

A Visit to the RSGB National Radio Centre

The former ARRL Chief Operations Officer visited our sister society and made a special contact.

Harold Kramer, WJ1B

The Radio Society of Great Britain (RSGB) National Radio Centre (NRC), located in historic Bletchley Park in Milton Keynes, England, is a must-see for any amateur radio operator visiting England. It is operated by RSGB, ARRL's sister society in England. Bletchley is also the home of a separate attraction, the National Museum of Computing.

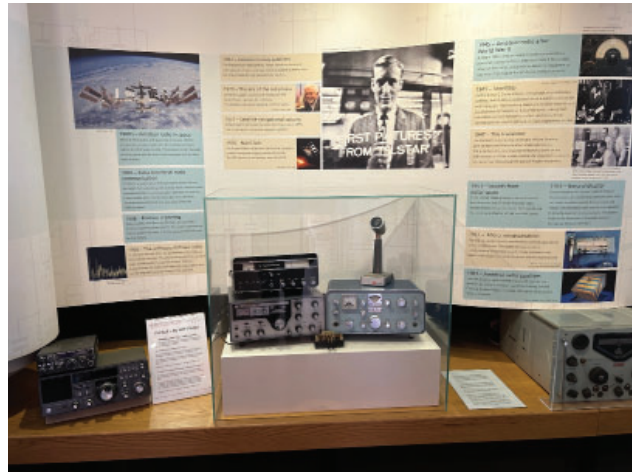
Bletchley Park, located on a sprawling 50+ acre site in the countryside, was the top-secret center of the Allied codebreakers during World War II, where messages from the German Enigma machine were decrypted. It is open 7 days a week all year long (excluding Christmas, New Year's Day, and the days surrounding them).

I had the pleasure of visiting the NRC in May 2023. I was welcomed by NRC Coordinator Martyn Baker, G0GMB, who manages the facility, and RSGB General Manager Steve Thomas, M1ACB. Martyn told me that except for the original mansion at Bletchley Park, the buildings at the site were built plainly to avoid being detected by the enemy during the war.

The NRC is an education center and a showcase for amateur radio technology that was built and financed by RSGB. It features exhibits and displays where visitors can learn not just about amateur radio, but the basic principles of radio and the history of radio communications.

When you enter the NRC, there is a reception area and a theater with an introductory video. Past the reception area are exhibits about amateur radio's past, present, and future technology. Another display describes the operation of fundamental radio circuits, and there is a colorful and instructive display of radio frequency spectrum usage.

The NRC's displays of World War II and Cold War radio equipment focus on amateur radio's contribution to the wartime decoding efforts. At the outbreak of the war in 1939, the British Secret Intelligence Service established a unit known as the Radio Security Service



An NRC exhibit detailing the timeline of radio technology.

to detect and monitor enemy radio transmissions. Volunteer radio amateurs were recruited by RSGB, and they became known as the Voluntary Interceptors. They were skilled CW operators who monitored enemy Morse code transmissions, which were sent to Bletchley for decoding and analysis.

I was particularly impressed with the special exhibit about getting started in amateur radio. It displays inexpensive equipment, such as VHF/UHF handhelds, that illustrates how a person can participate in amateur radio without spending a lot of money. Additionally, the NRC is the home of GB3RS, a fully operational station that — like W1AW — is open to visitors and used by licensed operators.

According to Martyn, the NRC welcomed just short of 90,000 visitors in 2023. Most of these visitors were non-hams who came to visit the Bletchley Park Museum. He said that “on a quiet day, the NRC receives about 100 visitors, but on a busy weekend, there are between 400 and 700 visitors each day.” He added, “Typically, from the large group of visitors, we might expect three to five visiting radio amateurs each day, although this varies considerably.”



The author at GB3RS completing a scheduled contact with W1AW.

Having visitors from the general public is a great way to introduce people to amateur radio. There is plenty of informative literature available at the NRC. The 55 friendly and knowledgeable volunteer guides at the NRC can also speak to visitors about the topic. Martyn, who manages this team of dedicated volunteers, told me that on weekdays, at least two volunteers are always on duty when the NRC is open. Four volunteers are usually available on weekends. While I was there, members of the South Normanton, Alfreton and District Amateur Radio Club were visiting and operating GB3RS.

About GB3RS

GB3RS, located inside the NRC, is a state-of-the-art amateur radio station that was built to be a public demonstration of amateur radio communications and a showcase for amateur radio technology. It uses a FlexRadio FLEX-6600 with a Gemini amplifier and a three-element SteppIR Yagi for SSB, CW, and digital mode coverage from 10 through 50 MHz. On 80 and 40 meters, a Yaesu FTDX5000 is used for SSB, CW, and digital modes, and it is connected to resonant dipoles strung between the buildings.

A Kenwood TS-2000 is used for local VHF and UHF FM repeaters on 2 meters and 70 centimeters. It's also used for polar orbiting satellite communications via crossed circular polarized horizontal and vertical satellite antennas, with PC control of elevation and azimuth. An Icom IC-9700 is used for 2-meter and 70-centimeter SSB, CW, FT8, and D-STAR with dual

2-meter/70-centimeter horizontally polarized beams. For OSCAR 100 (QO-100), a Yaesu FT-818 and an SDRplay with *SDR Console* software is used with a separate dish for receive and an offset patch feed antenna for transmission.

Licensed US amateurs can operate the station if they hold an Amateur Extra- or Advanced-class license. Guest operators must bring a copy of their license and provide a photo ID. Although you can simply stop in and operate during a visit, RSGB cannot guarantee operating time without a prior booking.

W1AW Contact

I thought that it would be interesting to have a scheduled contact between GB3RS and W1AW while I was visiting the NRC. I arranged a date and time with W1AW Station Manager Joe Carcia, NJ1Q, to give it a try. We agreed to attempt our contact at 14:00 UTC, which is 10:00 AM at W1AW and 3:00 PM at GB3RS.

At GB3RS, we used the FLEX-6600 running 400 W (the maximum power allowed in England) to their SteppIR Yagi. At W1AW, Joe was using a Yaesu FTDX9000 with a Quadra amplifier on 14.309 MHz while running 800 W into W1AW's 20-meter beam on the 120-foot tower.

On our first try, we could barely hear W1AW on 20 meters. We later decided to try 15 meters because the propagation-prediction websites indicated that this would be a better path. With W1AW using the four-element Yagi on the 60-foot tower, their signal was 59 on 21.235 MHz in England. All of the visiting club members, volunteers, and RSGB staff members enjoyed the contact between the two sister societies. You can watch it on RSGB's YouTube channel at www.youtube.com/theRSGB — just search the channel for my name.

If you are visiting England, Bletchley Park is a scenic, 45-minute train ride from London, and it is definitely worth a visit.

All photos provided by the author.

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