

SPORT UTILITY VEHICLES & ARMORING SPECIFICATIONS

1. GENERAL REQUIREMENTS:

a. Contractor shall provide two (2) 4x4 Sport Utility Vehicles (SUV) modified with armoring material, (special protected).

b. The contractor shall provide all opaque and transparent armor materials, installation hardware, special security equipment, suspension up-grade equipment, braking up-grade, drive line up-grade as/if required (i.e. drive shaft), and all materials needed to make templates in accordance with specifications, and all ballistic certifications for transparent and opaque materials. The contractor shall also be responsible for the administration and logistical support for its personnel, and all tools and labor needed to perform this contract. Additionally, contractor will provide secure area during work performance/modifications, and access will be restricted to allow only plant (contractor) personnel and authorized U.S. Government representatives.

c. The contractor will allow U.S. Government representatives to perform random in-progress and final inspections of all materials and workmanship along with ballistic testing by lot number and certifications as deemed necessary at no cost to the U.S. Government.

2. PLATFORM DESCRIPTION (VEHICLE):

The vehicle to be furnished under this contract shall be year 2000/2001 new or registered as factory demonstrator year 2000/2001 model, however not exceeding 3000 miles, and shall meet the following specifications:

Type/Model Chevrolet Suburban, LS 2500 Series

Nomenclature: 4x4 Sport Utility Vehicle

Engine: Gasoline, VORTEC 6000, V-8, SFI, 320 hp (minimum)

Transmission: Automatic Transmission

Color: Standard by manufacturer. Red, orange, white, or yellow not to be used. Colors will be chosen - agreed upon within three (3) days of contract confirmation: to be communicated by Navy representative(s).

Upholstery: Colors will be chosen - agreed upon within three (3) days of contract confirmation: to be communicated by Navy representative(s).

Accessories: - Air conditioning with independent second-row climate control (dual zone)-

- Catalytic Converter

- AM/FM Cassette Radio and Clock

- Power Windows

- Power Steering

- Power Brakes

- Power Door Locks

- Front and Rear Floor Mats (Rubber)

- Normal Size Spare Tire

- Jack and associated tools to accommodate the additional weight after armoring

- Portable fire extinguisher easily accessible to both front occupants

- First Aid Kit

- Roadside Assistance Kit

- Operator's and Service Manual in English

3. GENERAL SPECIFICATIONS, (ARMORING)

a. Construction shall integrate opaque/transparent materials and vehicle structural design in such a manner as to withstand and balance structural loads while affording optimum protection throughout the entire passenger compartment (component design).

b. No gaps shall be permitted between opaque armor mating surfaces; opaque to transparent armor transition at front side; rear of passenger or cargo compartment; along all passenger compartment door lines. All opaque armor materials joining on the same plane shall be overlapped.

c. Armoring of the rear cargo area is optional however is not considered essential. The rear cargo area does not

need to be accessed from the passenger compartment.

d. Armor materials shall be incorporated in such a manner as to allow maximum passenger comfort while limiting alterations to the original design to the maximum extent possible.

e. Suspension system, attachment points and related infrastructure components shall be modified to meet after armoring mass of vehicle, (a minimum of 25% upgrade). Consult with vehicle OEM as/if necessary and/or aftermarket firm specializing in suspension systems.

f. Brake system shall accommodate after-armoring mass of vehicle and be of such design as to ensure against excessive brake fade and/or failure at high speed (100 mi/h plus) and/or repeated use. Consult with vehicle OEM as/if necessary and/or aftermarket firm specializing in braking component systems.

g. Drive shaft and couplings (attachment points) and related infrastructure components shall be reinforced to accommodate increased vibration/stress due to additional weight of the armor mass. Consult with vehicle OEM as/if necessary.

h. Specific vehicle acceleration, braking and cornering at after armoring mass weight on dry surface should allow for positive controls at all times; performance degradation over unarmored comparably equipped make, series, model should not exceed 15% in braking distance.

4 SECURITY PROTECTION REQUIREMENTS:

a. Ballistic classification: Minimum ballistic protection shall provide against 7.62 East Block ammunition (7.62 x 39, M43, SC) fired from a rifle and be in accordance with testing procedures utilized by the Bundeskriminalamt (BKA), Beschussamt, Mellrichstadt, Germany and/or U.S. testing certification procedures. All opaque (steel or other bulletproof material) and transparent (bulletproof glass) armor shall completely protect vehicle's interior passenger compartment area (100%) including roof and floor areas. Seams, joints, gaps, or holes occurring at door openings, with armor panels, between opaque and transparent armor boundaries, shall be constructed such that a projectile following a linear or angled path shall not enter the vehicle's interior without contacting the armor material. Construction shall also minimize a projectile entering the interior due to a ricochet from the armor. Specific areas of the engine compartment (i.e. firewall-dashboard area), hood, and wheel wells must be 'covered' to ensure no penetration of the passenger compartment.

b. Opaque armor: Vehicle shall afford ballistic protection for the protection level specified. All opaque armor materials shall be given a protective coating, which ensure a smooth surface and allow for effective inspection of armor materials for cracks.

c. Transparent armor: Transparent armor shall be of one-piece construction with anti-spall inner layer. Transparent armor shall be PPG, Isoclima, Triplex or Sully, of glass-plastic (polycarbonate), laminated construction and shall have a material alone capability of meeting or exceeding the ballistic protection specified in paragraph a. above. Exposed polycarbonate surface shall be treated with an abrasion-resistant coating. Manufacturer's markings shall be concealed to the maximum extent possible within the border/trim area.

d. Armor materials may be secured by welding, bolting or bonding. Method of attachment shall ensure structural integrity and protection of the passenger compartment. Method of armor materials fixation shall preclude dislodgment by ballistic/explosives device or vehicle accident and withstand vibration and/or shifting under normal operating conditions.

e. Locking gas cap: The contractor shall install a steel covered locking gas cap and supply keys to U.S. Government representatives if vehicle is not equipped.

f. Tailpipe protection: The contractor shall install a 6.35 mm by 6.35 mm, twenty (20) gage, stainless-steel mesh in the tailpipe or a 6-10mm bolt; nut to be spot welded.

g. Floor armor: Armoring of entire floor area, passenger compartment consisting of a an arimyd fiber (e.g. Kevlar) formed with a minimum of eight (8) layers, 120 grams per layer, per square meter. Installation must ensure against

gaps and sufficient overlapping with other opaque areas within passenger compartment. Flexible/matted installation is permissible however exposed, fraying edges will not be accepted. Minimum protection level acceptable to withstand blasts underneath the vehicle (hard or soft surface) from two (2) DM 51 German ordnance, grenades and/or similar blasts.

h. Run flat tire inserts: standard type or tire/wheel combination (warranted), all five (5) wheels (includes spare) to allow vehicle to travel at a high rate of speed after puncture. The rims must have capacity to meet or exceed load imposed on each wheel (armor mass and full passenger load). Applicable tire pressure labels to be provided.

i. Installation of second battery (backup) with primary-secondary switch easily accessible to the vehicle operator. Both batteries, primary and secondary, are to be same as or equal to Optima Gel Cell battery. Batteries shall be armor protected same level as in paragraph 4a.

j. Vehicle management system (black box) if located outside of passenger compartment area shall be armor protected at the same level as in paragraph 4a.

k. Contractor will provide capability to install additional wiring between rear cargo area and passenger compartment and appropriate electrical supply components -connectors for installation of additional communication gear such as telephone, two-way radio, etc. This area must also be armor protected same level as in paragraphs 4a and 4g.

l. Operable window; the driver's side window of one-piece transparent armor shall be constructed such that the window can be manually and hydraulically or electronically moved up and down. Emergency activation to raise/lower window in the event of power failure shall be accessible to the driver. Appearance of operable window shall be identical to the fixed window.

m. Explosion proof/self sealing fuel tank, Safoam type equal to or better, and encased (all exposed areas) with armor, same level as in paragraph 4a.

n. If rear cargo area is not armored, then the following shall apply. Assembly of armor between passenger compartment and cargo area shall consist of opaque and transparent armor installed directly behind the rear seat sufficiently overlapped and same armor shall extend from floor area to the roof line, again ensuring 100% protection of the passenger compartment. Size dimension of transparent portion shall be sufficient to allow for rear view vision with minimal obstruction as not to impede safe operation.

o. If unit is equipped with child safety locks, they shall be disabled.

p. Contractor will install tampering alarm and loudspeaker (inside/outside) System: A tampering alarm shall be provided and installed to detect unauthorized entry and/or attempted entry into the security vehicle's interior and engine compartment. The tampering alarm shall be inconspicuous from the exterior. An interior/exterior loudspeaker system shall be provided and will allow vehicle occupants to address and listen to personnel outside the vehicle. The system shall be installed such that vehicle-generated interference is eliminated. This communication system will be easily accessible to both front occupants. System will also have siren capability, multi-frequency.

q. Contractor will up-grade vehicle electrical system (alternator), engine cooling system (radiator/oil cooler/transmission cooler) and power steering as/if required based on armor mass-full passenger load and technical consultation with OEM.

r. Contractor will install additional rear-view mirror for the co-driver (passenger front seat).

s. Driver's Training: Driver's safety training course shall be provided by the contractor for two (2) individuals, at contractor's plant for a period of at least one eight (8) hour day. Exact training date shall be coordinated with the requiring activity. Required is the contractor's/manufacture's recommended drivers training such as physical driving, braking, accelerations, turning, tire changing, etc., to assure that the driver is able to safely operate the vehicle in normal as well as in dangerous situations.

CERTIFICATION REQUIREMENTS:

The contractor hereby certifies:

- a. The armor materials provided under the resulting contract meet the criteria described in this solicitation.
- b. Only those opaque and transparent armor materials tested by an armor test laboratories (e.g. H.P. White, USA, or Beschussamt, Mellrichstadt, Germany) and having received certification as having met the U.S. Navy armor material standard articulated by the U.S. Department of State shall be used in the special protected vehicle fabrication, (no armor material substitution is authorized, unless tested and certified).
- c. Original certifications (certified to be original) for opaque and transparent material tested and/or utilized in this contract including fuel tank and run flat system shall be provided to the authorized U.S. Government Navy representative.

6. WARRANTY:

The contractor will warranty the following:

- a. All workmanship: five (5) years.
- b. All opaque armor: five (5) years.
- c. All transparent armor: three (3) years.
- d. Upgrades, primarily power train, braking system, suspension (after market): three (3) years.
- e. Special equipment such as operable window system, protected fuel tank, run flats, tampering alarm, PA system, etc.: three (3) years.

7. PREPARATION FOR DELIVERY:

Vehicle is to be in clean, drive away condition, to include all fluid levels in normal operating ranges.

8. POINT OF DELIVERY:

- a. The vehicles shall be delivered FOB Destination to:
(exact delivery address will be provided upon award.)
- b. Driver's Training shall be performed at Contractor's plant.
- c. Exact Delivery/Performance date(s) shall be coordinated with the Acceptance Point of Contact(s) listed below:
(will be provided upon contract award).
- d. The contractor shall assist with loading vehicle (chocking and blocking) into Government provided container as/if required.

9. VEHICLE'S OPERATIONAL AREA:

The vehicle will/may be operated in the Central/South America. The Contractor is required to have authorized maintenance/repair and service facilities throughout the regions mentioned or access to.