

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

1.0 Potential Specifications

1.1 The following is a list of possible specifications that may in a potential solicitation. The specifications listed below are intended to be representative of specifications found in similar types of vehicles. They are included to provide potential contractors with an overview of what this project may entail, but may or may not be included in any future solicitations.

2.0 EODRT Overview:

2.1 Vehicle Operational Capabilities:

2.1.1 In addition to the requirements listed below, the vehicle shall comply with all applicable Society of Automotive Engineers (SAE), Federal Motor Vehicle Safety Standards (FMVSS), Code of Federal Regulations (CFR), and any other applicable United States Department of Transportation (DOT) regulations normally associated with a class of truck at this size and weight.

2.1.2 At a minimum, the EODRT shall have seating in the cab for three personnel; one driver, one assistant driver (a-driver), and one additional occupant seated.

2.1.3 The EODRT shall have maximum overall reducible dimensions of 34 feet long, 11.5 feet tall and 8.5 feet wide while In Accordance With (IAW) FMVSS for overall dimensions for transportation on public roads.

2.1.4 The EODRT's engine shall run on commercial grade diesel, JP8 (MIL-DTL-83133H) and other high sulfur "dirty" diesels.

2.1.5 The EODRT shall be capable of sustain speeds of 70 Miles Per Hour (MPH) over flat level primary roads and 35 MPH over flat level secondary roads at Gross Vehicle Weight (GVW).

2.1.6 The EODRT shall be capable of ascending and descending a primary road with a 7% longitudinal grade at a minimum of 55 MPH.

2.1.7 The EODRT shall capable of unsustainable top speeds of 85 MPH over flat level primary roads at GVW.

2.1.8 The EODRT shall accelerate to 35 MPH from a standing start within 25 seconds or less.

2.1.9 The EODRT shall be capable of towing an enclosed body trailer (2-axle, 10,000 pounds Gross Vehicle Weight Rating [GVWR]) at a sustained speed of 70 MPH over flat level primary roads at GVW. In addition, the EODRT shall be capable of towing a 7,500 pounds (lbs) GVWR trailer, with the dimensions of 8'x20' and tongue weight 1500 lbs., at a sustained speed of 70 MPH over flat level primary roads at GVW.

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

2.1.10 The EODRT shall have electric trailer receptacles to provide any necessary braking and power to the trailer. The electric trailer receptacles shall be in accordance with SAE J560 for 4 and 7 pin connectors.

2.1.11 The EODRT shall have a combination pintle hook and class 5 ball (2 5/16") hitch in accordance with SAE J684.

2.1.12 The fully loaded vehicle will have a wall to wall turning diameter of less than three times the overall length of the vehicle in both directions.

2.1.13 The EODRT shall demonstrate a Minimum Mean Miles Between Operational Mission Failure (MMBOMF) reliability of not less than 2,400 miles.

2.1.14 The EODRT shall be able to operate for a minimum of 540 miles over primary roads at a minimum of 45 MPH prior to refueling.

2.1.15 The EODRT shall have a 18,000 lbs. electric winch on the front of the vehicle.

2.1.16 The EODRT shall have a standard exterior jump lugs to provide external power in emergency scenarios.

2.1.17 The EODRT shall have a Commercial Off The Shelf (COTS) tri-view back up camera.

2.1.18 The EODRT shall have run flat tire capable of traveling 18 miles at a sustained speed of 20 MPH after loss of pressure.

2.1.19 The EODRT shall be air certified for transportation on a C-17 and C-5 per MIL-STD-1366 and MIL-STD-209.

2.1.20 The EODRT shall be transportability certified for transportation on rail and public road per MIL-STD-1366 and MIL-STD-209.

2.1.21 The EODRT shall have lift and tie down provisions for transportation by air, rail, and surface in accordance with MIL-STD-209.

2.2 Vehicle's Body Capabilities:

2.2.1 The EODRT's rear crew compartment shall be tall enough to accommodate a 95% male in accordance with DoD-HDBK-743.

2.2.3 The EODRT shall have a HVAC system capable of maintaining cabin temperatures at the minimum of 65⁰ F and maximum of 85⁰ F within the EODRT's operating environment of -20⁰ F to 120⁰ F.

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

2.2.4 The EODRT shall have secure storage for two robots; one approximately 60"x54"x72" and the other approximately 36"x24"x12".

2.2.5 The EODRT shall have a ramp capable of accommodating the two robots. The ramp shall be a slide out or similar design to eliminate a 2-piece or similar design susceptible to flex or sagging. The ramp and hatch in which the robot exits shall not reduce the space claim on the interior of the rear compartment.

2.2.6 The EODRT shall have secure storage in modular lockable cabinets for common EOD Response Equipment including male bomb suits.

2.2.7 The EODRT's shall have exterior storage for 1.4 and 1.1 demolition material in accordance with EOD emergency transport regulations.

2.2.8 The EODRT shall have a Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) system and a sealed overpressure interior to operate in CBRNE threat environments per MIL-HDBK-753 and MIL-STD-810.

2.2.9 The EODRT shall have a four cubic feet refrigeration container unit to maintain prescribed temperatures for test kits and CBRNE medication.

2.2.10 The EODRT shall have electromagnetic environmental effects control for the prevention of interference from external electromagnetic source such as other agency radios, radars, and any other RF transmitters in the immediate area (MIL-STD-461 and MIL-STD-464).

2.2.11 The EODRT's main power plant (diesel engine) and generator exhaust shall discharge in a way to not penetrate the cab interior or create dangerous condition around the exterior of the vehicle.

2.2.12 The EODRT shall have an integrated generator sub system capable of producing 20 kW of power providing sufficient 240-volt AC 60 Hz and supply 24-volt DC power to operate all auxiliary systems plus an additional 4 kW.

2.2.13 The generator subsystem shall operate on 1 tank of fuel for a minimum of 12 hours.

2.2.14 The generator subsystem shall power all vehicle systems independently while the main power plant (diesel engine) is off.

2.2.15 The generator subsystem shall operate on the same fuel type as the main power plant (diesel engine).

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

2.2.16 The EODRT shall have twelve duplex 110 Volt American three prong Ground Fault Circuit Interrupter (GFCI) receptacles (NEMA 5-15R). Four exterior duplex receptacles, one on each side of the vehicle and eight duplex receptacles on interior of the truck. One interior receptacle will be accessible by the driver and a-driver. Four interior receptacles will be located on each wall of the interior of the rear area of the vehicle. The remaining and additional receptacles will be placed near required equipment and storage space for battery, hand held radio and other auxiliary equipment.

2.2.17 The EODRT shall have a service/shore plug in accordance with NEMA TT-30 for use with external power adaptable to OCONUS power supplies.

2.2.18 The EODRT's service/shore plug shall be capable of running all the vehicle systems and charge the vehicle's batteries while the main power plant (diesel engine) is off.

2.2.19 The EODRT's lights shall maximize the use of LED technology where commercially available.

2.2.20 The EODRT shall have exterior LED floodlights to illuminate 360 degrees around the vehicle, which illuminate from one foot from all sides of the vehicle outwards with 1050 candelas.

2.2.21 The EODRT shall have interior recessed LED white and blackout (red) lighting which illuminates all occupants work areas and seating position.

2.2.22 The EODRT shall have vehicle integration kits to accept radio systems to include mounting and wiring for a unit level install.

2.2.23 The EODRT shall have a COTS hands free blue tooth system to connect with mobile devices to broadcast over speakers and headset.

2.2.24 The EODRT shall have a telescoping mast mounted gyro cam or similar system which extends 40 feet above the ground, is IR and thermal capable, has a 30x zoom camera, has a laser range finder and is remotely operated from the driver or a-driver position and rear of vehicle.

2.2.25 The EODRT shall have a AEODRS (robot antenna) mounted to the telescoping mast.

2.2.26 The EODRT shall have a trainable LED light remotely controlled from the driver, a-driver and rear occupant positions with 1050 candelas and mounted to the telescoping mast.

2.2.27 The EODRT shall have vehicle integration kits or mounts for all EOD antennas.

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

2.2.28 The EODRT's antennas shall be reducible or removable to lower the overall dimension of the vehicle.

2.2.29 The EODRT shall have a Public Announcement (PA) system operated from the driver, a-driver and rear compartments.

2.2.30 The EODRT shall have a transparent emergency escape hatch on the roof of the vehicle. The emergency escape hatch shall be located as to monitor the telescoping mast during extension and retraction.

2.2.31 The EODRT shall have steps, ladder or ramps for the safe ingress and egress of operators wearing a bomb suit or plainly clothed. Steps, ladders, and ramps shall comply with MIL-STD-1472.

2.2.32 The EODRT shall have a ladder for access to the roof of the vehicle from outside the vehicle.

2.2.33 The EODRT shall have work benches in the interior of the vehicle to accommodate EOD equipment including a laptop, x-ray machine, displays, robot controls or other equipment. The EODRT's work benches shall be at two different heights; one to support an occupant in the standing upright position and one to support a seated occupant or similar design which provides working area and height for both. The design shall optimize work bench area and cabinet volume.

2.2.34 The EODRT shall have vehicle integration kits or hard mounted docking stations to accept a COTS windows based PC tough book laptop mounted to the workbench at the standing and seated positions.

2.2.35 The EODRT shall have a wireless COTS intercom system.

2.2.36 The intercom system shall have three headset in the front and three (sets) in the rear compartments of the vehicle.

2.2.37 The EODRT shall have accessible, removable and reconfigurable cable and wiring conduits to easily access, add, remove or reconfigure cables to the EOD equipment.

2.2.38 The EODRT shall have multiple cable and wiring pass-through on all sides of the vehicle including the roof and from front and rear compartment if the design dictates.

2.2.39 The EODRT shall have an awning to cover debarked occupants from environmental conditions.

2.2.40 The EODRT shall have a COTS compressed air system to fill tires and provide other ancillary features and shall run off an existing COTS vehicle compressed air system (e.g. pneumatic brakes).

Attachment A -
EODRT Request for Information (RFI)
Overview of Potential Specifications

2.3 EODRT Operational Capabilities:

2.3.1 The EODRT shall have two compartments; the driver/a-driver compartment and the rear EOD technician compartment.

2.3.2 The EODRT shall be operable in ambient air temperatures at a minimum of -20⁰ Fahrenheit (F) and maximum of 120⁰ F.

2.3.3 The EODRT and all of its subsystems shall have an Operational Availability (Ao) of 95% or greater.

2.3.4 The EODRT shall maximize the use of COTS items to reduce the requirement for new logistics documentation.

2.3.5 The EODRT shall have emergency lighting in accordance with SAE 595 utilizing low maintenance, energy efficient LED lighting.

2.3.6 The EODRT shall require no special tools to operate or maintain.

2.3.7 The EODRT shall be operated and maintained at the unit level.

3.0 Potential Risks: This vehicle would likely be a commercial based vehicle with military modifications incorporated into it. These military modifications would have military standards associated with them. Inherently military modifications possess a potential risk to prospective contractors; this risk tends to run higher when contractors are not intimately familiar with the respective military standards. Military standards associated with this vehicle include:

3.1 Transportability Standards:

MIL-STD-209 (refer to sections 2.1.19 and 2.1.20)

MIL-STD-1366 (refer to sections 2.1.19 and 2.1.20)

3.2 Electromagnetic Interference Standards:

MIL-STD-461 (refer to section 2.2.10)

MIL-STD-464 (refer to section 2.2.10)

3.3 CBRNE Handbook

MIL-HDBK-753 (refer to section 2.2.8)

3.4 Engineering and Testing Standards and Handbook:

MIL-STD-810 (refer to section 2.2.8)

MIL-STD-1472 (refer to section 2.2.31)

DoD-HDBK-743 (refer to section 2.2.1)

3.5 Fuel (Kerosene Type), JP-8:

MIL-DTL-83133 (refer to section 2.1.4)