FRIDAY, JANUARY 29, 1993

## Computer Translator Phones Try to Compensate for Babel

By ANDREW POLLACK Special to The New York Times

KYOTO, Japan, Jan. 28 - Toshiyuki Liona, such as making travel reserva-Takezawa sat down at a bank of power- tions. ful computers here this afternoon and spoke into a microphone. "Moshimoshi." he said.

Instantly, the computers whirred to life, furiously digesting and analyzing this morsel of Japanese speech. Twelve seconds later and half a world away, a computer in Pittsburgh spoke, conveying Dr. Takezawa's message in English. "Hello," it said, in its electronic voice.

Not as dramatic as Bell's first call to Watson, perhaps. But that simple greeting began what researchers here describe as the first public demonstration of an overseas telephone conversation's being automatically translated from one language to another, to a

## A 'Tiny, Tiny Step'

Such a capability, which engineers call automatic interpreting telephony, has been a long-sought goal of researchers, who see it as a way of overcoming language barriers.

The day of being able to dial up anyone in the world and chat freely is probably two decades or more away, researchers say. But they think that by the end of this decade, interpreter telephones will be used for limited applica-

JEWISH WOMEN/GIRLE ! LIGHT | KHABRAT. candles today 18 min. before sunset. In NYC 451 PM, INPO 718-774-2000, outside NYC JUAI, 1-800-SAI-RATH. In merit of Rabal Gotnich, GUM, ADVT

"Today's experiment is just one tiny, tiny step," said Kohei Habara, executive vice president of the Advanced Telecommunications Research Institute International, the Japanese research center here that conducted the demonstration. "But we think historically it's a very important one."

As today's test showed, the systems are now very limited. Any system that requires 12 seconds to translate "hello" from one language to another (more complex utterances could take 20 seconds or longer) obviously needs

Continued on Page C13, Column 4

## Rehnquist Salutes Justice Marshall

In a funeral service at the National Cathedral attended by President Clinton and many other national leaders, Justice Thurgood Marshall was mourned, and his career celebrated.

Among those delivering eulogies was Chief Justice William H. Rehnquist, a frequent foe of Justice Marshall on constitutional issues, who mld of profound admiration for him.

Article, page A10.