

BRITISH INFORMATION SERVICES

Herman & Mohatta Buildings,
Wood Street,
P.O.B. 212
Karachi

Ref. K/502/33

17th April 1948.

Dear Mac,

Now that we have completed our "Hell" tests, I felt you should hear of our little troubles.

After playing around with "Hell" for nearly a week I now appreciate why the non-technical people in Latin-America had so much trouble. The following points may be of interest to you and Ronnie.

The C.R.-100. Apart from the troubles experienced through damp the set is working very well indeed. The noise silencer is most effective but to advantage could be made variable. The receiver drifts badly for at least one hour and always needs slight constant attention. This continuous drift I think would be overcome if a VR-150 regulator tube is fitted.

No damage was caused to the Relay. However, it would be better if the relay was sent out ready to work with the Printer provided. At the back of the relay is a transformer with a moveable terminal block to give two impedances. It took me some hours before I realised the impedance was wrong. I agree this is a very simple point but I did not think that the transformer would be sent out with the wrong impedance if the G.P.O. had tested the equipment before despatch.

The printer worked very well except that the noise from the motor is a lot higher than I expected. It is more than enough to make the tape unreadable. However, if the printer is ten to

/fifteen

Mr. McLoughlin,
C.O.I.
2 Montagu Mansions,
Baker Street, W.1.

fifteen away from the receiver and is separately earthed it is quite passable. I automatically earthed the Receiver, Relay and Printer to one common point and it took me most of one day to find out from where all the noise was coming.

The plug which fits into the "input" of the relay from the receiver has two very small screws and they are so small that I could not find a wire thin enough to go under the heads, I got around this by using a soldering iron but it would have saved a lot of time if the plug had been supplied with the cable connected.

The use of a screened aerial feeder is essential and even so a slight amount of noise is picked up on the earthed outer screen. I find that a twin feeder with an earthed outer screen is very much better but this means altering the input circuit of the CR-100 to use a balanced feeder.

We have erected a di-pole aerial cut for 18 M/cs and it is 30 feet above the roof top. This has eliminated all the noise from five motors in the factory next door and we have only to find a D.C. fan and suppress it and reception will be nearly perfect.

Reception conditions vary quite a lot. GPR on 8,775 K/cs is perfect from the start of transmission until 0830 local time. For the final hour until 0930 the signal is not reliable. I have not yet found GPY at any time. GPS is a wonderful signal from 1230 local time and sometimes earlier until 1430 but after that it fades and a much higher frequency is needed here. From 1830 it comes back again and is reliable until the end of the transmission.

I have not yet listened to GPW or the second transmission of GPR. "Tass" from Moscow on roughly 15,570 K/cs is also very good during the evening and is a good test transmission.

/Enclosed

Enclosed are some of our very first tapes. The dirty mess on some of them is interference from the Printer motor, while on the odd occasions where a group has been lost this was caused by a local C.W. station in Karachi operating on the same frequency.

The question of frequencies will have to be carefully worked out in order to get out of the way of the rather large number of Pakistan stations operating off frequency.

I would like to know, if you have time, how Latin-America is getting on. Directly I hear that Delhi have received their equipment I will make arrangements to look after the installation.

I have found a local B.O.A.C. engineer who was in the R.A.F. during the war and I have trained him in "Hell". He will be most useful for installation purposes and it will save a lot of my time.

What is your target date for the introduction of IFS "Hell" to Pakistan?

Yours sincerely,

(Sd.) Kenneth Jowers

Director.