

Contest Advice

CQ WPX SSB

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Introduction

Overview

The CQ WPX SSB is a popular radio contest, sponsored by CQ Magazine,

<https://www.cqwpix.com/>. WPX means worked prefixes. SSB means single sideband.

Participating in a radio contest is just a leisure activity. The word *ham* is an informal word for a radio amateur. The Q Code QSO, means a radio contact.

Introduction

YouTube Example

- VE9UNB in the November 2016 ARRL SSB Sweepstakes (amateur radio contest)
<https://youtu.be/e7eh2vZiYPO>

This is a different contest, with a more complex exchange, but it was recorded in H305.

Documents

Familiarize yourself with all the provided documents, especially this document. The documents are:

- Rules 2023 CQ World-Wide WPX Contest
- 2023 CQ WPX Frequencies for VE9UNB
- Example CQ WPX SSB Contest Exchanges and N1MM Logger+
- International Radio Code Words
- Some Q Codes
- RST Code Description
- DX Code of Conduct
- Radio Amateurs of Canada Band Plan
- Roof Images of the Antenna

Frequency Regulations

Stay in the SSB portions of the 160, 80, 40, 20, 15 and 10 metre bands, as per the contest rules. See the document titled *2023 CQ WPX Frequencies for VE9UNB*. Some hams would not like to participate in a contest and go to bands like 12 metres or 17 metres for peaceful operating.

Frequency Choice

Generally, to maximize the number of QSOs, operate in the highest band that propagation allows. Usually the 10 metre band is the best. At night, generally use 160, 80 and 40 metres. During the day, use 20, 15 and 10 metres. As we are near the peak of the eleven-year sunspot cycle, near 2024, the 10 metre band may be open.

Example CQ WPX SSB Contest Exchanges and N1MM Logger+ Computer Program

The contest exchange and using N1MM Logger+ may be a little difficult to master at first, but after a few QSOs, radio contacts, it will become more familiar and your logging speed will increase. There are often two ways to make QSOs. The first is called *Search and Pounce (S&P)*, which is what we will usually do. With S&P, one tunes the dial, listens until the time to say victor echo nine uniform November bravo, to start the QSO. The second way is called *Running*. We will hear many running stations, where they give their call sign over and over, accepting QSOs with other hams. The document titled *Example CQ WPX SSB Contest Exchanges and N1MM Logger+* describes S&P.

N1MM Logger+ Computer Program

Introduction

N1MM Logger+ is the computer program that links the radio and the computer to assist with logging QSOs.

N1MM Logger+ Computer Program

Restart

If you have to restart N1MM Logger+ and it asks for Run or Mult, select Run.

N1MM Logger+ Computer Program

The Cluster

DX means distance. DX spotting or using the DX cluster means using internet tools to help find potential radio contacts. When you start N1MM Logger+, the program logs you into the cluster. N1MM Logger+ shows the call signs and frequencies to try. These are called spots.

There are even websites such as <https://www.dxwatch.com/> and <https://qrzcq.com> which also show DX spots. You can make use of the various internet DX spots lists, to determine where most of the activity is occurring. In this contest, you are not allowed to self spot. If it is at night and you cannot easily find anymore new stations to contact, having one person on the radio and one on the cluster may be useful. However, during a contest, the bands are so crowded and busy that the DX spots may not be helpful for most of the contacts, as you end up spending more time looking at the lists and not enough time on the radio.

N1MM Logger+ Computer Program

The Contest Score

The rules give the details of contest scoring. The software will calculate the score. If someone on a DX cluster notices a ham in an uncontacted prefix, it may be worth contacting the ham to increase the score. There is also a band change limit, 20 band changes per hour, but N1MM Logger+ will track it.

N1MM Logger+ Computer Program

Dupe

If you are an S&P, after you type the call sign in the first field, if you see the red word *Dupe*, it means this it is a duplicate and you should not try to contact them. However, if you are running, instead of S&P, and a Dupe calls you, it is faster just to log it and do not tell them they are a Dupe.

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N1MM Logger+ Computer Program

Backup

After an operator change, if you have time, consider using N1MM Logger+ to write out a backup file to the memory stick that is in the back of the computer. The memory stick's drive name in Windows is PETERSEN. Write to the folder 2023-CQ-WW-WPX, or the top folder in the memory stick. In N1MM Logger+, use the menu *File*, then *Generate Cabrillo File*. Use filenames with an increasing number, of the form f01, f02, and f03.

Radio, the Kenwood TS-450S

Automatic Tuner (Auto Tuner)

Before transmitting on a new frequency, press the AT TUNE button, also called button 4 (AT TUNE). Leave the radio on AUTO, the AUTO THRU button in, and the CAR dial at 50 %. If you see the AT TUNE light emitting diode (LED) on, do not transmit, as the radio is tuning the antenna at the current operating frequency and needs to complete this process, before transmitting can take place. The automatic tuner is fast, a few seconds, and it makes noise, squeaks. However on 40 metres, the AUTO THRU button may have to be out, because of a problem with the auto tuner on 40 metres.

Radio, the Kenwood TS-450S

Intermediate frequency (IF) Filters

The TS-450S has two variable intermediate frequency (IF) filters. For contests, one usually wants these set to narrow to reduce noise. They can be changed by repeated pressing the keys labelled 1 (or 8.83), as well as 2 (455); one would hear the effect of the filters while changing them. Also, the 8.83 and 455 LEDs on the radio would indicate the selected IF filter. In the IF filter LED stack on the front panel, the lower LEDs correspond to the narrower IF filters.

Radio, the Kenwood TS-450S

Microphone

The microphone is sensitive and may work up to six inches away. It will depend on the loudness of your voice. If you are getting through to the other station without issue, do not change your

speech level. If not, you may try varying the mouth-to-microphone distance, but do not assume the microphone is the issue; if you are not getting through, it is probably due to interference and propagation conditions. When speaking and transmitting, you should see the microphone level as high as approximately 9 on the radio's LED speech meter.

Radio, the Kenwood TS-450S

RF Gain

If you are running on a frequency and many stations call, sometimes turning down the RF gain in order to let through only the strongest signal helps hear something instead of just many calling stations.

Radio, the Kenwood TS-450S

Working Split

Some stations may work split, which means they transmit on one frequency and listen on another. If you hear something like "W1AW up 5" then use the split and A/B buttons on the radio to listen on one frequency and transmit up 5 kHz. See the radio manual in the wooden wall box in room H305 in the slot INSTRUCTION MANUALS. N1MM Logger+ can automatically log the split QSO.

Antenna

The antenna is a Barker and Williamson 1.8 to 30 MHz folded dipole antenna. A datasheet is available in H305.

Paper Logging

Do not try to keep the paper log up to date. It will be too busy during the contest.

VE9UNB Call Sign

Use only VE9UNB. Do not give out your personal call sign. If you are at VE9UNB, you cannot use your personal call sign for this particular contest. If the ham in the QSO really wants your personal call sign, give out Brent Petersen's email address b.petersen@ieee.org. It may invalidate our efforts to give out your personal call sign during the contests.

General Advice

Some other contesters may recognize UNB in the call sign and might realize there are students and may be more helpful. However, it will be a busy contest.

You will find polite and impolite people on the radio. Do not take the impolite ones personally; they forget that we are all inexperienced at first. We recommend following the DX Code of Conduct; a printout is in the shack.

Some stations transmit high power using a poor antenna, which means you can hear them, but they cannot hear you.

If any hams or students drop by to operate that are not on the list, please let them if you want, but ask to record who it is in order that we can give credit in the submitted log and soapbox.

Questions

Web browsers may be used while N1MM Logger+ is running. I have participated in a few contests and generally am available for questions throughout the contest time. You may contact me by mobile phone and leave a voice mail or text. A sheet of paper is in the shack, room H305, with my mobile phone number. A test message on Microsoft Teams is also a quick way to contact me. While I am asleep, the phone is made silent, but the voice mail remains active. It is not possible for your phone call or text to be an intrusion. Provide your mobile phone number if you would like to get a call or text back.

Social Media

We may want to try to find the time to take a group picture. There is a website called 3830 Scores where a publicly available message, called a soapbox, may be posted, <https://www.3830scores.com/>. CQ Magazine may also post our soapbox, with all the other soapboxes. I get permission to post peoples' names and call signs, otherwise they are removed.

Acknowledgements

I thank two unnamed hams for contributing a variety of information for the previous documents used in ARRL SS SSB contests. I re-used some of this information here.