

New Consortium Planning Experiments in LTE and Radar Compatibility

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(August 5, 2014) A consortium of companies, federal agencies, and academia announced today the formation of a group to demonstrate spectrum sharing technologies and planned experiments at Wallops Island, on the Eastern Shore of Virginia to show 4G cellular systems co-existing with naval radar. Currently, many parts of the radio frequency spectrum are assigned exclusively to either Federal Government or commercial applications. The group is exploring ways to share spectrum without giving up access rights.

The Spectrum Sharing Group (SSG) consists of Wireless@Virginia Tech (Wireless@VT), the Naval Surface Warfare Center Dahlgren Division (NSWCDD), Motorola Solutions, Spectrum Bridge, the Center for Advanced Engineering & Research (CAER), Virginia Tech Applied Research Corporation (VT-ARC), and Mid-Atlantic Broadband Communities Corporation (MBC). The team's mission is to help fulfill the President's "vision of tapping the enormous economic potential of spectrum sharing to provide broadband Internet access to all Americans, including rural areas, and enable economic growth."

Recently, the Federal Communications Commission (FCC) issued a Notice of Proposed Rule-Making (NPRM) to solicit feedback on the possibility of sharing the 3550-3650 MHz band. Currently, this band is used by high powered DoD/Navy radars as well as non-federal Fixed Satellite Service (FSS) systems. FCC's notice asks for feedback on possible ideas to open the 3.5 GHz band for commercial small cell deployments. The team is developing a simple experiment to test low power, small-cell wireless concepts in the presence of high power Navy radars. Initial experiments are being executed this summer at Wallops Island, Virginia. Eventually, the team hopes to investigate a broad range of sharing concepts in many different frequency bands. This effort will lead to the critical understanding of the conditions under which spectrum sharing between Federal and commercial spectrum users is feasible.

About the Organizations

The cooperative arrangement creates a world-class technical team with Wireless@VT (<http://www.wireless.vt.edu>) bringing state-of-the-art expertise in wireless communications technologies, NSWCDD (<http://www.navsea.navy.mil/nswc/dahlgren/default.aspx>) bringing many years of experience and expertise with Navy radar development and spectrum support, Motorola Solutions (<http://www.motorolasolutions.com/>) bringing hands-on expertise in public safety and military communications, Spectrum Bridge (<http://www.spectrumbridge.com/>) bringing state-of-the-art expertise in radio environment map and data base technology, Virginia Tech Applied Research Corporation (VT-ARC) (<http://www.vt-arc.org>) has extensive experience in military spectrum management issues, CAER (<http://caer.us/>) bringing experience in building and managing interdisciplinary industry-university collaborative teams, and Mid-Atlantic Broadband (<http://www.mbc-va.com/>) bringing state-of-the-art expertise in building an open-access backbone network using fiber optics.

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