

## Computers translate long-distance chat

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

Eight seconds later, a computer in Pittsburgh gargled the translation: "Hello."

Thus did people and computers in Japan, Germany and the United States begin a trans-oceanic chat yesterday, 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 now understands about 1,500 words in Japanese, English and German, said researchers at Kyoto's Advanced

Telecommunications Research Institute.

Yesterday, Japanese researchers conversed for about 15 minutes 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 was a success," said Shigeki Sagayama, head of speech processing for Advanced Telecommunications. "It recognized and translated all of the conversation."