

27 October 1960

Dear Bill:

I have read Lecture No. 4 with great interest and have made some minor suggestions which are indicated in red pencilled notes. Other comments are as follows:

1. Re the relationship between dots, dashes and spaces, William Maver, Jr., in his "American Telegraphy and Encyclopedia of the Telegraph," published in 1912 states, "In length, orduration, one dash is theoretically equal to three dots. The dots and dashes are separated by intervals of time. The space between the elements of a letter is equal to one dot; the space between letters of a word to 3 dots; the space between words to 5 dots; the interval in "spaced" letters is equal to 3 dots." This is slightly different from your statement, so you see, authorities differ.

2. As regards the application of the 5-element code to telegraphy, H. H. Harrison, in his "Printing Telegraph Systems and Mechanisms," published in 1923 states on page 2, "Neither the five-unit code nor the multiple principle were invented by Baudot. The five-unit code was proposed for telegraphy by Gauss and Weber (1833); was used by Whitehouse (1853-1854); and proposed by W. H. Burnett for a multiple system in 1860.

3. It is difficult for me to accept your explanation

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for the character selections in the Baudot code on the basis of power considerations. Since polar telegraphy with power "on" for marks and spaces was in vogue when Baudot made his selections of combinations to represent characters, it would seem that this aspect could not have been much of a factor. This applies to transmissions over the line circuit. However, it is possible that this feature applies to the local circuits of the early Baudot apparatus. I would add something about the wear and tear on the mechanical parts, as indicated in red on your draft.

An early paper, "The Baudot Telegraph System," by A. C. Booth, and read before the Institution of Post Office Electrical Engineers in 1907, should answer this question. I am trying to find a copy of this paper.

I sincerely hope these comments are helpful.