



Miscellaneous Part 15 Rule Updates

TCB Workshop
April 21st, 2021



§15.255 Field Disturbance Sensors (FDS)/Radar Applications

- As specified in October 2020 TCBC presentation, mobile FDS/Radar applications are not currently permitted under §15.255 except for short-range interactive motion sensors (SRIMS) in support of hand gesticulation interactions with a personal device:
 - Automotive in-cabin sensing applications do not fall within the scope of what is currently permissible.
- KDB 388624 Pre-Approval Guidance (PAG) list has been updated to include FDS and/or Radars applying for certification under rule part 15.255:
 - A detailed explanation of how the fixed operation requirement of §15.255(a)(2) is satisfied shall be provided in the Operational Description exhibit;
 - If certification is being requested for non-fixed FDS/Radar operation under the SRIMS exception, then a comprehensive justification shall be provided in the Operational Description exhibit.
- Authorization of additional types of unlicensed mobile FDS/Radar operations in the 60 GHz band will likely follow a Rulemaking proceeding by the Commission.
- A Waiver Order was issued on 14 April 2021 approving a joint petition (six parties) to allow in-cabin vehicular usage of 60-GHz Radars under the §15.255 rules, primarily for the detection of children inadvertently left in automobiles.



Rulemakings Since October 2020

TCBC Conference

FCC [20-164](#) – Use of the 5.850-5.925 GHz Band

- First R&O and FNPRM Adopted November 18, 2020
 - Errata issued 12/11/2020 and 2/9/2021.
- Reconfigured 5850-5925 MHz frequency band previously reserved for Dedicated Short-Range Communications (DSRC) component of the Intelligent Transportation System (ITS).
 - Upper 30 MHz (5895-5925 MHz) retained for ITS operations but with a mandated transition from DSRC via IEEE 802.11p standard to cellular-based C-V2X protocol:
 - Final transition dates to be determined within 2nd R&O.
 - Repurposed the lower 45 MHz (5850-5895 MHz) to allow for the expansion of unlicensed mid-band spectrum operations (U-NII-4):
 - U-NII-4 initially limited to indoor access points with no allowance for client-to-client communications so as to preclude potential co-channel interference to incumbent DSRC operation;
 - FNPRM will consider removal of client-to-client prohibition;
 - See Subpart E of Part 15 rules (§15.401-§15.407) for additional details.



Rulemakings Since October 2020

TCBC Conference

FCC [20-156](#) – Unlicensed White Space Operations in TV Bands

- R&O and FNPRM Adopted October 27, 2020.
- Extends broadband coverage of fixed white space devices by permitting higher power (up to 16 watts) and increased antenna heights (HAAT up to 500 meters) in “less congested” areas of operation (*i.e.*, those areas where at least half of TV channels 2-35 are not in use and where minimum required separation distances are realized relative to protected incumbents):
 - Coordination with incumbent broadcast licensees is required when HAAT exceeds 250 meters.
- Defines a new class of narrowband (100 kHz) white space devices for operation on vacant TV channels 2-35 to support Internet of Things (IoT) applications:
 - Limited to duty cycle less than 1% (*i.e.*, no more than 36 seconds per hour).
- Establishes a new class of white space device referred to as a ‘mobile device’ that is permitted to operate at radiated power levels equivalent to a fixed device within less-congested areas under geo-fencing restraints.
- See Subpart H of Part 15 rules (§15.701-§15.717) for additional details.



QUESTIONS?