SPECIAL OPERATIONS FORCES INDUSTRY CONFERENCE

COL John Vannoy
Program Executive Officer

ROTARY WING

ROTARY WING

Schedule of Presentations

Day 1 – Wednesday 25 May 2016

11:30 - 12:30

PEO RW Strategic Overview

14:30 - 15:30

MH-47G, MH-60M, MELB Program Update

Mission Equipment Program Update

SOF Training Systems Update

Day 2 – Thursday 26 May 2016

09:00 - 10:00

PEO RW Strategic Overview

10:45 - 11:45

MH-47G, MH-60M, MELB Program Update

Mission Equipment Program Update

SOF Training Systems Update

Agenda

- Enterprise and Portfolio Overview
- Operational Perspective
- FY15-16 Accomplishments
- New in FY17
- Way Forward
- Roadmaps
- Resourcing Strategic View

Rotary Wing (RW) Network

Resource SOF Rotary Wing Fleet

Equip the soldiers of the 160th SOAR(A) and the TSOCs SOF with unique and unequaled Rotary Wing capabilities.

Sustain the unique aircraft operated by the 160th SOAR(A) and the TSOCs.

Support the Global SOF Network through responsive resourcing.

160th SOAR (A) – TSOCs
Operators

ARSOAC
SIMO
Capabilities Sponsor

PEO RW USSOCOM
Resource Sponsor

PM SKR/PM TAPO/PM STS/PM MELB
Materiel Developer

PEO RW Portfolio

MOBILITY

A/MH-6
Light Attack/Assault

Medium Assault MH-60

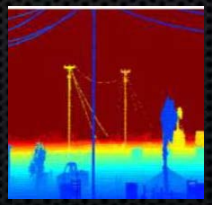
Heavy Assault MH-47

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

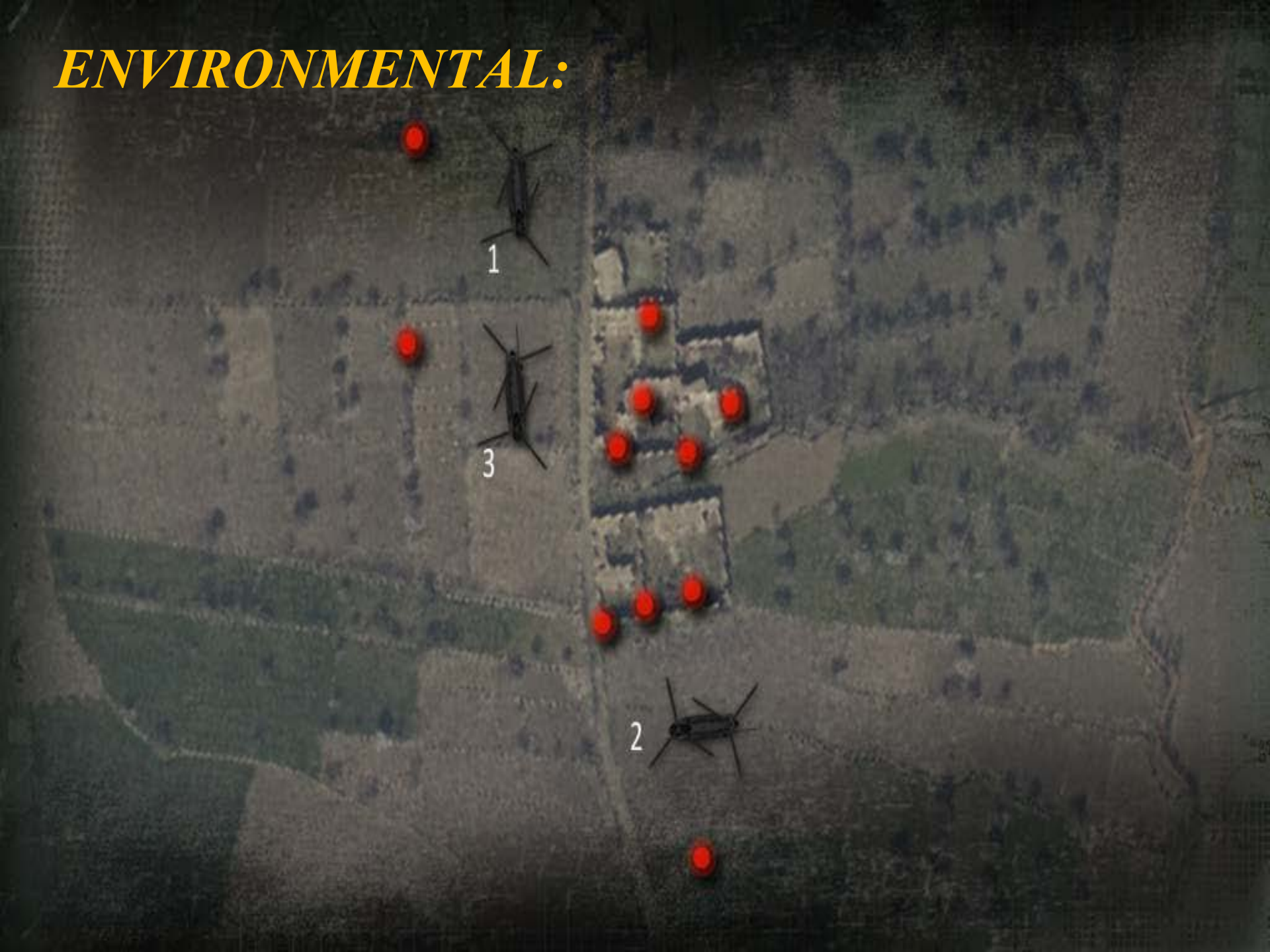
MH-60L/M CMS

Battle Staff Training
Exercise Management Control

SURGICAL STRIKE:

SURVIVABILITY:

ENVIRONMENTAL:



LONG RANGE:

CASEVAC:


NORTH
CHECK POINT
OBJECTIV
E
R
P
Enemy Fire
Early Warning
System

ARSOA in 2009-Current

Era Technology

- Training (TTP Shift, DAFCS TNG) 80% reduction in Dust landing accidents
- MMR (Increased S/A, All weather)
- IR countermeasures (Improved UV Spectrum, less visible)
- Communications (Additional ARC-231)
- CAS coordination (FAC-A TNG, WTI, Lighting)
- In-Flight Fuel (DAFCS)
- Dust Landing Training (Full use of DAFCS, enroute and terminal)
- Navigators (2-GPS, EGI, INU)
- CAAS (Mission Processors) Rockwell Collins (Integrated)
- Shipboard Operations (DAFCS)
- RF Protection (SIRFC, BFT 2009 results) 2011, 2012, 2013
- Neptune Falcon (Nellis)

MH-47G

ARSOA in The Future

Era Technology

- Training (Simulations)
- MMR
- IR countermeasures (UV vs. two color IR)
- Communications (BLOS, Passive)
- CAS coordination (Airborne network)
- In-Flight Fuel
- Dust Landing Training (DVE)
- Navigators (Anti-spoofing)
- Mission Processors
- Shipboard Operations
- RF Protection (Passive, Active, Airborne network)
- Game Changing capabilities (Range, Payload, Environment)

FY15-16 Accomplishments

- A/MH-6M MELB Block 3.0 Entered Flight Qualification Testing
- Completed Fielding of MH-60Ms
- Completed MH-47G Plus 8 New Build Effort
- Completed Conversion of MH-47E Combat Mission Simulator (CMS) to MH-47G CMS
- DVEPS Vendor Down-Select Completed
- Deliveries:
  - 14 MH-60M aircraft
  - 7 MH-47G aircraft
  - 11 MH-47G Block 2.3 upgrades
  - 8 A/MH-6 Block 2.2 upgrades
  - 6 Silent Knight Radar LRIP systems

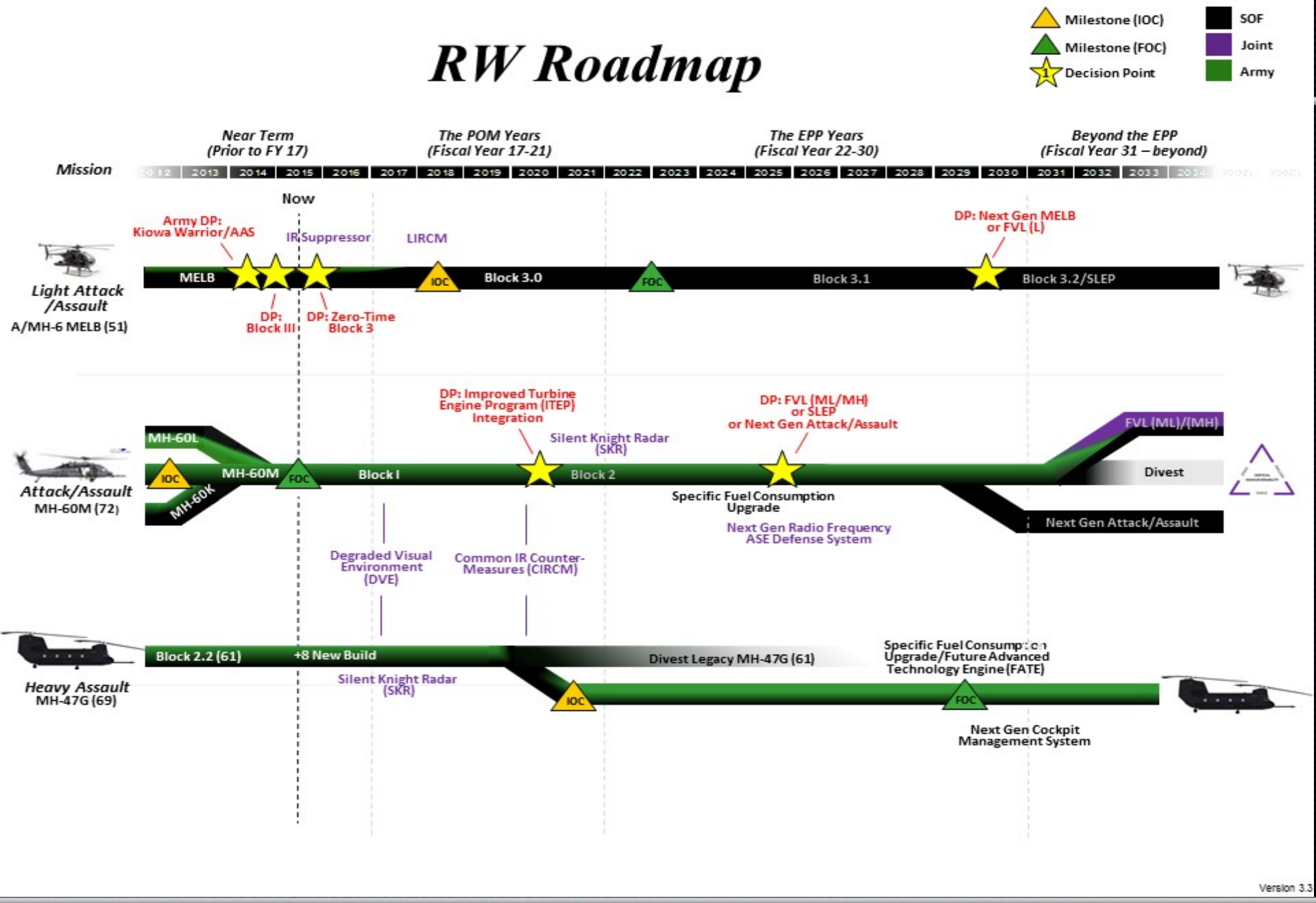
New in FY17

- New Programs:
  - MH-47G and CH-47F Block II Collaboration – FY17
  - Missile Warning System FY16-17
  - Degraded Visual Environment integration and Qualification
  - Airborne Mission Network
  - Directed Energy
- RW S&T Roadmap

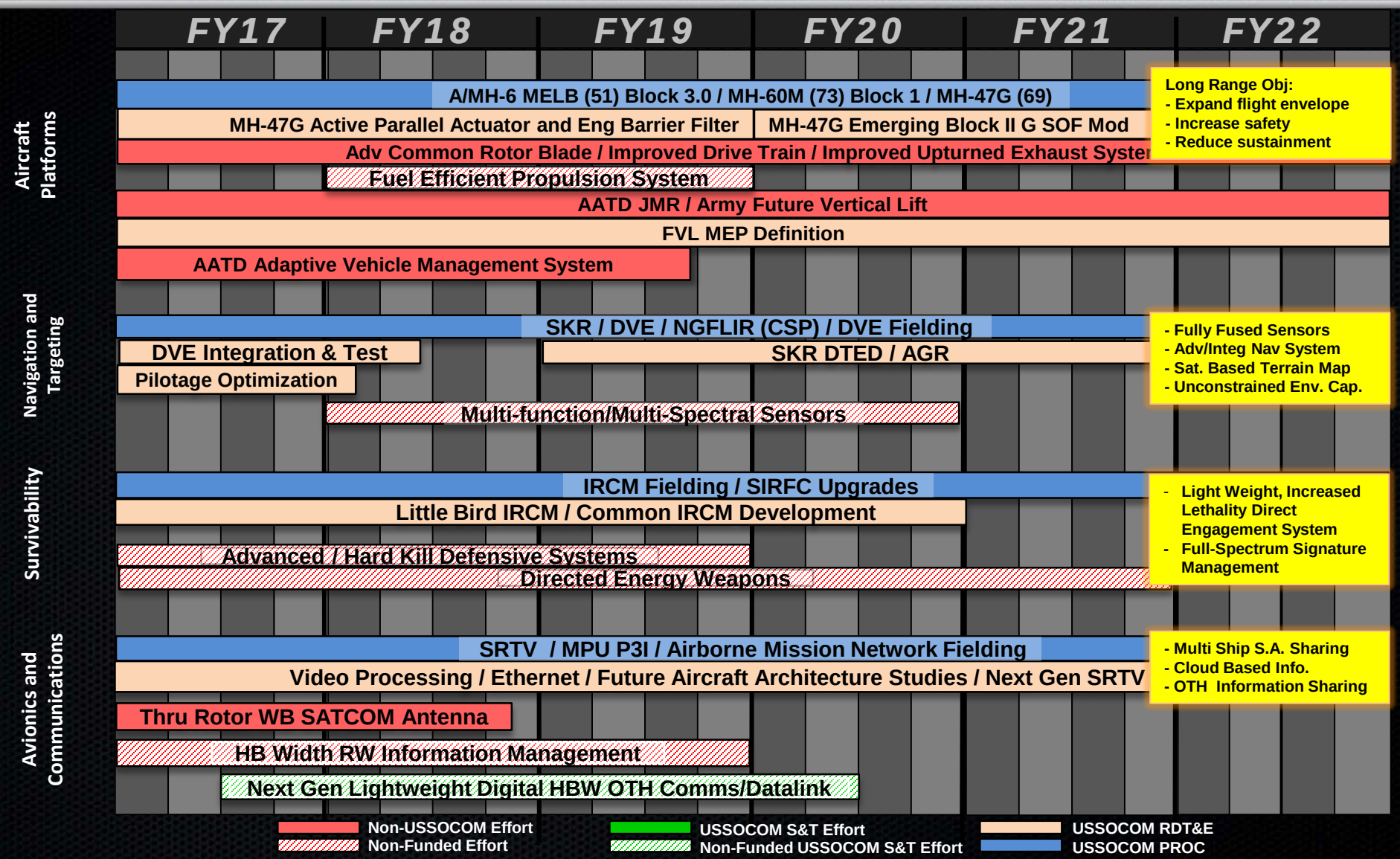
Way Forward 2017

- Recapitalize the MH-47G fleet
- Modernize and recapitalize the MELB fleet
- Gain advantage in Survivability Equipment
- Lead the department in degraded visual environment development
- Expand platform mission network capability
- Weight reduction initiative
- Security Assistance and Foreign Military Sales
- Optimize RDT&E planning to SOF-p requirements
- Focus the network on Rotary Wing interest areas

RW Roadmap


Milestone (IOC)
Milestone (FOC)
Decision Point
SOF
Joint
Army
Near Term (Prior to FY 17)
The POM Years (Fiscal Year 17-21)
The EPP Years (Fiscal Year 22-30)
Beyond the EPP (Fiscal Year 31 – beyond)
Mission
2012 2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034
Now
Army DP: Kiowa Warrior/AAS
IR Suppressor
LIRCM
DP: Next Gen MELB or FVL (L)
Light Attack /Assault
A/MH-6 MELB (51)
MELB
IOC
Block 3.0
FOC
Block 3.1
Block 3.2/SLEP
DP: Block III
DP: Zero-Time Block 3
DP: Improved Turbine Engine Program (ITEP) Integration
DP: FVL (ML/MH) or SLEP or Next Gen Attack/Assault
Silent Knight Radar (SKR)
FVL (ML)/(MH)
MH-60L
MH-60M
MH-60K
IOC
FOC
Block I
Block 2
Divest
Attack/Assault
MH-60M (72)
Specific Fuel Consumption Upgrade
Next Gen Radio Frequency ASE Defense System
Next Gen Attack/Assault
Degraded Visual Environment (DVE)
Common IR Counter-Measures (CIRCM)
Block 2.2 (61)
+8 New Build
Divest Legacy MH-47G (61)
Specific Fuel Consumption Upgrade/Future Advanced Technology Engine (FATE)
Silent Knight Radar (SKR)
IOC
FOC
Heavy Assault
MH-47G (69)
Next Gen Cockpit Management System
Version 3.3

RW Roadmap


FY17
FY18
FY19
FY20
FY21
FY22
Aircraft Platforms
A/MH-6 MELB (51) Block 3.0 / MH-60M (73) Block 1 / MH-47G (69)
MH-47G Active Parallel Actuator and Eng Barrier Filter
MH-47G Emerging Block II G SOF Mod
Adv Common Rotor Blade / Improved Drive Train / Improved Upturned Exhaust Syste
Fuel Efficient Propulsion System
AATD JMR / Army Future Vertical Lift
FVL MEP Definition
AATD Adaptive Vehicle Management System
Long Range Obj:
- Expand flight envelope
- Increase safety
- Reduce sustainment
Navigation and Targeting
SKR / DVE / NGFLIR (CSP) / DVE Fielding
DVE Integration & Test
SKR DTED / AGR
Pilotage Optimization
Multi-function/Multi-Spectral Sensors
- Fully Fused Sensors
- Adv/Integ Nav System
- Sat. Based Terrain Map
- Unconstrained Env. Cap.
Survivability
IRCM Fielding / SIRFC Upgrades
Little Bird IRCM / Common IRCM Development
Advanced / Hard Kill Defensive Systems
Directed Energy Weapons
- Light Weight, Increased Lethality Direct Engagement System
- Full-Spectrum Signature Management
Avionics and Communications
SRTV / MPU P3I / Airborne Mission Network Fielding
Video Processing / Ethernet / Future Aircraft Architecture Studies / Next Gen SRTV
Thru Rotor WB SATCOM Antenna
HB Width RW Information Management
Next Gen Lightweight Digital HBW OTH Comms/Datalink
- Multi Ship S.A. Sharing
- Cloud Based Info.
- OTH Information Sharing
Non-USSOCOM Effort
Non-Funded Effort
USSOCOM S&T Effort
Non-Funded USSOCOM S&T Effort
USSOCOM RDT&E
USSOCOM PROC

H-47 Configuration Roadmap

MISSION	(FY16-17) (Near Term)	(FY18-22) The POM Years	(FY23-32) The EPP Years	(FY33 – Beyond) Beyond the EPP
Cargo	H-47 D/F/G	H-47 D/F/G & Block II	H-47 Block II /F/G	H-47 Block II/III Until FVL Heavy

CH-47D Retirement Start 2006

CH-47D Retirement Complete 2019

CH-47D

8 New Builds deliveries complete FY15

MH-47G

H-47 Block II

542 H-47

Block III Decision Point

CH-47F

Block II Decision Point

CH-47F Production Ends 2020

H-47 BLK II Technology Inserts

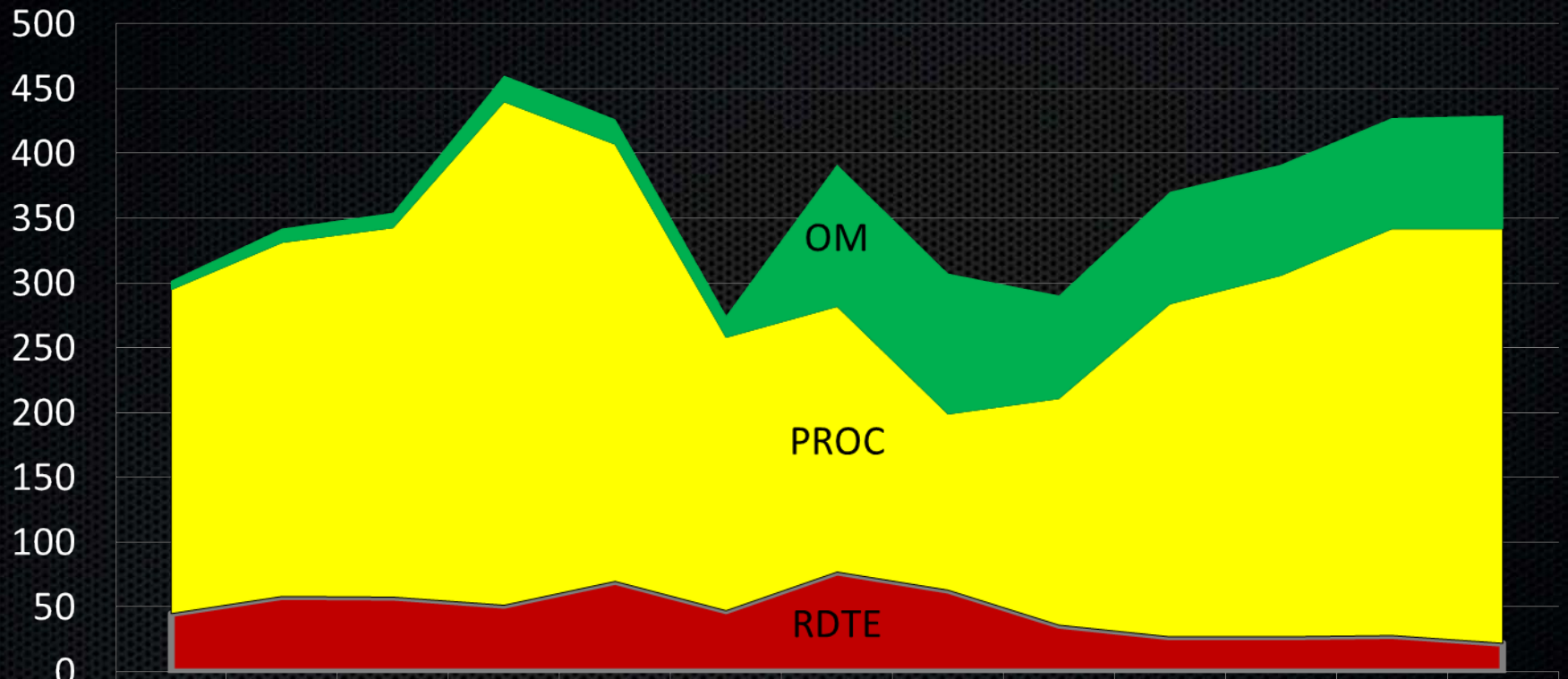
- Advanced Common Rotor Blade
- Improved Drive Train
- Engine Barrier / Reliability Drivers
- Active Parallel Actuator System

	Current	Planned
CH-47D	101	0
CH-47F	347	473
MH-47G	69	69

As of 29 March 2016

H-47 Block II is the first increment of a multi-block strategy designed to affordably maintain the Army's heavy-lift capability through 2060

Resourcing Strategy



	FY09	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21
OM	6	10	11	20	19	16	109	108	79	86	85	85	87
PROC	250	273	285	389	337	211	205	136	175	257	279	314	320
RDTE	45	58	58	51	70	47	77	63	36	27	27	28	22

Questions


VOLARE OPTIMOS
160
UNITED STATES
PROGRAM EXECUTIVE OFFICE
ROTARY WING
SPECIAL OPERATIONS COMMAND