

**Solicitation
Attachment 0003
Specification
Amendment
April 4, 2013**

TRUCK WITH FLATBED, 4X2, WITH MODIFIED ISO CONTAINER

THE VEHICLE SHALL BE PROVIDED WITH ALL NEW PARTS, THE MANUFACTURER'S STANDARD EQUIPMENT AND THE FOLLOWING MINIMUM EQUIPMENT AND CAPABILITIES:

TRUCK WITH FLATBED

1. TRUCK CONFIGURATION

1.1. The vehicle shall be a 4x2 truck with flatbed, 2013 model year or later.

2. SAFETY

2.1. The vehicle shall meet Federal Motor Vehicle Safety Standards (FMVSS) or vehicle safety standards set forth by Economic Commission for Europe (ECE), Gulf Cooperation Council (GCC), European Economic Community (EEC), Australian Design Rules (ADR), or the Japanese Industrial Standard (JIS).

3. STANDARD EQUIPMENT

- 3.1. The vehicle shall be provided with a light package, including at least: headlights, turn signals, taillights, and brake lights.
- 3.2. The vehicle shall be provided with exterior rearview mirrors.
- 3.3. Each vehicle's door locks and ignition shall be identically keyed. A minimum of two keys shall be provided with every vehicle.
- 3.4. The vehicle shall be provided with two front frame mounted tow hooks or eyes.
- 3.5. The vehicle shall be provided with anti-sail mud flaps behind rearmost tires of the vehicle.
- 3.6. Each vehicle shall be provided with lockable tool box(es) or secured stowage compartment(s) of sufficient capacity to store all manufacturer's standard equipment and accessories, and those specified below. All locks on each of the toolbox(es) or compartment(s) shall be identically keyed.
 - 3.6.1. The vehicle shall be provided with the standard tools required for simple operator level maintenance (wrench and socket set, screwdrivers, adjustable wrench, pliers, and hammer as a minimum).
 - 3.6.2. The vehicle shall be provided with tire changing tools and a lifting jack, with a minimum capacity of ½ of the vehicle at GVW.
- 3.7. The vehicle shall be provided with at least one ABC type fire extinguisher with mounting bracket, minimum 5 pound (2.2 kg) capacity.
- 3.8. The rear bumper shall be provided with a pintle that is compatible with a lunette eye of 2.0 inches (5.1 cm) loop I.D. and 1.25 inch (3.18 cm) loop cross-section diameter.
- 3.9. The vehicle shall be provided with two (2) 5 gallon (or 20 liter) jerry cans with mounting provisions.
- 3.10. The vehicle shall be provided with a tire inflating hose of sufficient length to inflate all tires on the vehicle with quick-connect fittings on both ends, powered by the vehicle's compressed air system, with chuck and pressure gauge.
- 3.11. For vehicles shipped to Iraq:
 - 3.11.1. All instruction diagrams and warning labels shall be in both Arabic and English, or in Universal symbols, and shall be permanently affixed to the vehicle.
 - 3.11.2. Fuel filler cap or area near the cap shall be labeled with the type of fuel compatible with the vehicle, in both Arabic and English, or in Universal symbols.
 - 3.11.3. Manual(s) shall be provided for every vehicle written in English and Arabic.
 - 3.11.3.1. All manuals provided shall have an amendment stating the ability to operate on ultra high sulfur diesel (10,000 ppm or 1%).

4. RATINGS

- 4.1. Vehicle ratings shall be the manufacturer's published rating at the time of offer.
- 4.2. Component ratings shall not exceed the manufacturer's published ratings, and shall not be raised to meet requirements.
- 4.3. All individual components, including engine, transmission, driveline, axles, suspension, frame, and tires shall be rated at or above the gross vehicle weight (GVW) of the truck.

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5. ENGINE

- 5.1. Vehicle shall be provided with a diesel engine designed for an export market capable of performing as specified herein on ultra high sulfur content diesel fuel (10,000 ppm or 1%).
 - 5.1.1. The vehicle is exempt from U.S. EPA emission standards and regulations due to a DOD exemption and the vehicle (including engine, emission control devices, engine management software/controls, etc.) shall be configured for an export market.
- 5.2. The vehicle shall not be provided with emission control devices, such as but not limited to the Exhaust Gas Recirculation (EGR) valve, Diesel Particulate Filter (DPF), Diesel Oxidation Catalyst (DOC), or Selective Catalytic Reduction Catalyst (SCR).
 - 5.2.1. If emission control devices cited in paragraph 5.2 were removed from the vehicle after the vehicle was manufactured, then supporting documentation from the OEM shall be provided that describes in detail all such modifications made to the vehicle in order to meet specification paragraph 5.1.
 - 5.2.1.1. The vehicle manufacturer shall also verify or approve all modifications and/or alterations made to the vehicle to allow it to operate on ultra high sulfur content diesel fuel (10,000 ppm or 1%).
- 5.3. Maintenance or service schedule for the vehicle while operating on ultra high sulfur content diesel fuel (10,000 ppm or 1%) shall be provided and also included in the vehicle's manual.
- 5.4. Engine shall have cooling system and air filtration system designed for dusty, desert environments (120°F air temperature).

6. CHASSIS/DRIVELINE

- 6.1. The vehicle shall be provided with the heaviest-duty available springs, shocks and axles.
- 6.2. Rear axle ratios shall be the same for all vehicles.
- 6.3. Vehicle shall be provided with a rear limited slip or lockable differential.
- 6.4. A dimensioned schematic of the vehicle layout and design shall be provided.

7. TRANSMISSION

- 7.1. Vehicle shall be provided with a manual transmission or an automatic transmission with secondary transmission oil cooler, or an Automated Manual Transmission (AMT).

8. STEERING

- 8.1. Vehicle shall be provided with left hand drive and power steering.

9. BRAKES

- 9.1. Vehicle shall be provided with air service brakes and a parking brake.
- 9.2. Service brakes shall have ABS and an air dryer.
- 9.3. Vehicle shall be provided with glad-hands to accommodate trailer brake connections and shall be in accordance with SAE J318.

10. TIRES

- 10.1. Vehicle shall be provided with tubeless, on-off road, radial tires.
- 10.2. A spare tire and wheel assembly with holder shall be provided for the vehicle.
- 10.3. Means shall be provided to assist with the loading or unloading of the spare tire (i.e. davit, winch or equivalent).
- 10.4. All vehicle tires shall be of the same size, load rating and tread design, and all wheels shall be interchangeable, including spare tire and wheel assembly.

11. ELECTRICAL SYSTEM

- 11.1. The vehicle shall be provided with the heaviest duty available alternator and batteries.
- 11.2. A 12 volt SAE J560 7-pin connector shall be provided for trailer electrical connection.

12. PERFORMANCE

- 12.1. The vehicle shall be capable of being stored, started, and operated in temperatures ranging from -25 to 120 degrees Fahrenheit (°F) (-31 to 49 degrees Celsius (°C))

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- 12.2. Vehicle shall be capable of operating 90% on paved and unpaved roads and 10% off road (trails).
- 12.3. Vehicle shall be capable of maintaining a minimum speed of 50 mph (80 kph) at GVW on a level highway
- 12.4. The vehicle shall be capable of operating from an integral fuel tank(s) for at least 310 miles (500km) on highway surfaces at an average speed of not less than 35 mph (56 kph), at GVW.
- 12.5. Parking brake shall hold the vehicle at GVW on a 20% longitudinal slope.
- 12.6. The vehicle shall be capable of braking to a complete stop within 40 feet from 20 mph (12 m from 32 kph), at GVW.

13. CAB

- 13.1. Cab shall accommodate driver and a minimum of one passenger.
- 13.2. Seatbelts shall be provided for all cab occupants.
- 13.3. Manufacturer's heavy duty air conditioning and heating and defrosting systems shall be provided. The air conditioning system shall be designed for operation in dusty, desert environments (120°F).

14. FLATBED

- 14.1. The flatbed shall be large enough to carry one 8 x 10 foot ISO container.
- 14.2. The flatbed shall have a payload capacity of at least 10,000 lbs. (4535 kg)
- 14.3. Flatbed shall be provided with ISO locks capable of interfacing with 8 x 10 foot ISO containers.

MODIFIED ISO CONTAINER

Note: the intent of the containerized platforms is to house and support continuously operating remote electronics. As described below, each container shall incorporate line conditioners, Uninterruptible Power Supply (UPS), backup generator, and switch gear to ensure clean power, a redundant Heating, Ventilating, and Air Conditioning (HVAC) system for climate control, and an extendable antenna. The purpose of the empty racks described below is for Government-furnished equipment and supplies to be added later at each remote site. Layout and dimensioned drawings shall be provided.

15. CONTAINER CONFIGURATION

- 15.1. An 8 foot by 10 foot container per ISO 668, 1D, shall be provided.
- 15.2. The ISO container shall be provided with full opening swing doors.
- 15.3. The ISO container shall have standard corner fixtures and forklift openings.
- 15.4. The exterior of the ISO container shall be painted and have all standard markings to make it visually indistinguishable from a standard ISO container.
- 15.5. The ISO container shall be provided with a container safety certificate (CSC).
- 15.6. Provide provisions to attach an earth ground to the outside of the container.

16. CONTAINER INTERIOR (See section 19 for a sample layout)

- 16.1. The inside of the container shall be divided into two sections: the utility compartment and the interior workspace.
- 16.2. The interior shall be split into two sections with a permanent fixed partition.
 - 16.2.1. The partition shall be located to divide the utility compartment and the interior workspace.
 - 16.2.1.1. A 24 inch wide door with a cipher lockset shall be provided.
- 16.3. All interior walls, ceiling, and partition with door shall be insulated to a minimum of R-18.
- 16.4. All interior walls, ceiling, and partition shall be covered with laminated wood.
- 16.5. The floor shall be constructed with 1 1/8" hardwood planking that is sealed and coated with an industrial non-slip surface.
- 16.6. All items in the utility compartment and interior workspace shall be securely attached to avoid movement when the ISO container is transported.
- 16.7. The utility compartment shall be provided with:
 - 16.7.1. Overhead lights
 - 16.7.2. Electrical panel and distribution system to accept up to 15 kW of prime grid power (380/220V 3 phase at 50 Hz)
 - 16.7.2.1. Exterior sealable openings shall be placed on the wall near the floor to provide discrete pass-through of power and communication cables. One opening shall be provided for power cables and one opening shall be provided for communication cables.
 - 16.7.3. Diesel Generator

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- 16.7.3.1. The diesel generator shall be large enough to power all of the equipment in the ISO container and still provide an additional 7.5 kW of power required for Government Furnished Equipment (GFE).
 - 16.7.3.1.1. The diesel generator shall have a 50 Hz operating frequency.
- 16.7.3.2. The diesel generator must be capable of operating on ultra high sulfur content diesel fuel (10,000 ppm or 1.0%).
- 16.7.3.3. The generator shall be capable of being stored, started, and operated in temperatures ranging from -25°F to +120°F (-31 to 49°C)
- 16.7.3.4. The generator shall have an automatic engine shutdown for the following conditions: High engine temperature, Low oil pressure, and over voltage.
- 16.7.3.5. The generator shall be equipped with electric start.
- 16.7.3.6. The generator shall have a minimum 50 gallon fuel tank.
- 16.7.3.7. The exhaust and intake shall both be routed outside the external wall through sealable openings.
- 16.7.4. Automatic Transfer Switch (ATS)
 - 16.7.4.1. The ATS shall automatically start the generator and switch the load during a loss of power.
- 16.7.5. Telescoping Antenna Mast
 - 16.7.5.1. The telescoping antenna mast shall be secured to the floor and it shall have an extended height of at least 39 ~~25~~ feet (12 ~~7.62~~ meters) ~~from the retracted mast height~~.
 - 16.7.5.2. The telescoping antenna mast shall not require any support cables and shall extend and retract using a hand crank or electronics. ~~Pneumatic operated mast is not acceptable.~~
 - 16.7.5.3. An exterior sealable opening shall be placed on the ceiling to allow the telescoping mast to extend through the top of the container.
 - 16.7.5.4. The mast shall be capable of attaching a 44 pound (20 kg) load to the top.
- 16.7.6. HVAC units
 - 16.7.6.1. Two HVAC units shall be provided that are each capable of maintaining 70°F (21°C) in exterior environments from -20 to 120°F (-29 to 49°C) with 3 kW of internal heat loading.
 - 16.7.6.2. Both units shall be mounted on the interior permanent fixed partition.
 - 16.7.6.3. Both units shall be able to properly drain water if the ISO container is not on flat ground up to a 20% longitudinal or latitudinal slope.
- 16.7.7. Electrical receptacles:
 - 16.7.7.1. Two 220V AC, 50 Hz, Type C European style.
 - 16.7.7.2. Two 120V AC, 50 Hz, US style, National Electrical Manufacturers Association (NEMA) 5-20.
- 16.7.8. Removable steps shall be provided on the outside of the ISO container to provide easy access to the roof.
 - 16.7.8.1. Storage provisions shall be provided for the steps on the inside of the ISO container.
- 16.7.9. An ABC fire extinguisher mounted to the wall shall be provided.
- 16.8. The interior workspace shall be provided with:
 - 16.8.1. Overhead lights
 - 16.8.2. The container shall be provided with a minimum of three empty 4U racks those racks should be shock resistant.
 - 16.8.3. Communications panel shall be provided with bulkhead fittings to allow quick connection of multiple RJ-11, RJ-45, and N-type coax cables.
 - 16.8.3.1. At least five of each type of the above listed fittings shall be provided.
 - 16.8.4. A CO2 fire extinguisher mounted to the wall shall be provided.
 - 16.8.5. A workbench and a swiveling chair with casters (office type) shall be provided.
 - 16.8.6. A minimum of .25 cubic foot (0.007 cubic meter) sized safe shall be provided.
 - 16.8.7. Uninterruptible Power Supply (UPS) capable of providing 3kW of reserve capacity for 15 minutes.
 - 16.8.8. A 5kVA step down transformer (220V 50 Hz AC to 120V 50 Hz AC) shall be provided.
 - 16.8.9. Electrical receptacles:
 - 16.8.9.1. Five 220V AC, 50 Hz , Type C European style.
 - 16.8.9.2. Five 120V AC, 50 Hz, US style.
 - 16.8.9.3. Two 380V AC, 50 Hz, European style.

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17. COLOR

- 17.1. The exterior color (including, at a minimum, the cab and ISO container) will be specified in the delivery order and shall be any of the following color(s):
- 17.1.1. Desert tan 686, color chip 33446 in accordance with FED-STD-595 or equivalent.

18. RADIO FREQUENCY IDENTIFICATION (RFID) TAGS

- 18.1. Each vehicle, ISO container, and associated lot of spares shall be tagged with a removable active RFID data rich tracking tag, specifically designated as either:
- 18.1.1. Savi ST-654-001 (NSN 6350-01-523-1998)
- 18.1.2. Identec I-Q310 DRT
- 18.1.3. Savi ST-654-031
- 18.1.4. Evigia EV3-DRT
- 18.2. The active RFID tag shall have at least 128 Kbytes of memory.
- 18.3. The active RFID tag shall be compliant with ANSI standards or ISO 18000/7.
- 18.4. The tag shall be located on the exterior front of the vehicle and for the spares the tag shall be located on the pallet or container.
- 18.5. The tag shall be securely affixed to the vehicle or item and associated lot of spares with two or more plastic cable ties.
- 18.6. The tag data and electronic data field format shall be in accordance with specifications established by Joint Total Asset Visibility (JTAV) version 2.0, section 3.4.1 "Commodity Item Database Format" with the following clarifications:
- 18.6.1. The "document field" titled "DOCUMENT" shall be the document number (e.g. "milstrip") as specified by the Government procuring agency.
- 18.6.2. The "MISC1" field shall be the item serial number, if available.
- 18.6.3. The "MISC2" field shall be used for user comments (e.g. contract number).
- 18.6.3.1.1. The JTAV - V2.0 data format specification is available at:
http://www.ndia.org/Divisions/Divisions/Logistics/Documents/Content/ContentGroups/Divisions/Logistics/4RF_Tag_Data_Specification_V2.pdf

19. SAMPLE ISO CONTAINER LAYOUT-FOR REFERENCE ONLY

