

**Midcontinent Communications**  
**Statement in Support of Experimental License Application**

Midcontinent Communications (“Midco”), pursuant to Section 5.63(c)(1) of the Commission’s Rules, provides this statement in support of its application for an experimental license to conduct a technology trial using frequencies within the 3700-4200 MHz band transmitting from three locations to a limited number of end users. Midco requests a two-year license term.

***Description of Trial***

Midco plans to trial Telrad transmission equipment and the CPE certified by the FCC for use in the 3650-3700 MHz band that is re-tuned to the 3700-4200 MHz band for purposes of the trial. Midco expects to concentrate its trial activities in the 3700-4200 MHz band, but will utilize select specific frequencies for testing within the 500 megahertz of the C-Band that are the least likely to cause interference to C-band earth stations based on a review of the updated IBFS database. Midco understands that its experimental operations are secondary and that it will cease operations if C-Band earth stations experience harmful interference.

Midco will conduct the experiment in its existing area of operations around Bismarck, North Dakota, Wahpeton, North Dakota, and Mitchell, South Dakota where Midco has authorized C-Band earth stations.<sup>1</sup> Midco has access to and is transmitting from existing towers and operations in this area with personnel on site to monitor deployment and operation, which will ensure that there will be no harmful interference to registered FSS C-Band earth stations. Where necessary, Midco will also use ground testing in lieu of tower testing to minimize any disruption to other registered FSS C-Band earth stations. Using ground testing will allow Midco to target the signal emitted from the equipment to control any interference concerns.

The trial will involve three base station locations and a total of 15 end user locations. The trial is expected to inform Midco’s investment, equipment and deployment decisions in anticipation of the FCC approving all or a part of the C-Band for terrestrial point-to-multipoint operations, as proposed in its ongoing C-Band proceeding.<sup>2</sup>

***Program of Research and Experimentation***

Midco is uniquely situated to conduct research and experimentation in the C-Band because Midco is both a long-time cable operator with C-Band earth stations for video reception and transmission, and a fixed wireless provider interested in using the C-Band to provide wireless broadband, if the interference concerns can be resolved. Midco’s initial working theory of operation (prior to conducting any testing) is that it can deploy fixed wireless technology to serve customers and not interfere with the use of C-Band earth stations for video through positioning of fixed wireless equipment, satellite filters, satellite shield, and/or using other methods and equipment for co-existence. At this time, Midco is not seeking an experimental

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<sup>1</sup> Call Signs E090171 (Bismarck), E180059 (Wahpeton) and E180060 (Mitchell).

<sup>2</sup> See *Expanding Flexible Use of the 3.7 to 4.2 GHz Band*, Order and Notice of Proposed Rulemaking, GN Docket No. 18-122, FCC 18-91 (rel. July 13, 2018).

license for its main video headend so as to not disrupt the provision of video services to customers.

### ***Objectives***

Midco's vendor, Telrad, will assist Midco with the testing. Midco would also like to engage either a cable research and development organization or a third-party satellite shield and/or filter manufacturer to assist in this testing, and determine whether and to what extent Midco can deploy fixed wireless equipment on a co-channel and non-co-channel basis with FSS earth stations to offer broadband services. Midco will have a variety of testing sites, including its Bismarck, ND site, which is a secondary video headend. Midco believes this will help the FCC determine appropriate co-channel and non-co-channel protection standards.

### ***Contribution to the Development, Extension, Expansion or Utilization of the Radio Art***

Midco's program of experimentation has a reasonable promise of contributing answers to the Commissions questions in the C-Band proceeding, including but not limited how to resolve, from a technical perspective, questions on interference and co-existence. Midco's largely rural footprint also provides an ideal testing environment to demonstrate how valuable use of the C-Band spectrum for terrestrial point-to-multipoint service could be to solving the urban-rural digital divide, a stated priority of this Commission. Midco is not aware of testing in conditions found within its footprint; which includes South Dakota and North Dakota, some of the least densely populated states in the country.