

## COMMERCIAL ITEM DESCRIPTION

### UTILITY VEHICLE, ARMORED, LEVEL 1

The General Services Administration has authorized the use of this commercial item description for all federal agencies.

#### 1. SCOPE.

This commercial item description (CID) covers a commercial, Level 1 armored utility vehicle. The vehicle provides ballistic protection to a four-man crew and is capable of carrying a payload of 1,500 pounds across all surfaces, include primary roads, secondary roads, and cross county.

#### 2. SALIENT CHARACTERISTICS.

2.1 Vehicle description. The vehicle shall be a retrofitted commercial full-size sport utility vehicle (SUV) or pickup truck with enclosed bed capable of transporting a four-man crew, plus cargo, on- and off-road in accordance with the specifications contained in this document. The vehicle shall provide ballistic protection sufficient to safeguard the crew during operation in hostile environments. It shall be maintainable with standard tools and built with parts supplied from commercial sources and shall have a service life of at least 12 years.

2.1.1 Modified commercial product. The vehicle, at a minimum, shall be the manufacturer's standard commercial product modified as necessary to be in accordance with the requirements specified herein. Additional or complimentary features which are not specifically prohibited by these specifications, but which are part of the manufacturer's standard product, shall be included in the unit being furnished.

Beneficial comments, recommendations, additions, deletions, clarifications, and any other data that may improve this document should be sent to AFLCMC/EZSS, Bldg. 28, 2145 Monahan Way, Wright-Patterson AFB, OH 45433-7017 or emailed to [engineering.standards@us.af.mil](mailto:engineering.standards@us.af.mil). Since contact information can change, you may want to verify the currency of this address information using the ASSIST Online database at <https://assist.dla.mil>.

2.2 Design and construction. The vehicle shall be designed and constructed to promote cost effective, life-cycle sustainability by addressing considerations such as incorporating open standards, reducing pollutant emissions and wastes, and increasing fuel economy, while satisfying system performance requirements. It shall be designed and constructed so that no parts will work loose in service, and to withstand the strains, jars, vibrations, and other conditions incident to shipping, storage, installation, and service. It shall be weatherproof and designed to prevent the intrusion of water, sand, and dust into critical operating components.

2.2.1 Materials, protective coatings, and finish.

2.2.1.1 Protective coatings. Materials that deteriorate when exposed to sunlight, weather, or operational conditions normally encountered during the service life of the item shall not be used or shall have means of protection against such deterioration that does not prevent compliance with the performance requirements specified herein. Protective coatings that chip, crack, or scale with age or extremes of climatic conditions or when exposed to heat shall not be used. Exposed surfaces of fasteners, handles, and fittings shall also be primed, painted, and/or have an adequate existing level of corrosion protection. See [2.2.4.1](#) for prohibited hazardous materials.

2.2.1.2 Finish. The exterior finish color of the vehicle and the inner surfaces of compartments shall be stock colors of black, white, or gray.

2.2.1.3 Exclusion of water. The design of the vehicle shall be such as to prevent water leaking into, or being driven into, any part of the vehicle interior when either in an operating or travelling configuration. All windows, doors, panels, covers, etc., shall be provided with sealing arrangements such that the entry of water is minimized when these items are correctly closed. Particular care shall be taken to prevent wetting of equipment and heat and sound proofing materials. Sharp corners and recesses shall be avoided so that moisture and solid matter cannot accumulate to initiate localized attack. Sealed floors with suitable drainage shall be provided for storage compartments, engine compartments, and other areas in the vehicle that could collect and retain water.

2.2.1.3.1 Fluid traps and faying surfaces. There shall be no fluid traps on the vehicle. Faying surfaces of all structural joints, except welded joints, shall be sealed to preclude fluid intrusion.

2.2.1.3.2 Ventilation. Ventilation shall be sufficient to prevent moisture retention and buildup.

2.2.1.3.3 Drainage. Drain holes shall be provided to prevent collection or entrapment of water or other unwanted fluid in areas where exclusion is impractical. All designs shall include considerations for the prevention of water or fluid entrapment and ensure that drain holes are located to effect maximum drainage of accumulated fluids. The number and location of drain holes shall be sufficient to permit drainage of all fluids when the vehicle is on a 10-degree longitudinal slope facing both up and down and on a 10-degree side slope in each direction (right and left side facing up the slope). The minimum size of the drain holes shall be 0.375 inch.

2.2.2 Markings. All external devices which require an operational or maintenance interface shall be marked in accordance with [MIL-STD-130](#). Markings shall be applied with decals and shall be 1-inch high block letters unless prohibited by the available space. In such cases, the markings shall be the largest size possible. Markings, Information/Caution shall be Black, and Markings,

Warning/Danger shall be Red, in accordance with SAE-AMS-STD-595. The center of gravity of the vehicle shall be marked on the unit within 1-inch of the calculated center of gravity. Tire inflation pressure shall be marked as near to each tire as practicable and/or per OEM standards.

### 2.2.3 Identification and information plates.

2.2.3.1 Identification plate. A permanently-marked identification plate, constructed of a non-corroding metal, in accordance with MIL-STD-130 shall be securely attached to the vehicle mounted on the inside of the vehicle, on the dash or driver's door. The identification plate shall contain the following information, engraved onto the plate by a method that produces a consistent lettering quality: nomenclature, part number, serial number, registration number, contract number, date of manufacture, manufacturer's name and phone number, Commercial and Government Entity (CAGE) code, date of warranty expiration, National Stock Number (NSN), vehicle curb weight, maximum payload, gross vehicle weight, and fuel capacity and type. The vehicle and any of its components for which the Government's unit cost is more than \$5,000, is serially managed, or the procuring agency determines is mission essential, shall have Unique Identification (UID) (also known as Item Unique Identification (IUID)) information permanently affixed on or near the respective identification plate(s), marked in accordance with MIL-STD-130. UID information shall be included as both a bar code and human readable markings.

2.2.3.2 Transportation data plate. A permanently-marked transportation data plate, constructed of a non-corroding metal, shall be securely attached to the vehicle in a readily accessible location. The plate shall contain at least the following information:

- a. Side and rear silhouette views of the vehicle.
- b. Shipping weight.
- c. Loading cubage.
- d. Overall height, width, and length.
- e. Front and rear axle loads.
- f. Tie down information.

2.2.3.3 Lubrication data plate. The vehicle shall be provided with a permanently-marked lubrication data plate constructed of a non-corroding metal, mounted on the driver's side of the vehicle that shall direct attention to all lubrication fittings and components that require lubrication. The plate shall identify the type and grade of lubricant required for operational temperatures specified in [2.3.1](#).

2.2.3.4 Rear license plate bracket. The vehicle shall be equipped with a rear mounted license plate bracket and accompanying hardware.

### 2.2.4 Environment, Safety, and Occupational Health (ESOH).

2.2.4.1 Hazardous material. The design shall minimize and control hazards associated with the inclusion or use of hazardous or toxic materials and the generation of toxic or noxious gases. The vehicle shall not generate or use Class I or Class II Ozone Depleting Substances (ODS) during operation, maintenance, or disposal. Class I ODS and hazardous materials shall not be used in any system, component, or process. The vehicle shall not contain or use either hexavalent chromium or cadmium without written approval by the procuring activity. Hazardous materials are defined in Air Force Instruction (AFI) 32-7086; Class I and Class II ODS are defined in 40CFR82.

2.2.4.2 Component protection. All space in which work is performed during operation, service, and maintenance shall be free of hazardous protrusions, sharp edges, or other features which may cause injury to personnel. All rotating and reciprocating parts and all parts subject to high operational temperatures or subject to being electrically energized, that are of such nature or so located as to be hazardous to personnel, shall be guarded or insulated to eliminate the hazard. All wires, cables, tubes, and hoses shall be supported and protected to minimize chafing and abrasion and shall be located so as to provide adequate clearance from moving parts and high operational temperatures. Grommets or other items providing chafe protection shall be provided wherever wires, cables, tubes, or hoses pass through bulkheads, partitions, or structural members.

2.2.4.3 Foreign object damage (FOD). All loose metal parts, such as pins or connector covers, shall be securely attached to the vehicle with wire ropes or chains. "Dog tag" style beaded chains shall not be provided. Removable panels, if provided, shall be attached with captive fasteners. Tire valve stem caps shall be made of plastic.

2.2.4.4 Fire extinguisher. Two dry chemical fire extinguishers, Type 1, Class 1, Size 2-1/2 pounds in accordance with A-A-393, shall be mounted in the vehicle, one adjacent to the driver and the second in the passenger compartment.

2.2.4.5 Noise. The design shall ensure that noise created by the vehicle is compatible with the environment and minimize exposure of personnel to noise hazards during operations and maintenance activities. The interior noise created by the vehicle shall not exceed 85 decibels, in accordance with 29 CFR 1910.95 Occupational Noise Exposure, Part e.

2.2.5 Electromagnetic interference (EMI). The vehicle shall be in accordance with the following radiated emission and susceptibility requirements of MIL-STD-461: RE102 and RS103.

2.2.6 Human systems integration. The vehicle shall be designed in accordance with MIL-STD-1472 for ease of operation, inspection, and maintenance, including the use of arctic mittens and Mission-Oriented Protective Posture (MOPP) Level 4 Chemical Warfare Gear. Chemical Warfare Gear is not required for preventive maintenance or major corrective maintenance.

2.2.7 Fastening devices. All screws, bolts, nuts, pins, and other fastening devices shall be properly designed, manufactured, and installed with adequate means of preventing loss of torque or adjustment. Cotter pins, lock washers, or nylon patches shall not be used for this purpose, except for the attachment of trim items or as provided in commercial (see [6.4.1](#)) components. Tapped threads shall have a minimum thread engagement in accordance with [Table I](#).

Table I. Minimum thread engagement.

<b>Material</b>	<b>Minimum Thread Engagement</b>
Steel	1.0 times the nominal fastener diameter
Cast iron, brass, or bronze	1.5 times the nominal fastener diameter
Aluminum, zinc, or plastic	2.0 times the nominal fastener diameter

2.2.8 Welders and welding. All welders shall be certified to weld in accordance with AWS D1.1 and AWS D1.2, as applicable. The contractor shall make available to the Government certifications for all welders being utilized on the vehicle. Welding procedures and all welding on the vehicle shall be in accordance with AWS D1.1 and AWS D1.2, as applicable. The surface parts to be welded shall be free from rust, scale, paint, grease, and other foreign matter. Welds shall be of sufficient size and shape to develop the full strength of the welded parts. Welds shall transmit stress without cracking or permanent distortion when the parts connected by the welds are subjected to test, proof, and service loadings.

### 2.3 Environmental conditions.

2.3.1 Operating temperature range. The vehicle shall be capable of operating in ambient temperatures ranging from -40 to 120 °F.

2.3.2 Storage temperature range. The vehicle shall be capable of being stored in ambient temperatures ranging from -60 to 140 °F.

#### 2.3.3 Precipitation.

2.3.3.1 Rain. The vehicle shall be capable of storage and operation during rainfall of 5 inches per hour for three consecutive hours and 10 inches per hour for 10 consecutive minutes, with winds of up to 35 knots; and with 6 inches of rain per hour impinging on the vehicle at angles from vertical to 45° for 30 consecutive minutes.

2.3.3.2 Snow. The vehicle shall be capable of storage and operation during accretion of wet snow up to 2 inches per hour for at least 12 hours.

2.3.3.3 Ice. The vehicle shall be capable of storage and operation with ice accretion up to 1.5 inches on exposed horizontal surfaces. An operator may use an ice scraper for five minutes during the start-up process.

2.3.4 Solar radiation. The vehicle shall not be adversely affected by full time exposure to solar radiation, such as those conditions encountered in desert environments.

2.3.5 Fungus. All materials used in the vehicle shall be fungus resistant or shall be suitably treated to resist fungus. Materials treated for fungus resistance shall retain their original electronic and physical properties, shall not present toxic hazards, and treatment shall last for the entire service life of the part. The vehicle shall be suitable for operation and storage in conditions encountered in a tropical environment.

2.3.6 Salt fog. The vehicle shall be capable of storage and operation in high temperature, high humidity, salt laden, sea coast environments without damage or deterioration of performance.

2.3.7 Sand and dust. The vehicle shall be capable of storage and operation during exposure to wind-blown sand or dust without damage or deterioration of performance.

2.4 Weight and dimensions. Overall weight and dimensions shall contribute to maneuverability, capacity, and the ability to store. The overall weight and dimensions shall not exceed [Table II](#).

Table II. Overall dimensions.

MEASUREMENT	DIMENSION
Weight	12,000 pounds.
Length	270 inches.
Width (excluding mirrors)	85 inches.
Height	85 inches.

## 2.5 Transportability.

2.5.1 Surface transportability. The vehicle shall be transportable via all modes of surface shipment (highway, rail, and water) in accordance with MIL-STD-1366, and shall be capable of withstanding the mechanical shock and vibration characteristics of highway, rail, and water transport, except that design for rail impact testing (see 5.2.5 of MIL-STD-1366) is not required.

2.5.2 Tie downs. The vehicle shall be symmetrically restrained during all modes of surface transportability. The manufacturer or vendor shall depict the appropriate tie down points and locations, in accordance with design of the vehicle, on the transportation data plate (see [2.2.3.2](#)). Each end of each tie down device shall terminate at a tie down point and not pass through any other tie down point. There shall be no interference between tie down devices and the vehicle.

2.6 Maintainability. The vehicle shall be designed for maintainability in accordance with 5.9 through 5.9.18 of MIL-STD-1472; forces shall not exceed those specified for both males and females.

### 2.6.1 Inspection and servicing provisions.

- a. Able to service and visually inspect without removing panels or components unrelated to service.
- b. Pre-use inspections and servicing tasks shall not require tools.
- c. Drain plugs and filters shall be directly accessible from the ground and oriented to have unimpeded drainage to a catch pan.
- d. Routine service and preventive maintenance shall not require special tools (see [2.6.2](#)).
- e. The vehicle shall be designed with maximum usage of sealed lifetime lubrication bearings.

- f. A jack rated in accordance with the vehicle's design shall be provided by the manufacturer. The jack and all other related tools needed to lift vehicle and/or change a tire shall have a designated storage compartment.

2.6.2 Special tools. The design of the item shall minimize the requirement for special tools (see 6.4.7). All special tools shall be provided with, and stored on, the vehicle.

2.6.3 Diagnostic software. A copy of any diagnostic software required or recommended for maintaining the vehicle shall be provided with each vehicle on CD-ROM or DVD-ROM.

## 2.7 Performance.

2.7.1 Payload. The vehicle shall have a minimum payload of 1,500 pounds. This payload value simulates four 200 pound Airmen each having 175 pounds of gear.

2.8 Mobility. The vehicle shall meet all federal and state Department of Transportation (DOT) requirements to operate on all roadways. The fully equipped vehicle loaded to its gross vehicle weight rating (GVWR) shall be capable of the following:

- a. Maximum speed. Maintain a speed of 75 miles per hour (mph) (objective: 90 mph) on a dry level paved road for at least 1-mile without engine shut down (see [2.9.7.2](#)).
- b. Gravel roads. Traverse a graded gravel road (see [6.4.4](#)) at an average speed of 25 mph.
- c. Cross-country terrain. Traverse cross-country terrain (see [6.4.3](#)) at an average speed of 20 mph.
- d. Acceleration. Accelerate from 0 to 60 mph within 20 seconds on a dry level paved road.
- e. Clearances. Have a minimum ground clearance of 10.8 inches, an angle of approach of at least 35-degrees, an angle of departure of at least 20-degrees, and a ramp breakover angle of at least 25-degrees. Definitions of clearance terms shall be in accordance with SAE J1100.
- f. Gradeability. Ascend and descend a 30% slope without spillage of any fluid. The vehicle shall ensure 85-90% maneuver capability over sandy terrain and mitigate rollover risk.
- g. Side slope negotiation. Negotiate a 30% grade side slope in each direction (right and left side facing up the slope) without spillage of any fluid.
- h. Turning diameter. Have a wall-to-wall turning diameter, as defined by SAE J695, of 60 feet (objective: 46 feet) maximum in both directions.
- i. Steering force. The force required to turn the wheels from lock to lock, with the vehicle loaded to its GVWR and the engine at low idle speed, shall not exceed 15-pounds when measured at the steering wheel rim.

2.8.1 Transmission. The vehicle shall be equipped with an automatic transmission which shall include a hydraulic torque converter and not less than five forward gear ratios. The net torque capacity and the net power rating of the transmission shall exceed the output ratings of the engine.

2.8.2 Axles. The vehicle shall be equipped with a front and rear axle rated at least equal to the load imposed on each axle, measured at the ground, with the vehicle loaded to its GVWR.

2.8.3 Suspension. The vehicle shall be equipped with a suspension system with components having a rated capacity at least equal to the load imposed on each member, measured at the ground, with the vehicle loaded to its GVWR.

2.8.4 Steering. The vehicle shall be equipped with a power assisted steering system, with manual steering available in the event of power assist failure.

2.8.5 Brakes. The vehicle shall be equipped with power assisted, self-adjusting, hydraulic service brakes on all wheels, with an antilock braking system (ABS), in accordance with FMVSS Number 105. The vehicle shall also have a parking brake that holds the vehicle motionless on a 40% longitudinal grade in both upgrade and downgrade directions with the transmission in the neutral position. The grade surface shall be dry, hard, and free from loose material. The force required to set the brakes under these conditions shall not exceed 55-pounds.

2.8.6 Tires and wheels. The vehicle shall be equipped with single front and rear tubeless steel belted radial tires with all-weather type tread mounted on steel disc wheel assemblies. Tire and wheel assemblies shall be identical at all wheel positions. Tires and wheels shall be in accordance with the Tire and Rim Association Year Book requirements for this application. Under no circumstance shall the vehicle maximum governed speed exceed the speed rating of any of the furnished tires.

2.8.6.1 Run flat operation. The vehicle shall be capable of operating at least 30 miles with complete loss of air pressure in two tires. The two flat tires shall be on different axles. Accumulation of mileage shall be in accordance with [Table III](#):

Table III. Run flat requirements.

<b>Terrain Type</b>	<b>Distance (miles)</b>	<b>Average Speed (mph)</b>
Cross Country	12.0	12.0
Secondary Road	9.0	21.0
Paved Road	9.0	30.0

2.8.6.2 Spare tire and wheel assembly. A spare tire and wheel assembly (the tire mounted on the wheel) shall be mounted on the exterior of the vehicle; the assembly shall be identical to the others provided.

2.8.7 Drive Train. The vehicle shall be a two-axled vehicle drivetrain capable of providing torque to all four of its wheels simultaneously. This four-wheel drive capability shall be accomplished electronically from inside the vehicle cab.

2.8.8 Skid plates. Skid Plates shall be installed to protect critical underbody components.

2.8.9 Front and/or rear bumper guards. A brush guard shall be installed at the front of the vehicle on to the frame.

2.9 Engine and related equipment. The vehicle shall be equipped with a gasoline engine. The engine shall be certified to comply with the most stringent Environmental Protection Agency (EPA) gasoline engine emission requirements possible while meeting the requirement to operate on fuels containing over 10 parts per million (ppm) sulfur.

2.9.1 Engine starting system.

2.9.1.1 Starter. The engine shall be equipped with a 12- or 24-volt direct current (DC) electric starter.

2.9.1.2 Engine starting aids. The engine shall start within 15 seconds cranking in any ambient temperature within the required operating range of the vehicle. Internal engine starting aids, fluid starting aids, and heat from the winterization system (see [2.10.3](#)) may be used prior to and during the start period to facilitate engine starting under the following conditions in [Table IV](#):

Table IV. Engine starting aids.

Temperature Range	Starting Aids Permitted
40 through 125 °F	None
0 through 39 °F	Internal engine starting aids and fluid starting aids
-40 through -1 °F	Internal engine starting aids, fluid starting aids, and heat from the winterization system

2.9.2 Engine air intake system. The engine air intake system shall be in accordance with 3.13.1.4.3 of SAE ARP1247. The inlet shall not draw air from directly beneath the vehicle and shall not be located near the cooling system air outlet nor the engine exhaust outlet. Joints shall be minimized between the air filter outlet and the actual engine air inlet and shall be designed to ensure no leakage of unfiltered air into the engine. A differential pressure air filter service indicator shall be provided.

2.9.3 Engine cooling system. The engine cooling system shall be in accordance with 3.13.1.4.2 of SAE ARP1247. Ethylene Propylene Diene Monomer (EPDM) radiator and heater hoses, constant-torque clamps, a coolant filter, and a coolant recovery system shall be provided. Engine coolant shall be in accordance with A-A-52624, Type I, and of adequate strength to provide protection to -40 °F. The engine out (top of radiator) coolant temperature shall not exceed 210 °F or the engine manufacturer's recommendation. The coolant filter shall be rated for one year or 2,000 hours between replacements, with supplementary coolant additives (SCA) either included in the filter or added separately.

2.9.4 Engine lubrication system. The engine lubrication system shall be designed so that the vehicle can be operated on a 20-degree longitudinal slope facing both up and down and on an 11.5-degree side slope in each direction (right and left side facing up the slope).

2.9.4.1 Engine oil. The engine shall be compatible with Grade 10W-30, 10W-40, or the manufacturer's recommendation. Operating temperatures shall be 0 to 125 °F in accordance with MIL-PRF-2104. Oil pre-heat for operation below 0 °F is allowed.

2.9.4.1.1 Engine oil operating temperature. The engine oil sump temperature shall not exceed 250 °F or the engine manufacturer's recommendation.

2.9.4.1.2 Engine oil consumption. The engine oil consumption shall not exceed 0.0035 pounds per brake horsepower-hour (lbs/bhp-hr) under any operating condition.

2.9.4.2 Engine oil filter. The engine oil filter used shall be in accordance with the engine OEM recommendation and/or standard.

2.9.5 Exhaust system. The exhaust system shall be constructed of stainless steel. The muffler(s) shall be constructed of aluminized steel or stainless steel. Exhaust system outlet(s) shall be directed away from personnel accessing any control panel or equipment compartment and the engine air intake, and shall not be directed toward the ground.

2.9.6 Engine fuels and fuel system.

2.9.6.1 Engine primary fuels. The following shall be primary fuels (see [6.4.5](#)):

- a. Gasoline, commercial regular grade 87 octane.

2.9.6.2 Engine alternate fuels. The following shall be alternate fuels (see [6.4.6](#)):

- a. Gasoline, commercial mid-grade 89 octane.
- b. Gasoline, commercial premium grade 93 octane.

2.9.6.3 Fuel system. The fuel system shall be in accordance with 3.13.1.5.1 through 3.13.1.5.11 of SAE ARP1247 except as otherwise specified herein. The fuel system shall be constructed of materials which are compatible with the fuels listed in [2.9.6.1](#) and [2.9.6.2](#). Copper shall not be used in the fuel system. The fuel system shall be equipped with a fuel shut-off valve(s) to prevent continuous spillage when fuel lines are disconnected for service.

2.9.6.3.1 Fuel priming pump. The vehicle shall be equipped with an electric fuel pump. The electric pump shall be used as a priming pump capable of re-priming the engine fuel system following fuel exhaustion.

2.9.6.3.2 Fuel filters. Primary and secondary fuel filters shall be provided. It is acceptable that modern vehicle OEMs have internal fuel pumps and fuel filters within the fuel tank. External fuel filter elements, if applicable, shall be easily replaceable by a mechanic using nothing more than common hand tools (see [6.4.2](#)) without loss of engine prime.

2.9.6.3.3 Fuel tank. Unless otherwise specified (see [6.2.b](#)), the OEM fuel tank is acceptable unless a special designed fuel tank is deemed necessary. A full cap is preferred, however if the tank has the capless fuel fill option; assure the fuel filler flap is properly sealed to prevent unwanted

sediment infiltration into the fuel fill flap cavity from off-road use. If a special designed tank is needed, it shall be in accordance with 3.13.1.5.5 through 3.13.1.5.9 of SAE ARP1247. The tank shall be designed so that the vehicle can be operated on a 40% grade longitudinal slope facing up and down and on a 30% grade side slope in each direction (right and left side facing up the slope). The tank shall be provided with corrosion protection and baffles. A 0.25- to 0.375-inch nominal drain valve shall be provided for emptying fuel and sediment into a container underneath the vehicle without removal of the tank or any other major component. The fuel tank shall have a fuel fill opening of not less than three inch inside diameter and shall be designed to drain fuel spillage overboard for collection outside the vehicle. The fuel cap shall be equipped with a retention device to prevent loss and FOD. The fuel fill opening, fuel cap, and fuel cap retention device shall be fabricated from non-sparking material.

2.9.6.3.4 Range. The vehicle shall operate on internally carried fuel for a distance of at least 350 miles (objective: 450 miles) at an average speed of 55 mph over paved roads.

#### 2.9.7 Engine diagnostic and emergency shutdown systems.

2.9.7.1 Engine diagnostic system. If the engine is equipped with an electronic control module (ECM), a diagnostic system shall be provided with a means to indicate engine faults; it shall be equipped with a controller area network (CAN) buss connector. If the vehicle is equipped with a diagnostic or built-in-test system, the engine diagnostic system shall be integrated with it; if not, it shall be a stand-alone system.

2.9.7.2 Engine emergency shutdown system. The engine shall be equipped with an engine emergency shutdown system consisting of a fuel cutoff solenoid, or OEM design/system, activated by the following conditions:

- a. Low oil pressure, less than 10 pounds per square inch (psi) or in accordance with the engine manufacturer's recommendations.
- b. Coolant overheat or cylinder head temperature overheat condition in accordance with the engine manufacturer's recommendations.
- c. Vehicle rollover.

2.9.8 Cab instrumentation. The following instruments shall be provided to the operator:

- a. Tachometer.
- b. Odometer.
- c. Speedometer.
- d. Coolant temperature gauge.
- e. Low coolant level indicator.
- f. Oil pressure gauge.

- g. Oil temperature gauge.
- h. Fuel level gauge.
- i. Voltmeter.
- j. Transmission temperature gauge.
- k. Tire pressure monitoring system

2.10 Electrical system. The vehicle shall have a 12-volt or 24-volt, negative ground electrical system in accordance with 3.13.1.2 of SAE ARP1247 except as otherwise specified herein. The electrical system shall monitor and manage the vehicle batteries to ensure that the vehicle electronics do not discharge the batteries below their critical engine starting capability and warn the user prior to reaching this condition with manual override. The electrical system must be able to support all systems including communications, during operation in all environments.

2.10.1 Alternator. A single or dual alternator charging system in accordance with 3.13.1.4.9 of SAE ARP1247 shall be provided. The alternator shall be capable of restoring the energy expended during an engine start in less than 15 minutes of engine idle at -40 °F. The alternator system shall support the additional mission support equipment stated throughout this CID.

2.10.2 Batteries and battery compartment.

2.10.2.1 Batteries. Vehicle System Battery(ies) shall be of the commercial (see [6.4.1](#)) maintenance-free type battery; they may be a sealed lead acid, AGM or lithium batteries with a top post type in accordance with MIL-B-18013/1. The battery cover and vent system shall be designed to prevent electrolyte loss during use, and to keep the top of the battery free from electrolyte. OEM batteries are acceptable only if able to support additional mission support equipment stated throughout this CID.

2.10.2.2 Battery compartment. The battery(ies) shall be enclosed in a corrosion-resistant, weatherproof box or compartment and shall be readily accessible.

2.10.2.3 Battery cables. The battery(ies) cables shall be sized to handle the system voltage and current levels, be clearly identified with "+" and "-" or red and black markings, and shall not be spliced.

2.10.3 Winterization system. An OEM winterization system shall be provided for starting in temperatures below 0 °F. The winterization system may include heaters for engine coolant, engine oil, and the fuel tank, as well as battery warmers. The winterization system shall be designed to operate from an external 120 volts alternating current (VAC), 60 Hertz (Hz) power source utilizing the external electrical connections. The winterization system shall be powered from a 120VAC/60Hz covered, polarized, insulated, labeled, recessed, male auto-eject receptacle. It shall be located on the exterior of the vehicle. A 25-foot long power cable, with straight blade (non-twistlock) connectors, shall be provided. The winterization system shall incorporate high-temperature shutoff switches to prevent overheating of any fluid or component.

2.10.4 Additional power. The vehicle shall have a separate battery system capable of providing electrical power to the vehicle communication system (see [2.11.h](#)) and climate control system (see [2.11.2](#)) at the appropriate amps needed for a minimum of 4 hours (objective: 8 hours) when the vehicle engine is shut off during periods of extended security to avoid unnecessary engine hours of operation at idle. The separate battery system, lithium is preferred, shall be capable of being charged by the vehicle charging system.

2.11 Vehicle cabin. The vehicle shall have a cabin capable of seating four 95th percentile males in individual seats in accordance with MIL-STD-1472 and shall contain at least the following:

- a. Minimum of four passenger doors; and a rear access door for loading cargo.
- b. Tactical seating equipped with adjustable seat positioning and headrests that will not hinder the individual from exiting the vehicle with ease while wearing individual protective equipment (IPE).
- c. Quick release seatbelts.
- d. Total of four weapon racks designed to hold a M4 or M16A1 rifle with an attached M203 or M320 grenade launcher, one per seat. The weapons must be in an accessible location that will not interfere with operation of the vehicle or the performance of crewmember duties. Its position shall not obstruct the field of view of crewmembers.
- e. Tactical interior lighting system with warning system (open door, seat belt). The lighting system shall be compatible with night vision goggles, have an override capability, and include front and rear controls.
- f. Two commercial industry standard cup holders in the front of cabin.
- g. Shall be equipped with one 12VDC to 120VAC/60HZ converter with a minimum of 150W (objective: 400W) capacity with one standard U.S. AC plug, one 12VDC port, and two USB charging ports; in each of the front and rear passenger compartments.
- h. Capacity for High Frequency (HF) and Very High Frequency/Ultra High Frequency (VHF/UHF) and Battlespace Awareness communications system located in the rear of the vehicle. Vehicle shall have the capability to operate communications equipment from the vehicle cab. The HF VHF/UHF system shall still allow for the needed remaining storage space in the rear of vehicle (see [2.11.1](#)).
- i. Weapon ports shall be installed at each of the four seating areas. It is preferred that each door window have a thru-glass pivoting or sliding weapon port to enable armed personnel to safely protect themselves from the inside of the vehicle cabin.
- j. A first aid kit, winter survival kit, and stowage box for tactical gear shall be included.

2.11.1 Cabin storage. The vehicle shall contain a minimum 75 cubic feet (objective: 90 cubic feet) of internal cabin storage space in the rear of the vehicle in the form of a covered hardtop that is accessible from inside the vehicle. It shall be equipped with tie down points for cargo and

ammunition storage.

2.11.2 Climate control. The vehicle cabin shall be equipped with an OEM heater and air conditioner system with separate controls for front and rear. The system shall be capable of heating/cooling the compartment of the vehicle to 68 to 72 °F with an ambient outdoor air temperature range of 0 to 100 °F. The vehicle will include a secondary system, independent of OEM equipment heater and air conditioner, that is capable of heating/cooling the interior passenger compartment of the vehicle to 68 to 72 °F level with an ambient outdoor air temperature range of 0 to 100 °F. The secondary system shall be operated off the additional power system (see [2.10.4](#)).

2.12 Exterior lighting. The vehicle shall have a concealed light bar(s) within the dash or grill of the vehicle. Headlights shall contain light-emitting diode (LED) style bulbs.

2.13 Armor and ballistic protection. The vehicle shall have Level 1 ballistic protection for its crew compartment, roof, and windows against a 7.62 x 51 mm NATO Ball (Ball M80) rifle round with a velocity of 833 m/s (2733 ft/s) from a distance of 30 meters (98 feet). It shall also have sufficient undercarriage protection to mitigate the effects of fragmentation and explosive devices.

2.14 External public address system. When specified (see [6.2.c](#)), the vehicle shall have an external public address (PA) system with primary controls at the driver and front passenger positions.

2.15 Workmanship. The vehicle, including all parts and accessories, shall be constructed and finished in a thoroughly workmanlike manner. Workmanship objectives shall include freedom from blemishes, defects, burrs and sharp corners and edges; accuracy of dimensions, surface finish, and radii of fillets; thoroughness of welding, painting, and riveting; marking of parts and assemblies; and proper alignment of parts and tightness of assembly fasteners.

2.15.1 Bolted connections. Bolt holes shall be accurately punched or drilled and shall be deburred. Threaded fasteners shall be tight and shall not work loose during testing or service usage.

2.15.2 Riveted connections. Rivet holes shall be accurately punched or drilled and shall be deburred. Rivets shall be driven with pressure tools and shall completely fill the holes. Rivet heads shall be full, neatly made, concentric with the rivet holes, and in full contact with the surface of the component.

2.15.3 Gear and lever assemblies. Gear and lever assemblies shall be properly aligned and meshed and shall be operable without interference, tight spots, loose spots, or other irregularities. Where required for accurate adjustment, gear assemblies shall be free of excessive backlash.

2.15.4 Cleaning. The vehicle shall be thoroughly cleaned. Loose, spattered, or excess solder; welding slag; stray bolts, nuts, and washers; rust; metal particles; pipe compound; and other foreign matter shall be removed during and after final assembly.

2.16 Data.

2.16.1 Service bulletins. The contractor shall prepare Service Bulletins as required, to be issued by Air Force Registration Number, and notify the Government of new maintenance problems

and/or procedures to be implemented on the contractor's equipment prior to issuance of permanent changes to the technical manuals. The Service Bulletins shall also identify any potential safety hazards.

2.16.2 Manuals. The contractor shall provide a hard copy of Operators, Parts, and Service Manuals to be sent as pack-up data with each vehicle delivered. The contractor shall provide an electronic copy of Operators, Parts, and Service Manuals formatted in Indexed Portable Document Format (IPDF) to Robins Air Force Base.

### 3. REGULATORY REQUIREMENTS.

3.1 Recycled recovered, environmentally preferable, or biobased materials. Recycled, recovered, or environmentally preferable, or biobased materials should be used to the maximum extent possible, provided that the material meets or exceeds the operational and maintenance requirements, and promotes economically advantageous life cycle costs. The offeror/contractor is encouraged to use recovered materials to the maximum extent practicable, in accordance with 23.403 of the Federal Acquisition Regulation (FAR). However, used, rebuilt, or refurbished items shall not be provided.

3.2 Green Procurement Program. Green Procurement Program (GPP) is a mandatory federal acquisition program that focuses on the purchase and use of environmentally preferable products and services. GPP requirements apply to all acquisitions using appropriated funds, including services and new requirements. FAR 23.404(b) applies and states the GPP requires 100% of EPA designated product purchase that are included in the Comprehensive Procurement Guidelines list that contains recovered materials, unless the item cannot be acquired: a) competitively within a reasonable timeframe; b) meet appropriate performance standards, or c) at a reasonable price. The prime contractor is responsible for ensuring that all subcontractors comply with this requirement.

### 4. PRODUCT CONFORMANCE PROVISIONS.

The products provided shall meet the salient characteristics of this CID, conform to the producer's own drawings, specifications, standards, and quality assurance practices, and be the same product offered for sale in the commercial marketplace, modified as necessary to comply with the requirements herein. The Government reserves the right to require proof of such conformance.

4.1 Classification of inspections. The inspection requirements specified herein are classified as follows:

- a. First production inspection (see [4.1.1](#)).
- b. Conformance inspection (see [4.1.2](#)).

4.1.1 First production inspection. The first production vehicles shall be subjected to the analyses, demonstrations, examinations, and tests described in [4.4](#). The contractor shall provide or arrange for all test equipment and facilities. Except as otherwise specified, all testing in which the engine is operated shall be performed using gasoline fuel.

4.1.2 Conformance inspection. Each production vehicle shall be subjected to the examination

described in [4.4](#).

4.2 Commercial item requirement. The vehicle furnished shall comply with the "commercial item" definition of FAR 2.101 as of the date of award. The Government reserves the right to require the offeror/contractor to prove that their product complies with the referenced commerciality requirements and each salient characteristic of this CID.

4.3 Inspection requirements.

4.3.1 General inspection requirements. Apparatus used in conjunction with the inspections specified herein shall be laboratory precision type, and calibrated at proper intervals to ensure laboratory accuracy.

4.3.2 Data. During all testing specified herein, at least the following data, unless not applicable, shall be recorded at intervals not to exceed 30 minutes. Additional data or shorter intervals shall be provided as appropriate for any specific test.

- a. Date.
- b. Time started.
- c. Time finished.
- d. Ambient temperature.
- e. Ambient humidity.

4.3.3 Test rejection criteria. Throughout all tests specified herein, the vehicle shall be closely observed for the following conditions, which shall be cause for rejection.

- a. Failure to conform to design or performance requirements specified herein.
- b. Any spillage or leakage of any liquid, including fuel, coolant, lubricant, or hydraulic fluid, under any condition, except as allowed herein.
- c. Structural failure of any component, including permanent deformation, or evidence of impending failure.
- d. Evidence of excessive wear. If excessive wear is suspected, the original equipment manufacturer's (OEM's) specifications or tolerances shall be utilized for making a determination.
- e. Evidence of corrosion or deterioration.
- f. Misalignment of components.
- g. Conditions that present a safety hazard to personnel during operation, servicing, or maintenance.

- h. Interference between the vehicle components or between the vehicle, the ground, and all required obstacles, with the exception of normal contact by the tires.
- i. Evidence of undesirable mobility characteristics, including instability in handling during cornering, braking, and while traversing all required terrain.
- j. Shutdown faults from:
  - (1) Engine cooling system.
  - (2) Engine lubrication system.
  - (3) Engine protective circuits.

#### 4.4 Test methods.

4.4.1 Examination of product. Each vehicle shall be examined to verify compliance with the requirements herein prior to accomplishing any other demonstrations or tests listed in [4.4](#). A contractor-generated, Government-approved checklist (part of the test procedure) shall be used to identify each requirement not verified by an analysis, certification, demonstration, or test, and shall be used to document the examination results. Particular attention shall be given to materials, workmanship, dimensions, surface finishes, protective coatings, and sealants and their application, welding, fastening, and markings. Proper operation of each vehicle function shall be verified. Certifications and analyses shall be provided in accordance with [Table V](#). Each production vehicle shall be inspected to a Government-approved reduced version of the checklist.

Table V. Certifications and analyses.

Paragraph	Required Certifications and Analyses
<a href="#">2.3.3.2</a> <u>Snow.</u>	Contractor analysis of the snow load requirement.
<a href="#">2.3.4</a> <u>Solar radiation.</u>	Contractor certification that the vehicle performance is not adversely affected by full time exposure to solar radiation, such as those conditions encountered in desert environments.
<a href="#">2.3.5</a> <u>Fungus.</u>	Contractor certification that the materials used in construction of the vehicle are fungus resistant or suitably treated to resist fungus.
<a href="#">2.5.1</a> <u>Surface transportability.</u>	Contractor surface transportability analysis (see <a href="#">4.4.6.1.1</a> ) and certification that the vehicle is transportable via all modes of surface shipment (highway, rail, and water) in accordance with MIL-STD-1366, and shall be capable of withstanding the mechanical shock and vibration characteristics of highway, rail, and water transport.
<a href="#">2.5.2</a> <u>Tie downs.</u>	Contractor tie down provision analysis (see <a href="#">4.4.7.1.2</a> ).

Paragraph	Required Certifications and Analyses
<a href="#">2.9 Engine and related equipment.</a> <a href="#">2.9.3 Engine cooling system.</a> <a href="#">2.9.4 Engine lubrication system.</a> <a href="#">2.9.6.1 Engine primary fuels.</a> <a href="#">2.9.6.2 Engine alternate fuels.</a>	Engine manufacturer certification that the engine is in accordance with all applicable requirements, including exhaust emissions standards and fuels. Engine manufacturer application approval for the engine and its installation, including cooling system, lubrication system, and mounting system.
<a href="#">2.10.4 Additional power.</a>	Contractor certification that the separate battery system is capable of providing electrical power to the vehicle communication system (see <a href="#">2.11.h</a> ) and climate control system (see <a href="#">2.11.2</a> ) for hours (objective: 8 hours) when the vehicle engine is shut off during periods of extended security to avoid unnecessary engine hours of operation at idle.
<a href="#">2.13 Armor and ballistic protection.</a>	Contractor certification and documents referenced to ensure that the armor and ballistic protection meets specifications.

4.4.2 Noise test. A first production vehicle shall be tested in accordance with SAE J366 to verify that the sound levels are in accordance with [2.2.4.5](#).

4.4.3 Electromagnetic interference test. A first production vehicle shall be tested in accordance with MIL-STD-461: RE 102 and RS 103 to demonstrate compliance with [2.2.5](#). Any engine fuel in accordance with [2.9.6.1](#) and [2.9.6.2](#) may be utilized.

4.4.4 Environmental testing.

4.4.4.1 High temperature storage and operation test. A first production vehicle shall be tested in accordance with MIL-STD-810, Method 501.6, Procedures I and II, to demonstrate compliance with the high temperature operating and storage requirements of [2.3.1](#) and [2.3.2](#), as well as the additional power requirement of [2.10.4](#). Test duration shall be one 24-hour cycle for each procedure beginning no less than two hours after test item temperature stabilization.

4.4.4.2 Low temperature storage and operation test. A first production vehicle shall be tested in accordance with MIL-STD-810, Method 502.6, Procedures I and II, to demonstrate compliance with the low temperature operating and storage requirements of [2.3.1](#) and [2.3.2](#), as well as the engine starting requirement of [2.9.1.2](#), the alternator charging requirement of [2.10.1](#), any winterization system requirements of [2.10.3](#), plugs and connectors requirements of 0, and the additional power requirement of [2.10.4](#). Test duration shall be one 24-hour cycle for each procedure beginning no less than two hours after test item temperature stabilization.

4.4.5 Weight and dimension tests.

4.4.5.1 Weight and center of gravity test. The weight of a first production vehicle shall be measured to demonstrate compliance with the weight requirement of [2.4](#).

4.4.5.2 Dimension measurement. A first production vehicle shall be measured to demonstrate compliance with the dimensional requirements of [2.4](#).

4.4.6 Transportability verification.

4.4.6.1 Surface transportability verification.

4.4.6.1.1 Surface transportability analysis. An engineering analysis shall be performed to demonstrate compliance with [2.5.1](#). The engineering analysis shall utilize the data for road transportation in accordance with MIL-STD-810, Method 514.7, Table 514.7C-II.

4.4.7.1 Tie down provision verification.

4.4.7.1.1 Tie down provision analysis. An engineering analysis shall be performed to demonstrate compliance with the tie down provision requirements of [2.5.2](#).

4.4.7.1.2 Tie down provision test. A first production vehicle shall be tested to demonstrate compliance with the tie down provision requirements of [2.5.2](#).

4.4.8 Maintainability demonstration. All recommended preventive maintenance tasks shall be performed and the task times shall be recorded. The recommended frequencies of the preventive maintenance tasks and the times recorded to accomplish the tasks shall be used to develop an expected value of preventive maintenance time per measure of use, such as calendar time or hours of operation. It shall be demonstrated that the forces required do not exceed those allowed in MIL-STD-1472. All preventive maintenance tasks recommended to be performed daily and at the routine PMI shall also be performed by personnel wearing arctic mittens.

4.4.9 Mobility tests. A first production vehicle shall be tested in accordance with Table VIII of SAE AS8090 to demonstrate compliance with the mobility requirements of [2.8—2.8.2](#), [2.8.4](#), and [2.8.5](#). Unless otherwise specified, the first production vehicle shall perform the mobility tests below at its full GVWR to demonstrate compliance with [2.7.1](#).

- a. Maximum speed. A first production vehicle shall be driven at its maximum speed on a dry level paved surface to demonstrate compliance with [2.8.a](#).
- b. Gravel roads. A first production vehicle shall be driven over gravel roads to demonstrate compliance with [2.8.b](#) and [6.4.4](#).
- c. Cross-country terrain. A first production vehicle shall be driven over cross-country terrain to demonstrate compliance with [2.8.c](#) and [6.4.3](#).
- d. Acceleration. The time-distance-speed relationship of a first production vehicle shall be determined by accelerating from a standing stop to a speed in compliance with [2.8.d](#). Not less than four runs, each in opposite directions, shall be conducted. Maximum acceleration shall be the average time to reach the speed in compliance with [2.8.d](#) for all runs. A time-distance recorder shall be used to record data for this test.
- e. Clearances. A first production vehicle shall be parked on a flat level surface and its

ground clearance, angle of approach, angle of departure, and ramp breakover angle shall be measured to demonstrate compliance with [2.8.e](#).

- f. Gradeability. A first production vehicle shall be driven up and down a grade to demonstrate compliance with [2.8.f](#). Engine oil pressure shall be observed and shall not be less than the engine manufacturer's recommended pressure at the engine operating speed. Engine starting ability shall be demonstrated in both directions on the grade.
- g. Ramp negotiation. A first production vehicle shall be driven forward from a hard, flat horizontal surface and ascend a ramp with a minimum length of 1.2 times the vehicle wheelbase with a specified slope per [2.8.f](#). It shall then proceed across the ramp crest onto an upper connecting hard, flat horizontal surface until all tires are resting on the upper surface, then shall be backed down the ramp until all tires are resting on the lower surface. The test shall then be repeated in the opposite direction.
- h. Side slope negotiation. A first production vehicle shall be driven on a side slope (see [2.8.g](#) for grade) with its right side facing up slope; this shall be repeated with the left side facing up slope. Engine oil pressure shall be observed and shall not be less than the engine manufacturer's recommended pressure at the engine operating speed. Engine starting ability shall be demonstrated in both directions on the side slope.
- i. Turning diameter. A first production vehicle shall be tested in accordance with SAE J695 in both directions to measure its wall-to-wall turning diameter to demonstrate compliance with [2.8.h](#).
- j. Steering force. A first production vehicle, with the engine at low idle speed, shall be tested to demonstrate compliance with [2.8.i](#).

4.4.9.1 Range test. A first production vehicle shall be tested to demonstrate compliance with the range requirement of [2.9.6.3.4](#).

4.4.9.2 Run flat operation test. A first production vehicle shall be tested with two flat tires, on different axles, over the distances and at the average speeds in Table III to demonstrate compliance with the run flat requirements of [2.8.6.1](#).

4.4.10 Engine emergency shutdown system. The contractor shall demonstrate that the emergency shutdown system is capable of providing automated and immediate engine shutdown upon system/subsystem malfunction detection or during an unsafe event; system shutdown shall prove to not be hazardous to the vehicle functionality and integrity. The contractor may submit test data and request that AFLCMC/WNZE review and consider waiving test requirements, provided tests were conducted under realistic conditions and independently managed by qualified third-party test agencies.

4.4.11 Climate control demonstration. A first production vehicle's climate control system shall be demonstrated to show compliance with the climate control requirements of [2.11.2](#).

5 PACKAGING. Preservation, packing, and marking shall be as specified in the contract or order (see [6.2.c](#)).

## 6 NOTES.

6.1 Source of documents.

6.1.1 Air Force Instructions (AFI). Copies of AFIs are available online at <https://www.e-publishing.af.mil/>.

6.1.2 American Welding Society (AWS) documents. Copies of AWS documents may be obtained from AWS, 8669 NW 36 Street, # 130, Miami, FL 33166-6672, or online at <https://www.aws.org>.

6.1.3 Code of Federal Regulations (CFR). CFRs may be obtained from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402, or online at <https://www.ecfr.gov/cgi-bin/ECFR?page=browse>.

6.1.4 Environmental Protection Agency (EPA) documents. Copies of EPA documents may be obtained from US EPA National Headquarters Building, 1200 Pennsylvania Avenue NW, Washington, DC 20004, or online at <https://www.epa.gov/>.

6.1.5 Federal Acquisition Regulations (FAR). FARs may be obtained from the Superintendent of Documents, Government Printing Office, Washington, DC 20402, or online at <https://www.acquisition.gov/?q=browsefar>.

6.1.6 Government documents. Copies of specifications, standards, and handbooks are available online at <https://assist.dla.mil>.

6.1.7 SAE International standards. Copies of SAE standards may be obtained from the SAE, 400 Commonwealth Drive, Warrendale, PA 15096, or online at <https://www.sae.org/>.

6.1.8 Tire and Rim Association (TRA) standards. Copies of TRA standards may be obtained from TRA, Inc., 175 Montrose West Avenue, Suite 150, Copley, OH 44321, or online at <https://www.us-tra.org/publications.html>.

6.2 Ordering data. Acquisition documents should specify the following:

- a. Title, number, and date of this CID.
- b. Special designed fuel tank (see [2.9.6.3.3](#)).
- c. External public address (PA) system (see [2.14](#)).
- d. Packaging requirements (see [5](#)).

6.3 National Stock Number (NSN). The following is a list of NSNs assigned that correspond to this CID. The list may not be indicative of all possible NSNs associated with this CID.

NSN	2320-01-705-5568
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## 6.4 Definitions.

### 6.4.1 Commercial item.

(1) Any item, other than real property, that is of a type customarily used by the general public or by non-Governmental entities for purposes other than Governmental purposes, and—

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (1) of this definition through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (1) or (2) of this definition, but for—

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. Minor modifications means modifications that do not significantly alter the non-Governmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (1), (2), (3), or (5) of this definition that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if—

(i) Such services are procured for support of an item referred to in paragraph (1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed or specific outcomes to be achieved and under standard commercial terms and conditions. For purposes of these services—

(i) “Catalog price” means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) “Market prices” means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in paragraphs (1) through (6) of this definition, notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a contractor; or

(8) A non-developmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Government. (Reference the Federal Acquisition Regulation (FAR) 2.101)

6.4.2 Common hand tool. A non-powered tool that is likely to be found in a typical mechanic’s toolbox. Common hand tools include open end, boxed end, combination, socket (both 6- and 12-point in both standard and deep-well), and hex key wrenches, in SAE sizes up to and including 1-inch and metric sizes up to and including 25-mm; ratchet handles, extensions, and swivels; slotted and Phillips-head screwdrivers; regular and snap-ring pliers; and a ball-peen hammer.

6.4.3 Cross-country terrain. Cross-country terrain consists of unimproved open fields, broken ground, loose sand, and gravel road encountered by tactical vehicles supporting an army in the field.

6.4.4 Gravel road. A gravel road is a level or rolling gravel trail.

6.4.5 Primary fuel. The fuel or fuels used during tests to demonstrate system performance (contract compliance). Substitutions are presented as Alternate fuels.

6.4.6 Alternate fuel. A fuel that can be used in place of the primary fuel. The use of an alternate fuel may result in a change of performance and overhaul cost.

6.4.7 Special tool. A tool that is not commercially and readily available from a source other than the vehicle contractor.

6.5 Key words.

Ballistic protection  
Sport Utility Vehicle (SUV)  
Truck with enclosed bed

MILITARY INTERESTS:

Custodians:

Air Force – 184

Preparing Activity:

Air Force – 184

Project 2320-2022-001

NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using ASSIST Online database at <https://assist.dla.mil>.