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General Staff Branch
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A/30248/FAT/GS/ /Arty-5

Jun 2021

REQUEST FOR INFORMATION (RFI) FOR PROCUREMENT OF HIGH MOBILITY VEHICLE (HMV) 6x6 FOR GUN TOWING VEHICLE (GTV) FOR 155 MM TOWED GUNS

1. Ministry of Defence, Government of India intends to procure Gun Towing Vehicle (GTV) 6x6. With a view to identify probable Indian vendors who can undertake the said project OEMs/ Vendors are requested to forward information on the product which they can offer. The parameters/ broad specifications of the item are attached as **Appendix A**.
2. The vehicle will be used for towing 155 mm Towed Guns weighing up to 20 Tons, carry gun stores, ammunition and gun crew on metalled roads, tracks and cross-country in plains, deserts, semi-deserts, mountains and High Altitude Areas. With a view to identify probable Indian vendors who can undertake the said project OEMs/ Vendors are requested to provide information on the product that can be offered to meet the requirements of India Army.
3. In addition, the vendors are required to furnish details as per proforma at **Appendix B**. Apart from the information as per the Appendices, the vendors are also requested to forward technical details/ product brochures/ literature etc pertaining to the equipment intended to be procured.
4. This Request for Information (RFI) consists of two parts as indicated below:-
 - (a) **Part I.** The first part of the RFI (enclosed as **Appendix A**) incorporates operational & technical characteristics and features of Gun Towing Vehicle (GTV) 6x6. The 'Response by vendors' column in the tabulated sheet may be filled in by the vendor as to whether the specified parameter is complied with or not and with any other details as applicable. Amplifications or comments to changes suggested if any, may also be made in order to facilitate review of the operational requirements.
 - (b) **Part II.** The second part of the RFI states that conditions to be acceptable to vendors and methodology of seeking response from vendors.

PART I

5. Regiments are to be equipped with Gun Towing Vehicle (GTV) 6x6 to provide gun towing capability for 155 mm Towed Gun Systems planned to be employed in Plains, Mountains, High Altitude Areas, Semi Desert and Desert terrain along the Northern, Western and Eastern Borders of the country for execution of Artillery tasks.

6. **Operational Requirements and Important Technical Parameters.**

- (a) **Payload.** 8,000 kg or more including weight of Crane.
- (b) **Bridge Classification.** Not more than Class 24 when fully loaded with operational loads and ammunition without gun in tow.
- (c) **Mobility.** The Gun Towing Vehicle (GTV) 6x6 should have the capability to operate on roads and tracks in plains, mountains, deserts, semi-deserts and High Altitude Areas (HAA) with payload (8,000 kgs or more) with gun in tow weighing upto 20 tons, along the Northern, Western and Eastern Borders of the country.
- (d) **Type of Engine.** The Gun Towing Vehicle (GTV) 6x6 should have a Diesel engine capable of providing adequate power to operate on roads and tracks in plains, mountains, deserts, semi-deserts and High Altitude Areas (HAA) with payload (8,000 kgs or more) with gun in tow, along the Northern, Western and Eastern Borders of the country. It should meet the emission norms without modification for altitudes up to 2,500 m and with/ without modifications up to 5,500 m.
- (e) **Ammunition Handling Arrangements.** The Gun Towing Vehicle (GTV) 6x6 should have an ammunition handling crane with hydraulic or electric drive of minimum 2 ton capacity. It should be able to lift the load to a height of minimum 4 meters above the base. Its outreach payload capability should be minimum 700 kgs at a reach of 2.8 meters. Its placement should be such that optimum cargo space is utilised. It should be possible to unload the ammunition pallets from the vehicle directly into the gun pit with depth from ground level up to 4 feet.
- (f) **Braking System.** The Braking System of the Gun Towing Vehicle (GTV) 6x6 should be able to hold with full payload and gun in tow, with fail safe device. It should have a Twin Circuit Brake System with facility for twin airline connection for towing of guns/ trailers. Hand Brake should hold vehicle on all gradients which vehicle is capable of negotiating with full payload and gun in tow.
- (g) **Winch.** The Winch System of the Gun Towing Vehicle (GTV) 6x6 should be capable of being controlled from the driver's cabin with positive locking device and audio & visual indication in driver's cabin when the winch is in operation. It should have a minimum length of winch rope of 50 meters from the rear guard of the vehicle and should have a capacity of minimum 10 Tons.
- (h) **Towing Arrangements.** The Towing arrangements provided on the Gun Towing Vehicle (GTV) 6x6 should be adaptable to tow all 155 mm Towed Gun Systems weighing upto 20 tons on roads and tracks in plains, mountains, deserts, semi-deserts and High Altitude Areas (HAA) with payload (8,000 kgs or more) along the Northern, Western and Eastern Borders of the country. It should provide for electrical and pneumatic connections for the operation of electric system of the gun (from the drivers cabin) and for simultaneous braking of the gun, while in tow.
- (j) **Tandem Drive.** Gun Towing Vehicle (GTV) 6x6 should provide for operation of the APU (Auxiliary Power Unit) of the gun in tow from the driver's compartment using tandem drive controls of the gun.

(k) **Maintenance Requirements.** The system design should be modular to extent possible with easy accessibility to ensure quick replacement of assemblies and sub-assemblies in the field. The OEM should confirm availability of the product support including support of spares and management of obsolescence for complete equipment life of the product. The following should be facilitated :-

- (i) Light repairs in situation and field repair are required to be carried out as far forward is possible. Vendors to provide state wise service/ touch points to assess the maintenance capacity of vendors.
- (ii) Replacement of defective assemblies and sub-assemblies including their repairs in field.

(l) **Standardisation.**

- (i) **Environmental.** Gun Towing Vehicle (GTV) 6x6 must conform to environmental specifications as per JS-5555 standards, as applicable to relevant sub systems, for operations in the plains, deserts and mountains/high altitudes areas.
- (ii) **Specifications.** Gun Towing Vehicle (GTV) 6x6 should have assemblies, sub-assemblies, components, parts and materials that conform to Joint Services Specifications (JSS). Where no JSS have been issued, System International (SI) can be used. Use of departmental specifications will be made only in such cases where no JSS or SI (meeting Defence requirements) has been issued.

7. Vendors should confirm that following conditions are acceptable:-

- (a) The solicitation of offers will be as per 'Single Stage-Two Bid System'. It would imply that a 'Request for Proposal' would be issued soliciting the Technical and Commercial offers together, but in two separate sealed envelopes. The validity of commercial offers would be at least 18 months from the last date of submission of offers.
- (b) The technical offers would be evaluated by a Technical Evaluation Committee (TEC) to check its compliance with RFP.
- (c) The equipment of all TEC cleared vendors would be put through a trial evaluation in India on a 'No Cost No Commitment' basis. A staff evaluation would be carried out by SHQ to analyse the result of field evaluation and shortlist the equipment for introduction into service.
- (d) **Field Evaluation Trials (FET).** Vendors are requested to confirm the feasibility of utilisation of simulation for evaluation in FET. In addition, existing simulation facilities with a vendor and vendor's willingness to offer these facilities to other vendors for utilisation may also be provided.
- (e) Vendors are requested to confirm the availability of laboratories and infrastructure in the field of certification from accredited labs to assist in smooth transition from physical evaluation to certification during FET.
- (f) Vendors to confirm the availability of state of the art training simulators, including its indigenisation status for realistic and immersive training for the GTV. Inputs pertaining to subsequent upgradation, without major hardware change, may also be provided.

- (g) Amongst the vendors cleared by GS evaluation, a Contract Negotiations Committee would decide lowest cost bidder (L1) and conclude appropriate contract.
- (h) Vendor would be bound to provide product support for time period specified in the RFP, which includes spares and maintenance tools/jigs/fixtures for field and component level repairs.
- (j) The vendor would be required to accept the general conditions of contract given in the Standard Contract Document at Chapter VI of DAP-2020.
- (k) **Integrity Pact (if applicable)**. An integrity pact along with appropriate IPBG is a mandatory requirement in the instant case.
- (l) **Performance-cum-Warranty Bond**. Performance-cum-Warranty Bond both equal to 5% value of the contract inclusive of taxes and duties or as amended from time to time is required to be submitted after signing of contract.
- (m) **Indigenous Content (IC)**. A minimum of 50% IC will be present in the equipment.
- (n) **Engineering Support Package (ESP)**. Provide details of ESP for the equipment.

PART - II

8. The Indian Army is planning to procure Gun Towing Vehicle (GTV) 6x6. With the view to identify probable vendors who can undertake the said project, OEMs/ Authorised Vendors are requested to forward information on the product which they can offer. The parameters/ specifications sought have been mentioned at Para 3 above and additional inputs have been sought in the Questionnaire attached at **Appendix A**. In addition the vendors are required to furnish details as per Proforma at **Appendix B**. Guidelines for Framing Criteria for Vendor Selection/ Pre Qualification in Buy Indian (IDDM), Buy (Indian) and Buy & Make (Indian) Cases are attached at **Appendix C**.

9. Apart from the information in the Appendices the vendors may also forward technical details / product brochures/literature etc pertaining to the equipment in question.

10. Vendor Interaction will be held on 06 Jul 2021, as per Paragraph 7 Chapter-II of DAP-2020. All queries on RFI of OEM/Authorised vendor be submitted before above date. Details of representative attending be provided by 29 Jun 2021 for requisite clearances. Queries and details of representative be fwd on Email address- aproc@nic.in before 29 Jun 2021.

11. The required information/ details may please be forwarded at the following address by 08 Sep 2021: -

- (a) Directorate General of Artillery/Artillery-5
General Staff Branch
Room No 507, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi - 110011
E mail : aproc@nic.in

- (b) Directorate General of Capability Development (CD-5)
General Staff Branch
Room No 411, 'A' Wing, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011
- (c) Army Design Bureau (GSQR Cell)
General Staff Branch 'C' Wing
Room No 16, Sena Bhawan
Integrated HQ of MoD (Army)
DHQ PO, New Delhi – 110011
- (d) Additional Director General Acquisition
(Technical – Army)/ ADG Acquisition (Tech-Army)
Room No 28B, D-II Wing, Sena Bhawan
Ministry of Defence, New Delhi- 110011
- (e) The Secretary
Ministry of Defence
Department of Defence Production
Directorate of Planning and Coordination
Land System Wing/ DP-III

Appendix A
(Refers to Para 1 of RFI)

QUESTIONNAIRE

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
1.	(a)	<u>Dimension</u> . What is the Length, Width, Height, Kerb Weight and Wheel Base of the vehicle?	
	(b)	What is the wheel track being provided in the vehicle?	
2.	<u>Vehicle Performance Parameters</u>		
	(a)	What is the maximum speed on road without gun in tow?	
	(b)	What is the Cruising Speed on road with gun in tow?	
	(c)	What is the Cruising Speed in beaten track with full payload and gun in tow?	
	(d)	What is the fastest acceleration provided by the vehicle?	
	(e)	What is the gradability with full payload and gun in tow?	
	(f)	What is the Side Slope Stability with full combat load with gun in tow?	
	(g)	What is the range of operation in highway excluding spare fuel?	
	(h)	What is the turning circle diameter with gun in tow?	
	(j)	What is the Fordability of the vehicle?	
	(k)	What is the Ground Clearance of the vehicle?	
	(l)	What is the approach and departure angle of the vehicle?	
3.	<u>Engine</u>		
	(a)	What is the type of engine provided?	
	(b)	How many cylinders are provided? How are they arranged?	
	(c)	What is the swept volume of the engine in cubic cm (cc)?	
	(d)	What is the max power output in KW and BHP?	
	(e)	What is the engine RPM at which the max power output is achieved?	
	(f)	What is the maximum Torque achieved by the engine in Nm and at what RPM?	
	(g)	Is the engine power output and Torque generated adequate to haul the vehicle loaded with ammunition (8 Ton) and gun (approx 20 Ton) in tow over a gradient of 20°?	
	(h)	What emission norms does the vehicle comply with?	
	(j)	What are the types/grades of coolant, oils/ lubricants and greases with quantity recommended for use in the vehicle and assemblies? (Specify standard nomenclature and composition of grades without any brand name).	
	(k)	What is the average life of engine in years and Km?	
	(l)	What are the parameters for overhaul of the engine?	
	(m)	What is the average service life of the whole vehicle in years and Km?	
	(n)	What is the mileage achieved by the vehicle in Km/ litre when towing the gun (approx 20 Tons) with the carriage loaded with 8 Tons of ammunition under test conditions, highways and cross country?	
	(o)	What are the cold starting arrangements provided for ignition of engine upto -20°C and altitude upto 5500 meters?	
	(p)	What is the design of the turbocharger to operate in High Altitude Area with temperature upto -20°C and low oxygen at altitudes upto 5500 meters?	
	(q)	What is the type of cooling system provided?	
	(r)	What is the operating temperature range?	

<u>Ser</u>	<u>Specification Required</u>	<u>Response</u>
4.	<u>Power Train</u>	
(a)	What type of transmission system will the vehicle have?	
(b)	How many gears are provided?	
(c)	Can high/ low gear ratios be provided?	
(d)	How are the gear ratios activated?	
(e)	What is the type of Transmission system - Manual, Fully Automatic / Automated Manual Transmission?	
(f)	Is the drive configuration of 6x6 provided in the vehicle?	
(g)	Is the drive configuration selectable or all time?	
(h)	If selectable drive options are provided, how are they activated?	
(j)	Can liftable axles be provided?	
(k)	Is a differential lock available on all axles? How is it activated?	
(l)	Is an inter axle and inter differential lock provided? How is it activated?	
(m)	Can Hub reduction feature be provided in the live axles for better traction in cross country driving?	
5.	<u>Winch System</u>	
(a)	Is a winch mechanism provided to facilitate self-recovery or recovery of other vehicle or gun? How is it operated?	
(b)	Is the monitoring of winch ops for rear winch camera monitored from driver cabin?	
(c)	What is the pulling capacity of the winch rope in KW, Ton and duration of operation?	
(d)	Is the winch separate for fwd rec and separate for rear rec or it is combination?	
(e)	What is the length and diameter of winch rope provided?	
(f)	Can the winch mechanism facilitate self-recovery if the vehicle is in an unserviceable state?	
(g)	What are the conditions of unservicability required to be met for such self recovery using winch?	
(h)	Can the winch be operated from the driver's cabin with positive locking device?	
(j)	Are audio or visual alerts available for winch being in operation?	
(k)	What is the location of the winch system and will the winch rope be operated from the front/ rear of the vehicle?	
(l)	Is the winch sys 100% dust protected?	
(m)	What is winch rope guidance type-tubed/ looped?	
6.	<u>Steering System</u>	
(a)	What is the type of steering system provided?	
(b)	Is there any provision of emergency power steering?	
(c)	Can an adjustable (Tilt and Telescopic) steering be provided?	
(d)	Can the rear wheels be steered?	
7.	<u>Braking System</u>	
(a)	Do Service Brakes form part of the system?	
(b)	Do Service Parking form part of the system?	
(c)	Do Exhaust Parking form part of the system?	
(d)	Do Emergency Parking form part of the system?	
(e)	Is an Anti-Lock Brake System (ABS) part of the system?	
(f)	Is a twin circuit brake system provided for towing the gun?	
(g)	What is the braking efficiency and braking distance with full payload at cruising speed?	

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(h)	At what gradient will the parking brake be able to hold the vehicle with full payload?	
	(j)	Can a 'Hill Assist Feature' be provided to prevent vehicle roll back on steep gradient?	
	(k)	How is 'Hill Assist Feature' activated?	
	(l)	At what maximum gradient will 'Hill Assist Feature' be effective?	
	(m)	Will 'Hill Assist Feature' be effective when fully loaded with gun in tow?	
	(n)	Can a 'Hill Descent Control Feature' be provided to prevent vehicle roll down on steep slope?	
	(o)	How is 'Hill Descent Control Feature' activated?	
	(p)	At what maximum slope will 'Hill Descent Control Feature' be effective?	
	(q)	Will the 'Hill Descent Control Feature' be effective when fully loaded with gun in tow?	
	(r)	At what incline can the vehicle hold full payload and gun in tow with a fail safe device?	
8.	<u>Suspension</u>		
	(a)	What is the type of suspension system provided in the vehicle?	
	(b)	Does it comply with any CMVR norms?	
	(c)	Is the suspension independent for each wheel?	
9.	<u>Electrical System</u>		
	(a)	How many batteries does the vehicle have?	
	(b)	What is the Battery type, voltage & capacity?	
	(c)	Can maintenance free batteries be provided?	
	(d)	Can a Battery Isolating Switch be provided?	
	(e)	Can an alternator with built in solid state regulator of capacity to charge 2 x 12 V for charging secondary batteries in addition to the vehicle battery be provided?	
	(f)	Can additional attachment/ regulator be provided for charging batteries of the electrical system of the gun?	
	(g)	Can a variable speed wiper motor be provided?	
	(h)	Is there a provision of wind screen washing?	
	(j)	Is a de-mister provided for the front wind screen?	
	(k)	Can an electrical and pressure horn with change over switch be provided?	
	(l)	Can a siren/hooter be provided?	
10.	<u>Lighting System</u>		
	(a)	What is the type of Head Lamps provided in the vehicle?	
	(b)	Can LED lights be provided?	
	(c)	What is the type of Tail Light Assembly provided?	
	(d)	Are Cabin Lights provided?	
	(e)	Are lights for Engine Compartment provided?	
	(f)	Are Blinkers for indication of front and rear on cabin roof provided?	
	(g)	Are Blackout head, tail & stop lamp with change over from normal to blackout driving provided?	
	(h)	Are Fog Lights provided?	
	(j)	Is Map reading light on the dash board provided?	
	(k)	Is light socket in the rear for gun lights provided?	
	(l)	Is a charging socket on the dash board provided?	
	(m)	Is a beacon light on the cabin roof provided?	

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(n)	Are Convoy lights provided?	
	(o)	Is Reverse parking light provided?	
	(p)	What are the arrangements to light the rear of the body to facilitate loading and unloading.	
	(q)	Can the normal lighting system be made in-operative when the blackout lights are put on?	
11.	<u>Towing Arrangements</u>		
	(a)	What are the towing arrangements provided in the front of the vehicle to tow the vehicle in case of a mechanical breakdown?	
	(b)	What is the towing arrangement provided for towing a gun with a gross weight of 20 Ton?	
	(c)	Is the vehicle provided with one swivelling tow hook in rear with self-locking devices for towing the guns?	
	(d)	Is double locking arrangement provided on the hook?	
	(e)	Are two tow 'D' shackles and one rigid tow pin in front provided?	
	(f)	Can a vehicle (loaded/ unloaded) tow another vehicle loaded with ammunition with gun in tow?	
12.	<u>Ammunition Handling Arrangements</u>		
	(a)	What is the rated capability of the ammunition handling crane?	
	(b)	What is the power arrangements for the crane? What is the backup power option provided?	
	(c)	How is the crane operated?	
	(d)	What are the fail safe/ safety mechanism provided in the ammunition handling crane?	
	(e)	Does the crane have auto cut off to prevent over loading?	
	(f)	What type of visual/ acoustic alarms are provided to aid in safe operation?	
	(g)	Is there any discrete lighting arrangements provided on the crane arm/ boom for illumination?	
	(h)	Can the same load/ unload ammunition into other vehicles?	
13.	<u>Cabin and Body</u>		
	(a)	What would be the design of the cabin with respect to the engine (fully forward/semi forward)?	
	(b)	How is the Driver's Cabin mounted on the Chassis?	
	(c)	What are the number of mounting points?	
	(d)	Is there any suspension mechanism provided in the mounting?	
	(e)	What Cabin tilting arrangements are provided in the vehicle?	
	(f)	Can a hydraulic arrangement be provided to minimise effort?	
	(g)	What is the type of Windscreen provided?	
	(h)	Can a central locking system be provided?	
	(j)	How many doors will the cabin have?	
	(k)	Can power windows be provided?	
	(l)	What are the seating arrangements for the driver and co-driver?	
	(m)	Can height adjustable, reclining and laterally movable seats with integrated head rest be provided?	
	(n)	Do the seating arrangements confirm to any IS norms?	
	(o)	Can self adjusting hydraulic / pneumatic seats be provided for the driver to reduce fatigue?	
	(p)	What is the type of seat belts provided for the safety of driver/ co-driver?	

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(q)	Can bench/ berth type seats be provided behind the driver and co-driver seats for driver/ co-driver to sleep?	
	(r)	How many berths can be provided?	
	(s)	How many crew members can be seated on the berth seat?	
	(t)	What arrangements can be made to provide better ergonomics for crew comfort?	
	(u)	Is there a provision of observation hatch above the co-driver seat in the cabin?	
	(v)	Are locking arrangements provided for the hatch?	
	(w)	Can a portable dry chemical powder type fire extinguisher be fitted in the driver's compartment?	
	(x)	Is the vehicle fitted with Heating, Ventilation and Air Conditioning (HVAC) system for the driver cabin?	
	(y)	Can the HVAC system carry out windscreen demisting?	
	(z)	Is the driver & crew cabin capable of providing Nuclear, Biological & Chemical protection?	
14.	<u>Tyres</u>		
	(a)	What is the type and size of tyres recommended for the vehicle?	
	(b)	Are the tyres indigenous or imported?	
	(c)	Can a Central Tyre Inflation System be provided for inflation of tyres of Prime Mover and gun as per rated pressure?	
	(d)	How does the system facilitate monitoring of individual tyre pressure of Prime Mover and gun in the Driver's cabin?	
	(e)	Can a audio visual alarm system be provided to indicate low tyre pressure?	
	(f)	What are the arrangements for a spare wheel?	
	(g)	What are the mechanical arrangements provided for mounting/ dismounting a spare wheel?	
	(h)	Is a chain and pulley provided for handling of the spare wheel?	
	(j)	Is a hydraulic jack provided with each vehicle?	
15.	<u>Stowage Facilities</u>		
	(a)	What are the arrangements for holding Rifles of driver and co-driver and crew members in the driver compartment?	
	(b)	Can a 20 litre capacity SS water tank with tap and PUF insulation be provided?	
	(c)	What are the arrangements for Tool Box for tools and spare parts?	
	(d)	Is the Glove compartment / Dash board provided with locking arrangement?	
	(e)	What are the arrangements for stowage for two Shovels and Pick axes?	
	(f)	What are the arrangements for stowage of camouflage net poles, one 5 litre Oil Can and eight 20 litres Jerricans (for spare fuel)?	
16.	<u>Range of Operation</u>		
	(a)	How many fuel tanks does the vehicle have?	
	(b)	What is capacity of each tank?	
	(c)	Can the fuel tanks be provided with integrated locking mechanism?	
	(d)	What is the fuel consumption of the vehicle when moving single with ammunition without gun in tow, on highways and in cross country?	
	(e)	What is the fuel consumption of the vehicle when moving single without any load, on highways and in cross country?	
	(f)	What is the fuel consumption of the vehicle while idling i.e. static run (Litres per hour)?	

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(g)	What is the maximum distance covered by the vehicle on full fuel tank when loaded with ammunition and with gun in tow, on highways and in cross country ?	
	(h)	What is the maximum distance covered by the vehicle on full fuel tank when moving single with ammunition without gun in tow, on highways and in cross country?	
	(j)	What is the maximum distance covered by the vehicle on full fuel tank when moving single without any load, on highways and in cross country?	
17.	<u>Weather Proofing</u>		
	(a)	Will all sub assemblies of the vehicle be capable of withstanding extreme weather conditions in the temperature range of minimum -20°C and 55°C?	
	(b)	What measures will be provided to withstand high humidity and dust?	
18.	<u>Outside Rear View Mirror (ORVM)</u>		
	(a)	What are the type of ORVM provided in the vehicle?	
	(b)	Can the ORVM be provided with side indicators?	
	(c)	Can additional mirrors be provided to reduce 'Blind Spots'?	
19.	<u>Air Bags</u>		
	(a)	Are air bags mandatory for this category of vehicle as per CMVR norms?	
	(b)	Can air bags be provided for the driver and co-driver?	
20.	<u>Instrument Panel</u>		
	(a)	What is the type of instrument panel provided?	
	(b)	What are the types of switches provided?	
	(c)	Can a Trip Meter be provided?	
	(d)	What are the gauges / meters that will be provided in the instrument panel?	
	(e)	Is audio alarm provided for Engine Temperature, Low Oil Pressure, Low Air Pressure (for Brake System), Low Fuel Level, Hand Brake operation, Door Ajar Indicator, Seat Belt usage and Battery not charging?	
21.	<u>Tools and Accessories.</u> What are the tools and accessories provided with the vehicle?		
22.	<u>Maintenance</u>		
	(a)	What would be the Maintenance philosophy for repair and maintenance of the vehicle?	
	(b)	Can it be aligned with the system of unit and Field level repairs prevalent in the Defence Services?	
	(c)	Would the vehicle have interoperability with the present fleet of in-service vehicles?	
	(d)	What would be the infrastructure & skill sets needed for maintenance?	
	(e)	What would be the training requirement for maintenance of the vehicle at unit and field level?	
	(f)	Will spares, Special Maintenance Tool and Special Test Equipments for carrying out component level repair be provided?	
	(g)	Will AMC for repair and calibration cover for Special Maintenance Tools and Special Test Equipment be provided?	
	(h)	<u>Upgradation Philosophy</u>	
	(i)	What would be the upgradation philosophy of the vehicle?	

<u>Ser</u>	<u>Specification Required</u>			<u>Response</u>										
	(ii)	What are the details of the frequency and nature of upgrades recommended?												
	(iii)	Will software/ hardware upgrades/ patches be provided whenever required?												
	(j)	<u>Product Support</u>												
	(i)	What kind of 'Product Support' will be ensured?												
	(ii)	What will be 'Time Period' for Product Support?												
	(iii)	Does the company have major repair and overhaul facility for major assemblies and component level repair?												
	(iv)	Can ESP (Engineering Support Package) comprising of MRLS (Manufacture Recommended List of Spares), SMT (Special Maintenance Tools) / STE (Special Test Equipment), Technical Manual / Documents, Training Material including Sectionised Models, Training Charts and CBT (Computer Based Test) packages be provided?												
	(v)	What type of AMC can be provided?												
	(vi)	What will be the cost of AMC?												
	(vii)	What life time support can be provided?												
23.	<u>Oil & Lubricants</u>													
	(a)	What are the types/ grades of coolant, oils/ lubricants and greases with quantity recommended for use in the vehicle and assemblies?												
	(b)	Provide the standard nomenclature and composition of grades without any brand name as per table below :-												
		<table> <tr> <th><u>Ser No</u></th><th><u>Purpose of Oil/ Lub</u></th><th><u>Compliance with IS Specs</u></th><th><u>ISO/ SAE Grade of Oil/ Lub</u></th><th><u>API Performance Level</u></th></tr> <tr> <td></td><td></td><td></td><td></td><td></td></tr> </table>	<u>Ser No</u>	<u>Purpose of Oil/ Lub</u>	<u>Compliance with IS Specs</u>	<u>ISO/ SAE Grade of Oil/ Lub</u>	<u>API Performance Level</u>							
<u>Ser No</u>	<u>Purpose of Oil/ Lub</u>	<u>Compliance with IS Specs</u>	<u>ISO/ SAE Grade of Oil/ Lub</u>	<u>API Performance Level</u>										
24.	<u>Training</u>													
	(a)	Can training be provided for the drivers / personnel carrying out repair and maintenance of the vehicle?												
	(b)	What is the recommended training period of maintenance and QA persons and user/crew?												
	(c)	Can sectionised cut models of major assemblies, CBT packages, Training Charts and other Training related reference material be provided ?												
	(d)	What are the facilities available at OEM/ Vendor premises to conduct training?												
	(e)	Will soft copies of the 'User Handbook' and other manuals including technical manuals along with the CBT for training be provided?												
	(f)	Will Interactive Electronic Training Manuals (IETMs) as part of technical literature be provided?												
	(g)	Will the Engineering Support Package be provided exclusively by the vendor or would it be outsourced to sub-vendors?												
25.	<u>Indigenous Content/ Production</u>													
	(a)	What is the capability to indigenously Design, Develop and Manufacture the equipment (IDDM capability)?												
	(b)	What will be the percentage of Indigenous Content provided & verification process?												
	(c)	What are the critical technologies which industry has taken from global partners or Joint Venture, if any?												

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(d)	What are the essential critical technologies which are required to be obtained?	
	(e)	How much time will startup / Joint Venture take to start production?	
	(f)	Does Indian Industry have the capability to design, develop, manufacture, test and integrate the system including the critical technology?	
	(g)	Do you have Industrial Licenses for the production of the vehicle? If not, have you applied for the same and when (date) and by which it is likely to be granted?	
	(h)	How much time is required by the Industry to deliver the equipment / platform with the stipulated indigenous content, post trials/ contract for operational use?	
26.	<u>Trials/ Prototypes</u>		
	(a)	Is prototype readily available or has to be designed / manufactured ?	
	(b)	What will be the time penalty and fall out if additional features / higher technology is asked in the prototype?	
	(c)	If the equipment is to be fielded in 4 months/ 6 months, what level of technology (or type of prototype) would be made available?	
	(d)	What is the likely time period required to field the prototype for trials post intimation of clearance in TEC?	
	(e)	Are you willing to participate in trials as per DAP-2020 on 'No Cost No Commitment (NCNC)' basis?	
	(f)	What is the suitability of equipment for deployment in various types of terrains i.e. for deserts, plains, mountainous, High Altitude Area in India?	
	(g)	Is the crew required for operating the equipment for user trials provided by the vendor?	
	(h)	Can vendor certification be given for major parameters e.g. operating temperature and weather conditions etc?	
27.	<u>IPR</u>		
	(a)	Is IPR documentation / patents / design resignation / copyright etc registered with the authorised agency in respect of the vehicle	
	(b)	Is the complete set of design and production drawing and source code for all software applications/ programmes available with your company?	
28.	<u>Standards</u>		
	(a)	What Military Standards are being conformed to by the equipment produced by the OEM/ Vendor?	
	(b)	What Joint Service Specifications (JSS)/ Joint Service Guidelines (JSG) are being conformed to by the equipment produced by the OEM/ Vendor?	
	(c)	Which accredited laboratory (Indian/ International) has certified your equipment?	
29.	<u>Option Clause</u>		
		Are you willing to accept the Option Clause?	
		What is the duration for which the clause would be valid?	
30.	<u>Commercial Terms / Cost</u>		
	(a)	What are the elements which need to be structured in the costing of the vehicle (including comprehensive maintenance / product support package)?	
	(b)	What will be the estimated price of the complete Prime Mover?	
	(c)	What will be the estimated cost of the 'Equipment Support Package (ESP)' recommended by the OEM / Vendor?	

<u>Ser</u>	<u>Specification Required</u>		<u>Response</u>
	(d)	What will be the overall cost of a single Prime Mover including ESP and GST?	
	(e)	What is your preferred mode of shipment of vehicle – rail or road?	
31.	<u>Production Capacity</u>		
	(a)	What is your annual production capacity?	
	(b)	How much time is required by you to deliver the equipment after conclusion of contract?	
32.	<u>Vendor Selection Criteria</u>		
	(a)	Is the applicant entity an Indian Company as defined under the Companies Act 2013?	
	(b)	Has the applicant entity or any of its allied entities ever been banned or suspended by the MoD/SHQ or any Government Department or Organisation?	
	(c)	Provide details of vigilance action viz ongoing investigations by any department/ agency of Central Government.	
	(d)	Is the applicant entity a Manufacturing Entity or System Integrator or a Trading Company?	
	(e)	Does your company have any previous experience/expertise in this field?	
	(f)	What is the turnover and net worth of your Company in the last three (03) years?	
	(g)	Is your company under insolvency resolution as per Indian Bankruptcy Code?	
	(h)	What is the Credit Rating of your Company equivalent to CRISIL rating?	
	(j)	Is your Company a Start Up or MSME?	
33.	<u>Miscellaneous</u>		
	(a)	Is the Prime Mover in use in the Defence/Para Military Forces in the country and since when?	
	(b)	What is the minimum quantity based on which OEM would be willing to offer ToT (Transfer of Technology)?	
	(c)	Is there any other relevant information in terms of specifications/terms of reference, the OEM/Vendor would like to share?	
	(d)	What is the preferred categorization as per DAP-2020 for provision of the Prime Mover?	

Appendix B
(Ref Para 8 of the RFI)

INFORMATION PERFORMA FOR INDIAN VENDORS

1. **Name of the Vendor / Company / Firm.**

(Company profile, in brief, to be attached)

2. **Type (Tick the relevant category).**

- (a) Original Equipment Manufacturer (OEM) : Yes / No
 (b) Authorised Vendor of foreign Firm : Yes/ No (attach details, if yes)
 (c) Others (give specific details) :

3. **Contact Details.**

Postal Address:-

City : _____ State : _____

Pin Code : _____ Tele : _____

Fax : _____ URL/Web Site: _____

4. **Local Branch/Liaison Office in Delhi (if any).**

Name & Address: _____

Pin Code : _____ Tel : _____ Fax : _____

5. **Financial Details.**

(a) Category of Industry (Large/medium/small Scale) _____

(b) Annual turn over : _____ (in INR)

(c) Number of employees in firm: _____

(d) Details of manufacturing infrastructure: _____

(e) **Earlier Contracts with Indian Ministry of Defence / Government Agencies.**

Contract Number	Equipment	Quantity	Cost

6. **Certification by Quality Assurance Organisation.**

Name of Agency	Certification	Applicable from (Date & Year)	Valid Till (Date & Year)

7. **Details of Registration.**

Agency	Registration Number	Validity (Date)	Equipment
DGS&D			
DGQA/DGAQA/DGNAI			
OFB			
DRDO			
Any Other Government Agency			

8. **Membership of FICCI/ASSOCHAM/CII or other industrial Associations.**

Name of Organisation	Membership Number

9. **Equipment/Product Profile (to be submitted for each product separately).**

(a) Name of Product : _____
(Should be given category wise for e.g. all products under night vision devices to be mentioned together)

(b) Description (attach technical literature): _____

(c) Whether OEM or Integrator : _____

(d) Name and address of Foreign collaborator (if any): _____

(e) Industrial Licence Number: _____

- (f) Indigenous component of the product (in percentage): _____
- (g) Status (in service /design & development stage): _____
- (h) Production capacity per annum: _____
- (j) Countries/agencies where equipment supplied earlier (give details of quantity supplied): _____
- (k) Estimated price of the equipment _____

10. Alternatives for meeting the objectives of the equipment set forth in the RFI.

11. Any other relevant information: _____

12. **Declaration.** It is certified that the above information is true and any changes will be intimated within five (05) working days of occurrence

(Authorised Signatory)

Appendix 'C'

(Refer Para 8 of Draft RFI)

GUIDELINES FOR FRAMING CRITERIA FOR VENDOR SELECTION/PRE QUALIFICATION IN BUY INDIAN (IDDM), BUY (INDIAN) AND BUY & MAKE (INDIAN) CASES

1. The guidelines prescribed for short-listing/ pre-qualification of Indian vendors in Buy (Indian-IDDM), Buy (Indian) & Buy & Make (Indian) cases are enumerated in the succeeding paragraphs. Paragraph 2 deals with the parameters that may be considered for short-listing of vendors, whereas Paragraph 3 amplifies the process for applying selected parameters to the process of Vendor Short listing.

2. **Parameters.**

(a) **General Parameters.**

(i) Applicant Entity should be an Indian Vendor as defined at Paragraph 20 of Chapter I of DAP 2020.

(ii) Business dealing with applicant Entity or any of its allied entities should not have been suspended or banned, by MoD/ SHQ or any Government Department or organization (as defined in Guidelines for Penalties in Business Dealings with Entities issued vide Ministry of Defence, D(Vigilance) MoD ID No 31013/I/2006-D(Vig) Vol II dated 21 Nov 2016). None of the Promoters and Directors of applicant entity should be a wilful defaulter.

(iii) "Entities" will include companies, with whom the Ministry of Defence has entered into, or intends to enter into, or could enter into contracts or agreements.

(iv) "Applicant entity" may be a company, subsidiary, an associate company (as defined in the Companies Act, 2013), a consortium or a Joint Venture (JV).

(b) **Technical Parameters.**

(i) Vendor shall be a manufacturing entity or a system integrator of defence equipment and not a trading company, except in cases where the OEM participates only through its authorised Vendors.

(ii) Minimum **two years** experience in **broad areas like manufacturing/ electronics/ explosives etc. as applicable in the instant procurement case.** If not, then cumulative experience of at **least three years in above areas**, resulting in gaining of competence for manufacturing the proposed product. (In case the SHQ feels that for a particular equipment a lesser experience could be accepted, then the same should be got approved by the competent authority before including the same in the RFP).

(iii) Where product involves integration, previous experience **of not less than one year/ one project** in integration of systems/ equipment shall be required.

(iv) **Turnkey Projects.** Experience of successful completion of one Turnkey project of similar nature within last five years with value of at least 20% of AoN cost or currently executing a contract of similar nature with value of at least 30% of the AoN cost. In case of no experience in Turnkey projects, the vendor for main component of the Turnkey project may be selected if it has experience as per paragraph 2 (b) (ii) above and experience of installation or integration of similar equipment/system or system of systems.

(v) **ICT Cases.**

(aa) Certification to be included if linked to scope of work – Gartner Quadrant/ISO9001/CMMi3 or more (specifying development/ service/ acquisition models)/ISO27001. For Information Security and large value projects preferably CMMi5 may be specified.

(ab) Compliance with IEEE/ ITU standards depending upon nature/type of project or solution required.

(c) **Financial Parameters.**

(i) **Average Annual Turnover.** Minimum average annual turnover for last three financial years, ending 31st March of the previous financial year, should not be less than 30% of estimated cost of the Buy (Indian-IDDm) and Buy (Indian) project and for Buy & Make (Indian) should not be less than 30% of estimated cost of the Make portion.

(ii) **Net Worth.** Net worth of entities, ending 31st March of the previous financial year, should not be less than 5% of the estimated cost of the Buy (Indian-IDDm) and Buy (Indian) project and for Buy & Make (Indian) should not be less than 5% of estimated cost of the Make portion. For orders above ₹ 5000 crores, Net worth of group companies can be considered on production of suitable documentary assurance.

(iii) **Insolvency.** The entity should not be under insolvency resolution as per Indian Bankruptcy Code at any stage of procurement process from the issuing of RFP to the signing of contract.

(iv) **Credit Rating (Desirable Financial Parameter).** Long term credit rating equivalent to CRISIL rating on Corporate Credit Scale as CCR-BBB or better, and SME-04 or better for SMEs issued by credit rating agencies recognized by SEBI. Credit rating should be as on 31st March of the previous financial year.

(Note 1: All the above Financial Parameters, except Paragraph 2(c)(iii) above (Insolvency) will not be applicable for Capital Acquisition cases where estimated cost is ₹150 crores and below. However, Net worth of entities should not be negative.

Note 2: The turnover and net worth of the vendor shall be rounded off to the nearest lower ten/ hundred crores so as to keep the estimated cost of procurement confidential).

(d) **Other Parameters.**

(i) **Industrial License (IL).** Vendors should be either holding a valid defence industrial license or should have applied for the same before responding to RFP. In any case the vendor must confirm holding of IL before commencement of FET. (Items requiring IL will be as per DIPP Press Note 3 of 2014 as amended from time to time).

(ii) **Registration.** Registered for a minimum of two years (one year for SMEs). Minimum number of years not applicable for JVs constituted specifically for a project.

3. **Stipulations for Applying Parameters.**

(a) **Areas like manufacturing/ electronics/ explosives etc.** referred to at Paragraph 2(b)(ii) should be defined in each case of procurement.

(b) In case the Applicant Entity is unable to meet the Financial Parameters by itself, it may rely on its **Holding Company** (as defined in the Companies Act, 2013 and amendments thereof) ("Companies Act") for fulfilment of the Financial Parameters, in which case reliance must be placed on the Holding Company towards fulfilment of **ALL** the Financial Parameters.

(c) In case the Applicant Entity is unable to meet one or more of the Technical Parameters by itself, it may rely on a Group Company(ies) for fulfilment of the Technical Parameters. A Group Company in relation to the Applicant Entity may be:-

(i) A company of which the Applicant Entity is an Associate Company. Such company should have ownership, directly or indirectly, of at least **26%** of the voting shares of the Applicant Entity.

(ii) A company which is an Associate Company of the Applicant Entity. The Applicant Entity should have ownership directly or indirectly, of at least 26% of the voting shares of such Associate Company.

(iii) A Company with whom the Applicant Entity is commonly owned, directly or indirectly, for at least **26%** of the voting shares by another company. For example: An Applicant Company A is an Associate Company of Company B, in which B holds at least 26%. Further, C is also an Associate Company of B, in which B holds at least 26%. In this case the Applicant Company may use the credentials of C as well.

(iv) The Holding Company and Subsidiary Companies (as defined under the Companies Act) of the Applicant Entity.

(d) The Applicant entity may be a single entity or a group of entities (the "Consortium"), coming together to implement the project. In such case:-

- (i) The credentials of only those members or their related entities may be counted, who have at least 26% equity stake in the Consortium.
 - (ii) Each Consortium should have a designated **Lead Member**.
 - (iii) For Technical Parameters, **any of the Consortium members or their Group Companies** may meet the criteria.
 - (iv) For Financial Parameters; the Turnover and Net Worth of the Consortium Member shall be reckoned **proportionate to Consortium Member's equity stake** in the Consortium, and each Consortium member should meet the other criteria pertaining to Insolvency and Credit Rating. In case the Consortium Member relies on its Holding Company for any one of the above-mentioned Financial Parameters, then reliance must be placed on the Holding Company for meeting **all the financial Parameters**.
- (e) Vendors should provide all necessary self-authenticated documentation in support of their achievement of criteria. Such documentation should inter-alia include:-
- (i) Details of projects/ supply orders successfully executed in the last two years.
 - (ii) Annual reports for three years of applicant entity, parent and associate companies, consortium and JV partners.
 - (iii) Details of shareholders, promoters, associated, allied and JV companies.
 - (iv) Details of vigilance action, viz. ongoing investigation and suspension/ debarment/ blacklisting actions against the applicant entity or any of its allied entities, parent company or consortium and JV partners, if any by any Department/agency of Central Government.
 - (v) A certificate from CA/CS indicating the financial parameters for the last three years as per Paragraph 2(c).
- (Note:** If a vendor is already a supplier to MoD and/ or has already provided the above documents in such cases, it should be necessary for the vendor to resubmit only such documentations as is necessary to update the above).
- (f) Any vendor furnishing false information will be liable for action as per existing guidelines.
- (g) Based on these generic parameters, more specific criteria should be evolved by the SHQ with regard to Technical and Financial parameters {Paras 2(b) and 2(c) above} in each procurement case depending upon requirements peculiar to each case keeping in view the overall need to ensure wider vendor participation. The specific criteria evolved by the SHQ for each case, as per these guidelines, may be got approved by the competent authority before including the same in the RFPs.

4. **Start Ups/ MSMEs**. Start ups would be defined as per G.S.R. 127 (E) dated 19 Feb 2019 (as amended from time to time). For procurement cases where the estimated cost is not exceeding ₹100 crores/ year based on delivery schedule at the time of seeking AoN or ₹ 150 crores, whichever is higher, to encourage the Start Ups/ MSMEs and build Industrial ecosystem, the recognized Start Ups/ MSMEs in the relevant fields may be considered for

issue of RFP without any stipulation of Financial parameters, except Paragraph 2(c)(iii) above (Insolvency) and with General and Technical parameters to be decided on case to case basis.

(Note: Start Ups should not be confused with New entrants who may be high/ mid-sized groups having financial support and manufacturing experiences and now venturing into Defence Production).

5. The criteria for vendor selection shall be clearly stipulated in RFPs so as to maintain transparency. Care shall be taken to ensure that the stipulated criteria are not open to subjectivity and arbitrary interpretation.

