

The 144 MHz EME NewsLetter

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Issue 06/2020 4 Jun 2020

EME From St. Barthelemy: FJ/WW2DX (FK87UV)

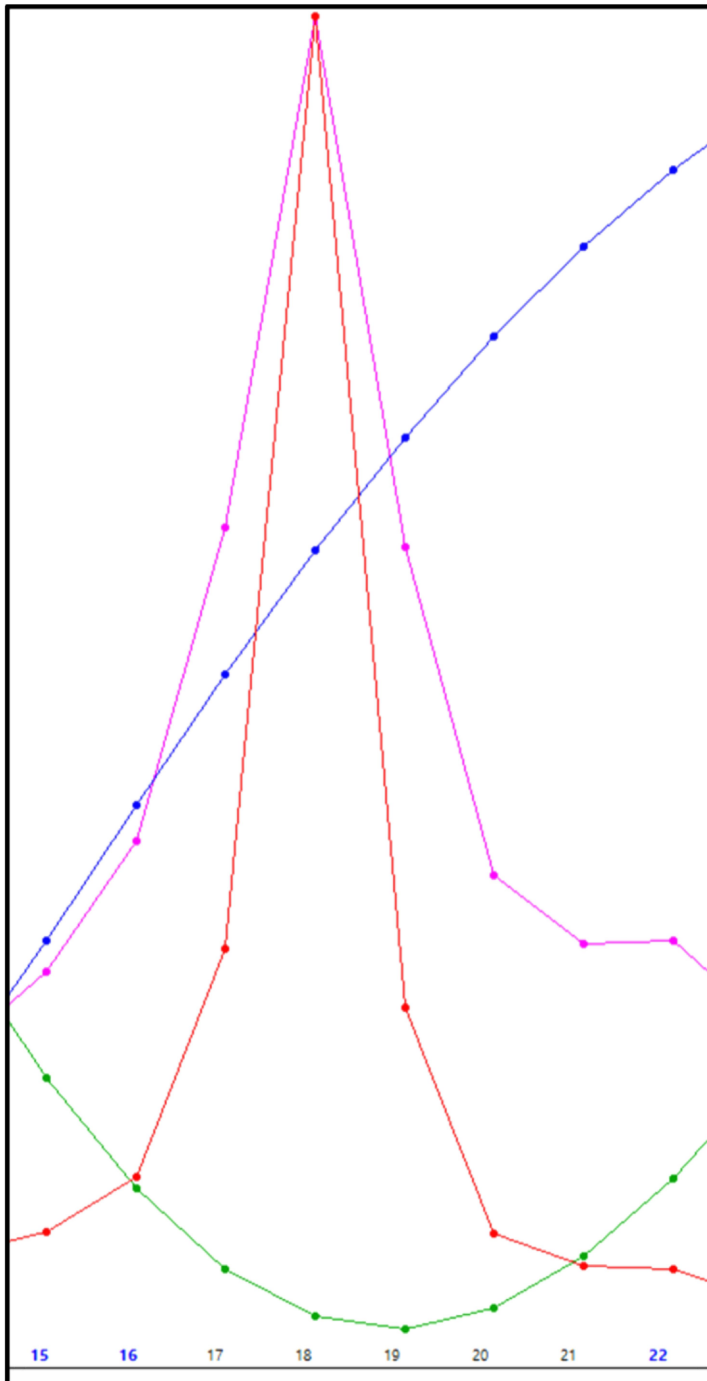
During the past 20 years most of the Caribbean Islands have been activated by EME DXpeditons already. However, there are still some spots remaining. One of them is or actually was St. Barthelemy also known as St. Barth.



In the Caribbean there is not always sunshine and blue skies – FJ/WW2DX's two yagis.

Together with N2IEN, W2RE, KB2HZI and WW1X Lee WW2DX had planned for a winter break heading down to the beautiful island of Saint Barthelemy. The goal was to operate all the HF bands

6 - 80 m and if room at the QTH allows also for 160 m. Since Lee is hooked on EME for some years now and has a record of very successful EME activities from rare DXCCs it was no surprise that he brought his EME gear as well. However, the activity period chosen was with focus on HF and individual availability from Feb 15th to 22nd and that were the worst days possible in that month.



Particularly on 17th to 19th the degradation reached levels where one would usually not even try a QSO. On the other hand the moon conds were also terrible when Lee worked from V26 in 2018 so why not give it a try, he thought.

The setup used was a IC-9700, an Italab 1 kW 2m SSPA and a pair of 12 element DUAL yagis. This should as usual produce a good signal via moon – at normal moon conds.

So Lee was quite excited when he arrived on the island on February 15th, setting up the station and started CQing on the 16th. At 0400Z four QSOs were in the log – with I2FAK, UA3PTW, RX1AS, ZS4TX and OK1UGA, all with signals around -23 or less. But Lee felt like something in his rx path did not work properly. So he investigated for possible causes and also swapped the coax run to the antenna. Only, that one was not the reason. As rx performance did not get any better WW2DX looked at the amp – and found a broken coax relay!

Something like this really does not happen often – luckily. But here it was at the worst possible time. A field repair of the relay was necessary.

left: The degradation (pink), T_{sky} (red), range (blue) and declination (green) during the DXpedition period.

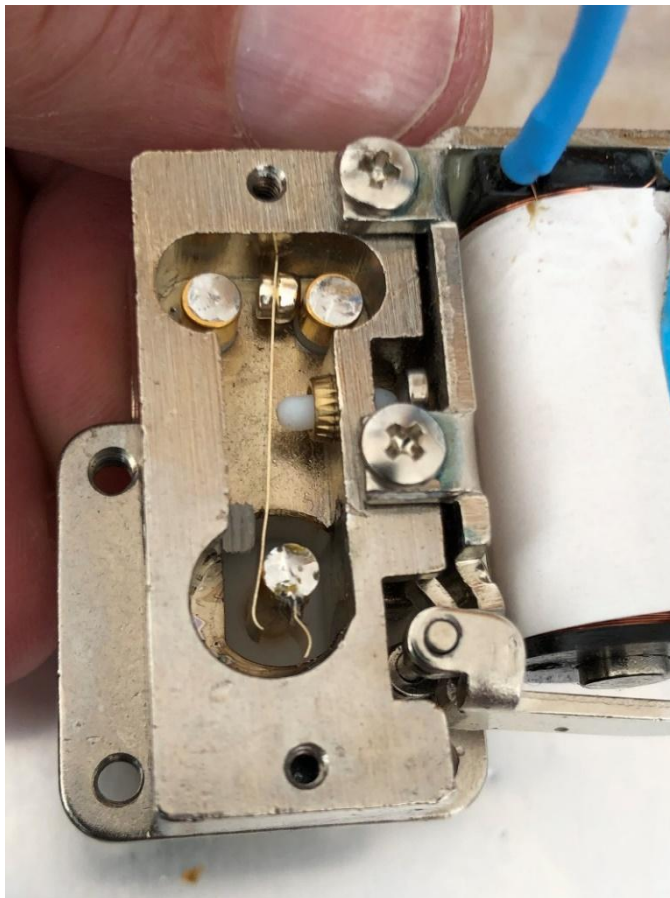
That repair was successful: 30 QSOs were completed during the European window and yet another one in the Pacific window, at nearly 10 dB degr! The next European window the degradation was even at -12 and Lee managed to complete with another 4 stations though.

Since he was still being copied much better than he copied the callers Lee suspected there was a sensitivity issue at his place. Maybe an elevated noise floor from all the electronics in the

neighbourhood. The recent years this plague has become more and more and also other DXpeditions suffered from it.

The 20th started as a very frustrating day. Lee only saw a few light traces at MR and almost nothing then. The reason could have been a [G1-class](#) geomagnetic storm which started on Feb 19th when the Earth entered a minor stream of solar wind. Solar wind poured in, setting the stage for a geomagnetic storm.

Lee swapped radios, bypassed amp, etc. and even listened for GRAVES radar with no success. After testing multiple radios, swapping coax again he finally hooked everything back up originally to the



The culprit for the rx problems at DXpedition start - the broken coax relay. (Photos WW2DX)

9700 and decoded the first station that pass: UT5ZN -22! Most probably – as the moon then was already at 22° elevation – he now was clear of local noise. Later that day he measured a difference of some 15 dB noise between moonrise and high elevations. That explains the rx issues.

With degradation values getting better now down to “only” 5 dB he completed with 18 more stations on the 20th, after just 10 the day before. Another 28 were added the following day, at 3,8 dB degr.

Altogether FJ/WW2DX logged 98 QSOs made. For his next DXpedition (CY0 scheduled for October) he will rethink relays and TX/RX feeds for his portable design. Lee would really like to go with 2 X 10 XPOL with SDR RX.

These nearly 100 QSOs however in the worst possible circumstances were indeed a great achievement!

EME Conference 2020 Prague Postponed

The COVID-19 pandemic already had a strong impact on amateur radio. Most DXpeditions have been cancelled or at least postponed. After intense discussions considering all the pros and cons the organizing team of EME2020 decided to postpone the conference to 2021. The news dates are 19.8. – 22.8.2021. For further details please check www.eme2020.cz

WSJT-X Version 2.2 Released

On June 1st a new version of WSJT-X was released. This new version 2.2 is a significant program upgrade offering many new features and capabilities. This time the development team also worked on the JT65 mode again. The results are many improvements for averaged and deep search decodes and their display to the user.

After the release it became known that there is an issue with WSJT-X 2.2.0 and the FT-891/991. This problem has been corrected already. Hence, there should soon be the release of WSJT-X 2.2.1. For further info and download please see <https://physics.princeton.edu/pulsar/K1JT/>

Time Table

6 July July Issue of the 144 MHz EME Newsletter ready for download

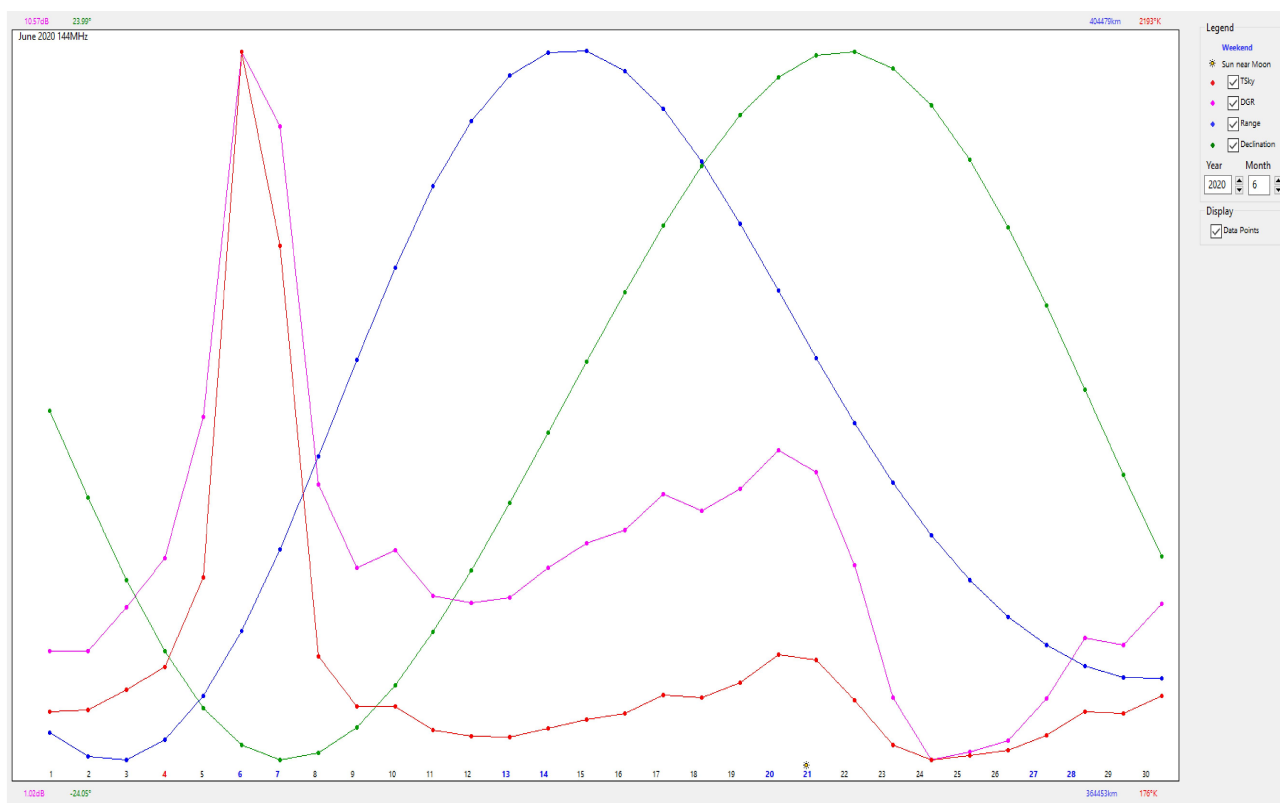
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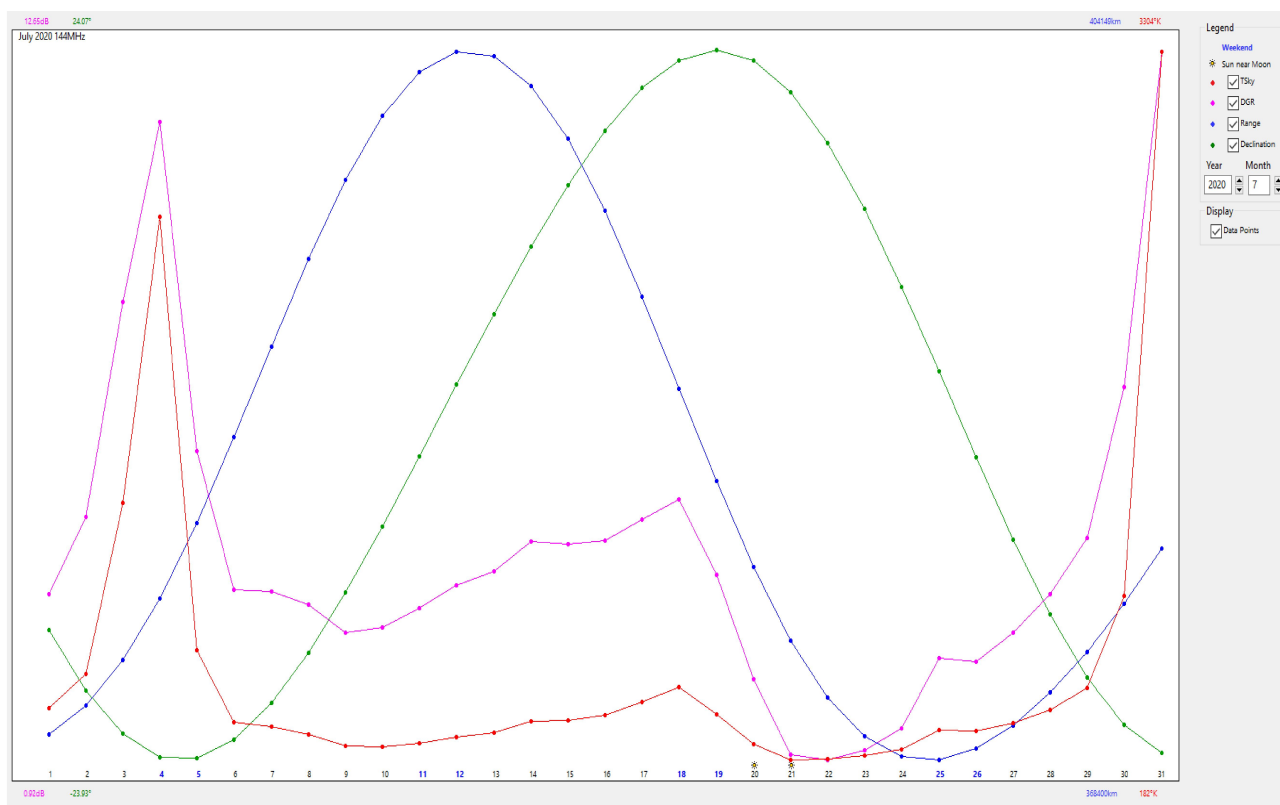
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Moon Conditions



Moon Graph June 2020



Moon Graph July 2020

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