

## **ANNEX A – TERMS OF REFERENCE**

### **RFP 2017/1025 FOR THE SUPPLY OF ARMoured VEHICLES,**

#### **SPARE PARTS AND RELATED SERVICES**

##### **A. Mandatory Requirements**

- i. The AV **must** have passed the requirements of vehicle acceptance test (Ballistic Certification) by **Full Scale Trial** according to VPAM Standard – APR 2006 (BRV 2009 – VR7) for the following most prevalent ammunition calibers:
  - 5.56 x 45 mm (MEN, SS109) FMJ, PB, SCP
  - 7.62 x 51 (MEN, M80) FMJ, FB, SC
  - 7.62 x 39 (AK 47), AP, FJ, PB, SCB
  - 9 mm (Luger), FMJ, RN, SC
- ii. The vehicle **must** have passed the requirements of the vehicle acceptance test (Blast Certification) by **Full Scale Trial** according to current VPAM Standard – ERV 2010 (latest edition):
  - 15 kg TNT (NEQ) detonated 4 meters from the side of the vehicle, perpendicular to the “B” pillar.
  - 2 x DM51 hand grenades detonated simultaneously on the roof and underfloor.
  - 1 x DM31 anti-personnel mine detonated under the driver seat (STANAG 4569, Level 1).
  - Passenger cell testing to record cabin overpressure sustained to the occupant during blast event.

**Note:** Full Scale Trail is subject to a specified Protection Level by a recognized standard and must be certified by an independent specialized ballistic/blast testing laboratory for all required tests with valid certificates **and corresponding test protocols** (e.g. Beschussamt Mellrichstadt/Germany).

## B. Specifications (Subject to scoring)

General purpose heavy duty 4x4 armored station wagon type vehicle with upgraded front and rear suspension to accommodate the additional weight of the armoring. The offered armored vehicle must be based on a commercial SUV Toyota LC200, LC76 and LC78 or successor models.

The vehicle must retain, in so far as possible, the original appearance. The armored vehicle must have been tested to determine its roadworthiness (ride and handling test, brake system test) in compliance with European Community Whole Vehicle Type Approval (ECWVTA) or United States Federal Motor Vehicle Safety Standards (FMVSS) or equivalent international standards (e.g. TUEV Germany).

### i. Base Vehicle:

Transmission:	Automatic or Manual
Engine:	Diesel or Petrol (ratio 35W/kg), turbo charged/intercooler
Lengths:	min 4700 mm
Widths:	min 1700 mm
Heights:	min 1900 mm
Payload:	min 600 kg
GVW:	max 5300 kg
Seat configuration:	Front: 2 Rear: 3 Cargo compartment: 3 (jump seat)
Tank capacity:	90 liters plus 40 liters extra fuel tank
Tires:	Heavy duty all terrain with load index for the gross vehicle weight (GVW i.e. 123)
Rims:	Aluminum/steel rim with run-flat system which supports GVW (certified breaking strength axial 1,800 kg per wheel)
Steering:	Left Hand and Right Hand Drive (bidders are requested to offer both options)
Paint:	White

ii. Standard Features:

- Armored glass (e.g. GKN glass) 39 mm with Polycarbonate spall liner- providing certified protection in accordance with CEN 1063.
- Full steel coverage over the floor pan/transmission tunnel, offering ballistic and blast protection as well as completing the full capsule stiffening-and-protection structure. **Continuous** welding on all steel floor plates to insure integrity against a blast event.
- Teflon spring loaded rollers on all doors to prevent door from sagging or equivalent.
- Opaque armor, vertical surfaces: 8 mm on all side doors, vertical sides, fire wall and all four wheel-arches. 6 mm on the roof and 4 mm on the floor. Butt Joints are further to protect with 4 mm overlap plate (4 cm wide).
- Certified design must include an all-over transparent/opaque capsule shielding the driver and passenger seats including luggage area and vehicle back doors (complete passenger cabin armoring).
- Additional armored steel angle plates throughout majority of door aperture lips, to protect against compound trajectories.
- Additional protection in the leading and trailing edges of the door apertures and within 'A', 'B', and 'C' pillars, to maximize the integrity concept.
- Fuel tank protection
- Significant overlaps between opaque/transparent interfaces, with minimum separation in the common plane.
- Air condition system, OEM upgraded for use in extreme climatic conditions.
- Operable window door on driver side
- Central door locking with remote control
- Power steering
- Digital clock, 12V auxiliary socket
- Anti-theft device
- Tires including spare wheel are adjusted to the additional weight and on alloy rims (1,800 kg breaking strength certified per wheel)
- All five (5) wheels including spare wheel with run-flat system

- Upgraded HD suspensions, steering damper, front and rear damper and front and rear springs, upgraded front and rear anti roll bar (complete vehicle suspension upgrade including entire chassis reinforcement).
- Up-rated, developed heavy duty hinges replace factory fitted.
- Weight addition on doors to be an integral structure with the weight-bearing hinge-plate.
- Double working shock absorbers for all doors and power lifter for lift gate door (if applicable).
- Emergency exit door lock mechanism for tailgate
- Intercom system combined with PA system
- Alarm siren in engine compartment
- Two (2) roof mounted antennas, pre-wired (VHF and GSM antenna)
- Lockable aluminum box with extensive tool set, first aid kit, portable fire extinguisher (1 kg), heavy duty jack (min 3000 kg)
- CD/AM/FM Radio
- Front and rear rubber floor mats
- Owner's manual for additional features
- Cleaning advice for ballistic glass
- Exhaust pipe and grill
- Fuel line protection
- Brake line protection

iii. Warranty:

The bid shall include defects and liability period with terms of warranty.

UNHCR request a minimum of:

- 1 year warranty on Toyota based vehicles
- 2 years manufacturer's warranty against delamination on ballistic glass
- 3 years anti perforation on armoring components on ballistic steel

iv. Options to meet UNHCR's Standard:

- Bull bar (alternative front and rear steel bumper integrated in the 'soft skin' design)
- Winch, min 9000lbs, electric 12V, installed in bull bar (optional)
- Fire suppression system for engine compartment
- Main battery armored
- Twin Optima Gel batteries with electronic battery management system (split diode charger) including two (2) battery isolator switches.
- MagLite® work lamp, magnetic with charger
- CODAN HF Mobile Radio, NGT SRX with 9350 antenna, 400 channels, **pre-wired only without hardware**
- Heavy duty tow rope, jump start cables
- Armored Radiator grill with additional fan
- Yellow labels for window treatment
- Instruction for fire suppression system
- All ancillary equipment and under hood or inside the vehicle must be easily identifiable and clearly labelled.
- Dead-bolts door locking, spring-located manual, all 4 doors
- Driver airbag switched off
- iCOM VHF radio provided and installed
- Thuraya docking station (in accordance with UNHCR standard) including free hand call (without handset)
- Armored glasses in cargo area LE/RI
- 3<sup>rd</sup> key with smart key function
- Hybrid Tracking System, HTS (IDP-782) standard kit, incl. immobilizer provided by NOVACOM
- 3-point security belts for all passenger seats including back seats (except jump seats)

v. Additional Spare Parts ordered with each Vehicle:

- Four (4) complete wheels with run-flat system
- Two (2) Set of Front Dampers
- Two (2) Set of Rear Dampers
- Two (2) Set of Heavy duty Front Spring
- Two (2) Set of Heavy duty Rear Spring
- Two (2) Set of Brake Pads front (not OEM)
- Two (2) Set of Brake Pads rear (not OEM)
- Two (2) Set of Brake Disc front (not OEM)
- Two (2) Set of Brake Disk rear (not OEM)

vi. After Sales Service and Repair

- Comprehensive list of specific spare parts for armoring components, including as a minimum:
  - Batteries & overload relays
  - Brake pads & discs / front & rear
  - All glasses
  - Suspension front & rear coil springs
  - Shock absorbers front & rear
  - Stabilizer bar bushing front & rear
  - Suspension control arm bushing
  - Complete wheels / rim & tyre & run flat
  - Door hinges and dampers,
  - Door shock absorbers
- Comprehensive list of OEM spare parts as optional equipment including the following list of additional options for Toyota Land Cruiser 200 and 76/78 Series:
  - Vehicle re-spray/painted
  - Turbo charger with Intercooler
  - Engine bay armoring
  - Stainless steel sump protection

- Additional fuel filter/water separator
- Fuel cooling system
- Fire suppression system – underbody/tank
- Spare cartridge for fire suppression system
- Armored roof hatch – emergency escape
- Snorkel plus cyclone filter
- Four heavy duty snow chains
- Sand tracks
- Direct tires pressure monitoring system with display
- Additional rear view mirror
- DETO stop system – anti explosion inserts
- Differential lock front and rear
- Spot lights
- Under floor mine protection against DM 31
- Clutch upgrade for manual gear shift
- Roof rack mounted carrier, 250 kg
- Hi-lift jack & HD Mount-Kit jack
- Jerry can, steel 20l
- Fuel tank upgrade to 160l
- Tail kill light switch
- Folding shovel
- Rear light protectors

Note: Selected supplier will be required to deploy its own effectives in the event of an accident or major breakdown which requires special repair or maintenance in the field. Vendors will provide a detailed list of costs associated to repairs and maintenance based on different geographical locations and **provide a daily rate for these services** (in the Financial Offer Form only).

vii. Training and Inspection Services

- It is common practice in UNHCR that every vehicle deployed to an operation comes with an introduction training for the drivers. Vendor has to demonstrate the capability to deploy a

trainer/instructor on short notice to carry out an introduction training upon arrival of the vehicle in the operation. **Daily rate for this service is to be provided** (in the Financial Offer Form only).

- Vendor has to demonstrate its capability to implement security and tactical trainings for drivers of armored vehicles in field locations. **Daily rate for this service is to be provided** (in the Financial Offer Form only). Training curriculum is to be developed by UNHCR and the vendor.
- According to UNHCR policy all armored vehicles in the field have to undergo a technical inspection every other year. The vendor has to demonstrate capability to carry out such inspections in field operations and provide a **daily rate for that service** (in the Financial Offer Form only).

viii. **Provision of the base model by UNHCR**

The vendor has to consider the option of UNHCR provided base models (Land Cruiser 200, Land Cruiser 76, Land Cruiser 78) in its pricing. **Hence two prices are required – including base model and excluding the price for the base model** (in the Financial Offer Form only). UNHCR reserves the right to provide the base model whenever it deems it more cost efficient or faster. In this case UNHCR will cover the transport of the base model to the vendor's premises.

ix. **Buyback and refurbishment options**

Vendors are encouraged to propose a buyback and a refurbishment solution after the end of life of the vehicle.