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10:30 am - 10:50 am

Flexible by Design, Reliable by Demand: Satcom Built for PACE

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Abstract:

Modern missions demand satellite communications that are more than just available; they must be reliable, resilient, and flexible by design. In regions where forces operate across vast distances, contested environments, and joint missions with allies, Satcom becomes a critical enabler of command and control.

This session will examine why flexibility is the foundation of reliability in modern Satcom and how it underpins mission assurance. From seamless switching across networks and profiles to multiple power options and resilience in GPS-denied or electronically contested environments, the next generation of platforms must endure where others have failed before. Intuitive, user-focused design and integrated intelligence, such as Paradigm's Interface Module (PIM), further reduce complexity, ensuring warfighters remain focused on the mission rather than the technology.

The discussion will highlight the key dimensions of flexibility required in a modern Satcom architecture:

- Multi-waveform support to ensure interoperability with allies, backward compatibility, and access to emerging high-throughput services.
- Multi-band capability across Ku, Ka, and X, giving operators the ability to select the frequency best suited to mission requirements.
- Integration with other transport layers; from tactical radios to optical links, delivering redundancy and enabling resilient, blended networks essential for JADC2.
- Assured operations in GPS-denied environments, leveraging advanced timing alternatives, adaptive power control, and anti-jamming techniques to maintain connectivity and protect operational security.

This flexibility transforms planning frameworks such as PACE into practical, mission-ready safeguards. For commanders and operators alike, Satcom that is flexible by design and reliable by demand provides the assurance needed to maintain decision advantage and operational effectiveness in any environment.