

2016 ANZAC Day Amateur Radio Special Event

Julie VK3FOWL and Joe VK3YSP

Photography by Ben Gillies. Tricia and Deanna Taylor.

The School Amateur Radio Club Network and the Melbourne Region Scouts joined forces to present their inaugural ANZAC Day Amateur Radio Special Event at the 1st Bentleigh Scout Hall at Victory Park in Victoria.

The all-day event was attended by some 200 school students, Scouts and their families.

Highlights of the day included a high altitude balloon launch, a very moving ANZAC day ceremony and many radio-related activities and displays. The progress of the balloon, which was tracked by local amateurs, was closely monitored by the children on their mobile devices. The electronics soldering activity, first aid - CPR demonstration and a historic WW2 radio display also attracted a lot of attention.



Figure 1 – ANZAC Day Amateur Radio Special Event

The concept for the event grew out of the author's experience with the annual Jamboree On The Air (JOTA). Last year they teamed up with Murray VK3MJT, the Melbourne Region Cub Scout Commissioner, to present a JOTA experience at the 9th Caulfield Scout hall in Murrumbena. Murray's idea was to get neighbouring Groups, that were

not planning their own JOTA event, to come along and experience it for themselves. The plan worked a treat with many other Groups attending.

A review of that event with local Scout leaders revealed the need to have more than one JOTA-style event during the year so that the preparations and skills required would remain fresh. But when and where would it be held? It wasn't until April this year that the right opportunity presented itself.

The authors were keen to have their three primary school Amateur Radio clubs participate in the 2016 Global Space Balloon Challenge - The annual event where some 300 teams around the world launch and track high altitude balloons, apparently just to "celebrate an age where anyone can reach the edge of space". However, the official launch window for that event was less than 30 days wide.

Building *three* amateur radio balloon payloads and launching them in that timeframe would be no mean feat, as others involved in the hobby can attest to. And the launch should be more of a spectacle, than an unceremonious release from the boot of a car. So there was a real need to bring the three schools together, on one day, at a nearby park. But that would require a weekend event, on or around ANZAC day, and some serious logistics.

As is their forte, the Scouts came to the rescue: Murray was on-board immediately, we surveyed seven parks, chose one and had local support from James and the Leaders of the 1st Bentleigh Rovers, Scouts and Cubs the next

day. Scout leaders from the Glen Eira Stonnington District met with us to help iron out the details.

There followed advertising on school and Scout websites and newsletters. WIA bulletins and broadcasts, assisted by Jim VK3PC and Graham VK4BB. A new callsign "VK3SRC" for SARCNET was processed by Petra in the WIA Melbourne office. The Scout Radio and Electronics Service Unit provided their own callsign "VK3SAA" for the Scouts to use.

The morning of ANZAC day arrived and by 9am many young wide-eyed visitors and their families started arriving. Some had come straight from the local dawn service. The Scouts came in uniform and, not to be out done, the SARC kids donned their own fluorescent yellow safety vests. When they entered the hall they all saw an array of well-prepared activities and demonstrations.

First up was Pete VK3HEX and Kerry from First Aid Training Group. They provided a great hands-on CPR demonstration teaching real-life skills. Sadly, none of their rubber patients ever regained consciousness, but we all learnt the correct number of compressions and breaths required in an emergency.



Figure 2 – First Aid CPR Activity

Next was Julie VK3FOWL with the SARC electronics team. They were testing components, bread-

boarding circuits and soldering kits like experts. Their “Hypnotic Owl” project with flashing blue LED eyes was a big hit and many children, who had never soldered before, sat down and gave it go.



Figure 3 – SARC Electronics Team

Then there was Colin VK3UDC and Ron VK3AFW from the Moorabbin and District radio club who set up an excellent historic radio display. There was an array of radios used by Australian troops during WW2 including an AR7 communications receiver, a Type 108 backpack and a Type A MkIII suitcase spy radio. Ron was also kept very busy giving CW demonstrations to a fascinated audience.



Figure 4 - MDRC Historic Radio Display

Peter from Scout Heritage Victoria had set up a brilliant display, which really portrayed how the Scouting movement has evolved over the years.



Figure 5 – Scout Heritage Display

Finally, there was a wide range of static SARC displays featuring: Amateur Radio bands; call signs and QSL cards; logbooks; abbreviations and jargon; the international radio alphabet; High Altitude Balloon payload development and the use of Amateur Radio Direction Finding equipment for triangulation in search and rescue missions.



Figure 6 – HAB Development Display

Outside the hall, Kieran from the Victorian Scout First Aid Service had set up what looked to be more like a “Mobile Army Service Hospital” than a first-aid tent, proving that the Scouts really do come prepared for anything.

There were several working amateur radio stations on the scene of course: Anthony VK3YSA was manning the VK3SRC station on 40m, while Murray VK3MJT was operating the VK3SAA station on VHF with a “Milo Tin” antenna (another great Australian invention).



Figure 7 – Murray and the Milo Tin

Meanwhile any and all amateurs roaming around with handheld radios were encouraged to hand them over to any children in their vicinity and to help them get on the air: Some for the very first time. Radio procedure flash cards ensured that everything was above board. The result was a lot of chatter on 2m FM simplex with most enjoying the experience so much it was actually quite hard to get the radios back!



Figure 8 – “Can I have my rig back?”

From the SRESU, Bryan VK3YNG and Kevin VK3KAB had children running in all directions tracking down hidden transmitters using Bryan’s brilliant little ARDF sniffer setup. Kent VK3TER was trying just as hard to catch them all on his video camera.



Figure 9 – ARDF Activity

At precisely 10am everyone moved to the oval to launch four separate helium balloons. The first three were actually small latex balloons calibrated to gauge the ambient wind direction and ascent rate. The fourth was a larger silver foil balloon fitted with an amateur radio payload designated "SARC1".

An overly-elaborate "High Altitude Balloon Launch System" was employed to add a certain amount of theatre to the event. SARC leader Emilka was first to insert the key and turn it to the right to arm the system, setting off a bright flashing strobe light. Then, one by one other volunteers came forward to flip up a missile switch, activating an alert tone and selecting the next balloon in the sequence. Everyone stepped back and gave a final count-down as a remote-control button was pressed to actually launch the balloon. Hooray!



Figure 10 – "Balloon 1 Armed Captain"

When the last balloon was finally airborne it was expertly tracked by Rhett VK3GHZ, Peter VK3XCO, Dean VK3NFI, Frank VK3FADI, Joe VK3YSP, Paul VK3DBP, David VK3KCX, Karl VK3LN and Mark VK3OHM! What was even more remarkable: It seemed like everyone present with a mobile device was actively following the balloon's progress on the Internet.



Figure 11 – SARC1 takes to the skies

For the record: The tiny 50g amateur radio payload, running on lithium batteries, transmitting BPSK31 telemetry on 434.650MHz FM, lasted over six hours, reached an altitude of 4,000m and travelled over 250km! It was last heard heading East off the coast of Victoria, past the Gippsland Lakes.

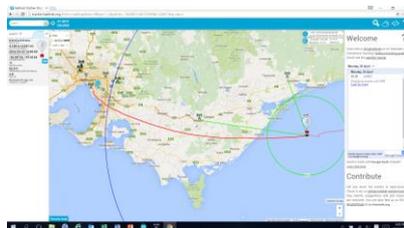


Figure 12 – SARC1 Track

And here is the telemetry graph: Indicating amongst other things that, at 70°C internal temperature, the polystyrene enclosure was probably a little too good as an insulator!

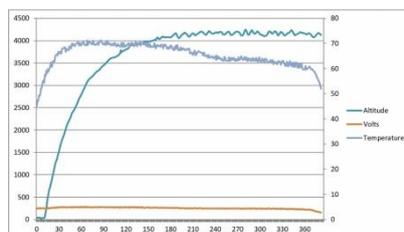


Figure 13 - SARC1 Telemetry Graph

Next up, providing some real solemnity to the occasion was an ANZAC day commemoration. The ceremony was presided over by Murray with assistance from Ian and Glenn of the Bentleigh RSL who provided the flag, speech and a recording of the Last Post. Murray and the Scouts did a fantastic job.



Figure 14 – ANZAC Day Ceremony

It was then time for a BBQ lunch and something called the "Damper Pit" - A strange Scout ritual where flour and water are mixed to a sticky consistency, attached to a stick and cremated over hot coals.

All the demonstrations continued after lunch giving some a chance to rotate through the different activities. At 1:40pm there was a respectable pass of the FO-29 Amateur Radio satellite with some New Zealand stations coming through very loud and clear for ANZAC day.

To wrap up: A great day was had by all. The event would not have been successful without help from so many people and absolutely everyone agreed that we should do it all again next year!