
VHF/UHF – An Expanding World

David Smith VK3HZ

Weak Signal

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The 18th of March was a day of good conditions for both the VK2 to ZL path and the VK3, VK5 and VK6 areas.

The Channel 5A transmitter at Newcastle was being heard in northern NZ. At 0420Z, Ross VK2DVZ at Taree made contact with Nick ZL1IU on 2 m with a 5x4 report. Ross subsequently worked ZL2TAL (5x1) and ZL1AVZ (5x1). He tried 70 cm with ZL2TAL, but nothing heard. Steve VK2ZT also worked ZL1IU (5x4), ZL2TAL (5x1) and ZL1BT (5x2). ZL1IU also worked Col VK2KOL in Sydney (5x8) and Karl VK2GKA in Mittagong (5x2). The last VK/ZL contact was at 0905Z.

Meanwhile, things were building up over the southern part of the country. At 0800Z, the Esperance 2 m beacon was reported in Adelaide. By 1030Z, it was audible in Ballarat and Melbourne. The Albany 70 cm beacon was by then audible in Adelaide. Unfortunately, no contacts were made.

However, conditions between Melbourne and Adelaide were picking up. The 70 cm Geelong beacon was being heard in Adelaide, and, at 0920Z, on 70 cm, Brian VK5BC worked Mike VK3AAK (5x1) and Mike VK3BDL (4x1). At 0950Z, Peter VK5ZLX reported hearing the VK3RXX and VK3RLP 23 cm beacons in the Melbourne area. On 23 cm, he worked Mike VK3AAK (5x3) and Chas VK3PY (5x1). Mike VK3BDL worked Phil VK5AKK (5x1) on 23 cm.

The following morning (19/3), conditions were still good. Alan VK3XPD worked Phil VK5AKK on 23 cm (5x2). In Adelaide, the 2 m Esperance beacon and 70 cm Albany beacon were both good strength – peaking to S7. At 0330Z, Wally VK6WG worked Roger VK5NY (5x2) and Brian VK5BC (5x1), both on 2 m. The beacons were audible throughout the day, and at 1220, Brian again worked Wally on 2 m at 5x9. They also worked on 70 cm (5x3). Meanwhile, Rob VK6JRC was making some hasty repairs to his temporary station. At 1250Z, he finally worked VK5NY (4x1) and VK5BC (5x1).

At 1200Z on the 14th of April, Phil VK5AKK worked Wally VK6WG on 2 m (5x3) and 70 cm (5x1). Bill VK5ACY, recently having moved from Kangaroo Island to Adelaide, reported hearing Wally on his temporary 14-el yagi at 14 ft.

EME

Doug VK3UM has been busy with the DUBUS European EME Contest (70 cm) held over the weekend of 15th and 16th March. Doug reports:

At moonrise, Faraday was aligned with slow QSB but at ~10° elevation polarity changed to ~45° and stayed that way until ~1220z when significant libration, deep fading, and widely swinging polarity made conditions quite challenging. While northern hemisphere stations were battling with snow, wind and gale force winds, I had temperatures of +41°C on both days (if only we could share!).

The 45° Faraday offset reduced signal levels of course, but it probably helped those with fixed polarisation. Patience was required to combat the fading but I managed to work single and 2 yagi stations without query (YYY). As an aside (a tip for new stations), increasing CW speed is far better than slowing it down. Trying to duplicate the other station's speed is always good practice. I battled with a couple of guys

during periods of Libration where that would have been an advantage from my view point. Thanks for their persistence.

Activity level was very good. I was very pleased with the North American turn out (compared with previous months) and, although the number of stations has diminished significantly over recent years, there was plenty of activity to keep all quite busy. The operating technique and manners was exemplary from what I heard in keeping with 70cm tradition. It was a 'pleasant' change to have to work for your QSO's given the Libration, QSB, swinging polarity. Everybody was spread out and mutual QRM seemed at a minimum. I think I worked all available, with the exception of WW2R (not a trace) and 9H1TX whom I realised after my Moon set. It was a thoroughly enjoyable weekend, most fitting to the dedicated memory of our highly respected and sadly missed friend, Jose EA3DXU SK.

A total of 42 random QSOs (4200) and 39 Multipliers gave a Claimed Total Score of 163800.

Charlie VK3NX was also participating in the DUBUS EME Contest, although on the 5.7 GHz and 10 GHz bands. He reports:

Participants seemed lower than last year, unfortunately. It was disappointing not to work any stations to my east (NA).

On the 15th for my first moon pass on 5.7 GHz, conditions were difficult at my QTH due to very enhanced local tropospheric conditions on the microwave bands. This produced scattering of signals and created a very spread received signal for all stations. Luckily on the 16th, when I operated on 10 GHz, the local conditions subsided and the signals were exceptional.

On the 15th on 5.7 GHz, worked OK1CA (new #), OK1KIR, ES5PC and JA6CZD.

On the 16th on 10 GHz, worked OK1KIR, ES5PC (new #), OK1CA and F5JWF (new #). Did not complete with HB9SV due to moonset, but very loud signals. I was astonished to hear ES5PC with his 6.5 W on 10 GHz.

I am sure more stations were active, especially on 10 GHz on the 15th, but due to my shorter windows because of declination, I chose to stay on one band for the entire pass. It would take approximately 1 hour to do a complete band change - feed, amplifiers etc - and this is "valuable time" during a contest.

Please send any Weak Signal reports to David VK3HZ

Digital DX Modes

Rex Moncur – VK7MO

Congratulations to Joe VK7JG on working OY3, Faroe Islands on 6 metres EME using JT65a, and to Leigh VK2KRR who made his first 23 cm EME contact with G4CCH.

Jim VK3II has been using his GPS-locked rig to explore tropospheric scatter Doppler shift with Rex VK7MO. Doppler shifts on 2 m were recorded of up to 75 mHz on a 500 km path to Hobart and this reduced to around 6 mHz when the path was reduced to around 80 km.

David VK3HZ and Rex VK7MO have been testing GPS locking of their 10 GHz systems and were pleased to see the Frequency Difference on JT65 is consistently zero Hz and that there is no difficulty in running JT65a.

Please send any Digital DX Modes reports to Rex VK7MO

The Magic Band – 6 m DX

Brian Cleland – VK5BC

March was a very quiet month on 6 m with no “E” openings and only a smattering of openings to JA from far north Queensland late in March & early April.

John VK4TL from the Cairns area reports working 9M6XRO CW 539 on the 4th March and then on the 11th March 3 x JA's, 27th March 16 x JA's, 29th March 15 x JA's, 2nd April 3 x JA's. Late on the 3rd April John heard the VR2 beacon and worked a further 5 x JA's. John also reports that Ian VK4AFC who also worked 9M6XRO is back on 6 m after an absence of about 20 years. Russell VK4BEG from the same area also reports the following;

27/03/08	J1, J2, J5 & J6 call area 10 contacts (Band open 0650-0715)
29/03/08	J1, J2 & J3 call area 24 contacts (Band open 0550-0715)
02/04/08	J1, J2, J3, J5 & J6 call area 12 contacts (Band open 0500-0600)
04/04/08	J6 & J1 call areas 2 contacts (Band open a couple of mins only)

A little to the south, John VK4FNQ at Charters Towers reports good openings to Japan on the 27th, 29th & 31st March, the 29th being the best opening when John worked 22 JA's. John also reports hearing the V73SIX beacon on the 30th March.

Not to be left out of the action, the Mackay boys Andrew VK4KAY and Kevin VK4BKP have also had some openings to the north. Kevin reports hearing the following beacons;

09-03-08 0404Z	AH2G/B Beacon 50.0045 5X6,
11-03-08 0441Z	JE7YNQ Beacon 50.027 519,
26-03-08	JA2IGY Beacon 50.010 519
27-03-08 0712Z	JE7YNQ Beacon 50.027 519
27-03-08 0713Z	JA2IGY Beacon 50.010 519
27-03-08 0731Z	JA6YBR Beacon 50.017 519
29-03-08 0500Z	V73SIX Beacon 50.013 519

On the 27th March, Kevin completed contacts with VK5DX 5/7, JI1DMA 5/7, JA1RJU 5/5 & heard JR6EXN 4/1. Then on the 3rd April worked JA3EGE 5/8, JM1WBB 5/7 & JHOHZO 5/7.

Andrew also reports hearing many of the northern indicators and beacons but only managed one contact in between work commitments on the 2nd April with JR6EXN 5/1 whilst Mobile in the Ute.

The northern activity hasn't extended much further south this year but Ray VK4BLK in Yeppoon has had a couple of JA openings and on occasions 49.750 carriers have been heard in the southern states with Brian VK5BC reporting them up to S9 early evening on the 8th April with the JA2IGY beacon audible for 20 minutes. There has also been the odd report of the VK6RSX beacon being heard in Japan and on the 2nd April JR6EXN reported the Perth VK6RPH beacon 529.

On the 10th March, the 1st “E” opening of any substance since February occurred. VK4's were worked from VK3, VK5 & VK7. Kevin VK4BKP in Mackay worked Norm VK3DUT, Trevor VK3VG, Rob VK3XQ & Joe VK7JG. Russell VK4BEG near Cairns heard the VK5RBV beacon but unfortunately no VK5's were heard. A little later Brian VK5BC worked Doug VK4ADC, Col VK4CSC, Col's 1st DX contact on 6 m, Daryl VK4ADM and Wayne VK4WES mobile all from the Brisbane area. Doug VK4ADC also worked Colin VK5RO.

Another "E" opening on the 11th April from VK5 to VK2 with Brian VK5BC working VK2's FA, BZE, JDS & ZT.

Gary VK4ABW in Townsville is well on the way to getting a massive new 6m array consisting of 4 x 13 element yagi's on 17.5m booms completed. Gary reports the yagi's are constructed and all tested OK and is presently in the process of mounting them on the "H" frame. Will certainly be interesting to see how they perform. Hope the cyclones are kind to you Gary.



The VK4ABW Monster 6 m Array

Received a note from Eddie VK4AN who advises he and his son Raj VK4FRAJ are going on a DX expedition from 17th - 31st May 08 operating from Malolo lailai Island, Mamanuca Group, Fiji with the callsign 3D2A. The rig will be a FT-100 running 50w with external beacon keyer and vertical coaxial antenna (bazooka). Both Eddie VK4AN [66yo] & Raj VK4FRAJ [13yo] will be the operators and they will be running a beacon on 50.105 MHz CW. If the beacon is heard, call them when it is not transmitting on either CW or SSB on the beacon frequency. They will not have 'live' internet access, but will check email once a day at the resort kiosk. QSL toVK4AN.

Please send any 6 m information to Brian VK5BC