# Program Overview

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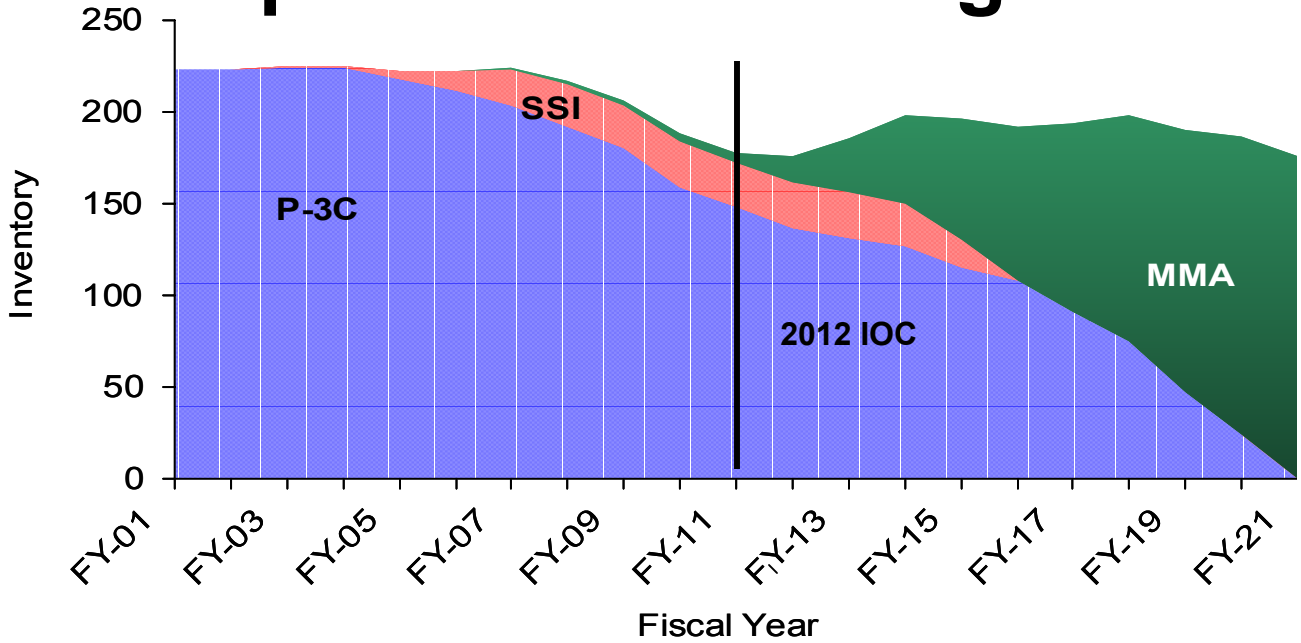
# Purpose of MMA Program




**To recapitalize the capabilities currently provided by the P-3 aircraft systems**

**The P-3 aircraft provides the USN with strategic blue water and littoral Undersea Warfare (USW) capabilities, and performs armed intelligence, surveillance and reconnaissance functions.**

**The EP-3 aircraft engages in the collection of signals intelligence, indications and warnings, and information warfare.**

# MMA Variants

- Search-and-Attack (SA) Variant
  - Conducts the roles and missions involving armed maritime and littoral surveillance: sea control: targeting and strike support; and command, control and communications tasks, as assigned to the VP (fixed wing patrol) community
  - P-3 BMUP/AIP composite capability

- Surveillance-and-Intelligence (SI) Variant
  - Conducts theater-level signals intelligence missions, including electronic intelligence, communications intelligence, and foreign instrumentation signals intelligence; electronic warfare; and other special missions, as assigned to the VQ (fixed wing reconnaissance) community
  - EP-3E JMOD composite capability

# Concept Exploration

April 2000-January 2002

Milestone 0 Approved by Defense Acquisition Board 22 MAR 00

Analysis of Alternatives (AoA):

- Manned aircraft identified as an element of the MMA system
- Unmanned aircraft have a role as an adjunct capability

Industry Concept Studies – June 2000 to January 2001 - supported the AoA:

- Lockheed Martin studied the P-3 derivative (Orion 21)
- Raytheon studied the P-3 derivative (Procyon)
- Boeing studied the 737 derivative
- Northrop Grumman studied the Global Hawk Adjunct Unmanned Aerial Vehicle (UAV)

# Analysis of Alternatives Summary Findings

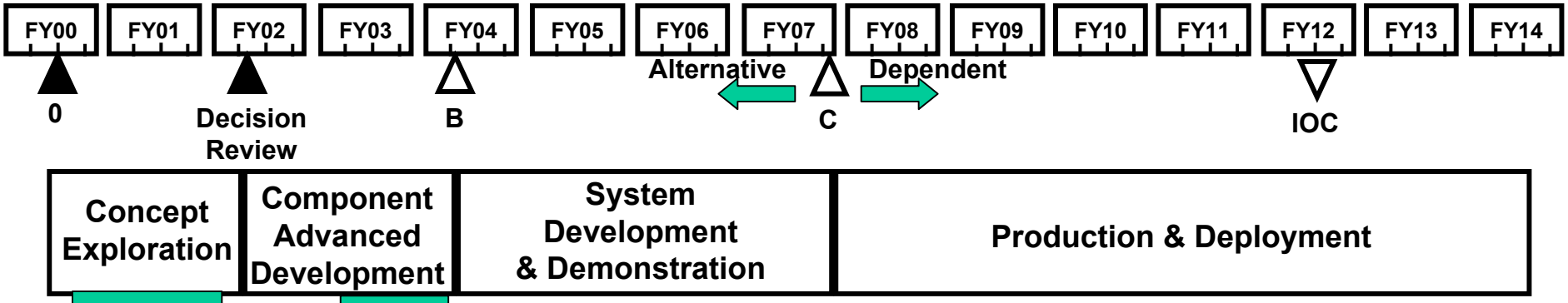
- Manned aircraft are key element of Navy Broad Area Maritime and Littoral Armed Intelligence Surveillance and Reconnaissance missions
- UAVs have a role as an adjunct system to the manned aircraft
  - Near term UAVs: Unable to perform full mission spectrum, adjunct capability only.
  - Conceptual UAVs: High risk, significant schedule delays, unbounded costs

**Manned Aircraft with Adjunct UAV**

# Recent Program Accomplishments

- Component Advanced Development Decision Review with OIPT - 11Jan02
  - Approved Acquisition Strategy/Analysis of Alternatives and release of RFP for CAD
- CAD Acquisition Strategy Briefed/Approved by USD(A,T,L) – 18Jan02
- MMA completed Concept Exploration and commenced Component Advanced Development on 18Jan02
- Designated a Major Defense Acquisition Program (MDAP) on 29May02
- CAD contracts awarded to Boeing for 737 Next Generation and Lockheed Martin for Orion 21 concepts on 10Sept02
- CAD Kick-Off Meetings conducted with Boeing and Lockheed Martin on 18 & 19 Sept 02

# Acquisition Approach & Status



FY02-FY04

***Component Advanced Development (CAD)***

- Multiple contracts awarded for MMA system
  - **Define the MMA system architecture for each alternative concept**
  - **Identify Total Ownership Cost (TOC) of MMA alternative concepts**
  - **Refine system requirements and support Operational Requirements Document (ORD) validation process**
  - **Unmanned Aerial Vehicle (UAV) requirements development**

# Proposed Acquisition Approach
# -Long Term-

FY04-XX ***System Development & Demonstration [SDD] Phase***

- Single prime contractor for MMA system
  - Develop detailed system and subsystem designs for the MMA system
  - Develop Systems Integration Labs (SIL) / Build Developmental test aircraft
  - Conduct integrated team development and integration tests
  - Develop / acquire ILS and training systems to support Developmental and initial Operational testing

FYXX-TBD ***Production & Deployment [P&D] Phase***

- Begin Low Rate Initial Production (LRIP)
- Complete Operational Evaluation (OPEVAL)
- Target Full Rate Production (FRP) decision to support 2012 Initial Operational Capability (IOC)
- Continue technology refresh in successive Blocks

# Mission Systems

*Will feature a high degree of commonality between MMA mission system variants by sharing a similar air vehicle configuration and an open system architecture*

- Evolutionary mission system capability
  - Initial production blocks must provide an overall mission system capability no less effective than the P-3C Update III AIP and EP-3E JMOD baselines
  - Open system architecture should ensure Command, Control, Communications, Computers, and Intelligence (C4I) interoperability and supportability throughout the MMA life cycle

AIP – Anti-Surface Warfare Improvement Program
JMOD - Joint Signal Intelligence Avionics Family Modification Program

# Logistic Support

*Maximize MMA Fleet Squadron support and achieve maximum aircraft availability at the lowest Operational and Support (O&S) costs.*

- Innovative logistic solutions
  - Commercial support concepts to be evaluated during CAD
  - Establish Partnering / Teaming arrangements

- O&S cost reductions
  - Minimization of O&S costs in relation to the MMA Total Ownership Cost (TOC) through:
    - Logistics footprint reduction,
    - Organic manpower reduction,
    - Competitive base for depot level maintenance and component repair, and
    - Increased component reliability.

# Fast Track Program

- MMA is one of two Navy programs ASN(RDA) is considering as "Fast Track Programs" (the other is Littoral Combat Ship – NAVSEA)
- Navy Fast Track Program modeled after USAF Pathfinder template crafted to streamline the acquisition process reducing cycle times:

## The Challenges:

- **Keep pace with the accelerating technology cycle**
- **Embrace innovation**
- **Adapt to and enable changing doctrine**

## The Solutions:

- **People trained and encouraged to innovate and take risks**
- **Systems that produce -- or force -- decisions**
- **Professionals freed to execute their programs**