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DEPARTMENT OF DEFENSE

Office of the Secretary

(Transmittal Nos. 15-21)

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 July 21, 1996.

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

The following is a copy of a letter to the Speaker of the House of Representatives, Transmittals 15-21 with attached transmittal, policy justification, and Sensitivity of Technology.

Dated: May 8, 2015.

Aaron Siegel,
Alternate OSD Federal Register Liaison Officer,
Department of Defense.



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

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

MA 114 2015

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. 15-21, concerning the Department of the Air Force's proposed Letter(s) of Offer and Acceptance to Singapore for defense articles and services estimated to cost \$130 million. After this letter is delivered to your office, we plan to issue a press statement to notify the public of this proposed sale.

Sincerely,

A handwritten signature in cursive script, appearing to read "J. W. Rixey".

J. W. Rixey
J. W. Rixey
Vice Admiral, USN
Director

Enclosures:

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



Transmittal No. 15-21

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: Singapore
- (ii) Total Estimated Value:
- | | |
|--------------------------|----------------------|
| Major Defense Equipment* | \$ 85 million |
| Other | <u>\$ 45 million</u> |
| TOTAL | \$130 million |
- (iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase: Singapore has requested a possible sale for the upgrade of 60 F-16C/D/D+ aircraft. The upgrades will address reliability, supportability, and combat effectiveness concerns associated with its aging F-16 fleet. Items included in the proposed sale are 50 Joint Helmet-Mounted Cueing System, 90 AN/APX-126 Advanced Identification Friend or Foe Interrogator/Transponders, 150 LAU-129 Missile Launchers, 8 KMU-572/B 500lbs Joint Direct Attack Munition (JDAM) Tail Kits, 9 KMU-556/B 2000lbs JDAM Tail Kits, 2 FMU-152 Munition Fuze Units, 10 MK-82 500lbs Inert Bombs, 3 MK-84 2000lbs Inert Bombs, 12 LN-260 Embedded Global Positioning System/Inertial Navigation Systems (GPS/INS), 20 GBU-39/B Small Diameter Bombs (SDB), 92 Link-16 Multifunctional Information Distribution System/ Low Volume Terminals (MIDS/LVT), 2 SDB Guided Test Vehicles, Computer Control Group and Tail Assembly for GBU-49, DSU-38/40 Proximity Sensor for JDAM, GBU-39 Tactical training Round, ADU-890/E and 891 Adaptor Group for Common Munitions Built-In-Test/Reprogramming Equipment, Encryption/Decryption devise, MIDS/LVT Ground Support Station, spare and repair parts, repair and return, support equipment, publications and technical documentation, personnel training and training equipment, tool and test equipment, U.S. Government and contractor engineering, technical and logistics support services, and other related elements of program and logistics support.
- (iv) Military Department: Air Force (QAW, Amendment #1)
- (v) Prior Related Cases, if any:
FMS case NCY-\$202M-27Mar10
FMS case QAW-\$1.39B-Pending
- (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: 04 May 2015

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

POLICY JUSTIFICATION

Singapore – F-16 Block 52 Upgrade Program

The Government of Singapore has requested a possible sale for the upgrade of 60 F-16C/D/D+ aircraft. The upgrades will address reliability, supportability, and combat effectiveness concerns associated with its aging F-16 fleet. This proposed sale contains additional requirements not previously identified in congressional notification 13-67. Items included in the proposed sale are 50 Joint Helmet-Mounted Cueing System, 90 AN/APX-126 Advanced Identification Friend or Foe Interrogator/Transponders, 150 LAU-129 Missile Launchers, 8 KMU-572/B 500lbs Joint Direct Attack Munition (JDAM) Tail Kits, 9 KMU-556/B 2000lbs JDAM Tail Kits, 2 FMU-152 Munition Fuze Units, 10 MK-82 500lbs Inert Bombs, 3 MK-84 2000lbs Inert Bombs, 12 LN-260 Embedded Global Positioning System/Inertial Navigation Systems (GPS/INS), 20 GBU-39/B Small Diameter Bombs (SDB), 92 Link-16 Multifunctional Information Distribution System/ Low Volume Terminals (MIDS/LVT), 2 SDB Guided Test Vehicles, Computer Control Group and Tail Assembly for GBU-49, DSU-38/40 Proximity Sensor for JDAM, GBU-39 Tactical training Round, ADU-890/E and 891 Adaptor Group for Common Munitions Built-In-Test/Reprogramming Equipment, Encryption/Decryption device, MIDS/LVT Ground Support Station, spare and repair parts, repair and return, support equipment, publications and technical documentation, personnel training and training equipment, tool and test equipment, U.S. Government and contractor engineering, technical and logistics support services, and other related elements of program and logistics support. The estimated cost is \$130 million.

This proposed sale contributes to the foreign policy and national security of the United States by increasing the ability of the Republic of Singapore Air Force (RSAF) to support regional security. The proposed sale improves the security of a strategic partner which has been, and continues to be, an important force for political stability and economic progress in the Asia-Pacific region.

The proposed upgrade improves both the capabilities and reliability of the RSAF's aging fleet of F-16s. The improved capability, survivability, and reliability of the newly upgraded F-16s will enhance the RSAF's ability to defend its borders and contribute to coalition operations. The RSAF will have no difficulty absorbing this additional equipment and support 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:

The Lockheed Martin Aeronautics Company
BAE Advanced Systems
Boeing Integrated Defense Systems

Fort Worth, Texas
Greenland, New York
St Louis, Missouri

ITT Defense Electronics and Services	McLean, Virginia
ITT Integrated Structures	North Amityville, New York
ITT Night Vision	Roanoke, Virginia
L3 Communications	Arlington, 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 Election Systems	Baltimore, Maryland
The Raytheon Company	Goleta, California
Raytheon Missile Systems	Tucson, Arizona

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

Implementation of the sale will not require the assignment of any additional U.S. Government or contractor representatives to Singapore.

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

Transmittal No. 15-21

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control ActAnnex
Item No. vii(vii) Sensitivity of Technology:

1. 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 improvement for close combat targeting and engagement. Hardware is Unclassified.

2. The AN/APX-126 Advanced Identification Friend or Foe (AIFF) is a system capable of transmitting and interrogation Mode 4 and/or Mode 5. It is Unclassified unless/until Mode 4 and/or Mode 4 operational evaluator parameters are loaded into the equipment. Classified elements of the AIFF system include software object code, operational characteristics, parameter, and technical data. Mode 4 and Mode 5 anti-jam performance specification/data, software source code, algorithms, and TEMPEST plans or reports will not be offered, released discussed, or demonstrated. The AN/APX-126 classified up to Secret when mode 4 operational evaluator parameters are loaded into the classified element.

3. The Joint Direct Attack Munitions (JDAM) is a guidance tail kit that converts unguided free-fall bombs into accurate, adverse weather "smart" munitions. With the addition of a new tail section that contains an inertial navigational system and a global positioning system guidance control unit, JDAM improves the accuracy of unguided, general-purpose bombs in any weather condition. JDAM can be launched from very low to very high altitudes in a dive, toss and loft, or in straight and level flight with an on-axis or off-axis delivery. JDAM enables multiple weapons to be directed against single or multiple targets on a single pass. The JDAM All Up Round and all of its components are unclassified, technical data for JDAM is classified up to Secret.

4. The GBU-39/B Small Diameter Bomb is a 250 pound class weapon designed as a small, all weather, autonomous, conventional, air-to-ground, precision glide weapon able to strike fixed and stationary re-locatable targets from standoff range. The payload/warhead is a very effective multipurpose penetrating and blast fragmentation warhead coupled with a cockpit selectable electronic fuze. Its size and accuracy allow for an effective munition with less collateral damage. Sensitive and/or classified (up to

Secret) elements of the proposed acquisition includes hardware, accessories, components, and associated software.

5. The Multifunctional Information Distribution System/Low Volume Terminal (MIDS/LVT) is an advanced Link-16 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. The MIDS/LVT 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 MK-82/84 inert bombs are 500lbs/2000lbs practice general purpose bombs respectively designed to attack soft and intermediately protected targets. These bomb are used during program development, integration, and testing. The weapons are Unclassified.

7. If a technologically advanced adversary obtains knowledge of the specific hardware and software elements, 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.

8. A determination has been made that the recipient country 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.

9. All defense articles and services listed in this transmittal have been authorized for release and export to Singapore.