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D/DEC(SP)/68/20

15 Oct 04

D Jt Cap (AD Jt Mvre)
DCI(A) (Col AEP)
S&A OA(Land)
DCRS 1
HQ E-in-C (Col FD)

Copy to: SUV IPTL
MA/CM(BM)
DEP CS2
DEC(GM)

HQ D Inf (SO2 FD)
IAB Sec 1d
CT&UKOps (SO2 NI)

STRATEGY FOR DELIVERY OF PROTECTED PATROL AND COMBAT SUPPORT
MOBILITY – PROJECT DUCKBOARD

Reference:

A. D/DEC(SP)/68/20 dated 26 Mar 04 (DUCKBOARD Way Forward Paper – Final Version).

INTRODUCTION

1. Background. As a result of experience on Op TELIC, some form of Protected Mobility for both patrol and combat support roles has become a political and planning pre-requisite for any UK expeditionary deployment to theatres with an identified terrorist or insurgent threat. This has led to the need to “globalise” capabilities, such as SNATCH, previously only developed and scaled for use in NI under MT 2.2. The original SNATCH replacement programme, which must now deliver the global Protected Mobility capability, is Project DUCKBOARD.
2. Requirement. The broad requirement for Protected Mobility was articulated at Reference A and subsequently endorsed by D Jt Cap. Three capability-based roles are identified:
 - a. Type A. A protected patrol vehicle optimised for the NI CT and Public Order (PO) role, on the lines of the current SNATCH vehicle.
 - b. Type B. A protected patrol vehicle optimised for expeditionary operations and environments. This could be a “desertised” SNATCH vehicle or more probably a slightly larger vehicle for the BOWMAN era, with higher levels of protection.
 - c. Type C. A protected support vehicle to meet the needs of combat support elements, such as IEDD and CMD teams, in expeditionary operations and environments. This concept and requirement has been proven by ZIMMER (a UOR for TELIC) and the subsequent CRUSADE, which provide protected mobility on a 6 x 6 chassis.
3. Current Challenges. The challenges prompting this note, details of which are below, are:
 - a. Current Protected Mobility assets can support TELIC at Medium Scale (+) and NI steady state requirements. Reallocation of vehicles from TELIC to NI will be necessary to meet the stated HQNI Marching Season (MS) requirement Jun – Aug 05 in full.

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- b. If Defence has to support; current NI commitments; a continuance of Op TELIC on current scales; and a Medium scale operation in Afghanistan (AFG) simultaneously in 06, a new acquisition of Protected Mobility vehicles, currently unfunded¹, will be necessary.
- c. If a further Medium scale capability is required for operations in AFG in 06, industrial factors mean that production must start from Apr 05 to be confident of meeting a Jan 06 ISD and "ready-to-train" date. An abbreviated process will be required.
- d. Regardless of concurrency in 06, urgent EP/UOR action is needed to meet USURs arising from Op TELIC and to sustain the current SNATCH fleet.
- e. Industrial timelines and current funding profiles mean that DUCKBOARD is undeliverable as a single Cat C programme before end 07 without an immediate change to the concept of delivery.
- f. There is no overarching doctrine, no endorsed CONOPS nor definitive scaling for the provision of Protected Mobility for expeditionary operations. Overall lack of definition, of the numbers and types of vehicles required, continues to stall the acquisition process. The requirement to support RE CMD operations in particular is ill-defined.

ISSUES

- 4. What is the Defence requirement, in terms of scales of effort, for Protected Mobility in the 06 timeframe?
- 5. What approvals process is best able to support the operational requirement?

TIMING

- 6. Pressing. Direction is needed before 27 Oct 04 to inform the DEC(SP) EP05 Phase 2 submission and to launch acquisition action to meet anticipated operational timelines.

ACTIONS

- 6. Policy & Commitments. **D Jt Cap** are requested to confirm the capability requirements (protection levels, role etc) and concurrency assumptions for 06. Based on guidance in pDPAs, and in the worst case, this could be:
 - In NI, maintain current NI SNATCH scalings (HQNI stated requirement is 445 steady state, rising to 614 for MS), replacing all SNATCH 1 with SNATCH 2.
 - For Op TELIC, maintain current SNATCH scalings (371 x SNATCH 1.5 plus 70 x SNATCH 2 in reserve), replacing SNATCH 1.5 with SNATCH 2 as they attrite.
 - For AFG, deliver a new Medium Scale capability by Jan 06 (224 to 410 x VECTOR?).
 - For Combat Support roles, deliver up to 75 x FORMAT vehicles between Apr 05 and Jan 06 to support Op TELIC and AFG.
 - Maintain the capability and a UK Training Pool.

¹ Option ESSPODIE has been submitted for EP05 Phase 2.

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7. Approvals. DCRS and S&A are requested to advise on the appropriate approvals approach to meet operational timelines. DEC(SP) recommends:

a. Approaching DUCKBOARD as 3 parallel but independent approvals within an overarching scrutiny mechanism, so that each strand can be delivered at its own pace, independently of the other 2 strands:

(1). A Cat C project (SNATCH 2) producing DUCKBOARD Type A capabilities (the first tranche of this project is already under contract as a Cat D Operational Emergency (OE) programme).

(2). A Cat C project (VECTOR), producing DUCKBOARD Type B capabilities. Commitment to this project depends on AFG/Iraq concurrency assumptions and/or direction as to required protection levels.

(3). A Cat D project (FORMAT), producing DUCKBOARD Type C capabilities.

b. Each project to be accorded OE status, allowing the use of UOR procedures. Alternatively each could be run as a UOR in entirety or in tranches.

c. In parallel with project delivery, but without delaying projects, DEC(SP) will produce overarching analysis confirming the justification for overall numbers and protection levels, which have so far been based on PJHQ USURs and unendorsed scalings.

8. FORMAT Requirement. HQ E-in-C are requested to confirm that their requirements for Op TELIC and future expeditionary operations will be met by the FORMAT vehicle.

9. DCI(A) Confirmation. DCI(A) are requested to confirm overall numbers and scalings of all three Types of vehicle, supported by indications of other potential users outside the immediate DUCKBOARD requirement.

10. Immediate Acquisition Action. D Jt Cap, DCRS and S&A are requested to endorse the DEC(SP) recommended course of action of immediate UOR and OE work to deliver initial and secondary tranches of SNATCH 2, FORMAT and VECTOR.

BACKGROUND

11. In-Place Capability. Headlines for capability already in place are:

- A total of 371 desertised SNATCH 1.5 [308 at first line and 63 to support the Extremely High Readiness Reserve (EHRR)] have been delivered under UOR action to Op TELIC.
- A further 70 dieselised and desertised SNATCH 2 will be available to support the Very High Readiness Reserve (VHRR) from Dec 04.
- The LAND training requirement plus and minor deployments such as 6 x SNATCH in Afghanistan (AFG) etc, is c. 100 SNATCH
- This leaves a theoretical total of 441 SNATCH 1 vehicles to support NI and contingencies such as Op MERCIAN³, including the repair pool, from the overall SNATCH fleet of 982⁴.

³ PO reinforcement to Balkans – earmark of 24 x SNATCH against NI fleet

⁴ At least 20 x SNATCH have already been lost on Op TELIC.

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- * The stated NI requirement for SNATCH is currently 445 vehicles for steady state operations, rising to 614 vehicles for the Marching Season (MS) annually from Jun to Aug.
- * Current assets can therefore only support TELIC at its current Medium Scale (+) and NI steady state requirements, with about 20-30 vehicles at risk. Reallocation of the 70 SNATCH 2 vehicles from VHRR to NI and a further return of 100 SNATCH 1.5⁵, via a refurbishment programme, would be necessary to meet the full NI MS requirement.

12. Capability Drivers. DEC(SP) are preparing to transition the Protected Mobility capability from a UOR-based response to Op TELIC to a permanent EP/STP supported capability. Key drivers, to inform the Project DUCKBOARD strategy and an EP05 enhancement option are:

a. Scales of Effort. Provisional DPAs⁶ mandate a Medium Enduring/Small Enduring/Small Non-Enduring level of concurrency with no effect on MT 2.2. For short periods one Small operation may rise to Medium. Practically, a situation can be envisaged where a Medium scale operation is required in AFG in 06, with no possibility of withdrawing protected mobility assets from NI or Op TELIC. A further Medium scale Protected Mobility capability (224 - 410 vehicles) may therefore be necessary.

b. Supportability Factors - SNATCH. The current SNATCH 1 fleet is over 10 years old and suffers from chassis corrosion and heavy use. A contract to provide a reserve of 70 vehicles for TELIC and to upgrade a further 242 SNATCH 1 to SNATCH 2 standard has been let as an Operational Emergency and will deliver by Jun 05. The majority of these vehicles will be required to sustain the NI and Op TELIC capabilities, replacing worn-out SNATCH 1s and 1.5s which will then be recycled back into the SNATCH 2 programme. The 371 desertised SNATCH 1.5s on Op TELIC had a life-expectancy of 3 years on refurbishment – by Apr 06 they will be approaching 2 years on operations and be increasingly unreliable. Upgrade of all remaining SNATCH 1/1.5s to SNATCH 2 is therefore urgent on sustainability grounds.

c. Supportability Factors – Combat Support. The 8 x ZIMMER vehicles, deployed on Op TELIC since Apr 03 for use by RLC IEDD teams, are already failing due to heavy use and will be unsupportable by Apr 05. Urgent action to replace these by Type C DUCKBOARD (FORMAT) is required.

d. Industrial Factors. The UK and European industrial base to build new vehicles is small and already heavily committed to other contracts. A typical production rate might be 25-30 vehicles a month. If a further Medium scale capability is required for operations in 06, it is imperative that production starts from Apr 05 if confidence is to be given to meeting an anticipated ISD of Jan 06.

e. Legislation. Any new build vehicles must conform to Euro 3 legislation, but Land Rover do not make a suitable Euro 3 compliant engine. There is therefore little prospect of building any more SNATCH, limiting the overall SNATCH fleet size to the 982 protected pods currently in existence.

f. Op TELIC USURs. DEC(SP) are in receipt of two USURs from PJHQ to support Op TELIC. The first is to replace the failing ZIMMER vehicles for RLC IEDD teams in Iraq by Apr 05. The second is to provide RE CMD teams in Iraq with some form of

⁵ PJHQ have recently suggested that this return will not be possible.

⁶ DPAs Sect 5, pages 5-4 to 5-6.

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protected mobility. PATO LAND is content that Type C DUCKBOARD (FORMAT) will meet RLC needs. The RE CMD requirement specifies an armoured vehicle and HQ E-in-C have yet to decide whether FORMAT might meet their requirement at 80% level⁷. The manufacturer of ZIMMER and CRUSADE has developed a FORMAT design at risk and the project is poised to launch once the RE requirement is validated. If a concurrent Iraq and AFG requirement is mandated, it will be most efficient to procure both slices of FORMAT in a single OE/UOR project.

13. Acquisition Process. Expeditionary capabilities have so far been delivered under UOR action. In support of Op TELIC reserves and to sustain the NI and TELIC capabilities, a Cat D OE Business Case was endorsed in Apr 04⁸ to produce 312 x SNATCH 2 vehicles by Jun 05. The previous approach to DUCKBOARD was to deliver the whole capability under a single Cat C approval, using a conventional IG/MG approach. It is clear that, in the worst case of concurrency, operational timelines and the complexity of DUCKBOARD will not be amenable to a conventional approach, leading to a recommendation to treat the project as three elements and accord the three sub-projects OE or UOR status. Overarching analysis will support all elements.

14. Vehicle Scalings. There are no endorsed CONOPS or scaling for the provision of Protected Mobility for expeditionary operations, and no overall front line Customer 2 lead. As a result definition of the numbers and types of vehicles required has proved extremely difficult. DCI(A) have now assumed the task of collating numbers – definitive scalings are urgently required to launch the acquisition process. Headlines from ongoing numbers analysis are:

a. Firm Requirements.

Ser	Role	Requirement	Remarks
(a)	(b)	(c)	(d)
1		16 x SNATCH	- Top priority for SNATCH 2 - Figs do not incl Repair Pool
2	LAND Trg Pool	70 x SNATCH	- Currently met by SNATCH 1, to be replaced IDC by SNATCH 2 - Figs do not incl Repair Pool
3	TELIC	308 x SNATCH 1.5 @ 1 st line 63 x SNATCH 1.5 for EHRR 70 x SNATCH 2 for VHRR	- Reallocate VHRR vehs to NI for MS05? - Figs incl Repair Pool
4	NI	445 SNATCH at steady state (rising to 614 SNATCH for MS 05) <i>[NB: These figs could be reduced to c 350, rising to c 55, if NI altered their contingency assumptions]</i>	- Based on a bn scale of 58 vehs - Currently met by SNATCH 1, to be replaced IDC by SNATCH 2 - Includes 24 x SNATCH as contingency for Op MERCIAN - MS uplift at risk - Figs incl Repair Pool
5	Total SNATCH	- 972 x SNATCH (all variants) - Rising to 1141 x SNATCH for MS05	- Only 982 SNATCH in existence. - Therefore already risk of 159 x SNATCH against MS and Repair Pool, offset by 70 VHRR vehs

⁷ Since desk circulation, HQ E-in-C have verbally confirmed their intention to accept the FORMAT approach.
⁸ DEC(SP)/68/20 dated 14 Apr 04.

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b. Emerging Requirements.

Ser (a)	Role (b)	Requirement (c)	Remarks (d)
1	AFG 06 (Min View)	224 x VECTOR, comprising: 3 x bns @ 58 vehs 50 for enablers	- Estimated cost: £22-25M - Deliverable by mid 06
2	AFG 06 (Early PJHQ figs)	410 x VECTOR (staffing still identifying numbers)	- Estimated cost: £41-45M - Unlikely to be able to deliver such nos before early 07
3	Combat Support (Iraq IEDD)	12 x FORMAT, comprising: 6 x RLC IEDD vehs 6 x RLC ECM vehs	- Estimated cost: £1.8 -2.5M - Replaces ZIMMER
4	Combat Support (Iraq CMD)	12 x FORMAT, comprising: 12 x RE CMD vehs	- Estimated cost: £1.8 -2.5M
5	Combat Support (AFG 06)	24 x FORMAT, comprising: 6 x RLC IEDD vehs 6 x RLC ECM vehs 12 x RE CMD vehs	- Requirement TBC - Estimated cost: £4-5M

15. Courses Of Action Open. Three broad options have been considered:

a. Option One - Assume Non-Concurrency. If Op TELIC and AFG operations are completely non-concurrent, the present vehicle scalings will suffice. There will be no need to procure VECTOR and EP05 enhancement bids would be withdrawn. Priority will switch to sustaining the SNATCH 1/1.5 to SNATCH 2 conversion. Limited numbers of FORMAT would be procured under UOR. There would be time for full Cat C staffing of DUCKBOARD as a single entity.

b. Option Two - Manage the Present Fleet. If concurrent deployments are potentially required, an illustrative figure of 224 vehicles for AFG could be met by removing the TELIC reserve vehicles (63 + 70) and reducing NI by a further 100 SNATCH. Effectively this caps NI at about 300 x SNATCH all up, with no reinforcement for MS 06. The programme implications would be as for Option One. Alternatively, TELIC could reduce to 100 vehicles, freeing the balance of 271, subject to refurbishment, available for AFG.

c. Option Three - Procure an Additional Medium Scale Capability. If concurrent deployments are possibly or actually required, procurement of an additional Medium Scale capability (min 224 x VECTOR) is the recommended option, that carries the least risk that lack of Protected Mobility proves to be a constraint on operations for NI, TELIC or AFG.

16. Risk. The major risks are summarised below:

Ser (a)	Risk (b)	Impact (c)	Mitigation (d)
1	Disengagement from Iraq/NI is delayed, leading to a shortfall in assets for AFG	High Probability/High Impact. Lack of Protected Mobility becomes a constraint on UK planning	Procure an additional Medium scale capability

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2	Insufficient time to deliver additional capability	Medium Probability/Medium Impact. Temporary lack of assets becomes a constraint on UK plans	- Prompt acquisition action now - Take short-term risk in early 06
3	Successful disengagement from Iraq/NI leads to a surplus in 06	Low Probability/Low Impact. - Choice of SNATCH or VECTOR gives maximum flexibility - Surplus supports MWF development	- Needs/numbers study to avoid over-provision - Contract in tranches

17. Costing of Options. DEC(SP) has tasked SUV IPT to cost the following options and tranches to inform EP05 planning:

a. SNATCH Conversion (Type A) – All SNATCH 1/1.5s:

- Tranche SN1: 360 SNATCH 1/1.5s to SNATCH 2 @ 60/mth, Jul – Dec 05
- Tranche SN2: Remaining 310 SNATCH 1/1.5s to SNATCH 2 @ 62/mth, Jan – May 06, completing before MS06

b. VECTOR (Type B) – Min no of 224:

- Tranche V1: 141 x VECTOR (2 x BGs @ 58 plus 25 HQ elms) by 31 Jan 06
- Tranche V2: 83 x VECTOR (1 x BG @ 58 plus 25 HQ elms) by 31 May 06
- Deliver earlier if possible

c. FORMAT (Type C) – Estimated TFR of 75:

- Tranche F1: 12 x FORMAT (IEDD use to replace ZIMMER) by 31 Mar 05
- Tranche F2: 12 x FORMAT (RE use on TELIC) asp after Tranche 1
- Tranche F3: 24 x FORMAT (IEDD and CMD use for AFG) by 31 Jan 06
- Tranche F4: Balance of 27 x FORMAT (IEDD and CMD use) in 06/07

18. Recommended Acquisition Action. Realistic assessment is that the operational planning process will not be able to establish definitive requirements and numbers before Dec 04. In addition, the balance between Iraq and AFG is unlikely to be clear before mid 05. Decisions are needed now in order to reduce risk. DEC(SP) therefore proposes to launch the following:

- a. Extend current SNATCH 2 production by a further OE business case for Tranche SN1 (360 x SNATCH), in order to guarantee SNATCH sustainability for 06.
- b. Procure Tranche V1 (141 x VECTOR) by UOR against EP funding, in order to prove the design, establish the production line and ensure an IOC is available by 31 Jan 06.
- c. Procure Tranches F1 and F2 (24 x FORMAT) by UOR against EP funding, in order to replace ZIMMER on Op TELIC and achieve an IOC for RE CMD Protected Mobility.

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