GNSS Applications Workshop: Seminar on GNSS Spectrum Protection and Interference Detection and Mitigation

Course Introduction

06 December 2022

Vienna, Austria

Global Perspective

- Global Constellations
  - GPS (24+3)
  - GLONASS (24+)
  - GALILEO (24+3)
  - BDS/BEIDOU (27+3 IGSO + 5 GEO)

- Regional Constellations
  - QZSS (4+3)
  - IRNSS/NAVIC (7)
  - Korea – KPS (7)

- Satellite-Based Augmentations
  - WAAS (3)
  - MSAS (2)
  - EGNOS (3)
  - GAGAN (3)
  - SDCM (3)
  - BDSBAS (3)
  - KASS (2)
  - SPAN (2)

GPS/WAAS — GLONASS/SDCM — GALILEO/EGNOS — QZSS/MSAS — BEIDOU/BDSBAS — KPS/KASS — NAVIC/GAGAN — Australian SBAS

Seminar History

- Pre-ICG Action Team on GNSS (1999-2005)
  - Regional Meetings 2000-2003
  - Fall 2004: 1st effort to develop Workplan for ICG
    - Spectrum protection and Interference detection and mitigation (IDM) drafted into ICG Workplan from the beginning

- Proposal by U.S. for Educational Seminar on Spectrum Protection and IDM at Final Pre-ICG Experts Meeting in 2005
  - Never took place… until 2015

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Purpose of this Workshop

Describe the importance of GNSS spectrum protection at the National level, and what you can do to reap the benefits of GNSS

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Session Agenda: Day 1

Session	Subject
1. Overview	
	Course Introduction
2. Introduction to GNSS	
	How GNSS Works and Applications
	GNSS Receiver Fundamentals
	Introduction to Interference
3. Spectrum Management	
	Spectrum Management & the ITU
	Q&A
	Break
4. Spectrum Protection	
	Introduction to Spectrum "Protection"
5. Interference Detection and Mitigation	
	Proliferation of GNSS Jammer Devices
	Interference Detection Concepts
	Interference Detection and Mitigation and GNSS Jammers
6. Summary/Interactive Discussion	
	Summary
	End of Day One Session

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Session Agenda: Day 2

7. Interference Detection and Mitigation	
	Day 2 Introduction
	ICG Activities and its Role in Spectrum Protection and Interference Detection and Mitigation
8. Summary and Interactive Discussion	
	Summary and Q&A Session
	End of Seminar

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