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Integrated Respirator Information System

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Abstract:

ActionStreamer's IRIS (Integrated Respirator Information System) offers a groundbreaking solution for enhancing situational awareness, safety, and operational efficiency in hazardous and confined environments. Designed to address the complex challenges faced by Navy personnel, the IRIS system integrates wearable technology with live-streaming and data-capture capabilities, providing command teams with real-time visibility of an officer's perspective.

In high-risk scenarios such as inspections aboard vessels, submarine maintenance, or damage control in confined spaces, IRIS enables seamless communication and improved decision-making by streaming live footage directly from the field to command centers. The system enhances safety by allowing remote experts to guide personnel in navigating confined, hazardous, or oxygen-depleted areas, reducing exposure risks and improving mission outcomes.

Beyond operational utility, IRIS revolutionizes training and post-mission review processes for Navy officers. By capturing first-person footage of real-world scenarios, the system creates a robust visual archive for training exercises and post-event analysis. Officers can review authentic footage to refine techniques, analyze decision-making processes, and prepare for similar future challenges. This capability fosters a deeper understanding of operational environments, accelerating learning curves and enhancing readiness across the fleet.

MetroStar's integration with IRIS establishes a comprehensive monitoring system for hazardous operations. The Mission Analysis Ecosystem processes real-time data through AI/ML capabilities, enabling predictive maintenance and automated risk assessment. By fusing multiple data streams, including video and environmental sensors, the system

provides commanders with enhanced situational awareness. Operating through MetroStar's DoD-compliant Onyx Platform, this integration reduces repair times by 66% and significantly improves aircraft availability. The streaming platform ensures reliable communication in confined spaces, enabling seamless collaboration between field personnel and remote experts.

The IRIS system's unique blend of real-time streaming, data capture, and usability in hazardous and confined environments positions it as a vital asset for improving Navy operations and training effectiveness, ensuring mission success and safeguarding personnel.