W2EA PLAN FOR MANAGING DIGITAL MODES IN THE SEPTEMBER VHF CONTEST

THIS IS A REPORTING OF WHAT THE SOUTH JERSEY MOUNTAIN TOPPERS DID DURING THE SEPTEMBER VHF CONTEST.

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AMATEUR RADIO BRIEF HISTORY OF CHANGE

- 1887 Heinrich Hertz made the first Spark Gap Transmitter
- 1896 Marconi Invented Radio
- **1906:** Reginald Fessenden made the first broadcast with speech and music, using a system that utilized AM. This was a major milestone, though not yet commercialized for amateurs.
- 1901 First Transatlantic radio transmission
- 1912 Ham Radio official Licensing and Regulation started in the US
- 1914 ARRL was founded
- 1916 The South Jersey Radio Association was founded
- <1920 The shift from spark to CW in amateur radio was underway by 1920. A specific example of a CW transmitter design was published in the October 1924
- **1920's Popularity in the 1920s and 1930s:** AM transmitters became common for ham radio operators during this period. Many enthusiasts enjoyed building their own equipment, a practice that was more feasible because components were relatively simple and could be homemade.
- 1940-1960's Ham radio operators started seriously experimenting with Single Sideband (SSB) transmitters in the late 1940s, with the first commercially available equipment appearing in the early 1950s. Widespread adoption of SSB didn't occur until the 1960s as equipment became more available and practical.

AMATEUR RADIO BRIEF HISTORY OF CHANGE

- 1946 - Ham radio operators started using RTTY transmitters in **1946** after World War II, when surplus Teletype equipment became available. The first documented two-way amateur RTTY contact occurred in May 1946, and the first transcontinental contact happened in January 1949. Early operations used "make and break" keying or Audio Frequency Shift Keying (AFSK) until Frequency Shift Keying (FSK) was authorized.
- 1950-1960's Ham operators started widely using FM transmitters in the **post-war era**, with significant growth in the **1950s and 1960s** as technology advanced and war-surplus VHF gear became available. While early FM broadcasting began in the late 1930s and 1940s, amateur radio saw a boom in FM usage after World War II.
- 1968 Ham radio operators began using SSTV transmitters in the late 1960s after the FCC officially legalized them in 1968, though early experiments started in the late 1950s. The first systems required complicated and expensive equipment, but with the advent of computers, using SSTV is much easier today.
- 1978 AMTOR The first amateur radio contact using AMTOR (Amateur Teleprinting Over Radio) took place in September 1978 between Peter Martinez (G3PLX), its developer, and G3YYD on the 2-meter band.
- 1998 PSK Ham operators started using the PSK31 transmitter mode when it was introduced to the wider amateur radio community in **December 1998**.
- 2003 JT65 Amateur radio operators started using the **JT65** digital mode in **late 2003**, shortly after it was developed and released by Joe Taylor, K1JT, as part of his WSJT software package.
- 2017 Ham radio operators started using FT8 in 2017, with the digital mode becoming generally available to the public in June or July of that year. Developed by Joe Taylor (K1JT) and Steve Franke (K9AN), FT8 quickly gained popularity and became widely used in a very short time, according to this California Historical Radio Society article and this Wikipedia article.

W2EA DIGITAL OPERATION HISTORY

- 1994 First September operation
- 2019 Started using digital modes (mostly for meteor scatter)
- 2024 Made 322 (75.6%) contacts on 6m & 2m using FT8

OBSERVATION

- We noticed a small but noticeable decline in our 220 Mhz and up contacts as FT8 our contacts increased. It was also noted that the total QSO count on 6m & 2m seemed not to be affected.
- The Great FT8 debate still is in full swing with many suggestions including rule changes. Nothing seems to take the lead and there are lots of heated discussions. My conclusion is that FT8 did change VHF contesting and that FT8 is here to stay either fight it or embrace it.

W2EA OPERATION POLICY IS AS FOLLOWS:

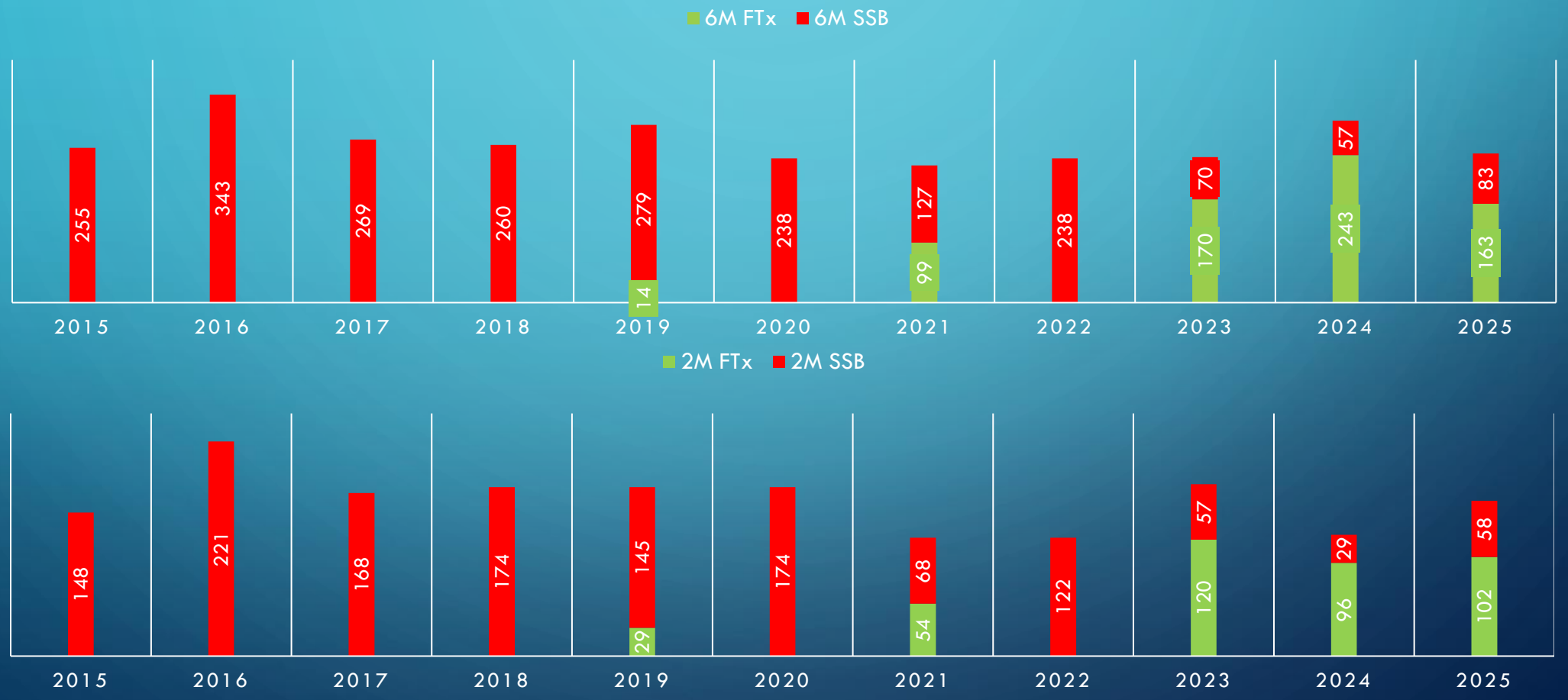
- Always switch modes and frequency to work a rover
- Pass all contacts up to higher bands
- Follow the eleven commandments of mountain top contesting

Link 11 Commandments of Mountain Top Contesting

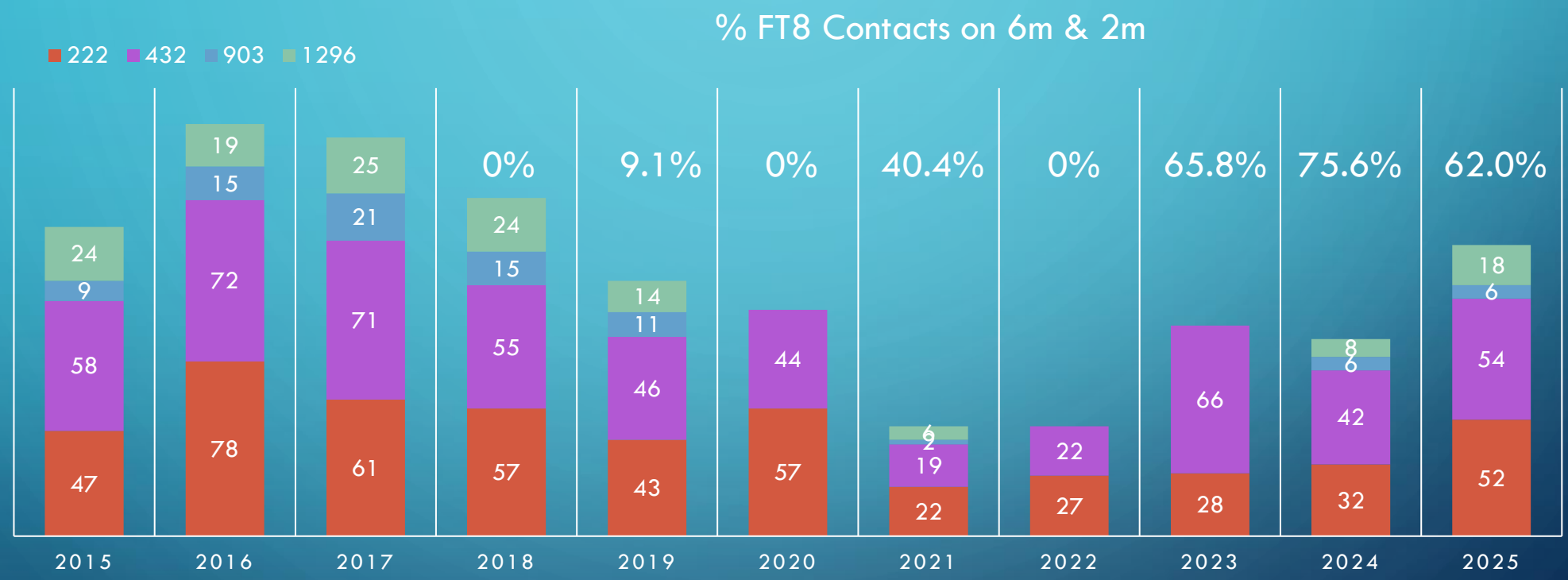
New policy for 2025 operations

Digital operations policy (FT4 / FT8):
At the top of every hour, we will operate Phone or CW for 5 minutes if no contacts made for 5 minutes, then we will switch to a digital mode.

W2EA CONTACT DISTRIBUTION DIGITAL AND NON-DIGITAL MODES OF OPERATION



UHF (222-432) CONTACTS 2015-2025



2022 we had antenna problem on 432
2022-2023 operated 4 band Limited Multi

RESULT SUMMARY

- There is a measurable up swing in our UHF contacts and we will continue to use this policy of operation and collect data.
- Amended FT8 Policy for 2026

Digital operations policy (FTx) for 6m and 2m:
At the top of every hour, we will operate Phone or CW for 10 minutes or 5 minutes after the last contact, then operator will switch to a digital mode.

HOW TO CONTACT W2EA ON THE HIGHER BANDS

From FN20 or FM29 point your antenna's FN21kh and Look for us on 6m and 2m at the top of each hour we will be there. The operator will happily pass you to a higher band.

If everyone did this, there will be more non-digital activity and more passing up the bands

THIS IS SIMPLE

73'S
W2EA SOUTH JERSEY MOUNTAIN TOPPERS ARC

WWW.W2EA.NET

After all it is all about the picture