Sunday 14th August 2016
Caterham (Amateur) Radio Group (CatRad) as in previous years set-up and operated another Special Event Station (SES) on Kenley Airfield.

Operating and demonstrating Amateur Radio to the public on the Short Wave frequency bands.

This year is the 76th Anniversary Commemorating the bombing of RAF Kenley Air Field on the 18 August 1940, during the Battle of Britain in World War II making it their Hardest Day.

As the 18 August was on the Thursday. Our club decided to run our Amateur Radio demonstration station on Sunday 14th August when the RAF Battle of Britain Memorial Flight would carrying out a flypast over Kenley’s Memorial, and on the 21st August the Hardest Day Sunday.

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
Sunday morning 14th August. John, Paul, Kim, Mike and Ken met up on the site at 7:30AM.

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.

This year the Battle of Britain Memorial Flight (BBMF) flypast was expected at 12:40 hours.

It was decided as we had access to the permanent large marquee, that we would run the Special Event Station from it.

This saved time, as the team did not have to erect the tent. We had our static display and paperwork laid out on the tables in the marquee, That was supplied by the Radio Society of Great Britain.
On this occasion, only one radio station was set up on a trestle table. To be used on 40 Metres (7MHz) after the Top band 1.9MHz (160Metres) radio club net. With room for a seated operator and the check operator logging the stations contacted.

The mains power was provided from the normal mains supply connection.

John tested the radio equipment to ensure it is all working as required.

John G8MNY called out for the Sunday Morning net on Top Band at 08:33 GMT (9:33am) which ran for an hour.

**Equipment**
The GX0SCR/P station details

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

7 MHz 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 to listen to both sides of the radio contacts.

**Weather**
The weather was hot and sunny.

Where Paul and Ken at 11:15am, wandered around the Airfield perimeter, were Ken gave Paul a conducted tour identifying some WW11 features as they proceeded to the Memorial. Where they would view the BBMF flypast

**Visitors**
We would like to thank all the visitors that came to look at our Radio Amateur Station and talk to us.

We had many interesting conversations with our visitors about their experiences.

We also explained what Amateur Radio was about. Explained what each piece of equipment was being used for, and how the equipment was used to generate our radio waves around the world.
They also explained what is required to get an Amateur Radio Transmitting Licence from Ofcom. Starting off with the Foundation course, followed by the Intermediate and Advance Course and exams. What benefits gained with Technical experience, self learning, from radios to amateur radio data networking. Like the Internet.

Quite a few visitors asked “How did we get that the aerial up between the trees?”
All this was supported by the Radio Society of Great Britain Pamphlets handouts. This weekend we were only able to contact other Radio Amateurs around Europe.

**76th Anniversary of the Battle of Britain**
For this year’s event the Kenley RAFA members commemorating the ‘Hardest Day’. Mike Street KAFG had arranged for Battle of Britain Memorial Flight flypast.

The flypast consisted of the Supermarine Spitfire, Avro Lancaster and Hawker Hurricane

This year is the 80th anniversary of the maiden flight of the Supermarine Spitfire and the anniversary of the test flight of the Avro Lancaster both of these aircraft will be accompanied by the Hawker Hurricane.

At 12:45BST The Battle of Britain Memorial Flight flies over Kenley Airfield and consisting of a Spitfire Hurricane and Lancaster, It was ‘magic’ to hear the Merlin engine and the seeing the sight of these three planes flying over Kenley Airfield.

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

Paul G4APL checked the propagation during the previous days, and conditions were poor.

So he decided to ‘tune up’ on 7MHz (40 Metres) band for his operating session at 11:00BST. Followed by Kim G6JXA and John G8MNY. Paul and John logging the contacts made.

The station was active for nearly seven hours.

The radio RF (Radio Frequency) conditions on 40 Metres, had a lot of fading on most of the signals (QSB). Resulting in some difficult operating conditions again this year. (short contacts).
91 contacts were logged, with Amateur Radio stations around the UK and Europe.

We have had a lot of bad conditions in recent months 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. As well as 24th Solar Cycle is in decline.

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 95..

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
- Belgium
- Denmark
- France
- Germany
- Netherlands
- Switzerland

Summary Amateur Radio Prefix’s worked
From the 14 August 2016 logs. These have been analysed as follows

<table>
<thead>
<tr>
<th>Country prefix worked by</th>
<th>John G8MNY, Kim G6JXA, Paul G4APL</th>
<th>on 1.8, 3.5, 7, 14, 21, 28, 50, 145, 433 MHz</th>
<th>GX0SCR/P Station</th>
<th>IC735 Drake PA and G5RV Aerial</th>
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<tbody>
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<td>433MHz</td>
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</table>
Sunday 21st August 2016

On this occasion as the Marquee was still available for our use. The CatRad members Ken G3CQU, Mike G3TWJ, John G8MNY and Kim. Setup the Amateur Radio Station as before.

With the addition of the second station running on 40metres 7MHz CW (morse code) operated by Ken and Mike.

John and Kim operated on 20metres 14MHz, following the Club Top Band net on 1.905MHz 160 Metres. The Amateur Radio Station was active for seven hours.

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

The Solar Flux Index (SFI) was only 85

Summary Countries worked

Europe

<table>
<thead>
<tr>
<th>England</th>
<th>Northern Ireland</th>
<th>Scotland</th>
<th>Wales</th>
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<tr>
<td>Czech Republic</td>
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Russia

Russia

USA

| Alaska | Maine | Massachusetts | New Jersey |

Summary Amateur Radio Prefix’s worked

From the 21 August 2016 logs . These have been analysed as follows

Country prefix worked by John G8MNY, Kim G6JXA
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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<th>433MHz</th>
<th>144Mhz</th>
<th>50MHz</th>
<th>21MHz</th>
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</table>

| 7MHz   |        |       |       |
| 3.5MHz |        |       |       |
| 1.8MHz | 2E0    | G4    | G6    |
| M0     |        |       |       |
Further information on the History of RAF Kenley Airfield can be found on http://www.battleofbritain1940.net/0028.html
http://www.rafa-kenley.com/
http://portcullisnews.co.uk/
http://www.kafg.org.uk/
http://www.615vgs.com/

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