



GPS Adjacent Band Compatibility Assessment

*FCC Workshop on GPS Protection
and Receiver Performance*

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GPS Adjacent Band Compatibility Assessment

Goals:

- Inform future proposals for non-space, commercial uses in the bands adjacent to the GPS signals.
- Ensure such proposals are implemented without affecting existing and evolving uses of space-based PNT that are vital to economic, public safety, scientific, and national security needs.



GPS Adjacent Band Compatibility Assessment

Objectives:

- Derive adjacent-band power limits, as a function of offset frequency, necessary to ensure continued operation of all applications of GPS services.
- Determine similar levels for future GPS receivers utilizing modernized GPS and interoperable Global Navigation Satellite System (GNSS) signals.



Near-Term Focus

- Frequency Bands Adjacent to GPS L1
- Leverage Receiver Categories from TWG
 - Aviation
 - Cellular
 - General Location/Navigation
 - High Precision
 - Timing
 - Networks
 - Space
- ❖ Develop a set of curves demonstrating the maximum aggregate power level as a function of frequency offset from GPS



Recommended Path Forward

Do:

- Codify GPS Adjacent Band Transmitter Power Limit Criteria Based on Results of Compatibility Assessment

Do Not:

- Adopt New Interference Rejection Regulations/Standards for Civil GPS Receivers
 - Receiver interference rejection standards alone are insufficient to ensure protection of GPS receivers
 - In-depth analysis is required to evaluate GPS use-case specific interaction and interference scenarios

