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INTERDEPARTMENTAL

MASSACHUSETTS INSTITUTE OF TECHNOLOGY CAMBRIDGE, MASS. 02139

*from the office of*

September 3, 1969

Mr. Morton Berlan  
Telecommunications Office  
E18-204

Dear Mort,

An engineering problem has been encountered with the 103E dataset installation at Project MAC which may require some attention from your office in order to obtain action. The problem affects our plans to go into service on October 1, and could affect the planned 103E installation on the 360/67 at the Information Processing Center.

The 103E dataset as initially implemented apparently had a design defect -- its carrier detect circuit was susceptible to overload, by the calling party's dataset, if the caller's carrier generator is turned up high and the connection is good. The result of overload is usually a telephone line disconnect (hangup) shortly after dialup and handshake, although the disconnect may not occur immediately.

A fix for the design defect has been engineered -- later model 103E's have an additional printed circuit wiring board which contains appropriate circuitry. However, several of our 103E datasets are of the earlier design. When a caller with a high intensity carrier generator happens to get one of these older model datasets, he is unable to use the system. We have found several 103A datasets on terminals of our system programmers at Project MAC which will not work with the older 103E's; I presume that there are many more scattered about the Institute.

It is very important that the remaining early 103E's in our installation be upgraded before the October 1 date of introduction of Multics as an Information Processing Center Service, and I would like to enlist your help in arranging for upgrading with New England Telephone. Of the 66 103E datasets in service, 21 are of the earlier design. There are in addition 12 103E datasets installed in the cabinets of which 9 are of earlier design. Those with serial numbers 7000 and above are all of the newer design.

I would suggest that the status of the 103E datasets planned for the 360/67 computer at IPC be checked also, since the effect on a going service of introducing the early model datasets could be very significant.

Sincerely yours,



Jerome H. Saltzer  
Assistant Professor of  
Electrical Engineering

JHS/mw

cc: F. J. Corbató  
R. C. Daley  
R. G. Mills