

**PERFORMANCE WORK STATEMENT (PWS)**

**Mobile Vehicle Barrier Maintenance**

**6 December 2022**

## **1.0 DESCRIPTION OF SERVICES/GENERAL INFORMATION**

- 1.1. Description of Services: This is a non-personal services contract to provide preventative and emergency maintenance support for five (5) deployable and mobile Nasatka Security mobile vehicle barriers (Nasatka barriers) at Kirtland Air Force Base (KAFB), Albuquerque, New Mexico. The Government shall not exercise any supervision or control over the contract service providers performing the services herein. Such contract service providers shall be accountable solely to the contractor who, in turn is responsible to the Government.
- 1.1.2 Background: Nasatka barriers located at two Installation Access Control Points (IACPs) at the Wyoming Gate and Maxwell Housing Gate at KAFB positions enable more than 3,000 vehicles to enter the installation and housing areas each 24-hour work cycle. The systems are utilized in a “closed” configuration with regular testing for operation of the emergency activation function. The mobile anti-vehicle barriers were purchased and positioned in 2021. The warranty that came with purchase of barriers is expired. While KAFB programs permanent replacements for these barrier systems, interim preventative, and emergency on-call maintenance is necessary to ensure continued use of these IACPs for base population transit.
- 1.1.3 Scope of Work: The contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform work defined in this PWS. The contractor shall perform to the standards in this contract. The objective of this requirement is for the contractor to provide certified technicians who will provide preventative maintenance and emergency services to five (5) Nasatka barriers at IACPs located at the Wyoming Gate and Maxwell Housing Gate. The contractor shall inspect, maintain, service, and repair in accordance with Nasatka Security NMSB XV-Portable User Manual (Nasatka Manual) (Attachment 1 to this PWS) recommendations ensuring barriers operate at optimal conditions as defined in paragraph 1.2.3. The services include electrical, mechanical, and hydraulic work. The contractor shall also provide 24/7 emergency support and services and maintain a bench-stock of parts recommended by manufacturer to rapidly return the barriers to optimal operating conditions. Services are further detailed in the paragraphs below.
- 1.2 PERFORMANCE OBJECTIVES:
  - 1.2.1 Preventative Maintenance Inspection (PMI): The contractor shall conduct an initial on-site preventative maintenance assessment and component match check of each asset to determine exiting equipment conditions and operational function status. Contractor must coordinate date and time with Government point of contact (POC) to perform initial on-site assessment within five (5) business days of award of contract. As part of the initial assessment, the contractor shall review past performance preventative maintenance and corrective (repair) maintenance service records to determine possible reoccurring operating, mechanical or structural concerns of subject equipment assets. After the initial assessment, the contractor shall produce a detailed preventative maintenance inspection (PMI) plan. The PMI plan must be written in accordance with Nasatka Manual recommendations and shall include the preventative maintenance checklist located in Chapter 6 of the Nasatka Manual.

1.2.1.1 The plan shall include a determination of any reoccurring operating, mechanical or structural concerns of subject equipment, a schedule that includes all required inspections, tests, services, and repairs necessary to maintain all vehicle barrier systems at optimal operating condition as defined in paragraph 1.2.3. The plan shall also include a recommended spare parts/operator inventory list, and address the following:

- Environmental Operating Conditions (weather, salt, dust, water tables, etc.);
- Hourly, Daily, Annual minimum and maximum operational cycle usage;
- Continuous operating cycle speeds (standard vs. emergency fast);
- Configured operating cycle speed open/close rate;
- Stagnation / Idle usage;
- Installation Conditions (slopes, depths, drainage, landscaping obstructions, etc.);
- AVB Clear Opening or other specified size(s);
- Power Distribution;
- Vehicular impacts (accidental or intentional);
- Material composition and design (hinges, etc.);
- Sequence of Operation (SOO) events of varying installation complexity of integrated components;
- Subject to daily or continuous traffic passage over and on certain barriers system(s);
- Weight loads passage over and on barrier system(s);
- Operator and/or System configuration;
- End User Standard Operating Procedures (SOP),;
- Complexity of integrated components requiring adjustments, calibration, & program enhancements.

1.2.1.2 The contractor shall submit the PMI plan to the Contracting Officer (CO) and the Government POC within ten (10) calendar days of initial assessment. The contractor shall perform preventative maintenance in accordance with the PMI plan and manufacturer recommendations. If the contractor cannot perform preventative maintenance in accordance with the PMI plan, the contractor shall immediately notify the Government POC and provide the date the preventative maintenance will be performed. All revisions to PMI plan shall be submitted to the CO and Government POC within five (5) days of revision.

1.2.2 Preventative Maintenance: The contractor shall conduct monthly preventative maintenance inspections (PMI) and related services to sustain the barrier systems and prevent service interruptions to the barriers located at the Wyoming and Maxwell IACPs. The contractor shall adjust, replace, or repair items not functioning properly or needing repair/replacement, including, but not limited to, tightening/replacing missing/loose/stripped fittings/nuts/bolts/screws, electrical connections/wires, battery connection/performance, timing adjustment, lights, repainting, warning signals, etc.

The contractor shall provide all parts and service less than \$3,000, minor repair services, painting, and annual oil replacement as part of preventative maintenance. Corrective actions shall be performed during PMI service to correct any deficiency identified on any

of the barrier systems. Preventative maintenance services are included in the monthly fixed price and at no additional cost to the Government.

- 1.2.3 Fully Operational is defined as meeting manufacturer delineated operational capabilities, hydraulic, electronic requirements, and material builds. Critical characteristics for a reported return to service are underlined though all characteristics should be maintained as close to manufacturer specifications as possible.

- 1.2.3.1 Operating Modes Required:

A) Manual: Bar/lever operation.

**B) Normal (Hydraulic): Raise and lower barrier per operator input**

- 1.2.3.2 Characteristics to maintain full function:

**Crash Rating:** 15,000 LBS. (6804 kg) @ 30 mph (65 km/h), (M30/P3/K4)

**Engineered Rating:** 15,000 LBS. (6804 kg) @ 50 mph (80 km/h),  
(K12/L1) with 9,000 lbs. ballast each side.

**Clear Opening:** Nominal 12 foot (3.66 m) gate opening.

**Barrier Material:** The NMSB XV-P major components are ASTM A36 steel.

**Barrier Height:** In the fully secure position, the barrier gate plate height above the ground is 33 inches  $\pm$  1-inch.

**Barrier Weight:** Approximately 9,000 LBS. (4.08 MT) + or – 300LBS following repair

**Response time:** The barrier will deploy to the secure position in approximately 3-5 seconds and to the nonsecure position in approximately 3-5 seconds using hydraulic power.

**Cycling Time:** The hydraulic pump system is capable of completing five (5) cycles per minute. Half cycle (Nonsecure or Secure) time is approximately 3-4seconds under normal operation, with a minimum of 100 full cycles on a fully charged system.

**Normal Activation:** Electrically-driven hydraulic pump operating at a pressure of 800 PSI and a flow rate of 2.31 GPM (8.7 LPM) is used to operate a double-acting cylinder.

**Position Selection:** The system shall be constructed such that the barrier remains in the position selected (open, closed) by the operator (i.e. no external hydraulic force shall be required to hold the barrier in the last commanded position).

**Oil Containment:** The barrier shall meet Environmental Protection Agency standards for oil containment. Oil containment pits shall hold 1 gallon of oil for each ½ gallon of oil in the reservoir.

**Galvanized:** All steel components of the barrier are hot dip galvanized.

**Barrier Finish:** The entire barrier is hot dip galvanized – Impact side has a red reflective STOP affixed to the gate plate.

- 1.2.3.3 Fully operational HYDRAULIC PUMP unit requirements:

**Primary Voltage:** The NMSB XV-P requires 120 VAC, Single Phase, 60 Hz, 20 Amp feed for the Battery Charger. The horsepower rating for the 12 VDC motor is 1 HP.

**Hydraulic Fluid:**

Type: RSC FUTERRA HF32 Biodegradable Hydraulic Fluid

Capacity: Two (2) gallon nominal

Pump Maximum Output: 1000 PSI – Relief Valve Setting

**Barrier Requirements: 800 PSI**

Operating temperature: The maximum ambient air operating temperature range of the barrier is -32° F to 135° F (-35° C to 57° C).

**System Controller:** Relays and timers synchronized to properly operate the barrier system. Controls operate on 24 VDC.

**Traffic Signals:** 24 VDC LED Bulbs

**Control Pendant:** A tether pendant control that can be connected at either side of the barrier. Nonsecure and Secure buttons are push to operation.

**Charger Power Source:** 120 VAC, 1 Phase, 60 Hz, 20 Amp, 3 Wire

- 1.2.4 **Minor Corrective Maintenance:** Preventative maintenance tasks that uncover material deficiency of bench-stock recommended parts in Chapter 7 of Nasatka Manual will be corrected as part of the preventative maintenance visit whenever possible. The material listed in paragraph 1.2.15 are considered “bench stock.”
- 1.2.5 **Corrective Maintenance:** The contractor shall perform all corrective maintenance, including operational adjustments, repairs, and/or replacement of hardware, bulbs, bolts, screws, painting, etc., and oil required to restoring barrier systems to optimum working conditions. When parts, pieces, or labor required to restore barrier systems to optimum working conditions total \$3,000 or more, the contractor must obtain written approval from the Government POC prior to ordering or completing work. The contractor shall document all work requests for services, reflecting the status of each system before and after the work is completed. All worn parts must be made available to the Government POC or CO upon request.
- 1.2.8 **Repair Delays:** If the contractor is unable to perform repairs due to circumstances beyond the contractor’s control (e.g. awaiting parts), the contractor shall immediately notify Government POC of the delay and provide an estimated repair date if this occurs, emergency service calls may revert to a routine service call at the Government POC's discretion.
- 1.2.9 **Paint/Appearance:** The contractor shall maintain barrier systems in accordance with manufacturer’s recommendations. The contractor shall touch up barrier systems every summer, and re-paint by the end of the 2nd option year. Repainting will require removing the existing paint by grinding, sandblasting, or other manufacture recommended method for all barriers.
- 1.2.10 **Warranty:** The contractor shall provide one-year parts and labor warranty or a warranty in accordance with commercial standards, whichever is longer, for all components installed. The warranty shall commence upon installation of new equipment or system completion and acceptance by the Government POC. The contractor shall respond to all warranty requests in accordance with routine maintenance service and repair procedures in this PWS.
- 1.2.11 **Barrier System Shut Down Notification:** The contractor shall not service barriers in a manner that completely denies entrance and egress to any gate without prior coordination

and authorization from the Government POC. The contractor shall notify the Government POC and 377th Security Forces Squadron of any necessary barrier system shut down. The contractor shall immediately inform the Government POC of any barrier system condition that will adversely affect the traffic flow and provide a projected fix date for any repair that cannot be completed on the same day.

- 1.2.12 Records, Reports, and Maintenance Logs: The contractor shall provide operations and maintenance (O&M) checklists and maintenance logs to the Government POC detailing work accomplished, including a complete history of maintenance and/or repairs, to include dates and names of technicians who performed the work. The contractor shall prepare and maintain all records and reports of contractor services performed for the duration of the contract. The contractor shall make available all records of services to the Government POC and provide an electronic copy of the maintenance log within five business days upon completion of each service.
- 1.2.13 Routine Service Calls: Routine service calls will be placed for work that is not classified as emergency. The contractor shall respond to routine calls within one business day. The contractor shall ensure all barrier systems are returned to a fully functional state, within five (5) business days after receipt of a routine service call based on parts availability.
- 1.2.14 Emergency Service Calls: Emergency service calls will be placed for the correction of barrier systems conditions that constitute an immediate danger to personnel, threatened property, or delayed traffic flow. Example conditions that could lead to emergency service calls include any situation where safety measures are non-functioning, including but not limited to the safe stopping distance loop, lighting malfunction, sign damage, barrier stuck in the “up” or partially “up” position, or where the rapid activation of the barrier using the Emergency Fast Operation switch is not possible.
  - 1.2.14.1 If an emergency call is received during normal business hours, as defined in paragraph 1.4.2 the contractor shall respond within one (1) hour to discuss the problem and if necessary, schedule a technician service visit. Within 72 hours of that call, the contractor will either return the barrier to full operation or provide a report of malfunction (see paragraph 1.2.14.5). When calls are made outside of normal business hours the contractor must respond within four (4) hours. The following specific tasks are required during emergency service call requests:
    - 1.2.14.2 Inspection: The technician shall review Preventative Maintenance Technical (PMT) tasks and complete a PMT worksheet identifying the issues and work accomplished during the on-site visit.
    - 1.2.14.3 Corrective Maintenance: Minor repairs utilizing bench-stock recommended parts listed in Chapter 7 of the Nasatka manual will be executed to return the barrier to full operation.
    - 1.2.14.4 Operational Testing: In conjunction with 377 Security Forces Flight leadership, the technician will observe an operational test at the completion of corrective maintenance activity to certify the barrier has returned to its full operational capability.

- 1.2.14.5 **Reporting in lieu of corrective maintenance:** If parts or labor exceed the boundaries of what is provided in this contract or total \$3,000 or more for any part and/or service, the contractor will generate a report and provide report to the Government POC within 72 hours of inspection. The report shall include the root cause of barrier malfunction, identification and estimates of parts and labor necessary to return the barrier to service and shall specify purchase avenues of parts (through manufacturer or other vendors).
- 1.2.14.6 **Customer Service Call Procedures:** In the case that the manufacturer is the only viable source for completing repairs and returning the barrier to full operations. The contractor will complete the Nasatka customer service call required information summary that will include: details of barrier issue, including worksite location, gate or other interior location information, make/model/serial number of barrier, nature of problem, etc.
- 1.2.15 **Period of Performance:** The period of performance shall be for one (1) Base Year of 12 months and two (2) 12-month option years.
- 1.2.16 **Equipment:** The equipment supplied by Nastaka will not be removed without prior written consent from the commander of the 377 Security Forces Squadron. This equipment is as follows:

PART NUMBER	NOMENCLATURE	QUANTITY
1152-1202-0000	NMSB XV-P Portable Barrier - Twelve foot clear opening. ASTM Rated M30/P3 (K4). Purchase price includes hot-dip Galvanizing: tool box items, dual traffic lights, and power outlet. Dual Buttress w/ Integrated Hydraulic Operator. Circuit Control Panel. Integrated Weather Resistant Operator Enclosure. Bio-degradable fluid. Tether controller. Limit Switch(s) and Springs for manual use in the event of power failure.	5
2230-0012-0051	Power Selection - 120/60/1 HPU - 12VDC Battery Unit for NMSB XV-P Includes HPU Battery Charger, Battery, and Barrier Control Unit, Wire Harness, and SDI Connector and Cover.	5
2221-0250-0050	Tether Controller - 250FT - Tether-cord push button open/close controls. Tether at maximum 250FT. Tether to be quick-disconnected to Barrier.	5
2221-0025-0050	Tether-cord push button open/close controls. Tether at maximum 25 ft. Tether to be quick-disconnected to Barrier.	5
2274-2036-1202	HPU Heater - Pad - 12VDC - 3" x 6" - 38W - XV - Solar - Assembly Includes: Heater, Thermostat, and Fuse	5
2265-2000-1001	Solar Charging Kit - NMSB XV and 12VDC - Top of Pole	5
2265-2900-0001	Solar Panel Stand - Pole - NMSB XV Bolt On	5

- 1.2.17 Materials: The contractor shall furnish all supplies, equipment, tools, lubricants, facilities, and services required to perform work under this contract. The contractor shall also maintain the following bench stock of the recommended spare parts listed in the Nastaka Manual:

Nasatka Part Number	Description	Quantity
2120-1018-0050	18 Inch Spring	1
2120-1016-0050	16 Inch Spring	1
2121-5800-0000	Spring Eye Bolt 5/8-in	1
2121-5801-0000	Threaded Rod & Bolt Kit 5/8-in	1
2270-2018-1201	Sensor Inductive Proximity	2
2253-0013-0000	Cylinder 13"	1
2257-3800-1025	Hose - 3/8" MegaTuff - 25" with Fittings	1
2257-3800-1029	Hose - 3/8" MegaTuff - 29" with Fittings	1

The contractor will store all recommended spare parts listed above at the Government facility designated by the Government POC. The contractor will request further instruction from the Government POC after purchase order has been awarded.

- 1.2.18 Equipment Provided by Contractor: As stated in paragraph 1.1.3 above, the contractor shall provide all personnel, equipment, supplies, facilities, transportation, tools, materials, supervision, and other items and non-personal services necessary to perform work defined in this PWS. Equipment provided by the contractor shall include, but not be limited to:

- All equipment necessary to conduct electrical, mechanical, and hydraulic corrective maintenance actions
- A complete set of hand-tools is necessary to conduct preventative maintenance
- Electrical Test meters
- Hydraulic Diagnostic Test Devices (if utilized)
- Lighting necessary beyond standard street lighting (when maintenance must be conducted at night)
- Oil and Lubricant level measuring equipment
- Cleaning materials appropriate for industrial equipment and personnel
- Temperature reading equipment for hydraulic oil systems
- Oil Siphoning Equipment and sample collection reservoirs and tools
- OSHA Approved personal protective equipment for working with industrial electrical, hydraulic and mechanical equipment
- Hydraulic Fluid Identification - Testing equipment



### 1.3 PERSONNEL QUALIFICATIONS:

- 1.3.1 The contractor will ensure technicians conducting any corrective maintenance have the following certifications or an equivalent standard recognized by industry:
- 1.3.2 Industrial Mechanical Maintenance (IMM) Skill Level 1 Certification: Includes industrial maintenance mechanic craft with Orientation to the Trade, Tools of the Trade, Fasteners and Anchors, Oxy-fuel Cutting, Gaskets and Packing, Craft-Related Mathematics, Construction Drawings, Pumps and Drivers, Valves, Introduction to Test Instruments, Material Handling and Hand Rigging, Mobile and Support Equipment, and Lubrication. Pre/co-requisite: NCCER Core Curriculum. A basic Hydraulic course must be included in the level 1 certification curriculum or additional basic hydraulics training verification provided.
- 1.3.3 Industrial Electrical Maintenance Technician Skill Level 1: Any accredited course that includes electrical safety procedures (lock out/tag outs specifically), alternating current (AC) and direct current (DC) components, schematic interpretation, wiring diagrams, line diagrams, electrical logic, and safe working skills. It must include basic troubleshooting skills and how to install, repair and maintain industrial electrical components.

### 1.4 GENERAL INFORMATION:

- 1.4.1 Recognized Holidays: The contractor is not required to perform routine preventative maintenance or non-emergency repair services on the following Federal holidays (or the day set-aside for observance of holiday). If a federal holiday falls on a scheduled service day, the contractor will be responsible for rescheduling services for the first day after the holiday observance.

New Year's Day	Labor Day
Martin Luther King Jr.'s Birthday	Columbus Day
President's Day	Veteran's Day
Memorial Day	Thanksgiving Day
Juneteenth	Christmas Day
Independence Day	

- 1.4.1.1 The contractor may be required to conduct emergency services on Federal holidays in emergency situations.
- 1.4.2 Hours of Operation: The contractor shall perform routine preventative maintenance and repair services during regular business hours. Regular business hours are Monday through Friday 0900 – 1700 except Federal holidays or when local or national emergencies, administrative closings, or similar Government directed facility closings. The contractor shall be available to receive emergency work orders 24/7 including federal holidays by phone and email. Unless directed in an emergency situation, the contractor will not be reimbursed when the government facility is closed for the above reasons. The contractor must maintain an adequate workforce for the uninterrupted performance of all tasks defined within this PWS. When hiring personnel, the contractor shall keep in mind that the stability and continuity of the workforce are essential.

- 1.4.3 Place of Performance: The work to be performed under this contract will be performed at KAFB, specifically the IACPs at Wyoming Gate and Maxwell Housing Gate. Off-site repair of parts, if recommended, may be conducted at contract facilities. The Government POC will provide the contractor with a base map upon award of contract.
- 1.4.4 Security Requirements: There are no clearance requirements with this contract. Contractors must pass a base background check for credentialing in accordance Department of Defense and Department of the Air Force Policy. The contractor is responsible to coordinate base access requirements with the 377<sup>th</sup> Security Forces Squadron – S5 section.
- 1.4.5 Physical Security: The contractor shall be responsible for safeguarding all government equipment, information and property provided for contractor use. At the close of each work period, government facilities, equipment, and materials shall be secured.
- 1.4.6 Continuation of Essential DoD Contractor Services During a Crisis: Emergency Service Calls identified at paragraph 1.2.14 are considered mission essential. The contractor shall be responsible for performance of emergency service calls during a crisis in accordance with DFARS 252.237-7024 Notice of Continuation of Essential Contractor Services. The contractor shall develop a contingency plan that provides reasonable assurance of continuation of the service during crises conditions. A copy of this plan must be submitted to the CO and Government POC within five (5) days of initial on-site visit.
- 1.4.7 Government Point of Contact: The Government POC contact information will be provided to contractor upon award of contract
- 1.4.8 Contractor Point of Contact (POC): The contractor shall designate a primary, and at least one alternate POC that are certified technicians responsible for contractor-performed services. The designated contractor POC shall be available 24 hours a day, 7 days a week by telephone for service calls and discussion of barrier systems maintenance/repair issues. The contractor shall designate these individuals and submit their names and contact information in writing to the CO and Government POC upon contract award and will submit any revisions within 24 hours of change.

## **2.0 SERVICES SUMMARY**

- 2.1 The contract service requirements are summarized in performance objectives that relate directly to mission essential items. The performance threshold in the table below briefly describes the minimally acceptable levels of service required for each requirement. The Services Summary (SS) provides information on contract requirements and the expected level of contractor performance. These thresholds are critical to mission success. Procedures as set forth in the FAR 52.212-4 (a), *Contract Terms and Conditions – Commercial Items, Inspection/Acceptance*, will be used to remedy all deficiencies.

Performance Objective	PWS Reference	Performance Threshold
1. Preventative Maintenance and Inspection	1.2 - 1.2.11	Preventative maintenance is performed within the specified timeframe 100% of the time.
2. Submittal of Logs and Reports	1.2.12	100% of all logs/reports are timely and accurate.
3. Service Calls & Repairs	1.2.13 – 1.2.14.6	Response to and repairs of service calls are timely 100% of the time.

### **3.0 APPLICABLE PUBLICATIONS (CURRENT EDITIONS)**

#### **3.1 NASATKA NMSB XV-P Portable Barrier User Manual (Nasatka Manual)**