



Billing Code: 5001-06

DEPARTMENT OF DEFENSE

Office of the Secretary

[Transmittal No. 17-54]

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: Pamela Young, (703) 697-9107, pamela.a.young14.civ@mail.mil or Kathy Valadez, (703) 697-9217, kathy.a.valadez.civ@mail.mil; DSCA/DSA-RAN.

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 17-54 with attached Policy Justification, Sensitivity of Technology, and Section 620C(d) Certification.

Dated: November 7, 2017.

Aaron Siegel,

Alternate OSD Federal Register Liaison Officer,

Department of Defense.



DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, SIE 203
ARLINGTON, VA 22202-6108

The Honorable Paul D. Ryan
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

OCT 16 2017

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. 17-54, concerning the Air Force's proposed Letter(s) of Offer and Acceptance to Greece for defense articles and services estimated to cost \$2.404 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,

A handwritten signature in black ink, appearing to read "Charles W. Hooper".

Charles W. Hooper
Lieutenant General, USA
Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology
4. Section 620C(d) Certification



Transmittal No. 17-54

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 Greece

(ii) Total Estimated Value:

Major Defense Equipment* \$.918 billion

Other \$1.486 billion

TOTAL \$2.404 billion

(iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase: The Government of Greece has requested the possible sale of items and services to support the upgrade of up to one hundred twenty-three (123) F-16 aircraft to Block V configuration.

Major Defense Equipment (MDE):

One hundred twenty-five (125) APG-83 Active Electronically Scanned Array (AESA)

Radars (includes 2 spares)

One hundred twenty-three (123) Modular Mission Computers (MMCs)

One hundred twenty-three (123) LINK-16 Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-JTRS) with TACAN and EHSI

One hundred twenty-three (123) LN260 Embedded Global Navigation Systems (EGI)-Inertial Navigation System (INS)

One hundred twenty-three (123) Joint Helmet Mounted Cueing Systems (JHMCS)

One hundred twenty-three (123) Improved Programmable Display Generators (iPDGs)

Non-MDE:

Included in the possible sale are up to one hundred twenty-three (123) APX-126 Advanced Identification Friend or Foe (AIFF) Combined Interrogator Transponder (CIT); one (1) Joint Mission Planning System (JMPS); one (1) F-16V Simulator; upgrade to two (2) existing simulators; one (1) Avionics Level Test Station; Secure Communications, cryptographic equipment and navigation equipment; upgrade and integration of the Advanced Self-Protection Integrated Suite (ASPIS) I to ASPIS II on twenty-six (26) F-16s; Ground Support System, systems integration and test; spares and repair parts, support and test equipment; personnel training and training equipment; publications and technical documentation; U.S. Government and contractor engineering, logistical, and technical support services; and other related elements of logistics and program support.

- (iv) Military Department: Air Force (SNY Amendment 6)
- (v) Prior Related Cases, if any: GR-D-SBD, \$1.3B, 7 Dec 1992; GR-D-SNX, \$2B, 9 Mar 2000; GR-D-SNY, \$1.9B, 13 Dec 2005
- (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: October 16, 2017

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

POLICY JUSTIFICATION

Government of Greece – Upgrade of F-16 Aircraft to an F-16 Block V Configuration

The Government of Greece has requested a possible purchase of an upgrade of its existing F-16 fleet to an F-16 Block V configuration which includes up to one hundred twenty-five (125) APG-83 Active Electronically Scanned Array (AESA) Radars (includes two (2) spares); one hundred twenty-three (123) Modular Mission Computers (MMCs); one hundred twenty-three (123) LINK-16 Multifunctional Information Distribution System Joint Tactical Radio Systems (MIDS-JTRS) with TACAN and EHSI; one hundred twenty-three (123) LN260 Embedded Global Navigation Systems (EGI)/Inertial Navigation Systems (INS); and one hundred twenty-three (123) Improved Programmable Display Generators (iPDGs). Also included in the proposed sale are up to one hundred twenty-three (123) APX-126 Advanced Identification Friend or Foe (AIFF) Combined Interrogator Transponders (CIT); one (1) Joint Mission Planning System (JMPS); one (1) F-16V Simulator; upgrade to two (2) existing simulators; one (1) Avionics Level Test Station; Secure Communications, cryptographic equipment and navigation equipment; upgrade and integration of the Advanced Self-Protection Integrated Suite (ASPIS) I to ASPIS II on twenty-six (26) F-16s; Ground Support System, systems integration and test; spares and repair parts, support and test equipment; personnel training and training equipment; publications and technical documentation; U.S. Government and contractor engineering, logistical, and technical support services; and other related elements of logistics and program support. The total estimated program cost is \$2.404 billion.

This proposed sale will contribute to U.S. foreign policy and national security objectives by helping to improve the security of a NATO ally which is an important partner for political stability and economic progress in Europe. The upgrade of F-16 aircraft to an F-16 Block V configuration will bolster the Hellenic Air Force's ability to support NATO and remain

interoperable with the U.S. and the NATO alliance. It will also help Greece sustain operations in the future, thereby reducing the threat the alliance's enemies pose to the U.S. and the alliance.

The proposed sale will improve Greece's capability to meet current and future security threats. Greece will use this capability as a deterrent to regional threats, strengthen its homeland defense, and execute counter-terrorism operations.

Greece currently employs a mix of F-16s in Block 30, Block 50, Block 52+, and Block 52+ Advanced configurations. Therefore, Greece will have no difficulty absorbing the upgrade of these aircraft from an operation and support standpoint.

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 of Fort Worth, TX. There are currently no known offsets. However, Greece typically requests offsets. Any offset agreement will be defined in negotiations between Greece and the contractor.

The proposed sale will require the assignment of approximately 3-5 additional U.S. Government or contractor representatives to Greece.

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

Transmittal No. 17-54

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 proposed sale for upgrade of Greece's F-16s to Block V will involve the release of sensitive and/or classified (up to SECRET) elements to Greece, including hardware, accessories, components, and associated software. The F-16 Block V aircraft system is UNCLASSIFIED, except as noted below. The aircraft utilizes the F-16 airframe and features advanced avionics and systems including the AN/APG-83 Active Electronically Scanned Array (AESA) Radar, Modular Mission Computers (MMCs); LINK-16 Multifunctional Information Distribution System Joint Tactical Radio System LINK-16 Multifunctional Information Distribution System Joint Tactical Radio System (MIDS-JTRS); Advanced Self-Protection Integrated Suite (ASPIS)

II ship-sets; LN260 Embedded Global Navigation Systems (EGI)-Inertial Navigation System (INS); Joint Helmet Mounted Cueing Systems (JHMCS II); Improved Programmable Display Generators (iPDGs); APX-126 Advanced Identification Friend or Foe (AIFF) Combined Interrogator Transponder (CIT); and Joint Mission Planning System (JMPS).

2. 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 (up to SECRET) to protect vulnerabilities, design, and performance parameters and other similar critical information.

3. The AN/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. The highest classification of the radar is SECRET.

4. The Modular Mission Computer (MMC) is the central aircraft computer of the F-16. It serves as the hub for all aircraft subsystems and avionics data transfer. The hardware and software are classified SECRET.

5. The Multifunctional Informational Distribution System-Joint Tactical Radio System (MIDS-JTRS) is classified CONFIDENTIAL. The MIDS-JTRS is a secure data and voice communication network using Link-16 architecture. The system provides enhanced situational awareness, positive identification of participants within the network, secure fighter-to-fighter connectivity, secure voice capability, and ARN-118 TACAN functionality. It provides three major functions: Air Control, Wide Area Surveillance, and Fighter-to-Fighter. The MIDS-JTRS can be used to transfer data in Air-to-Air, Air-to-Surface, and Air-to-Ground scenarios. The MIDS terminal hardware, publications, performance specifications, operational capability, parameters, vulnerabilities to countermeasures, and software documentation are classified CONFIDENTIAL. The classified information to be provided consists of that which is necessary for the operation, maintenance, and repair (through intermediate level) of the data link terminal, installed systems, and related software.

6. The Advanced Self-Protection Integrated Suite II (ASPIS II) is an enhanced version of the original ASPIS I integrated Electronic Warfare (EW) system, which provides passive radar warning, wide spectrum Radio Frequency (RF) jamming, and control and management of the entire EW system. It is an externally mounted EW pod. The suite includes an ALQ-187 EW System, ALR-93 Radar Warning Receiver, and ALE-47 Countermeasure Dispenser System. Greece has upgraded ASPIS I to II on all but a remaining twenty-six jets. The commercially developed system software and hardware are UNCLASSIFIED. The system is classified SECRET when loaded with a U.S. derived EW database.

7. The Embedded Global Positioning System (EGI)-Inertial Navigation System (INS)/LN-260 is

a sensor that combines Global Positioning System (GPS) and inertial sensor inputs to provide accurate location information for navigation and targeting. The EGI-INS/LN-260 is UNCLASSIFIED. The GPS cryptovvariable keys needed for highest GPS accuracy are classified up to SECRET.

8. 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. In close combat, a pilot must currently align the aircraft to shoot at a target. JHMCS allows the pilot to simply look at a target to shoot. 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. The system uses a magnetic transmitter unit fixed to the pilot's seat and a magnetic field probe mounted on the helmet to define helmet pointing positioning. A Helmet Vehicle Interface (HVI) interacts with the aircraft system bus to provide signal generation for the helmet display. This provides significant improvement for close combat targeting and engagement. Hardware is UNCLASSIFIED; technical data and documents are classified up to SECRET.

9. 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 provides orders of magnitude increases in throughput, memory, and graphics capabilities. The hardware and software are UNCLASSIFIED.

10. The AN/APX-126 Advanced Identification Friend or Foe (AIFF) Combined Interrogator Transponder (CIT) is a system capable of transmitting and interrogating Mode V. It is UNCLASSIFIED unless/until Mode IV and/or Mode V operational evaluator parameters are loaded into the equipment. Elements of the IFF system classified up to SECRET include software object code, operating characteristics, parameters, and technical data. Mode IV and Mode V anti-jam performance specifications/data, software source code, algorithms, and tempest plans or reports will not be offered, released, discussed, or demonstrated.

11. The Joint Mission Planning System (JMPS) is a multi-platform PC based mission planning system. JMPS hardware is UNCLASSIFIED and the software is classified up to 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 obtains knowledge of the specific hardware and software source code in this proposed sale, the information could be used to develop countermeasures or equivalent systems that might reduce weapon system effectiveness or be used in the development of a system with similar or advanced capabilities.

14. Greece is both willing and able to protect U.S. classified military information. Greek physical and document security standards are equivalent to U.S. standards. Greece has signed a General Security of Military Information Agreement (GSOMIA) with the United States and is in negotiations with CENTCOM on the Communications Interoperability and Security Memorandum of Agreement (CISMOA). The Government of Greece has demonstrated its willingness and capability to protect sensitive military technology and information released to its military in the past.

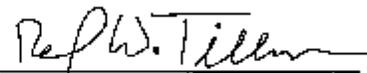
15. A determination has been made that the Greece can provide substantially the same degree of protection for the sensitive technology being released as the U.S. Government. This sale is necessary in furtherance of the U.S. foreign policy and national security objectives outlined in the Policy Justification.

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

**CERTIFICATION PURSUANT TO § 620C(d)
OF THE FOREIGN ASSISTANCE ACT OF 1961, AS AMENDED**

Pursuant to Section 620C(d) of the Foreign Assistance Act of 1961, as amended (the Act), Executive Order 12163 and State Department Delegation of Authority No. 413, I hereby certify that the furnishing to Greece of upgrade package for converting an existing F-16 Block 30/50/52+ fleet to the F-16 Block V configuration is consistent with the principles contained in Section 620C(b) of the Act.

This certification will be made part of the notification to Congress under Section 36(b) of the Arms Export Control Act, as amended, regarding the proposed sale of the above-named articles and services and is based on the justification accompanying such notification, of which such justification constitutes a full explanation.



Rex W. Tillerson
Rex W. Tillerson
Secretary of State