

Working Group 1: Assured Availability
- Protect The Clear and Truthful Reception of Radionavigation Signals

1.1 Spectrum Allocation Assurance
(Spectrum Sub-working Group)

Commercial Pseudolite Operations in the RNSS Bands-Recap and Status
June 12, 2015

RECAP

ECC Recommendation:

“Considering

- That indoor GNSS pseudolites may have the potential to cause partial or total degradation of the accuracy of other position location devices, in particular of non-participative GNSS receivers;
- that these potential degradation and interference . . . [m]ay be significantly increased if indoor PL do not use dedicated codes for PLs as reserved in the Interface Control Documents (ICD) published by the GNSS system operators” [“considering g”]

“Recommends

- That indoor GNSS pseudolites should use dedicated codes only as reserved by the corresponding GNSS system operators as described in considering g)”.

A Regulatory Guidance:

- “PRN codes dedicated to PLs are provided by the respective RNSS system operator and should be locally administered by national authority... They shall be specified as part of any license. (see ECC Report 183)

GPS PRN Assignment (SMC/GP) 6 March 2015

- “SMC/GP PRN Code Assignment Overview:
 - 2.1 Many domestic and international radionavigation systems seek a high level of interoperability with GPS, including the use of PRN codes from the spreading code families developed for GPS. Signals that employ PRN codes from the GPS spreading code families achieve an established level of code performance, including compatibility with GPS signals. Additionally, the use of PRN codes from the GPS spreading code families fosters the development of receivers capable of seamlessly using signals from more than one radionavigation system. The resulting compatibility and interoperability are beneficial to all systems using GPS PRN codes.
 - 2.3 SMC/GP does not support civil/commercial terrestrial transmissions in the GPS frequency bands due to the potential to degrade GPS performance.
 - 2.4 Issuance of PRN codes to an administration is not an endorsement or approval of the system for use by the GPS Directorate or the United States Air Force. Administrations are responsible for the operation of their system in accordance with all applicable rules and regulations.
- (See www.GPS.gov/technical/prn)

RECOMENDATION

For ICG consideration:

Seek harmonized regulation of GNSS commercial PL operations in order to guide operations outside of the band 1559-1610 MHz (and all RNSS and ARNS bands) on a frequency neutral basis