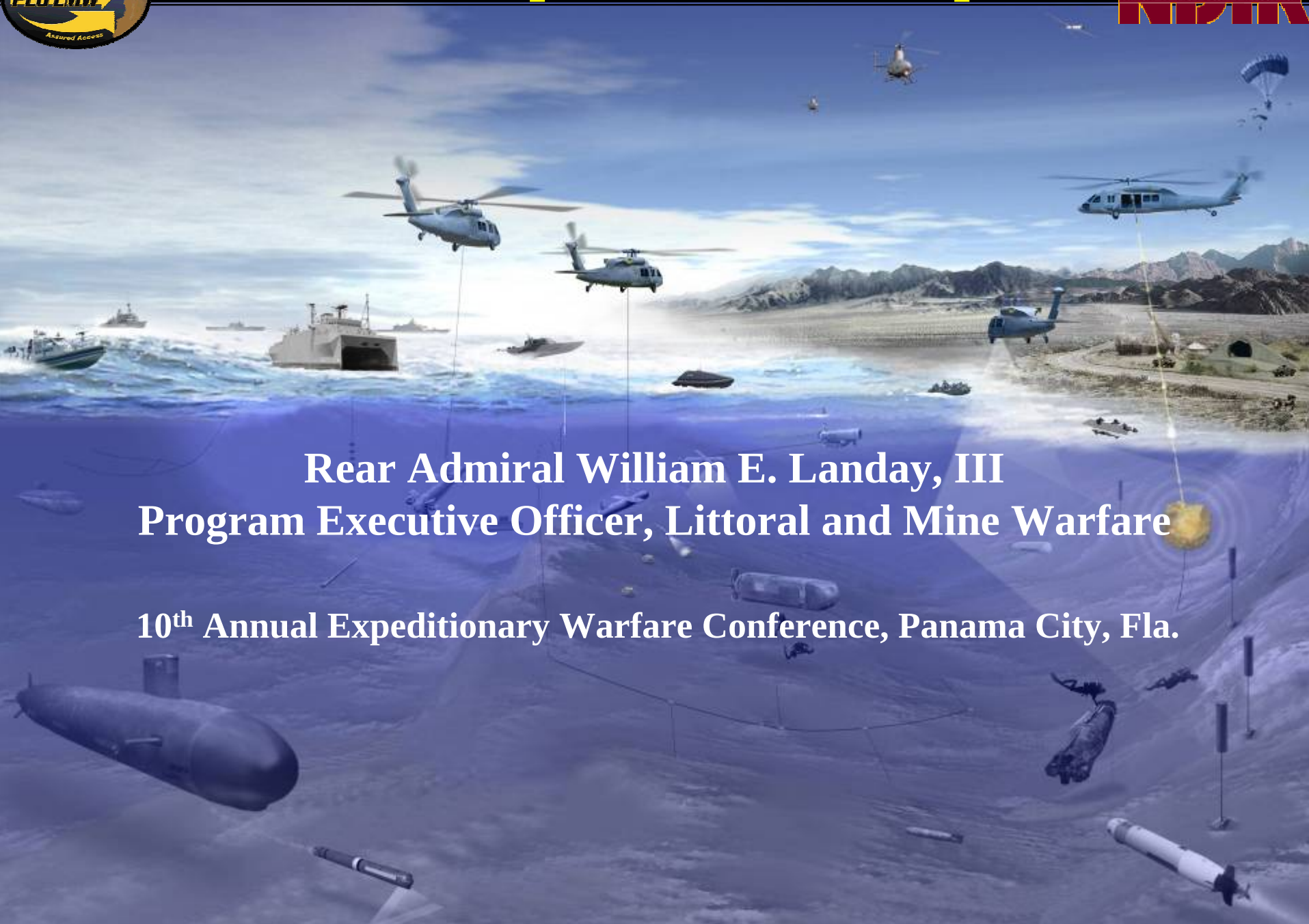
Joint Battlespace Force Multipliers



Rear Admiral William E. Landay, III
Program Executive Officer, Littoral and Mine Warfare

10th Annual Expeditionary Warfare Conference, Panama City, Fla.

LCS Mission Modules

Integrated Mission Packages

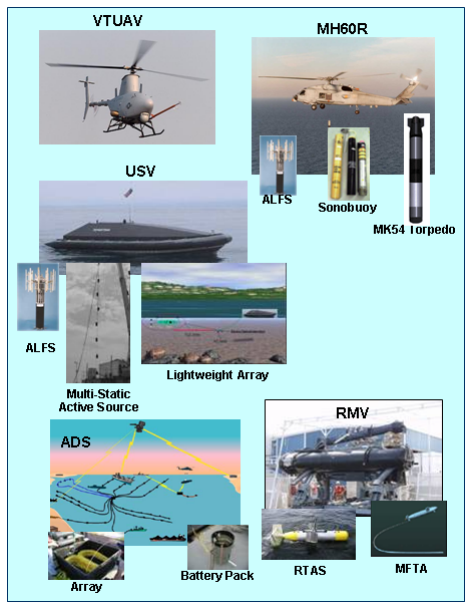
Lockheed Martin

Gibbs & Cox • Marinette Marine • Bollinger Shipyards

General Dynamics

Bath Iron Works • Austal • BAE Systems • CAE • MAPC

MIW Mission Package



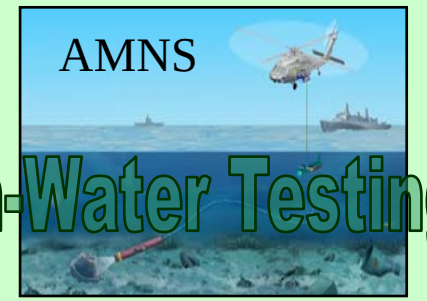
ASW Mission Package

SUW Mission Package

MIW Mission Module Components

AQS-20A

OASIS



ASW Mission Package

VTUAV

IN PRODUCTION!

MH60R

IN PRODUCTION!

Sonobuoy

Mk54 Torpedo

ALFS

In-Water Testing

ADS

In-Water Testing

Array

Battery Pack

RMV

IN PRODUCTION!

RTAS

MFTA

In-Water Testing

USV

In-Water Testing

ULITE

Multistatic Active Source

ALFS

In-Water Testing

SUW Mission Package

VTUAV

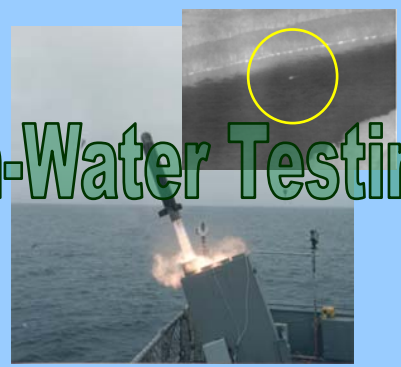
IN PRODUCTION!

MH60

IN PRODUCTION!

2.75in Rockets

IN PRODUCTION!



In-Water Testing

NLOS-PAM

USV (11m RHIB)

In-Water Testing

IN PRODUCTION!

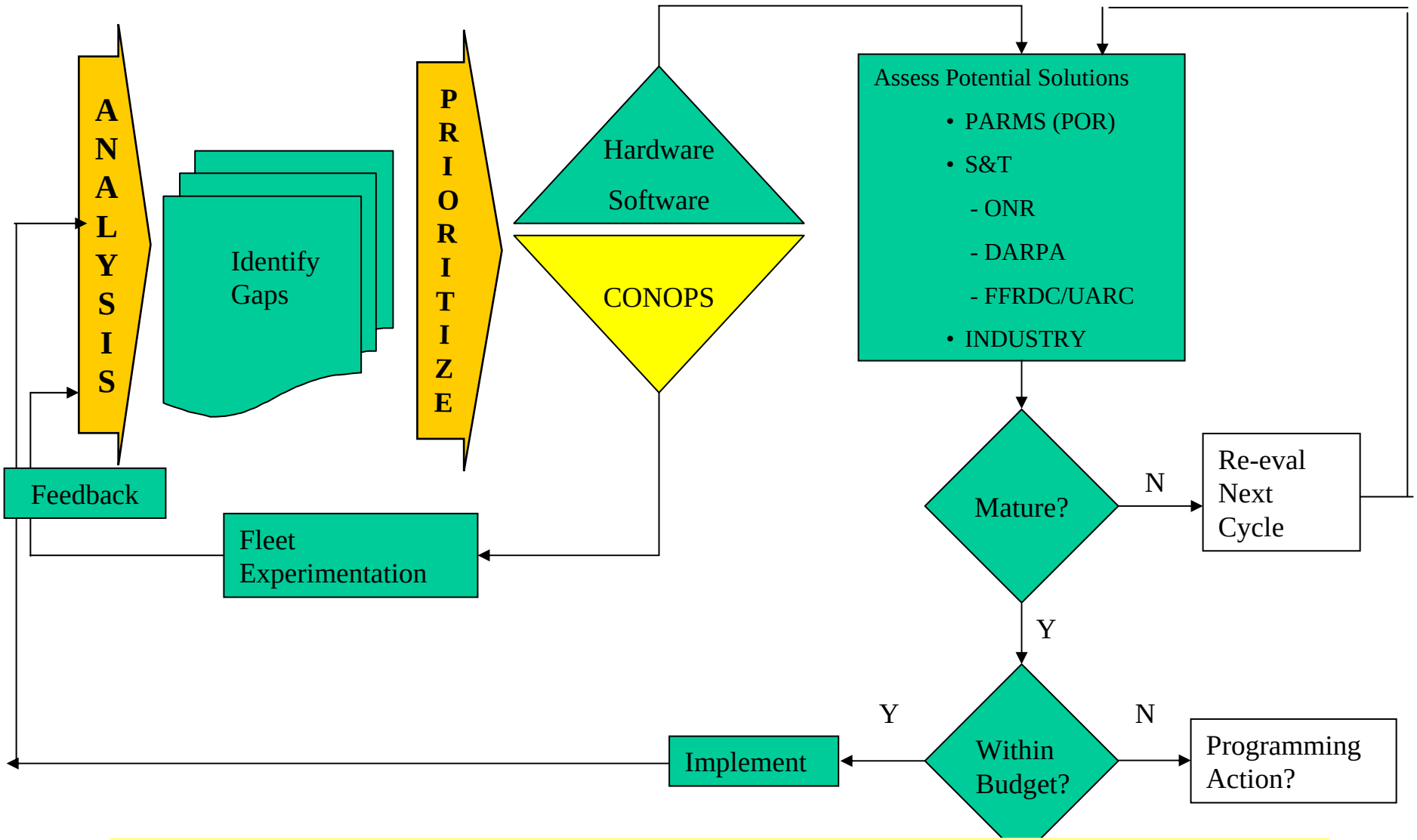
30mm Gun

In-Water Testing

Running Gear Entanglement System

Spiral Development

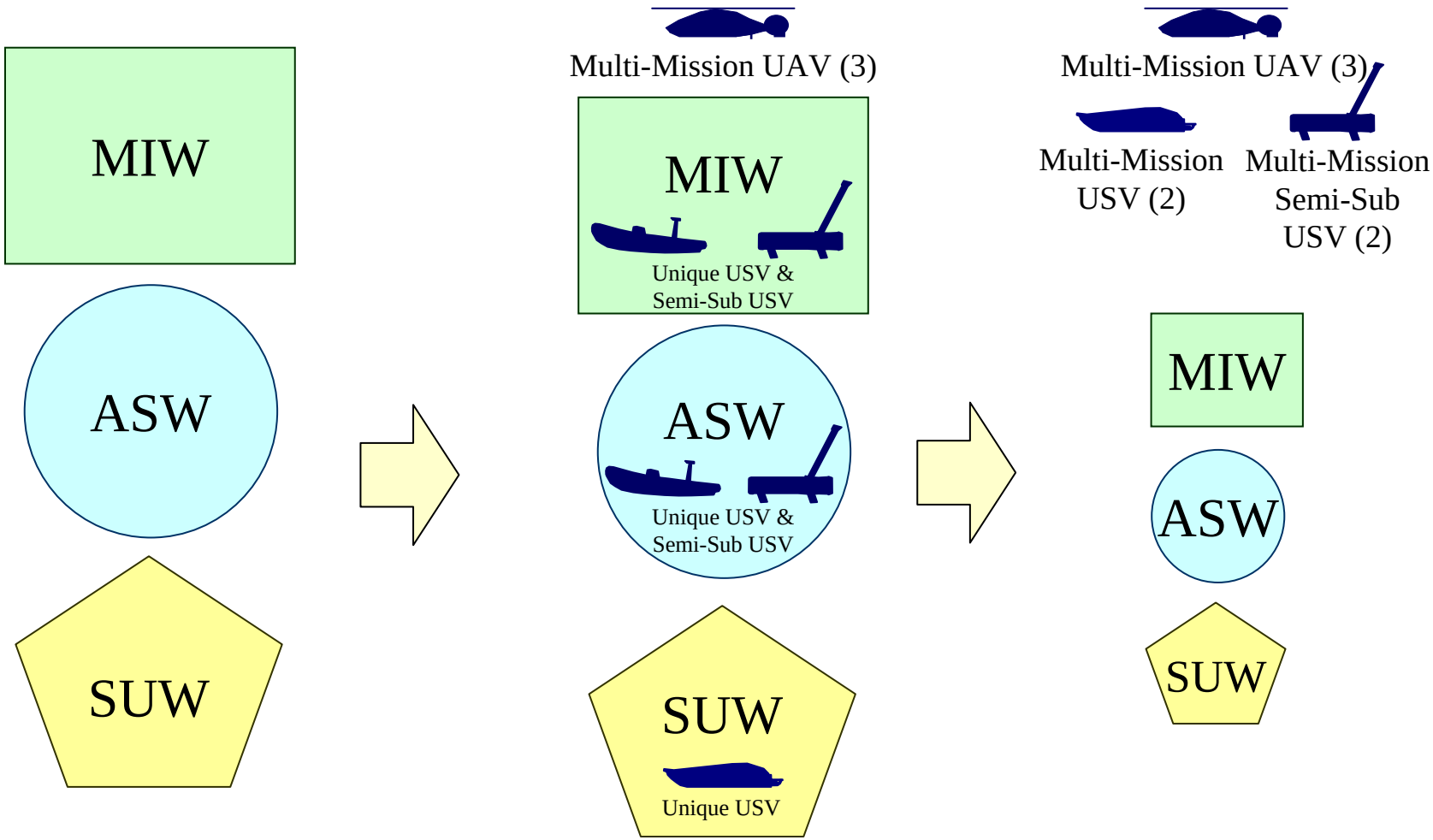
Annual Process with Goal of Fleet Introduction Every 12-18 Months



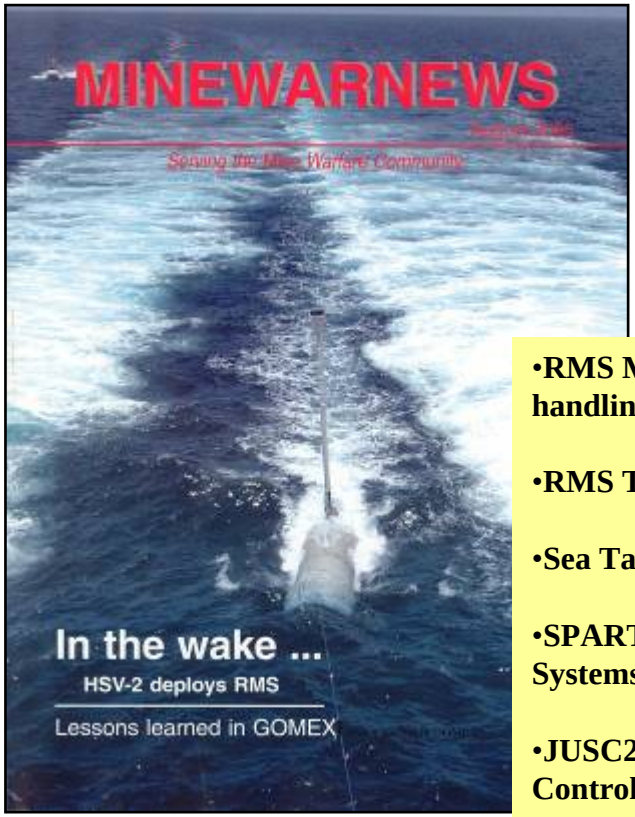
Enabling Rapid Introduction of EDMs for UOES in Real World Situations

Moving toward "Common" Multi-mission Vehicles

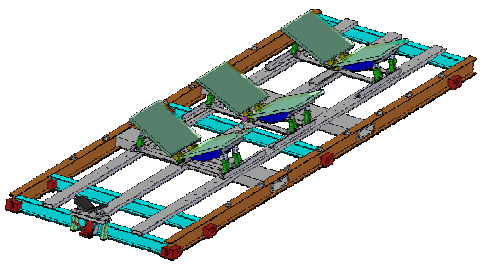
Modular Mission Packages	FY05-08 Mission Packages	FY09- Mission Packages



Multi-Mission USV

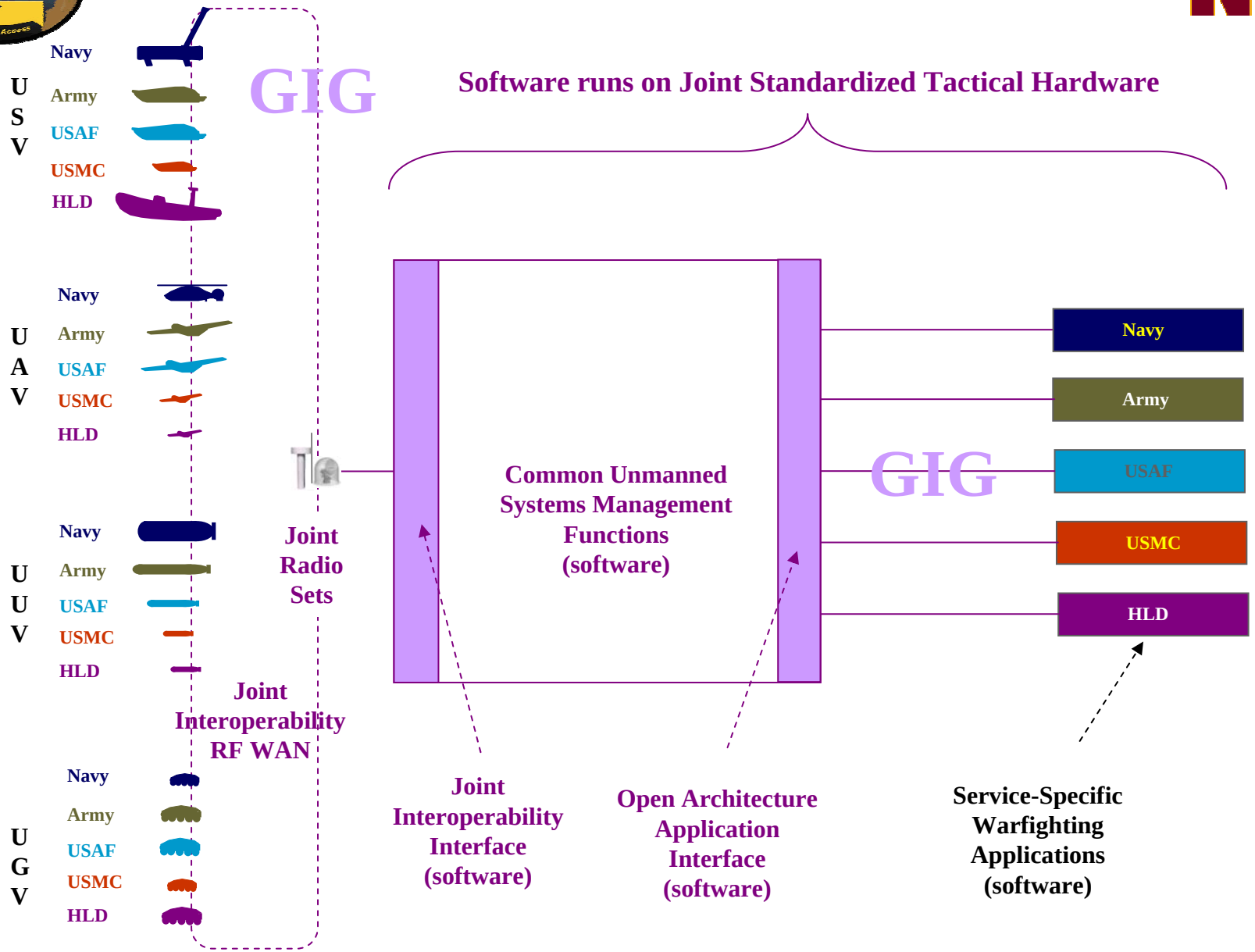


- **RMS MIW/ASW configured handling**
- **RMS Tow Tests (Wake Effects)**
- **Sea Talon ACTD (ASW Systems)**
- **SPARTAN ACTD (MIW & ASW Systems)**
- **JUSC2 ACTD (Unmanned Vehicle Control)**



LCS-1 USV Cradle Design

Endgame Vision for Common Control of Navy Unmanned Systems



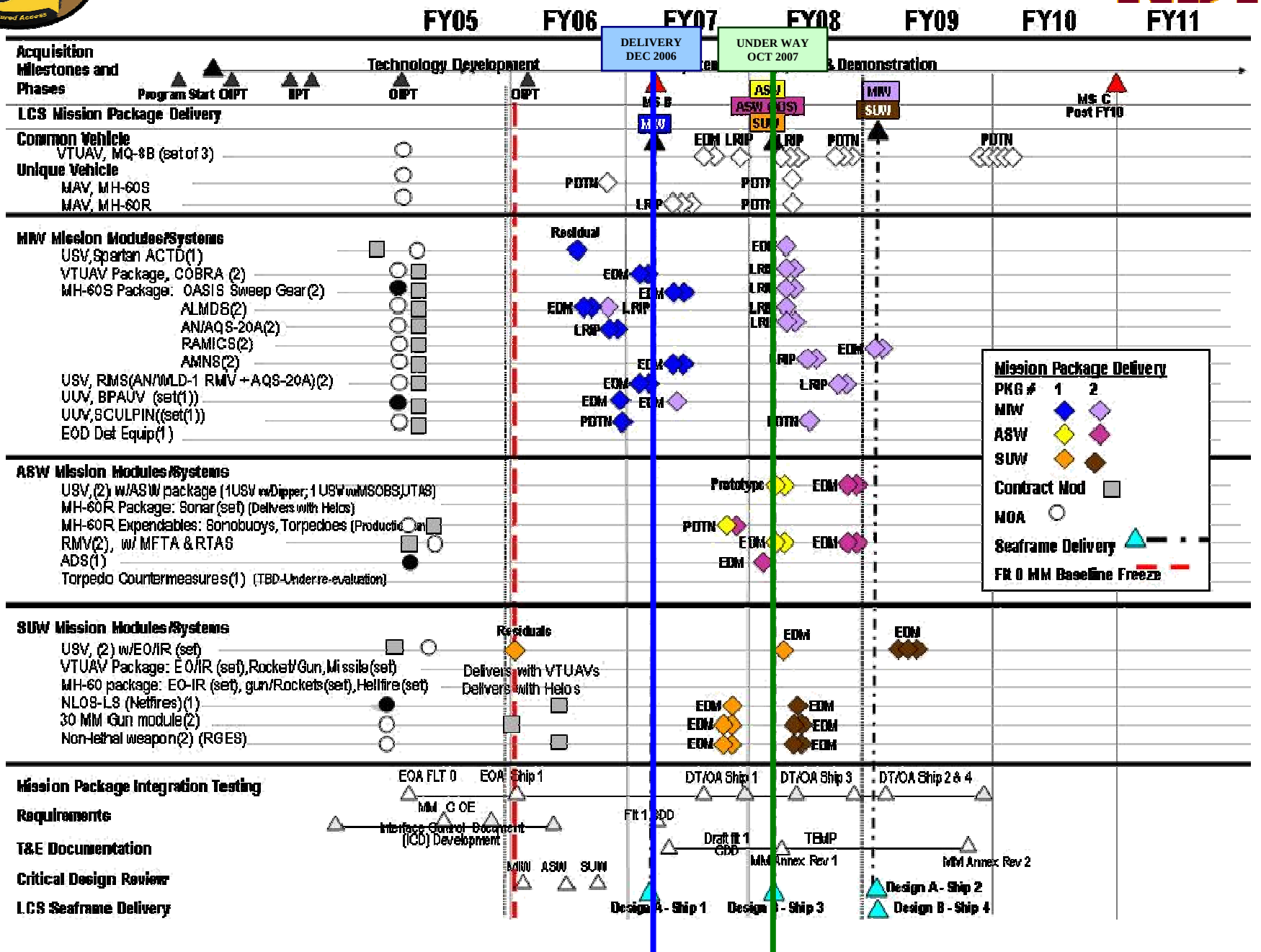
C2 Standardization through NATO STANAG 4586 and JAUS

Joint Force Multipliers

Mission Module Flexibility

12-18 Month Development Spirals

Integrated Family of Unmanned Vehicles

Joint Standardization of Unmanned Vehicles, Payloads and C2 Architectures

Mission Modules Flight 0 Master Schedule (PB'06)