



3B9GJ 18th

6m EME

DXpedition

and 1st with

Q65 Pileup



3B9GJ

6M EME DXPEDITION

Terre Rouge, Rodrigues Island, Mauritius

Grid MH10RH, IOTA AF-017, CQ DX Zone 39, ITU Zone 53

Sunday morning, August 27, 2023



**Later that
afternoon**



Mast on Prop and Awaiting the Yagi



Assembling the yagi



Driven Element and Balun



D1



D3 and
the rest



**Monday Afternoon August 28, 2023
(antenna ready but winds too high)**



Placing Yagi on Mast Tuesday, August 29, 2023



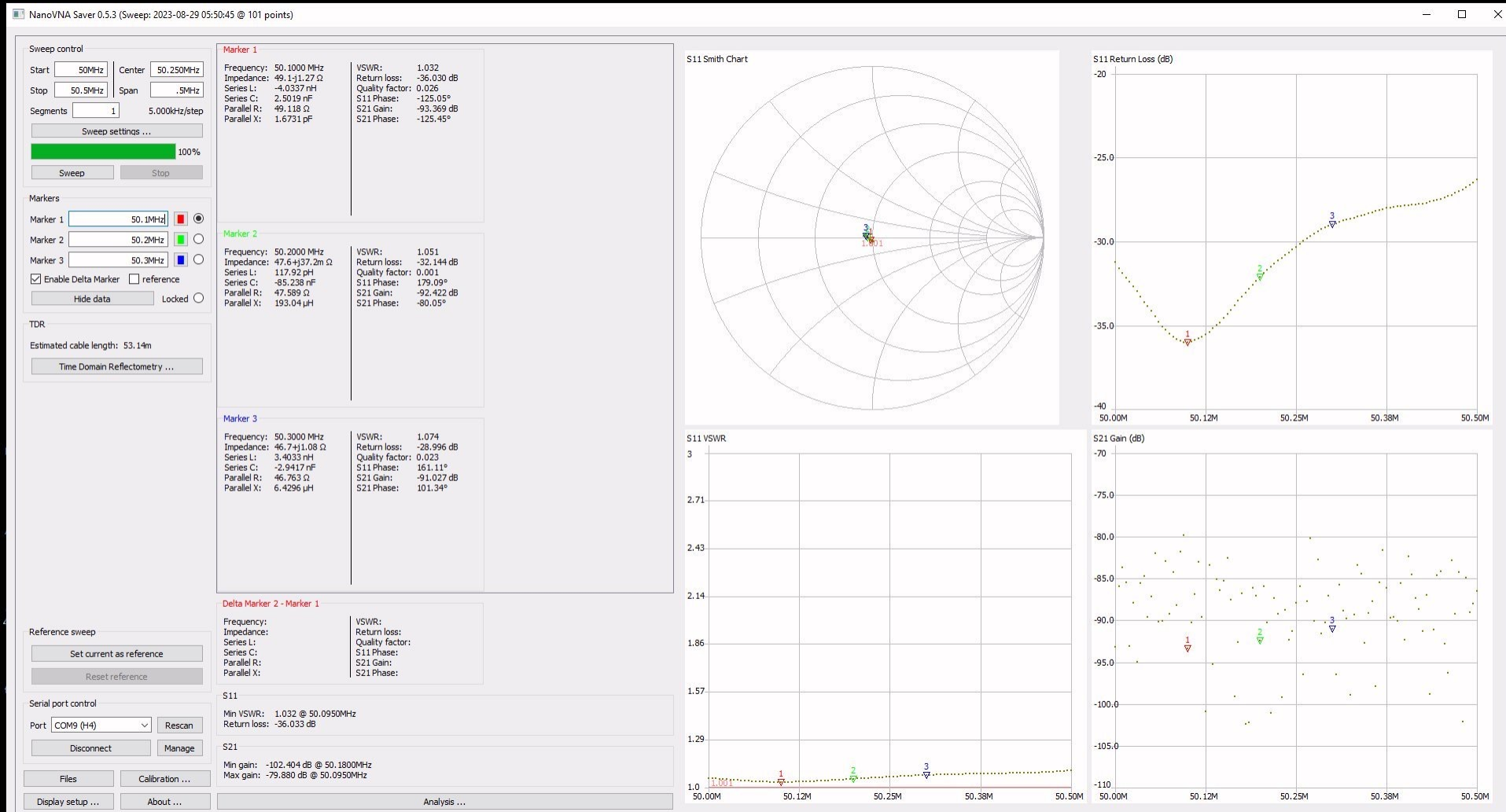
Raising Antenna at 3B9GJ



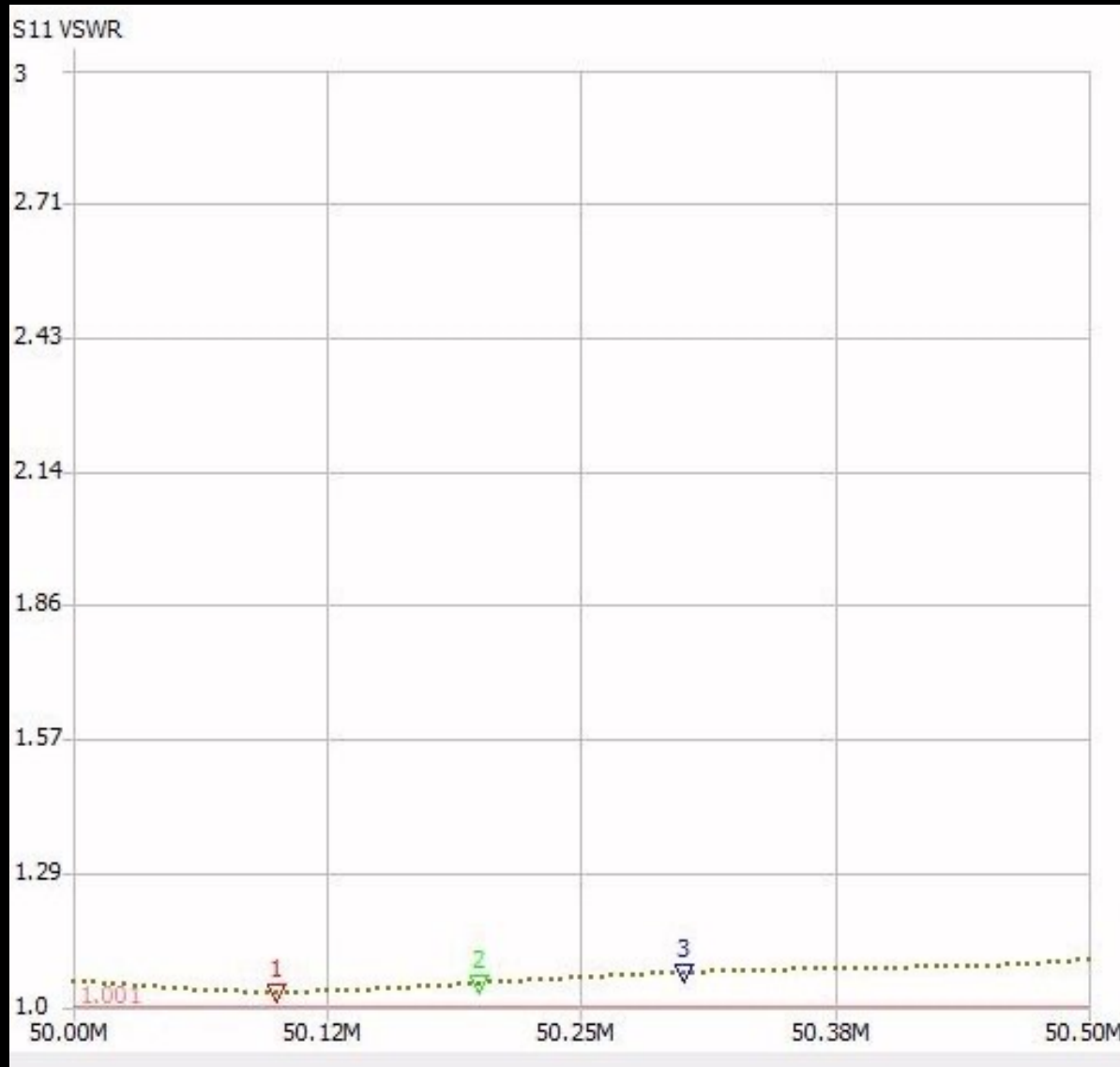
**Up in time
for first
moonrise
Tuesday,
August 29**



NanoVNA verifies EF0609GJ yagi is ready for action!



Match Remained Good During Heavy Rains



**Blue Moon
rising
August 30**



Easterly winds were very strong! Here the antenna is tied down, aimed with the wind.



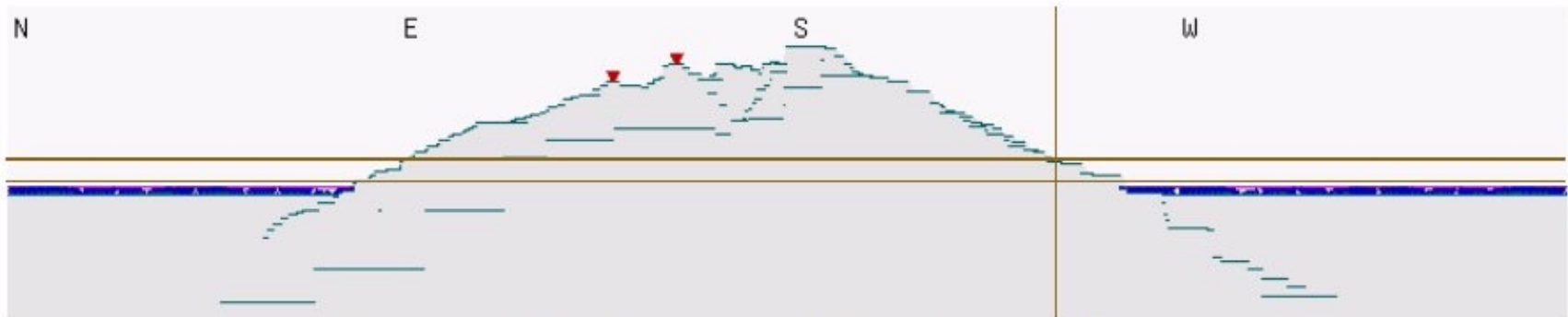
Easterly winds were very strong! Here the antenna is tied down, aimed with the wind.



The Common Moon Problem

- **Stations on opposite side of the Earth have limited windows**
- **Good horizon required both ways**
- **Expect many callers as moon rises for multiple stations at the same time**

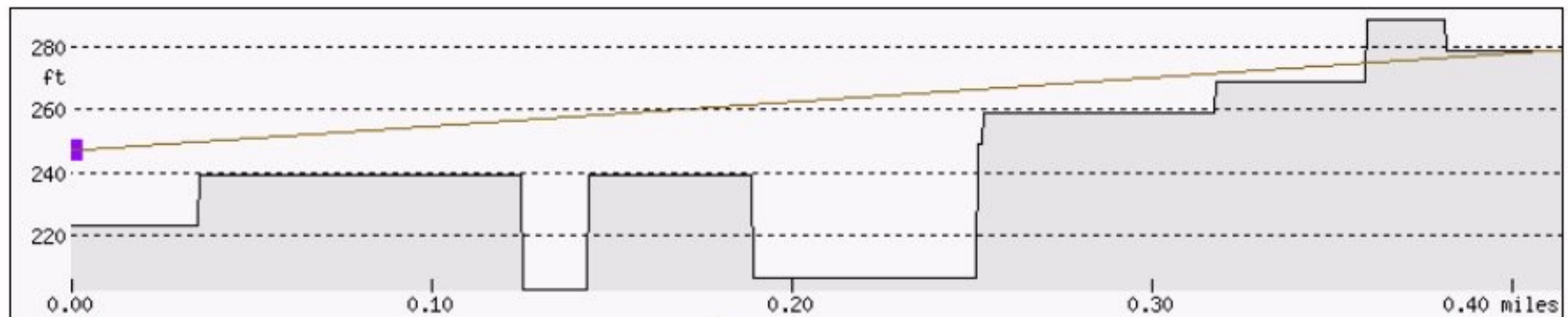
Horizons from Site Chosen



(vertical scale exaggerated 5.2x)

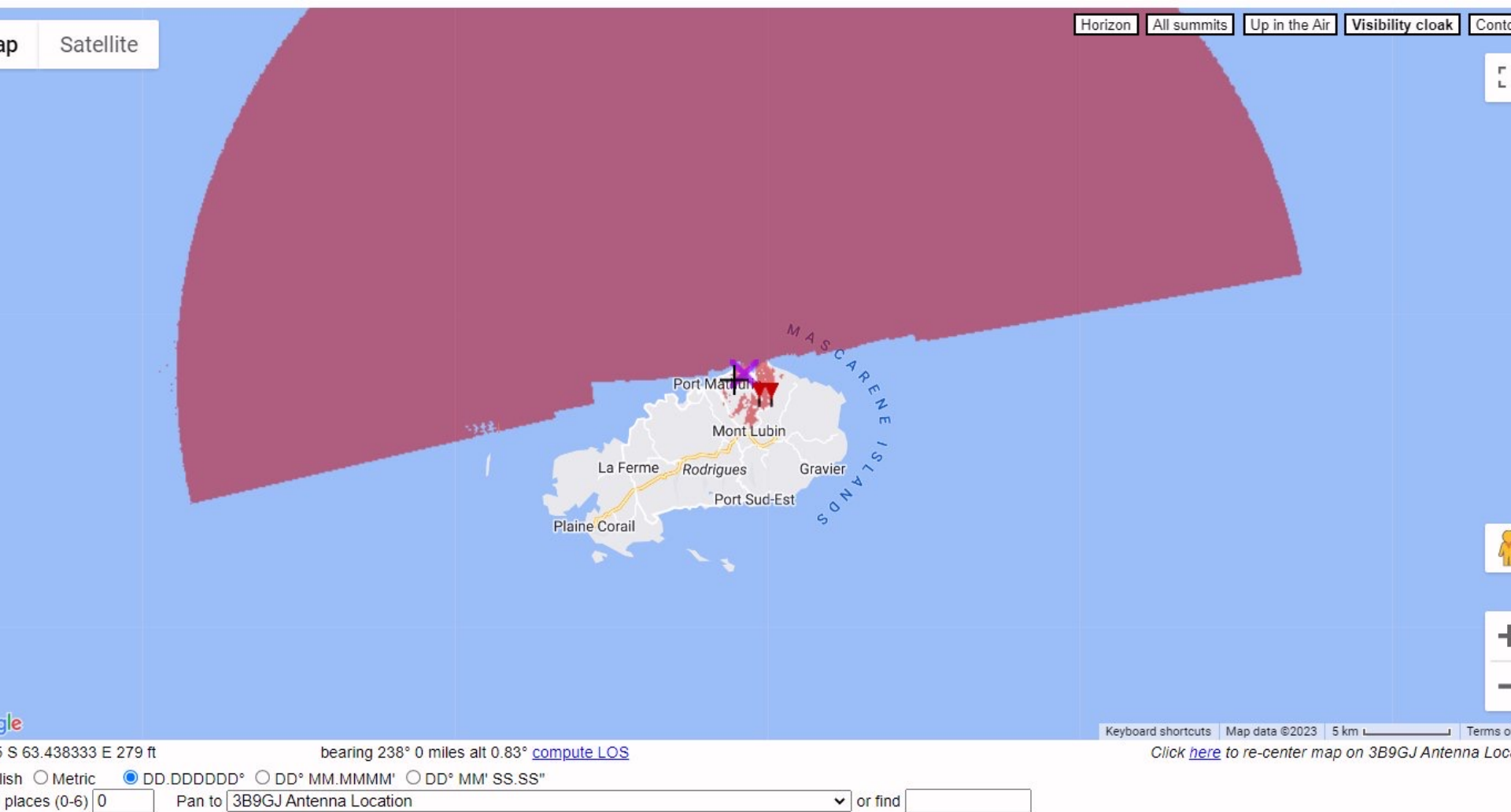
az 242° alt 1.12°

show 0° and 1° alt



► Parameters

Negative Horizon Over the Ocean



Final Moonrise September 6

The screenshot displays the WSJT-X software interface during a moonrise event on September 6. The top window shows a wide graph with a frequency range from 500 to 2500 kHz. A red arrow points to a signal at approximately 1500 kHz. The bottom right window shows the 'Single-Period Decodes' table with the following data:

| UTC | dB | DT | Freq | Message |
|------|-----|-----|------|----------------------|
| 2025 | -28 | 2.8 | 1799 | 3B9GJ K7CW CN87 q0 |
| 2025 | -27 | 2.8 | 1799 | 3B9GJ K7CW CN87 q3 |
| 2025 | -15 | 2.8 | 986 | 3B9GJ WA5VGI DM05 q3 |
| 2025 | -26 | 2.8 | 1884 | 3B9GJ E56RQ -15 q0 |
| 2027 | -17 | 2.8 | 987 | 3B9GJ WA5VGI DM05 q3 |
| 2027 | -32 | 2.9 | 880 | 3B9GJ OG2M -25 q3 |
| 2027 | -18 | 2.9 | 1883 | 3B9GJ E56RQ -15 q0 |
| 2027 | -32 | 2.9 | 879 | 3B9GJ OG2M -25 q2 |
| 2029 | -11 | 2.8 | 987 | 3B9GJ WA5VGI RRR q0 |
| 2029 | -21 | 2.9 | 1883 | 3B9GJ E56RQ -15 q0 |
| 2031 | -21 | 2.8 | 1799 | 3B9GJ K7CW CN87 q3 |
| 2031 | -18 | 2.8 | 987 | 3B9GJ WA5VGI RRR q0 |
| 2033 | -21 | 2.8 | 987 | 3B9GJ WA5VGI RRR q0 |
| 2033 | -22 | 2.8 | 1798 | 3B9GJ K7CW CN87 q0 |
| 2033 | -22 | 2.8 | 1799 | 3B9GJ K7CW CN87 q3 |
| 2035 | -23 | 2.8 | 1799 | 3B9GJ K7CW CN87 q3 |

The bottom left window shows a message log with the following entries:

| UTC | CALL/NAME | EME (all bands/modes) MESSAGES |
|----------|-------------|--|
| 20:33:30 | 3B9GJ Lance | 2031 -18 2.8 987 : 3B9GJ WA5VGI RRR q0 |
| 20:31:58 | VK2XN Wayne | 2030 -25 2.8 1557 : ????? 3B9GJ ?????? q0 Rodriguez ls. |
| 20:31:37 | NN7J Dan | w3xs calling cq on Lance |
| 20:31:04 | 3B9GJ Lance | 2029 -11 2.8 987 : 3B9GJ WA5VGI RRR q0 |
| 20:29:55 | SM7FJE Bo | (ES6RQ) Tere Ants, long time no hear/see but now I do -12 earth bound! GLI |
| 20:28:57 | 3B9GJ Lance | I am using NA VHF Contest Mode with Q65-60A |

The bottom center window shows the '2023 Sep 06' summary with the following parameters:

- UTC: 20:36:25
- Az: 59.6
- El: 4.8
- SelfDop: 99
- Width: 1
- Delay: 2.60
- DxAz: 59.2
- DxEI: 11.0
- DxDop: 73
- DxWid: 1
- Dec: 26.5
- SunAz: 135.0
- SunEl: -71.6
- Freq: 50.2
- Tsky: 6979
- Dp1: -84.6
- MNR: 0.2
- Dist: 389772
- Dgrd: -5.1

The bottom right window shows the 'Single-Period Decodes' window with a frequency display of 50.190 000 and a 'Q65 Pileup' indicator.

WSJT-X - Astronom...

2023 Sep 06
 UTC: 20:36:25
 Az: 59.6
 El: 4.8
 SelfDop: 99
 Width: 1
 Delay: 2.60
 DxAz: 59.2
 DxEl: 11.0
 DxDop: 73
 DxWid: 1
 Dec: 26.5
 SunAz: 135.0
 SunEl: -71.6
 Freq: 50.2
 Tsky: 6979
 Dpol: -84.6
 MNR: 0.2
 Dist: 389772
 Dgrd: -5.1

Doppler tracking

Single-Period Decodes

| UTC | dB | DT | Freq | Message | UTC | dB |
|------|-----|-----|------|---------------------|-----|----|
| 2025 | -28 | 2.8 | 1799 | : 3B9GJ K7CW CN87 | q0 | |
| 2025 | -27 | 2.8 | 1799 | : 3B9GJ K7CW CN87 | q3 | |
| 2025 | -15 | 2.8 | 986 | : 3B9GJ WA5VGI DM05 | q3 | |
| 2025 | -26 | 2.8 | 1884 | : 3B9GJ ES6RQ -15 | q0 | |
| 2027 | -17 | 2.8 | 987 | : 3B9GJ WA5VGI DM05 | q3 | |
| 2027 | -32 | 2.9 | 880 | : 3B9GJ OG2M -25 | q3 | |
| 2027 | -18 | 2.9 | 1883 | : 3B9GJ ES6RQ -15 | q0 | |
| 2027 | -32 | 2.9 | 879 | : 3B9GJ OG2M -25 | q2 | |
| 2029 | -11 | 2.8 | 987 | : 3B9GJ WA5VGI RRR | q0 | |
| 2029 | -21 | 2.9 | 1883 | : 3B9GJ ES6RQ -15 | q0 | |
| 2031 | -21 | 2.8 | 1799 | : 3B9GJ K7CW CN87 | q3 | |
| 2031 | -18 | 2.8 | 987 | : 3B9GJ WA5VGI RRR | q0 | |
| 2033 | -21 | 2.8 | 987 | : 3B9GJ WA5VGI RRR | q0 | |
| 2033 | -22 | 2.8 | 1798 | : 3B9GJ K7CW CN87 | q0 | |
| 2033 | -22 | 2.8 | 1799 | : 3B9GJ K7CW CN87 | q3 | |
| 2035 | -23 | 2.8 | 1799 | : 3B9GJ K7CW CN87 | q3 | |

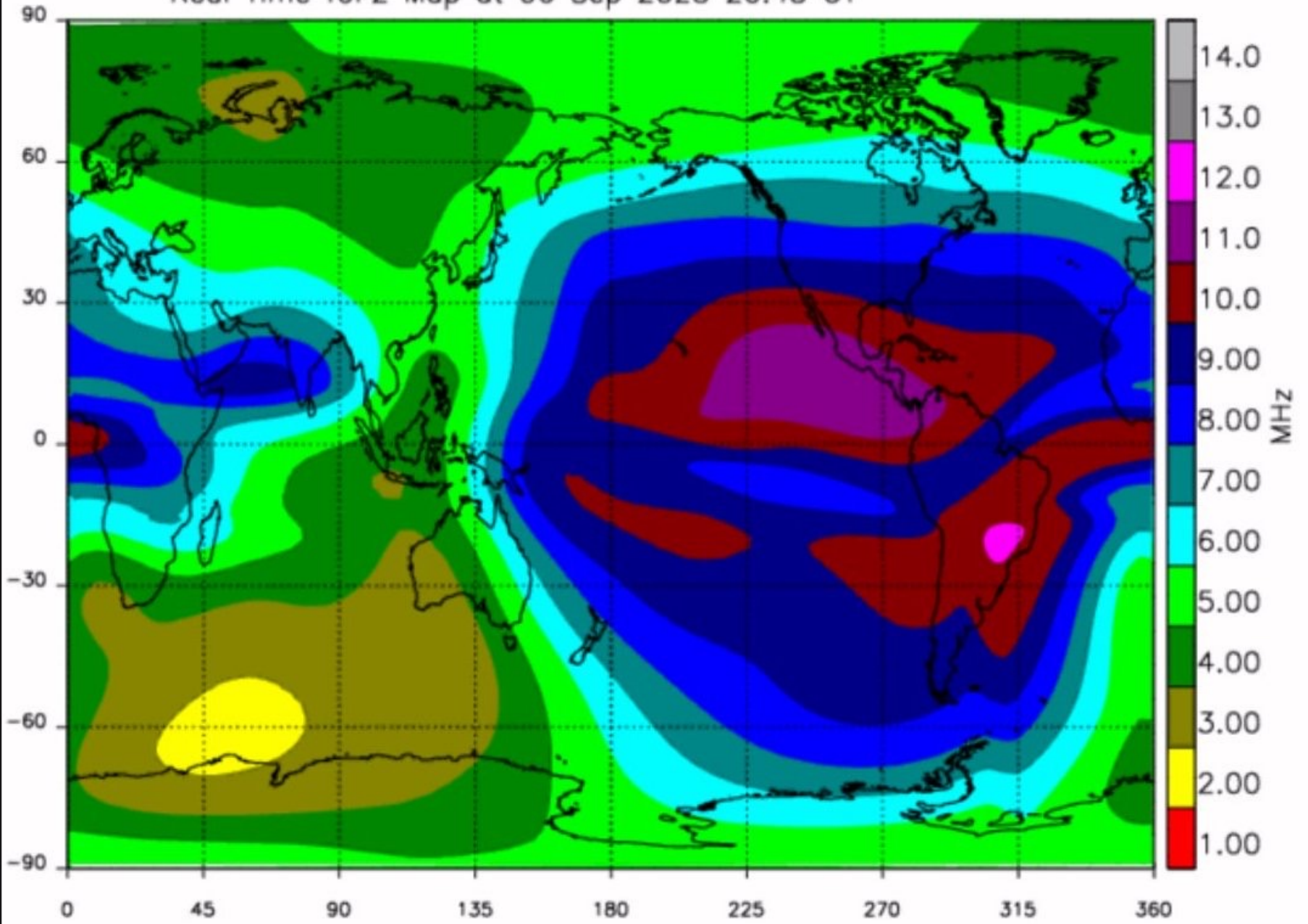
Log QSO Stop Monitor Erase Clear Avg Decode

6m  **50.190 000**

Tx even/1st
 Tx 1500 Hz
 F Tol 10
 Rx 1797 Hz
 Submod
 Max Drif

H DX Call DX Grid
 FT8 ES6RQ KO28WA
 Az: 341 9284 km

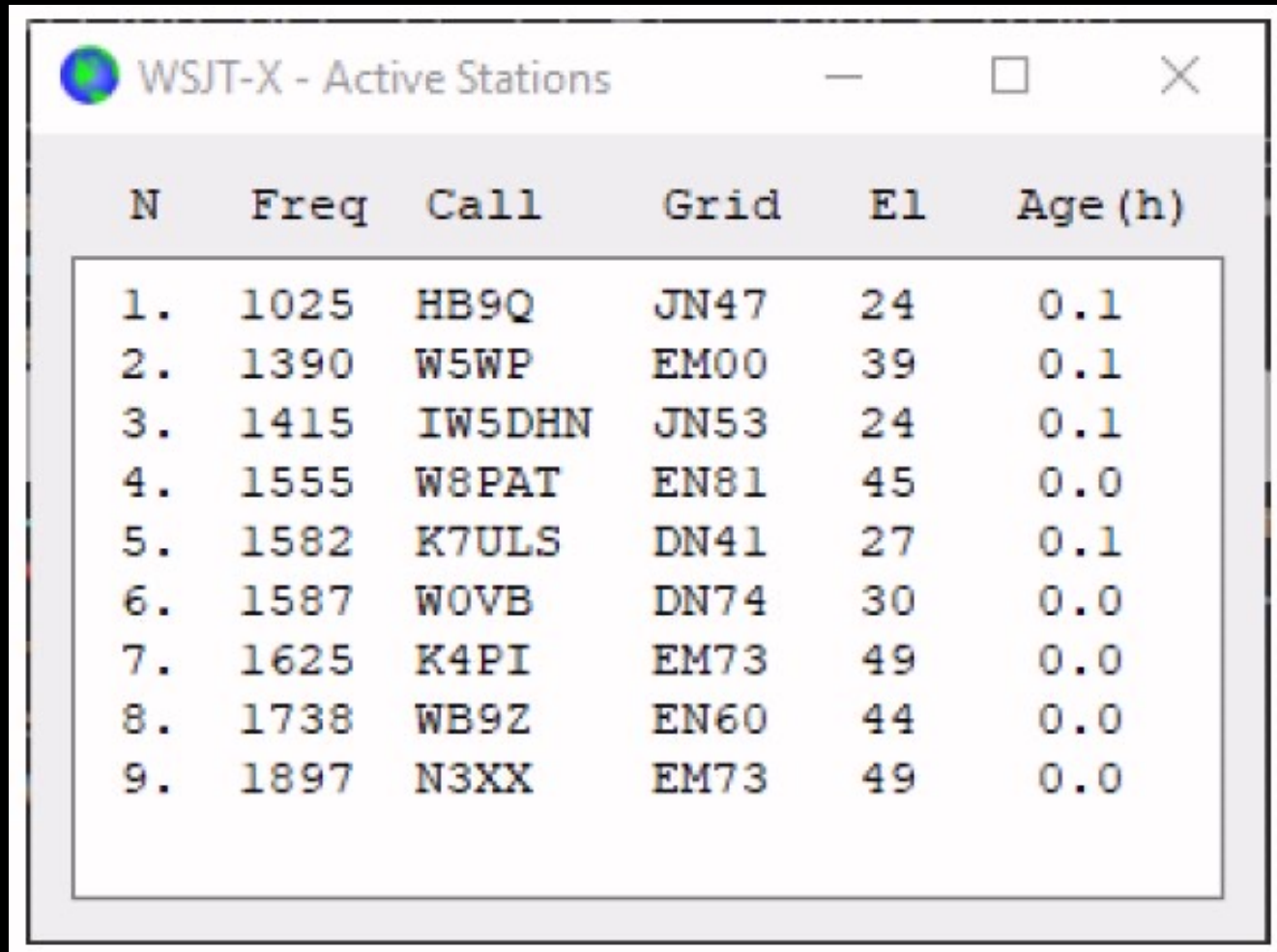
Real Time foF2 Map at 06 Sep 2023 20:45 UT



Q65 Pileup Overview

- Developed to quickly work multiple Q65 callers
- Decoded Callers are added to Active Stations List box
- ASL stations decoded with maximum sensitivity
- Not necessary to have ASL callsigns in the DX CALL box
- Possible to call various stations
- Several times multiple RRR received in the same sequence

Sample Q65 Pileup Active Stations List



The image shows a screenshot of a software window titled "WSJT-X - Active Stations". The window contains a table with the following columns: N, Freq, Call, Grid, E1, and Age (h). The table lists 9 active stations.

| N | Freq | Call | Grid | E1 | Age (h) |
|----|------|--------|------|----|---------|
| 1. | 1025 | HB9Q | JN47 | 24 | 0.1 |
| 2. | 1390 | W5WP | EM00 | 39 | 0.1 |
| 3. | 1415 | IW5DHN | JN53 | 24 | 0.1 |
| 4. | 1555 | W8PAT | EN81 | 45 | 0.0 |
| 5. | 1582 | K7ULS | DN41 | 27 | 0.1 |
| 6. | 1587 | W0VB | DN74 | 30 | 0.0 |
| 7. | 1625 | K4PI | EM73 | 49 | 0.0 |
| 8. | 1738 | WB9Z | EN60 | 44 | 0.0 |
| 9. | 1897 | N3XX | EM73 | 49 | 0.0 |

3B9GJ Results

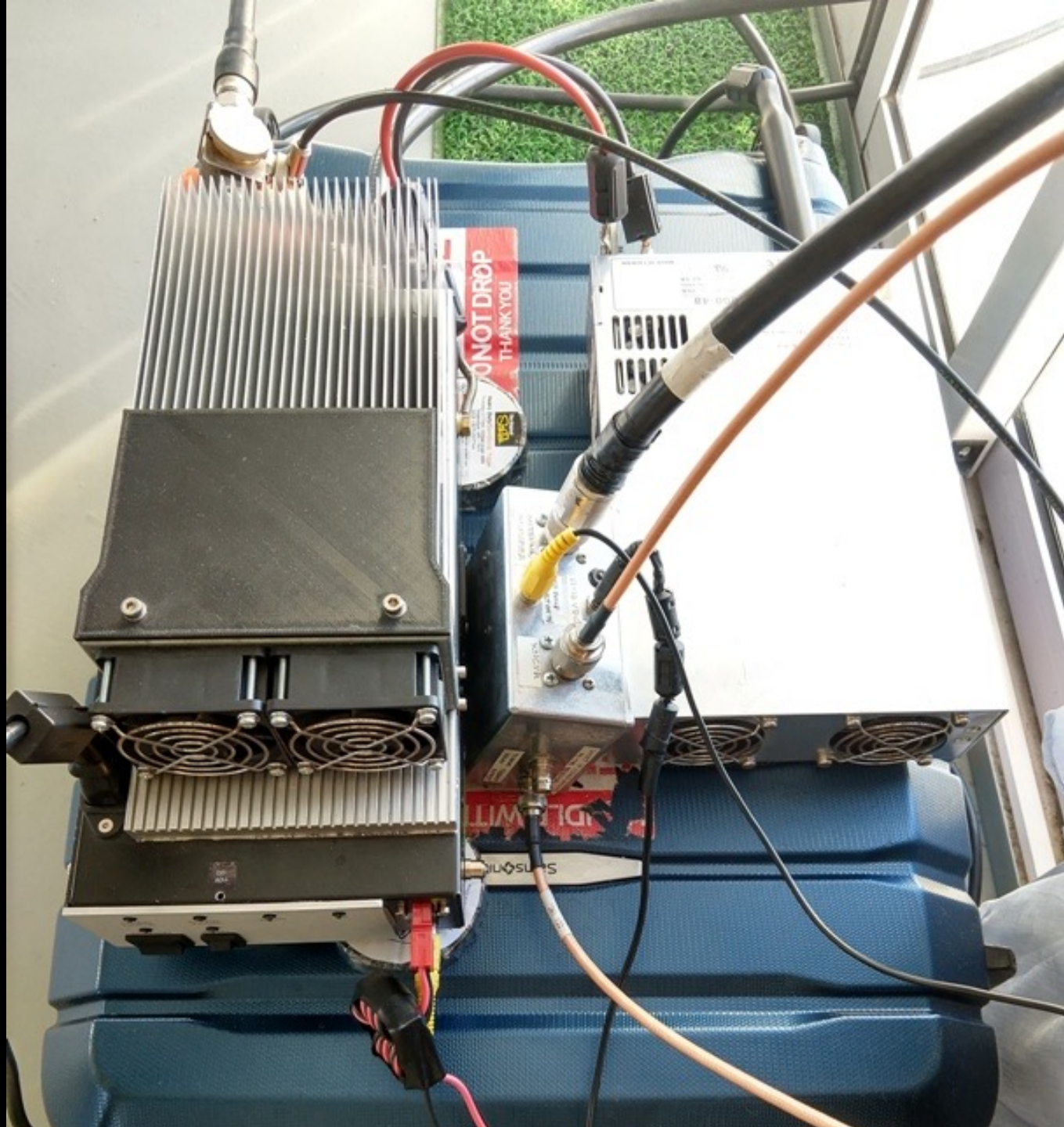
- (76) 6m EME Q65 Pileup Contacts
- (19) 6m TEP FT8 Contacts
- (2) 6m Direct FT8 Contacts
- (1) 6m Direct Q65 Pileup Contact

76 6m EME Pileup Contacts

| | | | | | | | |
|----|--------|----|-------|----|--------|----|--------|
| 1 | JG1TSG | 21 | OH7KM | 41 | K5XI | 61 | W6UC |
| 2 | JA7QVI | 22 | ZL3NW | 42 | JE3GRQ | 62 | K6QXY |
| 3 | ZL1RS | 23 | N3XX | 43 | OH3SR | 63 | W7GJ |
| 4 | ZS4TX | 24 | K4PI | 44 | SM7FJE | 64 | AJ7LL |
| 5 | ZS6NK | 25 | S59A | 45 | OZ1DJJ | 65 | NJ6P |
| 6 | G8BCG | 26 | W9JN | 46 | K8CX | 66 | KB7Q |
| 7 | PJ4MM | 27 | NV9L | 47 | KA9CFD | 67 | K7KX |
| 8 | VK3DUT | 28 | N9IW | 48 | K9CT | 68 | KL7HBK |
| 9 | JO1PSX | 29 | N8RR | 49 | W3UUM | 69 | WW1L |
| 10 | JA9SJI | 30 | XE2OR | 50 | K5RK | 70 | K1SIX |
| 11 | VK5PJ | 31 | N5DG | 51 | NJ6D | 71 | WA5VGI |
| 12 | KJ9I | 32 | W8IW | 52 | W6XU | 72 | ES6RQ |
| 13 | W5WP | 33 | W8PAT | 53 | K6EME | 73 | OG2M |
| 14 | K2ZD | 34 | N7NW | 54 | WW2DX | 74 | HA8FK |
| 15 | W9GA | 35 | NU4E | 55 | N7IP | 75 | N4BAA |
| 16 | K9RX | 36 | N8DX | 56 | PC5C | 76 | OH2BC |
| 17 | W0GJ | 37 | N1DG | 57 | PA5Y | | |
| 18 | WB9Z | 38 | W8UV | 58 | IW5DHN | | |
| 19 | VK2XN | 39 | PY2XB | 59 | F1IXQ | | |
| 20 | S57RR | 40 | N7NR | 60 | AA7A | | |

3B9GJ 6m Station







What's Next?

- ZD9
- H44
- T2





THANK YOU!