

Headquarters Air Combat Command

USAF Future Rotary Wing Requirements



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HQ ACC/A8R1
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This Briefing is:
UNCLASSIFIED



Overview

- **Concept of Operations**
- **Current Shortfalls**
- **CSAR-X**
- **Future Requirements**



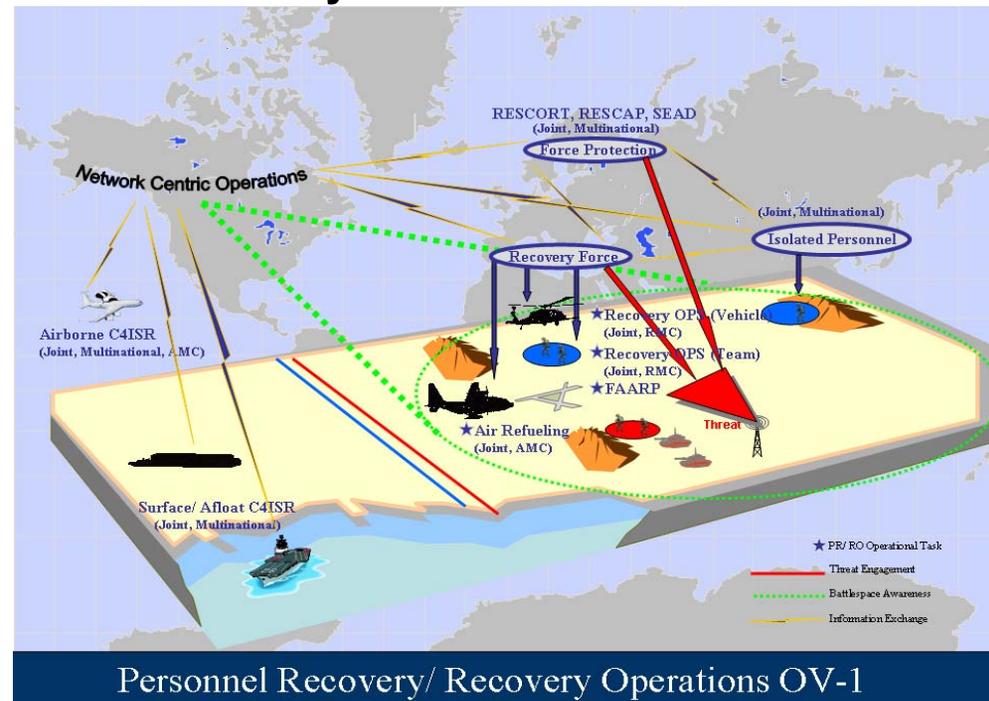


CSAR Concept of Operations

- **Personnel Recovery (PR)** – The sum of military, diplomatic, and civil efforts to effect recovery
 - Recover, return US Military, DoD civilians, and DoD contractors who are isolated or missing
- **CSAR Conducts PR operations across the spectrum of military operations**
 - USAF preferred mechanism for personnel recovery in uncertain or hostile environments and denied areas

Dedicated, theater-wide CSAR Force

CSAR is an Air Force core mission – a strategic force multiplier across the spectrum of military operations



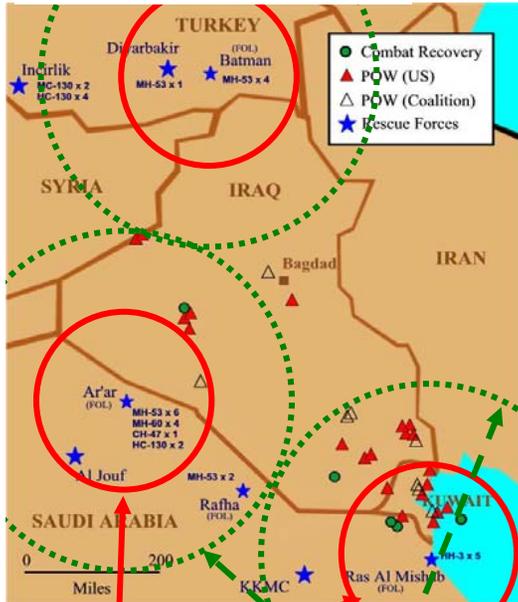
Personnel Recovery/ Recovery Operations OV-1

Air Force Moral Imperative: “Leave No One Behind”



HH-60 Capability Shortfalls

Range

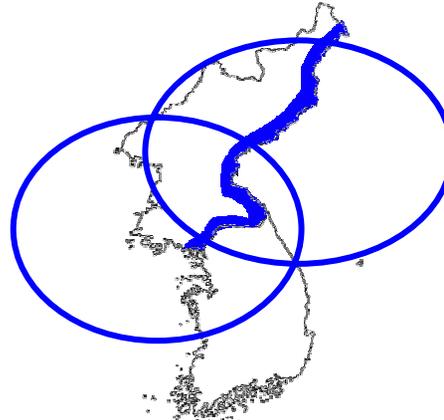


**HH-60 range
(160 nm)**

**CSAR-X range
(275 nm)**

- 250 nautical mile (nm) straight-line range requirement determined by classified models for Major Combat Operations
- 10% planning factor added for Block 0
- 30% planning factor added for Block 10

Survivability



CSAR-X required to go deep into hostile, high-threat territory

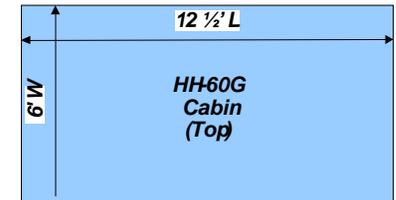


- Small Arms**
- Man-portable air defense**
- Unguided Projectiles**
- Anti-Aircraft Artillery (AAA)**
- Surface to Air Missiles**
- Electronic Warfare Systems**

Cabin Space

HH-60G

4 Crew + 2 Pararescue Jumpers (PJ) + 1 non-ambulatory



CSAR-X

5 Crew + 3 PJs + 4 non-ambulatory





CSAR-X

Description

- **HH-60G Replacement – Capability Gaps**
 - Range
 - Cabin space
 - Speed
 - Hover performance
- **CSAF's #2 Acquisition priority (\$16B ACAT 1D)**
- **Current acquisition strategy to completion**
 - **Block 0; Critical gaps and LS/HD addressed (IOC FY 3Q13-2Q15)**
 - **Block 10; Advanced defensive/weapons capability, TF/TA, integration**
- **Capability Benefits (eventual)**
 - **Meets all CDD Block 10 thresholds**
 - **Meets all SPG requirements**





Program Background

KPP / Capability Comparison

Key Performance Parameters			
Combat Radius	Payload & Cabin Space	Vulnerability Reduction	
Deployability	Rotor Downwash	RF Threat Disengagements	
Net Ready	Self Defense	EO/IR Threat Disengagements	
Capability Comparison			
Capability	HH-60	CSAR-X Block 0	CSAR-X Block 10
Combat Radii	160/195 nm radius +30/5 min terminal area	275nm radius +5 min terminal area	325nm radius +30 min terminal area
Payload	Crew + 2 PJs + 1 non-ambulatory floor loaded	Crew + 3 PJs + 4 non-ambulatory patients	Same as Block 0
Integration	Limited	Limited	Full
Airspeed	125 kts	135 kts	Same as Block 0
Defensive Systems and Armament	Chaff/Flares; crew served weapons; add'l mods gross weight	Integrated RF/IR/EO Defenses; crew served weapons	Integrated RF/IR/EO Defenses; crew served + standoff weapons
Hover Performance	3400' 95° MMGW HOGE	4000' 95° MMGW HOGE	6000' 95° MMGW HOGE
Availability	54.8 %	≥ 83%	Same as Block 0
Adverse Wx	NA	NA	TF/TA radar



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Conclusion

- **Future USAF requirements include:**
 - Reduced acoustic signature
 - High efficiency in High DA operations
 - Increased hover payloads
 - Low Brownout/Whiteout effects
 - Maintainable in austere environments
 - Fuel efficient at high horiz. speed
 - Deployable

