Special Operations Forces Industry Conference

Communications & Situational Awareness
COL Doug Rombough, PEO-RW

Rotary Wing

Agenda

- **Situational Awareness**

- **Hostile Situational Awareness Threats and Solutions**

- **Inherent Situational Awareness Threats and Solutions**

- **MH-60M Blackhawk Current / Future SA Equipment**

- **End State - Balanced Situational Awareness**

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Situational Awareness

"In the complex and dynamic aviation environment, information overload, task complexity, and multiple tasks can quickly exceed the aircrew's limited attention capacity. The resulting lack of SA can result in poor decisions, leading to human error."

Dr. Mica Endsley
Situational Awareness Technologies, 1995

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Hostile SA Threats and Solutions

Threats to SOF Aviation

Small Arms/RPGs/AAA ⟶

MANPADS ⟶

Pilot Overload ⟶

Current Solutions

Hostile Fire Indicating System & SIRFC

SIRFC & CMWS

Sensor Fusion / SIRFC / CAAS

Hostiles on the Objective ⟶

Fratricide ⟶

Pending Solutions

Secure Real-Time Video (SRTV)

Joint Battle Command – Platform (JBC-P)

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Inherent SA Threats and Solutions

Threats to SOF Aviation

Visual Impairing Armor ➡️

Brownout / Whiteout ➡️

Obstacles / Wires / Terrain ➡️

Pending Solutions

Transparent Armor Panels

DVE

DVE / Hazard Sharing Between Aircraft

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MH-60M BLACKHAWK

Joint Battle Command - Platform (JBC-P)

Degraded Visual Environment (DVE)

SAFEAIR / CDAS / GATM

Hostile Fire Indicating System (HFIS)

Secure Real-Time Video (SRTV)

Transparent Armor Door Panels

Dual Digital Automatic Flight Control System

ARC-231 Radios

Multi-Mode Radar

Common Avionics Architecture System (CAAS) Cockpit

Suite of Integrated Radio Frequency Countermeasures (SIRFC)

AN/ZSQ-2 Advanced Electro-Optic Sensor System (EOSS FLIR)

AN/AVR-2B Laser Detecting Set

CURRENT   FUTURE   UNCLASSIFIED

End State - Balanced Situational Awareness

Develop Situational Awareness

Maintain Situational Awareness

Avoid Hostile Threat/
Avoid Crash

Survive
Complete Mission

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Questions

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