## 2009 Summer VHF/UHF Field Day

Elsewhere on the VK4ADC web site, there is an 'ideas' page that has much of the hardware configuration put together to be used for field day activities. This page concentrates on what was set up, how, and the results PLUS a few do's and don'ts that I found out along the way. I only went portable for the Saturday part of the event, having becided to go south to another grid square, QG61, in lieu of the normal QG62 locality. I have been to Beechmont plateau ( in the Gold Coast hinterland) many times for work in the past but had not visited it for some 10+ years. I researched possible locations using Google Earth and made a number of hard-copy prints to take with me. My final location was picked on my way back north, having driven as far south as the road would take me - Binna Burra Lodge. I looked for spots as I drove south, knowing that I would be back along that same piece of road. There were a few 'possibles' but many had HV overhead power lines nearby, something that you cannot see on Google Earth ! The field day location was calculated as QG61OT, however it was right on the border of QG61OU, and if I was just a few hundred metres away, it would have been the latter grid locator. Height according to the GPS was 670m ASL. Final SFD score for my efforts was 780 points....

In physical terms, the field day station went together much as planned. No major faults in 'the plan' were discovered but a few niggles will need to be attended to before the 'next one'.. I guess that will be the John Moyle FD and it doesn't seem that far away now.

The first observations concern the VKCL software. It works well but the fact that the entry background colours mean something need to be expressed clearly- maybe in the help menu - maybe in the status screen that pops up once a callsign has been entered.. A big DUPE in flashing red maybe ??? . Nowhere does it differentiate that for the SFD, SSB and FM on the same band are counted as the same emission mode ('phone') - yet they are readily selected from the screen mode menu. To me, if I can see a different emission mode, that means an alternate contact is possible on that band. If I can work SSB, FM, AM or CW on any given band and it appears on the menu then I can work a single station on every listed mode on VKCL and have it count as a separate point-attracting contact. In this case - WRONG !

*A SEPARATE PAGE  ON THE VKCL SOFTWARE IS AVAILABLE ON THIS SITE*

*Only when you do your log extract* does it actually tell you that the multiple 'phone' contacts are dupes and count for nothing extra. Now maybe I should have read the rules more carefully BEFORE the Field Day but on perusing them while putting this page together, they don't really say anything about emission modes at all - so it leaves the question open in my mind.

The second observation is of a more technical nature. I had never really explored the 'noises' generated by the IBM G40 notebook but it is something that I will explore fully in the near future. I seemed to have a broad-band noise across all 6, 2 and 70cm bands while set up. Now I am used to the normal CRT-related line-noise birdies every 15.6KHz but at the time, I started looking for electric fences on the nearby farm as a 'maybe'. At no time did I really suspect the notebook computer as the source - at least not until the very end. What put me onto it was something just too simple - I had put the IC-706 back into it's mobile position in the 4WD and made sure I had whips on to allow continuing operation on 6m and 2m while still on Beechmont plateau. I placed the IBM G40 notebook onto the front passenger seat and 'woke' it up - and to my horror, there was the same broad-band noise right across 144.150 SSB calling frequency. I put it back to 'sleep' and the noise vanished. Hmmm... try turning of the GPS too - a few little niggly random noises vanished and 144.150 was quiet ! All except for VK4WIE/P and VK4WRC/P who both boomed through. Thinking back, I had the notebook running before I turned on the radio gear so at no time did I ++not have++ the notebook computer awake during the SFD setup.

Still concerning the IBM G40 notebook, I charged the NiMH batteries off the 240vAC output from the petrol generator but the power adapter is obviously a switch-mode style because I did note a change in some of the noise when the gen was running - as against when it wasn't. If I can quieten down the G40 so it's noises don't compromise the weak signal performance of the field day station then I will also replace the notebook power adapter with a 'dead quiet' standard transformer-rectifier-filter capacitor-style power supply just for these outings.

Finally, regardless of how far away the petrol generator is, you are still liable to hear the spark plug firing away. Maybe it won't be overly bad but remember to switch on the NB (noise blanker), as neccesary, for SSB operation.

Outcome :

When unpacking the yagis, I found one element insulator on the 2m yagi had cracked - so was replaced from the 'spare parts' taken. Obviously I had placed too much tension on the element when I tied the folded-down array to the roof racks..

The propagation on 'the day' could have been better for many of us. The sporadic E on 6m was poor, with only 1 x VK3 and 1 x VK5 worked to our south ( and they were relatively weak ) and about 6-7 northern VK4's worked throughout the 8 hour period. Nothing truly astonishing was worked on 2m or 70cm SSB - the greatest distance worked was to VK4BG at Hervey Bay on both bands - some 320 KM.

No nearby WLAN access points so no VKLogger access. Maybe next time I will get one of the prepaid Next G wireless SIM cards - if I can find a suitable (unlocked) second-hand USB or PCMCIA wireless modem...

The local weather was 'windyyyyyyyyyy'.... with low clouds bearing moisture from around mid-afternoon. Being just a few metres away from a sharply-falling Eastern escarpment, the wind howled through the nearby trees most of the day. Fortunately I had planned for wind/rain to some extent and while I didn't take any care placing the wet covers back into the 4WD at the end of the day, they were hung out to dry first up on the Sunday morning.

Not enough stations were operating in the Field Day. There were times when it was just plain BORING. All of the stations you could hear had been worked, and there was still quite some time until the next re-work possibility. Maybe it is a complacency in the amateur ranks and maybe it just isn't PR'd enough to make them aware of it - and encouraged to participate.

*The trip* : I left home at 7.15AM on Saturday, 17/1/09, was set up completely by 10.45AM, having taken a while in determining the site for the day. I started packing up the gear at about 5.40PM having perused the log and noting that there were no VK4's remaining that I could re-work within the 3 hour QSO-repeat window on 6m/2m/70cm. I climbed back into the drivers seat at 6.27PM and worked VK4WRC/P on 144.150 SSB using just the 2m 5/8 whip. A quick peruse and call on 50.150 SSB revealed only VK4WIE/P - and we couldn't work again. I walked in the door at home at 8.20PM. All in all, it was a good day out - amongst the flies, wind, rain, and a few people who stopped to come for a peek at what was going on. The round trip - about 200KM.

DO's : Take spares & tools; allow for all weathers (cold in summer, heat in winter, wet - anytime); check the whole field station setup for things like notebook emissions; pre-check antenna VSWR readings; pre-read the rules; take the time to find a great site (eg via Google Earth) and go for a drive beforehand to check for HV powerlines (taking at least a receiver to cross-check for noises); make sure *all* batteries will charge; take some WIA "Calling CQ" brochures with you.

DON'TS : Don't expect to work the world - propagation may not be there; don't forget that it is mandatory to eat and drink at some time during the outing; don't forget to read the DO's...

16 Jan 2009 : The 4WD is all packed and ready to go first up in the morning for the Saturday part of the 2009 Summer VHF/UHF Field Day. (Note - click on images for larger views)

4WD rear view - not quite full - but close enough !

Most smaller items are in plastic carry boxes to (1) prevent damage (2) make them easier to pre-pack into the vehicle.

The 70cm yagi could have gone on the roof bars but it fit inside this time..

.

Passenger side view - note that the blue carry boxes contain radios and the green basket on the top just some polytarps.

Note that there is a rope across and round the front of the boxes to prevent a forward load-shift in the event of a 'quick stop'

Driver's side view - including some HF whips if things on VHF or UHF get really dull !

The pine planks are to go across the white folding table (behind driver's seat) to prevent table top sag.

The concentric masting tube plus the 3 x 6m yagi elements fit well between the protruding u-bolt threads, the 2m yagi (with most elements folded) and the 6m boom tie on easily next to it.

The remaining 2m elements plus the 6m DE halves are on the LHS inside the vehicle.

Note that the car contains... multiple radios for VHF & UHF, 2 reasonably-sized fully charged car-style batteries, 2 gen sets + 2 fuel cans, 2 tables ( don't know which will work out better yet ), 2 pine 'planks', 2 folding chairs, 1 HD plastic stool - makes it easier to tie things on at roof bar level & used to support the masting tube when attaching the yagis to it's underside, side RV cover (nylon style attaches to 4WD roof), a few variously sized polytarps, 2 tent poles & 8 'sprung' ropes, shade cloth (flooring), multiplicity of coax cables, 1 x coax switch, notebook computer, 12vDC-240vAC inverter, lights, power cables for the gen - 12v & 240V, yagis for 6m + 2m + 70cm, 5/8 whip for top of array, HF mobile whips, masting tube - extends to about 5m, hinge plate.... plus digital camera, water, insect repellent, sunscreen, hand tools, nylon ties, antenna element repair kit, spare element insulators, screws, nuts, spare fuses.....

Maybe I won't want (or use) it all but when venturing to a reasonably remote place, it isn't easy to just duck into the local supermarket and pick up something like spare 35 amp fuses.

Only things to put in before venturing off is the mobile phone, food, cold water... and me.

Look for entries for VK4ADC/P on VKLogger.com (http://www.vklogger.com) - at what should be QG61OT, at about 600m ASL up near Binna Burra on the Beechmont plateau - just north of the Qld/NSW border. I will **not** be able to access the 'www' from up there unless someone has an unprotected WLAN nearby - and my notebook's inbuilt WLAN support can access it !

---

The photographic details -:- 17 Jan 2009 : (Note - mouse scroll over images for larger views)

Arriving on selected site 8.45AM. Note the flat open space to make it easy to put the antenna array together.

Farmland to the west with slow dropoff

8.56AM, hinged masting base in place under the rear wheel, cloth compass over the vertical stub pipe. Eyebolt plumb-bob visible in the full size photo.

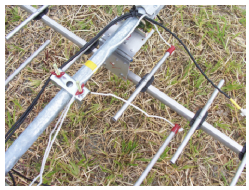
Extension fixed in place and bracing arm attached to front roof bar.

9.00AM - extending mast tube in place. Blue work stool is used to allow the yagis to be slipped in underneath..

9.15AM - the basic yagi booms are unpacked and in place on the masting tube

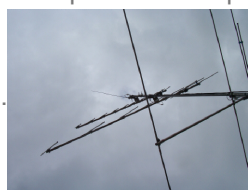
9.20AM - the 3 'whole' elements have been fitted to the 6m boom & the 'missing' 2m elements are in place. T-match arms are fitted to both 6m and 2m yagis.

9.26AM - the feeders are attached, the horizontal /vertical pull rope is attached to the 70cm yagi, the 5/8 2m whip is attached. Note the red PVC conduit clip-on to director with the nylon rope passing through the hole in the vertical whip mount.

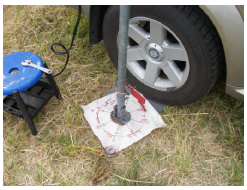


9.30AM - the 2m horizontal /vertical pull rope is attached. Note that the rope is attached by a split plastic conduit piece to the element nearest the vertical masting pipe.

9.36AM - the antennas are up. Horizontal polarisation as standard.



With both 2m and 70cm yagis flipped to vertical polarisation... just a 'yank' on a rope to achieve the change.



9.39AM - the 'direction pointer' is added to line up with the yagis. A magnetic compass is used to define MN.

9.53AM - the 'RV shade' is together and attached to the vehicle.

10.48AM - the radio gear is attached and ready to use - lucky the field day doesn't start until 11.00AM (0100Z). Radio gear set up on table, under - plastic carry box containing 2 x car batteries.

10.49AM - the 850W GMC 2-stroke generator is 'run up' to make sure batteries and notebook are charging. The generator exhaust is pointing away from the car (& thus the operating site) to reduce audible noises.

1.40PM - the western side is shaded by a 6x4 polytarp - the LCD notebook screen was getting hard to view

4.00PM - the fine rain has changed direction so another 6x4 polytarp added to the eastern side of the RV shade

.

5.25PM - final photos before pull-down. The trees in the RHS background are on the edge of the eastern escarpment.

A full 360 degree landscape was photographed but has not yet been "matched up".

6.22PM - the sun makes a final showing through the clouds to the west. Time to go..

Gear actually used during the event : Icom IC-718 plus Microwave Modules 28-432Mhz SSB transverter on LHS, homebrew 35w 70cm linear adjacent, Yaesu VX-7R handheld for 70cm FM, Icom IC-7400 for 6m & 2m FM & SSB, IBM G40 P4 3GHz notebook (for VKCL) with external roll-up keyboard and optical mouse at RHS.

Antennas : 11 el 70cm yagi - horiz/vertical flip-able, 8 el 2m yagi, also horiz/vertical flip-able, 4 el 6m yagi - horizontal only, 5/8 2m whip was actually used on 52.525 FM. All yagis are my OzGear designs, modified only to make them easier to use for field days... see Eelsewhere on the site for more details.

The only tools actually required for establishment on-site was a 6" shifting (/ adjustable) spanner ( for the masting pipe lock-off bolts ) and a small flat-blade screw driver for a 12V terminal strip. All other connections and fastenings were wingnuts.
In the future, the screwed 12VDC connections will be changed to the WICEN-preferred style high current plug/socket connectors.

*RESULTS : 8th Position in Section B, Single Operator, 8 Hours*