FCC TAC – Receiver Standards

AFC Fall 2015 – Montreal

AFC
Aeronautical Frequency Committee

FCC TAC Topics

- FCC TAC deals with many different topics:
  - Unlicensed spectrum usage
  - Mobile phone locking
  - Cyber security (mobile and industry)
  - IoT
  - Receiver standards
  - Interference Investigation
  - Next generation technologies

AFC
Aeronautical Frequency Committee

Receiver Standards

- Principles for assessing new freq band allocations
  - Draft Whitepaper to be presented at 9 Dec meeting
- Draft interference principles
  - Interference is due to characteristics of both transmitters and receivers
  - Interference is unavoidable, dynamic, and should be planned for
  - Responsibilities of: receivers, systems, & transmitters
  - Benefits of disclosing operating characteristics to the FCC
  - Use of interference limits to distinguish harmful interference
  - Quantitative analysis of interaction between services

AFC
Aeronautical Frequency Committee

Unlicensed spectrum

- More spectrum is needed (licensed and unlicensed)
  - Over subscribed (900 MHz, 2.4 and 5 GHz)
  - Safety service use (e.g. traffic lights)
  - Users assuming protection
- WiFi growth
  - VoWiFi will exceed VoLTE by 2018 (T-Mob with 11M calls a day)
- 4Q 2015 Work plan
  - Industry engagement
  - Recommend new spectrum for 5-60 GHz
  - Update etiquette statement for unliscensed users
  - Consider a recommendation for safety services

AFC
Aeronautical Frequency Committee

Interference noise floor

- Noise floor is understood to be steadily rising
  - No real quantative analysis in a systematic way
  - Request for an ad hoc group to investigate
- Proposal
  - Research literature on RF noise floor changes from 500 kHz to 2 GHz
  - Research FCC rules on RF emission limits from licensed and unlicensed services
  - Research literature on manufacturing and testing of unlicensed RF emitting devices
  - Compare available test data relative to current emission limits
  - Research require noise floor for wireless communications bands and assess unlicensed service contributions to noise floor
- Will be scoped until next year
  - Concerns about work load and mission creep
  - Impact on unlicensed usage

Questions?

AFC
Aeronautical Frequency Committee