sup>7</sup> Coronal Holes (CH): See <u>https://www.swpc.noaa.gov/phenomena/coronal-holes</u>

<sup>8</sup> Tamitha Skov, WX6SWW, <u>https://www.spaceweatherwoman.com/</u>

<sup>9</sup> Solar wind parameters at <u>https://www.solarham.net/solarwind.htm</u> and explanations of the parameters at <u>https://hypertextbook.com/facts/2005/RandyAbbas.shtml</u>

<sup>10</sup> CME (Coronal Mass Ejection): See: <u>https://en.wikipedia.org/wiki/Coronal\_mass\_ejection</u>

<sup>11</sup> Carrington Event: See <u>https://en.wikipedia.org/wiki/Carrington\_Event</u>

<sup>12</sup> Hp30 and Hp60 Indexes: See <u>https://kp.gfz-potsdam.de/en/hp30-hp60</u>

<sup>13</sup> CIR (Co-rotational Interactive Region): See <u>https://www.swpc.noaa.gov/news/coronal-hole-high-speed-streams-ch-hss#:~:text=Persistent coronal holes are long-lasting sources for high,forms%2C known as a co-rotating interaction region (CIR)</u>

<sup>14</sup> Solar Dynamics Observatory Helioseismic and Magnetic Imager (SDO HMI): <u>https://en.wikipedia.org/wiki/Solar\_Dynamics\_Observatory</u>

<sup>15</sup> Magnetic Filaments: <u>https://spaceweather.com/glossary/filaments.html</u>.

<sup>16</sup> Interplanetary Magnetic Field (IMF): <u>https://www.spaceweatherlive.com/en/help/the-interplanetary-magnetic-field-imf.html</u>

<sup>17</sup> Solar filaments or prominences: <u>https://en.wikipedia.org/wiki/Solar\_prominence</u>

<sup>18</sup> SWPC: Space Weather Prediction Center: <u>https://www.swpc.noaa.gov/</u>.

\*\*\*\*\* DX \*\*\*\*\*

The following information is from several sources including DX World <u>https://www.dx-world.net/</u>, DXNews <u>https://dxnews.com/</u>, the ARRL DX Bulletin <u>http://www.arrl.org/w1aw-bulletins-archive-dx</u> and/or personal experience. Most, if not all, DXpeditions will operate SPLIT; refer to the operating manual for your radio for instructions. Do NOT call on the frequency of the DXpedition as they are not listening on their own frequency! NOTE: Following the call of the DXpedition, in parenthesis, are the principal prefix, the general location plus latitude/longitude, beam heading (°) from East TN, and the ClubLog Most Wanted list standing out of 340 for the country/entity. The Most wanted, #1, is P5, North Korea.

- T32EU, East Kiribati (T32, southern Africa at 2N/167W, 262°, #68) continues until 03/27. Operations from 160M to 6M using CW, SSB, RTTY and possibly (?) FT8. For details and band plans see <a href="https://www.qrz.com/db/T32EU">https://www.qrz.com/db/T32EU</a>.
- 7P8EI, Lesotho (7P, southern Africa surrounded by South Africa 29S/28E, 105°, #123) until 03/30. Operations from 160M to 6M using CW, SSB and FT8/FT4 (only MSHV<sup>2</sup>). For so-so details see <a href="http://7p8ei.eidxg.com/">http://7p8ei.eidxg.com/</a>.
- TY5C, Benin (TY, west African nation at 9N/2E, 87°, #151) until 03/31. Operations from 160M to 10M using CW, SSB, RTTY and FT8 (MSHV). For very sketchy details see <u>https://www.qrz.com/db/TY5C</u>.

<sup>1</sup> F/H (Fox and Hound or DXpediton) mode. See <u>https://www.onallbands.com/using-the-ft8-dxpedition-mode-a-k-a-fox-and-hound/</u>. Keep in mind, you are the hound.

<sup>2</sup> MSHV (Multi Stream HV) mode. See <u>http://lz2hv.org/node/10</u>).

For a bar graph of DXpeditions, on a per month basis, go to <u>https://www.dx-world.net/</u>.

Remember: Technician Class Amateur Radio Operators have (somewhat limited) operating privileges to use phone (*only* SSB) and digital modes on the 10M band using up to 200-Watts PEP output power. Your segments are digital from 28.000-MHz to 28.300-MHz (stay near the digital mode frequencies above 28.070-MHz out of courtesy to CW operations) and SSB from 28.300-MHz to 28.500-MHz. You are not authorized to use FM mode as it is above your phone cutoff frequency. 10M has experienced exceptional propagation to all parts of the world during day light hours. The conditions should continue for another 2-years. Get on 10 and have fun! You just might get the DX bug and upgrade to General Class. A win-win situation for you.

For more DXpeditions, from DX World, <u>https://www.dx-world.net/</u>, please see <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.dx-world.net/</a>, please see <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline/dxwSouth">http://www.hamradiotimeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline/dxwSouth">http://www.hamradiotimeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline.com/timeline/dxwSouth</a> <a href="http://www.hamradiotimeline.com/timeline/dxwSouth">http://www.hamradiotimeline/dxw

## \*\*\*\*\* ARRL Letter \*\*\*\*\*

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- The ARRL podcast, "On The Air," continues with addressing an upcoming operating event, "The Solar Eclipse QSO Party" on 2024 April 08. The lead organizer of the Ham Radio Science Citizen Investigation (HamSCI), W4NAF, is interviewed. [Listen to the podcasts with iTunes for iOS, Stitcher for Android and blubrry for desktop computers.]
- New editions of the ARRL Audio News," a summary of the top news for the week of ham radio and the ARRL, appear every Friday. All editions of the Audio News are available at the blubrry website, <u>https://blubrry.com/arrlaudionews/</u>. The latest Audio News may be heard locally on the W4KEV repeater (Knoxville), 145.370-MHz, on Fridays, Saturdays and Sundays at 8:30 AM and 10:00 PM ET.
- Beginning 2024 March 29, FCC CORES (Commission Registration System) will require validation whenever users are entering the system to make payments, etc. The validation is similar to what we all experience in day to day online website access. In this case, a 6-digit validation number will be sent to the email address of a user on file with the Commission.

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