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# CORPUS CHRISTI ARMY DEPOT

**“Our Key’s to  
Aviation  
Readiness”**

Mr. John T. Smith  
Product Support Manger (PSM)  
Apache Attack Helicopter  
Project Office

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# Apache Evolution







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## Best-Value Sustainment and Modernization Program

- Maintains Apache Readiness Today
- Ensures Apache Preparedness for Tomorrow

| AH-64A<br>(1984-1994)   |  |
|---|--|
| 821   |  |
| <ul style="list-style-type: none"> <li>• FLIR sensors               <ul style="list-style-type: none"> <li>• Targeting &amp; Pilotage</li> </ul> </li> <li>• Improved fire control</li> <li>• HELLFIRE Missile               <ul style="list-style-type: none"> <li>• Laser Seeker</li> </ul> </li> <li>• 30 MM gun</li> <li>• Improved survivability               <ul style="list-style-type: none"> <li>• Redundant design</li> <li>• Ballistic tolerance</li> <li>• Backup Control System</li> <li>• Crashworthy fuel system</li> </ul> </li> </ul> |  |
|    |  |
| Analog cockpit  |  |

| AH-64D<br>(Block I)<br>284 (1995-2002)  | AH-64D<br>(Block II)<br>429<br>68 (new) (2003-2013)   |
|---|---|
| <ul style="list-style-type: none"> <li>• Longbow Fire Control Radar</li> <li>• Radar Frequency Interferometer (RFI)</li> <li>• HELLFIRE missile</li> <li>• Radio Frequency Seeker</li> <li>• Glass cockpit</li> </ul> | <ul style="list-style-type: none"> <li>• Digital Interoperability Radar</li> <li>• Digital Map</li> <li>• Integrated Communications Suite</li> <li>• MSPU</li> <li>• M-TADS/PNVS</li> <li>• CMWS</li> <li>• ASPI</li> <li>• VNSight</li> <li>• Manned Unmanned Teaming</li> </ul> |
|   |   |
|    |    |
|   |   |
|   |    |

| AH-64E<br>(2011-2025)   |  |
|---|--|
| 634<br>56 (new)   |  |
| <ul style="list-style-type: none"> <li>• Improved Flight Performance               <ul style="list-style-type: none"> <li>• Improved Drive System (IDS)</li> <li>• Engine: 701D with EDECU</li> <li>• Composite Main Rotor Blades</li> </ul> </li> <li>• Increased Computer Processing/OSA               <ul style="list-style-type: none"> <li>• Mission Processor, Aircraft Interface Units, Solid State Recording Device, Gun Subsystem Controller</li> <li>• IHADSS with Magnetic Head Tracker</li> </ul> </li> <li>• Improved Situational Awareness               <ul style="list-style-type: none"> <li>• Level IV UAS Control</li> <li>• Cognitive Decision Aiding</li> </ul> </li> <li>• Joint Interoperability               <ul style="list-style-type: none"> <li>• ARC-231/SATCOM</li> <li>• Link-16 / SRW</li> </ul> </li> <li>• Improved Sustainability               <ul style="list-style-type: none"> <li>• New Fuselage</li> <li>• System Level Embedded Diagnostics</li> </ul> </li> <li>• Improved Survivability</li> <li>• Improved Targeting               <ul style="list-style-type: none"> <li>• Aided Target Detection/Classification</li> <li>• FCR Improvements</li> <li>• Modernized Day Side Assembly color display</li> <li>• RFI Passive Ranging</li> </ul> </li> </ul> |  |
|    |  |
|    |  |
|    |  |



# AH-64E Tech Insertions Funding Based Strategy

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FY

2012 – 2015

2016 – 2018

2019 - 2026

## LRIP

- Level IV Unmanned Aircraft System
- Improved Communications Suite
- Improved Electronics / Modular Open Systems Approach
- Improved Drive System
- Composite Main Rotor Blades
- New Fuselages
- Integrated Aircraft Survivability Equipment
- Modernized Signal Processor Unit – Integrated (MSPU-I)
- Training Device Concurrency
- Radar Electronics Unit (REU)
- IMC/IFR Hardware / Software
- Pure 701D Engines with Enhanced Electronic Controls

## AH-64E Version 4

- Link-16
- Air to Air to ground video relay (AAG)
- System Level Embedded Diagnostics (SLED)
- Smart Tool for Apache Maintenance Picture (STAMP)
- External Fuel System (Full Provisions)

**Begin fielding  
with 5UE**

## AH-64E Version 6

- Radar Frequency Interferometer (RFI) Passive Ranging/Range Extension
- Fire Control Radar Enhancements
- Longbow Integrated Maintenance Support System Ground Analysis Software Improvement
- Interactive Electronic Technical Manual Upgrade
- Aided Target Detection / Classification
- Maritime Targeting Mode
- Multi-Mode Laser
- Image Blending
- Soldier Radio Waveform (SRW)
- Embedded Diagnostics

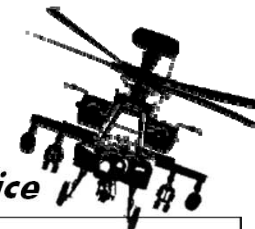
Fielding  
Aug 2019

- 767 AH-64E aircraft is the planned end state
- Capabilities are time-phased based on funding only
- All Version 4-6 capabilities can be applied as field retrofits
- Capability insertion strategy applies to both AH-64E Reman and New Build aircraft



# AH-64 APACHE INVENTORY

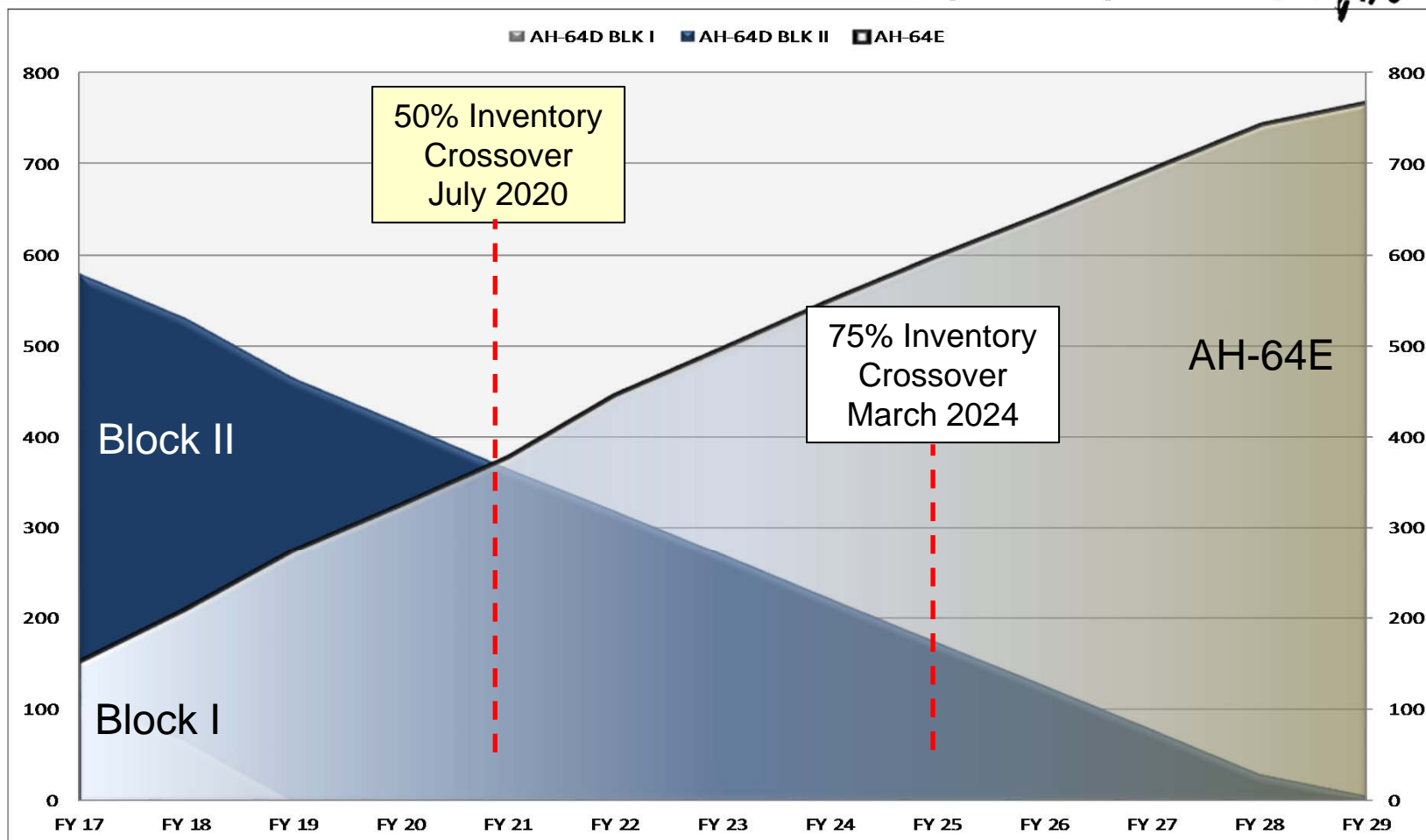
## 721 REMAN / 46 New Build



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Aircraft in Depot

6-AH-64D  
1-AH-64E



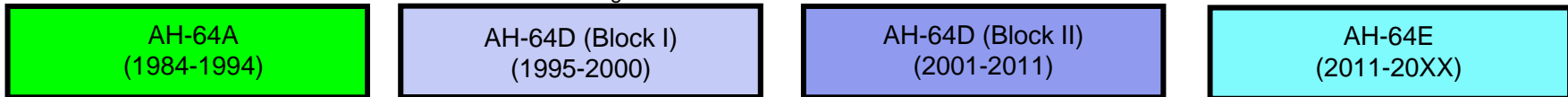
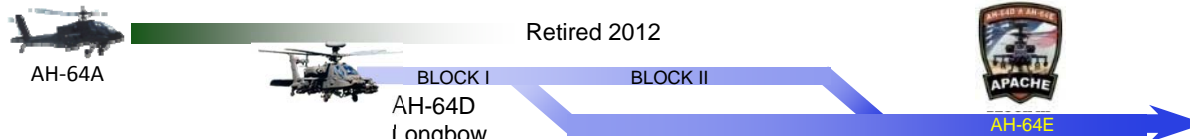
Fleet Inventory

|                | FY 17 | FY 18 | FY 19 | FY 20 | FY 21 | FY 22 | FY 23 | FY 24 | FY 25 | FY 26 | FY 27 | FY 28 | FY 29 |
|----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| AH-64D BLK I   | 115   | 65    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     |
| AH-64D BLK II  | 465   | 465   | 465   | 415   | 366   | 318   | 270   | 222   | 174   | 126   | 78    | 30    | 6     |
| AH-64E         | 153   | 210   | 275   | 325   | 379   | 447   | 498   | 551   | 599   | 647   | 695   | 743   | 767   |
| Total          | 733   | 740   | 740   | 740   | 745   | 765   | 768   | 773   | 773   | 773   | 773   | 773   | 773   |
| % E FIELDDED   | 22%   | 30%   | 40%   | 47%   | 54%   | 64%   | 72%   | 79%   | 86%   | 93%   | 100%  | 100%  | 100%  |
| UNITS FIELDDED | 5     | 7     | 10.5  | 12.5  | 14.5  | 16.5  | 18.5  | 20.5  | 22    | 24    | 26    | 26    | 26    |

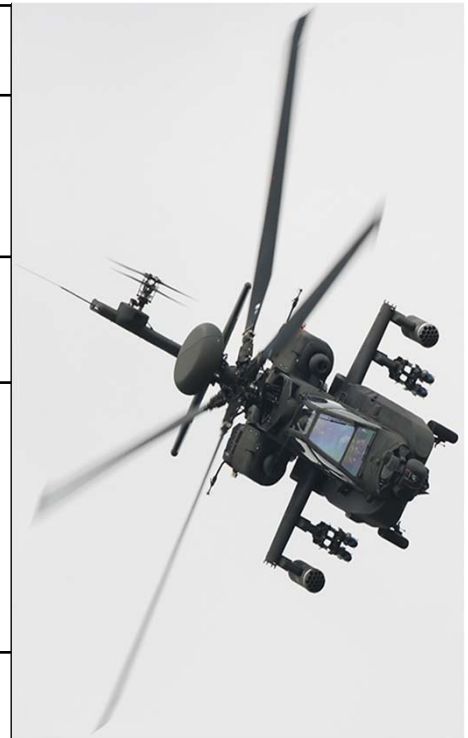


# Apache Sustainment Strategies

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| Components Supported   | Responsible Agencies           | Support Strategy      | Support Provided By                                 |
|--|--------------------------------|-----------------------|---|
| AH-64 D Legacy   | AMCOM<br>CECOM<br>TACOM<br>DLA | Organic / Partnership | AMCOM & CCAD / Boeing Partnership, Private Industry |
| AH-64 D/E Unique   | AMCOM<br>CECOM<br>TACOM        | PBL Partnership       | Boeing<br>CCAD<br>TYAD                              |
| AH-64D Fire Control Radar (FCR), Radar Electronics Unit (REU) / Unmanned Aerial Systems Tactical Common Data Link Assembly (UTA) | AMCOM                          | LCCS Partnership      | Longbow Limited Liability (LBL) Company             |
| M-TADS/PNVS  | AMCOM                          | PBL Partnership       | Lockheed Martin LEAD                                |





# Organic Depot Support for the Apache



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## Common (24)

## D-Unique (9)

| SYSTEM1 | SYSTEM3 | PUB NUMBER       | NOUN                       |
|---------|---------|------------------|----------------------------|
| AH-64D  | AH-64E  | DMWR 1-1560-314  | Nitrogen Inerting Units    |
| AH-64D  | AH-64E  | DMWR 1-1615-301  | Intermediate Gear Box      |
| AH-64D  | AH-64E  | DMWR 1-1615-302  | Trail Rotor Gear Box       |
| AH-64D  | AH-64E  | DMWR 1-1615-312  | Main Rotor Head            |
| AH-64D  | AH-64E  | DMWR 1-1615-336  | Shafts, Couplings, Hangers |
| AH-64D  | AH-64E  | DMWR 1-1620-248  | Main Landing Gear Strut    |
| AH-64D  | AH-64E  | DMWR 1-1650-391  | Servocylinders             |
| AH-64D  | AH-64E  | DMWR 1-1650-394  | Anti-Ice Valve             |
| AH-64D  | AH-64E  | DMWR 1-1650-410  | Defog Valve                |
| AH-64D  | AH-64E  | DMWR 1-1650-417  | Pylon Actuating Cylinder   |
| AH-64D  | AH-64E  | DMWR 1-1680-349  | Fuel Transfer Valve        |
| AH-64D  | AH-64E  | DMWR 1-1680-369  | Linear Actuator            |
| AH-64D  | AH-64E  | DMWR 1-2910-203  | APU Fuel Boost Pump        |
| AH-64D  | AH-64E  | DMWR 1-2915-347  | Fuel Shutoff Valve         |
| AH-64D  | AH-64E  | DMWR 1-2915-350  | Fuel Transfer Pump         |
| AH-64D  | AH-64E  | DMWR 1-2915-359  | Valve P/N 736300-9         |
| AH-64D  | AH-64E  | DMWR 1-4320-274  | Hyd Hand Pump              |
| AH-64D  | AH-64E  | DMWR 1-4730-390  | Hyd Manifold               |
| AH-64D  | AH-64E  | DMWR 1-4810-221  | Valve P/N 319886-20-2      |
| AH-64D  | AH-64E  | DMWR 1-4810-222  | Valve P/N 320416-1-1       |
| AH-64D  | AH-64E  | DMWR 1-4810-228  | Apu Shutoff Valve          |
| AH-64D  | AH-64E  | DMWR 1-4810-230  | Fuel Selector Valve        |
| AH-64D  | AH-64E  | DMWR 55-1560-302 | Nozzle Assembly            |
| AH-64D  | AH-64E  | DMWR 1-1520-263  | Airframe                   |

| SYSTEM1 | PUB NUMBER       | NOUN                       |
|---------|------------------|----------------------------|
| AH-64D  | DMWR 1-1615-299  | Transmission               |
| AH-64D  | DMWR 1-1615-307  | Pump, Lube P/N 2305 & 2306 |
| AH-64D  | DMWR 1-1615-314  | Main Rotor Swashplate      |
| AH-64D  | DMWR 1-1615-315  | Tail Rotor Swashplate      |
| AH-64D  | DMWR 1-3010-204  | Engine Nose Gear Box       |
| AH-64D  | DMWR 1-4320-275  | Pump P/N 63159-01          |
| AH-64D  | DMWR 1-4320-285  | Rotary Pump P/N 2303-2     |
| AH-64D  | DMWR 1-6130-296  | Power Supply P/N 60-3782-5 |
| AH-64D  | DMWR 55-1615-313 | Main Rotor Blade           |

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Pilot Program Ready 2018

### Component Programs:

- FY16: 59
- FY17: 58
- FY18: 58

### Aircraft Programs:

- Inspect and Repair
- Crash/Battle Damage

← Pilot Aircraft Complete 9 March 2017



# Other Depot Support for the Apache

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| System 1 | System 2 | Nomenclature                  | NSN              | Boeing P/N    | Source Of Repair (OEM) |
|----------|----------|-------------------------------|------------------|---------------|------------------------|
| AH-64D   | AH-64E   | SIDELoader ASSEMBLY           | 1005-01-483-3896 | 7-317237200-3 | Boeing                 |
| AH-64D   | AH-64E   | ELBOW ASSEMBLY, AMMO HANDLING | 1005-01-446-8365 | 7-517237300-1 |                        |
| AH-64D   |          | CYCLIC GRIP                   | 1680-01-438-4765 | 7-511514007-3 | Mason                  |
| AH-64D   |          | COLLECTIVE GRIP               | 1680-01-428-6826 | 7-511512007-3 |                        |
| AH-64D   | AH-64E   | COLLECTIVE GRIP               | 1680-01-610-5731 | 7-511512007-7 |                        |



Pilot Program Ready 2018





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# **QUESTIONS**

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