## Experts Test a Tape

## Guarded Reel With Erasure To Get 'Signal Enhancement'

By William Claiborne 12/1/73
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In an electronics factory alongside a meat market in New York's West Harlem, a panel of experts in computer and recording technology yesterday began studying the White House tape recording on which an 18-minute segment of conversation was erased.

The reel was taken aboard a train by six armed U.S. marshals, who delivered it in a magnetic field-proof steel box Thursday night to the Federal Scientific Corp. There, the tape is expected to be run through a series of "signal enhancement" tests in an attempt to restore the erased portions.

The other six presidential tapes remained in a safe in the U.S. courthouse under round-the-clock protection by U.S. marshals.

Also taken to New York were the electric typewriter of Rose Mary Woods, President Nixon's personal secretary, and a high intensity lamp that was on Miss Woods' desk on Oct. 1. Miss Woods has testified that on that day she was transcribing a tape made on June 20, 1972, in Mr. Nixon's Executive Office Building suite that included a conversation

between the President and H. R. (Bob) Haldeman, then White House chief of staff.

Miss Woods has said she accidentally erased a portion of the tape when she pushed a "record" button on the tape machine while answering a telephone. At the time, the typewriter and lamp were turned on, she said.

Officials of the Watergate special prosecution force refused to provide details of the whereabouts of the tape, or how it was being protected.

But a U.S. District Court source said it was transported to New York late Thursday in a metal box lined with material that would repel any magnetic field capable of causing additional obliterations. This precaution was taken in anticipation that the tape might be carried near electronic equipment with a strong magnetic field, the source said.

All tapes will be accompanied by six marshals to and from New York, the source said. While the tapes are being examined in Federal Sci-

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entific's laboratory, three marshals will be present.

At the plant, which is on 131st Street between Broadway and 12th Street, officials refused to comment on the progress of the tests.

A spokesman for Mark R. Weiss, the ifrm's vice president for acoustics research and a member of the panel of experts, said, "... we can make no comment until we have completed it to our satisfaction and have fully reported it to the judge."

Working with Weiss on the tape assignment, are Richard H. Bolt, a Cambridge, Mass., accoustics and computer expert; Franklin Cooper, a linguistics professor at the University of Connecticut; James L. Flanagan, a Bell Laboratories digital coding expert; Thomas G. Stockham Jr., a Univer-

sity of Utah computer sciences professor, and John G. McKnight, an audio systems consultant.

However, the only panelists present for yesterday's tests were Weiss, Bolt and Flanagan.

A representative from the White House, Richard Hauser, was present as an observer. The panel was selected by the White House and the prosecutors.

The panel first met Nov. 18 in the Executive Office Building to develop a draft proposal for a series of "pilot tests (and) to explore possible ways to validate the recordings," U.S. District Court Chief Judge John J. Sirica said when he announced the appointments to the panel. It could not be determined yesterday if the panel has scheduled tests for any other tapes.

Some of the panel members have estimated that it may take six weeks or more to complete all the tests.

The purpose of the panel members, who are digital computer experts, is believed to be connected to attempts to capture latent signals from the erased portions of the tapes. White House special counsel Leonard Garment has said that there may be "gaps" in other subpoenaed tapes.

By filtering and amplifying signals left on the erased portions, it is possible to recreate original conversations with the aid of computers, according to acoustics experts.

This can be accomplished, according to the experts, as long as the tape has no been repeatedly passed through a strong magnetic

field.