Utility Helicopters Update

LTC Sean Clark
APM Desert Modifications

MARK J. JEUDE
ACTIONG DEPUTY PROJECT MANAGER

GREGORY D. GORE
ACTING PROJECT MANAGER
This Is Our Team

- 4 PHD’s
- 89 Engineers
- 3413 Years of Rotary Wing Experience
- 70 Personnel with Combat Experience
- 14 External Awards this Year

Vision:
Utility Helicopters Forces – Trained, Modernized, Equipped, Ready, Your Best Friend – Your Worst Enemy

Commitment to Soldiers & Acquisition Excellence
Utility Helicopters Project Mission
FULL SPECTRUM AVIATION
RESILIENT - ADAPTIVE - PROFESSIONAL - COMMITTED - RESPONSIVE

Execute Life Cycle Management of Utility Helicopters Aviation Systems for the Current Force and for the Transformation to the Future Force

What We Do:
- Centralized Management for UH-60 Black Hawk, UH-72A Lakota, T700 Engine and associated FMS / OGA Programs
- Full Life-Cycle Management of Assigned Systems
- Improve Interoperability
- Enhance Reliability and Safety
- Maintain Combat Overmatch thru Recapitalization & Modernization

What We Manage:
- Three Product Offices / One Product Director:
- Five Assistant Project Offices
- Support to Homeland Defense, OND/OEF and other Overseas Contingency Operations

The Magnitude:
- ~$20B: FY10-15
- FMS Total Case Value $5.023B FY10-13
- 19 FMS Cases — 28 Countries

Total Workforce:
~ 564 on board (Civilian, Military & Contractors)

Managing:
Total FY11 Resources: ~$11B

Qualified Professionals Oriented on Rapid Results: to Support the Warfighter

Providing the World’s Finest Utility Aircraft to Meet Ground Commander’s Requirement- Impossible to Duplicate
What’s Important

Our #1 Priority Is Support Of Deployed And Deploying Units

Theater Support/Sustainment/Readiness
- ONS Process – Manage Operational Needs Statements IAW HQDA Directives
- RESET / RECAP Restore To FMC, And Incorporation Of Current MWO’s
- Sustain Deploying Units > 80% CFSR – LAR - PLL – ASL – Mods
- Spares (Keep Parts Flowing To OIF/OEF)

Improve Fleet Safety
- Design Innovation And System Integration
- Training/Maintenance/Sustainment/Material Improvements
- Diligence On Details

Aircraft and Engine Acquisition
- Production Program On Or Ahead Of Schedule
- FMS/ OGA Production On Or Ahead Of Schedule
- Boost Production Throughput At CCAD To 48/Yr
- Reduce Aircraft Production Delivery Times And Production Costs
- Produce Field TBOS with each CAB

Maintenance Improvement
- Invest In Productive, Innovative Initiatives Using CBM Data & Information
- Record Data With The Fidelity Required To Perform Trend Analysis.
- Support More Proactive Maintenance Management
- Produce and Deliver more Robust Maintenance Trainers (BHET, BHAT, etc)
Program Accomplishments

**Prepared 1st, 3rd, 4th, 10th, 12th, 40th and 101st CABs for OCO Deployment**

- 118 New HH / UH-60M
- We have 435 more T701D engines
- Our OR Rates on Black Hawks in theater exceeds 84%
- The time on wing of the 701D engine is 6 months longer.....(than previous engines)
- RECAPITALIZED 38 UH-60s
- Successful NET: 1ID, 82d, & ARNG
- UH-60 Deliveries: FBI, DOS, CBP
- TEAMHAWK: Navy/Air Force/Coast Guard
- FMS 845 – 28 Countries, 41 Active Cases
  - Sweden, Taiwan, Mexico, Others
- 54 New UH-72A
- Exceeded 90% Operational Availability on UH-72A Fleet
- Exceeded 52,000 UH-72A Fleet Hours

**Untold**
- Lives Saved
- Assaults Accomplished
- Soldiers Moved
- Supplies Delivered
- VIPs Transported
- Ambushes Avoided
- Equipment Transported

**Commitment to Soldiers & Acquisition Excellence**

Army’s Work Horse Worldwide

Army Theater (OEF) Cumulative Totals:
- 195, 782 missions
- 70%, 70% MC
- OPTPEMO: 9.6 MI

Army Theater (OEF) Monthly Closeout Info:
- Mission: 7,495 hours
- MC: 65%
- NMAC: 3%

Army Theater (OIF) Monthly Closeout Info:
- Mission: 8,150 hours
- MC: 65%
- NMAC: 3%
Current Utility Fleet

USARC
UH-60s - 61

TRADOC
UH-60s – 160
UH-72A – 8

USMA
UH-72A - 2

FORSCOM
UH-60s- 476
UH-72A – 40

NGB
UH-60s- 745
UH-72A - 83

USAREUR
UH-60s – 86
UH-72A – 10

EUSA / USARPAC
UH-60s – 137

AMC/AMCOM/ATEC
UH-60s - 121
UH-72A – 5

Commitment to Soldiers & Acquisition

Other
UH-60s – 127
UH-72A - 11

25 ID(L)
SCHOFIELD BKS, HAWAII

28 ID(M)

42 ID(M)

36 DIV

34 DIV

29 ID(L)

AVN BDE
Katterbach GE

21 TSC
Hohenfels GE

21 ID
CAMP CASEY, KOREA

EH-60 = 54
HH-60A = 4
HH-60L = 31
HH-60M = 67
MH-60K = 23
UH-60A = 814
UH-60L = 707
UH-60M = 222
UH-72A = 154

Total

1922

154

Total

UH-72A

UH-60s

HH-60A

HH-60L
Utility Helicopters Fleet Strategy

**UH-60 BLACK HAWK**
- **MISSION**
  - (FY09 - 11)
  - (Near Term)
- **UTILITY**
  - UH-60A/L

**UH-72A LAKOTA**
- **MISSION**
  - (FY09)
  - (Near Term)
- **UTILITY**
  - UH-1
  - OH-58A/C (Divest)

**Current**
- UH-60A
- MH/UH-60K or L
- MH/UH-60M

**Planned**
- 872
- 760
- 289

Retirement
- Complete 2023

**Retirement Starts 2015**
- MH/UH-60L (not digitized or bussed)
- HH-60L
- HH-60M
- UH-60M

**Retire by 2015**
- 2135
  - UH/HH-60L/M

**Retire / Reassign by 2015**
- 345
  - UH-72A LAKOTA
  - In TDA and TOE

**TDA Units**
- 28 UH-60
- 25 UH-1
- 10 OH-58A/C

**TOE Units**
- 219 OH-58A/C
- 16 UH-1

**Utility Helicopters Fleet Strategy**

(Mission) The POM Years
(FY12-17)

(Mission) The EPP Years
(FY18-25)

(FY25 – Beyond)
Beyond the EPP
UH-60M BLACK HAWK

Logistics Initiatives
- On-Board Diagnostics (HUMS)
- Conditioned Based Maintenance (CBM)
- Organic Support for Logistics
- Engine Inlet Barrier Filter
- APU Inlet Barrier Filter
- Windshield Mylar

Mission
- Crew Chief Seat
- FRIES

Propulsion
- Wide Chord Blades
- T700-GE-701D Engine
- Rotor Brake

New Cabin Section
- Monolithic Machined Parts
- Transmission Beams
- Corrosion Protection

Integrated Digital Cockpit
- 4 Multifunction Displays
- Improved Data Modem
- Enhanced GPS / INS System
- Integrated ARC-231 (TACAN)
- BFT
- Dual Digital Flight Controls
- Digital Map
- Integrated Storm Scope & ASE Displays

Survivability
- Enhanced Laser Warning System (AVR2B)
- Improved IR Suppression
- Crashworthy Fuel System (CEFS)
- Common Missile Warning System (CMWS)

Commitment to Soldiers & Acquisition Excellence
Commitment to Soldiers & Acquisition Excellence

Total 113

Sikorsky H-60M Production Facilities

West Palm Beach, FL (FAFO)  Stratford, CT

113 Production Aircraft
On Time – On Budget
Commitment to Soldiers & Acquisition Excellence

**NET increases Soldier’s Dwell Time**

**NET increases Aviator Throughput**

**Personnel Trained as of 18 MAR 11:**
- 3-1 AHB, Ft. Riley: 39 AQC, 4 IPC, 2 MTPC, 50 15T
- 1-147 AHB, Madison, WI: 25 AQC
- 82d CAB, Ft. Bragg: 160 AQC, 24 MTPC, 275 15T, 29 15F, 44 15N

**101st CAB NET: JUN 11 – FEB 12**
- Contractor Flight Instructors
- Contractor Maintenance
- Army Maintenance Instructors
- CAB Training (MTOE Based)
  - 144 AQC, 24 MTPC
  - 36 15F, 36 15N, 240 15T
- Flight hours funded by FORSCOM
CBM Good News Stories

- Engine Temp Exceedance Verification
- MGB Temp/Press Verification
- Engine HSS Balance/Track & Balance – On Condition
- Trackerless Blade Change
- Collateral Damage Avoidance
  Mission Abort Avoidance
  Tail Rotor Component Failures
- Unsched to Sched Maintenance - Generator & Acces Mod
- Acces Module Pre-Chip Condition Indicator
- Automated HIT Checks & Trending
- A/C Signal Detection & Troubleshooting
- Collective Position
- Yaw Rate Gyros
- Utilizing Parametric Data to Identify False Exceedance (TGT, Nr, Oil Temp/Press)
- Safety WOW Switch Exceedance
- Vibration Absorber Tuning to On-Condition
- Unsched to Sched Maintenance Tail Drive Shaft & Visc Bearing Diagnostics

- Shift unscheduled events to scheduled events
- Constant health monitoring allows units to identify problems and develop a plan before they affect aircraft availability or readiness
- More efficient use of manhours due to better scheduling, troubleshooting and failure analysis
- “Watch List Components” enable comms with units/CBM WG
- Not discovery learning through equipment failure
- >50 Engines saved from removal
- Vibration management reduces crew fatigue
- Troubleshooting/validation and verification
- Weight on wheels switch failures
- Promotes “Tribal Knowledge”
Modernization

- Part I: Modernization Through Developmental Testing:
  - Complete Development Testing
  - Demonstrate ADS-33 Testing Level 1 Handling Qualities
  - Follow-on Evaluations of FBW in Tactical Scenarios

- Part II: Modernization Through Technology Insertion:
  - Obsolescence
  - Software Build Enhancements
    - GATM
    - Degraded Visual Environment
    - Hostile Fire Indicator
  - MEDEVAC ECPs

- Part III: Modernization Through Digitization:
  - Initiate Program NRE effort
  - ECP by FY13 on L-L Recap Production Line
Modernization Through Digitization

- Integrated Digital Moving Map
- Commonality of UH-60M software functionality enables new functionality
  - Global Air Traffic Management (GATM)
  - Helicopter Terrain Awareness and Warning System (HTAWS)
  - Joint Tactical Radio System (JTRS)
  - Joint Precision Approach and Landing System (JPALS)
- Integrated displays via the data bus
- Integrated Performance Planning

Same Situational Awareness as UH-60M

Commitment to Soldiers & Acquisition Excellence
### Requirements Comparison

<table>
<thead>
<tr>
<th>Requirement</th>
<th>M</th>
<th>L</th>
<th>LCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Load</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net Ready</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survivability – IR Signature</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survivability – ASE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Survivability – Fuel Cells</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Force Protection – Armor Plating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Troop Movement Mission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Internal Lift Capability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C2 Mission Endurance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Information Exchange</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Architecture</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Cockpit Mgmt System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Growth Capability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Data Bus</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – AMPS/JMPS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Communications</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Situational Awareness</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requirement</th>
<th>M</th>
<th>L</th>
<th>LCD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avionics – Navigation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Avionics – Mission Mgmt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Night Vision Capabilities</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Deployability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Deployability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Air Transportability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sea Transportability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Susceptibility Reduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crew Protection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Self-Protection Capability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agility &amp; Maneuverability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Maintainability</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Design Growth</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soldier-System Integration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Geospatial Info &amp; Services</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Environmental Support</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soldier Survivability</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Meets Requirement**
- **Meets in Degraded Mode**
- **Does not meet**

**UH60L w/ Digitized Cockpit Meets Threshold Requirements**
Commitment to Soldiers & Acquisition Excellence

**701D Current Status:**
- 3022 - 701D Engines Issued
  - 2589 - CCAD Converted Engines
  - 445 - 701D Recap CCAD/GE
- 635 701D Engines - FY 11
- GE/CCAD TAT - reduced from 250 to 97 Days
- UH-60A w/701D/CC - Current Ops, 227 ea UH-60A
- 2576 Production Engines FY09 – FY15
- UH-60M 701D/DC - 271 A/C fielded as of JAN 11

**Future Force:** Common Core Engine ~ Common HMU ~ Common Controls

**Common Engine Program**
Commitment to Soldiers & Acquisition Excellence

System Description
UH-60M Block 1 ORD, Jan 2007; Apache Block III CPD, Apr 2010

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Block-1 Threshold</th>
<th>Block-2 Threshold</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Lift* (UH-60 M)</td>
<td>4,500 lbs*</td>
<td>9,000lbs*</td>
<td>10,000bs</td>
</tr>
<tr>
<td>VROC¹ (UH-60 M)</td>
<td>200 fpm</td>
<td>200 fpm</td>
<td>500 fpm</td>
</tr>
<tr>
<td>Combat Radius² (UH-60 M)</td>
<td>135 km +20 Min reserve</td>
<td>135 km +20 Min reserve</td>
<td>275 km +20 Min reserve</td>
</tr>
<tr>
<td>Range (Apache)</td>
<td>-</td>
<td>Block-3</td>
<td>Block-3</td>
</tr>
<tr>
<td>Endurance (Apache)</td>
<td>With 3900 lb. payload</td>
<td>Block-3</td>
<td>Block-3</td>
</tr>
</tbody>
</table>

Notes: * Key Performance Parameter
1. From hover out of ground effect, zero wind conditions, at zero airspeed
2. 95°F, 4K ft pressure altitude

TCM 5 Nov 2009 Memo: Requirement 6K 95°F

I & TEP/Block 2 Schedule

<table>
<thead>
<tr>
<th></th>
<th>FY08</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>I &amp; TEP S&amp;T</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I &amp; TEP Development &amp; Qualification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Airframe / Aircraft Integ &amp; Qual</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Future
Apache Block III; Joint Multi-Role (JMR), Improved Fuel Efficiency, Range, Payload, and High/Hot Performance

Requirements:
Block 2 requirements w/ITEP – defined in April 2005 UH-60 ORD. Performance Requirements:
- FCS Mule (6500lb+)
- M1192A2, 105mm Howitzer (4100lb)
- M777 lightweight 155mm Howitzer (< 10,000lb)
- Up-armedored Heavy HMMWV, M997A1 (9280lb)
- Variant HMMWV 4x4 (9000lb)
- Avenger Low Level Air Defense Systems (8600lb+)
- Mounted ISU-90 Mobile Containers (3500-5000lb)
- Robotic Combat Support Systems (3500lb+)
- Sustainment loads palletized for forward BCTs

UH-60 empty weight increased 2245 lbs in 29 years. With continuing increases, UH-60 will lose the ability to perform its basic missions. Block 2 is required to maintain existing mission capability.

- Provides required power for Block 2 Lift requirements
- Lowers Specific Fuel Consumption (SFC) 25% @ 3000 nominal shp
- Returns savings in fuel cost, fuel transport, and maintenance costs through improved reliability

Commitment to Soldiers & Acquisition Excellence
**Theater Mission Equipment**

Note: Red Unit Funded, Blue Other PM Funded, Black PM Funded

OIF/OND

- APU Inlet Barrier Filter
- Blade Erosion Protection
- Engine Inlet Barrier Filter “OIF Threshold”
- IVHMS: Integrated Vehicle Health Management System
- CMWS including 5th Sensor
- IR Strobe
- M-4 Mounts
- Blue Force Tracker w/EDM
- OIF/OND

OEF

- SATCOM
- SPONSON FLIR MEDEVAC
- 701C/D MEDEVAC

**Commitment to Soldiers & Acquisition Excellence**
Army Responds to the Field - Example
Voice Altitude Warning System

**SYSTEM DESCRIPTION:**
On UH-60A/L aircraft the APN-209 radar altimeters lacks voice annunciation when settable low/high altitude threshold is breached. The system requires a voice activation system to be added to the aircraft for the audio annunciations called VAWS. Some units (primarily Korea) have VAWS installed on their aircraft as a nonstandard modification. New production VAWS boxes require delta testing.

**STATUS:**
- Nine VAWS with A Kits have been delivered to OEF.
- AATD manufacturing A kits
- AATD on contract to purchase 320 new production VAWS B Kits (290 plus 10% spares)
  - Kit fieldings begin – April 2011
  - Kit fieldings conclude – June 2011

**DISTRIBUTION:**
- VAWS kits will be shipped direct from AATD to TAMP in Kandahar. TAMP will handle distribution to units. VAWS kits will be handled as TPE (same as BAPS, IR Strobe).

Commitment to Soldiers & Acquisition Excellence
BLACK HAWK HELICOPTERS

Operate In 28 Countries

Argentina

Malaysia

Brunei

Colombia

Egypt

Spain

Greece

Bahrain

Australia

Colombia

United Arab Emirates

China

Jordan

Sweden

Saudi Arabia

Brazil

Thailand

Taiwan

Turkey

Austria

Israel

Xianggang

Denotes: Active FMS Programs

854 TOTAL BLACK HAWK FMS/DCS

Commitment to Soldiers & Acquisition Excellence
UH-72A Standard Configuration

**Cockpit**
- Glass Cockpit
- Wide Field of View
- LCD Displays
- 3 Axis Autopilot

**Performance**
- Low-noise Rotor Blades
- Twin Engine Reliability
- Speed up to 268 km/h
- Endurance up to 3.2 hours

**Capacity**
- 1107 lbs Payload Load (High, Hot)
- HOGE with Gross Weight 7,760 lbs

**Communications**
- ARC-231 (Exportable)
- Interagency VHF/UHF Communications
- Cabin Intercom System

**Navigation**
- IFR/VFR
- Night Vision Goggles
- Mode S Transponder
- GPS
- Radar Altimeter

**Cabin**
- Unobstructed Cabin/ Cargo Flat Floor
- 6 Energy-Absorbing Seats
- Passenger and Cargo Capability

**UH-72A Standard Configuration**
# Acquisition Strategy

<table>
<thead>
<tr>
<th>Program</th>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
<th>FY12</th>
<th>FY13</th>
<th>FY14</th>
<th>FY15</th>
<th>FY16</th>
<th>FY17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Procurements</td>
<td>44</td>
<td>54</td>
<td>50</td>
<td>39</td>
<td>34</td>
<td>26</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Logistics / Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Sites Fielded</td>
</tr>
<tr>
<td>ARC-231</td>
<td>52</td>
<td>22</td>
<td>50</td>
<td>39</td>
<td>34</td>
<td>26</td>
<td>14</td>
<td></td>
<td>Production (72124)</td>
</tr>
<tr>
<td>Vent System</td>
<td>44</td>
<td>54</td>
<td>20</td>
<td>16</td>
<td>10</td>
<td>0</td>
<td>60</td>
<td></td>
<td>Retrofit</td>
</tr>
<tr>
<td>ECU</td>
<td>12</td>
<td>36</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>4</td>
<td></td>
<td>Production (72052)</td>
</tr>
<tr>
<td>EIBF</td>
<td>15</td>
<td>3</td>
<td>8</td>
<td>6</td>
<td>6</td>
<td>2</td>
<td></td>
<td></td>
<td>Production (72149)</td>
</tr>
<tr>
<td>Modifications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Retrofit</td>
</tr>
<tr>
<td>Medical Storage</td>
<td>6</td>
<td>32</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>10</td>
<td>2</td>
<td></td>
<td>Production (72052)</td>
</tr>
<tr>
<td>VIP</td>
<td>4</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td></td>
<td>Production (72117)</td>
</tr>
<tr>
<td>CTC</td>
<td>15</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>11</td>
<td>3</td>
<td></td>
<td></td>
<td>Retrofit</td>
</tr>
<tr>
<td>S&amp;S</td>
<td>20</td>
<td>32</td>
<td>18</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Production (72220)</td>
</tr>
</tbody>
</table>

Production Cut In indicated by UH-72A tail number

**Maximum Production Capability of 55 A Year**

Commitment to Soldiers & Acquisition Excellence
Mission Equipment Packages (MEPs)

Security & Support
- FLIR, day camera/low light TV, laser pointer
- External mounted search light
- External mounted electric hoist
- Real time video downlink
- ARC-231 radio
- 2 x Wulfsberg RT-5000 Radios
- Digital video recorder
- 2 x Cockpit touch screen displays
- Observer Console touch screen display
- Moving map

CTC / OPFOR
- 2nd ARC-231
- Electronic Data Manager
- SMODIM
- Public Address System (OC Only)
- Paint Scheme (OPFOR only)
- MILES Sensors (OPFOR only)
- Aircraft Kill Indicator (OPFOR only)
MEDEVAC
- 2 NATO Standard Litters
- External Mounted Electric Hoist
- Medical Supply Unit
- Engine Inlet Barrier Filter
- Environmental Control Unit

VIP
- 6 Energy-Absorbing Seats in Cabin
- Carpeted Cabin
- Environmental Control Unit
Commitment to Soldiers & Acquisition Excellence

**Two Level Maintenance Concept**

**SUSTAINMENT**

- 120 Day Depot Turn Around

**FIELD**

- 80% OA Rate

**Active Component TDA Sites**

- EAATS

- **CLS**
  - Contractor Maintenance
  - All Maintenance Performed by A&P Contractor using FAA Forms and Records
  - All Spares and Tools Provided by the Contractor
  - Contractor Assists with 1352 and 1352-1
  - Unit Responsible for Readiness Reports

- **Hybrid CLS**
  - Soldier Maintenance
  - All Maintenance Performed by Unit (A&P) using FAA Forms and records
  - Basic Mission Tools at Each Fielded Location (Contractor Owned)
  - All Spares and Special Mission Tools Provided by Contractor as Needed
  - Unit Completes 1352 and 1352-1

- **Army National Guard MTO&E Sites**

- **Component Overhaul and Repair**
- **Publications and Service Updates**
- **Major Structural Repair**
- **Over-Stress, Accidents, Incidents**
- **All Scheduled Inspections and Services**
- **Component Removal and Replacement**
- **All Maintenance Guidelines Specified in the OEM Master Service Manual**

**All Maintenance Will Be...**
- IAW FAA Approved OEM Aircraft Maintenance Manuals
- Signed Off by FAA Certified A&P Mechanics
- Documented IAW FAA Regulations

**85% PSFR**
- Parts Shipped within
  - 48 hrs CONUS
  - 72 Hrs Puerto Rico / Kwaj
  - 96 hrs Germany
Summary

- The UH-60 is the DoD Workhorse in our Overseas Contingency Operations and with our Allied Forces
- Utility Helicopters sustain the force around the World in all environments
- The UH-60M Program has Full Army Commitment and is Fully Funded in the POM
- Fleet Management Systems based on Health Monitoring devices are revolutionizing Sustainment
- 154 UH-72A fielded to Army and ARNG
- Lakota on cost and schedule meeting Army’s needs
- > 3022 T701D Engines installed in Army A/C
- TBOS and Other TADSS on Schedule
- On the horizon: Digitize UH-60L Fleet
- ITEP – a new Requirement

Commitment to Soldiers & Acquisition Excellence
A million moving pieces...

One Mission: Supporting the Soldier