

missiles in flight, evaluates potential false alarms, declares validity of threat, and selects appropriate Infrared Countermeasures (IRCM). It includes Electro Optical Missile Sensors, Electronic Control Unit (ECU), Sequencer, and the Improved Countermeasures Dispenser (ICMD) that consists of the Dispenser Assembly and the Payload Module. The ICMD dispenses decoy expendable objects (chaff, flares, etc.) to confuse threat radar devices. In-country repair capability will not be provided. Reverse engineering is not a major concern. The hardware is UNCLASSIFIED when the software is not loaded. The software is classified SECRET.

5. The AN/APR-39, Radar Signal Detecting Set is designed to operate on rotary wing and slow moving fixed wing aircraft to detect, categorize, and prioritize pulse radio frequency emitter illuminating the host platform to allow appropriate countermeasures. This is the 1553 data bus compatible configuration. In-country repair capability will not be provided. Hardware is UNCLASSIFIED when the software is not loaded. The software is CONFIDENTIAL. The system can be programmed with threat data provided by the purchasing country.

6. The AN/AVR-2B Laser Detecting Set is a passive laser warning system that receives processes, and displays threat information resulting from aircraft illumination by laser designators, rangefinders, and beamrider missile guidance systems. The AN/AVR-2B uses the existing AN/APR-39A/D interface for control status and crew warning. The threat information is processed by the AN/APR-39 RSDS, displayed on the aircraft multi-function display and announced by the AN/APR-39 RSDS via the aircraft Inter Communication System. In-country repair capability will not be provided. Reverse engineering is not a major concern. The hardware is classified CONFIDENTIAL; releasable technical manuals for operation and maintenance are classified SECRET.

7. Embedded Global Positioning System (GPS)/Inertial Navigation System (INS). GPS/INS utilize GPS satellite signals to correct or calibrate a solution from an INS. Inertial navigation systems usually can provide an accurate solution only for short duration. The INS accelerometers produce an unknown bias signal that appears as a

genuine specific force. The EGI is Selective Available Anti-Spoofing Module (SAASM) based on navigation platform that combines an inertia sensor for position information and is UNCLASSIFIED. The GPS crypto variables need the highest GPS accuracy and are classified up to SECRET.

8. The AGM-114R Hellfire missile is precision strike, Semi-Active Laser (SAL) guided missile and is the principle air to ground weapon for the AH-64 Apache. The SAL Hellfire missile is guided by laser energy reflected off the target. It has three warhead variants: a dual warhead, shape-charge, high explosive anti-tank capability for armored targets, a blast fragmentation warhead for urban patrol boat and other soft targets and metal augmented charge warhead for urban structures. AGM-114R allows selection of warhead effects corresponding to a specific target type. Hardware for the AGM-114R is UNCLASSIFIED.

9. The highest level for release of the AGM-114R Hellfire III missile 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.

10. The M211-flare is a countermeasure decoy in a 1" x 1" x 8" form factor in an aluminum case cartridge. It consists of case, piston, special material payload foils, and end cap. The special material is a pyrophoric metal (iron) foil that reacts with oxygen to generate infrared energy. The M211 decoys are dispersed from an aircraft to be used as a decoy in combination with the currently fielded M206 and M212 countermeasure flares to protect against advanced air-to-air and surface-to-air missile threats. The hardware is Unclassified and releasable technical manuals for operation and maintenance are classified SECRET.

11. The M36E9 Captive Air Training Missile (CATM) is a Hellfire training missile (Non-NATO) that consists of a functional guidance section coupled to an inert missile bus. The missile has an operational semi-active laser seeker that can search for and lock-on to laser

designated targets for pilot training, but it does not have a warhead or propulsion section and cannot be launched.

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

13. A determination has been made that Qatar can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

14. All defense articles and services listed in this transmittal are authorized for release and export to the Government of Qatar.

[FR Doc. 2019-12665 Filed 6-14-19; 8:45 am]

BILLING CODE 5001-06-P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 18-20]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Arms sales notice.

SUMMARY: The Department of Defense is publishing the unclassified text of an arms sales notification.

FOR FURTHER INFORMATION CONTACT: Karma Job at karma.d.job.civ@mail.mil or (703) 697-8976.

SUPPLEMENTARY INFORMATION: This 36(b)(1) arms sales notification is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 18-20 with attached Policy Justification and Sensitivity of Technology.

Dated: June 11, 2019.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

BILLING CODE 5001-06-P



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

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
H-209, The Capitol
Washington, DC 20515

MAY 03 2019

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. 18-20, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to the Government of Bahrain for defense articles and services estimated to cost \$750 million. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

Charles W. Hooper
Lieutenant General, USA
Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology
4. Regional Balance (Classified document provided under separate cover)

BILLING CODE 5001-06-C

Transmittal No. 18-20

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:* Government of Bahrain

(ii) *Total Estimated Value:*

Major Defense Equipment *	\$400 million
Other	\$350 million
TOTAL	\$750 million

(iii) *Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:*

Major Defense Equipment (MDE):

- Thirty-two (32) AIM-120C-7 AMRAAM Missiles
- One (1) AIM-120C-7 AMRAAM Guidance Section
- Thirty-two (32) AIM-9X Missiles

- Twenty (20) AGM-84 Block II Harpoon Missiles
- Two (2) ATM-84L-1 Block II Harpoon Missiles
- Forty (40) AGM-154 Joint Standoff Weapon (JSOW) All-Up-Rounds
- Fifty (50) AGM-88B High-Speed Anti-Radiation Missiles (HARM)
- Four (4) AGM-88 HARM Training Missiles
- One hundred (100) GBU-39 250 lb Small Diameter Bomb (SDB-1) All-Up-Rounds
- Four hundred (400) MAU-209 C/B Computer Control Groups (GBU-10, -12)
- Eighty (80) MAU-210 Enhanced Computer Control Groups (GBU-49, -50)
- Three hundred forty (340) MXU-650 Air Foil Group (GBU-12, -49)
- One hundred forty (140) MXU-651 Air Foil Groups (GBU-10, -50)

- Seventy (70) KMU-557 GBU-31 Tail Kits (GBU-31 JDAM, GBU-56 JDAM)
- One hundred twenty (120) KMU-572 Tail Kits (GBU-38, -54)
- One hundred (100) DSU-38 Proximity Sensors (GBU-54)
- Four hundred sixty-two (462) MK-82 or BLU-111 500 lb Bomb Bodies (Supporting GBU-12, GBU-38, GBU-49, GBU-54)
- Two hundred ten (210) BLU-109/BLU-117 or MK-84 2000 lb Bomb Bodies (Supporting GBU-10, GBU-31, GBU-50, GBU-56)
- Ten (10) Practice BLU-109/BLU-117
- Six hundred seventy (670) FMU-152 Fuses (supporting GBU-10, -12, -31, -38, -49, -50, -54, & -56)
- Non-MDE:* Also included are LAU-118 launchers; BRU-61 racks; general purpose Air Foil Groups; tactical training rounds; combat arms training and Maintenance Assets; nose support

cups; Swivel/Link attachments; DSU-38/40/42 proximity sensors; Repair and Return services; studies and surveys; weapons system support and test equipment; publications and technical documentation; Alternate Mission Equipment (AME); mission system spares and munitions spare parts; software maintenance and support; missile support and test equipment; common munitions bit/reprogramming equipment; missile and munitions containers; personnel training and training equipment; site surveys; U.S. Government/Contractor technical, engineering, and logistical support; and other related elements of logistics and program support.

(iv) *Military Department: Air Force (BA-D-YAF)*

(v) *Prior Related Cases, if any: BA-D-SAC, BA-D-YAE, BA-D-YBI*

(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 Attached Annex*

(viii) *Date Report Delivered to Congress: May 3, 2019*

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

POLICY JUSTIFICATION

Bahrain—Weapons to Support F-16 Block 70/F-16V Aircraft Fleet

The Government of Bahrain has requested to buy thirty-two (32) AIM-120C-7 AMRAAM missiles; one (1) AIM-120C-7 AMRAAM guidance section; thirty-two (32) AIM-9X missiles; twenty (20) AGM-84 Block II Harpoon missiles; two (2) ATM-84L-1 Block II Harpoon missiles; forty (40) AGM-154 Joint Standoff Weapon (JSOW) All-Up-Rounds; fifty (50) AGM-88B High-Speed Anti-Radiation Missiles (HARM); four (4) AGM-88 HARM training missiles; one hundred (100) GBU-39 250 lb Small Diameter Bomb (SDB-1) All-Up-Rounds; four hundred (400) MAU-209 C/B Computer Control Groups (GBU-10, -12); eighty (80) MAU-210 Enhanced Computer Control Groups (GBU-49, -50); three hundred forty (340) MXU-650 Air Foil Group (GBU-12, -49); one hundred forty (140) MXU-651 Air Foil Groups (GBU-10, -50); seventy (70) KMU-557 GBU-31 tail kits (GBU-31 JDAM, GBU-56 JDAM); one hundred twenty (120) KMU-572 tail kits (GBU-38, -54); one hundred (100) DSU-38 proximity sensors (GBU-54); four hundred sixty-two (462) MK-82 or BLU-111 500 lb Bomb Bodies (Supporting GBU-12, GBU-38, GBU-49, GBU-54); two hundred ten (210) BLU-109/BLU-117 or MK-84 2000 lb Bomb Bodies;

(Supporting GBU-10, GBU-31, GBU-50, GBU-56); ten (10) practice BLU-109/BLU-117; six hundred seventy (670) FMU-152 fuses (supporting GBU-10, -12, -31, -38; -49, -50, -54, & -56). Also included are LAU-118 launchers; BRU-61 racks; general purpose Air Foil Groups; tactical training rounds; combat arms training and Maintenance Assets; nose support cups; Swivel/Link attachments; DSU-38/40/42 proximity sensors; Repair and Return services; studies and surveys; weapons system support and test equipment; publications and technical documentation; Alternate Mission Equipment (AME); mission system spares and munitions spare parts; software maintenance and support; missile support and test equipment; common munitions bit/reprogramming equipment; missile and munitions containers; personnel training and training equipment; site surveys; U.S. Government/Contractor technical, engineering, and logistical support; and other related elements of logistics and program support. The estimated cost is \$750 million.

This proposed sale will support the foreign policy and national security objectives of the United States by helping to improve the security of a major non-NATO ally which is an important security partner in the region. Our mutual defense interests anchor our relationship and the Royal Bahraini Air Force (RBAF) plays a significant role in Bahrain's defense.

The proposed sale improves Bahrain's ability to meet current and future threats. Bahrain will use these capabilities as a deterrent to regional threats and to strengthen its homeland defense. These weapons support the new procurement of F-16 Block 70 and upgrades of existing F-16V aircraft, providing an increase in the capability of existing aircraft to sustain operations, meet training requirements, and support transition training for pilots to the upgraded aircraft. This proposed sale and upgrade will improve interoperability with U.S. forces and other regional allies. Bahrain will have no difficulty absorbing this equipment into its armed forces.

The proposed sale will not alter the basic military balance in the region.

The principal contractors for this effort will be Lockheed Martin Aeronautics Company, Fort Worth, TX; Raytheon Missile Systems, Tucson, AZ; and Boeing Corporation, Chicago, IL. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will require the assignment of at least

two (2) additional U.S. Government representatives to Bahrain.

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

Transmittal No. 18–20

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. Sensitive and/or classified (up to SECRET) elements include hardware, accessories, components, and associated software for the AIM-120C-7, AIM-9X, AGM-88B, AGM-84, AGM-154, GBU-10/12, GBU-31/38, GBU-49/50/54/56, and GBU-39. 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.

2. The AIM-120C-7 Advanced Medium Range Air-to-Air Missile (AMRAAM) is a supersonic, air-launched, aerial intercept, guided missile featuring digital technology and micro-miniature solid-state electronics. The missile employs active radar target tracking, proportional navigation guidance, and active Radio Frequency target detection. It can be launched day or night, in any weather, and increases pilot survivability by allowing the pilot to disengage after missile launch and engage other targets. AMRAAM capabilities include lookdown/shutdown, multiple launches against multiple targets, resistance to electronic countermeasures, and interception of high- and low-flying maneuvering targets. The AMRAAM all up round is classified CONFIDENTIAL, major components and subsystems range from UNCLASSIFIED to CONFIDENTIAL, and technical data and other documentation are classified up to SECRET.

3. AIM-9X Sidewinder missile is an air-to-air guided missile that employs a passive infrared (IR) target acquisition system that features digital technology and micro-miniature solid-state electronics. The AIM-9X tactical and Captive Air Training Missile guidance units are subsets of the overall missile and were recently designated as MDE. The AIM-9X is CONFIDENTIAL. Major components and subsystems range from UNCLASSIFIED to CONFIDENTIAL,

and technical data and other documentation are classified up to SECRET. The overall system classification is SECRET.

The AIM-9X is launched from the aircraft using a LAU-129 guided missile launcher (currently in country inventory). The LAU-129 provides mechanical and electrical interface between missile and aircraft. The LAU-129 system is UNCLASSIFIED.

4. AGM-88B High-Speed Anti-Radiation Missiles (HARM) is an air-to-ground missile designed to destroy or suppress enemy radars used for air defense. HARM has wide frequency coverage, is target reprogrammable in flight, and has a reprogrammable threat library. Hardware and software for the system is classified SECRET and ballistics data is CONFIDENTIAL. The overall system classification is SECRET.

The AGM-88 is launched from the aircraft using a LAU-118A guided missile launcher. The LAU-118A provides mechanical and electrical interface between missile and aircraft. The LAU-118A system is UNCLASSIFIED.

5. GBU-10/12: 2000 lb (GBU-10) and 500 lb (GBU-12) Paveway II (PW-II) laser guided bombs. The PW-II is a maneuverable, free-fall weapon that guides on laser energy reflected off of the target. The PW-II is delivered like a normal general purpose warhead and the laser guidance guides the weapon into the target. Laser designation for the weapon can be provided by a variety of laser target designators. The PW-II consists of a laser guidance kit, a computer control group and a warhead specific air foil group, that attach to the nose and tail of Mk 84, Mk 82 bomb bodies. The weapon components are UNCLASSIFIED. Some technical data and vulnerabilities/countermeasures are classified up to SECRET.

a. The GBU-10: This is a 2000 lb (BLU-117 B/B or Mk 84) General Purpose (GP) guided bomb fitted with the MXU-651 airfoil and the MAU-169 or MAU-209 computer control group to guide to its laser-designated target.

b. The GBU-12: This is a 500 lb (BLU-111/B or Mk-82) guided bomb fitted with the MXU-650 airfoil and the MAU-169 or MAU 209 computer control group to guide to its laser-designated target.

6. GBU-49 and GBU-50 are 500 lb/2000 lb Enhanced Paveway II (EP-II) dual mode laser and GPS guided munitions respectively. The GBU-49/50 uses airfoil groups similar to those used on the GBU-12 and GBU-10 for inflight maneuverability, and uses a MAU-210 Enhanced Computer Control Group. The "enhanced" component is the addition

of GPS guidance to the laser seeker. This dual-mode allows the weapon to operate in all-weather conditions. Weapons components are UNCLASSIFIED.

Technical data and countermeasures/vulnerabilities are SECRET. The overall system classification is SECRET.

7. GBU-31 and GBU-38 2000 lb/500 lb Joint Direct Attack Munitions (JDAM) is a guidance kit that converts existing unguided free-fall bombs into precision-guided munitions. By adding a new tail section containing Inertial Navigation System (INS) guidance/Global Positioning System (GPS) guidance to existing inventories of BLU-109, BLU-111 and BLU-117 or Mk-84 and Mk-82 bombs, the cost effective JDAM provides highly accurate weapon delivery in any "flyable" weather. The INS, using updates from the GPS, helps guide the bomb to the target via the use of movable tail fins. The JDAM and all of its components are UNCLASSIFIED; technical data for JDAM is classified up to SECRET.

8. GBU-54/56 are the 500 lb/2000 lb Laser JDAM. These weapons use the DSU-38/B/DSU-40/42 laser sensor respectively and use both Global Position System aided inertial navigation and/or laser guidance to execute threat targets. The laser sensor enhances standard JDAM's reactive target capability by allowing rapid prosecution of fixed targets with large initial target location errors (TLE). The laser sensor also provides the additional capability to engage mobile targets. The addition of the DSU-38 laser sensor combined with additional cabling and mounting hardware turns a GBU-38 JDAM into a GBU-54 Laser JDAM. The addition of the DSU-40/42 laser sensor combined with additional cabling and mounting hardware turns a GBU-31 JDAM into a GBU-56 Laser JDAM. Weapons components are UNCLASSIFIED. Technical data and countermeasures/vulnerabilities are SECRET. The overall system classification is SECRET.

9. GBU-39 Small Diameter Bomb (SDB-1): The GBU-39 is a 250 lb class precision guided munition that allows aircraft with an ability to carry a high number of bombs. The weapon offers day or night, adverse weather, precision engagement capability against pre-planned fixed or stationary soft, non-hardened, and hardened targets, with a significant standoff range. Aircraft are able to carry four SDB-1s in place of one 2000 lb bomb. The SDB-1 is equipped with a GPS-aided inertial navigation system to attack fixed, stationary targets such as fuel depots and bunkers. The SDB-1 and all of its components are

UNCLASSIFIED; technical data is classified up to SECRET.

10. The AGM-154 Joint Standoff Weapon (JSOW) is a family of low-cost standoff weapons that are modular in design and incorporate either a sub-munition or a unitary warhead. Potential targets for JSOW range from soft targets, such as troop concentrations, to hardened point targets like bunkers. The AGM-154C is a penetrator weapon that carries a BROACH warhead and pay load. The AGM-154 hardware, software and maintenance data is UNCLASSIFIED. Vulnerabilities and countermeasures are classified up to SECRET. Overall system classification is SECRET.

11. The AGM-84L-1 Harpoon provides a day, night, and adverse weather, standoff air-to-surface capability. Harpoon Block II is a follow on to the Harpoon missile, which is no longer in production. Harpoon Block II is an effective Anti-Surface Warfare missile. The AGM-84L-1 Harpoon incorporates components, software, and technical design information that are considered sensitive. The following Harpoon components being conveyed by the proposed sale that are considered sensitive and are classified CONFIDENTIAL include: IIR seeker, INS, OPP software and, missile operational characteristics and performance data. The overall system classification is SECRET.

12. Software, hardware, and other data/information, which is classified or sensitive, is reviewed prior to release to protect system vulnerabilities, design data, and performance parameters. Some end-item hardware, software, and other data identified above are classified at the CONFIDENTIAL and SECRET level. Potential compromise of these systems is controlled through management of the basic software programs of highly sensitive systems and software-controlled weapon systems on a case-by-case basis.

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

14. A determination has been made that Bahrain can provide substantially the same degree of protection of this technology as the U.S. Government. This proposed sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification. Moreover, the benefits to be derived from this sale, as outlined in the Policy

Justification, outweigh the potential damage that could result if the sensitive technology were revealed to unauthorized persons.

15. All defense articles and services listed in this transmittal are authorized for release and export to the Government of Bahrain.

[FR Doc. 2019-12662 Filed 6-14-19; 8:45 am]

BILLING CODE 5001-06-P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 19-26]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense.

ACTION: Arms sales notice.

SUMMARY: The Department of Defense is publishing the unclassified text of an arms sales notification.

FOR FURTHER INFORMATION CONTACT: Karma Job at karma.d.job.civ@mail.mil or (703) 697-8976.

SUPPLEMENTARY INFORMATION: This 36(b)(1) arms sales notification is published to fulfill the requirements of section 155 of Public Law 104-164 dated July 21, 1996. The following is a copy of a letter to the Speaker of the House of Representatives, Transmittal 19-26 with attached Policy Justification and Sensitivity of Technology.

Dated: June 11, 2019.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

BILLING CODE 5001-06-P



DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, STE 203
ARLINGTON, VA 22202-6408

MAY 16 2019

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
11-209, The Capitol
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. 19-26 concerning the Navy's proposed Letter(s) of Offer and Acceptance to the Republic of Korea for defense articles and services estimated to cost \$313.9 million. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

[Signature]
Charles W. Hooper
Lieutenant General, USA
Director

Enclosures:

- 1. Transmittal
2. Policy Justification
3. Sensitivity of Technology

BILLING CODE 5001-06-C

Transmittal No. 19-26

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: Republic of Korea
(ii) Total Estimated Value:

Table with 2 columns: Item, Value. Major Defense Equipment * \$292.4 million, Other \$ 21.5 million, TOTAL \$313.9 million

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase: Major Defense Equipment (MDE):

Up to ninety-four (94) Rounds of SM-2 Block IIIB Standard Missiles
Twelve (12) MK 97 MOD 0 Guidance Sections for SM-2 Block IIIB

Non-MDE: Also included is technical assistance; training and training equipment; publication and technical data; and related logistics support, and other