

How SOF Acquisition Enables Mission Success

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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**



Rotary Wing

Program Executive Office Rotary Wing (RW)

MOBILITY



A/MH-6
Light Attack/Assault

Medium
Assault
MH-60

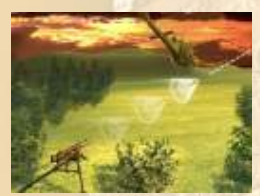


Heavy
Assault
MH-47

MISSION EQUIPMENT



Active Aircraft Survivability Equipment



Passive Aircraft Survivability Equipment



Avionics



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

CONTINGENCY

CSAR Force
QRF

AC-130

ALERT TO WHEELS UP:
45 MINUTES

MH-47 (x 3)

ASSAULT FORCE (x 61)



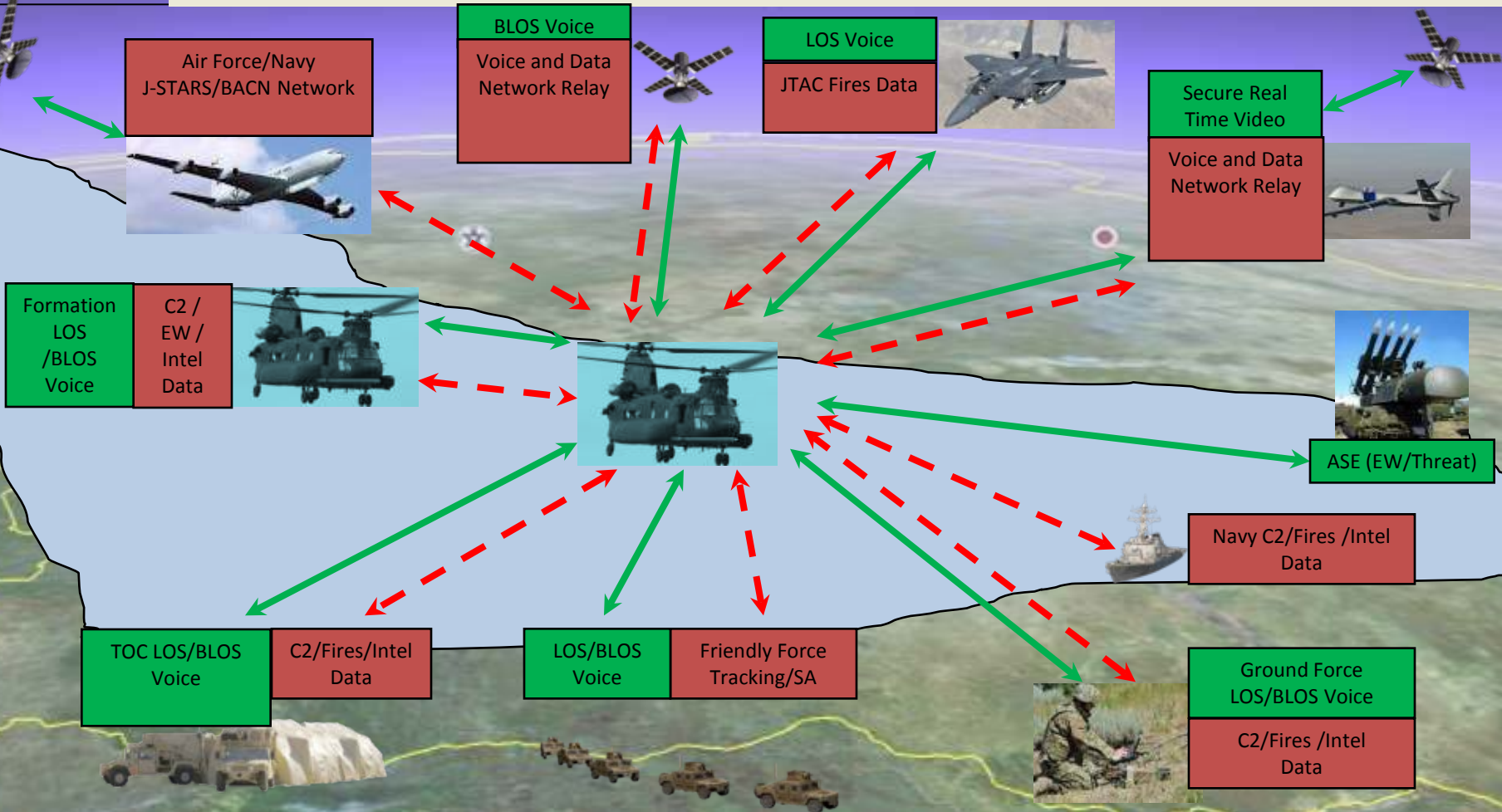


Rotary Wing

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.

Legend
Green = Capability
Red = Gap



Voice Communications are Adequate. Data Networking is a Capability Gap.



Rotary Wing

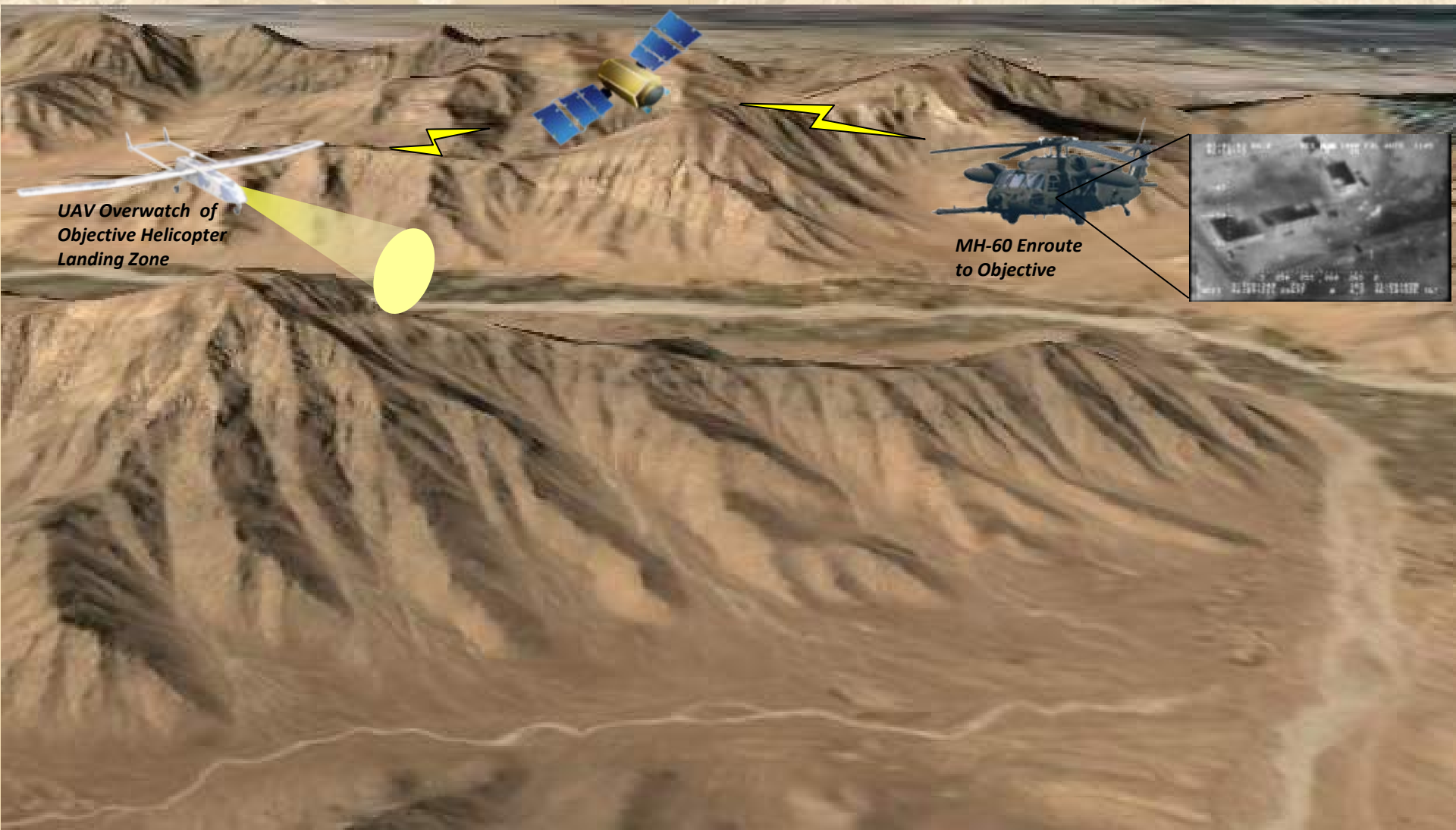
MISSION ROUTE

NORTH





Secure Real Time Video

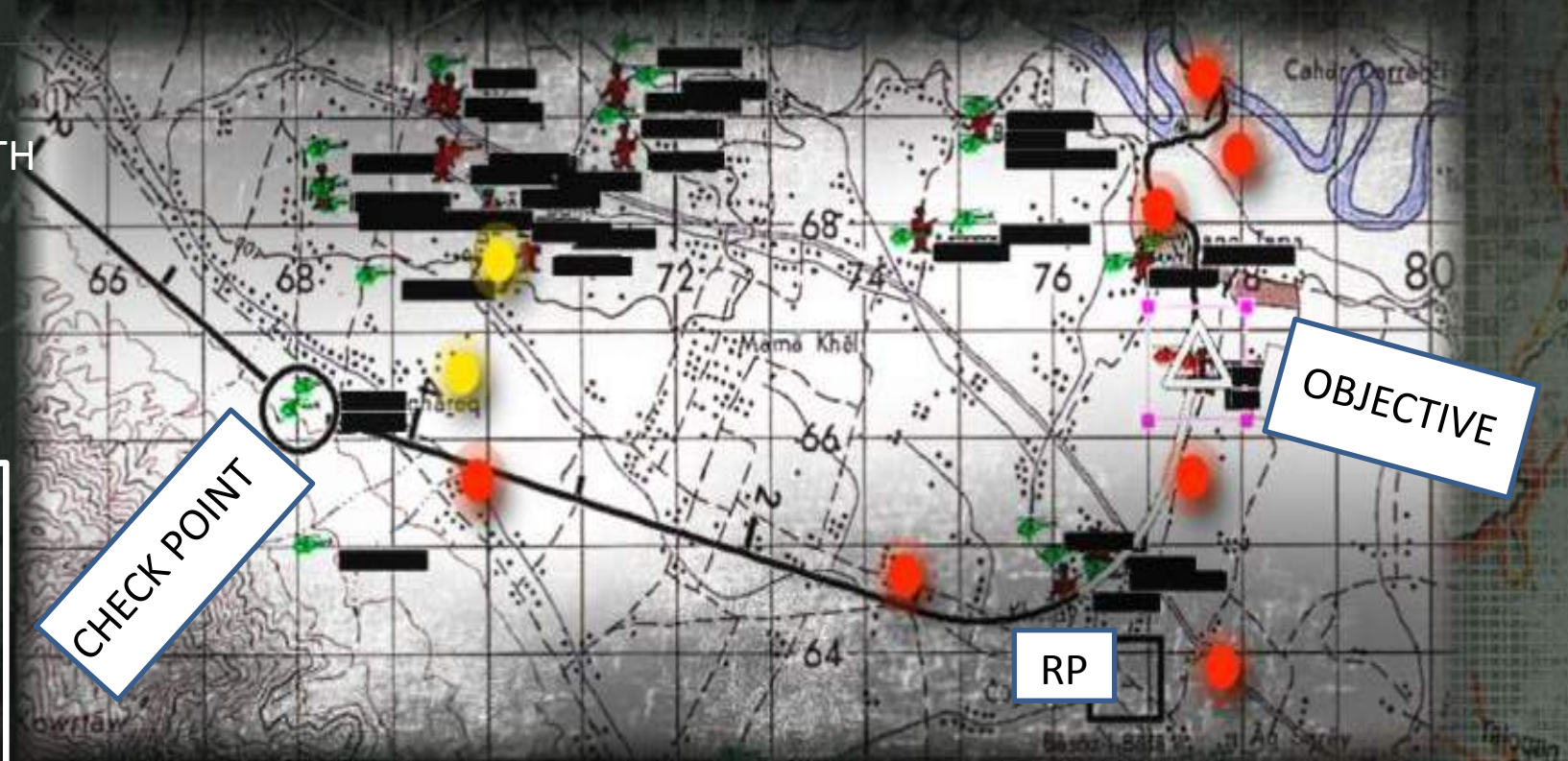


UAV Overwatch of Objective Helicopter Landing Zone

MH-60 Enroute to Objective



INGRESS TO OBJECTIVE



● Enemy Fire

● Early Warning System



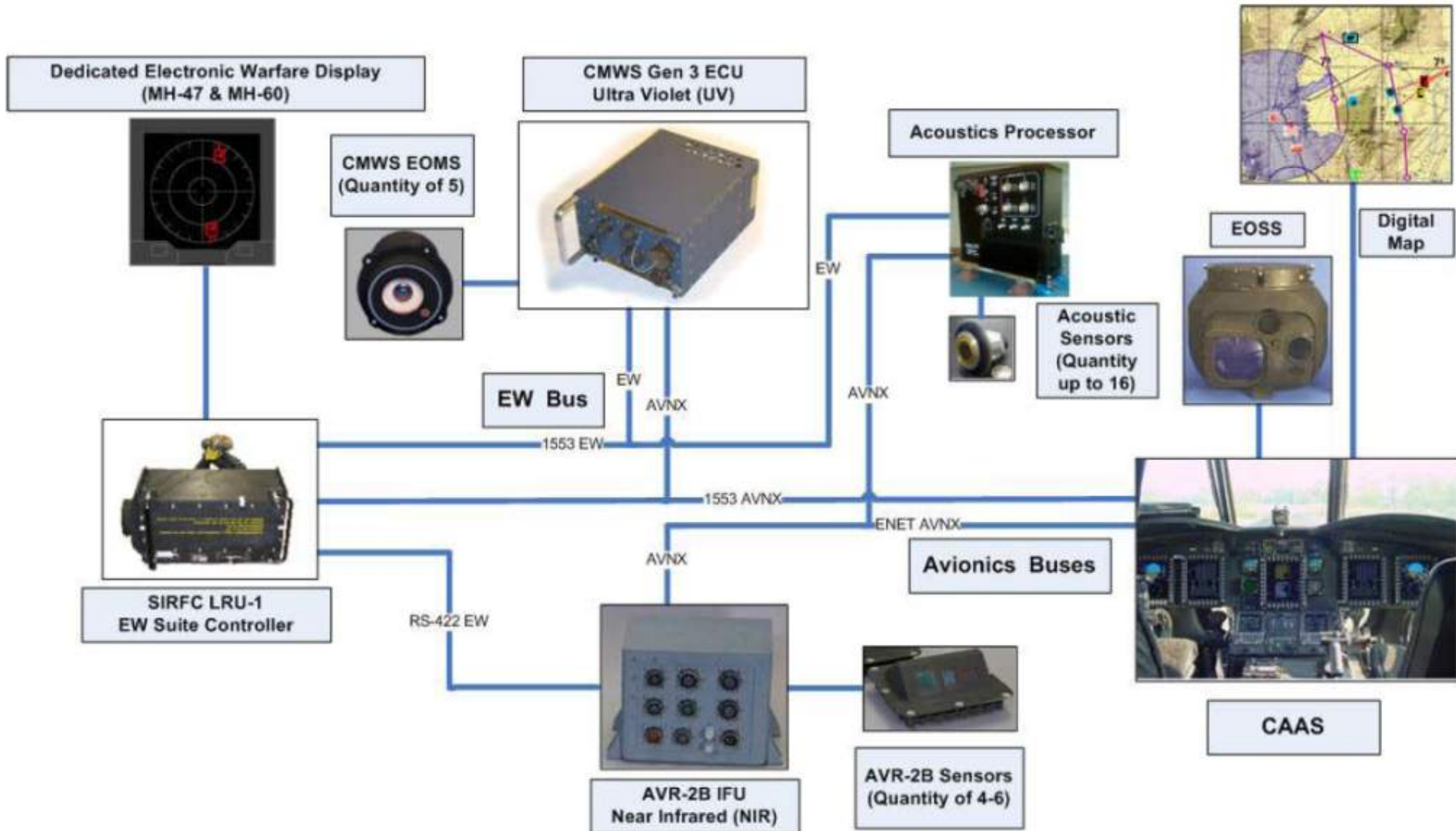
Small Arms Threat



RPG Threat



HFIS Integrated Architecture





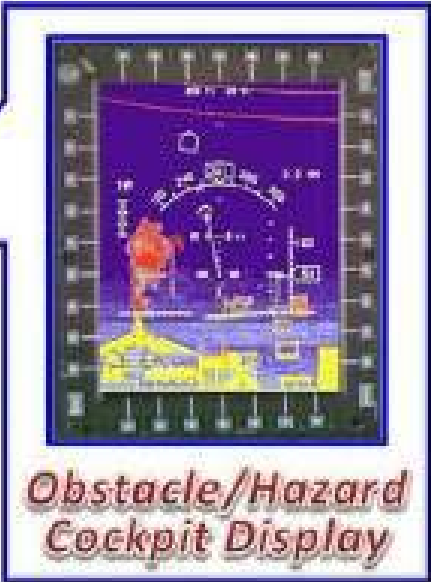
Forward Looking Infrared

AN/ZSQ-2 V2 Attack



Legacy

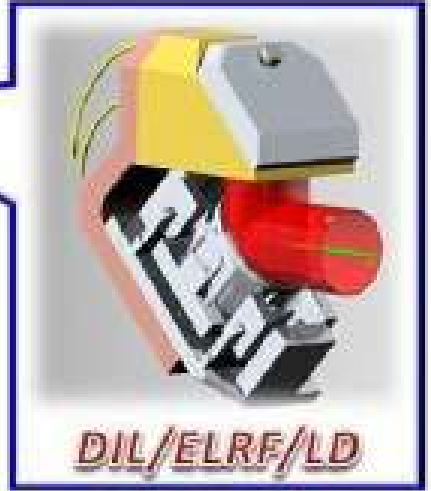
Next Gen



*Obstacle/Hazard
Cockpit Display*



AN/ZQS-2(V)



DIL/ELRF/LD





Degraded Visual Environment



WIN THE CURRENT FIGHT
THE GLOBAL SOF NETWORK
THE FORCES AND FAMILIES
RESPONSIVE RESOURCING

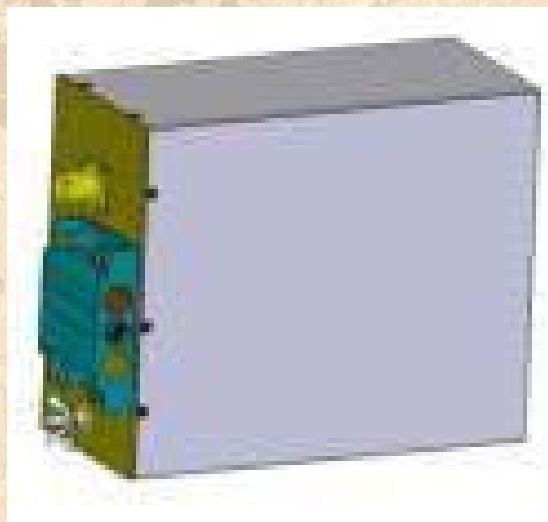


M-134D Dillon Mini-gun

M-134D Mini-Gun



Lithium Ion Battery



WIN THE CURRENT FIGHT
THE GLOBAL SOF NETWORK
THE FORCE AND FAMILIES
RESPONSIVE RESOURCING



Silent Knight Radar

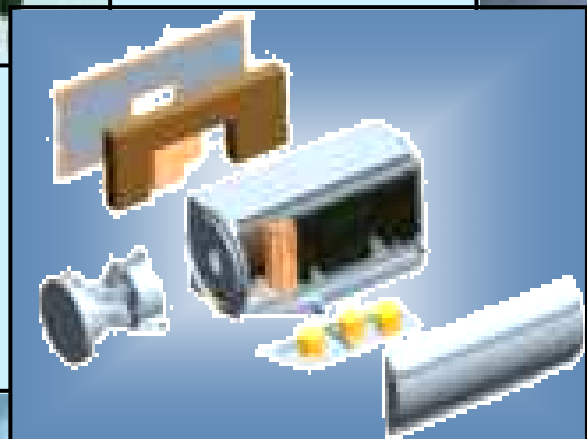


MH-47G



MH-60M

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



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



MC-130H Talon



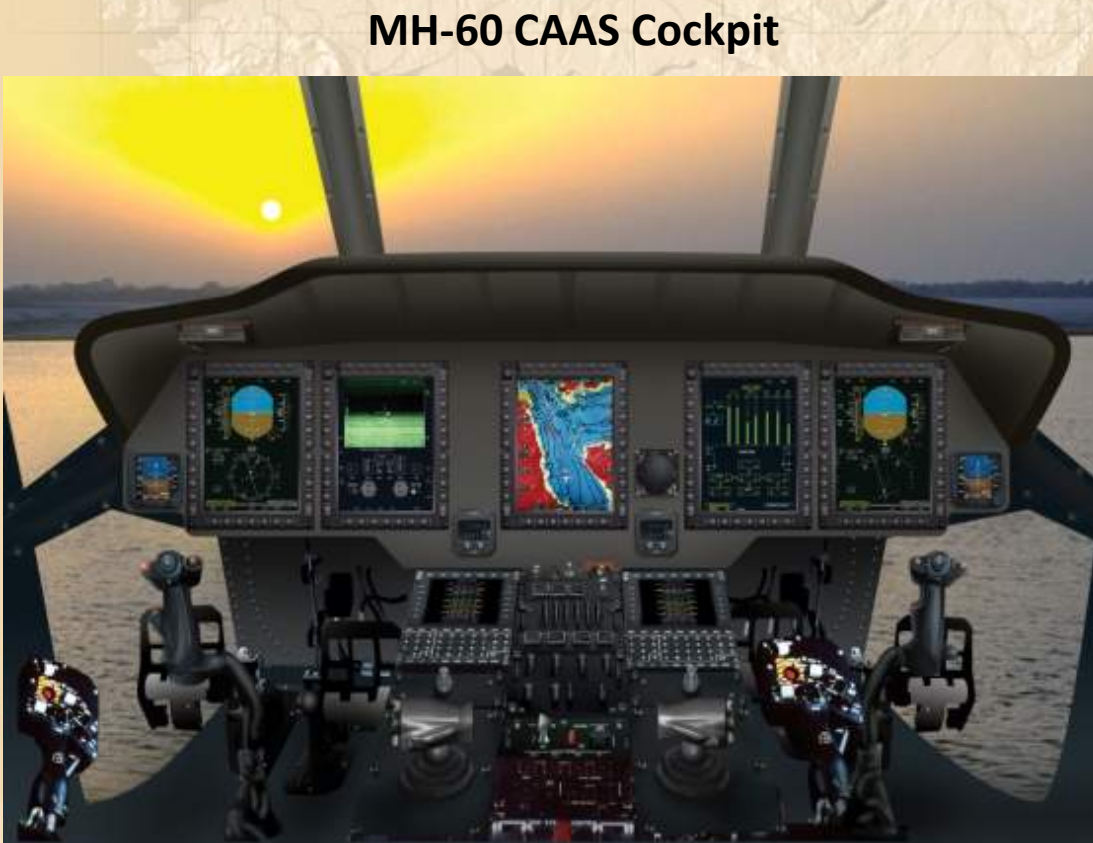
CV-22, BLK 30



Mission Processor Upgrades



Control Display Unit (CDU)



MH-60 CAAS Cockpit



Multi-Function Display (MFD)



Rotary Wing

TIMELINE

DATE	TIME	LOCATION	STATUS
1845Z	1845Z	1845Z	1845Z
1930Z	1930Z	1930Z	1930Z
2015Z	2015Z	2015Z	2015Z
2024Z	2024Z	2024Z	2024Z
2102Z	2102Z	2102Z	2102Z
2215Z	2215Z	2215Z	2215Z

Rescued Hostage Boards
Jet At 3.5 Hours From
Start Of Mission



3.5 HOURS TOTAL TIME



TALLY



Hostile Forces:

40 RPGs

1000s Small Arms Rounds

Rescue Forces:

18,000 x 7.62mm

1 Casualty

Successful Hostage

Rescue



Rotary Wing

Preserve RW Capacity:
Platform & Force Structure
Survivability, Sustainability
& Affordability

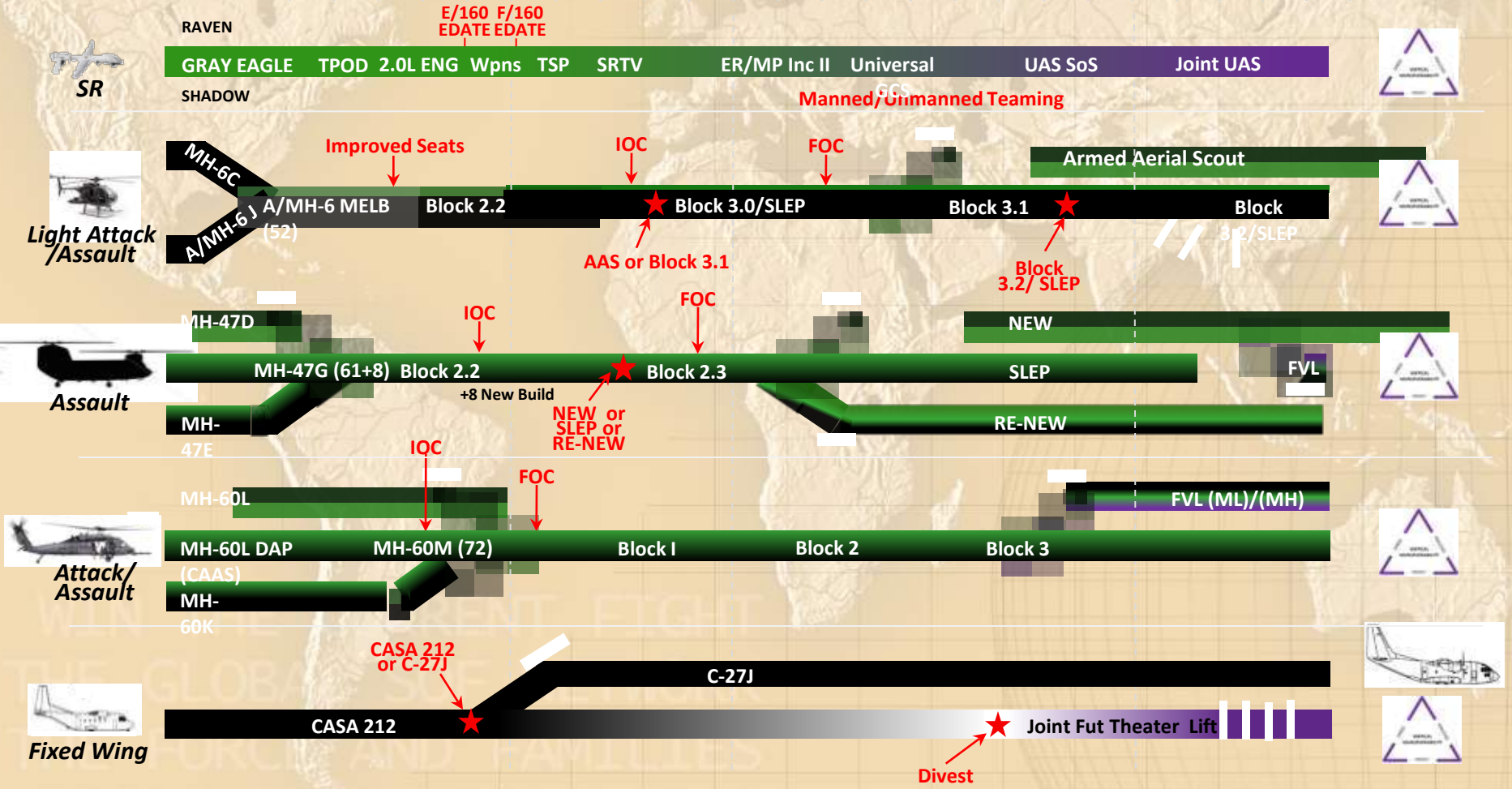
Vertical Lift Roadmap

- SOF
- Joint
- Army

Mission

Near Term (Prior to FY 15) **The POM Years (Fiscal Year 15-19)** **The EPP Years (Fiscal Year 20-28)** **Beyond the EPP (Fiscal Year 29 – beyond)**

2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033



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



QUESTIONS?

