singly or in combinations. Hardware is Unclassified. Technical manuals for authorized
maintenance levels are Unclassified. Reverse engineering is not a major concern.

  c. The AAR-57(V)3/5 Common Missile Warning System (CMWS) detects energy
     emitted by threat missile in flight, evaluates potential false alarm emitters in the environment,
     declares validity of threat and selects appropriate counter-measures. The CMWS consists of
     an Electronic Control Unit (ECU), Electro-Optic Missile Sensors (EOMSs), and Sequencer
     and Improved Countermeasures Dispenser (ICMD). The ECU hardware is classified
     Confidential and releasable technical manuals for operation and maintenance are classified
     Secret.

  d. The AN/APR-39 Radar Signal Detecting Set is a system, that provides warning of
     a radar directed air defense threat and allow appropriate countermeasures. This is the 1553
     database compatible configuration. The hardware is classified Confidential when programmed
     with U.S. threat data; releasable technical manuals for operation and maintenance are
     classified Confidential; releasable technical data (technical performance) is classified Secret.

  e. The AN/AVR-2B Laser Warning System is a passive laser warning system that
     receives, processes and displays threat information resulting from aircraft illumination by
     lasers on the multi-functional display. The hardware is classified Confidential; releasable
     technical manuals for operation and maintenance are classified Secret.

  f. The Integrated Helmet Display Sight System (IHDDS) is an enhanced version of its
     predecessor. It will provide improved operational performance primarily in resolution
     allowing greater utilization of the M-TADS/M-PNVS performance enhancements. The
     hardware is Unclassified.

  g. The highest level for release of the AGM-114R HELLFIRE II is Secret, based upon
     the software. The highest level of classified information that could be disclosed by a
     proposed sale or by testing of the end item is Secret; the highest level that must be disclosed
     for production, maintenance, or training is Confidential. Reverse engineering could reveal
     Confidential information. Vulnerability data, countermeasures, vulnerability/
     susceptibility analyses, and threat definitions are classified Secret or Confidential.

  2. If a technologically advanced adversary were to obtain knowledge of the specific
     hardware and software elements, the information could be used to develop countermeasures
     which might reduce weapon system effectiveness or be used in the development of a system
     with similar or advanced capabilities.

ACTION: Notice.

SUMMARY: The Department of Defense is publishing the unclassified text of a
section 36(b)(1) arms sales notification. This is published to fulfill the
requirements of section 155 of Public

FOR FURTHER INFORMATION CONTACT: Ms.
B. English, DSCA/DBO/CFM, (703) 601–
3740.

SUPPLEMENTARY INFORMATION: The
following is a copy of a letter to the
Speaker of the House of Representatives,
Transmittals 10–44 with attached transmittal, policy justification, and
Sensitivity of Technology.

Dated: November 9, 2010.

Morgan F. Park,
Alternate OSD Federal Register Liaison
Officer, Department of Defense.
The Honorable Nancy Pelosi  
Speaker  
U.S. House of Representatives  
Washington, DC 20515

Dear Madam Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 10-44, concerning the Department of the Army’s proposed Letter(s) of Offer and Acceptance to the Kingdom of Saudi Arabia for defense articles and services estimated to cost $25.6 billion. After this letter is delivered to your office, we plan to issue a press statement to notify the public of this proposed sale.

Sincerely,

Richard A. Gniadecki  
Deputy Director

Enclosures:  
1. Transmittal  
2. Policy Justification  
3. Sensitivity of Technology  
4. Regional Balance (Classified Document Provided Under Separate Cover)
Transmittal No. 10-44

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act, as amended (U)

(i) **Prospective Purchaser:** Kingdom of Saudi Arabia

(ii) **Total Estimated Value:**
- **Major Defense Equipment** $ 7.5 billion
- **Other** $18.1 billion
- **TOTAL** $25.6 billion

(iii) **Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:**
- 36 AH-64D Block III APACHE Helicopters
- 72 UH-60M BLACKHAWK Helicopters
- 36 AH-64 Light Attack Helicopters
- 12 MD-530F Light Turbine Helicopters
- 243 T700-GE-701D Engines
- 40 Modernized Targeting Acquisition and Designation Systems/Pilot Night Vision Sensors
- 20 AN/APG-78 Fire Control Radars with Radar Electronics Unit (Longbow Component)
- 20 AN/APR-48A Radar Frequency Interferometer
- 171 AN/APR-39 Radar Signal Detecting Sets
- 171 AN/AVR-2B Laser Warning Sets
- 171 AAR-57(V)3/5 Common Missile Warning Systems
- 318 Improved Countermeasures Dispensers
- 40 Wescam MX-15Di (AN/AAQ-35) Sight/Targeting Sensors
- 40 GAU-19/A 12.7mm (.50 caliber) Gatling Guns
- 108 Improved Helmet Display Sight Systems
- 52 30mm Automatic Weapons
- 18 Aircraft Ground Power Units
- 168 M240H Machine Guns
- 300 AN/AVS-9 Night Vision Goggles
- 421 M310 A1 Modernized Launchers
- 158 M299A1 HELLFIRE Longbow Missile Launchers
- 2592 AGM-114R HELLFIRE II Missiles
- 1229 AN/PRQ-7 Combat Survivor Evader Locators

* as defined in Section 47(6) of the Arms Export Control Act.
4 BS-1 Enhanced Terminal Voice Switches
4 Digital Airport Surveillance Radars
4 Fixed-Base Precision Approach Radar
4 DoD Advanced Automation Service
4 Digital Voice Recording System

Also included are trainers, simulators, generators, munitions, design and construction, transportation, wheeled vehicles and organizational equipment, tools and test equipment, communication equipment, Identification Friend or Foe (IFF) systems, GPS/INS, spare and repair parts, support equipment, personnel training and training equipment, publications and technical documentation, U.S. Government and contractor engineering, technical, and logistics support services, and other related elements of program support.

(iv) **Military Department**: Army (ZAD, Amd #1)

(v) **Prior Related Cases, if any**: FMS Case ZAD-$177M-15Jan10

(vi) **Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid**: None

(vii) **Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold**: See Annex attached.

(viii) **Date Report Delivered to Congress:**
POLICY JUSTIFICATION

Saudi Arabia – AH-64D APACHE, UH-60M BLACKHAWK, AH-61 Light Attack, and MD-530F Light Turbine Helicopters

The Government of Saudi Arabia has requested a possible sale of:

- 36 AH-64D Block III APACHE Helicopters
- 72 UH-60M BLACKHAWK Helicopters
- 36 AH-61 Light Attack Helicopters
- 12 MD-530F Light Turbine Helicopters
- 243 T700-GE-701D Engines
- 40 Modernized Targeting Acquisition and Designation Systems/Pilot Night Vision Sensors
- 20 AN/APG-78 Fire Control Radars with Radar Electronics Unit (Longbow Component)
- 20 AN/APR-48A Radar Frequency Interferometer
- 171 AN/APR-39 Radar Signal Detecting Sets
- 171 AN/AVR-2B Laser Warning Sets
- 171 AAR-57(V)3/5 Common Missile Warning Systems
- 318 Improved Countermeasures Dispensers
- 40 Wescam MX-15Di (AN/AAQ-35) Sight/Targeting Sensors
- 40 GAU-19/A 12.7mm (.50 caliber) Gatling Guns
- 108 Improved Helmet Display Sight Systems
- 52 30mm Automatic Weapons
- 18 Aircraft Ground Power Units
- 168 M240H Machine Guns
- 300 AN/AVS-9 Night Vision Goggles
- 421 M310 A1 Modernized Launchers
- 158 M299A1 HELLFIRE Longbow Missile Launchers
- 2592 AGM-114R HELLFIRE II Missiles
- 1229 AN/PRQ-7 Combat Survivor Evader Locators
- 4 BS-1 Enhanced Terminal Voice Switches
- 4 Digital Airport Surveillance Radars
- 4 Fixed-Base Precision Approach Radar
- 4 DoD Advanced Automation Service
- 4 Digital Voice Recording System

Also included are trainers, simulators, generators, munitions, design and construction, transportation, wheeled vehicles and organizational equipment, tools and test equipment, communication equipment, Identification Friend or Foe (IFF) systems, GPS/INS, spare and repair parts, support equipment, personnel training and training equipment, publications and technical documentation, U.S. Government and contractor engineering, technical, and logistics support services, and other related elements of program support. The estimated cost is $25.6 billion.
This proposed sale will contribute to the foreign policy and national security of the United States by helping to improve the security of a friendly country which has been and continues to be, an important force for political stability and economic progress in the Middle East.

The Saudi Arabian National Guard will use the AH-64D for its national security and protecting its borders and oil infrastructure. The proposed sale will provide for the defense of vital installations and will provide close air support for the Saudi military ground forces. This sale also will increase the Saudi National Guard’s APACHE sustainability and interoperability with the U.S. Army, the Gulf Cooperation Council countries, and other coalition forces. Saudi Arabia will have no difficulty absorbing these helicopters into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The prime contractors will be:

- The Boeing Company
  - Mesa, Arizona

- Lockheed Martin Corporation
  - Orlando, Florida

- Sikorsky Aircraft
  - West Palm Beach, Florida

- MD Helicopters
  - Mesa Arizona

- General Electric Company
  - Cincinnati, Ohio

- Lockheed Martin Millimeter Technology
  - Owego, New York

- Longbow Limited Liability Corporation
  - Orlando, Florida

- ITT Aerospace/Communications
  - Fort Wayne, Indiana

There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale requires the assignment of approximately 900 contractor representatives and 30 U.S. Government personnel on a full time basis in Saudi Arabia for a period of 15 years. Also, this program will require multiple trips to Saudi Arabia involving U.S. government and contractor personnel to participate in annual, technical reviews, training, and one-week Program Reviews in Saudi Arabia.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.
Transmittal No. 10-44

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act

Annex
Item No. vii

(vii) Sensitivity of Technology:

1. The AH-64D APACHE Attack Helicopter weapon system contains communications and target identification equipment, navigation equipment, aircraft survivability equipment, displays, and sensors. The airframe itself does not contain sensitive technology; however, the pertinent equipment listed below will be either installed on the aircraft or included in the sale:

   a. The Fire Control Radar (FCR) is an active, low-probability of intercept, millimeter-wave radar, combined with a passive Radar Frequency Interferometer (RFI) mounted on top of the helicopter mast. The FCR Ground Targeting Mode detects, locates, classifies and prioritizes stationary or moving armored vehicles, tanks and mobile air defense systems as well as hovering helicopters, helicopters, and fixed wing aircraft in normal flight. The RFI detects threat radar emissions and determines the type of radar and mode of operation. The FCR data and RFI data are fused for maximum synergism. If desired, the radar data can be used to refer targets to the regular electro-optical Target Acquisition and Designation Sight (TADS), Modernized Target Acquisition and Designation Sight (MTADS), permitting additional visual/infrared imagery and control of weapons, including the semi active laser version of the HELLFIRE. Critical system information is stored in the FCR in the form of mission executable code, target detection, classification algorithms and coded threat parametrics. This information is provided in a form that cannot be extracted by the foreign user via anti-tamper provisions built into the system. The content of these items is classified Secret. The RFI is a passive radar detection and direction finding system, which utilizes a detachable User Data Module (UDM) on the RFI processor, which contains the Radio Frequency threat library. The UDM, which is a hardware assemblage, is classified Secret when programmed with threat parameters, threat priorities and/or techniques derived from U.S. intelligence information.

   b. The Modernized Target Acquisition and Designation Sight/Pilot Night Vision Sensor (MTADS/PNVS) provides day, night, limited adverse weather target information, as well as night navigation capabilities. The PNVS provides thermal imaging that permits nap-of-the-earth flight to, from, and within the battle area, while TADS provides the co-pilot gunner with search, detection, recognition, and designation by means of Direct View Optics
(DVO), television, and Forward Looking Infrared (FLIR) sighting systems that may be used singularly or in combinations. Hardware is Unclassified. Technical manuals for authorized maintenance levels are Unclassified. Reverse engineering is not a major concern.

c. The AAR-57(V)3/5 Common Missile Warning System (CMWS) detects energy emitted by threat missile in-flight, evaluates potential false alarm emitters in the environment, declares validity of threat and selects appropriate counter-measures. The CMWS consists of an Electronic Control Unit (ECU), Electro-Optic Missile Sensors (EOMSs), and Sequencer and Improved Countermeasures Dispenser (ICMD). The ECU hardware is classified Confidential and releasable technical manuals for operation and maintenance are classified Secret.

d. The AN/APR-39 Radar Signal Detecting Set is a system, that provides warning of a radar directed air defense threat and allow appropriate countermeasures. This is the 1553 databus compatible configuration. The hardware is classified Confidential when programmed with U.S. threat data; releasable technical manuals for operation and maintenance are classified Confidential; releasable technical data (technical performance) is classified Secret.

e. The AN/AVR-2B Laser Warning Set is a passive laser warning system that receives, processes and displays threat information resulting from aircraft illumination by lasers on the multi-functional display. The hardware is classified Confidential; releasable technical manuals for operation and maintenance are classified Secret.

f. The Integrated Helmet Display Sight System (IHDSS) is an enhanced version of its predecessor. It will provide improved operational performance primarily in resolution allowing greater utilization of the M-TADS/M-PNVS performance enhancements. The hardware is Unclassified.

g. The highest level for release of the AGM-114R HELLFIRE II is Secret, based upon the software. The highest level of classified information that could be disclosed by a proposed sale or by testing of the end item is Secret; the highest level that must be disclosed for production, maintenance, or training is Confidential. Reverse engineering could reveal Confidential information. Vulnerability data, countermeasures, vulnerability/ susceptibility analyses, and threat definitions are classified Secret or Confidential.

2. The AH-6i Light Attack Helicopter is a commercial-off-the-shelf, light attack/reconnaissance helicopter, armed with .50 cal GAU-19, M310 A1 Modernized Launchers, 2.75 Hydra 70 Rockets and M261 Rocket Launchers. The helicopter is equipped with the WESCAM MX-15Di Sight/Targeting Sensor, as well as Aircraft Survivability Equipment (ASE), Communication and Navigation Equipment to ensure commonality and interoperability with the other aircraft platforms. The airframe itself does not contain sensitive technology.
a. The Wescam MX-15 (US Designation AN/AAQ-35) is a commercial-off-the-shelf system belonging to a family of mid-size turrets of which the MX-15Di is one. It is a stabilized, geo-referenced camera turret that features high magnification daylight cameras and thermal imaging. It is used on both rotary and fixed wing aircraft to carry out real-time, tactical ISR (Intelligence, Surveillance, and Reconnaissance). It has a modular imaging system with high-quality long-range optics that can be equipped with up to six sensors. This flexibility has allowed customized sensor fits to evolve embracing a variety of applications, the main one being long-range target identification from fixed-wing, rotor-wing, aerostat and Unmanned Aerial Vehicle (UAV) platforms. The MX-15Di introduces the re-packaging of the electronics box into the turret itself. The hardware is classified Unclassified; releasable technical manuals for operation and maintenance are classified Unclassified.

b. The 12.7mm (.50 caliber) GAU-19/A Externally Powered Gatling Gun, has variable rates of fire-up to 2000 rounds per minute and has seen increasingly widespread deployment over the last several years. The hardware is classified Confidential; releasable technical manuals for operation and maintenance are Unclassified.

3. The UH-60M BLACKHAWK is a utility helicopter. The weapon system contains communications and identification equipment, navigation equipment, aircraft survivability equipment (ASE), displays, and sensors. The airframe itself does not contain sensitive technology. The highest level of classified information required to be released for training, operation and maintenance of the BLACKHAWK is Unclassified.

4. The MD530F Light Turbine Helicopter is a commercial-off-the-shelf (COTS), light utility helicopter designed to operate effectively in hot weather and high altitudes. The airframe itself does not contain sensitive technology; however, the pertinent equipment listed below will be either installed on the aircraft or included in the sale.

a. The Enhanced Terminal Voice Switch (ETVS) BS-1 performs all control functions needed for Air Traffic Control (ATC) voice communications. It provides air-to-ground communications between controllers and aircraft under their control, as well as inter/intra-facility communications. Three types of communications access are available: Radio, Intercom, and Telephone Links. ETVS is mounted in a canopy, much like the existing voice switch, and will provide the required flexibility to manage voice requirements. The hardware is Unclassified and the software is classified Secret.

b. Fixed-Base Precision Approach Radar (FBPAR) is a Federal Aviation Administration (FAA) flight-certified and US Army flight-test approved ground-based precision approach radar that utilizes proven, solid-state X-band transmit/receive (T/R) modules. The FBPAR is a track-by-scan with a less than one (1) second update that provides tracking of over seventy-five (75) targets. Its moving target detection (MTD) signal processing, adaptive clutter and sensitivity time control (STC) maps, and frequency agility
provide superior clutter rejection and detection performance in various weather types. The hardware is Unclassified and the software is classified as Secret.

c. The Digital Airport Surveillance Radar (DASR) is a new terminal air traffic control radar system that replaces current analog systems with new digital technology. The DASR system detects aircraft position and weather conditions in the vicinity of civilian and military airfields. The civilian nomenclature for this radar is the ASR-11 and the military nomenclature for the radar is the AN/GPN-30. The radar system will improve reliability, provide additional weather data, reduce maintenance cost, improve performance, and provide digital data to new digital automation systems for presentation on air traffic controller displays. The GPN-30 uses an active radar system to detect aircraft and a two-way automated radio communication system to gather aircraft identification codes and altitude. The primary radar detects aircraft by transmitting a 25 kW electromagnetic pulse from a continuously rotating antenna and listening for an electromagnetic echo that is reflected off an aircraft. The secondary radar uses a similar rotating antenna to communicate with an aircraft's transponder in a way that is similar to a telephone conversation. Advanced computers then filter, decode and correlate both the primary radar echoes and the secondary radar communication information to create a 360-degree representation of all aircraft within a 60-mile radius. The hardware is Unclassified and the software is classified as Secret.

d. DOD Advanced Automation System (DAAS) gives the air traffic controller an automation system that receives input from up to 16 digital short and long range radars. DAAS provides an air traffic control system for managing terminal area airspace for the US military. DoD Standard Terminal Automation Replacement System receives radar data and flight plan information and presents the information to air traffic controllers on high resolution, 20" x 20" color displays allowing the controller to monitor, control, and accept hand-off of air traffic. The hardware is Unclassified and the software is classified Secret.

e. The Digital Voice Recording System (DVRS) is an advanced digital recording system providing continuous and reliable recording capabilities for a wide range of purposes and clientele. The DVRS is the legal recording solution for Air Traffic Control (ATC) to provide instant retrieval thousands of hours of archived operator, telephone and radio traffic. The system is multi-user, multi-operational and scalable; enabling expansion to thousands of audio channels. The DVRS provides simultaneous recording and playback capabilities and audio “tagging” for quick access and instant playback of recorded sessions. Various playback scenarios can be used while the system maintains constant voice clarity. Time stamping of all recorded audio sessions and synchronization with outside time sources such as Global Positioning Satellite (GPS) technology is available. The hardware is Unclassified and the software is classified Secret.

5. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to develop countermeasures which might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.