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## **WATERCOM Telecommunications System To Be Fully Operational This Year**

The first phone call through the revolutionary WATERCOM® Automated Maritime Telecommunications System was placed by Ron VonColln, program manager at Tracor Applied Sciences, Inc., aboard a boat on the Potomac River in Washington, D.C., to Rick Baker, executive vice president of Waterway Communications System, Inc., in his office in Jeffersonville, Ind. The call demonstrated the system hardware and operations control that will form a new communications network to provide voice and customized data services between inland river towboats and their central offices. Full service on the network will be available at mid- 1986.

Tracor Applied Sciences, a subsidiary of Tracor, Inc., has a turnkey contract from Waterway Communications covering the design, construction, and installation of the WATERCOM system.

The new system, through a series of 54 shore stations, will provide continuous coverage of approximately 4,000 miles of inland waterways.

It will serve the Mississippi River from south of New Orleans to Minneapolis/St. Paul, the Illinois River from the Mississippi to Chicago, and the Ohio River from Cairo to Pittsburgh. On the Gulf Intracoastal Waterway, coverage will extend from Apalachicola, Fla., to Brownsville, Texas, with incidental coverage on the Gulf of Mexico.

WATERCOM will provide service comparable in quality to that of the National Telephone Network, and in fact will connect to NTN lines just like any other telephone network.

A barge company operator direct-dials the boat number he wishes to reach and is connected automatically. Operator assistance is available only when requested by the user.

The WATERCOM system consists of three major components: vessel telephones, shore stations, and the Operations and Control Center at the home office in Jeffersonville.

Vessel telephones consist of a radio transmitter and receiver, a microprocessor-based phone control unit, and the main telephone handset.

An optional crew's quarters extension phone may be added for their credit card calls.

Each of the 54 shore stations serves compatible equipped vessels within its operating range, thereby providing continuous telephone service.

Each station is interconnected with the local area central control office, from which incoming and outgoing calls are routed to and from the vessel.

The Operations Control Center and its mainframe computers are the heart of the WATERCOM system.

It provides the principal automatic switching and routing functions for all long-distance calls entering the system. Through fullperiod leased data lines, the OCC monitors and controls operations at each of the shore stations and acts as a highly sophisticated telephone system, with additional data-processing capabilities.

The concept of WATERCOM started in the 1970s when 16 major barging companies joined together to improve inland river telecommunications, a need supported by indepth research of their industry. In 1981, American Commercial Lines, Inc. acquired WATERCOM from the barging group. That same year the Federal Communications Commission allocated frequencies for automated marine communications systems. WATERCOM applied for license authority, which the FCC granted in 1982. The elements of the system development included marketing research, system design to meet communication needs, and acquisition of properties and construction along the inland waterways.

Finally, in the summer of 1985, construction of the Operations and Control Center building in Jeffersonville was completed.