BERKELEY CASTLE SCRAPBOOK

The picture on the right shows Mike, G1EDP, Stuart, G0TBI (standing), and myself sitting by the Syncal 30, enjoying a long chat with Roger, G4BXM, on 80m SSB. Below, we have Stuart operating on the Saturday AM net, using the C11/R210 mounted in the back of his Landrover. Also visible is Sparks (who specialises in sitting about), Rex, an A41 and C42 on the ground.

Providing much moral support, many cups of tea and the photos, was Anne, who has modestly omitted any photos of herself. Our principal on-air support was provided by Tony, G3YNT. Part-time, we also had Chris Cooper, Antony Wedgwood, G0TJD, and Alan Knell, G0BNE, who helped out with such things as talking to visitors to the stand.

Sets taken to Berkeley

HF sets were : WS19HP and WS62 from WWII era; C11/R210, C12 & A13 from the 60's; Racal Syncal 30, giving SSB/AM/CW and still current.

VHF sets were: WS36/R208 from WWII; C42 and its Nato equivalent, the VRC10, and A41 No.2, all 1960's era.

The WS19HP gave an exceptionally good account of itself with the 80m dipole. I had a long 5 & 9 "chat" with Alan, G4GEN, using his WS52 in Sussex early one evening on 80m. It was also used effectively on the Saturday AM net, with good reports received.

Aerials used

HF aerials were: λ/2 dipole cut for 3.625MHz at about 25' agl; 100' long wire at 25' agl.; 43' vertical whip with ground radials.

VHF aerials were: λ/4 vertical rod with ground plane for 51.7MHz, at 27' agl.; λ/4 vertical rod with ground plane for 29MHz, at 27' agl.

Where possible we used original Army issue aerial systems, so VHF rods used the Elevated Aerial system mounted on 27' telescopic masts. The HF wire antennas were supported by a Racal 11m mast, and a tree at the other end.

Don't forget those shock absorbers!

This is Mike, G1EDP, attempting some critical repairs to his C12. When first powered, it showed a really obscure fault on Rx – whatever frequency it was set to, it continued to receive the same signal – possibly a break in the LO tuned circuit. The WS36 also had a fault – no RF output – this turned out to be an intermittent valve base connection, and easily repaired.

It is probably no coincidence that these two sets travelled in Mike's Landrover, without the rubber shock mounts that are normally used on vehicle–mounted sets. Obviously, these are not provided for fun!

Don't forget the wavemeter!

It came as a surprise to me just how difficult it can be to set the older sets (e.g. WS19, WS62, R208) on to frequency. Many of us using these sets at home have access to modern frequency counters, so the task is easy. On the AM nets, most of us simply net with someone else already on frequency. But what happens, when there is no-one to net to, and you have no modern instruments?

In the end we had to resort to the R210 Rx, which has crystal calibration every 10kHz. This was far from ideal, as the R210 was firmly mounted in Stuart's Landrover, and thus not local to the Tx being tuned. With a high level of RF around, the beat note was very weak, and on a noisy site it was very difficult to hear it. None of us had an operational wavemeter available – but we will certainly take one next time!

Skywave works better than groundwave – even for short ranges

Groundwave tests were carried out on 160m and 80m with Tony, G3YNT. Tony's QTH is in Newent, over 16 miles distant, via a path blocked by the Forest of Dean hills. We used a 43' vertical whip (genuine Army 27' mast plus 16' of F-rods), which had a set of ground radials around its base. Tony had a 20' loaded vertical whip, also with a ground plane. Results were extremely marginal (3 & 3 each way) on both bands using 50W of AM from the C11 at our end, with Tony using a C12. 20W PEP of SSB from the Syncal 30 fared better, giving a healthy 5 & 9 both ways.

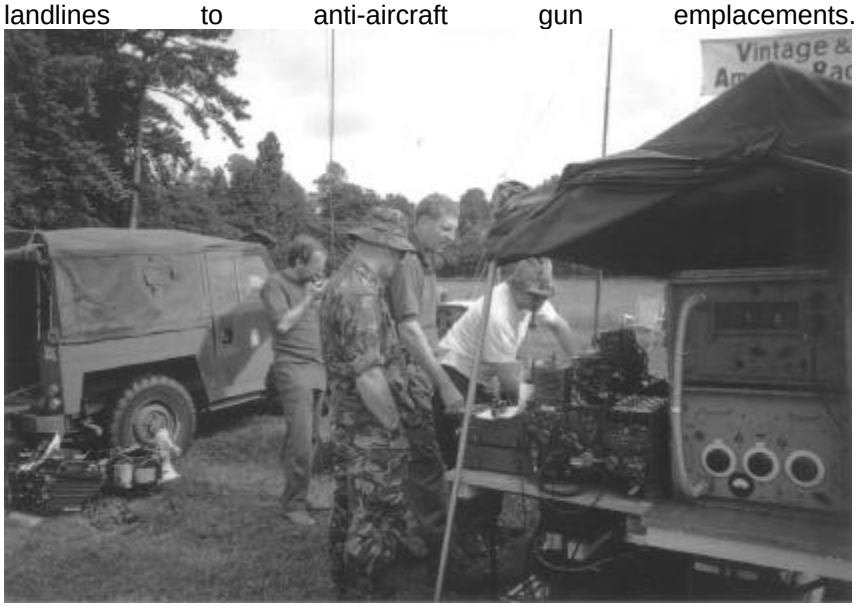
When we switched to 80m skywave using 80m dipoles, there was a tremendous increase in signal level, with 5 & 9 reports both ways on AM. This must be an example of "near vertical incidence skywave" (NVIS), which the Army have made extensive use of over recent decades.

Some visitors to the station – around the WS19HP table

Richard Hankins, G7RVI

Historic "first" 6m AM contact

The large boxes on the right hand side of this picture, connected by what looks like a vacuum cleaner tube are a **WS No.36**. This is a very early VHF AM Tx, which was used during WWII as a back up for landlines to anti-aircraft gun emplacements.



The set as used during WWII covers 10 – 40MHz in 2 bands. However, when first introduced, the WS36 included a third band covering 40 – 60MHz, which was removed because it apparently caused interference to other services. Band changing is carried out by the use of enormous plug-in coils (2 per band). Mike, G1EDP, has recently produced a set of coils for the third band, so that this WS36 now covers the 6m amateur band.

During the rally, we managed a contact with Tony, G3YNT, on 51.7MHz AM, using the WS36, and matching Rx, the R208. To our knowledge this is a "first" – since when WS36's were popular as surplus items with amateurs, the 6m band was not available. And once 6m was released, the WS36 was long obsolete, and it is extremely unlikely that any other amateurs resurrected their WS36 to try out the new band!