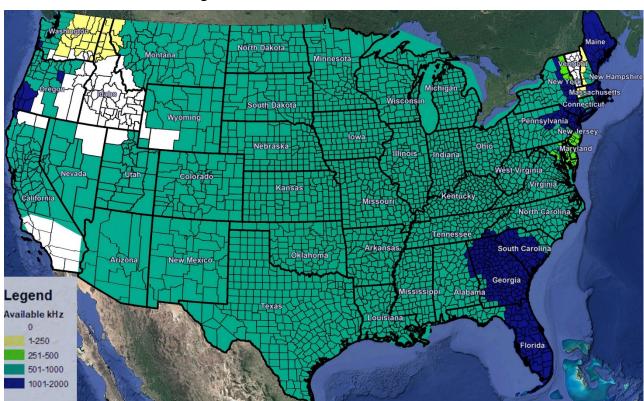


## Wireless Spectrum Licenses in the AMTS (217-220 MHz) Band Ideal for Utility and Critical Infrastructure Applications Available Nearly Nationwide

Select Spectrum represents Susan L. Uecker and Associates, Receiver and manager of **Automated Maritime Telecommunications System "AMTS" (217-220 MHz) FCC licensed spectrum** of up to 2.0 MHz bandwidth. Coverage is presently available across virtually the entire United States, and the owners will partition the licenses geographically and spectrally to match buyer requirements. **Avista, Chesapeake Operating, Eversource, Exelon/Pepco, Idaho Power, Portland General Electric, Puget Sound Energy, Vermont Transco** and additional utilities and critical infrastructure companies have acquired AMTS spectrum for operations in the Pacific Northwest, Mountain States, Northeastern United States and other select areas.

Available AMTS license coverage is shown below:



**217-220** MHz spectrum has excellent propagation and can be used for a broad range of applications including fixed & mobile data, voice, and video. AMTS licenses are in use by and recommend for utility and other critical infrastructure communications, land mobile radio (LMR), supervisory control and data acquisition (SCADA), and distribution automation (DA).

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



Originally set aside for Automated Maritime Telecommunications System services, AMTS spectrum provides for a wide variety of FCC approved land uses with support of throughput of 2 Mbps or more per license per site. The licenses are typically divided into 2 x 500 kHz blocks which can be used to separate uplink and downlink; the A Block is located between 217.5-218.0 MHz / 219.5-220.0 MHz and the B Block is located between 217.0-217.5 MHz / 219.0-219.5 MHz. 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 5 or 12.5 kHz.

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 50 Watts ERP which provides for long range and high reliability. Networks may employ point-to-point, point-multipoint (tall site) and/or cellular architectures.

Equipment for the band is made by Ondas Networks <a href="www.ondas.com">www.ondas.com</a>, GE MDS <a href="www.arf.com">www.ondas.com</a>, GE MDS <a href="www.arf.com">www.arf.com</a>, Cambium <a href="http://www.cambiumnetworks.com">http://www.cambiumnetworks.com</a>, Alligator Communications <a href="www.alligatorcom.com">www.alligatorcom.com</a>, CalAmp <a href="http://www.calamp.com">http://www.calamp.com</a>, Tait Communications <a href="www.taitradio.com">www.taitradio.com</a> and Hytera <a href="www.hytera.com">www.hytera.com</a>. 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. Most of the licenses are valid through 2025 when they may be renewed for a small administrative fee.

Basic information about key markets in the overall offering is shown below. In many locations, both the A and B channel block AMTS licenses are available for purchase:

Market Code	Market	Block	2017 POPs	2017 MHz POPs	Market Code	Market	Block	2017 POPs	2017 MHz POPs
AMT001	North Atlantic	Α	38,570,725	34,308,559	AMT007	North Pacific	Α	4,616,468	4,606,096
AMT001	North Atlantic	В	33,761,000	30,062,633	AMT007	North Pacific	В	7,376,899	5,563,735
AMT002	Mid-Atlantic	В	36,907,545	31,410,740	800TMA	Hawaii	Α	1,696,625	1,611,794
AMT003	South Atlantic	Α	37,096,324	36,168,916	800TMA	Hawaii	В	1,696,625	1,611,794
AMT003	South Atlantic	В	37,096,324	36,168,916	AMT009	Alaska	Α	739,795	721,300
AMT004	Mississippi River	В	97,425,662	92,391,201	AMT009	Alaska	В	739,795	721,300
AMT005	Great Lakes	В	37,459,627	35,614,330	AMT010	Mountains	В	25,957,551	25,238,994
AMT006	South Pacific	В	15,664,399	14,881,179	<u>Total</u>	10 Markets	<u>A/B</u>	302,961,374	<u>350,807,819</u>