

Flyaway unit on 10GHz or adventures on mountaintops.
By Jack Swart VK2TRF

In my job as a professional cameraman, I get to travel to a different destination somewhere in Australia each and every month. Before each shoot, I decide what radio hardware I will take to suit the destination. Mostly I take an Icom IC7000 to operate HF, VHF and UHF. More about these adventures in an upcoming article.

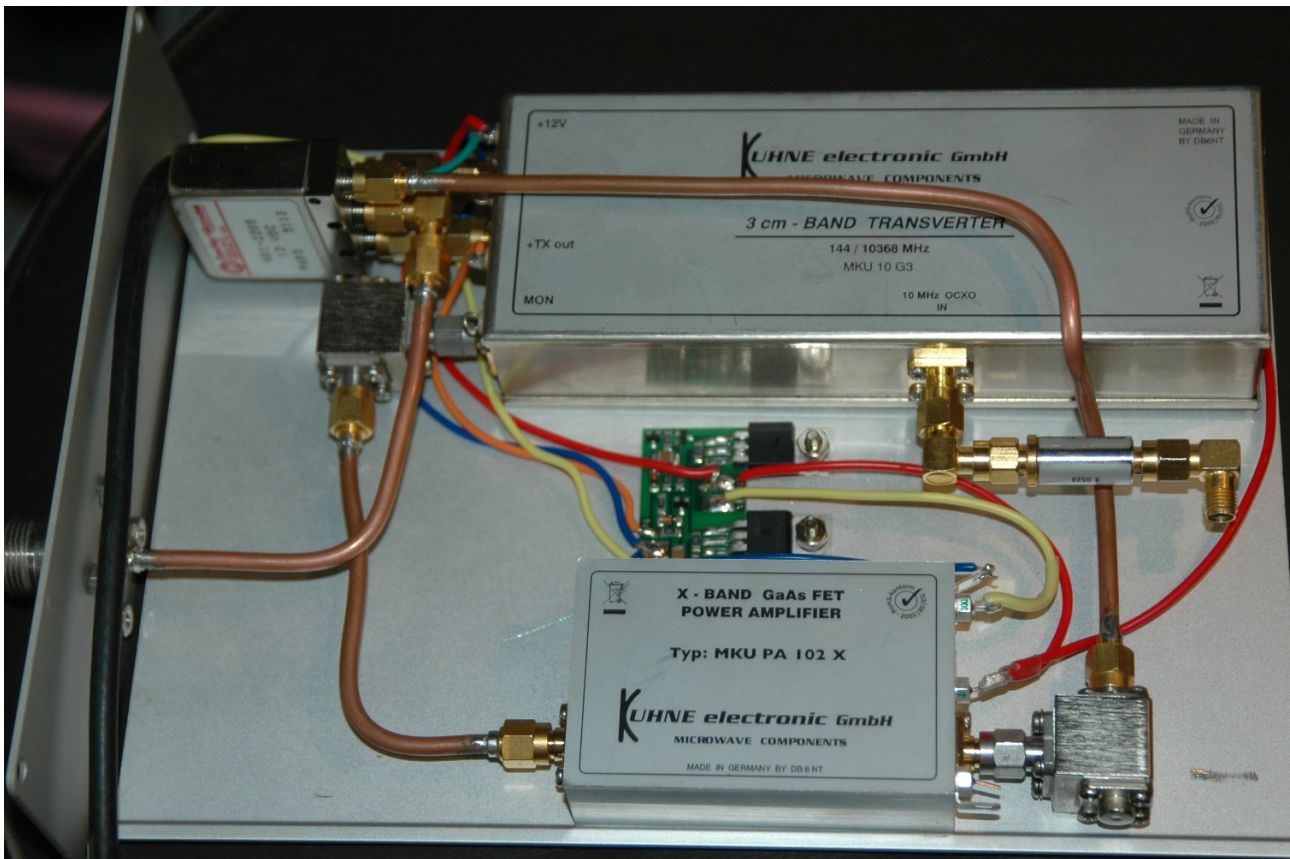
When I received the schedule for the trip to Victoria in January 2009, I realised that there would be several opportunities to go looking for mountaintops for future microwave operations. While checking topo maps I soon discovered that I would be well in range of Melbourne and Geelong, two hot spots for 3cm operations. After firing off a couple of emails, it became clear that quite a few VK3 stations would be willing to have a crack at a portable VK2 station in their own backyard.

Having to fly to almost all filming locations meant keeping weight and volume to a minimum, so the normal sized dishes, tripods, battery packs and spare gear all had to be left behind. Searching through the junkbox (otherwise known as the entire garage) I found an 8 inch dish from an old security system, complete with a split dipole feed for 3cm.

Since I always use a tripod for filming, an adaptor to hold the dish and transverter seemed the best way to go. As I love multi tasking equipment, I used a lighting clamp to attach the system to the tripod. The 5 watt transverter is quite small so the dish was attached directly to it and the tripod.



The interior shot of the transverter shows the basic 200mW unit, the PA, the sequencer, isolators and 12v T/R relay. The extra connector on the side of the transverter is the 10MHz reference input.



The usual FT290 was pressed into service as the IF rig and the IC7000 as the liason radio. The 2m window antenna mount could rapidly be changed for vertical to horizontal polarisation for FM or SSB. The final piece to the puzzle was the newly acquired GPS locked 10MHz oscillator which simply connects to the transverter and locks the LO extremely accurately.

All power for the system is 12v from the vehicle battery.

Normally my laptop containing topo maps and GPS receiver is an integral part of mountaintopping, but it was just too big and heavy. Paper maps had to be used instead. All the equipment fitted in a sturdy aluminium shipping case designed for camera equipment. This had the advantage of looking like camera gear at airline checkin, avoiding any questions about the weird looking stuff inside.

Upon arrival at the first location, Anderson Hill near Loch, I put out a call on 144.100 and was almost overwhelmed by the number of responses. On 10368.100 the number of stations was such that several had to QSY to avoid interference. QSYing on 3cm, I can tell you, is completely outside my experience!!

For 3 hours, my mobile phone, 2m rig and 3cm system were going absolutely flat stick. I tried to record contacts into my log but the traffic was so busy that I have had to rely on reports from the stations I worked, to complete the data. At the end of the day, 9 stations were worked. I think this is more 3cm stations than exist in VK2!!!

The small dish and 5 watt KUHNE transverter and GPSDO worked flawlessly and made operating an absolute pleasure. The unit was very sensitive and 5 watts output certainly makes oneself heard. The second outing, on top of Mt Tassie was a little less hectic. I managed to work three stations on 10368.100 FM. The interesting part was that two of them were at right angles to the dish so I was able to have a three way QSO on 3 cm without any panning. Another first for this VK2.

Thanks to VK3QM, VK3PY, VK3NX, VK3TU, VK3NW, VK3NJP, VK3ALB, VK3XPD, VK3WRE, VK3WRE, VK3YDK and VK3KAI et al. If I have inadvertently left you out of the log, please email me and I will correct the situation.

All in all, I had a fantastic time while portable in VK3 and thanks to all those stations that participated. It just goes to show that you don't have to lug large dishes and complex gear around to enjoy 3cm.

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