

Automated Maritime Telecommunications Systems

The "Cellular System" for the Maritime Industry

In a recent action, the Federal Communications Commission has allowed the use of the 216 to 220 MHz band nationwide for Automated Maritime Telecommunications Systems. AMTS systems are marine telephone stations that are interconnected to provide continuous coverage along rivers or other navigable waterway. Until now, they were only permitted along the Mississippi River and its connecting waterways, plus along the Gulf of Mexico. In addition to telephone service, AMTS systems provide non-voice services, such as facsimile. Besides public correspondence service, AMTS stations may also contract with shipping companies to relay private communications. Typically, these would pertain to their operational requirements, such as position reports, fuel and supply requirements, etc. AMTS stations may also provide service to fixed platforms in the Gulf of Mexico.

AMTS systems are similar to cellular telephone systems, in that calls are "handed off" as a vessel moves into another transmitters coverage area. Existing VHF marine telephone stations at 161 MHz only provide service in their immediate area and are not interconnected, meaning that a call must be terminated when leaving one stations service area and reinitiated when entering another. Most VHF stations are manual, meaning an operator must place the call. Only one AMTS system is presently providing service, along the Mississippi River. It is licensed to Waterways Communications Sys-

tem, Inc., and has been in operation for about four years.

Automated Maritime Telecommunications Systems may be licensed to operate on one of four groups of frequencies in the 216 - 220 MHz band. Each group consists of 20 channel pairs, spaced 25 kHz apart. The separation between the ship and coast station frequencies is 2 MHz. (See the accompanying table.) The lower two groups, C and D, may not be used within 105 miles of a TV station on channel 13 (210 to 216 MHz). This is to prevent interference to TV reception. Also, as you can see in the table, the ship transmit frequency is higher than the coast transmit frequency. This also is to prevent TV interference. The location of a coast station is always known (in case interference should occur) but since ship stations are always moving, to prevent interference their frequency is higher, farther from TV channel 13.

At the present time, the FCC is only making Groups A and B available for use nationwide. They are currently proposing the use of the 218 - 219 MHz segment for a new Interactive TV service. If they adopt that proposal, they may just withdraw use of the C and D groups for AMTS, permanently. No systems presently operate on the C and D frequencies.

Whether AMTS systems will see use nationwide is debatable. It will depend entirely on demand. If barge and shipping companies are satisfied with the service provided on existing VHF marine telephone channels, there won't be much need for a new

system. Likewise, if barge owners have their own VHF marine commercial channels for communications over a limited area, and that is all they require, there is not likely to be any demand for common carrier-type service from an AMTS provider. And on relatively short rivers, there is no need for a continuous, interconnected system.

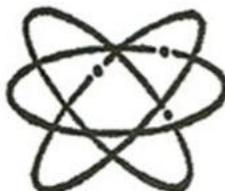
One possibility, though, are large urban harbors and the adjoining coastal areas. For example, New York City and the New England coast line.

But when you get right down to it, AMTS systems may be ideally suited to such extensive and highly traveled waterways as the Mississippi River system, but whether they are needed elsewhere is questionable. I wouldn't hold your breath waiting for one to appear near you (especially if you live in Kansas).

USSN

D & R Communications, Inc.

A Full Service
Dealer with
Sales, Service
and Installation.



Scanners
Citizen Band
Rader Detectors
Telephones

11491 S.E. Hwy. 212, Clackamas, OR 97015

Voice - (503) 655-4155 FAX - (503) 655-4187

U.S. Scanner News

Volumes 1, 2 and 3

Now you can own complete sets
of Vol. 1, 2 and 3 at a package
price.

Volume One, 10 Issues
\$18.95

Volume Two, 12 Issues
\$23.95

Volume Three, 12 Issues
\$23.95

Volumes 1,2 and 3
\$58.00

Some copies are reprints and
are made from the best available
copy. They are made on a
photocopy machine and folded
into 8.5" X 11" format, so that
they match the size and format of
the original copy. Send your order
to:

Bob's Publications
706 W. 43rd St.
Vancouver, WA 98660