How SOF Acquisition Enables Mission Success

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J8-R COL Ramsey Bentley
Agenda

- Portfolio Overview
- Mission Video
- Joint Interoperability Network
- Secure Real Time Video
- Forward Looking Infrared
- Degraded Visual Environment
- Dillon Mini-Gun
- Silent Knight Radar
- Mission Processor Upgrades
- Future Vertical Lift
Program Executive Office Rotary Wing (RW)

**MOBILITY**
- A/MH-6
  - Light Attack/Assault
- Medium Assault
  - MH-60
- Heavy Assault
  - MH-47

**MISSION EQUIPMENT**

**Active Aircraft Survivability Equipment**
- Avionics

**Passive Aircraft Survivability Equipment**
- Sensors
- Silent Knight Radar

**TRAINING SYSTEMS**
- A/MH-6M Little Bird
- MH-47G CMS
- MH-60L/M CMS
- Aquatics Training Facility (Dunker)
HOSTAGE RESCUE
Operation Enduring Freedom - Afghanistan

MH-47 Chalk 2 Pilot: MAJ Matthew Parker
Area of Operation

AFGHANISTAN

AREA OF OPERATION
TASK ORGANIZATION

PREDATOR

AC-130

MH-47 (x 3)

ASSAULT FORCE (x 61)

CSAR Force
QRF

CONTINGENCY

ALERT TO WHEELS UP:
45 MINUTES

UNCLASSIFIED
Joint Force Interoperability (AIR) Program

Interoperability = highly effective, real-time C2 and fire control for the Mission Commander in the localized battle-space. The ability to C2, share threat locations, and apply lethal fires speeds the kill chain during the Finish phase of Joint operations.

Voice Communications are Adequate. Data Networking is a Capability Gap.
Secure Real Time Video

UAV Overwatch of Objective Helicopter Landing Zone

MH-60 Enroute to Objective
INGRESS TO OBJECTIVE

CHECK POINT

NORTH

OBJECTIVE

Enemy Fire

Early Warning System
Rotary Wing

HFIS Concept

Hostile Fire Threat Bubble

Point of Detection

“HF, HF One O’clock Low”

“Rocket, Rocket Eleven O’clock Low”

Small Arms Threat

RPG Threat

UNCLASSIFIED
HFIS Integrated Architecture
Forward Looking Infrared

AN/ZSQ-2 V2 Attack

Legacy

Next Gen
Degraded Visual Environment
M-134D Dillon Mini-gun

M-134D Mini-Gun

Lithium Ion Battery
Silent Knight Radar

**MH-47G**
- LPD/I TF/TA Multimode
- Anti-icing Radome
- 800 Hour MTBF
- Two Level Maintenance
- Five LRU Design

**MH-60M**
- SW Based Digital Radar
- Arbitrary Waveforms
- Dual Mode Transmitter
- Ku-Band 4 CH Ant-Rcv
- Fast 3 Axis Gimbals

**MC-130H Talon**

**CV-22, BLK 30**
Mission Processor Upgrades

Control Display Unit (CDU)

Multi-Function Display (MFD)

MH-60 CAAS Cockpit
TIMELINE

3.5 HOURS TOTAL TIME

Rescued Hostage Boards Jet At 3.5 Hours From Start Of Mission
TALLY

Hostile Forces:
- 40 RPGs
- 1000s Small Arms Rounds

Rescue Forces:
- 18,000 x 7.62mm
- 1 Casualty
- Successful Hostage Rescue
Rotary Wing Acquisition Way Ahead

Planning for the next five years:
- MH-47G, MH-60M, A/MH-6 Block Upgrades
- Silent Knight Radar (SKR)
- Degraded Visual Environment (DVE)
- Hostile Fire Indicating System (HFIS)
- Aircraft Occupant Ballistic Protection System (AOBPS)
- Reduce Optical Signature Emission Solution (ROSES)
- Secure Real-Time Video (SRTV)
- Common IR Countermeasures (CIRCM)
- Light Weight IR Countermeasures for MELB (LWIRCM)
- Joint Interoperability Network

Planning for the next ten to fifteen years:
- Active RPG defeat
- Color changing paint
- Non-Lethal weapons (Dazzler, Acoustic Hailing)
- Curved Transparent Armor
- Noise/RF/IR signature reduction
REQUESTIONS?