

## 2011 Summer VHF/UHF Field Day

15/16 January 2011

It almost seems that this event was not meant to be. Brisbane, along with other parts of South East Queensland, has been inundated by massive amounts of rain during this last week with the result being widespread flooding. Sixteen lives have been lost (current count), many are still missing and may yet be added to those sixteen. Much of Brisbane's population is helping those less fortunate to clean up the stinking brown silt remaining after the flood waters recede. I have a few other things happening in my life at the moment so I chose to donate money, instead of time, to help those affected recover.

My original FD plan ( per early December 2010) was to venture to Mt French, QG62HA, near Boonah, a two hundred-odd kilometre round trip from my home. Roads out Boonah way have been cut during this last week so it didn't seem too wise to attempt access. Coupled with that have been messages on the VKLogger forum indicating that there would be minimal local activity. Somehow it just didn't seem worthwhile.

I had scoped out a spot at Daisy Hill Forest Park, just near the koala centre, around the middle of 2010 and since it was close, I thought why not give it a go. QG62NI here I come, and a trip of only about 25-30 minutes each way.

With the rain pouring down for most of the previous week, I had contemplated how wet I was going to get putting together VHF yagis, erecting same, later rotating same by hand... It had set my mind to alternatives so in a few hours a few days before the event, I built up a series of turnstile antennas (info here (<http://www.vk4adc.com/web/index.php/vhfuhf-projects/26-multiband-ants/62-turnstile-vhf-uhf-fds.html>)) that would be quick to assemble if the weather was bad.

Just as I was about to get into the car (loaded previously) to depart for Daisy Hill, it started raining. I thought "uh oh", I am going to get wet. It didn't rain for long and by the time I arrived at my destination it had stopped but the environment there was wringing wet. I decided that I would just put the gear together and see if the weather held. If it started raining again, I would just hop back into the car until it stopped again. I had taken the blue nylon 4WD shelter with me (as used on previous FDs) but didn't bother to put it up. Likewise I took a folding table - it stayed in the car too.

The antennas went together like a dream. The three turnstiles (as a single array) went together in about two or three minutes including screwing on the N connectors for the external feeders, up went the mounting pipe and it was done. Total elapsed time was about 5 minutes after I had taken all of the bits out of, and off the roof bars of the car. I still had a few minutes to the 0100Z start time so I put together the alternate vertical antennas onto a shorter length of mast tubing (3m), stood it up and tied it to a nearby fence post. The time was 0057Z when I had all of the antennas up, the IC-706MK2G all connected, the notebook running the VKCL logging software and was about ready for the FD to start. When you consider that I didn't leave home until 10AM, an hour before, I had done well in getting there and getting the antennas in place in that time.

One of the National Park Rangers came past about then, asked me what I was doing. I explained and he said "Ok" and went on his way.

When I had surveyed the site previously there was no high tension noise. Now there were "blurts and spurts" typical of HT discharges evident on 6m with signal levels up to about S2-3. I was even hearing an occasional burst on 2m SSB. HT noise was the reason I wasn't going back to Beechmont ( a previous FD location) in the first place and now I was lumbered with it anyway. That's life.

As usual I had a number of issues during my few hours on site - the notebook shut down and wouldn't power back up until I removed and replaced it's internal battery. It looked like I had vertical antenna problems on 2m FM until I discovered that I had connected the BNC plugs from the antennas to the wrong sockets on the antenna switcher.... Less haste, more accuracy next time.

There were few stations operating in southern VK4 for this event. Those that I could I worked on the 3 bands I was operating this time around : 6 metres SSB, 2 metres SSB and FM, 70 cm SSB and FM. I had elected to not even bother taking the 23cm gear this time around - and it turned out that it wouldn't have been worth the effort. I could hear the VK4RGG beacon on 50.067 at around S6, the VK4RTT beacon on 144.44 at S2-3 and the local beacon on 432.440 at S0-1 so I knew the turnstile antennas were connected and functioning.

I heard just one station in northern VK4 on 6m, VK4WAT/P, but he faded before I could work him. I heard ZL4DK early in the piece but only just managed to work him a nearly 2 hours later. That was it for DX.

It wasn't really worthwhile hanging around so after I did a rework of a couple of stations based on the 3 hour rework period, I pulled the antennas down, packed them away, packed up the radio and notebook and was ready to go. The whole dismantle to ready-to-go took just under 15 minutes..... a new record against any of my other FD outings.

I did take a number of photos showing the "station" and the erection process. Mouse-over the images for more detail.



This was the back of the 4WD. Two plastic carry boxes plus a battery box plus the turnstile array and some short pieces of aluminium tubing for the mast extensions. No generator or fuel - I wasn't going to be there the full 8 hours.



The middle carry box held the cables and whip antenna brackets - plus an SWR meter - something that came in handy to check the antennas in a true FD environment.



The LHS box contained the IC-706MK2G plus autotuner for 6m plus my PICAXE-controlled antenna switch, all assembled and only needing 12v power and the antenna cables connected. The old Compaq 1700 notebook, used for logging is on the RHS, was "hibernated" before being packed into the box to minimise startup time.



The top of the 4WD had only two mast tubes tied on : the normal telescoping mast tube that I use with my FD yagi set plus an extra 3m tube for mounting the vertical whips.



Well you can't get much closer to being inside a National Park area..... Actually the fence came in handy a few minutes later.



This was the spot : QG62ni, just outside the koala reserve.



I had made a quick extension arm to fit onto the u-bolts of the front (homebrew) cross-bar yesterday and I wasn't sure if I would need it. It's just a length of aluminium tube with a pair of holes at each end to suit the u-bolt spacing - one set vertical and the other set horizontal. This shows the positioning horizontally off the roof bar.



This is the vehicle end. I had to flatten the end of the tube a bit so that I had enough thread clearance out the top for the flat washers and wingnuts to be attached. Quick and simple.



This is the first image of the turnstile array up in the air on a FD. Yes, trees all around so not brilliant for microwave but just satisfactory at VHF and low UHF.



I did mention that the fence came in handy didn't I ?? This is the top of the extra "whip" mast. The lower whip in the view is the Diamond SG7400 dual band whip for 2m & 70cm. It has a couple of 1/4 wave radials attached to improve it's operation. The top (black) antenna is an old fibreglass 5/8th wave 2m whip - but that one works well for 6m FM as well as 2m FM.



Slightly more detailed view. The two "arms" attach to the vertical pipe with standard u-bolts and wingnuts. No normal nuts or screws are used so no actual hand tools are required for FD assembly.



This is the two whips up in the air, feeders attached. Yes, they are close together but I am using a radio that only operates on one band at a time so the interaction is inconsequential.



Notebook on the seat, IC-706MK2G plus tuner plus antenna switcher on the floor. Not a good operating environment but if it started raining, all I had to do was close this car door and race around to the driver's side door (RHS).

As it turned out, it didn't rain again so it wasn't necessary. Better to be prepared though.



This view shows the clearance of the front car door to the turnstile's vertical mast. Easy enough to be put up in the air almost anywhere.



This is a closeup of the flattened aluminium tube as it attaches to the front crossbar. Initially I had not tightened up the wingnuts enough and the mast tube moved off-vertical. A quick straighten-up then wingnut re-tighten did the trick though.



This is the outer end of the aluminium bar. Note that I only bothered to tighten one wingnut. If it started to rain when I was going to dis-assemble it all, I wasn't going to waste a lot of time undoing both wingnuts the full length of the protruding thread !



This time I remembered there was a 10 second timer function on the camera plus there was a convenient flat top on the nearby fence post. I took this one just to prove I was there - that's me in the battered/weathered old felt hat.



This was a better view of the turnstile so it has been included as a sort-of completeness to the suite taken today.

The dangling coaxes and connectors are used when the yagis are in place but there are 3 "spares" in the form when used with the turnstiles....

I wasn't worried that the three turnstiles did not line up - they are basically omnidirectional anyway, something that I proved while on site. I rotated the mast tube while I was listening to a station and the signal level only varied slightly.

My log shows just 24 contacts in the event during the 3+ hours I was operational.. Given that I wasn't expecting many local contacts, that is fine by me. The ZL4 on 6M was great but no other ZL's were heard - maybe without the high tension noise I would have heard others.

**Results :**

Band	Locators Activated	Locators Worked	QSOs Made	Total	Band Mult	Band Total
50	10	40	9	59	1	59
144	10	30	9	49	3	147
420	10	30	6	46	5	230

Final Total: 436

Not a big point or contacts total but at least I participated. I thank those who took the time and effort to come up and give out a few numbers - it was much appreciated.

73 Doug

VK4ADC/P, QG62ni.

15 January 2011