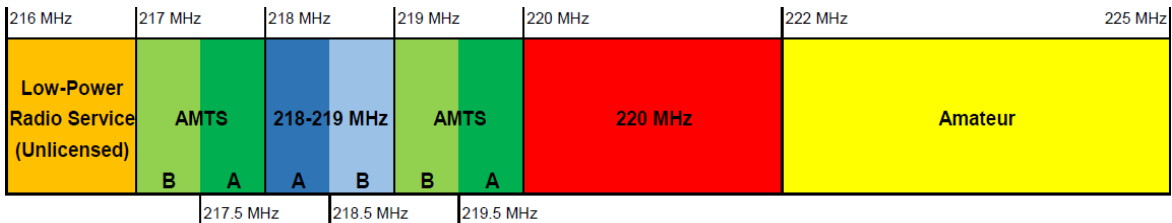


Wireless Communications in the AMTS (217-220 MHz) Band Suitable for Passenger and Freight Rail Applications Available Nearly Nationwide

Select Spectrum is offering **Automated Maritime Telecommunications System (AMTS) FCC licensed spectrum** of up to 2.0 MHz bandwidth. The available spectrum covers virtually the entire United States, and the owners will partition the licenses geographically and spectrally to match buyer requirements. These licenses, originally set aside for maritime services, provide for a wide variety of FCC approved land uses and excellent propagation with support of throughput of 2 Mbps or more per license per site. In most of the licensed areas, there is little or no current use of the licenses, however Select Spectrum has recently assisted with four separate sales from this inventory that were approved by the Federal Communications Commission and successfully closed¹.

The Channel plan includes A and B blocks of 1 MHz each as shown below:



The licenses are typically divided into two 500 kHz blocks which can be used to separate transmit and receive. Alternatively, Time Division Duplex operation is also allowed. The large frequency allocation and wideband channels afford greater flexibility in network design and use. Two-way transmission may be divided between remote and base frequencies or by time division on the same channel. The buyer may also divide the channels into narrower blocks such as 6.25 KHz or 12.5 kHz. The frequencies may be reused at multiple sites within the licensed areas. Most of the licenses are valid through 2025 when they may be renewed for a small administrative fee.

AMTS spectrum can be used for broadcast or two-way; mobile or fixed; data, voice or video. Maximum downlink power is 1000 Watts ERP and maximum uplink power is 36 Watts ERP which provides for long range and high reliability.

¹ These licenses are now managed by Susan L Uecker and Associates, Receiver in Superior Court of California, County of Alameda, Case No. 2002-070640

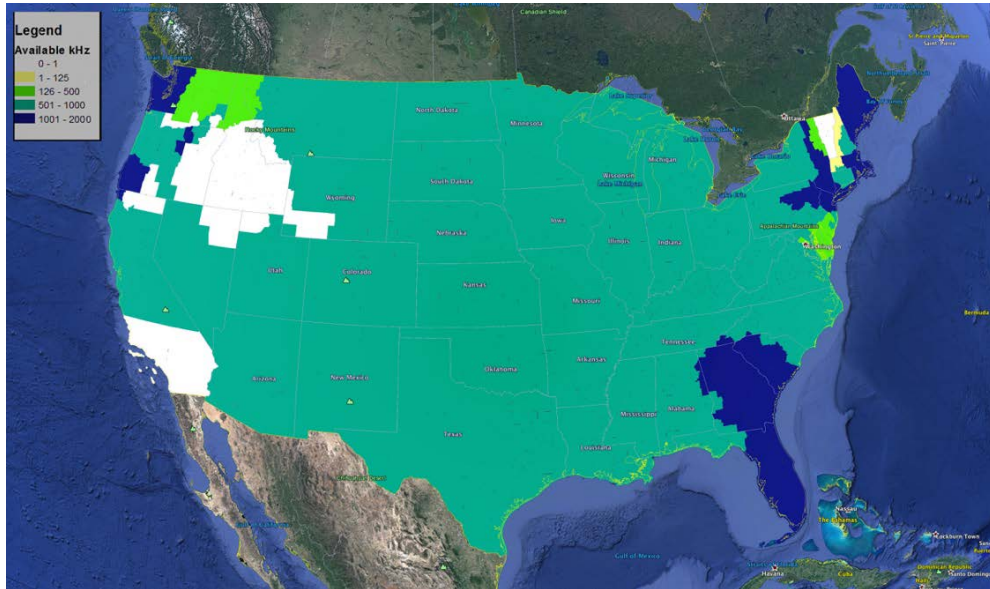
ARNOLD LEONG, Plaintiff,

v.

WARRENHAVENS, an individual, ENVIRONMENTEL LLC, ENVIRONMENTEL-2 LLC, INTELLIGENT TRANSPORTATION & MONITORING WIRELESS LLC, V2G LLC, ATLAS WIRELESS LLC, SKYBRIDGE SPECTRUM FOUNDATION, VERDE SYSTEMS LLC, TELESORUS HOLDINGS GB, LLC, and DOES 1 through 30, inclusive, Defendants.

AMTS licenses have been used for Positive Train Control (PTC), and are also used by and recommended for utility and other critical infrastructure communications including Internet of Things (IoT) applications, Oil & Gas operations, SCADA², and Land Mobile Radio. Networks may employ point-to-point, point-multipoint (tall site) and/or cellular architectures.

Available AMTS license coverage is shown below, and large swaths across the country remain available. **PTC-220**, **GE Transportation Systems**, and **Amtrak** have acquired portions of these licenses in the Northeast Corridor, New England, and Michigan. Areas in which acquisitions have been made still generally have varying levels of spectrum available for purchase.



Equipment for the band is made by Full Spectrum www.fullspectrumnet.com, 4RF www.4rf.com, GE MDS www.gedigitalenergy.com, XetaWave www.xetawave.com Alligator Communications www.alligatorcom.com, CalAmp <http://www.calamp.com> and Tait Communications www.taitradio.com. The band is also compatible with a new IEEE wireless standard – 802.16s “GRIDMAN”. This high reliability standard is intended for use by utilities and other critical infrastructure operators.

In many locations, both the A and B channel block AMTS licenses are available for purchase. Example licenses include:

Call Sign	Market Code	Ch. Blk.	Major Cities	2016 POPs	Call Sign	Market Code	Ch. Blk.	Major Cities	2016 POPs
WQGF310	AMT001 A		NYC-Boston-New England	35,448,058	WQCP816	AMT006 B		LA-San Francisco-San Diego	17,897,629
WQCP810	AMT001 B		NYC-Boston-New England	30,312,149	WQGF313	AMT007 A		Seattle-Portland	4,372,821
WQCP811	AMT002 B		DC-Philadelphia-Baltimore	32,563,951	WQCP817	AMT007 B		Seattle-Portland	5,666,186
WQGF311	AMT003 A		Miami-Atlanta-Jacksonville	36,567,520	WQGF314	AMT008 A		Honolulu	1,697,644
WQCP812	AMT003 B		Miami-Atlanta-Jacksonville	36,567,520	WQGF308	AMT008 B		Honolulu	1,697,644
WQNZ336	AMT010 B		Phoenix-Denver-Albuquerque	22,308,861	WQCP814	AMT010 B		Las Vegas-Reno	3,316,236
WQCP815	AMT004 B		Houston-Dallas-St. Louis-Kansas City-Oklahoma City	96,525,439	WQGF312	AMT009 A		Anchorage	741,894
WQCP808	AMT005 B		Chicago-Detroit-Milwaukee	37,413,168	WQCP813	AMT009 B		Anchorage	741,894

Contact: Robert Finch, rfinch@selectspectrum.com, 571 287 8721 <http://selectspectrum.com>

² Surveillance, Control And Data Acquisition