

FCC Signals Intent to Take Strong Action against Unlicensed Broadband Operations That Interfere with FAA Weather Radar Systems

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On Tuesday, the FCC stepped up its enforcement efforts against unlicensed wireless broadband devices causing interference by releasing a [Notice of Apparent Liability](#) ("NAL") against Florida's Towerstream Corporation in the amount of \$202,000 for unauthorized operation of, and interference caused by, Wi-Fi and rooftop tower devices in New York City and Miami. The devices operated in or near the 5 GHz spectrum set aside for operation of Unlicensed National Information Infrastructure ("U-NII") transmission systems on a non-interference basis that many providers of broadband internet access, including mobile operators and cable service providers, among others, rely upon to give customers Internet access over extended areas. The Bureau concluded that Towerstream operated six U-NII devices without authorization and in a manner that caused interference to the Federal Aviation Administration's ("FAA's") Terminal Doppler Weather Radar ("TDWR") systems that were within line-of-sight, and that another U-NII device operated on frequencies where such devices are not permitted. The Commission concluded that Towerstream operated the devices without authorization because Towerstream knew that "operations within 30 MHz of the TDWR operating frequencies within line-of-sight of the airports could cause harmful interference to those TDWR systems" and "[b]ecause Towerstream caused harmful interference to TDWR systems after being directed to cease operations" by Bureau staff.

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This matter represents a new chapter in the FCC’s efforts to manage through enforcement activity the shared use of the 5.6-5.65 GHz band by the primary TDWR systems and unlicensed broadband devices. As we reported earlier [in our blog](#), the Commission has taken a variety of actions, including both [advisories](#) and [enforcement proceedings against AT&T](#), among others, to protect the federal systems. TDWR systems are used at forty-five major U.S. airports to assist air traffic controllers in detecting low-altitude wind shear that poses potential risks to aircraft. In the FCC earlier actions involving U-NII devices at 5 GHz, the principal focus was the failure of equipment used by unlicensed broadband providers to comply with the requirement that the devices possess and have activated Dynamic Frequency Selection (“DFS”) radar detection functionality. In the Towerstream situation, as reported in the NAL, the infractions did not implicate DFS functionality. Instead, Towerstream, after being the subject of Enforcement Bureau inquiries and warnings in 2009 when Towerstream devices in three cities were found to cause interference to TDWR systems and after agreeing with the Bureau to avoid “frequencies around TDWR frequencies,” was found by Enforcement Bureau field personnel at various times between August and October 2012 to operate six U-NII devices on frequencies near those used by the TDWR in such a way that they caused actual interference to the federal safety operations. A seventh broadband transceiver was found to operate without authorization at 4.965 GHz, a channel not available for U-NII devices. The NAL underscores that the Commission’s authorization to operate “unlicensed” devices under its rules “does not extend to devices that are not operated in accordance with Part 15 regulations, and that such operations must be licensed (or otherwise be exempted from licensing despite such non-compliance).”

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Based on three factors, the Commission concluded that the proposed forfeiture should be assessed on a per device basis *and* almost doubled from a base amount of \$112,000 for the thirteen violations (seven instances of operating without authorization and six instances of actual interference) to \$202,000. By inflating the penalties, with the exception of the device operating at 4.965 GHz, to the maximum *per diem* forfeiture per violation, the Commission cited the public safety impact of the interference to TDWR operations, Towerstream’s prior history of causing interference to such operations, and “the seriousness of the violations.” Towerstream may well challenge the NAL and possibly succeed in reducing the forfeiture, but this matter both underscores the Commission’s level of penalizing those that interfere with TDWR systems and the importance of parties’ subject to adhere to their commitments to follow a compliance plan, even one voluntarily assumed, especially if subject to prior enforcement action. (There was no reference in the NAL to a consent decree as a result of the earlier enforcement activity.) As the Commission considers additional spectrum bands in which to permit unlicensed operations to support greater wireless broadband access, cases like Towerstream’s bear close watching by providers that seek to develop and implement best practices. There is no doubt that incumbent operators being asked to share with unlicensed operators are giving situations like that presented in the NAL a good look as well.