

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

1.0 Potential Specifications.

1.1 The following is a list of possible specifications that may be included in a potential solicitation for Explosive Ordnance Disposal Command and Response Trucks (EOD-CRT). 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 requirements this project may entail, but may or may not be included in any future solicitations.

2.0 EOD-CRT's General Capabilities.

2.1 In addition to the requirements listed below, the EOD-CRT 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.

2.2 The EOD-CRT shall have maximum overall reducible dimensions of 36.0 feet long, 12.0 feet tall and 8.5 feet wide.

2.3 The EOD-CRT shall have two compartments; one Front Cab Compartment and one Rear EOD Technician Compartment.

2.4 At a minimum, the EOD-CRT Front Cab Compartment shall have seating capacity for three occupants; one driver, one assistant driver (a-driver), plus one additional occupant.

2.4.1 Vehicular seating and seating safety design elements (seat belts, etc.) shall conform to respective SAE, FMVSS, CFR, and DoT regulations.

2.5 The EOD-CRT shall be able to maintain full operational capabilities in all ambient air temperatures that range from -20 degree Fahrenheit (⁰F) and to 120⁰F.

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

2.7 The EOD-CRT and all of its subsystems shall have an Operational Availability (Ao) of 95% or greater.

2.8 The EOD-CRT shall be transportable by rail and surface.

2.9 The EOD-CRT's engine shall run on commercial grade diesel and all high sulfur diesel.

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2.10 The EOD-CRT shall maximize the use of Commercial Off The Shelf (COTS) items to reduce the requirement for new logistics documentation.

2.11 The EOD-CRT shall require no special tools to operate or maintain at unit level capability.

2.12 The fully loaded EOD-CRT shall have a wall-to-wall turning diameter of less than three times the overall length of the vehicle in both directions.

2.13 The EOD-CRT shall be capable of towing EOD's 2-axle, 2-ton, 10,000 pounds (lbs.) Gross Vehicle Weight Rating (GVWR), enclosed body trailer at 65 MPH over flat and level primary roads at Gross Vehicle Weight (GVW).

2.14 The EOD-CRT shall be capable of towing EOD's 8'x20' trailer with a tongue weight 1,500 lbs., 7,500 lbs. GVWR at 65 MPH over flat and level primary roads at GVW.

2.15 The EOD-CRT shall have electric trailer receptacles to provide any necessary braking and power to trailers in tow. The electric trailer receptacles shall be in accordance with SAE J560 for 4 and 7 pin connectors.

2.16 The EOD-CRT shall be equipped with a class 5 hitch receiver that is in accordance with SAE J684.

2.16.1 The hitch receiver shall come furnished with a removable combination pintle hook and ball (2-5/16") attachment.

2.16.2 The hitch and attachment shall be capable of towing the trailers indicated in sections 2.13 and 2.14 of this document at the maximum GVWR.

2.17 The EOD-CRT shall have an electric winch, with a rated capacity of 18,000 lbs., installed on the front of the vehicle.

2.18 The EOD-CRT'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.

2.19 The systems lights shall maximize the use of LED technology where commercially available.

2.20 The EOD-CRT shall have emergency lighting that utilizes low maintenance, energy efficient LED lighting and is in accordance with SAE J595 and J2139.

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2.21 The EOD-CRT shall have cable and wiring pass-through on all sides of the vehicle including the roof and from front and rear compartment where the vehicle design dictates.

2.22 The EOD-CRT shall have a COTS compressed air system to facilitate tire inflation, as well as other secondary air features, and shall run off an existing COTS vehicle compressed air system (e.g. pneumatic brakes).

2.23 The EOD-CRT shall have a COTS tri-view back up camera. The camera shall provide a 180 degree view of the rear of the vehicle.

2.24 The exterior of the EOD-CRT, both vehicle body and rear EOD compartment, shall have a top-coat of Dark Blue (Gloss).

3.0 EOD-CRT's Vehicle Operational Capabilities.

3.1 The EOD-CRT shall be capable of sustain speeds of 70 Miles Per Hour (MPH) over flat level primary roads at Gross Vehicle Weight (GVW).

3.2 The EOD-CRT shall be capable of sustain speeds of 35 MPH over flat level secondary roads at GVW.

3.3 The EOD-CRT shall capable of unsustainable top speeds of 85 MPH over flat level primary roads at GVW.

3.4 The EOD-CRT shall accelerate to 35 mph from a standing start within 25 seconds or less.

3.5 The EOD-CRT shall be able to operate for a minimum of 540 miles over primary roads at a minimum of 45 MPH prior to refueling.

3.6 The EOD-CRT shall be capable of ascending and descending a primary road with a 5% longitudinal grade at a minimum of 55 MPH configured with a standard EOD load configuration.

3.7 The EOD-CRT shall have run flat tire capable of traveling 18 miles at a sustained speed of 20 MPH after loss of pressure.

3.8 The EOD-CRT shall be equipped with standard exterior jump lugs. These lugs would provide ease of access to EOD-CRT's battery system when jump starting EOD-CRT is required.

4.0 EOD-CRT's Rear EOD Technician Compartment's Capabilities.

4.1 The EOD-CRT's rear crew compartment shall be tall enough to accommodate a 95 percentile male (reference DoD-HDBK-743).

4.2 The EOD-CRT shall have secure storage for one F-6A Mk3 RONS (large) robot (NSN: 1385-01-456-9129) (approximately 60"x54"x72") and

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one talon secondary (small) robot (1385-01-534-9826) (approximately 36"x24"x12" reduced).

4.3 The EOD-CRT shall have a ramp capable of accommodating one F-6A Mk3 RONS robot and one talon robot; in addition it shall accommodate the Advanced Explosive Ordnance Disposal Robotic System (AEODRS) Increment 2 robot.

4.3.1 The ramp shall be a slide out or similar design to eliminate a multi-piece or similar design susceptible to flex or sagging.

4.3.2 The ramp and hatch in which the robot exits shall not reduce the space claim on the interior of the rear compartment.

4.4 The EOD-CRT shall have secure storage in modular lockable cabinets for common EOD Response Equipment including male bomb suits.

4.5 The Rear EOD Technician Compartment shall have positive pressure capability to protect against airborne particulates (non-toxic) and irritants such as riot control agents and toxic industrial chemicals (TIC).

4.6 The EOD-CRT shall be equipped with a Heating, Ventilating, and Air Conditioning (HVAC) system that is capable of maintaining the interior of the Rear EOD Compartment at temperatures between 65⁰F and 85⁰F within the full temperature spectrum of EOD-CRT's operating environment (-20⁰F through 120⁰F).

4.7 The EOD-CRT shall have an integrated generator subsystem capable of producing 20 kW of power. The generator shall provide sufficient 240-volt AC, 60 Hz, and 12-volt DC power to operate all auxiliary systems plus have an additional 4 kW in reserve.

4.7.1 The generator subsystem shall operate on one tank of fuel for a minimum of twelve hours.

4.7.2 The generator subsystem shall power all EOD-CRT systems independently while the main power plant (diesel engine) is off.

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

4.8 The EOD-CRT shall have twelve duplex 110-Volt, three prong Ground Fault Circuit Interrupter (GFCI) receptacles (NEMA 5-15R); four exterior and eight interior.

4.8.1 There shall be one exterior GFCI receptacle on each of the four vertical sides of the vehicle (front, back, left, and right).

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4.8.2 There shall be one GFCI receptacle in the front cab compartment. It shall be positioned to be accessible by both the drive and a-driver.

4.8.3 There shall be one GFCI receptacle located on each vertical wall of the interior Rear EOD Technician Compartment.

4.8.4 There shall be three GFCI receptacles located near required equipment and storage space for battery, hand held radio, and other auxiliary equipment.

4.9 The EOD-CRT shall have a service/shore plug for use with external power and be adaptable to accept OCONUS power supplies.

4.9.1 The EOD-CRT'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.

4.10 The EOD-CRT shall be equipped with a 40 foot telescoping mast. The following items shall be permanently installed at the top of the 40 foot telescoping mast:

4.10.1 Gyrocam or similar camera system that is equipped with Infra-Red (IR) and thermal capabilities. In addition, it shall have an optical zoom of 20x and a laser range finder.

4.10.2 The mast shall have provisions for mounting an AEODRS antenna (e.g. robot antenna).

4.10.3 The mast and all items (and features inherent to those items) mounted on the mast shall be capable of being remotely operated from the driver position, a-driver position, and from the Rear EOD Technician Compartment.

4.10.4 Camera visuals shall be able to be viewed from the driver position, a-driver position, and from the Rear EOD Technician Compartment.

4.10.5 The system shall also incorporate an alarm/alert mechanism to warn the driver that the mast is deployed prior to the vehicle being put in motion.

4.11 The EOD-CRT 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.

4.12 The EOD-CRT shall have protections for the prevention of interference from external sources such as other agency radios, radars, and any other Radio Frequency (RF) transmitters in the immediate area.

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4.13 The EOD-CRT shall have vehicle integration kits, or mounts, for all EOD antennas installed.

4.14 The EOD-CRT shall have integration provisions to accept a commercial ToughBook PC and radio systems to include mounting and wiring for a unit level install.

4.15 The EOD-CRT shall have a Public Announcement (PA) system that can be operated from the driver position, a-driver position, and from the Rear EOD Technician Compartment.

4.16 The EOD-CRT shall have a COTS hands free blue tooth system to connect with mobile devices to broadcast over speakers and headset.

4.17 The EOD-CRT shall have a wireless COTS intercom system.

4.17.1 The EOD-CRT intercom system shall come equipped with three headsets in the front cab and three headsets in the rear EOD technician compartment.

4.18 The EOD-CRT shall have exterior LED floodlights to illuminate 360 degrees around the vehicle, which illuminate from one foot from all sides of the vehicle outwards to a 50 feet radius.

4.19 The EOD-CRT shall have interior recessed LED white and blackout (red) lighting which illuminates all occupant work areas, seating positions, and walk-ways.

4.20 The EOD-CRT shall have work stations in the interior of the vehicle to accommodate EOD equipment including laptops, x-ray machine, displays, robot controls or other equipment.

4.20.1 The EOD-CRT's work stations 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.

4.20.2 The design shall optimize work station area and cabinet volume.

4.21 The EOD-CRT shall have accessible, removable, and reconfigurable cable and wiring conduits to easily access, add, remove, or reconfigure cabling as required by changes to the EOD equipment.

4.22 The EOD-CRT shall have steps, ladder, or ramps for the safe ingress and egress of operators wearing a bomb suit or plainly clothed.

4.23 The EOD-CRT shall have a ladder for access to the roof of the vehicle from outside the vehicle.

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4.24 The EOD-CRT shall have exterior storage for 1.4 and 1.1 demolition material weighing not less than 25 lbs.

4.25 The EOD-CRT shall have a standard four cubic foot refrigeration container (refrigerator). The refrigerator shall utilize CFC-free refrigerant.

4.26 The EOD-CRT shall have an awning to cover debarked occupants from environmental conditions.