

2010 Spring VHF/UHF Field Day

VK4ADC/P - QG61ou - Beechmont Plateau

20/21 November 2010

This field day was held in terrible weather conditions... blustery winds, rain, and dropping temperatures. Considering it is almost the beginning of summer here in VK, that was a little unexpected. Add to that the fact that I was on the top of the eastern escarpment of Beechmont Plateau and the wind and rain was coming from the south-east, that meant a unpleasant environment. I guess that field days are designed to test us under harsh conditions - and my outing was certainly defined in my mind as being under those.

To add to that, no sporadic E propagation on 6m. High power line noise was affecting both 6m & 2m. Not enough stations active. Somewhat disappointing.

I know I wasn't the only suffering from the wind. VK4WIS portable at Howells Knob, near Maleny, had extensive antenna damage on the Friday evening (not sure - maybe even a tower too) and Ewen VK4HEC portable at Highfields up on the eastern escarpment of the Great Dividing Range north of Toowoomba was having problems getting antennas up due to the high wind. I didn't actually suffer any antenna damage and I put my antennas up into the wind rather than against it so that may have helped a little. Roy, VK4ZQ, portable on the top of Mt Gravatt, was concerned that his microwave dishes were going to get blown over and damaged.

For those who own a multi-mode multi-band transceiver like the Icom IC-706Mk2G, IC-7000, or Yaesu FT-897 or FT-857 series, a tip to make it easier to operate in FD's. Pre-load the following frequencies and modes into successive memory channels : 50.150 USB, 50.160 USB, 50.170 USB, 50.180 USB, 50.190 USB, 50.200 USB, 52.150 USB, 52.525 FM, 144.150 USB, 144.160 USB, 144.170 USB, 144.180 USB, 144.190 USB, 144.200 USB, 146.500 FM, 146.525 FM, 146.550 FM, 432.150 USB, 432.160 USB, 432.170 USB, 432.180 USB, 432.190 USB, 432.200 USB, 439.000 FM, 439.025 FM. It depends on what antennas you are using (and, for instance, if you are using an antenna duplexer for 2m & 70cm) but then all you have to do is "spin" the memory knob/dial to change to all of the common FD working frequencies and change bands. It's quick and effective.

I now use my PICAXE-based auto antenna switcher ([/~vk4adc/web/index.php/component/content/?task=view&id=45&Itemid=44](http://~vk4adc/web/index.php/component/content/?task=view&id=45&Itemid=44)) with my IC-706Mk2G and, during this event, had 6 different antennas in use for the 6m, 2m & 70cm bands - a different one for each mode. These were a 6m yagi for SSB, a "2m 5/8th's" whip for 6m FM (yes, it has a low SWR at this frequency), a 2m yagi for SSB and a Diamond SG-7400 vertical whip for 2m FM, and one yagi each for 70cm FM (vertical) and 70cm SSB (horizontal).

I have tried to promulgate this FD through this web site and at the Gold Coast Hamfest the previous weekend but I seem to have failed - at least as far as SE Q'ld is concerned. The regular FD stations were there but almost no others. I know that contesting/Fd'ing is not for everyone - BUT - it doesn't hurt to make a few contacts with those who are seriously participating and you don't have to send in a log if you don't want to. Just a few minutes of your time a few times during the event helps enormously (a 3 hour re-work period applies) even if you only have 2m or 70cm FM. Simplex contacts only, no repeaters though.

Each field day (FD) outing is a learning experience - things that you could do better, things that you actually do wrongly, and things you just plain forget to do !!! It certainly helps you plan for the next one (for us in VK, 2 months away on 20/21 January 2011) so that you can counter the odds and achieve more contacts. What did I learn from this one ??? Try these

- Prepare for the forecast weather conditions.... then double them. If it is going to be windy, plan for gales. If it is forecast going to be warm at 24 - 28 degrees, expect 30 -35 degree temperatures.
- Always take warm clothing - or cool clothing - regardless of the season. It got quite cold last night with the rain and wind. Fortunately I had taken a wind jacket but the wearing of shorts against the strong cold winds meant that the winds "won".
- When you think you have done all of the things on your checklist - check them through again... You might ask "what checklist ?" but it certainly reduces the likelihood of errors. Like forgetting to take the TCXO off the NiMH portable battery pack and putting it on the main battery bank - and having the TCXO power down partway through the event.....

and not knowing that it has. A printed FD packing checklist (mine is in Excel so that it is easy to update) is terrific at not forgetting things that must be taken along but a setup checklist would help remind you of the things you need to do once there. { Must do that event checklist before the next one ! }

I admit that I already make it easy on myself as I have a laminated coded layout sheet for the coax connections to the back of the automatic antenna switch unit - and that works because I have different coloured heatshrink on each of the the BNC connectors (the sheet specifies which is which..). I only have a few 12V connections after the latest ratification of the equipment so those are easy.

- Get out the lighting arrangements **before** it actually gets dark. Scrabbling around in the setup box for the lighting is best done in daylight. By the time I got mine out, I couldn't actually see the keytop letters on the notebook keyboard..
- The high tension (HT) powerline noise was "bursting" with the wind gusts and gave me a residual S-meter reading of up to S7 on 6m SSB. That made it hard. You really need to pre-visit any possible FD sites to see how quiet the site really is. Wind and rain are the best conditions to evaluate it in.

My antenna setup is pretty easy these day and I can only point that at the exclusive use of wingnuts throughout the assembly. No spanners, screwdrivers etc are required. Always take spares (wingnuts and spare flat washers) because my experience is that you **will** drop / lose some.

This was my setup this time around - at least at first.

{ Mouse-over the images for a larger view }



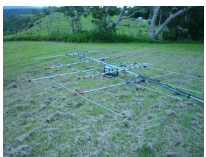
Car all loaded up - arrived on site at 9.30 AM Saturday morning.



First thing to be done is to place the antenna masting mounting base under the rear wheel.



Assemble the antennas onto the mast, the blue work stool playing its part in providing some working space under the masting pipe.



Note that all of the "horizontal" mode yagis are actually hinged so remain horizontal even when the mast pipe is erected.



An hour later, 10:27AM, the antennas are up in the air. From the bottom : 6m yagi, 70cm vertical yagi, 2m horizontal yagi (can be "flipped" vertical), 70cm horizontal yagi, two outrigger arms - a "2m 5/8" for 6m FM and a Diamond SG-7400 for 2m FM, on top is the 23cm SSB yagi.



The masting pipe is attached to an extension bar off the car's roof bars so the antennas can be set up anywhere that the car can go.



Next step is to put up some shelter. This time around (that should be "again" !) the RV shelter is in use



The shelter is up, side polytarps added and reasonably isolated from the "elements". The radio gear is set up inside and ready to go. Time 10:54AM. Time to FD start : 6 minutes.



The equipment this time was brought already assembled into a wooden frame so that all that was required was to plug in coaxes, 12VDC power and the CIV lead from the notebook.



VKCL was again used for logging the contacts. The 23cm transverter + Kenwood TR751A I.F. is on the "top" shelf, the Icom IC-706Mk2G + auto antenna switcher and LDG autotuner below for 6m, 2m & 70cm. The LDG Z100 takes care of the "high-ish" SWR when operating on 52.15 and a little bit on 52.525 on the whip.



I "hid" the generator just the other side of the car so that it was partially sheltered from the rain.



Alternate view of the nylon RV shelter. View to the north. Look for the water tank and metal framed covered shelter to the RHS of the image.

That's the way it stayed until about 2PM when the wind suddenly became even more gusty - if that's possible and I had to reconsider my shelter options. If you look at the very last image above you will see a water tank up high just to the right of the RV shelter, and the shelter just next to it. That is the covered area destined to become my "new" site. Does moving site like this put me into the "rover" category ???



By 2:30PM - the car had been reversed in under the covered shelter roof.



Table out, gear back on it and power reconnected.



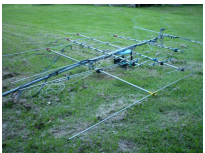
No niceties this time around. Just get it all working again as quickly as possible.



This photo shows the open sides - but at least it was a solid roof



The southern side was missing a couple of panels so the polytarps from the RV shelter sides were tied over the holes to stop some of the wind.



The whole antenna array was dragged across the paddock as an entity and set up in the new spot



The 6m yagi was only about 300 - 500mm above the metal roof so who knows how it affected it's performance. You can't even see it in this photo - you can just see the vertical 70cm yagi above it.



Just one of the rain fronts coming in from the south east along the Numinbah Valley.

The outcome from the change of "venue" - still QG61ou of course - was that I was a little more comfortable even if the receiver sound echoed around the empty shelter. I was now set up on a concrete floor but the antenna mounting was far from satisfactory. The antenna mast was held "sort-of-vertical" by a rope wound around a metal post that supported the nearby covered walkway. I moved the generator out to the western end of the shelter behind a small brick wall but it was still a bit audibly noisy.

Again this outing was all a one-man setup. The box frame for the actual radio gear made that part easy because only some cables had to be connected - antennas and power. The antenna array goes together easily because yagi vertical positioning is pre-marked on the mast tube, the removable elements on the 6m & 2m yagis are colour coded with paint (red, yellow, blue, black..) to ensure that they go back into the correct positions during assembly. The coax feeders for most antennas are formed up with nylon ties and that means not having to run a number of separate coaxes down and then tie them all to the mast tube. (I use velcro straps for that sort of function by the way.) Even so, it still takes a while to set up - about an hour and a half. Around half that to disassemble and re-pack - around 3/4 hr to an hour - particularly in the dark.

The outcome for the entire effort was a "measly" 73 contacts, some under hardship conditions. VKCL advised the calculated score was 863 points.

My log for the 8 hour portable section shows the breakdown :

Band	LocA	LocW	QSOs	Total	Band Mult	Band Total
50	10	20	19	49	1	49
144	10	40	29	79	3	237
420	10	30	21	61	5	305
1.2G	10	20	4	34	8	272
					Total :	863

I don't have to do a lot of preparation for the FD outings now. The antennas, cables etc, are only used for FD's. I keep carry boxes with all of the cables and accessories in and they too are only used on FD's. It makes it easier to check that you have everything if it is all kept together. Even so, it is advisable to get it out a few days before and check for breakages in connectors, element insulators etc and I even check all of the cables end-to-end for opens and shorts.

The car was almost completely packed by late Friday afternoon. I only needed to gather clothes and food to pack in before an 8AM departure on the Saturday morning.

Field Days are enjoyable even though a fair bit of work early in the preparation phase. The more you participate in, the better you get at it and the less you have to do for the next one.

If you are an amateur here in Australia, join in regardless of whether you are operating from home, mobile or portable, or even your grade of licence (Unrestricted, Standard or Foundation). Every contact helps.

All VHF/UHF FD details are here (<http://www.wia.org.au/members/contests/vhfuhf/>) on the WIA's web site.

POST FD UPDATE :

A few emails exchanged with Andy VK5LA contained the following comment : "Yes 99% of the 1296 contacts in VK5 FD comps are FM..."

How about a push to nominate 1296.200 for an FM call frequency just for Field Days and still using horizontal polarisation ??? That way the guys with multimode exciters and 1296 transverters can switch to FM at times - and as desired.

That would ease the chasing of stations all around the SSB call freq of 1296.150 (where no two stations are on any one frequency) when on FM a few hundred hertz (or even a few KHz) error still allows the contact for the same points and distance.