

**DEPARTMENT OF DEFENSE****Office of the Secretary****Science, Mathematics, and Research for Transformation (SMART) Defense Education Program**

**AGENCY:** Office of the Under Secretary of Defense for Research and Engineering, DoD.

**ACTION:** SMART notice.

**SUMMARY:** The Science, Mathematics, and Research for Transformation (SMART) Defense Education Program is a Department of Defense (DoD) scholarship for service program that was established in 2005 as a means to recruit and retain civilian scientists and engineers working at DoD laboratories and facilities. The initial pilot program was made permanent by Congress in 2006. From 2005 to 2017, the SMART program has awarded 2,386 scholarships across 19 science, technology, engineering, and mathematics (STEM) disciplines (identified by DoD as critical workforce needs) and placed scholars from all 50 states, the District of Columbia, and Puerto Rico at 162 DoD laboratories and facilities. This notice informs the public that applicants are solicited annually to participate in the SMART Program.

**FOR FURTHER INFORMATION CONTACT:** Tylar Temple: 571-372-6535, email: [osd.smart@mail.mil](mailto:osd.smart@mail.mil).

**SUPPLEMENTARY INFORMATION:** The DoD Science, Mathematics, and Research for Transformation (SMART) Defense Education Program, (SMART Program) authorized by 10 U.S.C. 2192a is part of the National Defense Education Program. The SMART Program is public funded using the DoD appropriations and is designed to increase the number of new civilian science, technology, engineering, and mathematics (STEM) entrants to the DoD; in addition the SMART Program develops and retains current DoD civilian STEM employees that are critical to the national security functions of the DoD and are needed in the DoD workforce. SMART Program awards scholarships, ranging from 1 year to 5 years, to undergraduate- and graduate-level students pursuing a degree in one of 19 technical disciplines. Upon graduation, participants fulfill a service commitment with the DoD facility that selected the participant for an award (the sponsoring facility, or SF).

The SMART Program requires a competitive application process. Eligible persons must be U.S. citizens at

the time of application, or a citizen of a country the government of which is a party to The Technical Cooperation Program (TTCP) memorandum of understanding of October 24, 1995; be 18 years or older at the time of entry into the program, must participate in summer internships at DoD laboratories; willing to accept post-graduation employment with the DoD, in good standing with a minimum GPA of 3.0 on a 4.0 scale; (2) pursuing an associate, undergraduate or advanced degree in one of the 19 program-funded disciplines, and (3) eligible to obtain and maintain a secret level security clearance.

Each year applicants may apply for the program on line beginning in August at <http://smartscholarship.org>. The application process closes in December. Starting in 2018, DoD will publish a notice annually in the **Federal Register** announcing the timeframe for submitting applications. Information is required so that the application may be evaluated for compliance with statutory eligibility requirements, academic merit, and compatibility with DoD workforce needs. See 10 U.S.C. Section 2192a(a). The information collected consists of applications submitted by members of the general public and current DoD personnel who actively choose to become involved in the SMART Program and thus become subject to information collection. The applications may include information on academic records, community and volunteer activities, letters of recommendations from faculty and community leaders, a list of publications, work experience, certification of citizenship and personal contact information. This information is necessary to evaluate and rank each candidate's credentials for awarding scholarships and determining whether the candidate meets specific DoD facility workforce needs. The collection of this information has been approved by the Office of Management and Budget (OMB) in accordance with the requirements of the Paperwork Reduction Act and assigned OMB Control Number 0704-0466.

The DoD Components select SMART Program awardees. SMART Program awards are finalized and communicated to the awardee not later than May 15 of each year, provided monies have been appropriated by Congress. In order to receive financial assistance through the SMART Program, the awardee must sign a service agreement. See 10 U.S.C. Section 2192a(c). The period of obligated service for a recipient of

financial assistance is the total period of pursuit of a degree that is covered by such financial assistance. See 10 U.S.C. Section 2192a(c)(2). The period of obligated service is in addition to any other period for which the recipient is obligated to serve in the civil service of the United States. Pursuant to 10 U.S.C. 2192a(d), the Secretary may appoint to the excepted service an individual who successfully completed the SMART program.

A SMART Program participant is in default of the service agreement if the participant (1) voluntarily fails to complete the educational program; (2) fails to maintain satisfactory academic progress; (3) voluntarily terminates employment with the DoD or (4) is removed from employment with DoD on the basis of misconduct. When there is a default of a service agreement, the DoD Component head executing the SMART Program will determine the appropriate amount to be recouped by the United States in accordance with the provisions of 10 U.S.C. 2192a(e).

Dated: February 1, 2019.

**Aaron T. Siegel,**

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*

[FR Doc. 2019-01313 Filed 2-5-19; 8:45 am]

**BILLING CODE 5001-06-P**

**DEPARTMENT OF DEFENSE****Office of the Secretary**

[Transmittal No. 18-08]

**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](mailto: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 18-08 with attached Policy Justification.

Dated: February 1, 2019.

**Shelly E. Finke,**

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*



## DEFENSE SECURITY COOPERATION AGENCY

201 12<sup>TH</sup> STREET SOUTH, STE 203  
ARLINGTON, VA 22202-5408

NOV 28 2018

The Honorable Paul D. Ryan  
Speaker of the House  
U.S. House of Representatives  
H-209, The Capitol  
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. 18-08, concerning the Army's proposed Letter(s) of Offer and Acceptance to the Government of Morocco for defense articles and services estimated to cost \$1.259 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 dark ink, appearing to read "C. Hooper", is written over the typed name and title.

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)

Transmittal No. 18–08

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*: Kingdom of Morocco

(ii) *Total Estimated Value*:

Major Defense Equipment *	\$ .009 billion
Other .....	\$1.250 billion

TOTAL .....	\$1.259 billion
-------------	-----------------

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

Enhancement of one hundred sixty-two (162) Abrams tanks procured through the Excess Defense Articles (EDA) program to one of the following variants: M1A1 Situational Awareness (baseline version), M1A2M (includes Commander's Independent Thermal Viewer) or M1A1 U.S. Marine Corps version (includes Slew to Cue).

*Major Defense Equipment (MDE)*:

One hundred sixty-two (162) M2 Chrysler Mount Machine Guns  
Three hundred twenty-four (324) M240 Machine Guns  
One thousand thirty-five (1,035) M865 Training SABOT Rounds  
One thousand six hundred ten (1,610) M831A1 HEAT Rounds

*Non-MDE*:

Also included are one hundred sixty-two (162) Export Single Channel Ground and Airborne Radio System (SINCGARS); one hundred sixty-two (162) RT–1702 Receiver Transmitter; one hundred sixty-two (162) M250 Smoke Grenade Launchers; M962 .50 caliber rounds; special armor; Hunter/Killer technology, which may include the Commander's Independent Thermal Viewer (CITV) or Slew to Cue solution; Commander's Weapon Station Variant which may include the Commander's Weapon Station (CWS), Stabilized Commander's Weapon Station (SCWS), or Common Remotely Operated Weapon Station-Low Profile (CROW-LP); spare parts; support equipment; upgrade/maintenance of engines and transmissions; depot level support; Government-Furnished Equipment (GFE); repair parts; communication support equipment; tool and test equipment; training; U.S. Government and contractor engineering, technical, and logistics support services; and other related elements of logistics and program support.

(iv) *Military Department*: Army (MO–B–USQ, Amendment 1)

(v) *Prior Related Cases, if any*: MO–B–USQ

(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*: November 28, 2018

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

#### POLICY JUSTIFICATION

##### *Morocco—Abrams Tank Enhancement, Support, and Equipment*

The Government of Morocco has requested to purchase enhancements to one hundred sixty-two (162) Abrams tanks procured through the Excess Defense Article (EDA) program to one of the following variants: M1A1 Situational Awareness (baseline version), M1A2M (includes Commander's Independent Thermal Viewer) or M1A1 U.S. Marine Corps version (includes Slew to Cue). Included in the possible sale are one hundred sixty-two (162) M2 Chrysler Mount Machine Guns; three hundred twenty-four (324) M240 Machine Guns; one thousand thirty-five (1,035) M865 Training SABOT Rounds; and one thousand, six hundred ten (1,610) M831A1 HEAT Rounds. Also included are one hundred sixty-two (162) Export Single Channel Ground and Airborne Radio System (SINCGARS); one hundred sixty-two (162) RT–1702 Receiver Transmitter; one hundred sixty-two (162) M250 Smoke Grenade Launchers; M962 .50 caliber rounds; special armor; Hunter/Killer technology, which may include the Commander's Independent Thermal Viewer (CITV) or Slew to Cue solution; Commander's Weapon Station Variant which may include the Commander's Weapon Station (CWS), Stabilized Commander's Weapon Station (SCWS), or Common Remotely Operated Weapon Station-Low Profile (CROW-LP); spare parts; support equipment; upgrade/maintenance of engines and transmissions; depot level support; Government-Furnished Equipment (GFE); repair parts; communication support equipment; tool and test equipment; training; U.S. Government and contractor engineering, technical, and logistics support services; and other related elements of logistics and program support. The total estimated program cost is \$1.259 billion.

This proposed sale will support the foreign policy and national security objectives of the United States by improving the security and capacity of a major Non-NATO Ally.

This proposed sale of M1A1 tank enhancements will contribute to the modernization of Morocco's tank fleet,

enhancing its ability to meet current and future threats. These tanks will contribute to Morocco's goal of updating its military capability while further enhancing interoperability with the United States and other allies. Morocco 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 prime contractor will be General Dynamics Land Systems in Sterling Heights, Michigan. Refurbishment work will be performed at Anniston Army Depot in Anniston, Alabama and the Joint Systems Manufacturing Center in Lima, Ohio. There are currently no known offset agreements proposed in connection with this potential sale, but one is expected due to Moroccan law.

Implementation of this proposed sale will require annual trips to Morocco involving up to 55 U.S. Government and 13 contractor representatives for a period of up to five years to manage the fielding and training for the program.

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

Transmittal No. 18–08

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. Thermal Imaging System (TIS). The TIS constitutes a target acquisition system which, when operated with other tank systems, gives the tank crew a substantial advantage over the potential threat. The TIS provides the gunner and commander with the ability to effectively aim and fire the tank main armament system under a broad range of adverse battlefield conditions. The Hunter/Killer technology provides the capability for the commander to search and acquire targets while the gunner engages priority targets. The hardware itself is UNCLASSIFIED. The engineering design and manufacturing data associated with the detector and infrared (IR) optics and coatings are considered sensitive. The technical data package is UNCLASSIFIED with the exception of the specifications for target acquisition range (CONFIDENTIAL).

2. Special Armor. Major components of special armor are fabricated in sealed modules and in serialized removable subassemblies. Special armor vulnerability data for both chemical and kinetic energy rounds are classified SECRET. Engineering design and

manufacturing data related to special armor are also classified SECRET.

3. AGT 1500 Gas Turbine Propulsion System. The use of a gas turbine propulsion system in the M1A1 Abrams tank is a unique application of armored vehicle power pack technology. The hardware is composed of the AGT-1500 engine and transmission, and is not classified. Manufacturing processes associated with the production of turbine blades, recuperator, bearings and shafts, and hydrostatic pump and motor, are proprietary and therefore commercially competition sensitive.

4. Compartmentation. A major survivability feature of the Abrams Tank is the compartmentation of fuel and ammunition. Compartmentation is the positive separation of the crew and critical components from combustible materials such that in the event that the fuel or ammunition is ignited or deteriorated by an incoming threat round, the crew is fully protected. As demonstrated during the Abram Live Fire tests, compartmentation significantly enhances crew survivability and substantially reduces the likelihood of the tank being immobilized by an ammunition explosion and fire. Sensitive information includes the performance of the ammunition compartments as well as the compartment design parameters.

5. 120mm Gun and Ammunition. This gun and ammunition suite are composed of a 120mm smoothbore gun manufactured at Watervliet Arsenal, "long rod" APFSDS warheads, and combustible cartridge case ammunition. The current plan is to supply used cannons inducted at Anniston Army Depot, which are to be inspected according to established criteria and shipped to Lima Army Tank Plant. There may not be a need to procure new cannons for this program.

6. The CROWS-LP (M153A2E1) is a commander's weapon station. It allows

for under armor operation of weapons—M2HB, M2A1, M240B and M240. The CROWS-LP is an updated version of the M153A2 CROWS that is approximately 10 inches shorter; the CROWS-LP M153A2E1 increases visibility over the weapon station. The fire control system of the CROWS-LP allows for "first-burst" on target capability from stationary and moving platforms. The CROWS-LP incorporates a day camera (VIM-C), thermal camera (TIM 1500) and laser range finder (STORM/STORM-PI).

7. M831A1 Target Practice-Tracer (TP-T). The M831A1 cartridge is a target practice round used to simulate the ballistics of the M830 High Explosive Anti-tank Multiple Purpose with Tracer (HEAT MP-T). The external cartridge is identical in appearance to the M830, but the round does not contain any explosives, shape charge liner, base fuze, or nose cap. The highest level of information that could be transferred with the sale of this round is UNCLASSIFIED. There are no sensitivity of technology issues with the HEAT MP-T, and the round is UNCLASSIFIED.

8. M865 Target Practice, Cone Stabilized, Discarding Sabot-Tracer. The M856 is a kinetic energy training round used to simulate the ballistics of the M829 Armor-piercing, Finstabilized, Discarding Sabot-Tracer service round. The M856 utilizes a unique cone stabilizer to limit the training round's flight range to 8km. The highest level of information that could be transferred with the sale of this round is UNCLASSIFIED.

9. If a technologically advanced adversary were to obtain knowledge of the hardware and software elements, the information could be used to develop countermeasures or equivalent systems which might reduce system effectiveness or be used in the

development of a system with similar or advanced capabilities.

10. A determination has been made that the Government of Morocco 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.

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

[FR Doc. 2019-01227 Filed 2-5-19; 8:45 am]

BILLING CODE 5001-06-P

## DEPARTMENT OF DEFENSE

### Office of the Secretary

[Transmittal No. 19-07]

### 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](mailto: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 19-07 with attached Policy Justification.

Dated: February 1, 2019.

**Shelly E. Finke,**

*Alternate OSD Federal Register Liaison Officer, Department of Defense.*

BILLING CODE 5001-06-P