PICTUREPHONE Sets Put
A Computer On Executive Desks

A tap on the controls of the Bell System's PICTUREPHONE® set may one day allow a businessman to have displayed before him current and vital business information—inventory reports, sales charts, production schedules—all served up by his favorite computer. Such a service would augment normal use of the PICTUREPHONE set for face-to-face conversation.

In a recently completed experiment, an executive could even use his PICTUREPHONE set as a desk calculator, keying numbers into his computer with his TOUCH-TONE® telephone buttons and having the computer perform the calculations and display the answer on his videotelephone screen.

Fifty-nine executives at Bell Laboratories in New Jersey (Murray Hill and Holmdel) and at the American Telephone and Telegraph Company headquarters in New York participated in the experiment. In addition to being able to place face-to-face PICTUREPHONE calls, the executive could use his TOUCH-TONE telephone and the video display as a desk calculator, or use the computer to display news headlines, stock market and weather reports, airport conditions, a sample personnel file, a list of the numbers of all PICTUREPHONE set users, and directions for using the system.

A special data set developed by Bell Labs links the PICTUREPHONE sets with an unmodified commercial computer. In the experimental system, the data set answers calls, translates the TOUCH-TONE signals into computer language, and translates the computer's response into the correct video format for transmission to the PICTUREPHONE set.

The experiment lasted from September 1967 to May 1968 and involved more than 1600 calls to the computer for service. Even though the average call involved requests for more than one display and lasted about three minutes, less than one second of computer time was required for the response.

This supplementary use of PICTUREPHONE service was well received, and a similar experiment will be started when the Bell Labs—AT&T PICTUREPHONE network is converted to the new second-generation PICTUREPHONE sets (see *New* PICTUREPHONE *Set "Zooms" and Shows Graphics*, RECORD, *December 1967*). With the new sets, over 300 characters can be displayed on the screen at once, more than twice the number of symbols possible with the first sets.

Planning for this capability was initiated by the Computer Communications Engineering Department headed by Robert L. Simms. The data set was designed under the auspices of the Data Systems Department then headed by Fritz E. Froehlich.

The systems engineering work was begun in March, 1966 by James Mansell, working with Joseph J. Horzepa, supervisor, Data Systems Analysis Group.

The data set was designed by Peter Warwick, Glen Larsen and Frank Sonsone working with Otto Gerkensmeier, supervisor, Computer Data Communications Systems Group.

A product trial of the new PICTUREPHONE sets is planned for later this year between Westinghouse Electric Corporation offices in New York and Pittsburgh. Current plans for this field trial do not include providing access to a computer, however.

Standard PICTUREPHONE service is expected to be available to Bell System customers in several cities some time in the early 1970's.