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UOR I0383

BUSINESS CASE

OP TELIC - SNATCH

DEC(SP)/68/16
16 Jan 04

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DEC(SP)/68/16

16 Jan 04

DEC(SP)
DCRS1
SUV IPTL
ICSS IPTL
AD Tech2 (Acq Sp)
Iraq O-Sec

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CFPG-GL
DEC(SP) SO2 Prog

OP TELIC UOR I0383 BUSINESS CASE – SNATCH PROTECTED PATROL VEHICLE

References:

A. D/PJHQ/3/3200/90/4 dated 11 Sep 03.
B. MND(SE) Op TELIC Statement of User Requirement for an Armoured Patrol Vehicle for Iraq (NOTAL) .

ISSUE

1. The approval of a Business Case for a UOR for modification to the in-service SNATCH vehicle for deployment on Op TELIC.

RECOMMENDATION

2. You are invited to approve (by signing the signature sheet attached at Annex A) the procurement of a modification package, *vide* Reference B, to allow Project SNATCH vehicles to operate on Op TELIC, at a highest acceptable cost (VAT inc) of :

a. £0.367M total resource consumption (excluding Annually Managed Expenditure, 90% Confidence, VAT inc); and

b. £1.740M capital expenditure (90% Confidence, VAT inc).

c. the latest acceptable ISD (defined as one Battle Group (70 units) fitted with Air Conditioning Units (ACU)) of May 04 (50% confidence);

d. the Key Requirements summarised at paragraph 4;

e. the procurement and support strategies summarised at paragraphs 7 - 12;

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And to note:

f. The three point cost estimates for the project of:

Project Phase(s)	Resource Cost (excl AME)			Capital Cost		
	10%	50%	90%	10%	50%	90%
Manufacture	£0.300M	£0.334M	£0.367M	£1.423M	£1.581M	£1.740M
Support[1]	£0.124M	£0.138M	£0.152M	£0.000M	£0.000M	£0.000M

VAT Incl @ out-turn

g. A legal review has not been conducted. This equipment is not a weapon system and will not contravene the First 1977 Additional Protocol to the 1949 Geneva Conventions.

h. This UOR will be reviewed by DEC(SP) (in consultation with the DLO and other stakeholders) at the end of the Operation; when the equipment is no longer required to support the Operation; or one year after approval (whichever is sooner) to see whether the requirement to keep the equipment in service remains valid. If this review concludes that the equipment is no longer needed for the Operation, then the equipment should be either retained, re-deployed or disposed of. If the equipment is to be disposed of immediately, this should be a fair charge to the Reserve, (but fair notice is to be given to the Treasury, to secure their specific approval). If the equipment is to be re-deployed, DEC(SP) will agree with the DLO (D Tech Land) and Customer 2 how the support costs are to be met and if the support system remains valid. If the Review concludes that the equipment is still required for the Operation, the support costs will continue to be claimed against the Reserve.

BACKGROUND

3. The current uncertain security situation in MND(SE) on Op TELIC has resulted in a Force Protection requirement for a protected vehicle for patrol and escort tasks. Recent attacks have highlighted the need for protected mobility capable of providing protection from small arms and IEDs. As a result the decision has been taken to deploy an initial capability consisting of 208 SNATCH vehicles. These vehicles have been provided predominately by HQNI. The vehicle was not designed for expeditionary operations and, accordingly, its configuration and support package is optimised for urban operations in Northern Ireland (COUGAR communications fit, mobility, no Climate Control etc). It is therefore necessary to provide sufficient modifications to enable the vehicle to operate and communicate in the extremes of climate and terrain found in Iraq. This is considered a short-term solution to meet immediate needs. DEC(SP) is reviewing options to provide a more durable medium term solution, funded from the EP, for introduction not before late 04/early 05.

OPERATIONAL REQUIREMENT

4. The requirement (Reference B)was for a total of 228 vehicles initially. As a NI critical capability only 208 SNATCH were available without an unmanageable impact on Op BANNER. The vehicle provides a level of protection against the threats identified in theatre. Tactical communications in theatre are primarily based on the CLANSMAN system and there is a requirement to utilise this system in SNATCH. Temperatures in Iraq begin to rise in Mar annually and have reached highs of over 50°C. Troops are very susceptible to heat related injuries in these conditions. Duty of Care and the operational imperative require that maximum use is made of available technology to ensure that troops are not subjectedto conditions which will significantly degrade performance and potentially lead to injury.

[1] Support funding guidance issued by CFC (D/FM(L)/30/2/11 dated 23 Dec 03 refers).

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5. Key System Requirements. The KURs for provision of this capability are as follows:

KUR	[illegible]	[illegible]
KUR 1	The vehicle must carry a minimum of 6 pax	Additional equipment - patrol equipment, 1 x water jerrycan, a patrol medical pack and individual patrol equipment
KUR 2	The vehicle must incorporate radio fits for Clansman 'clip in'	Personal Radio Communications (PRC) 352
KUR 3	Protection at levels comparable to NI SNATCH (Rural Patrol Vehicle)	
KUR 4	The vehicle should provide limited off road capability	Predominantly in the urban environment but able to operate on hardened desert tracks and roads with very poor surfaces that are extensively pot-holed (KUR).
KUR 5	The vehicle should provide a Climatically Controlled environment capable of operating in external temperature in excess of 50°C	The System shall be capable of maintaining an internal temperature which allows acclimatised troops to operate with no deterioration in performance
KUR 6	The vehicle should provide the ability for 2 soldiers wearing ECBA to adopt a top-cover fire position	When sentries are deployed in this manner, it is accepted that the air conditioning system will become ineffective.

CAPABILITY GAP

6. The current options that offer protection are: Challenger 2, Warrior, CVR(T) and Saxon. These platforms are not available in sufficient numbers, nor are they appropriate to the majority of tasks due to profile and size. Saxon is not deemed to be a suitable alternative due to its size and the associated driver-training bill at a time where the tempo of operations is high. SNATCH provides a short-term solution to the issue of protection but the vehicle will require modification to incorporate the communications and air conditioning to support sustained operations.

ACQUISITION STRATEGY

7. In Service Vehicle Options. Paragraph 6 details the reasoning behind the requirement for an alternative protected mobility platform. The option to meet the capability with a new COTS/MOTS procurement has been ruled out on the grounds of cost and time. The use of in-service assets from HQNI is the preferred option; of the two platforms (SNATCH and TAVERN), DLO advice is that TAVERN will be unsupportable in theatre. The SNATCH vehicle is the preferred option, although recognising that it uses petrol rather than diesel and is not configured for operations outside NI. Based on a Landrover chassis there are significant logistic advantages in deploying SNATCH. Modification for use on Op TELIC will be required; the two key areas are communication and climatic control. However SNATCH is approaching its end of service life and support costs are likely to increase if used for extended periods on operations in Iraq.

8. Communications Options. No communications systems other than CLANSMAN would meet the required timeframe. As a result ICSS IPT have developed prototype communications Installation Kits (IK) for the existing Clansman Personal Radio Communications (PRC) 352. Prototypes have been developed for a vehicle wing mounted solution and a roof mounted solution. Working at risk, sufficient wing mounted IKs have been produced to meet the requirement. These kits have been shipped to Op TELIC where the process of fitting the radios into the vehicles is now complete. Roof mounted IKs are available should the current situation change.

9. Air Conditioning. Recent operational experience with BattleField Ambulance (BFA) has identified that COTS Air Conditioning systems fail in the temperatures experienced on Op

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TELIC. Research, trials and assessments of the requirement and possible solutuions started, at risk, as early as Nov 03. Now, under SUV IPT direction, industry is developing a prototype new-design Air Conditioning Unit (ACU) for use in the temperatures experienced in Iraq. Options under consideration allow for the ACU to be manufactured and deployed to theatre for integration into SNATCH using the procedure[2] developed for the PRC 352 installation or for fitment to take place in the UK. The contracting strategy is to seek a solution through single source procedures with the SNATCH Design Authority.

SUPPORT STRATEGY

10. Vehicle Support Strategy Overview. The vehicle support packages will be developed by SUV IPT, who estimate that costs are likely to increase over and above the current NI requirement to allow for the demands placed upon the vehicle by the more rigorous environment. Key details are as follows:

a. Support System. Support will be based on the support currently offered to NI SNATCH. A revised ESPD was issued prior to vehicle departure for Op TELIC.

b. Technical Publications. Technical Publications, in the form of AESPs and EMERs, exist covering the test, maintenance and repair of the equipment.

c. Training. Vehicle familiarisation will be conducted in theatre, co-ordinated by the relevant Subject Matter Experts (SME).

d. Special Tools and Test Equipment (ST&TE). Specialist Tools and Test Equipment will be provided to meet the demands imposed as a result of the dispersal of the vehicles in theatre. There are a total of 12 dispersed ES sites. This breaks down to give each of the Basra BGs a Coy ES set. This could be scaled down to 6 and allow an ES site at each BG location.

e Maintenance Policy. The Maintenance Policy will be as for SNATCH fleet, as detailed in the applicable AESPs.

11. Communications Support Strategy Overview. The communications support package has been developed by ICSS IPT. Key details are as follows:

a. Support System. The communications fit is based on a standard Clansman RT352 fit and utilises existing codified and supported items. The Support System will therefore utilise the arrangements in existence for Clansman, as detailed in the current Equipment Support Policy Document (ESPD).

b. Technical Publications. Technical Publications, in the form of AESPs and EMERs, exist covering the test, maintenance and repair of the equipment. The installation of Clansman into Snatch was a new requirement, however it utilised existing Clansman components. Consequently, a draft Technical Publication was produced that details the design of this IK and describes how to fit and install the equipment into the vehicles, and then test it.

[2] PRC 352 Installation was co-ordinated by PJHQ. A similar approach will be adopted. Additional manpower requirements e.g. Class 1 REME tradesmen, will be directed by PJHQ.

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c. Packaging, Handling, Storage & Transport (PHS&T). No new PHS&T requirements have been needed. All items utilised are existing, codified items of supply and PHS&T requirements are already known and specified.

d. Supply Support. In order to supply the required items in the required volumes to support this UOR, items were either supplied direct from stock, repaired in accelerated timescales by ABRO, or delivered early from existing resupply contracts in place. This has implications for stock levels available to support the wider Clansman population, and action will be needed to return stock levels to those required to meet agreed usage rates and levels of availability and sustainability. The costs presented in the UOR include these stock replenishment costs where applicable.

e. Training. No new training needs have been identified. Guidance to enable installation of the RT352 fits to the SNATCH vehicles in theatre has been provided through the production of a suitable Technical Publication. This is being supplemented by three of ICSS IPT's Technical Support staff deployed into theatre to support the installation work.

f. Special Tools and Test Equipment (ST&TE). No new ST&TE items have been required.

g. Maintenance Policy. The Maintenance Policy will be as for existing RT352 installations in Landrovers, as detailed in the applicable AESPs.

12. ACU Support Strategy Overview. SUV IPT will task NP Aerospace, the Design Authority for SNATCH, to develop the ACU and its support package. Key details are:

a. Support System. SUV IPT will contract with the manufacturer to provide a spares pack based on data gained through previous MoD contracts, principally Battle-Field Ambulance.

b. Installation. Installation may follow a dual approach with fitment in theatre and in the UK under consideration. Development at risk began in Nov 03 and indications from the manufacturer throughout the prototype development stage suggest that Class 1 REME tradesmen will be appropriately qualified to install the system, although other options are being considered e.g. manufacturer support in theatre. The final solution will be based on the manufacturer's advice and direction from PJHQ. Clean workshop facilities will be required.

c. Special Tools and Test Equipment (ST&TE). The requirement for any ST&TE will be confirmed once the prototype development is complete. Quantities will also be established at this stage.

d. Maintenance and Training Policy. Once fitted ACU will be an integral part of the vehicle and will be maintained by REME. It is expected that personnel with the necessary experience will be available. In the event that this is not the case, personnel would need to be trained on the Air Conditioning and Refrigeration Units course at SEME Bordon. It is imperative that the necessary ACU/Refrigeration expertise is maintained in theatre for the duration of the operation.

KEY RISKS AND MITIGATION

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13. The overall level of risk associated with this UOR is medium. The assessments of risk for this System against the procurement parameters of performance, cost and time are as follows:

a. Performance. The performance of the vehicles and communications systems is well known from previous operational experience. The manufacturer has considerable experience on similar projects as a result of the ongoing programme to provide an ACU solution for the BattleField Ambulance for Op TELIC. Performance risk is low.

b. Cost. Up to date quotes have been used to cost the acquisition. The costs represent provision of 208 fully resourced systems, representing the currently defined requirement, plus support costs to cover the 12 months of this UOR. The risk of cost growth is therefore low.

c. Time. The ACU development and installation represents the medium time risk. Single source procedures and a strategy of concurrent development and procurement of long lead time items will minimise the timescale for this Acquisition. Prototype development and testing is likely to be complete by the end of Jan 04. The risk to slip against the ISD 50% is medium.

FUNDING AND AFFORDABILITY

14. The Treasury has agreed that, in principle, the costs of UORs demonstrably needed for the campaign against Iraq will be reimbursed from the Reserve. Where UOR action allows savings to be realised elsewhere in the Defence programme, these should be identified and netted off against the cost of the UOR. Compensating savings do not, however, need to be identified for the net additional costs of the UOR. SUV and ICSS IPTs will carefully record and report all spending against guidance issued by CFC (D/FM(L)/30/2/11 dated 23 Dec 02 refers) to allow a claim to be made on the Reserve.

Total

Ser (a)	Item (b)	Qty (c)	50% UPC VAT Ex (d)	50% Total Costs VAT Incl (e)	Remarks (f)
1	Communications Integration Kit	208	£1.32K	£0.662M	
2	Air Conditioning Unit	208	~~£4.70K~~ £6.0K	£1.568M	
	Total VAT Incl			**£2.230M**	

Communications Fit

Ser (a)	Item (b)	03/04 VAT Incl (c)	Remarks (d)
A	Capital DEL	£0.333M	
B	Resource DEL for Acquisition	£0.134M	Repair of equipment in stores
C	Resource DEL for Support	£0.018M	Repair of PRC 352 units
D	Consumable Stock	£0.177M	Leads, cable etc (Cash outside of DEL)
	Total VAT Incl	**£0.662M**	

Air Conditioning Fit

Ser (a)	Item (b)	03/04 VAT Incl (c)	Remarks (d)
A	Capital DEL	£1.248M	Based on £6K (VAT ex) per ACU
B	Resource DEL for Acquisition	£0.200M	Full evaluation of ACU and Initial Spares
C	Resource DEL for Support	£0.120M	Annual Support Costs
	Total VAT Incl	**£1.568M**	

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Note: A + B is the cost endorsed in this UOR. C + D will be reported and recorded by SUV and ICSS IPTs to allow a claim to be made on the Reserve.

		03/04	04/05	05/06	06/07
	AME costs	-	-	-	-
A_R	Existing EP Resource provision (if any)	-	-	-	-
B_R	Existing STP Resource provision (if any)	-	-	-	-
C_R	Total existing Resource provision (A_R+B_R)	-	-	-	-
A_A	Existing EP AME provision (if any)	-	-	-	-
B_A	Existing STP AME provision (if any)	-	-	-	-
C_A	Total existing AME provision (A_A+B_A)	-	-	-	-
A_C	Existing EP Capital provision (if any)	-	-	-	-
B_C	Existing STP Capital provision (if any)	-	-	-	-
C_C	Total existing Capital provision (A_C+B_C)	-	-	-	-

PRESENTATION

15. There are no presentational issues relating to this procurement.

Annex:

A. Approving Authority Signature Sheet For UOR I0383.

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ANNEX A TO
DEC(SP)/68/20
DATED ~~27 NOV~~ 03
3 DEC

APPROVING AUTHORITY SIGNATURE SHEET FOR PROTECTED PATROL VEHICLE EQUIPMENT FOR OP TELIC – TOR H383

APPROVER	APPOINTMENT	SIGNATURE / COMMENTS
	DEC(SP)	
	ICSS IPTL	
	SUV IPTL	
	DCRS 1	
	AD Tech 2 (Acq Sp)	
	Iraq AD Sec	

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ANNEX A TO
DEC(SP)/68/20
DATED 12 NOV 03

APPROVING AUTHORITY SIGNATURE SHEET FOR PROTECTED PATROL VEHICLE EQUIPMENT FOR OP TELIC – UOR I0383

APPROVER	APPOINTMENT	SIGNATURE / COMMENTS
	DEC(SP)	Approved 15 Jan 04
	ICSS IPTL	
	SUV IPTL	Approved 15 Jan 04
	DCRS 1	Approved 13/01/04
	AD Tech 2 (Acq Sp)	
	Iraq ~~AD~~ Sec Iraq Secretariat	Approved 16/1/04

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