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2026 Spirent Federal PNT Simulation Training Seminars

Los Angeles | Huntsville | Colorado Springs

Planned Agenda (Subject to Change)
High-Density NAVWAR: Modeling the Modern Battlespace

Day 1

Time	Event
7:30	Registration Begins with Light Breakfast Served
8:30	Welcome and Orientation

Scenario Generation Sessions

Time	Beginner User Track	Experienced User Track
9:00	**NAVWAR Fundamentals:** Session 1b **Building the Foundation** **Objective:** Working step-by-step alongside a PNT test expert, you will build a complete test scenario of a mounted ground vehicle in a real-world NAVWAR environment. You will run the scenario live on a receiver as a class and successfully jam and spoof the receiver. **Learn:** Basics of simulation, trajectory generation, antenna configuration, and constellation setup	**Advanced NAVWAR:** Session 1e **Jam then Spoof Takeover** **Objective:** Working step-by-step alongside a PNT test expert, you will build a test scenario of a loitering UAS encountering multiple high-power jammers and a spoofer. You will execute the test live on a receiver as a class and successfully jam and spoof the receiver. **Learn:** How to execute a spoofer takeover with a knock-out jammer
11:30	Lunch	
12:30	**Testing CRPA (Anti-jam Antenna) Systems**	Session 2
1:00	**Fundamentals Continued:** Session 3b **Adding Jammers and Spoofers** **Learn:** Adding static jammer and spoofer transmitters, how to change from FRPA to CRPA in the scenario	**Advanced Continued:** Session 3e **Power-Matched Spoofing** **Learn:** Use advanced spoofing techniques by constructing spoofers focused on GPS time manipulation and message modifications.
4:00	**Developing and Executing GNSS Test Scenarios with PNT Xe** Session 4 • Supporting essential testing with an iterative workflow	
5:00	Wrap-Up / Questions	
5:30	Evening Social Begins – Details Will Be Provided	

Day 2

7:30	Breakfast Begins

8:30	**Complementary PNT**	Session 5
	• Inertial and sensor fusion, LEO PNT, future concepts	

Scenario Generation Sessions

Beginner User Track	Experienced User Track
NAVWAR Fundamentals II: Session 6b **Dynamics and Density** **Objective:** Build on day 1 scenario by adding real-world complexity with multiple dynamic jammers and spoofers. You will run the scenario live on a receiver as a class and successfully jam and spoof the receiver. As time permits, the group will experiment with audience input on jammer modifications and spoofing with receiver clock deviations. **Learn:** Configure jammer and spoofer motion, add multiple transmitters into the scenario	Advanced NAVWAR II: Session 6e **Ground-to-Space NAVWAR and Realistic Theater Modeling** **Objective:** Simulate how ground-based jammers and spoofers can impact space vehicles while adding terrain, atmospheric, and antenna characteristics to create a high-fidelity operational theater environment. **Learn:** Build a NAVWAR-in-space scenario, incorporate antenna patterns, signal fading and propagation effects, atmospheric conditions, digital surface models, and environmental obstacles

(9:45 for above sessions)

11:30	Lunch

12:30	Combined Scenario Generation Session Session 7 **Scripting with Application to Drone Swarm Scenarios** **Objective:** Experience the power of scripted automation at swarm scale. The session culminates in a high-impact demo: a coordinated swarm of up to 128 drones tracking and surrounding a moving vehicle in a fully simulated environment. **Learn:** Start with a single virtual drone and quickly learn how a few simple scripts can bring complex motion and behaviors to life. See how automation transforms routine setup into rapid, high-volume scenario generation—enabling mass updates to jammers, motion profiles, and key parameters in just a few lines of code.	

2:00	**PNT and NAVWAR Roadmap**	Session 8

2:45 – 4:30	CUI SESSION – US Citizens Only, Visit Request & ID Required **GPS M-Code**	Session 9
	• How to test GPS Military Code	
	• MNSA, AES, SDS Test Vectors, Regional Military Protection (RMP)	