

# Open Architecture



## Enabling Affordable Integration of Unmanned Air Systems

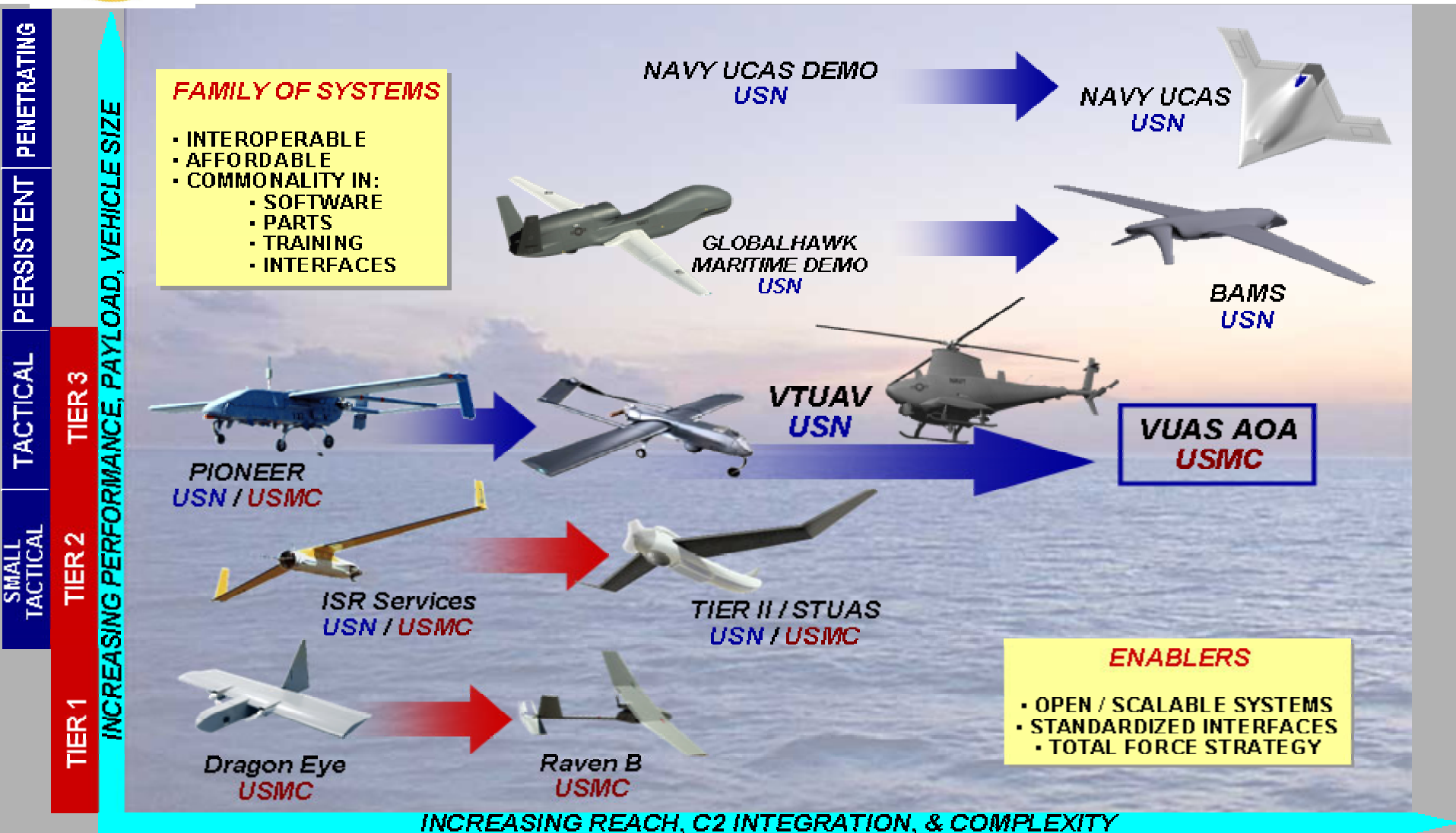
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Program Executive Officer  
Strike Weapons and Unmanned  
Aviation**

**08 August 2007**





# Naval UAS Family of Systems



**Acquisition and Employment of Joint Open Systems**



# Challenge... and Opportunity

## Manned Aircraft



## Unmanned Air Systems

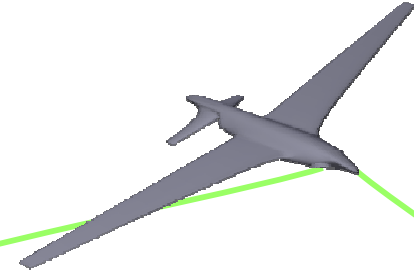


- **KEY:** New and innovative operating concepts
  - Rapidly integrate Naval UAS Family of Systems with Manned Aviation
- **IMPERATIVE:** Balance Warfare Effectiveness, Life Cycle Affordability and Acquisition Efficiency
- **A MUST FOR BIG NAVY:** Optimum Mix and Manning
  - Force Structure -- Air, Surface, Subsurface and Ground Elements
  - Real Time Operations and Readiness -- Amplify Mission Effects
  - Total Force -- Safe and effective Human System Integration within the constraints of Navy manpower

***Find the leverage points across the UAS FOS  
for capability and affordability***



# Focused Flying Integrated Maritime Patrol



## Responsive Multi-Mission

Robust Sensor Suite  
Cue to Kill  
Onboard Fusion  
Large Weapons Payload

## Persistent ISR

Long Dwell Sensor Suite  
C4I Network Node (FORCENet)  
Combat Info from MCS  
Data available to Intel Centers

ASW Kill

SuW Kill

SuW Classify/ID

Maintain  
Maritime  
COTP

FRP  
Tripwire

ISR in  
support of  
IPE

ASW Track

SuW Track

ASW Search

SuW Detect
















Navy Maritime Patrol Missions

**Horizontal Mission Integration... Leverage All the Data**



# Focused Flying

## Littoral Combat Ship Missions

	Surveillance	Specialized Surveillance	Comms Relay	Attack/Neutralize
MIW	 MH-60S(AQS-20 SONAR)	 MQ-8B(COBRA)	 MQ-8B/STUAS	
ASW	 MH-60R	NA	 MQ-8B/STUAS	 MH-60R/MQ-8B(CRAW)
SUW	 MH-60R/STUAS/MQ-8B	 MQ-8B(RADAR)/STUAS	 MQ-8B/STUAS	 MH-60R/MQ-8B
EMIO	 MH-60S/STUAS/MQ-8B	 MQ-8B (Britestar)/STUAS	 MQ-8B/STUAS	 MH-60R/S

***The Right Bird for the Right Mission***



# Naval UAS Way Ahead

- **Naval OA is the framework for business and technical innovation**
  - Early and orderly assessment of opportunities within and across programs -- Tech insertion, software reuse, interoperability and open architecture compliance
- **PEO(W) UAS Family of Systems Architecture**
  - Explore the open systems trade space and implement the essential technical and business models
- **PEO(W) and Systems Engineering partner to advance and implement best practices**
  - Integrated Architectures translate capability-based requirements into specifications and standards

***Deliver Effective and Affordable Mission Capability Tailored to the Warfighter's Requirements and Engineered with Open Attributes***