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FCC Seeks Comment on Radio Spectrum Usage by Unmanned Aircraft Systems

September 1, 2021

The Federal Communications Commission recently released two public notices requesting comment about the potential for unmanned aircraft systems (UAS) to use certain radio spectrum bands. The public notices address petitions seeking changes to the FCC's rules to provide additional capacity and reliability for UAS communications, which primarily have relied on unlicensed spectrum.

Use of 5 GHz band

The first public notice seeks to refresh the record on a petition for rulemaking filed by the Aerospace Industries Association (AIA) in 2018 asking the FCC to begin the process of adopting rules to allow UAS to use 5 GHz spectrum (5030 – 5091 MHz) for control and non-payload communications links. The FCC first sought comment on the AIA petition in 2018, but now recognizes that the original comments do not account for developments in the UAS industry since that time. The public notice poses new questions, including:

- Whether to require entities to obtain FAA certification before becoming an FCC licensee
- How to allocate the spectrum to users
- Whether to impose any technical requirements on operations
- Which types of UAS communications should fall within the types permitted within the band

The FCC also recognized that while UAS operations have primarily been direct radio-line-of-sight (LOS) communications, there's "growing interest in and exploration of BLOS [beyond-radio-line-of-sight] operations, such as for package delivery, mapping, search-and-rescue, long-range infrastructure inspections, and surveillance flights." The FCC asked questions about the spectrum needs for BLOS communications, and it sought input on alternative spectrum licensing approaches that could provide better support for BLOS communications, in addition to the original AIA proposal, which appears better suited to direct LOS communications links between the unmanned aircraft and the controller.

Comments and reply comments are due 30 days and 45 days, respectively, after Federal Register publication.

Use of 450 MHz band

The FCC also issued a public notice seeking comment on a petition for rulemaking filed by Aura Network Systems OpCo and A2G Communications. The petition asks the FCC to permit use of the 450 MHz band (specifically, 454.675 – 454.975 MHz and 459.675 – 459.975 MHz) to provide voice and data for aviation subscribers, including entities operating UAS. Together, Aura Network Systems and A2G Communications hold all the active licenses in those bands, and Aura Network Systems is the only company that operates in the bands because it leases all of A2G's spectrum. The petitioners claim that the bands are well suited for UAS control and non-payload communications, and that the proposed changes will permit Aura Network Systems to provide needed data services for aviation and UAS operators. Comments on the petition are due September 24, 2021.

Cooley lawyers can provide more information about these proceedings, and we can assist if you would like to participate in one or both proceedings.

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