film blowups, had been previously admitted into evidence. I would at this time ask that they be admitted into evidence.

Chairman STOKES. Without objection, they may be entered into the record at this point.

Mr. Cornwell. I have no further questions.

Thank you, Dr. Hartmann. Dr. Hartmann. Thank you.

Chairman STOKES. The committee will defer questioning of this witness until later this afternoon after the committee has had the advantage of hearing the acoustical evidence, which will come into the record shortly.

Sir, we will defer our questioning of you until later this after-

noon.

Dr. HARTMANN. Thank you. Chairman Stokes. Thank you.

The Chair recognizes Professor Blakey.

STATEMENT OF G. ROBERT BLAKEY, CHIEF COUNSEL

Mr. Blakey. Thank you, Mr. Chairman.

In September 1977 the committee learned of the existence of a Dallas police tape, one that had recorded the sounds of the assassination from the transmitter of a motorcycle policeman who had accidentally left his microphone switch in the on position.

There was immediate hope that by scientifically enhancing the

tape, the sound of the shots could be made audible.

The committee was told by the Dallas Police Department that it thought that all of its assassination evidence had been turned over to the FBI. It did not therefore have a copy of the tape. One was obtained, nevertheless, from Mary Ferrell, a critic who lived in the city of Dallas.

The committee then set out to find an acoustical consultant to analyze the tape. After consideration of five possible candidates, the committee picked the firm of Bolt, Beranek & Newman of

Cambridge, Mass.

Bolt, Beranek & Newman can count among its many important forensic accomplishments an analysis of the tape-recorded sounds of the Kent State shooting incident in 1970 and the discovery and analysis of the 18-minute gap in the Watergate tapes.

B.B. & N. first analyzed the segment of the radio program, "Four Days that Shocked the World," that had been believed to have covered the assassination. As it turned out, it was not contempora-

neous with the actual shooting of the President.

The committee then forwarded the tape it had obtained from Mary Ferrell to B.B. & N., but no audible sounds could be dis-

cerned in the analysis.

Meanwhile, committee investigators working on the case in Dallas were in contact with Paul McCaghren, a retired assistant police chief who had been assigned to a special Dallas police assassination investigating squad.

McCaghren was one of several Dallas police veterans who donated their firsthand knowledge of the city to the committee. They "read us into their backyard," so to speak, as one of our investigations of the committee of the commi

tors so aptly put it. Their help has been invaluable.

Among the original documents and tapes that McCaghren supplied the committee was a crucial November 22, 1963 dispatch tape along with the dictabelts that recorded the transmission from the motorcycle with the open mike. These materials were promptly sent to Bolt, Beranek & Newman.

To supplement the analysis of the tape, B.B. & N. experts also went to Dallas last month to conduct an acoustical reenactment

based on the live firing of a rifle in Dealey Plaza.

In these tests, the Dallas Police Department was exceptionally cooperative. It obtained weapons, constructed the bullet "traps" and rerouted traffic during the 5 hours of testing. Police marksmen fired rounds from the Book Depository, as well as from the "grassy knoll."

The final results of this work have only recently been received by the committee. Nevertheless, they have been thoroughly analyzed.

The man in charge of the Bolt, Beranek & Newman acoustical

analysis is Dr. James E. Barger, the firm's chief scientist.

Dr. Barger received a B.S. in mechanical engineering from the University of Michigan in 1957, an M.S. in mechanical engineering from the University of Connecticut in 1960, and an M.A. in applied

physics from Harvard University in 1962.

In 1964 he received a Ph. D. in applied physics from Harvard University. He has been a sonar project officer in the U.S. Navy Underwater Sound Laboratory, a research assistant at the Harvard University's Acoustics Research Laboratory, a senior scientist and director of the Physical Science Division with Bolt, Beranek & Newman, Inc.

Dr. Barger is the author of numerous scientific papers. He has lectured in the field of applied acoustics in the United States and Canada and currently is a lecturer on sound scattering and reverberations with Bolt, Beranek & Newman's antisubmarine warfare

course.

He has been a National Science Foundation fellow and currently is a fellow of the Acoustical Society of America. He is also a member of the U.S. Naval Advisory Board for Underwater Sound Reference Services.

As chief scientist with Bolt, Beranek & Newman, Dr. Barger personally supervised the analysis of the 18-minute gap on the Nixon-Watergate tapes and the analysis, as I noted previously, of the gunfire sounds recorded during the shooting episode at Kent State University.

Mr. Chairman, it would be appropriate at this time to call Dr.

Barger.

Chairman STOKES. The committee calls Dr. Barger.

Doctor, would you stand and be sworn?

Do you solemnly swear the testimony you will give before this committee is the truth, the whole truth, and nothing but the truth, so help you God?

TESTIMONY OF JAMES E. BARGER

Dr. BARGER. I do.

Chairman Stokes. Thank you. You may be seated. Mr. Cornwell. Mr. Cornwell. Thank you, Mr. Chairman.