U.S. Army Unmanned Aircraft Systems For AUSA Aviation Symposium 7 Jan 2010 TCM UAS Update

Agenda

- Army UAS Accomplishments- DOTML-PF Overview
- Near and Mid Term Overview
- Questions
DOTML-PF Overview

DOCTRINE: Strategy, CONOPS, ICD

ORGANIZATION: BCT Holistic Review, AVN II Study, TF ODIN-A

TRAINING: QRC, ERMP Val/Ver, 15E, Gunnery

MATERIEL: PoR CPD, ERMP/AAS AoA, UAS Weaponization

LEADERSHIP TNG & DEV: PCC, TCM UAS Theater visits

PERSONNEL: 15E/15W/150U success

FACILITIES: Home station range and airspace considerations
Near Term

Family of SUAS

MQ-5B

ERMP(MQ-1C)

Extended Range Multi-Purpose

RQ-11A

Battalion and below: Short duration, limited range
Stove-piped, small unit battlefield information

RQ-7B

Brigade: Medium range and duration
Multi-echelon planning/execution
RSTA, MUM, Communications Relay

RQ-7A

Division and above: Long range and duration
Integrated, multi-echelon employment
RSTA, MUM, Attack, C2 Support, EA

MQ-5B

RQ-11B

RQ-5A

Division and above: Long range and duration
Integrated, multi-echelon employment
RSTA, MUM, Attack, C2 Support, EA

I-GNAT

Near Term

IOC

S&T focus: Near Term

- Improved Endurance/range
- Precision engagements
- Increased Payloads – multi-mission capability
- Optionally piloted vehicle concepts
- Improved Propulsion Systems

Division and below: Short duration, limited range
Stove-piped, small unit battlefield information

GCS: Stove-piped, UA-specific ground control station

Enabled by Common Operator/Common Maintainer

AH-64D

OPV S&T – Current Fleet – Demo/Exp

UH-60/CH-47

System GCS

System RVTs

ROVER

UGS

LOI 1

LOI 2

LOI 3

Provides multi-echelon SA

UGCS: Controls Brigade and Division UA
UA. “On the fly” UA switching

ERMP Incr II Requirements Dev

VTOL niche
capability

IOC

UGV Integration

AH-64D/OH-58D

MUM-T

BLK III

AH-64D

OPV S&T – Current Fleet – Demo/Exp

UH-60/CH-47
Mid Term

Family of SUAS

Shadow Tactical UAS
RQ-7C

MQ-5B (Phased out of Inventory)

ERMP(MQ-1C)
Extended Range Multi-Purpose

S&T focus:
- Increased Commonality: airframes, control stations, payloads, power sources
- Cognitive Aiding Software
- Survivable: on-board and “swarm” ASE
- Lethal/Non-Lethal Payloads
- All weather capability
- Fully compliant sense and avoid

Universal Ground Control Station + Universal Operators
Extensive simulation training enabled = ARFORGEN-balanced UAS force structure

UGCS is backbone of an integrated network that permits access to multiple UA’s operating across the area of operations. Enabled by a complex, individual and collective training simulation environment. User receives the mission package effects, UA type is of little importance to the “customer.”

Cargo and/or Recon OPV capability

AH-64/OH-58D

UH-60/CH-47

OPV S&T

OSRVT

TCDL

UGCS

LOI 4

FY16 FY17 FY18 FY19 FY20 FY21 FY22 FY23 FY24 FY25

FOC

IOC

FOC

FOC

FOC

LOI 4
Army UAS
“Eyes Over Our Army”

Questions