Billing Code

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 22-06]

Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, Department of Defense (DoD).

ACTION: Arms sales notice.

SUMMARY: The DoD is publishing the unclassified text of an section arms sales notification.

FOR FURTHER INFORMATION CONTACT: Neil Hedlund at neil.g.hedlund.civ@mail.mil or (703) 697-9214.

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 22-06 with attached Policy Justification and Sensitivity of Technology.

Dated: September 21, 2023.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer,

Department of Defense.

DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, SUITE 101
ARLINGTON, VA 22202-5408

FEB 0 3 2022

The Honorable Nancy Pelosi
Speaker of the House
U.S. House of Representatives
H-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. 22-06, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to the Government of Jordan for defense articles and services estimated to cost $4.21 billion. After this letter is delivered to your office, we plan to issue a news release to notify the public of this proposed sale.

Sincerely,

James A. Hursch
Director

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

Transmittal No. 22-06

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 Jordan

(ii) Total Estimated Value:

Major Defense Equipment*	$2.39 billion
Other	$1.82 billion
TOTAL	$4.21 billion

Funding Source: Foreign Military Financing (FMF)

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

Major Defense Equipment (MDE):
Twelve (12) F-16 C Block 70 Aircraft
Four (4) F-16 D Block 70 Aircraft
Twenty-one (21) F100-GE-129D Engines or F100-PW229EEP Engines (16 installed, 5 spares)
Twenty-one (21) Improved Programmable Display Generators (iPDG) (16 installed, 5 spares)
Twenty-one (21) AN/APG-83 Active Electronically Scanned Array (AESA) Scalable Agile Beam Radars (SABR) (16 installed, 5 spares)
Twenty-one (21) Modular Mission Computers (MMC) 7000AH (16 installed, 5 spares)
Twenty-seven (27) LN-260 (or equivalent) Embedded Global Positioning System (GPS) Inertial Navigation Systems (INS) (EGI) with Selective Availability Anti-Spoofing Module (SAASM) and Precise Positioning Service (PPS) (16 installed, 11 spares)
Six (6) AN/AAQ-33 Sniper Advanced Targeting Pods (ATP)
Thirty-one (31) Link 16 Low-Volume Terminals (for aircraft and ground stations) (26 installed, 5 spares)
Seventy-two (72) LAU-129 Launchers (64 installed, 8 spares)
Twenty-one (21) M61A1 Vulcan Cannons (16 installed, 5 spares)
Four Hundred Two (402) FMU-139 or FMU-152 Joint Programmable Fuzes
One Hundred (100) KMU-556 Joint Direct Attack Munition (JDAM) Tail Kits for 2,000LB GBU-31
One Hundred Two (102) KMU-572 JDAM Tail Kits for 500LB Laser JDAM GBU-54
One Hundred (100) MAU-209 Computer Control Group (CCG) for Paveway II (PWII) GBU-10
One Hundred Two (102) MXU-651 Air Foil Group (AFG) for 2,000LB PWII GBU-10
One Hundred (100) MAU-210 Enhanced Computer Control Group (ECCG) for 500LB Enhanced Paveway II (EP II) EGBU-49
One Hundred Three (103) MXU-650 Air Foil Group (AFG) for 500LB EP II EGBU-49
Two Hundred (200) MK-84 or BLU-117 (or equivalent) Bomb Bodies

Two Hundred Four (204) MK-82 or BLU-111 (or equivalent) Bomb Bodies
Six (6) MK-82 Inert Bombs
Two (2) MAU-169 Computer Control Group (CCG) Trainers

Non-MDE:
Also included are AN/ARC-238 radios; AN/APX-126 or equivalent Advanced Identification Friend or Foes (AIFF) with Combined Interrogator Transponder (CIT); Joint Helmet Mounted Cueing System II (JHMCS II) or Scorpion Hybrid Optical-based Inertial Tracker (HObIT) helmet mounted displays; AN/ALQ-254 Viper Shield or equivalent Integrated Electronic Warfare (EW) systems; AN/ALE-47 Countermeasure Dispenser Systems (CMDS); KY-58M Cryptographic Devices; KIV-78 Cryptographic Devices; Simple Key Loaders (SKLs); Joint Mission Planning System (JMPS) or equivalent; PGU-28 High Explosive Incendiary (HEI) ammunition; PGU-27 training ammunition (non-HEI); ARD-446 impulse cartridges; ARD-863 impulse cartridges; BBU-36 impulse cartridges; BBU-35 impulse cartridges; MK-124 smoke flares; MJU-7/B flare cartridges L463 or MJU-53 or equivalent; Common Munitions Built-in-Test (BIT) Reprogramming Equipment (CMBRE); ADU-891 adapters for CMBRE; DSU-38 laser sensors for Laser JDAM GBU-54; Cartridge Actuated Device/Propellant Actuated Devices (CAD/PAD); BRU-57 bomb racks; MAU-12 bomb racks and TER-9A triple ejection racks; other chaff and flare, ammunition, and pylons; launcher adaptors and weapons interfaces; fuel tanks and attached hardware; travel pods; aircraft and weapons integration, test, and support equipment; electronic warfare database and mission data file development; precision measurement and calibration laboratory equipment; secure communications; cryptographic equipment; precision navigation equipment; aircraft and personnel support and test equipment; spare and repair parts; repair and return services; maps, publications, and technical documentation; studies and surveys; classified/unclassified software and software support; personnel training and training equipment; facilities and facility management, design and/or construction services; U.S. Government and contractor engineering, technical and logistics support services; and other related elements of logistical and program support.

(iv) Military Department: Air Force (JO-D-SAC), Navy (JO-P-LCB)

(v) Prior Related Cases, if any: None

(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: **February 3, 2022**

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

POLICY JUSTIFICATION

Jordan – F-16 C/D Block 70 Aircraft

The Government of Jordan has requested to buy twelve (12) F-16 C Block 70 aircraft; four (4) F-16 D Block 70 aircraft; twenty-one (21) F100-GE-129D engines or F100-PW229EEP engines (16 installed, 5 spares); twenty-one (21) Improved Programmable Display Generators (iPDG) (16 installed, 5 spares); twenty-one (21) AN/APG-83 Active Electronically Scanned Array (AESA) Scalable Agile Beam Radars (SABR) (16 installed, 5 spares); twenty-one (21) Modular Mission Computers (MMC) 7000AH (16 installed, 5 spares); twenty-seven (27) LN-260 (or equivalent) Embedded Global Positioning System (GPS) Inertial Navigation Systems (INS) (EGI) with Selective Availability Anti-Spoofing Module (SAASM) and Precise Positioning Service (PPS) (16 installed, 11 spares); six (6) AN/AAQ-33 Sniper Advanced Targeting Pods (ATP); thirty-one (31) Link 16 Low-Volume Terminals (for aircraft and ground stations) (26 installed, 5 spares); seventy-two (72) LAU-129 launchers (64 installed, 8 spares); twenty-one (21) M61A1 Vulcan cannons (16 installed, 5 spares); four hundred two (402) FMU-139 or FMU-152 Joint Programmable fuzes; one hundred (100) KMU-556 Joint Direct Attack Munition (JDAM) tail kits for 2,000LB GBU-31; one hundred two (102) KMU-572 JDAM tail kits for 500LB Laser JDAM GBU-54; one hundred (100) MAU-209 Computer Control Group (CCG) for Paveway II (PWII) GBU-10; one hundred two (102) MXU-651 Air Foil Group (AFG) for 2,000LB PWII GBU-10; one hundred (100) MAU-210 Enhanced Computer Control Group (ECCG) for 500LB Enhanced Paveway II (EP II) EGBU-49; one hundred three (103) MXU-650 Air Foil Group (AFG) for 500LB EP II EGBU-49; two hundred (200) MK-84 or BLU-117 (or equivalent) bomb bodies; two hundred four (204) MK-82 or BLU-111 (or equivalent) bomb bodies; six (6) MK-82 inert bombs; and two (2) MAU-169 Computer Control Group (CCG) trainers. Also included are AN/ARC-238 radios; AN/APX-126 or equivalent Advanced Identification Friend or Foes (AIFF) with Combined Interrogator Transponder (CIT); Joint Helmet Mounted Cueing System II (JHMCS II) or Scorpion Hybrid Optical-based Inertial Tracker (HObIT) helmet mounted displays; AN/ALQ-254 Viper Shield or equivalent Integrated Electronic Warfare (EW) systems; AN/ALE-47 Countermeasure Dispenser Systems (CMDS); KY-58M Cryptographic Devices; KIV-78 Cryptographic Devices; Simple Key Loaders (SKLs); Joint Mission Planning System (JMPS) or equivalent; PGU-28 High Explosive Incendiary (HEI) ammunition; PGU-27 training ammunition (non-HEI); ARD-446 impulse cartridges; ARD-863 impulse cartridges; BBU-36 impulse cartridges; BBU-35 impulse cartridges; MK-124 smoke flares; MJU-7/B flare cartridges L463 or MJU-53 or equivalent; Common Munitions Built-in-Test (BIT) Reprogramming Equipment (CMBRE); ADU-891 adapters for CMBRE; DSU-38 laser sensors for Laser JDAM GBU-54; Cartridge Actuated Device/Propellant Actuated Devices (CAD/PAD); BRU-57 bomb racks; MAU-12 bomb racks and TER-9A triple ejection racks; other chaff and flare, ammunition, and pylons; launcher adaptors and weapons interfaces; fuel tanks and attached hardware; travel pods; aircraft and weapons integration, test, and support equipment; electronic warfare database and mission data file development; precision measurement and calibration laboratory equipment; secure communications; cryptographic equipment; precision navigation equipment; aircraft and personnel support and test equipment; spare and repair parts; repair and return services; maps, publications, and technical documentation; studies and surveys; classified/unclassified software and software support; personnel training and training equipment; facilities and facility management, design and/or construction services; U.S. Government and contractor engineering, technical and logistics support services; and other related elements of logistical and program support. The estimated total cost is $4.21 billion.

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 that is an important force for political stability and economic progress in the Middle East.

The proposed sale will improve Jordan's capability to meet current and future threats by ensuring continued interoperability with U.S. and coalition forces. These aircraft will modernize the Jordanian fighter aircraft fleet and support operational requirements associated with regional U.S.-coalition goals, such as countering violent extremist organizations, countering malign state and non-state actors, and border defense. Jordan will have no difficulty absorbing this equipment into its armed forces.

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

The principal contractor will be Lockheed Martin, Greenville, South Carolina. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale will require the assignment of fewer than twenty (20) U.S. contractor representatives to Jordan for a duration of thirty-six (36) months to support secure storage requirements of critically controlled assets and provide on-site contractor logistics support.

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

Transmittal No. 22-06

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 F-16 Block 70 weapon system is a fourth generation single-engine supersonic all-weather multirole fighter aircraft and features advanced avionics and systems. It contains the General Electric F110-129D engine, AN/APG-83 radar, digital flight control system, embedded internal global navigation system, Joint Helmet Mounted Cueing Systems (JHMCS) II or Scorpion Hybrid Optical-based Inertial Tracker (HObIT) with Night Vision Device (NVD) capability, internal and external Electronic Warfare (EW) equipment, Advanced IFF, Link-16 datalink, operational flight trainer, and software computer programs.

2. The General Electric F110-129 engine is an afterburning turbofan jet engine that powers the F-16.

3. The Improved Programmable Display Generator (iPDG) and color multifunction displays utilize ruggedized commercial liquid crystal display technology that is designed to withstand the harsh environment found in modern fighter cockpits. The display generator is the fifth generation graphics processor for the F-16. Through the use of state-of-the-art microprocessors and graphics engines, it provided orders of magnitude increases in throughput, memory, and graphics capabilities.

4. The Scalable Agile Beam Radar (SABR) APG-83 is an Active Electronically Scanned Array (AESA) radar upgrade for the F-16. It includes higher processor power, higher transmission power, more sensitive receiver electronics, and Synthetic Aperture Radar (SAR), which creates higher-resolution ground maps from a greater distance than existing mechanically scanned array radars (e.g., APG-68). The upgrade features an increase in detection range of air targets, increases in processing speed and memory, as well as significant improvements in all modes.

5. The Modular Mission Computer (MMC) 7000AH is the central aircraft computer of the F-16. It serves as the hub for all aircraft subsystems and avionics data transfer.

6. The Embedded GPS-INS (EGI) with Selective Availability Anti-Spoofing Module (SAASM) is a self-contained navigation system that provides the following: acceleration, velocity, position, attitude, platform azimuth, magnetic and true heading, altitude, body angular rates, time tags, and coordinated universal time (UTC) synchronized time. SAASM enables the GPS receiver access to the encrypted P(Y) signal providing protection against active spoofing attacks.

7. The AN/ALQ-254 Viper Shield or equivalent Integrated Electronic Warfare (EW) Suite provides passive radar warning, wide spectrum Radio Frequency (RF) jamming, and control

and management of the entire EW system. This system is anticipated to be internal to the aircraft although mounted pod variants are used in certain circumstances.

8. The AN/AAQ-33 Sniper Advanced Targeting Pods (ATP) is a single, lightweight targeting pod for military aircraft that provides positive target identification, autonomous tracking, Global Positioning System (GPS) coordinate generation, and precise weapons guidance from extended standoff ranges. It incorporates a high definition mid-wave forward-looking infrared (FLIR), dual-mode laser, visible-light high definition television (HDTV), laser spot tracker, video data link (VDL), and a digital data recorder.

9. The Link-16 is an advanced command, control, communications, and intelligence (C3I) system incorporating high capacity, jam-resistant, digital communication links for exchange of near real-time tactical information, including both data and voice, among air, ground, and sea elements. It provides the warfighter key theater functions such as surveillance, identification, air control, weapons engagement coordination, and direction for all services and allied forces. With modernized cryptography, Link-16 will ensure interoperability into the future.

10. AN/ARC-238 radio with HAVE QUICK II is a voice communications radio system that is equipped with HAVE QUICK II, which employs cryptographic technology. Other waveforms may be included as needed.

11. The AN/APX-126 or equivalent Advanced Identification Friend or Foe (AIFF) Combined Interrogator Transponder (CIT) is a system capable of transmitting and interrogating Mode 5. Mode 4 and Mode 5 anti-jam performance specifications/data, software source code, algorithms, and tempest plans or reports will not be offered, released discussed, or demonstrated.

12. The Joint Helmet Mounted Cueing System II (JHMCS II) or Scorpion Hybrid Optical-based Inertial Tracker (HObIT) is a device used in aircraft to project information to the pilot's eyes and aids in tasks such as cueing 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/her field of view through the cockpit canopy. This provides improvement for close combat targeting and engagement.

13. The AN/ALE-47 Countermeasure Dispenser Set (CMDS) provides an integrated threat-adaptive, computer controlled capability for dispensing chaff, flares, and active radio frequency expendables. The system is internally mounted and may be operated as a stand-alone system or may be integrated with other on-board Electronic Warfare (EW) and avionics systems. The AN/ALE-47 uses threat data received over the aircraft interfaces to assess the threat situation and determine a response. Expendable routines tailored to the immediate aircraft and threat environment may be dispensed using one of four operational modes.

14. The KY-58M is a lightweight terminal for secure voice and data communications. The KY-58M provides wideband/narrowband half duplex communication.

15. The KIV-78 is a crypto applique for IFF. It can be loaded with Mode 5 classified elements.

16. The Simple Key Loader (SKL) is a ruggedized, portable, hand-held device, for securely receiving, storing, and transferring data between compatible cryptographic and communications equipment.

17. Joint Mission Planning System (JMPS) is a multi-platform PC-based mission planning system.

18. The LAU-129 Guided Missile Launcher is capable of launching a single AIM-9 (Sidewinder) family of missiles or AIM-120 Advanced Medium Range Air-to-Air Missile (AMRAAM). The LAU-129 launcher provides mechanical and electrical interface between missile and aircraft.

19. The M61A1 Vulcan Cannon is a six-barreled automatic cannon chambered in 20x120mm with a cyclic rate of fire from 2,500-6,000 shots per minute. This weapon is a hydraulically powered air cooled Gatling gun used to damage/destroy aerial targets, suppress/incapacitate personnel targets and damage or destroy moving and stationary light material targets.

20. The Joint Programmable Fuze FMU-152 or FMU-139 fuzes are multi-delay sensors compatible with weapon guidance kits, tail kits, high-explosive bombs, and reduced collateral damage weapons which provide all arming and detonation event functions combined in a single fuze system.

21. The Joint Direct Attack Munitions (JDAM) is a guidance set that converts existing unguided bomb into an accurate, adverse weather "smart" munition. The Guidance Set consists of a Tail Kit, which contains the Inertial Navigation System (INS) and a Global Positioning System (GPS), a set of Aerosurfaces and an umbilical cover, which allows the JDAM to improve the accuracy of unguided, General Purpose bombs. The JDAM weapon can be delivered from modest standoff ranges at high or low altitudes against a variety of land and surface targets during the day or night. JDAM is capable of receiving target coordinates via preplanned mission data from the delivery aircraft, by onboard aircraft sensors (i.e., FLIR, Radar, etc.) during captive carry, or from a third-party source via manual or automated aircrew cockpit entry. The Guidance Set, when combined with a warhead and appropriate fuze, forms a JDAM Guided Bomb Unit (GBU).

The KMU-556 is the tail kit for a GBU-31, 2,000 pound JDAM.

22. Laser JDAM (Joint Direct Attack Munitions) (GBU-54) converts existing unguided free-fall bombs into precision guided smart munitions by adding a new tail section containing Inertial Navigation System (INS) guidance/Global Positioning System (GPS) guidance and adds a semi-active laser seeker. This allows the weapon to strike targets moving at up to 70 mph. The LJDAM weapon consists of a DSU-38 sensor, a JDAM guidance set installed on bomb body and a fuze. The DSU-38 consists of a laser spot tracker (same size and shape as a DSU-33 proximity fuze), a cable connecting the DSU-38 to the basic JDAM guidance set, a cable cover, cable cover tie down straps, modified tail kit door and wiring harness, and associated modified JDAM software that incorporates navigation and guidance flight software to support both LJDAM and standard JDAM missions.

The KMU-572 is the tail kit for a GBU-54, 500 pound Laser JDAM.

23. The Paveway II (PWII) is a maneuverable, free-fall Laser Guided Bomb (LGB) that guides to a spot of laser energy reflected off the target. The LGB is delivered like a normal general purpose (GP) warhead and the semi-active guidance corrects for many of the normal errors inherent in any delivery system. Laser designation for the LGB can be provided by a variety of laser target markers or designators. An LGB consists of a MAU-209 or MAU-169 Computer Control Group (CCG), that is not warhead specific, and a warhead specific Air Foil Group (AFG) that attaches to the nose and tail of the GP bomb body.

The GBU-10 is a 2,000lb GP bomb body fitted with the MXU-651 AFG to guide to its laser designated target. The inert GBU-12 uses a BDU-50 inert bomb body and MAU-169 CCG trainer for training purposes.

24. The Enhanced Paveway II (EP II) Laser Guided Bomb (LGB) is a maneuverable, all-weather, free-fall weapon that guides to a spot of laser energy reflected off the target. The "enhanced" component is the addition of GPS-aided Inertial Navigation Systems (GAINS) guidance to the laser seeker. Laser designation for the LGB can be provided by a variety of laser target markers or designators. The EP II consists of an MAU-210 Enhanced Computer Control Group (ECCG) that is not warhead specific and a warhead-specific Air Foil Group (AFG) that attaches to the nose and tail of a GP bomb body.

The EGBU-49 is a 500LB GP bomb body fitted with the MXU-650 AFG to guide to its laser-designated target.

25. The Mk-84 General Purpose (GP) bomb body is a 2,000 pound, free-fall, unguided, low-drag weapon.

26. The Mk-82 GP bomb body is a 500 pound, free-fall, unguided, low-drag weapon.

27. Mk-82 inert GP bomb body is a 500 pound, free-fall, unguided, low-drag weapon without the explosive fill.

28. The highest level of classification of defense articles, components, and services included in this potential sale is SECRET.

29. 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.

30. A determination has been made that Jordan 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.

31. All defense articles and services listed in this transmittal have been authorized for release and export to the Government of Jordan.

[FR Doc. 2023-21063 Filed: 9/26/2023 8:45 am; Publication Date: 9/27/2023]