

In response to Question 7:

Wireless Online has currently introduced modular smart antenna systems for the broadband and the narrowband markets using its patented technology – Spectral Reuse and Filtering Technology (SeRFiT™) – based on industry-standard protocols. This proven protocol-adaptable approach to designing and implementing smart antenna-equipped base stations represents a premise for application to the cellular spectrum. This effort extends the SeRFiT™ technology approach for use with emerging cellular transmission protocols (e.g., GSM/GPRS/EDGE). The research program seeks to demonstrate:

- o Improved capacity.
- o Improved coverage characteristics.
- o Improved data transmission characteristics using minimal spectrum.
- o Interference rejection.

To that end, at least five test scenarios will be used to evaluate a variety of network-specific conditions. These scenarios incorporate, but are not limited to:

- 1) Frequency reuse.
- 2) Carrier-to-Interference(C/I) improvement.
- 3) Noise reduction analysis.
- 4) Signal quality measurements.
- 5) Co-channel interference reduction.

Wireless Online currently holds an experimental license under WA2XEH (File No. 0010-EX-ML-1998) for experimentation on the following frequencies:

- o 901.35 - 901.45 MHz (MO)
- o 901.8375 - 901.9 MHz (MO)
- o 930.75 - 931 MHz (FX)
- o 940.9 - 941 MHz (FX)
- o 1850 - 1910 MHz (FX, MO)
- o 1930 - 1990 MHz (FX, MO)

For the convenience of the processing staff, a copy of the current WA2XEH license is attached hereto. The purpose of the instant application is to add (rather than substitute) facilities on the frequencies requested herein.

The bandwidth necessary is derived from GSM channel requirements in combination with the requirements associated with using a multi-beam approach in a sectorized system.

Wireless Online agrees to coordinate its operation with present licensees on the requested spectrum, and to use the requested frequencies on an interference-free basis. Based on an informal conversation with Bureau staff, in the unlikely event the Bureau deems the requested additional frequencies to be unavailable for Wireless Online's purposes, we respectfully request that the Bureau advise of the frequencies in the same bands that would be deemed more appropriate, and afford Wireless Online an opportunity to amend.