

Mr John F Royal

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O B Hanson

A Time Control for Automatic
Chime Cues

M. 462

For the past four or five years we have discussed the desirability from a switching standpoint of making the chimes ring automatically by an accurately timed control clock, making it necessary for programs to be properly timed to meet the dead line on the chimes. In the last year or so it has become more and more essential from a switching standpoint that this be done.

At the present the time system that we use is controlled by the local power company's 60 cycle generators and while, over a period of 24 hours' time, it is accurate it may vary several seconds slow or fast during several hours in the day. Of course, the power systems in New York, Chicago, San Francisco and Hollywood are not synchronized so that conditions may arise where New York may be four seconds ahead of the accurate time and, let us say, San Francisco or Hollywood might be four seconds behind, making a difference of eight seconds and at times more between various points on our network. Therefore, automatically timed chimes ring in New York might be eight seconds ahead of the program in San Francisco or Hollywood, and at some other time during the day the reverse condition might exist.

This situation has seriously complicated the switching of network legs and the starting of programs in our various switching centers and places the switch man in such a position where he has to hold up everything until the last late leg is free to make the switch. In addition to the variations in time between switching points, programs are apt to run several additional seconds late thus further complicating the situation. The latter, of course, can be controlled by having time control chimes which force the producer of a program to have his program properly timed. The former variation of time can be overcome by a system which we have studied and consider practical. That is, to install in each of our plants an accurately controlled 60 cycle system originating in a temperature controlled tuning fork which has a variation of only one part of one million. With such accuracy between the various systems there could not exist variations in time of more than a fraction of a second and from our standpoint we feel quite capable of supplying the necessary technical equipment to accomplish the purpose.

Our friend, Sid Strotz, has talked to me on several occasions about time control chimes and is in favor of it. Mr Morton, when he was with the Program Department, also felt that this should be done and I think you will find that any one in your department having to do with operations and production would favor the accurately time controlled chimes. I urge that you give this your favorable consideration as from an operating standpoint it is becoming more and more obvious that it is desirable.

cc: Messrs Fitch
Strotz
McElrath ✓
Milne
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