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The BBC Research Labs Frequency shift PA Stabaliser: a field report

E G Alkin, *BBC*

Edmund R Wigan, *BBC Research Department*

Keep for the "record".

From: Senior Sound Supervisor

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Subject: P.A. STABILISER

7th December 1960

To: Mr. E.R. Wigan

Copy to: H.T.O.Tel.S.

Thank you for permitting me to employ the Research Department P.A. Stabiliser for my experiment with the P.A. system at the Dorchester Hotel on the occasion of the Annual Ball of the Guild of Television Producers and Directors. As I think I explained to you, the main feature of this event (which has been held at the Dorchester for the last seven years) is the speeches, culminating in the Award presentations, and on every previous occasion the affair has been spoilt because a large proportion of those present have been unable to hear them, due to the unsatisfactory P.A. system installed at the Dorchester. Last year, A.T.V. were asked to undertake the P.A. operation and this resulted in little or no improvement and, this year, the BBC were approached, and I am glad to say that the operation was highly successful to the general satisfaction of all concerned.

The room is rather a difficult one from the P.A. point of view. It is long and narrow (roughly 250 ft. by 50 ft.) with a series of alcoves and a comparatively low ceiling. It is fairly reverberant, with a considerable peak in the lower middle register. The speeches take place from a table which is practically in the middle of the room. It is packed for the occasion. The existing system consists of a large number of rather poor quality loudspeakers let into the ceiling, but I discarded this in favour of a series of 4 ft. line source loudspeakers mounted at intervals around the walls which I had installed for the purpose by Messrs. Tannoy.

The new installation resulted in a considerable improvement on its own, but when the P.A. Stabiliser was put in circuit, using a frequency shift of -4 cycles, a further improvement resulted of the order of approximately 6 db., giving excellent results, so that a speaker with quite a small voice about 2 ft. 6 ins. from the microphone was very clearly audible in every part of the room with no noticeable degree of coloration.

I am very grateful for your help in the matter, and I think we can count this as yet another success for the Stabiliser.

E.G.M. Alkin

(E.G.M. Alkin)

MGG