DEPARTMENT OF DEFENSE **Billing Code 5001-06**

Office of the Secretary

(Transmittal Nos. 11-46)

36(b)(1) Arms Sales Notification

AGENCY: Department of Defense, Defense Security Cooperation Agency

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 Law 104-164 dated 21 July 1996.

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 11-46 with attached transmittal, policy justification, and Sensitivity of Technology.

Dated: December 13, 2011

Morgan F. Park
Alternate OSD Federal Register Liaison Officer
Department of Defense

DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, STE 203
ARLINGTON, VA 22202-5408

DEC 12 2011

The Honorable John A. Boehner
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

Dear Mr. 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. 11-46, concerning the Department of the Air Force's proposed Letter(s) of Offer and Acceptance to Iraq for defense articles and services estimated to cost $2.3 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,

William E. Landay III
Vice Admiral, USN
Director

Enclosures:
1. Transmittal
2. Policy Justification
3. Sensitivity of Technology
4. Regional Balance (Classified Document Provided Under Separate Cover)

Transmittal No. 11-46

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

(i) Prospective Purchaser: Iraq

(ii) Total Estimated Value:

Major Defense Equipment*	$1.3 billion
Other	$1.0 billion
TOTAL	$2.3 billion

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase: (18) F-16IQ aircraft, (24) F100-PW-229 or F110-GE-129 Increased Performance Engines, (120) LAU-129/A Common Rail Launchers, (24) APG-68(V)9 radar sets, (19) M61 20mm Vulcan Cannons, (100) AIM-9L/M-8/9 SIDEWINDER Missiles, (150) AIM-7M-F1/H SPARROW Missiles, (50) AGM-65D/G/H/K MAVERICK Air to Ground Missiles, (200) GBU-12 PAVEWAY II Laser Guided Bomb Units (500 pound), (50) GBU-10 PAVEWAY II Laser Guided Bomb Units (2000 pound), (50) GBU-24 PAVEWAY III Laser Guided Bomb Units (2000 pound), (22) ALQ-211 Advanced Integrated Defensive Electronic Warfare Suites (AIDEWS), or Advanced Countermeasures Electronic Systems (ACES) (ACES includes the ALQ-187 Electronic Warfare System and AN/ALR-93 Radar Warning Receiver), (20) AN/APX-113 Advanced Identification Friend or Foe (AIFF) Systems (without Mode IV), (20) Global Positioning Systems (GPS) and Embedded GPS/ Inertial Navigation Systems (INS), (Standard Positioning Service (SPS) commercial code only), (20) AN/AAQ-33 SNIPER or AN/AAQ-28 LITENING Targeting Pods, (4) F-9120 Advanced Airborne Reconnaissance Systems (AARS) or DB-110 Reconnaissance Pods (RECCE), (22) AN/ALE-47 Countermeasures Dispensing Systems (CMDS), (20) Conformal Fuel Tanks (pairs), (120) Joint Helmet Mounted Cueing Systems (JHMCS), (20) AN/ARC-238 Single Channel Ground and Airborne Radio Systems, (10,000) PGU-27A/B Ammunition, (30,000) PGU-28 Ammunition, (230) MK-84 2000 lb General Purpose Bombs, and (800) MK-82 500lb General Purpose Bombs. Also included: LAU-117 Maverick Launchers, site survey support equipment, Joint Mission Planning System, Ground Based Flight Simulator, tanker support, ferry services, Cartridge Actuated Devices/Propellant Actuated Devices

(CAD/PAD), repair and return, modification kits, spares and repair parts, construction,
publications and technical documentation, personnel training and training equipment,
U.S. Government and contractor technical, engineering, and logistics support services,
ground based flight simulator, and other related elements of logistics support.

* as defined in Section 47(6) of the Arms Export Control Act.

(iv) Military Department: Air Force (SAH)

(v) Prior Related Cases, if any: FMS case SAG:$1.4B:21Sep11

(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: 12 December 2011

POLICY JUSTIFICATION

Iraq –F-16 Aircraft

The Government of Iraq has requested a possible sale of (18) F-16IQ aircraft, (24) F100PW-229 or F110-GE-129 Increased Performance Engines, (120) LAU-129/A Common Rail Launchers, (24) APG-68(V)9 radar sets, (19) M61 20mm Vulcan Cannons, (100) AIM-9L/M-8/9 SIDEWINDER Missiles, (150) AIM-7M-F1/H SPARROW Missiles, (50) AGM-65D/G/H/K MAVERICK Air to Ground Missiles, (200) GBU-12 PAVEWAY II Laser Guided Bomb Units (500 pound), (50) GBU-10 PAVEWAY II Laser Guided Bomb Units (2000 pound), (50) GBU-24 PAVEWAY III Laser Guided Bomb Units (2000 pound), (22) ALQ-211 Advanced Integrated Defensive Electronic Warfare Suites (AIDEWS), or Advanced Countermeasures Electronic System (ACES) (ACES includes the ALQ-187 Electronic Warfare System and AN/ALR-93 Radar Warning Receiver), (20) AN/APX-113 Advanced Identification Friend or Foe (AIFF) Systems (without Mode IV), (20) Global Positioning Systems (GPS) and Embedded GPS/ Inertial Navigation Systems (INS), (Standard Positioning Service (SPS) commercial code only), (20) AN/AAQ-33 SNIPER or AN/AAQ-28 LITENING Targeting Pods, (4) F-9120 Advanced Airborne Reconnaissance Systems (AARS) or DB-110 Reconnaissance Pods (RECCE), (22) AN/ALE-47 Countermeasures Dispensing Systems (CMDS), (20) Conformal Fuel Tanks (pairs), (120) Joint Helmet Mounted Cueing Systems (JHMCS), (20) AN/ARC-238 Single Channel Ground and Airborne Radio Systems, (10,000) PGU-27A/B Ammunition, (30,000) PGU-28 Ammunition, (230) MK-84 2000 lb General Purpose Bombs, and (800) MK-82 500lb General Purpose Bombs. Also included: LAU-117 Maverick Launchers, site survey support equipment, Joint Mission Planning System, Ground Based Flight Simulator, tanker support, ferry services, Cartridge Actuated Devices/Propellant Actuated Devices (CAD/PAD), repair and return, modification kits, spares and repair parts, construction, publications and technical documentation, personnel training and training equipment, U.S. Government and contractor technical, engineering, and logistics support services, ground based flight simulator, and other related elements of logistics support. The estimated cost is $2.3 billion.

The proposed sale will contribute to the foreign policy and national security objectives of the United States by enhancing the capability of Iraq's Air Force. The proposed aircraft and accompanying weapon systems will greatly enhance Iraq’s interoperability with the U.S. and other NATO nations, making it a more valuable

partner in an important area of the world, as well as supporting Iraq's legitimate need for its own self-defense.

The proposed sale will allow the Iraqi Air Force to modernize its air force by acquiring western interoperable fighter aircraft, thereby enabling Iraq to support both its own air defense needs and coalition operations. The country will have no difficulty absorbing these aircraft into its armed forces.

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

The principal contractors will be:

BAE Advanced Systems	Greenlawn, New York
Boeing Corporation	Seattle, Washington
Boeing Integrated Defense Systems	St Louis, Missouri
(three locations)	Long Beach, California
	San Diego, California
Raytheon Company	Lexington, Massachusetts
(two locations)	Goleta, California
Raytheon Missile Systems	Tucson, Arizona
Lockheed Martin Aeronautics Company	Fort Worth, Texas
Lockheed Martin Missile and Fire Control	Dallas, Texas
Lockheed Martin Simulation, Training	
And Support	Fort Worth, Texas
Northrop-Grumman Electro-Optical Systems	Garland, Texas
Northrop-Grumman Electronic Systems	Baltimore, Maryland
Pratt & Whitney United Technology Company	East Hartford, Connecticut
General Electric Aircraft Engines	Cincinnati, Ohio
Goodrich ISR Systems	Danbury, Connecticut
L3 Communications	Arlington, Texas
ITT Defense Electronics and Services	McLean, Virginia
Symetrics Industries	Melbourne, Florida

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

Implementation of this proposed sale will require multiple trips to Iraq involving U.S. Government and contractor representatives for technical reviews/support, program management, and training over a period of 15 years.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Transmittal No. 11-46

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. This sale will involve the release of sensitive technology to Iraq. The F-16IQ is Unclassified, except as noted below. The aircraft utilizes the F-16 airframe and features advanced avionics and systems. It contains the Pratt and Whitney F-100-PW-229 or the General Electric F-110-GE-129 engine, AN/APG-68(V)9 radar, digital flight control systems, internal electronic warfare equipment, Advanced IFF (without Mode IV), operational flight program, and software computer programs.

2. Sensitive and/or classified (up to Secret) elements of the F-16IQ aircraft proposed for sale include hardware, accessories, components, and associated software: AN/APG-68(V)9 Radar, AN/APX-113 Advanced Identification Friend or Foe (AIFF) without Mode IV capability, AN/ALE-47 Countermeasures (Chaff and Flare) set, SNIPER and/or LITENING Targeting Pods, F-9120 Advanced Airborne Reconnaissance Systems (AARS) and/or DB-110 RECCE Pods, Embedded Global Positioning System/Inertial Navigation System with Standard Positioning Service (SPS) commercial code only, Advanced Countermeasures Electronic System (ACES), Advanced Interference Blanker Unit, Modular Mission Computer, Have Glass I Digital Flight Control System, and F-100 or F-110 engines. Additional sensitive areas include operating manuals and maintenance technical orders containing performance information, operating and test procedures, and other information related to support operations and repair. The hardware, software, and data identified are classified to protect vulnerabilities, design and performance parameters, and other similar critical information.

3. The AN/APG-68(V)9 radar is the latest model of the APG-68 radar and was specifically designed for foreign military sales. This model contains the latest digital technology available for a mechanically scanned antenna, including higher processor power, higher transmission power, more sensitive receiver electronics, and a new capability, Synthetic Aperture Radar (SAR), which creates higher-resolution ground maps from a much greater distance than previous versions of the APG-68. The upgrade features a 30% increase in detection range of air targets, a five-fold increase in processing speed, a ten-fold increase in memory, as well as significant improvements in all modes,
jam resistance and false alarm rates. Complete hardware is classified Confidential; major components and subsystems are classified Confidential; software is classified Secret; and the technical data and documentation are classified up to Secret.

4. The AN/AAQ-33 SNIPER Targeting System is Unclassified but contains state-of-the-art technology. Information on performance and inherent vulnerabilities is classified Secret. The software (object code) is classified Confidential. Sensitive elements include the Forward Looking Infrared (FLIR) sensors, and the AGM-65 Missile Boresight Correlator.

5. The AN/AAQ-28 LITENING Targeting System hardware is Unclassified but contains state-of-the-art technology. Information on performance and inherent vulnerabilities is classified Secret. The software (object code) is classified Confidential. Sensitive elements include the Forward Looking Infrared (FLIR) sensors, and the AGM-65 Missile Boresight Correlator.

6. The AN/ALE-47 Countermeasures Dispensing System is a software reprogrammable dispenser of chaff and flares. It provides for either automatic (via integrated Missile Warning System input) or aircrew commanded response dispense capabilities. Specific dispense routines are sensitive. The export version uses a country unique "look-up decision tree" for determining dispense routines. This software when loaded in the ALE-47 is classified Confidential. Increased risk of exploitation is significantly reduced given that the software is in executable form only, i.e., binary code, and the actual dispense routines can be gained through visual observation.

7. The AN/APX-113 Advanced Identification Friend or Foe System is Unclassified unless MODE IV operational evaluator parameters are loaded into the equipment.

8. The AN/ALQ-187 Advanced Countermeasures Electronic System (ACES) provides passive radar warning, wide spectrum radio frequency jamming, and control and management of the entire electronic warfare (EW) system. It is an internally mounted suite. The commercially developed system software and hardware is Unclassified. The system is classified Secret when loaded with a U.S. derived EW database.

9. The AIM-9M-8/9 SIDEWINDER is a supersonic, heat-seeking, air-to-air missile carried by fighter aircraft. Advanced technology in the AIM-9M includes Active Optical Target Detector, Gyro Optics Assembly within the Guidance Control Section, Infrared Countermeasures, Detection and Rejection Circuitry, and a reduced smoke rocket motor. The hardware, software, and maintenance are classified Confidential. Pilot training, technical data and documentation, which are necessary for performance and operating information, are classified Secret.

10. The AIM-7M (F or H Build) SPARROW is a semiactive, medium range air-to-air missile designed to be either rail or ejection launched. Semiactive, continuous wave, homing radar, and hydraulically-operated control surfaces direct and stabilize the

missile on a proportional navigational course to the target. The highest classification level for the AIM-7 missile is Secret.

11. The PAVEWAY II/III (GBU-10/12/24) series of laser guided bombs consists of a guidance kit that converts existing unguided free-fall bombs into precision-guided "smart" munitions. At the core of each PAVEWAY II/III Munitions Kit is a dumb bomb. A laser guidance kit is integrated with each dumb bomb to add the requisite level of accuracy. The kit consists of a computer-controlled group at the front end of the weapon and an airfoil group at the back. When a target is illuminated by a laser, either airborne or ground-based, the guidance fins react to signals from the control group and steer the weapon to the target. This precision-guided munition offers improved accuracy over free-fall bombs, thus providing the potential for reduced collateral damage.

12. The AGM-65D/G/H/K MAVERICK air-to-ground missile has an overall classification of Secret. The Secret aspects of the Maverick system are tactics, information revealing its vulnerability to countermeasures, and counter-countermeasures. Manuals and technical documents, which are necessary for operational use and organizational maintenance have portions that are classified Confidential. Performance and operating logic of the countermeasures circuits are Secret.

13. The Joint Helmet Mounted Cueing System (JHMCS) is a modified HGU-55/P helmet that incorporates a visor-projected Heads-Up Display (HUD) to cue weapons and aircraft sensors to air and ground targets. This system projects visual targeting and aircraft performance information on the back of the helmet's visor, enabling the pilot to monitor this information without interrupting his field of view through the cockpit canopy. This provides significant improvement for close combat targeting and engagement. The JHMCS hardware is Unclassified; technical data and documentation are classified up to Secret.

14. 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.

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