CatRad Kenley August 2015 Report

Edited by Paul G4APL

GX0SCR/P RAF Kenley Airfield 16th August 2015

Caterham (Amateur) Radio Group (CatRad) as in previous years set-up and operated another Amateur Radio Special Event Station on Kenley Airfield.

Operating in the Amateur Radio Short Wave frequency bands. Demonstrating Amateur Radio to the public.

This year is the 75th Anniversary Commemorating Kenley’s Hardest Day. The bombing of RAF Kenley Air Field on the 18 August 1940, during the Battle of Britain in World War II.

Preparation
As on previous occasions, the planning was carried out with CatRad members Ken G3CQU, Mike G3TWJ who are also members of the Kenley and Caterham RAFA club and John G8MNY. With Paul G4APL and Kim G6JXA providing support.

Setting Up
Saturday morning 15th August. John, Paul, Mike and Ken met up on the site at 10AM.

The task was to erect the G5RV aerial up at 50 feet Above Ground Level (AGL) supported by two suitable trees as per previous years.

A catapult was used to fire a fishing line with lead weight attached into the canopies of the trees. Then attach the rope to the fishing line to be used as a halyard.
The G5RV wire aerial is attached to both halyards and pulled up to the required height.

Sunday 16th August, Ken G3CQU, Paul G4APL, John G8MNY and Kim G6JXA arrived onsite at 8AM. Followed by Mike G3TWJ. Ann G7BSF joined us after lunch and assisted by taking some photographs.

This year due to the Battle of Britain Memorial Flight (BBMF) display team using the East-West runway at the end of the RAFA field. Everyone was required to vacate the site between 15:00-16:30 hours.

It was decided that we would run the Special Event Station (SES) from inside John’s van. So that we can secure the radio and display equipment when we vacate the site.

We had our static display and paper work out in the open on a couple of tables. Hoping that it would not rain or become too windy.

This year only one radio station was set up on a trestle table in the van. To be used on 20 Metres (14MHz) after the Top band 1.9MHz (160Metres) radio club net. With room of one seated operator and the check operator logging the stations contacted standing outside the van.
The mains power was supplied from the normal mains supply connection. Though we first had to work out why there was no power. Turn out that a circuit breaker had been switched off or tripped out.

John tested the Amateur Radio equipment, had a few snags to solve due to a missing transceiver receive interface connecting link cable on the rear of the radio. This explained why we were and not hearing the others on the radio net.

Then John G8MNY was able to join in to the Sunday Morning net on Top Band at 08:35 GMT (9:35 AM).

**Equipment**

The G0GCR/P station details

QTH (Location) RAF Kenley Airfield. IO91wh @ 171m 557 feet ASL (above Sea Level)

14 MHz SSB SSB IC735 400 Watts Drake L-4B Linear, Pulstar ATU

G5RV wire aerial at 15 Metres 50 feet AGL supported by two trees. This was also used for 160Metres.

A local RF (Radio Frequency) proof Audio Public Address system enable the public and RAFA (Kenley RAF Association Caterham Branch) members and the General Public visiting the Kenley Airfield Friends Group Community Event to listen to both side of the radio contacts.

While writing this equipment section. I thought that it would be good to mention that the Jazz Band audio amplifier (AF) suffered from Radio Frequency Interface (RFI) when they were testing their equipment.

This was cured when John loaned them a mains filter. Another occurrence of RFI was experienced due to the very long audio leads connecting the Guitars.

John coiled the excessive cable up to make an “RF Choke”, thus curing the RFI.

Long cables act as aerials that pick up all sorts of radio signal that can overload the audio circuits in TV’s and Radio equipment.

Paul enjoyed the Jazz, though it was very loud at times.

**Weather**

The weather was 20C with the cloud building up during the morning. The temperature dropped in late afternoon as the breeze pick up. Paul and Ann were please to have there coats on when wandering around the airfield for the air display.
Visitors
We would like to thank all the visitors that came to look at our Radio Amateur Station and the static display vintage equipment and talk to us.

We had many interesting conversations with our visitors about their experiences. With old 1930’s radio valve equipment, right up to modern state of the art Software Defined Radio interfaces, multiplex frequency-channel hopping satellite systems that they worked on and use professionally.

We also explained what Amateur Radio was about. What is required to get an Amateur Radio Transmitting Licence. Starting off with the Foundation course, followed by the Intermediate and Advance Course and exams.

Quite a few visitors asked “How did we get that the aerial up between the trees?”, and what equipment we used to generate our radio waves around the world.

This weekend we only able to contact other Radio Amateurs around Europe.

75th Anniversary of the Battle of Britain
This year’s event the Kenley RAFA members commemorating the ‘Hardest Day, together with the Kenley Airfield Friends Group, had arranged for Battle of Britain Memorial Flight to put on a display. Instead of the usual fly past.

The RAFA members laid a wreath at the Kenley Airfield Memorial for those who lost their lives during WWII.

At 15:45BST The Battle of Britain Memorial Flight over Kenley Airfield consisting of a Spitfire and Hurricane, they carried out their display against the grey sky. It was ‘magic’ to hear the Merlin engine and the seeing the sight of these two planes flying over Kenley Airfield.

Operating
As mentioned above John called into the Croydon clubs Top Band net.

Paul G4APL. Check the 21MHz (15 Metre) band and heard no signals. So we tuned up on 14MHz (20 Metres) band at 10:50BST. Followed by Kim G6JXA and John G8MNY. Paul and John logging the contacts made.

The station was active for seven hours over the two periods of operating.

The radio RF (Radio Frequency) conditions were very poor on 20 and 40 Metres, with a lot of rapid deep fading most of the signals (QSB). Resulting in very difficult operating conditions this year. (short contacts).

75 contacts were logged, with Amateur Radio stations around the UK and Europe.

The cause of these bad conditions was due to the after affects of plasma from a high speed solar wind stream. The interplanetary magnetic field had a strong south facing component meaning it coupled with the earth’s
magnetic field and plasma flooding in. This explains why we only heard Radio Amateur Stations in Europe due to our signals not being reflected by the earth’s magnetic field.

The Solar Flux Index (SFI) was only 85 as the 11 year Cycle 24 is now in decline. This time last year the SFI was around 150.

Some of the above Solar information was extracted from the weekly Radio Society of Great Britain (RSGB) News Broadcast sent out over the Amateur Radio Packet data network.

**Packing Up**
John, Paul, Ken, Kim and Mike completed the packing up of the equipment then made our separate ways back to our homes for a well deserved rest after an excellent day.

**Summary Countries worked**

### Europe
- England
- Scotland
- Wales
- Austria
- Czech Republic
- Denmark
- Finland
- Germany
- Romania
- Slovak Republic
- Spain
- Sweden
- Belarus
- Switzerland
- Poland
- Ukraine

### Russia
- Russia

**Summary Amateur Radio Prefix's worked**
From the 2015 logs. These have been analysed as follows

Country prefix worked by John G8MNY, Kim G6JXA, Paul G4APL on 1.8, 3.5,7, 14, 21, 28, 50, 145, 433MHz  GX0SCR/P  Station IC735  Drake PA and G5RV Aerial

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<thead>
<tr>
<th>433MHz</th>
<th>144Mhz</th>
<th>50MHz</th>
<th>21MHz</th>
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<td>M0 2E0 2M0</td>
<td>GM0 GW2</td>
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<td></td>
<td>DJ7 DH0 DK0 DL1 DL6 DL8 DM9</td>
<td>EA5 EW8 F1 F6 HB9 HF15</td>
<td>IK IV3 IW2 1Z2 1Z4 1Z8 LA3</td>
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<td>3.5MHz</td>
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<tr>
<td>1.8MHz</td>
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Here are some photographs of the Kenley Airfield's Friends Group Community Event.

Bourne Society

Kenley Airfield Friends Group

East Surrey Museum

Jazz Band

RAF Kenley Airfield Memorial


Caterham (Amateur) Radio Group [http://www.theskywaves.net/caterham_radio_group.html](http://www.theskywaves.net/caterham_radio_group.html)