

"GROUP H" STATIONS

During the Second World War, a serious conflict of interests arose regarding broadcasting. On one hand, the population had to be kept informed of the current situation, especially with the threat of invasion across the Channel. On the other hand, broadcast transmitters made excellent sources for Radio Direction Finding by the Luftwaffe.

The problem was resolved to a great extent by using Synchronous Groups of transmitters. The high power MF transmitters were split into two groups of four, each group having its own frequency. All four transmitters in the group broadcast on the same frequency, thus providing a radio service with a much reduced chance of it being of use to the Luftwaffe.

The stations were all under the control of Fighter Command who, if enemy aircraft approached one of the stations, would order it to be closed down. (In fairly close proximity RDF could be used). With the common frequency working, listeners in the area could still hear the Home Service from one of the other stations in the group, though at a reduced level. As air-raids increased, it was sometimes necessary to close three out of the four transmitters in the group; in this case the fourth was also closed, again to deny a DF source.

To cope with this problem, the "GROUP H" stations were built. This group consisted of 61 transmitters, with an output of 50-100W in towns having a population of 50,000 or more. All operated on 1474kc/s and were, if possible, built adjacent to a tall structure (water tower, chimney etc) so that conventional masts were rarely used to support the wire aerials. Each station was staffed 24Hrs a day by Engineers, Technical Assistants (Female) and Youths (Transmitters). Although technically under the control of Fighter Command, the stations were to close down independently, if an air raid was in progress or (Especially along the South Coast) "...if local gunfire is heard".

The frequencies of all the MF stations had to be maintained within very fine limits to prevent beats with nearby stations. A system of audio tones derived from the group "Master" frequency, was line fed to all the group, multiplied, then compared with the station output. Drives were then adjusted for zero beat. Later, in 1943, a single 1kc/s tone was distributed to all stations from a master crystal oscillator in BH and applied to a CRT for a visual display of the frequency error.

Of the six "GROUP H" stations on the Wrotham patch, two survived until fairly recently. Ramsgate was used as an R4 "filler" until the big MF frequency change on 23rd Nov.'78 when it was closed down, dismantled, and the site returned to the Water Board. Gillingham was resurrected for a time to serve as the Radio Medway (now Radio Kent) MF transmitter, before the move to HOO in 1976.