

2024 Spirent Federal PNT Training Seminars Agenda

(Preliminary agenda – subject to change)

WEST Seminar
Los Angeles, CA
Wed - Thu, May 1-2

EAST Seminar
Baltimore, MD
Mon - Tue, May 6-7

SOUTH Seminar
Huntsville, AL
Wed – Thu, May 8-9



denotes a hands-on workshop where attendees will use a software license to build scenarios on their personal laptops while the Spirent engineer demonstrates

Day 1:

Time	Sessions
7:30	Registration & Continental Breakfast
8:00	Welcome and Orientation
8:10	PNT & NAVWAR Trends
9:10	Scenario Generation 1: GNSS Simulation Fundamentals  <ul style="list-style-type: none"> • Basic set-up and connecting to a simulator • An introduction to simulation techniques • An introduction to creating GNSS simulation scenarios • Scenario data and time, satellite constellation, and vehicle motion
10:20	Break with Refreshments
10:35	Scenario Generation 2: Building a Realistic Test Environment  <ul style="list-style-type: none"> • Creating realistic values for simulation parameters, including: satellite antenna patterns, vehicle antenna offset & patterns, multipath, & terrain obscuration • Visualization tools
11:45	Lunch
12:45	Scenario Generation 3: NAVWAR Test Vectors: Jamming  <ul style="list-style-type: none"> • GTx embedded interferers and signal sources • Adding jamming and custom waveforms • SimIQ custom waveforms for GTx & flex license options
1:55	Scenario Generation 4: NAVWAR Test Vectors: Spoofing  <ul style="list-style-type: none"> • New spoofing tool <ul style="list-style-type: none"> ○ Spoofers ○ Meaconers ○ Nav data attacks
3:05	Break with Refreshments
3:20	Scenario Generation 5: Utilizing Remote Control and Motion  <ul style="list-style-type: none"> • Remote operation & user motion files • Using data streaming for remotely monitoring truth data • Timing requirements for remote motion • New remote control and integration tool employing gRPC and Spyder
4:30	Additional Q&A Time
5:30	Evening Social at Hotel Venue: Dinner Provided

DAY 2:

Time	Sessions
7:30	Continental Breakfast
8:00	Advanced NAVWAR Briefing
8:45	Field Testing <ul style="list-style-type: none"> • RF Record & Playback <ul style="list-style-type: none"> ○ Product Concept and use cases ○ Recreating the environment back in the lab • Field Simulation <ul style="list-style-type: none"> ○ Product concept & use cases ○ Case study & results
9:15	Break with Refreshments
9:30	Testing a CRPA System in NAVWAR <ul style="list-style-type: none"> • Key parameters for testing CRPA • Fundamentals • Simulating & setting up multiple elements • Interference/jamming • Spoofers • New CRPA configuration tools • Working with IQ data in wavefront system
11:00	Anechoic Chamber Testing <ul style="list-style-type: none"> • Fixed array chamber testing • Zoned chamber testing
12:00	Lunch
1:00	High Dynamics Simulation Testing for FRPA & CRPA Systems <ul style="list-style-type: none"> • Examples of high dynamic test applications • 6DOF trajectory generation, translation, & employing the check motion utility • Understanding latency and the introduction of a 2 kHz SIR • Simulating spinning vehicles • RF performance and signal fidelity
2:00	Low Earth Orbit & Augmented PNT <ul style="list-style-type: none"> • Inertial systems - EGI & IMU Testing • Testing LEO navigation systems & new SimORBIT • SBAS, GEO+
3:00	Break with Refreshments CUI Session opens – must be US citizen and show government-issued photo ID to enter. Electronic devices must be turned off and put away at all times—no recording or photography allowed.
3:15 – 4:45	GPS Resiliency – CUI* <ul style="list-style-type: none"> • Y-code & SAASM • SimAltNav • Jamming <ul style="list-style-type: none"> ○ Blue Force Electronic Attack (BFEA) waveforms • Spoofing • M-code <ul style="list-style-type: none"> ○ Regional Military Protection (RMP) and ISC support

*** U.S. Citizens Only. Visit request required.**