



24th OHDXF & CCF Annual Meeting
Tallink Spa Conference Hotel, Estonia

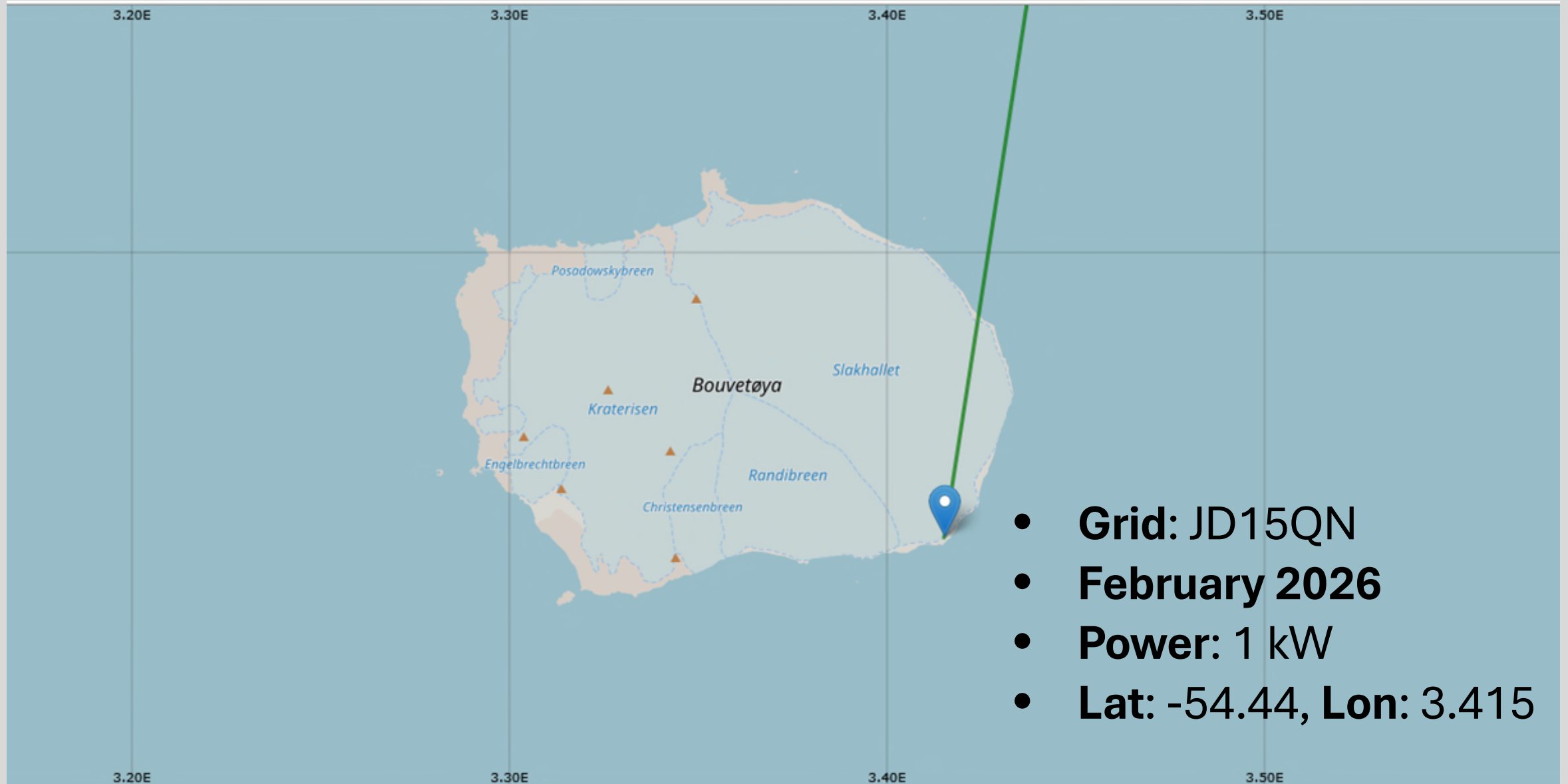
USING VOACAP AND CLUBLOG IN DX HUNTING

JARI PERKIÖMÄKI OH6BG, APRIL 5, 2025

USING VOACAP AND CLUBLOG IN DX HUNTING

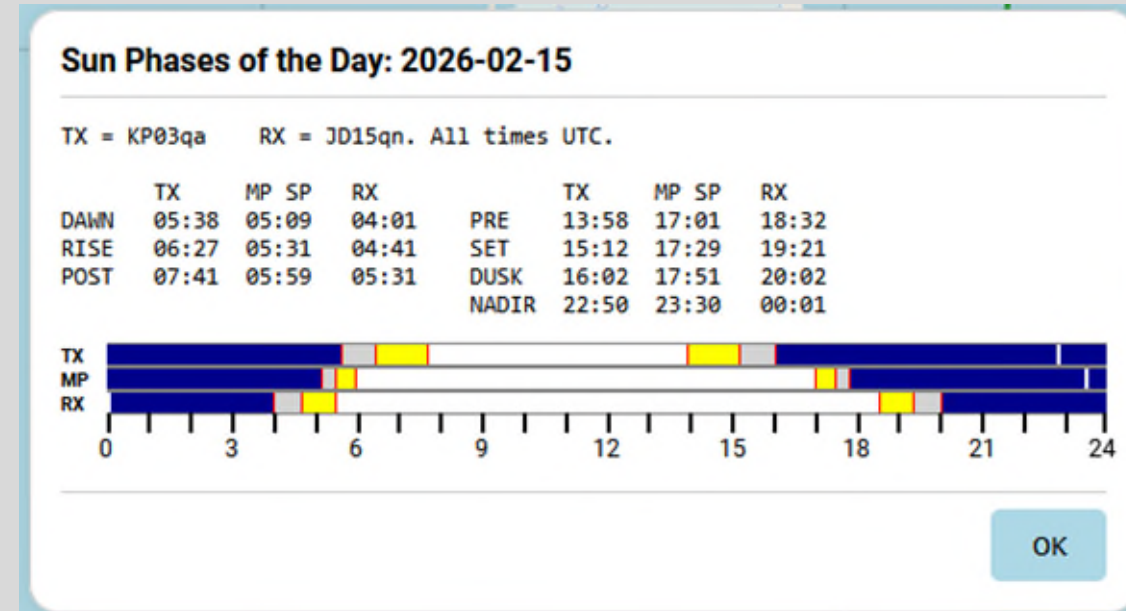
1. DXpeditions may have a dedicated prediction site available at **voacap.com/dx**, and ready for analysis: band by band + sunrise/sunset
2. If not, go to **voacap.com/hf** to make the analysis, run band by band and P2P grayline
3. Two independent HF propagation prediction engines are available:
 - VOACAP
 - ITURHFProp

CASE 3Y0K BOUVET, FEB 2026 (SSN 85)



STEP 1. SUNRISE/SUNSET & SP/LP MIDPOINTS

- **Set the calendar to correct date**
 - use the visual sun phase tool: Point-to-Point > Sun of the Day
 - get the feel of low-band openings (SR, SS, MIDPOINT for TX and RX)
- **Make a more detailed sunrise/sunset analysis:** Point-to-Point > Grayline
- **Potential low-band times** for visual inspection:
 - **SUNRISE** at MY QTH and DX
 - **SUNSET** at DX



VOACAP # Ham Radio – 8:54:46 UTC (11.54)

TX: << Select a location >> or set Grid: or Latitude: Longitude:
RX: << Select a location >> or set Grid: or Latitude: Longitude:



STEP 2. GET PROPAGATION OVERVIEW

- Set **mode**, **power** and **antennas**
- Set critical SETTINGS: **Min.TOA**, **SSN**
- Start with **CAP WHEEL** (VOACAP) and **ITUR WHEEL** (ITURHFPROP),
i.e. RELIABILITY predictions
- Check the low-bands and see the predictions for low-bands
 - use ITUR WHEEL
- Understanding the VOACAP hour: e.g. **05 UTC = 04:30-05:30 UTC**

STEP 3. MAKE IN-DEPTH ANALYSIS

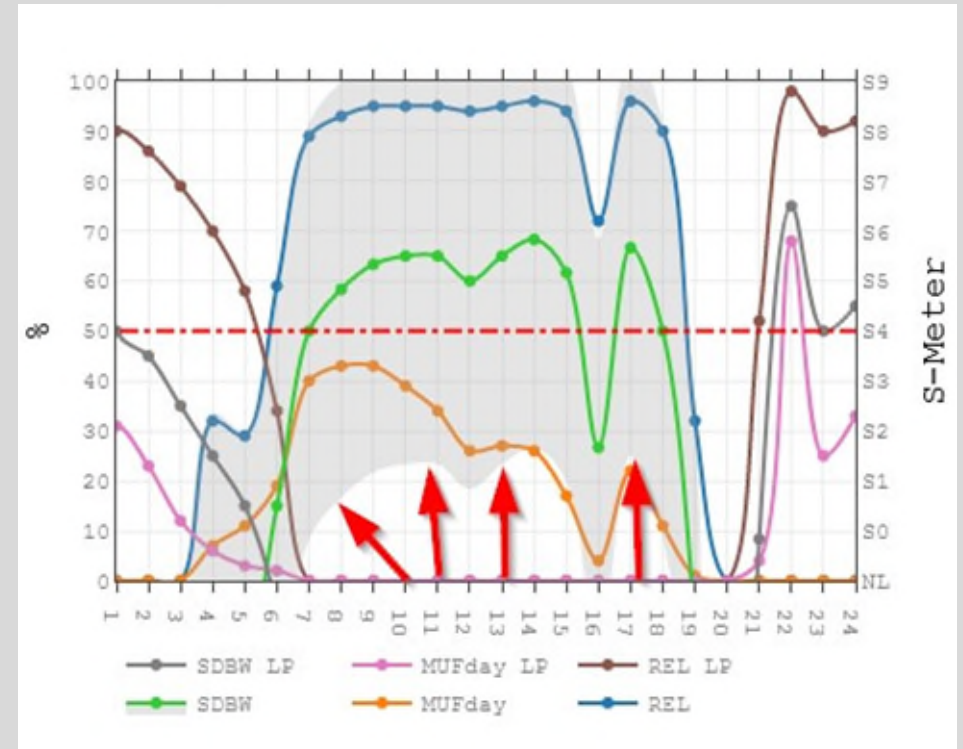
- Use **VOACAP BAND BY BAND**; combines all the data from PROP CHARTS!
Point-to-Point > VOA Band-by-Band (VOACAP prediction)
- Also run Point-to-Point > ITU Band-by-Band (ITURHFProp prediction)
 - Especially for low-bands + long-path
- **VOACAP principle**: in VOACAP predictions, follow the highest SDBW90 and MUFday + distribution of SDBW (gray area)
- Upper bands LP openings: **Use ITURHFProp!**

HOW TO USE VOACAP MOST EFFICIENTLY

Focus on these two things: **SDBW** and **MUFday**

SDBW, or SIGNAL POWER

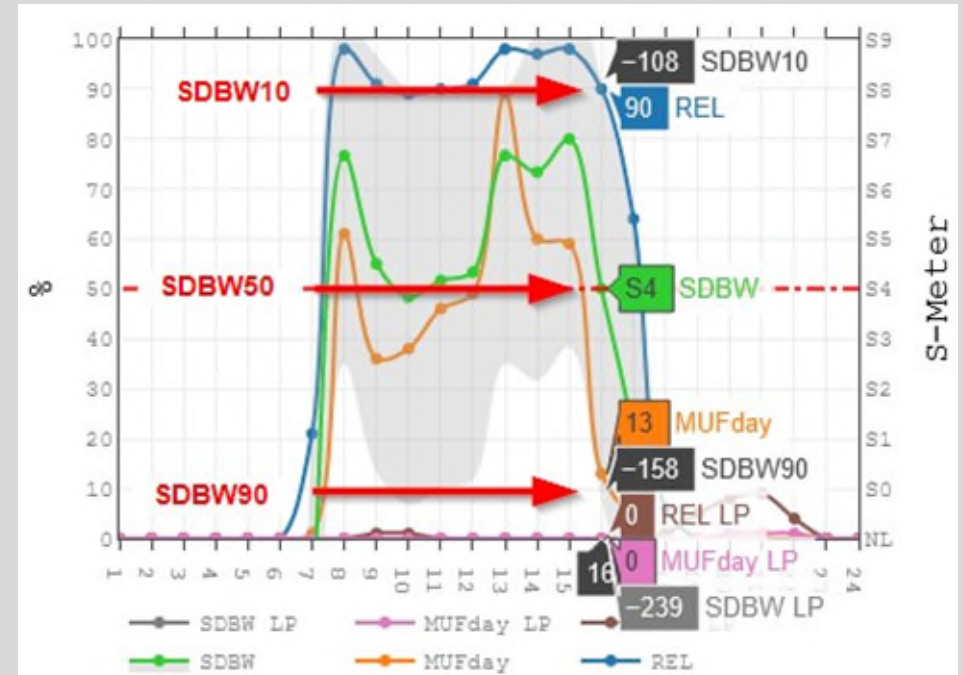
- SDBW = median Signal Power (or signal strength shown on the S-meter), on 15 days of the month.
 - GREEN = SDBW at 50%
 - Upper edge of gray area = SDBW at 10%
 - Lower edge of gray area = SDBW at 90%
- **TIP: Look for the highest SDBW90 value** (the lower edge of the gray area) which is the signal power predicted for 27 days per month, i.e. 90% of the month.



HOW TO USE VOACAP MOST EFFICIENTLY

SDBW, or SIGNAL POWER

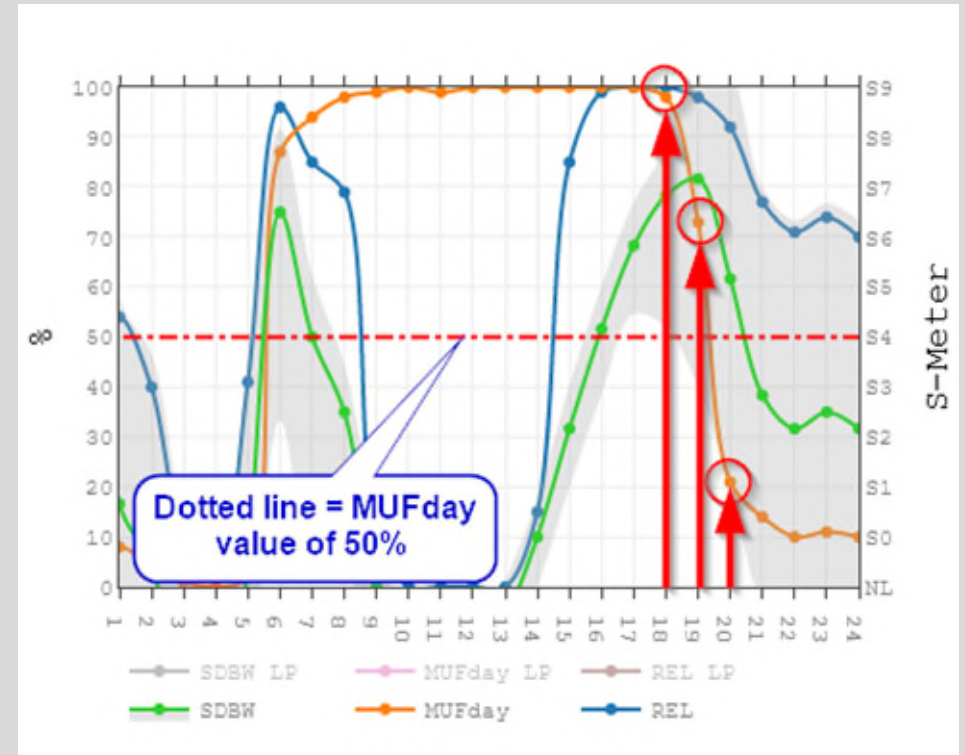
- See the distribution of the signal strength at SDBW10, SDBW, and SDBW90 points. **Examine the vertical width of the gray area.**
- **TIP: If the difference between SDBW10 (upper edge of the gray area) and SDBW90 (the lower edge of the gray area) is close to 50 dB, the prediction is likely to be unreliable.**



HOW TO USE VOACAP MOST EFFICIENTLY

MUFday, OPERATING FREQUENCY \leq THE MUF

- MUFday (orange graph) shows the **percentage of days in a month that our operating frequency is below the MUF frequency** on the predicted most reliable mode of propagation.
- If MUFday = 50% (i.e. 15 days), then the operating frequency is the median MUF. This is totally fine!
- **TIP: Look for the MUFday values at and above 50%!**



STEP 4. CHECK CLUBLOG

[Settings](#)[Upload](#)[OQRS](#)[Donate](#)[Expeditions](#)[Livestreams](#)[Your Log](#)[DXCC Charts](#)[Satellite Charts](#)[Timelines](#)[Grid Squares](#)[QSL Charts](#)[Zone Charts](#)[Log Inspector](#)[Log Matching](#)[League Tables](#)[DXCC Leagues](#)[Satellite Leagues](#)[Zone Leagues](#)[Club Leagues](#)[CDXC Challenges](#)[Super League](#)[Uniques League](#)

Propagation Wizard

Using the QSOs uploaded by Club Log users, an approximate pattern of activity can be determined. The information below is based on actual QSOs. You can also filter on history solar flux records (SFI). The average SFI value for the last 7 days is **179**.

You may also wish to try the [Geographic Propagation Wizard](#)

| | | | |
|---|--|--|---|
| Source DXCC: | <input type="text" value="FINLAND"/> ▼ | or zone: | <input type="text" value="Please choose..."/> ▼ |
| Destination DXCC: | <input type="text" value="BOUVET ISLAND"/> ▼ | or zone: | <input type="text" value="Please choose..."/> ▼ |
| Month: | <input type="text" value="February"/> ▼ | | |
| Only include last 12 months: | <input type="checkbox"/> | | |
| Solar Flux: | Minimum SFI: <input type="text" value="No limit"/> ▼ | Maximum SFI: <input type="text" value="No limit"/> ▼ | |
| <input type="button" value="Run propagation report"/> | | | |

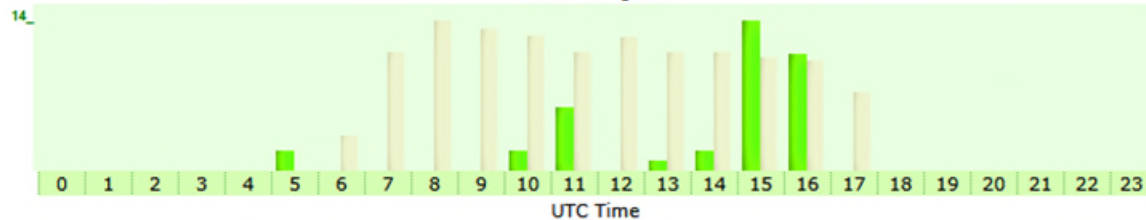
Activity between FINLAND and BOUVET ISLAND in February

VOACAP predictions combine short and long path data.

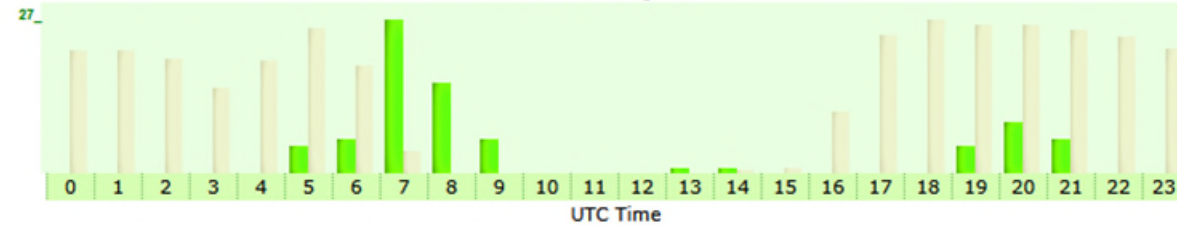
| | | |
|-------------------------------------|--------------------------|--------------------------|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Real (QSOs) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Predicted (Txn VOACAP †) |

CHECK THE QSOS MADE VS VOACAP PREDICTIONS

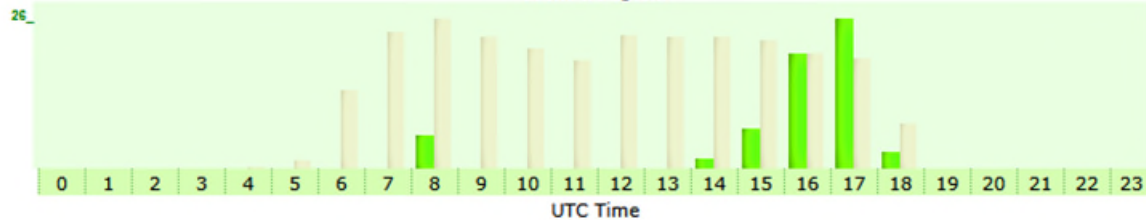
10m: 38 QSOS



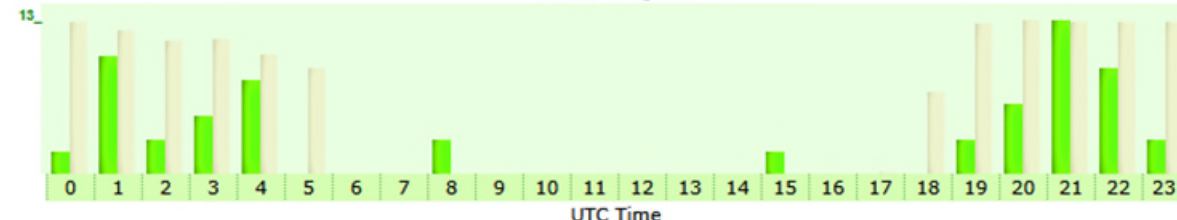
20m: 82 QSOS



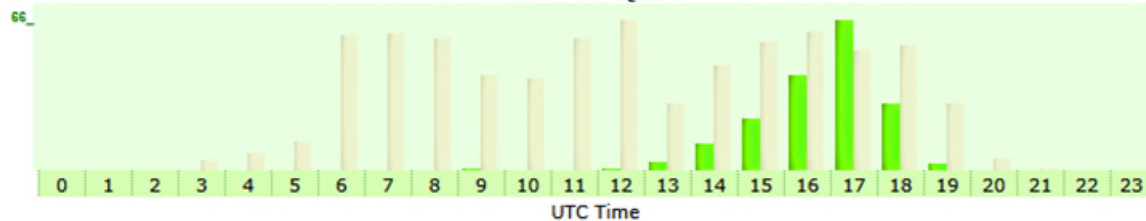
12m: 64 QSOS



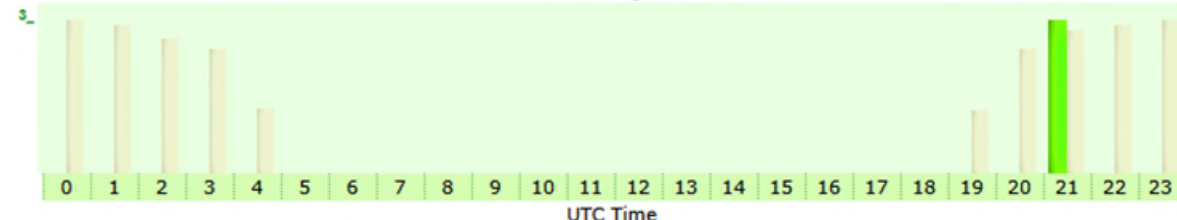
30m: 67 QSOS



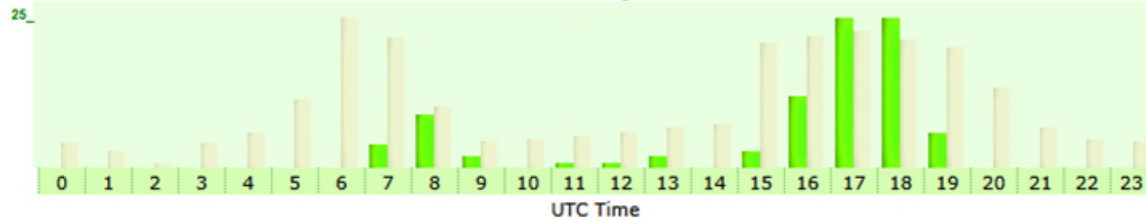
15m: 182 QSOS



40m: 3 QSOS



17m: 90 QSOS





VOACAP

RADIO WAVES UNITE US

THANK YOU!

**QUESTIONS?
JPE@VOACAP.COM**