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ARMY

22 Engineer Regiment Group
Operation TELIC 4
British Forces Post Office 647

Telephone: Military:
Mobile:

Our Reference: 22.G3/301

COS HQ 1 Mech Bde

Date: 12 June 2004

**URGENT STATEMENT OF OPERATIONAL REQUIREMENT**
**BALLISTIC AND BLAST PROTECTED VEHICLES**
**FOR BOMB DISPOSAL AND SEARCH TEAMS ON OP TELIC**

Reference:

A. 22.G3/301 dated 28 May 2004.

ABSTRACT

1. Single Statement of User Need. There is an Urgent Operational Requirement for suitable vehicles for the role of Bomb Disposal and Search Team[1] vehicle in the Op TELIC physical and security environment. These vehicles will provide all-round ballistic protection to the Team and its equipment against small arms fire; all-round blast and fragment protection to the crew and equipment against the Explosive Ordnance (including IED) threat. They will be so configured as to enable the crew to demonstrate intent and defend the vehicle by fire and to mean that additional escorts are not needed. They will have adequate carrying capacity for a broad range of personal and specialist equipment and additional personnel. They will have redundant capacity in the drive train, transmission and suspension for upgrading of physical protection and will have at least Medium Mobility off-road.

2. Related Requirement. This Statement of Operational Requirement complements that made for ballistic and blast protected vehicles for IEDD Teams on Op TELIC, *vide* Reference A, which is enclosed for ease of reference. The aspiration is for variants of the same basic vehicle [platform] to fulfil both Requirements.

THREAT

3. Overview. There is a credible threat to all EOD Team vehicles throughout the Brigade Area of Operations (AO) from insurgents using a range of weapons, from small arms to very large IEDs, employing a variety of attack methods ranging from individual, opportunist attacks to deliberate ambushes triggered by preliminary 'come-on' attacks. EOD Team vehicles are particularly vulnerable, high value targets.

4. Direct Threat. The direct threat spectrum covers small arms fire, through grenades to RPGs. The principal threat from small arms fire is in bursts at ranges from This threat is complemented by the widespread practice of stone throwing from the roadside and bridges, the throwing of grenades, possibly including CS dispensers under the vehicle and close range attack using RPGs,

[1] These are Army and RAF BD Teams in the Conventional Munitions Disposal (CMD) role and Royal Engineer Search Teams (REST). For convenience, these are referred to collectively as EOD Teams throughout this document



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5. IED Threat. IEDs tend to be constructed from military munitions; mostly artillery shells of between calibre. These are used singly, in bundles to increase the charge size and fragment density and in 'daisy chains' to give longer linear coverage, hence greater likelihood of a successful strike against convoys or a pair of fast-moving vehicles.

6. Attack Methods. Attack methods range from singleton attacks to large, well-planned ambushes. Intelligence to indicate the most likely places and times for attacks is not well developed. Some examples of attack methods are highlighted below, to illustrate this:

a. Opportunist Urban Ambush. A packet of 1xSNATCH escort leading 2 Bucher Duro Mk1 ZIMMER was ambushed in BASRAH. Four RPG-7 were fired at one of the ZIMMER, of which 3 missed by a considerable margin and one struck but failed to detonate. A Grenade detonated under one vehicle. A number of AK-47 were fired at close range (circa away): the Team returned fire, withdrawing in contact. The ATO received a wound in the leg and found a bullet lodged in one of his boots; another bullet grazed his helmet. The No2 had minor shrapnel wounds to the arm. The vehicle windscreen was shot through; one side window was shot out and the fuel tank holed. A bullet struck the wheel rim just adjacent to the tyre, requiring both to be written off. The equipment was damaged and required repair. The significant shortcomings in this vehicle specifically, and more generally in this genre prompted the USOR for blast and ballistic protected vehicles for IEDD Teams on op TELIC, *vide* Reference A.

b. Vulnerable MSR. There are 'hot spots' on the route between BASRAH and AL AMARAH, where MCF vehicles have been attacked regularly. Some of these have developed into fierce, prolonged battles involving armoured infantry counter-attacks: attacks against a US convoy resulted in fatalities and destroyed vehicles. On 15 May 04, a Landrover-mounted patrol was ambushed. The incident escalated to culminate in an Armoured Infantry Company attack resulting in 25 anti-MCF terrorists being killed, some in dismounted close combat. On 01 May 04, a US convoy taking plant vehicles to KUWAIT was ambushed continuously over a 10km stretch of road, resulting in 2 US troops killed, a number wounded and several vehicles being abandoned and destroyed.

c. Pre-Planned, Concerted Ambush. On 11 Jun 04, BROADMOOR Camp near AL AMARAHA was subjected to a 2-round mortar attack, which appears to have been a 'come on'. The WARRIOR (WR)-mounted QRF (2 x WR) was deployed. They were contacted by Small Arms (SA) and RPG fire: the lead WR was hit by 3 x RPG, injuring the commander. Withdrawing in contact, it emerged that the driver of the first WR was badly injured and unable to continue. The second WR Commander dismounted from the turret while his gunner suppressed the firing points and, under fire, evacuated the injured driver and replaced him with one of his own crew: he then led the patrol back to camp.

7. EOD Team Vehicles and Vehicle Manning. The Jt Force EOD Tp has a mixed fleet of SNATCH and LR FFR. BD Teams and REST are mounted in SNATCH Landrovers.

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[2] This is an imposition on the Brigade and, given other tasks is increasingly difficult to sustain.



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CAPABILITY GAP

8. Shortcomings in SNATCH Landrover

a. Inadequate Overall Level of Protection. EOD Teams are often tasked to the highest threat areas, where the likelihood of attack is greatest. BD Teams are exposed to added risk from deliberate entry into areas of high Explosive Ordnance (EO) contamination, such as Captured Enemy Ammunition sites. All BD tasks have an inherent risk from the functioning of EO, possibly in close proximity to the vehicle. Whilst protected to a degree against small arms, the vehicles offer inadequate overall protection to the crew; their equipment and to vulnerable, critical vehicle components.

b. Specific Shortcomings in Protection

(1) Blast and Ballistic Protection. When the threat is particularly high, the ground-holding Battlegroups (BGs) invariably deploy patrols in armoured vehicles; mostly WR. An EOD Team called to a task in a high threat environment is inadequately protected in comparison. SNATCH was not designed effectively to withstand taking multi-weapon, nor the Equally, where an EOD task requires destruction of EO *in situ*, the vehicle is required to act as a firing point: the situation may make it impossible to withdraw from line of sight. This requires enhanced ballistic protection. Overall, SNATCH provides inadequate blast and ballistic protection.

(2) Underside Vulnerability. The underside of the vehicle and offers no real scope for the or the provision of other blast attenuating measures at vulnerable points. The fuel tank is unprotected and exposed: a shot, fragment or grenade under the vehicle could easily puncture it.

(3) Vehicle Automotive Parts Vulnerability. The engine compartment is vulnerable to direct attack. The wheels, suspension and tyres are all unacceptably vulnerable,

c. Mobility. There are concerns over the off-road performance of SNATCH, particularly if a trailer is to be towed. The necessary stiffness of the suspension and the limited wheel travel and ground clearance are all inappropriate to the Op TELIC physical environment in which EOD tasks are executed.

d. Fuel Type. SNATCH is a Petrol-fuelled vehicle, which is wholly inappropriate for the Op TELIC physical and security environment. A small proportion only of the Op TELIC vehicle fleet is Petrol-fuelled: not all locations offer Petrol refuelling. In a vehicle with an unprotected fuel tank that is vulnerable to attack and EO, Petrol fuel increases the risk of fire in the event of an incident. The maximum daily temperatures[3] also exacerbate the fire risk. The relatively large and powerful engine and air conditioning fitted mean that fuel consumption is high and consequently endurance and range are reduced. On safety and efficiency grounds, a Diesel engine is essential.

[3] Average daily temperatures at the height of summer exceed 50°C. Exposed metal surfaces can heat up to in excess of 75°C, which is close to the flash point of Petrol.



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e. Inappropriate Configuration. SNATCH has a high centre of gravity.

UOR weapons (Minimi; 40mm UGL and baton Guns) have been requested but are in limited supply and are unlikely to be allocated, meaning that the GPMG must remain the Team support weapon.

f. Inadequate Stowage. SNATCH has minimal space for the carriage of equipment, having been designed for mobile patrolling. This limits the range of tools and equipment that can be carried and is directly a limiting factor on the capability of EOD Teams to carry out their full range of possible tasks and on their effectiveness, particularly over a protracted operation where self-administration away from base is required. Towing a trailer is appropriate and may be necessary for certain circumstances and must remain an option for the EOD Team vehicle, especially where carrying capacity is the main concern. Where it is necessary to make up for lack of capacity or capability, it limits unacceptably the inherent tactical mobility and flexibility required by EOD Teams on task.

9. Operational Impact on CF. The impact of the shortcomings of SNATCH [as the EOD Team vehicle] on CF operations on Op TELIC is that EOD Teams are particularly vulnerable to the overall physical threat. They are unable to deploy effectively to the full range of potential tasks and are unable generally to deploy with an adequate range of tools and equipment to enable them to undertake complex and protracted multi-faceted operational tasks. Overall, this could result in loss of vehicles and operational capability and, *in extremis*, fatalities.

10. Capability Gap: Summary. There is an operational Capability Gap in the provision of a capable and effective vehicle to EOD Teams on Op TELIC. The SNATCH Landrover provides inadequate protection, carrying capacity and mobility: its configuration overall is inappropriate to the EOD Team vehicle role. The inadequacy of SNATCH places the Team at unacceptable levels of risk across the physical threat spectrum and reduces operational capacity, capability, flexibility and effectiveness.

## EOD TEAM VEHICLE: TECHNICAL REQUIREMENTS

11. General. The EOD Team vehicles for Op TELIC should be able to mount the necessary electronic $C^4I$ equipment, including communications equipment[4] and ECM and should have sufficient stowage space and load carrying capacity to transport all the equipment that might be required by a EOD Team, including the transportation of explosives and detonators and [Arms and Explosives] Search (AES) Dogs and handlers. The future aspiration for a CMD Remotely Controlled Vehicle (RCV) must also be considered. It may be necessary in due course to be able to carry the CMD RCV, possibly on a trailer, and to fit onto these vehicles or trailers the necessary control stations. **The Requirements set out below address only those capabilities where the performance of the SNATCH and the Bucher Duro ZIMMER are inadequate and must be improved**. The EOD Team vehicle should ideally be the same vehicle as to be provided to IEDD Teams (*vide* Reference A): a single platform providing the capability across the spectrum of EOD operations. This would produce a common vehicle fleet across the Joint Force EOD Group, with a consequent reduction in the training bill overall and facilitating more efficient Equipment Support. There are likely to be differences in certain fixtures and fittings and particularly in the layout of the equipment compartment between the BD and Search and the IEDD Team variants.

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[4] As a minimum, installations





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12. Protection. The vehicle requires protection appropriate to present and developing threats:

a. Ballistic – Small Arms Attack. The cab or crew compartment must offer the crew all round [360° arc] protection against fired in bursts at ranges from 20m, at worst case, resulting in groups of 3 rounds impacting in a 500mm diameter circle. All windows need to be of appropriate Bullet Resistant Glass (BRG).

b. Ballistic – Incidental and Collateral Damage. The windscreen should be appropriately protected from incidental damage (e.g. by stoning) by fitting external grilles: possibly a sacrificial windscreen overlying the BRG[5] or external steel shutters.

c. Ballistic and Blast – IED Attack. The cab or crew compartment should offer the crew protection against IED attack. The current threat is from IEDs using fired by expedient means. Protection from blast and fragments at from the seat of explosion of a should ideally be provided.

d. Ballistic – [Dud] RPG. The cab or crew compartment should be capable of withstanding the ballistic impact from an RPG-7 rocket fired from Perforation of the [outer] protection is acceptable but undesirable: penetration and spalling into the cab or crew compartment is acceptable only *in extremis*. It is acknowledged that a direct hit and detonation will cause catastrophic damage.

e. Blast and Fragmentation – Explosive Ordnance Attack (Manual). The cab or crew compartment should offer protection against [manually projected] low charge weight EO attack. This must, as a minimum, offer protection against grenades thrown under the vehicle or landing on the roof, for which the worst case is a The cab or crew compartment should be capable of being [retro] fitted with protective plates and detonating or dudding screens to protect the crew from top attack by such as and

f. Spall, Fragment and Blast Attenuating Fittings. The cab or crew compartment should be fitted with appropriate spall lining and blast attenuating materials. The front wheel arches should be able to be fitted with blast attenuating materials.

g. Upgrade for Under-Vehicle Blast Protection. The potential threat for AT mines to be pulled under target vehicles on lengths of rope has emerged in one part of the Brigade AO[6]: the threat from a [AT] mine strike is assessed as low. The vehicle should ideally be capable of being [retro] fitted with to protect the crew compartment from mine[7] blasts. It should be able to mount a simple hard surface clearance device, which could obviate the need for permanently-fitted mine protection.

h. Load/Passenger Compartment. The load/passenger compartment should offer ballistic and blast protection against at least the threats, in order that personnel and mission critical equipment are not easily damaged.

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[5] A sacrificial windscreen overlying the BRG would mean that cracks, chips and minor damage need not result in replacement of the BRG window. This principle is used in Police and Home Office 'white' armoured car fleets.

[6] Italian VS 2.2 mines were used for this purpose in AL AMARAH.

[7] The worst case is the TMRP-6 mine but protection to this level is not a design driver for the basic vehicle.



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i. Protection to Essential Vehicle Components. Protection against the threats outlined above should to be provided to:

- The engine [compartment]
- The fuel tank(s)
- The exposed parts of drive train.

13. Mobility. The vehicle requires appropriate tactical and operational mobility:

a. Engine. The engine should be a Diesel engine, developing significant BHP. Engine power should be maximised, in order to provide the necessary speed, acceleration and mobility. Significant redundant capacity should be allowed for, in order that the engine is not required to operate at a high proportion of its rated capacity for most of the time. This is particularly important in the ambient temperatures encountered in summer and in order that the engine can cope easily with any addition of protection

Compliance with UK and European Directives on Noise and Emissions must not be used as a factor in the selection or de-selection of any candidate vehicle *system*, particularly any manufactured outside the EU, especially the USA. Proper protection is the principal Requirement; all other factors are considered subordinate in the Requirements hierarchy.

b. Speeds. It should be able to travel at sustained maximum speeds in the range 85-100km/hr on good, metalled roads.

c. Acceleration. It should have high rates of acceleration from a standing start and from low speeds (particularly in the range 0-30 km/hr), in order to be able to extract itself from hostile situations by driving quickly out of trouble spots and ambush killing zones where there may be no warning and where rapid action is essential.

d. Transmission Control. Semi-automatic transmission is preferred over fully automatic but if the vehicle has sufficient torque and acceleration this is not a design driver or selection issue. Appropriate control over single-to-multiple axle drive changes (if multi-axle drive can be disengaged), differential locks and gear ratios is required.

e. Braking. The capacity of the brakes should be sufficient to cope with the likely gross weight of the vehicle when fully protected with add-on protection (which may be fitted as a matter of course).

f. Mobility Levels. It should have the equivalent level of performance of Medium Mobility off road. There is likely to be little if any genuine cross-country movement but road conditions in many places are very poor indeed. There are requirements to bypass obstacles off-road, to find expedient routes and to cross broad central reservations of rural highways which are characterised by high kerbs and rutted, soft and often boggy ground. In most areas where movement off metalled routes is required, the routes are undulating, deeply rutted, and very soft and prone to bogginess, due to periodic heavy rainfall and the high water table throughout the AO.

g. Turning Circle. It should have as tight a turning circle as possible, in order to be able to extract itself with minimum manoeuvring from close urban terrain. All wheel, or multi-axle power steering is preferred but not essential.


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h. Clearance and Wheel Travel. It should have as much ground clearance as possible, to complement its mobility, to reduce the vulnerability to blast attack weapon effects and to allow for retrofitting of Wheel travel should be as great as possible to complement mobility and better to cope with poor road conditions, commensurate with adequate shock absorption being provided.

i. Tyres. Tyres should to be run-flat, foam-filled or self-sealing pneumatic tyres, for which ideally there should be a central tyre inflation/deflation system, which can be controlled both from the cab and from an external control panel. Tyres must be capable of operating at the temperatures experienced in southern Iraq in summer.

14. Special-to-Theatre Fixtures and Fittings.

a. Cupola, Hatch and Pintle Mount. Closable hatches should be provided to allow the TCs to be deployed. Providing a cupola hatch in the roof of the cab or crew compartment and fittings to allow a pintle-mounted HMG or GPMG to be carried and fired would enhance the protection of the vehicle further. Other weapons, such as the [UOR] 40mm Under-slung Grenade launcher or 1.5" baton Gun may need to be used from the hatches and from any additional or alternative cupola. If an APC is selected, it should be able to mount a HMG or GPMG at a crew-served weapon station and allow firing of personal, including UOR weapons from hatches and cupolas.

b. Smoke Dischargers. The vehicle must be fitted with front and ideally also rear smoke dischargers.

c. Air Conditioning. The crew compartment or cab must be air conditioned. The equipment compartment, if separate, should also be air conditioned as this is likely to be used for carrying additional personnel, AES Dogs and possibly

d. Protective Fixtures and Fittings. The relevant protective fixtures and fittings are described in the relevant paragraphs above. Additionally, a strong wire cutter is required, that can sever wires stretched across roads, protecting TC.

e. Air Line. An air line should ideally be fitted, for inflation of pneumatic [blast and fragmentation] mitigation systems. This is separate from the central tyre inflation system but must be capable of inflating vehicle tyres in the event of failure of that system.

15. Trailer Towing. It is essential that the EOD Team vehicle should be capable of towing a trailer. Ideally, this should include the in-service 1¾T trailer. Electric connections and, if the trailer is air-braked, pneumatic connections must be hard-wired into the vehicle.

16. Vehicle Towing and Recovery. Both vehicles should be provided with a front tow hitch and towing bar, in order to enable recovery when a vehicle is bogged or immobile and to enable a pair to self-recover to a safe location if one is inoperable or otherwise immobile but is towable.

17. Winch. The vehicles should be capable of being fitted with a front-mounted, multi-purpose winch, capable of at least self-recovery of the vehicle on a hard surface; preferably up a 10% incline over 20m. The winch must be easily fitted, with the necessary power and control connections readily accessible and ideally hard-wired or connected into the vehicle.


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MEETING THE REQUIREMENT [USER PERSPECTIVE]

18. Imperative and Options. It is imperative that the shortcomings of the SNATCH are addressed, beginning immediately. These could be addressed progressively by modification and upgrade, pending acquisition of a new vehicle. The matter of crew compartment protection is critical and must be addressed first. Broadly, the 4 options for doing this are:

a. Do nothing.

b. Upgrade SNATCH.

c. Replace SNATCH with a suitable Commercial, Off The Shelf (COTS) 'best fit': a High Mobility, Multi-wheeled Vehicle (HMMWV or 'Humvee')-type or a wheeled APC.

d. Acquire a new EOD vehicle that meets all the User's Requirements and mitigate shortcomings of SNATCH in the short term by upgrading it or providing a suitable wheeled vehicle.

19. Do Nothing. This is not acceptable. There is a significant threat to the EOD capability which must be addressed. SNATCH is proving increasingly inadequate.

20. Upgrade SNATCH. The requirement to add further protection to the vulnerable parts of the vehicle is an immediate issue. It is likely that, even if physically feasible, this will add considerably to the already considerable weight of the vehicle: it is likely that the vehicle does not have adequate redundant capacity overall[8] to allow this. The configuration and available volume are effectively fixed and are inadequate and inappropriate. Overall, SNATCH does not appear to be a suitable vehicle for the role of EOD Team vehicle in the Op TELIC environment. This option is inappropriate and most likely impracticable.

21. Replace SNATCH with a COTS, 'Best Fit' HMMWV-Type or a Wheeled APC. A HMMWV-type or a Wheeled APC is likely to be able to provide adequate protection, mobility and capacity. On Op TELIC the Danish EOD Detachments deploy in the MOWAG-made HMMWV. The Norwegian Engineer Squadron operates the Finnish 'SISU' APC. The Swedish Army operates an EOD variant SISU, which has a ramped rear door for WHEELBARROW: this variant appears eminently suitable to the User. This suggests strongly that there are suitable vehicles on the market that already have a proven track record with NATO allies in the Op TELIC environment. Clearly, adequate support systems must be in place to assure R&M and Availability for UK use. **The SISU is the User's strongly preferred option**: see Annex A.

22. Acquire a New EOD Team Vehicle and Provide a Temporary SNATCH Replacement. In order fully to address all the shortcomings of SNATCH in the role of EOD Team vehicle, and fully to meet all the User's Requirements, a new vehicle could be provided. Rather than an empirical design, a suitable production variant, possibly requiring modification for this application could be provided: Modified COTS. Alternatively, a vehicle constructed broadly around these, ideally using technology and components already in use in such vehicles[9], preferably ones in UK service; in service in with NATO or ABCANZ forces or using commercially proven technology and components could be provided.

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[8] Engine power; steering; drive train; suspension

[9] Examples of generic types based on proven protective technology and common, industrially available sub-systems that could be developed are the 'TEMPEST' UOR MPV or the successful FCLV candidate.



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This option must be complemented by more immediate measures to address the shortcomings in the SNATCH: this therefore requires a suitable HMMWV-type or wheeled APC as an interim measure. As suitable, tested COTS 'best fits' appear readily available, the new or hybrid M-COTS option appears to add time and cost without necessarily increasing performance.

23. Conclusion. The above summary discussion points suggest that a COTS wheeled APC should be provided, with funded and planned future modifications and upgrades as required. There is a compelling case to acquire the Finnish-made SISU, which is both eminently suitable for and in-service in the role of EOD Team vehicle; it is fully proven in the Op TELIC environment and [the EOD variant as provided to Swedish Armed Forces] is the User's emphatic preference.

## ACQUISITION MANAGEMENT ISSUES

24. Imperative. The principal imperative that must drive any acquisition is the failure of the SNATCH adequately to meet the threat and the immediacy of the requirement to provide acceptable levels of protection, in priority order, to the crew, their equipment and the vehicle. Thereafter, the issues of capacity and mobility must be addressed. All other concerns, such as acquisition management processes, procedures and performance targets and legislation compliance other than that bearing directly on crew safety must be subordinate.

25. Equipment Support Management Issues

a. Technical Documentation. Any solutions fielded must be supported by adequate technical documentation. Manufacturers' literature and translations of foreign language military publications are acceptable as a precursor to the production of developed AESPs. An Ease of Maintenance Assessment (EMA) and any resultant REME supplemental guidance notes or an equivalent from foreign operators should be provided. If adequate, this should suffice in lieu of more formal, developed documentation for initial introduction into use.

b. Spares. An adequate scale of first line spares should be provided with each vehicle on Delivery. Simple and effective systems should be in place for the call forward of all spares. Appropriate spares lists should be provided, including Illustrated Parts Lists if appropriate. Codification can follow on if required.

c. Ancillary – Trailers. The provision of bespoke trailers, if this option is exercised, should not be on the critical path for Delivery of the vehicles: these can follow on.

d. Repair Policy. It is expected that 1st to 3rd line ES will be provided in Theatre. Simple and effective systems should be in place for the provision, forward, of manufacturer's 4th line repair and maintenance support, as required.

e. Reliability Testing. It is expected that the Acquisition will, as far as possible, either not require UK Reliability testing, having selected a proven, COTS HMMWV or wheeled APC with Op TELIC pedigree or it will incorporate reliability growth and original equipment manufacturers' [component] reliability statistics to minimise the requirement for the conduct of Reliability testing before Delivery. If necessary, In-Service Reliability Demonstration (ISRD) and reliability growth are acceptable means of assuring Reliability longer term. The Op TELIC physical environment would provide a particularly useful test arena, particularly for extreme, A1 conditions.



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f. Safety Management. The User is prepared to accept whatever risks are presumed to be associated with not having a formal Safety Case or Appraisal prior to fielding. Provision of these must not be on the critical path for Delivery. The vehicle is simply a wheeled APC or well protected Combat Support Vehicle, replacing directly with a COTS variant one fulfilling the same role. A multitude of applicable Safety Appraisals and Safety Cases exist, which can be used as source documents and models. The principal Safety concern is that the current vehicle places the User at considerable, unacceptable risk in the Op TELIC Threat environment.

26. Training. It is expected that driver and crew training will consist of a familiarisation and conversion course; initially run by the manufacturer, agent, supplier or a contractor in Theatre. Train the Trainer should also be carried out in the UK for Driving Instructors in 33 Engr Regt and 5131 BD Sqn RAF. A similar process is required for REME Vehicle Mechanic (VM) maintainers and RAF Maintainers[10]. Appropriate training materiel and publications should be provided.

27. Fielding. Delivery is required direct to Theatre, as soon as possible.

QUANTITY

28. The quantity of vehicles required is based on 2 vehicles per EOD Team, to be able to comply with Force Protection regulations. Compliance with these is fundamental to the rationale for these vehicles. Currently, there are 3 x operational CMD Teams, 1 x Tp HQ Team and 1 x REST in Theatre; a second REST was trained by 22 Engr Regt which is otherwise employed. The necessity actually to field a second deployable REST has been briefed to HQ 4 Armd Bde[11] for action. Therefore, acquisition planning should assume 6 x EOD Teams for planning purposes. In the event of catastrophic damage, which is a realistic possibility, a replacement pool of a minimum of two vehicles in Theatre is required. One vehicle, fully fitted, is required for training in 33 Engr Regt (EOD) and 5131 BD Sqn RAF. This requires a minimum fleet size of 16 to cover current force levels. **Further vehicles may be required to be held in reserve if it is anticipated that force levels may increase.**

SUMMARY

29. Threat. There is a direct threat to the safety EOD Teams deployed on Op TELIC from small arms, RPGs and blast devices. Unsuccessful but nonetheless very serious attacks have already taken place against a number of vehicles in the UK Engr Regt Gp and across the Brigade AO serious attacks take place routinely: that these have not resulted in fatalities is a matter of great serendipity. There is an increasing likelihood that an attack will be successful, most likely resulting in fatalities and at least in the loss of a critical operational capability.

30. Capability Gap. There is a clear Capability Gap in the ability to deploy EOD Teams on Op TELIC safely, with adequate protection against the threat. The vehicle in which they deploy, the SNATCH Landrover, offers inadequate protection, is not configured suitably and does not have the capacity to be upgraded adequately to meet the threat or User's needs. A replacement is required immediately.

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[10] Note that the Army (33 Engr Regt (EOD) provides all the organic Equipment Support (ES) to the Jt Force EOD Gp. ES is also provided by the Engr Regt LAD REME.

[11] 22 Engr Regt Gp trained 3x RESA and 2 x REST but, on account of commitments to the ISG in BAGHDAD, only one REST is operationally effective: this is insufficient.



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31. Requirements and Priorities. The Requirement is for vehicles capable of fulfilling the technical role of EOD Team vehicles (BD Team and REST roles) in the Op TELIC physical and security environment that provide, in order, all-round ballistic protection to the crew and equipment against small arms fire; that provide all-round blast and fragment protection to the crew and equipment against the Explosive Ordnance (including IED) threat; that enable the crew to mount TC and defend the vehicle by fire; that have adequate load carrying and stowage capacity; that have redundant capacity in the drive train, transmission and suspension for upgrading of physical protection and that have at least Medium Mobility off road. In the Requirements hierarchy, all other issues are subordinate to the physical protection of the crew.

32. Acquisition Risks. The User is prepared to accept acquisition risks, in order to expedite delivery of an appropriately protected, effective vehicle. These risks, all acceptable to the User include:

- No obligation for Safety Case or Safety Appraisal before Delivery for COTS vehicle.
- EMA and supplementary notes or manufacturer's literature in lieu of AESPs initially.
- In-theatre familiarisation and conversion training
- Reliability Growth and ISRD if appropriate: acceptance of overseas operators' data.
- Trailers, if bespoke variants are to be provided, as a follow-on Deliverable.
- No obligation for legislation compliance with UK and EU regulations aimed at civil road vehicles (e.g. Euro-3 emissions).
- Delivery direct to Theatre as soon as possible.

33. Quantity. The minimum fleet size to cover **current** Op TELIC operational and training requirements is 16, as follows:

- 14 in Theatre (12 Active Fleet; 2 Repair/replacement pool).
- 1 at 33 Engr Regt (EOD) for Driver and VM Training.
- 1 at 5131 BD Sqn RAF for Driver and Maintainer Training.

34. Imperative. The requirement to provide an appropriate EOD Team vehicle is driven by a current and developing threat and a clearly demonstrable capability gap. This requirement is **immediate**.

35. Aspiration for Common Fleet. The User aspires to a common fleet of Team vehicles across the EOD spectrum, covering BD Teams, REST and IEDD Teams. This aspiration sees a common platform with configuration and ancillaries varied according to specialist requirements.

ACTION REQUIRED

36. You are requested to staff this Statement of Requirement to PJHQ for action.

***Signed on I-NET***

For CO



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Annex:

A. Supporting Information: SISU Wheeled APC.

Enclosure:

1.

S:\UK CS ENGR REGT
2IC\G3 FORCE DEVEL

Copy to:

HQ MND(SE) – 2 (COS Engr and SO2 EOD)
SO3 (EOD) 1 Mech Bde



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