

## 2014 Winter VHF/UHF Field Day

21<sup>st</sup> June 2014

My first question is : “Who invited Murphy ??”. Just when I thought I had conquered most of my FD issues, along he came again....

The forecast was for some scattered showers, some wind, and I was prepared for that. I wasn't really prepared, mentally at least, for a tropical thunderstorm with lightning plus heavy rain at this time of the year. Hey, it is winter after all. Apart from that, I wasn't expecting my primary FD transceiver to turn up it's legs and die in-situ and leave me without 6M, 2M and 70CM SSB and FM. That's Murphy for you.

Initially all went to plan. I pre-packed the FD trailer during the days leading up to the event, just needing to add food, water and spare clothes on the Saturday morning. I got under way around 8AM and headed for Beechmont Plateau, yes – there again, as I had previously been granted permission by the dairy farmer to occupy a high spot on his property. So the grid was QG61OV55NN. One of the main reasons for going there again was to see how good the microwave gear was performing since the 5.7 and 10GHz gear had been upgraded since the Summer FD event, and a comparison against “last time” was desirable. I will probably return there at least one more time as there is yet more work to be done and it will be a reasonable method to compare.

I arrived on site about 9AM and started setting up the VHF and UHF yagis plus the vertical whip on the top, this time with RG213 feeders in lieu of RG-58-style ones on the four yagis : 6M, 2M H/V, 70CM Horizontal and 70CM Vertical. The 70CM H yagi now has more elements and a longer boom than the 2M one, just a pity that I wasn't able to use/try it.

Next was the microwave “mast” with the antennas and transverters for 2.4, 3.4, 5.76 and 10.368GHz, with the 23CM yagi right on the top. Again, all went to plan there and that was raised to vertical.

Next came placing the radio transit box in position on the “table-top” across the FD trailer and connecting all of the cables, those being 12VDC, coaxes and rotator controls. The sinking feeling in the gut came when I flipped the 70A circuit breaker to supply the power and was greeted by a fault in the IC-7096Mk2G – no receive, no transmit even though the display was lit and rotating the dial changed the frequency displayed. The IC-706(Mk1) transverter IF plus the 5 microwave transverters worked as they should. That left me initially with just microwave frequencies available.

I unscrewed the covers off the 706Mk2G and opened up the service manual PDF on the netbook and started to trace some voltages with my only test equipment being a digital multimeter. I guess my greatest discovery was that the +8volt receive line was +6.5V and at that stage I turned it off and put it in the car. I unscrewed my FT1802 2M FM transceiver from the car and put it on the top of the transit box so then I had 2M FM plus microwave to work.

This was the first time I took solar panels along to keep the battery bank charged and while the sun was shining, they did a good job of replenishing the energy I was consuming. I have recently bought two 80 watt panels to use in parallel, to which I have added series reverse protection diodes ( a bridge rectifier screwed to the frame with the +ve in to the two AC pins, the output taken from the +ve pin). The problem only came when the sun got lower in the sky and was being obliterated by clouds, part of the storm front coming through. It was still early, not even 4.30PM and since I still had another 2-3 hours of operating to do, I fuelled up the two-stroke generator and prepared it for use once the batteries went down a bit.

I elected to run a paper log since my Mk2G device was faulty and VKCL was not going to read frequencies and modes from the radio. Fortunately I always take a clipboard with paper logs sheets with my FD kit so it wasn't an issue except for dupe checking. The contacts were then entered into VKCL in Post-Contest Entry Mode on the Sunday morning.

Operating-wise, the contacts were a bit sparse over-all but the gear appeared to work pretty well. It was a pity I lost access to 2M SSB and 70CM SSB & FM but I did (eventually) realise that I could get the 706Mk1 microwave IF to provide me with 6M SSB capability and made some additional contacts that way. I nearly made a contact with Alan VK4WR/P some 243KM away on 23CM SSB while signals were down in the noise, his signal on CW was certainly readable. I quickly ran to the car to get out a hand morse key, plugged it in and was greeted by paddle-style CW – dahs only. I couldn't find how to re-set it back to standard hand key mode so we were unable to complete. (This has since been remedied !)

I had some phenomenal signals on all bands from Scott VK4CZ/P (plus Kevin VK4UH as second op) some 99KM away, but was amazed at how sharp their antennas were when it came to peaking on me. We worked on all bands, twice with the 3 hour repeat factor, giving us contacts on 1296, 2403, 3400, 5760 and 10368 MHz SSB. In comparison, some microwave paths were not workable so even though a lot of time was expended on trying, no valid contacts resulted.

The storm front hit my portable QTH about 6.15PM with the result that I missed out on making microwave contacts with Doug VK4OE/P over the 64KM path, and that would have been those 5 bands again. As soon as the rain hit hard, I did a quick pull-down of the connections to the radio transit box and shoved it into the back of the car, a little wet but not overly drenched (not like me). I then pulled the VHF/UHF mast down and removed and packed the antennas and piping on the trailer then did the same with the microwave mast, this time with all of the gear going into the wagon, that piping going onto the other side of the trailer, all in the pouring rain. It was all roped down and then trailer was moved to check for any leftover items. Nothing spotted, I removed my raincoat, my very wet weather jacket and sodden track pants prior to leaping into the car. Unfortunately my reading glasses appear to be still up on the site, probably having been caught up with the rain jacket and are probably hiding in the grass awaiting a cow to come along and munch on them!

The drive home was horrendous with lightning and torrential rain along the way, to the point that I was having trouble seeing the road I was supposed to be driving on. A few near flashes were so bright my eyes had a delay recovering from them, not something you want on rural roads that aren't particularly good to start with. A side point is that my rain gauge here at home showed at 19mm the next morning, all of which was delivered in about a 15 minute window, apparently all just before I arrived home.

The overall Division 1 points results were worse than expected (compared to some previous FD events) but given the failure of the 706MK2G and the curtailment due to the storm, that would be acceptable to most.

50MHz – 11 contacts, 146MHz - 16 contacts, 1296 – 10 contacts, 2403 – 2 contacts, 3400 – 2 contacts, 5760 – 2 contacts, 10368 – 2 contacts, 1 non-scoring dupe.

My Division 1 result was 1419 points, Division 2 was 11693 points.

*Now for the soapbox part* : I think that being able to work the FD in ignorance of specific rules regarding grid or distance based divisions and then being able to re-process the log to work to both rule sets is fabulous (thanks to Mike VK3AVV). Hopefully ALL future VHF/UHF FDs retain these same two divisions now that the hard work on the software has been done, at least until a final arbitration has been completed.

The confusion over the start times was terrible, AR gave one start time while the WIA web site gave another. It shouldn't have happened but as a result those who started at 0100UTC were effectively penalized against those who started at 0200UTC – in essence they were participating in a different event for an hour. VKCL showed it starting at 0100UTC so who was responsible for the stuff-up?? Put up your hand!

I had been assured that it was 0200 from a VKLogger forum topic so that is when I started giving out numbers, along with many others.

Even given all of the mishaps encountered, I am already looking forward to the Spring FD even though it is about 5 months away, that will give me time to fix some anomalies in the setup and, hopefully, get my new rotator system up and running, one using the CMPS10 compass modules mounted on each mast assembly to provide accurate direction info.

Some of the photos from the outing, mouse over to see larger....



Saturday 7:49AM - Trailer coupled up, ready to depart. Solar panels roped to the passenger side plus antennas on top, masting pipes on both sides & overhanging both ends of the trailer.



8:50AM - almost on site. This is the view from the roadside. See that black thing in the distance, well that's where I will be setting up.



If you couldn't see it before, that black water tank is my target zone.



8:53AM - Just after arrival on site.



8:59AM - car uncoupled & trailer levelled with a spirit level.



9:38AM - the antennas for 6M, 2M and 70cM on their way to vertical.



9:40AM - they are up and the locking pin is in to prevent them rushing back to earth.

The whip on top is for 2M FM, then coming down is the 70cM horizontal yagi, the 2M horizontal/.vertical yagi, the 70cM vertical yagi and finally the 6M horizontal yagi...



10:04AM - the microwave mast is ready to lift vertical. The axis of the 3 antennas is set to align in the same direction.

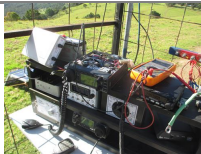


10:05AM - the locking pin for this mast is in place too.

The 23cm yagi is on top then the 60cm prime focus dish with a dual band feed for 5.7 & 10GHz with the dual transverter just below. The gridpack also has a dual band feed for 2.4 and 3.4GHz and the dual transverter for those bands is just below it.



First time out with a pair of 80 watt solar panels. They add another 16Kg to the total FD kit weight but certainly keep the batteries up while the sun is shining.



What you really don't want to see : the IC-706Mk2G with it's covers off and a multimeter being used to try to figure out the fault. Fortunately I keep a copy of all of the instruction and service manual PDFs on the netbook computer...



4:09PM - the sky is getting darker and the first of the clouds of the storm front are appearing....