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# VHF/UHF – An Expanding World

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David Smith VK3HZ

## Weak Signal

David Smith - VK3HZ

This month, once again there has been an opening across the pond to New Zealand. All of the activity at the far end involved Nick ZL1IU.

On the evening of September 19<sup>th</sup> at 0926Z, Steve VK2ZT worked Nick on 2 m with a 5x7 report. Shortly afterwards, Kirk VK2MER also worked him with at 5x5. Half an hour later, the opening had spread further north and Adrian VK4OX worked Nick at 5x3. They also managed a scratchy CW contact on 70 cm with a report of 419. At 1034Z, Col VK2KOL in western Sydney was somewhat surprised to work Nick giving a report of 5x1 and receiving a 5x3. Grant VK2MAX then joined the party, working Nick at 5x5. Adrian VK4OX attempted 70 cm again and was rewarded with an SSB contact with a 5x1 report.

The following afternoon at 0525Z, Adrian again worked Nick on 2 m but the opening had almost gone with only a 5x1 report.

### News From Northern VK6

Rod VK6KP in Karratha submitted some news of interest:

*For the very first time since arriving twelve months ago, I have heard YB FM on 2 m. Our local 2 m repeater is located near Point Sampson about 40 km up the coast near Wickham (146.7 MHz). I had FM breakthrough from probably an Indonesian repeater on Java. I will try and find out a bit more about 2 m from YB. Tropo is meant to be very good this time of year here and the locals regularly hear Indonesia and work into the Broome repeater (800 km north) or the repeaters further down south.*

*Another frequency that I have heard activity on from YB is 146.480 – simplex.*

### VK2KU DXCC

After much hard work, Guy VK2KU is very pleased to finally be in possession of his DXCC certificate:

*Yesterday I was delighted to receive my 2 m DXCC Certificate from the WIA. WIA DXCC Certificates appear not to be numbered for each band (as with the ARRL), but rather by mode - in this case "Data" (i.e. Digital). Thus my certificate is numbered 00015 which appears to indicate that it is the 15th Data mode DXCC Certificate issued by the WIA. Nevertheless I believe it to be the first DXCC Certificate for 2m issued by the WIA, and it carries a corresponding 2m EME endorsement.*

### Spring VHF-UHF Field Day

A reminder that the Spring VHF-UHF Field Day is on the weekend of November 26 – 27, commencing at 0100Z for the eastern states and 0400Z for VK6. There are 6 sections catering for portable single and multi op, 8 or 24 hours, and Home and Rover operation. For more information, go to:

[www.wia.org.au/members/contests/vhfuhf/](http://www.wia.org.au/members/contests/vhfuhf/)

Remember that while 150 is nominally the contest calling frequency, always try to QSY away from that frequency to have your QSO – that's what the big knob on the front of the radio is for. This will allow other, weaker stations the chance to get through.

There is expected to be more activity this year, particularly in the microwave region where many people have been busy constructing Transverters that they now want to give a good workout. However, even if you just have an FT-817 with a whip, you'll still find plenty of people to work.

Please send any Weak Signal reports to David VK3HZ

## Digital DX Modes

Rex Moncur – VK7MO

### FSK441 – VK4KSY Portable QG61

David VK4KSY reports on his portable operations to the rare grid square QG61 near Warwick about 170 km west of Brisbane.

*Got started at 4.45 am only to find ice all over the windscreen and washer jets frozen - in Qld? Luckily I carry extra water in the vehicle, so all over the screen and all good. Arrived at the position, frost everywhere and boy-o-boy the metal was icy cold. Height above sea level 480 metres.*

*First ping was from Rex VK7MO and then completed with Arie VK3AMZ and then Rex. And yes I am excited that it's a new grid square for Rex and Arie. Sent a report to VK3HY but the pings had dropped off by this time.*

*Best conditions were early - if I had this info I would have set up the night prior.*

*A good trip, but I like summer better. A new grid square for two contacts and some good signals (SSB) into VK2 on AE.*

*The mobile system (see photo) consists of an eight element beam. Driven element copper pipe dipole with RG58 inner feed through the pipes and soldered at the ends. This gives a good flat SWR. Have used folded dipole feeds but they don't travel well in the trailer, vibration fractures the coax to dipole connection.*



VK4KSY Mobile Setup

### FSK441- VK4UH

Kevin VK4UH reports on his results as a "newbie" on FSK441.

*I have been cranking away at MS activity on FSK441 for most of the Saturday and Sunday activity sessions for the last six weeks or so.*

*From my new QTH on House Mountain in the Samford Valley to the west of Brisbane, a site marginally obstructed to the south at low elevations, I have successfully completed QSO's, via Meteor Scatter, with the following stations:*

VK3AMZ	Arie	1402 km
VK3KH	Michael	1406 km
VK3GHZ	Rhett	1263 km
VK5DK	Colin	1621 km
VK1WJ	Waldis	943 km
VK3HY	Gavin	1362 km

*Other stations have been successfully decoded or have reported signals from me but have yet to be completed.*

*Patience and persistence seems to be the key. The signal strength and duration of some longer "burns" is nothing short of astounding. Signals received from distant stations close to my practical maximum distance, including VK7MO and VK5DK have been seen for over 20 seconds and well above the noise floor. Clearly only the bigger rocks are making the longer distances possible.*

*Interestingly other VK4 stations, not that far from the VK4UH QTH, have reported many decoded pings on days when I have seen almost nothing. And vice versa!*

### **Small Station 1296 MHz EME - VK2AMS**

Mark VK2AMS reports:

*Rex VK7MO thought I should write a short article on "Getting Organised to try EME on 1296 MHz".*

*I was given a 1.8 m dish (see photos) that was collecting rain water in a paddock so I decided build an OK1DFC septum polariser with a choke ring for it then got sorted with Az (a Create rotator) and El (a Motech elevation control unit with an actuator ) then got my son who is handy with a welder to help me construct a suitable support structure using 2" gal pipe and concrete footings (I knew I brought him up for something!). I have had assistance from Ross VK2DVZ (a good mate) on setting the dish up accurately using the shadow from the sun on the feed. I am currently using a Minikits EME179 preamp with <0.4 dB NF at the feed (again I had valuable input from Dave VK2JDS) switched into a 50 ohm termination via a Transco 18 GHz relay and have a GS15B amplifier running 120 watts. I am using an FT817 into a Minikits transverter with a Minkits amplifier running 10 watts as a driver.*



VK2AMS 1296 MHz Dish



VK2AMS Feed

*I had an email from Howard G4CCH about trying for a QSO on the weekend. I thought I would see how things were going on Friday morning 16/9/11 before work so got on the HB9Q EME logger and said I was transmitting on 1296.065 JT65C. I was surprised to be able to "see" DL6SH and we proceeded to complete the QSO - his best at -23db with my modest setup. This morning 17/9/11 I had the good fortune of being able to complete a QSO with Howard G4CCH best at -20 ! I am well aware that the "big guns" are doing the lions share but it nevertheless shows what is achievable with a small station so I am very happy so far with progress.*

*I have now severely pruned another tree and about to work on the XYL for a bigger dish!*

Please send any Digital DX Modes reports to Rex VK7MO

## The Magic Band – 6 m DX

Brian Cleland – VK5BC

As the sun became more active in September with many good flares so did 6 m with good TEP openings throughout the month particularly from Northern areas of VK. Northern VK4's, VK6's and VK8's experience many good openings into Japan, China, Korea Guam areas, and late in September into Hawaii.

Rod VK6KP and Michael VK6BHY in Karratha both experienced good TEP contacts to the north throughout the month. Rod reports the first sign of 6 m activity returning to the NW was on 29/08/11 with JA6YBR/B 559 – a few JA's not too strong PLUS 49 MHz offsets 9+-. After that several good openings occurred as follows:

03/09/11 1032 UTC, BA4SI 50.110 599 CW,  
1105 UTC, BA4SI 50.110 59+ SSB.

04/09/11 0905 to 1000 UTC, JA's mostly 3,4 and 6.

13/09/11 0940 UTC, JA6GGD 50.110 59,  
0946 UTC, BA8AG 50.102 599.

15/09/11 0950 UTC, BA4SI 50.110 559,  
1007 UTC, BA8AG 50.102 599.

16/09/11 0932 to 1100 UTC, JAs most areas plus "dogpile" 110 trying to work a VK4SWE (Sweers Island),  
1340 UTC, BV2YA/B 50.001 529,  
1342 UTC, VR2SIX/B 50,075 539.

18&19/09/11 @1000 UTC onwards, many JAs plus BA,BV,VR. and a lot of TV crud  
\*\* FM signals 50.150 FSD?

20/09/11 Again from 1000 UTC, very strong opening same as previous two evenings  
many signals 59+@, @ 1031 UTC, BA4SI 50.110 599.

21/09/11 0812 UTC, JE6AZU 50.110 59+,  
1020 UTC, HL5BLI 50.110 58,  
1100 UTC, BV2DQ 50.120 55,  
1140 UTC, JH1WHS 50.110 59,  
1209 UTC, VR2XMT 50.110 57.

22/09/11 1100 UTC onwards, JA/BA all calling 110 strong TEP opening with a lot of  
TV crud,  
1200 UTC, Beam 315 degrees 48.250 S7 (Dubai),  
1235 UTC, VR2HF 50.100 559.

23/09/11 1000 UTC, Very strong TEP opening JA/DU/BA/VR - many BA stations  
calling 110. FM signal there again on 50.150,  
1200 UTC, DU7/PA0HIP 50.110 58 off back of Willem's beam who was  
working BA's, JR6SEU 50.115 55 Okinawa.

25/09/11 1140 UTC, BV/B, VR/B TV crud and Dubai TV S3 with the beam North.  
1142 UTC, VR2XMT 50.110 57/8. VR2HF there also and Willem  
DU7/PA0HIP 559.

28/09/11 0800-0900 UTC, very intense opening to JA with all signals S9+++.  
Throughout the last week of September Dubai TV audible 48.250.

Michaels's VK6BHY log details below,

03/09/11 10.58 UTC, BA4SI 5/9 +.

04/09/11 09:27 UTC, JA6RJK 5/9, 09:32 UTC, JA6RJK 5/9 & 10:26 UTC JA1QOP  
5/9.

11/09/11 from 06:32 UTC, contacted 11 x JA's some big signals but most about 5/3.

17/09/11 07:55 UTC, JR6EXN 5/3

19/09/11 13.01 BM3GJ ?

20/09/11 from 08:12 UTC, contacted 5 x JA's with signals between 5/3 and 5/9.

21/09/11 12:09 UTC VR2XMT 5/3.

The last few nights have heard Charlie VR2XMT and Williem DU7/PA0HIP and short openings to JA.

25/09/11 13:40 UTC DU7/PA0HIP 5/4.

Michael reports that on a few occasions he has not been able to hear any beacons but has put out a call and got a reply from Japan.

A little further south, Rick VK6XLR in Geraldton had a good start to the Autumn season with 13 contacts into JA on 18 September. The band was only open for about 30 minutes starting at about 0540z with most signals 5/9.

Meanwhile in VK4 regular JA openings occurred throughout September but the highlight was the openings to Hawaii late in the month. On the 28th Sept contacts to Hawaii were made from as far north as Charters Towers (John VK4FNQ) and as far south as Hervey Bay (Wade VK4WM). Scott VK4CZ also reported hearing KH6SX in Brisbane. It was all repeated on the 29th with several Hawaiian stations working many VK4's with over S9 signals. Signals were particularly strong on the 29th into the Mackay & Hervey Bay areas. Kevin VK4BKP in Mackay worked KH6RH at 20 over 9 both ways and Wade VK4WM reported working KH7Y with signals over S9.

Brian VK4EK in Sapphire also got in on the KH6 openings working KH6U 5/1 on the 27th then on the 29th working KH6RH, KH7JJ, KH6HI all 5/8 and a little later KH7Y at 5/9. Brian reports Fred KH7Y was calling on both SSB & CW but unfortunately not getting many takers. Brian also worked several JA's throughout Sept with the best opening on the 22nd when he worked 12 in a row before taking a break.

Scott VK4CZ in Brisbane sums up the 28th as follows:

*An interesting day on 6 m. Just on midday, KH6SX was heard calling CQ on 50.110 CW RST519 - a very good copy albeit low in strength. Unfortunately a two way contact wasn't completed.*

*Soon after (0330z) the band swung to JA and many JA stations were heard with most signals RS59. A second TEP opening occurred just after sunset with very strong signals from JA, BA4SI was also worked. The following is a list of stations worked.*

*28/09/11 03:44 – 0405 UTC, 50.145 SSB JH1WHS, JA7CSL, JH8HQA, JA8GMZ, JA8CAR, JR1SLT, JP1LRT, JA1JSC JA8CRB/7, JA8ANQ, JA1UAV, JM1HJG, JG1XGL with all signals 5/9.*

*28/09/11 04:17 UTC, HL3ERJ 50.125 SSB 5/9 PM37NV.*

*28/09/11 08:26 UTC, BA4SI 50.102 CW 519 539 PMØ1HD.*

Meanwhile Phil VK4FIL in Brisbane also worked JA's on several days in Sept the best being the 29th with signals up to 30 over 9 when contacts were completed with JP1LRT, JO7HAM, JA1UAV, JA1SFL, JA7CSL, JA8OW, JA8CRB/7, JH1WHS and HL3ERJ.

Wade VK4WM in Hervey Bay also completed a good month with contacts completed as follows:

04/09/11 07.01z CW JK1HCE 539

09.10z JJ2NKO 559

09.17 z JR2TER 579

07/09/11 22.11z FK8CP 419

18/09/11 05.03z JJ3JZM/1 599 followed by 6 more SSB and 2 x CW JA's

19/09/11 03.19z SSB JM1WBB 41

22/09/11 10.57z CW JA4OK 599  
24/09/11 05.09z CW JG1RVN 599  
05.12z JG1SIS 599  
28/09/11 02.30z CW 50.105 MHz Art KH7SX 559 on the Big Island then later  
on the band opened to JA, worked 2 x JA stations at 04.02z 59 sigs then later at  
07.59z worked another 17 x SSB including JR1SLT with a 59 signal using only 1 watt  
into a one element quad loop.  
29/09/11 KH7Y 5/9.

Although I do not have details, VK8's in the Darwin area had many openings to the north in September and David VK5AYD in Coober Pedy worked several JA's throughout the month.

Certainly a good month for northern VK's on 6 m. Let's hope we get some extension south in October/November.

Please send any 6 m information to Brian VK5BC