Introduction to Post Loss Signals Data in Table PLSigStats.pdf

The "Day"column entry is the event date in July 1937.

The "GMT" column entry is the Greenwich Mean Time of the event, or the time range containing the event.

The "Signal" column entry is a brief description of the signal. Since the date on which Betty heard signals is unknown, results are shown provisionally for each day during the period covered by the analysis.

The "Freq"column entry is the actual signal frequency if reported, or the presumed frequency if the actual frequency was not reported. In cases where a specific frequency was not reported, the entry is the frequency that was tested for the analysis.

The "Receiver" column entry is the site that heard the signal.

The "Rcvr Sun" "Set" and "Rise" columns show the GMT times of sunrise and sunset at the receiver location. The GMT times of sunrise and sunset at Gardner are in the table header. Although the rise/set times at Gardner varied slightly during the period of interest, constant values are used for simplicity. This does not significantly affect any of the outcomes.

The "Path" column shows the sunlight condition at each end of the propagation path. The first letter applies to the transmitter end of the path, and the second letter applies to the receiver end. For example, DD means the entire path was in daylight, and ND means the source end was dark and the receiver end was in daylight. In some cases, signals were heard during a period when there was a transition at one or both ends. In such cases, a four-character notation is used. For example, NNND means it was dark at the transmitter throughout the period, and changed from night to day at the receiver.

The "Rqd" column entry is the required signal-to-noise ratio (SNR) in dB, in a 1 Hz bandwidth. A discussion of signal-to-noise considerations, and computer modeling, is in the paper in file DFPaper.pdf, on the disk. Additional information specific to the case of the signals Betty heard is in the paper in file "HarmonyandPower.pdf, on the disk.

The "Med" column entry is the median SNR.

The "Sdev" column entry is the standard deviation of the SNR.

The "Prob" column entry is the probability that the SNR will equal or exceed the required value, given the propagation conditions at the time the signal was heard, and is displayed to 15 decimal places. An all-zero entry means that the probability was less than 1 chance in a quadrillion.