

Paltzer



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To: Multics Administrative Distribution
From: Leo J. Ryan *L. J. Ryan*
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Subject: GE/645 Magnetic Tape Library

As I mentioned at the February 2nd site meeting, Operations has been experiencing an increase in the number of tape problems. Operations personnel have encountered tapes which have been stretched, creased and many which produced continuous read/write errors.

In January 1972, thirteen tapes were shipped to the Magnetic Products Division of the 3M Corporation. Of these thirteen tapes, seven were in use for six months and had been mounted less than four times. The remaining six were less than three months old and had only been mounted twice. All thirteen were randomly selected and were of the same manufacturer. I have provided the analysis made by the 3M Company below.

<u>Tape Serial Number</u>	<u>Analysis</u>
77138	Creased at 5 feet
76566-04	Creased edge at 686 feet
76566-15	Creased edges at 98', 357' & 746'
77146	Error free
76590	Creased edges at 406' and 408'
76590-45	Creased edges at 243', 362' & 730'
76590-46	Error free
76590-19	Creased edge at 685'
77146	Error free
76566	Error free
77138-43	Creased edge at 1119'
77138-27	Crease at 4', creased edge at 593'
77138-47	Creased edges at 146', 147', 1102', 1186' and 1187'

Four of the thirteen tapes were error free. The remaining nine represent a cost outlay of \$140.00 plus the loss of whatever information recorded on them. A percentage of tape problems can be passed off as "poor operator handling". However, this percentage is minimized because of the expertise of the Multics operators.

If the results of this sampling is representative of the condition of the Multics tape library there exists a much more serious problem than just "poor operator handling".

The Operations staff remains open to any helpful suggestions that would provide a more reliable tape environment for Multics. One such suggestion, often mentioned but never produced, would be a tape/handler diagnostic program which could be run under Multics and which would point out marginal handlers or tapes. This latest data integrity analysis again proves the necessity of having such a package.