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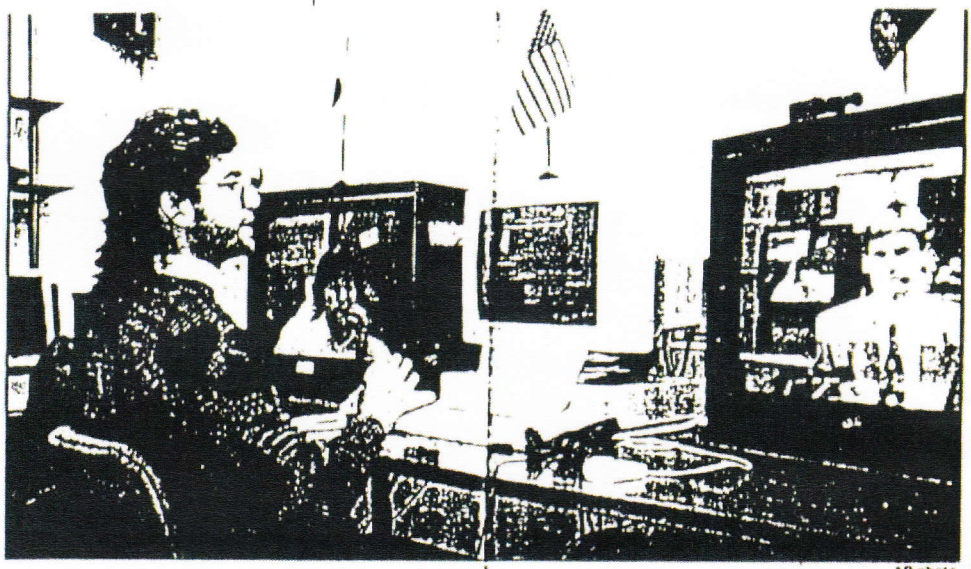

AP photo

A Carnegie-Mellon technician uses computer during test of language translation system.

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# Computer translates languages

The Associated Press

TOKYO — "Moshi-moshi," said a Japanese researcher, speaking into a microphone.

Eight seconds later, a computer in Pittsburgh spit out the translation "Hello."

Thus did people and computers in Japan, Germany and the United States begin a transoceanic chat, the first international test of a system that transforms spoken words from one language into another without need of an interpreter.

The $128 million computer has taken seven years to develop. It understands about 1,500 words in Japanese, English and German, said researchers at Kyoto's Advanced Telecommunications Research Institute.

On Thursday, Japanese researchers conversed with colleagues at Carnegie Mellon University in Pittsburgh, then with electronics giant Siemens AG in Munich, Germany.

The sentences were first recognized and translated by a computer into written text, which was sent by modem over a telephone line. A voice synthesizer on the other end then "spoke" the translated words.

"It recognized and translated all of the conversation," said Shigeki Sagayama, head of speech-processing for Advanced Telecommunications.

For the foreseeable future, automatic translation systems will be limited to particular kinds of conversations since errors increase dramatically as topics and vocabulary grow.

"The system might be used by car rental agencies or hotels for reservations when multilingual staff isn't available and the range of conversation isn't too broad," Sagayama said.