Schedule 3 (Tasking Order Form) FINAL

Tasking Identification

Version 2 Version No. & Date FTSD/HELSS0046 **Unique Tasking Order Number** (Insert additional 9 characters Max) 13 April 2016 Original FBC5500 Unique Reference Number **FATS Business Case Number Amendment FBC** (FATS team supplied) Project / Equipment for which Merlin Helicopter **UOR** No task is in support

Task Title

MERLIN ALL Mks STRUCTURAL USAGE VALIDATION PROGRAMME DEFINITION STUDY and REPORT

NCAs Selected (in accordance with MKM search)

NCA Numbers: 2850, 2880, 2901, 2930 & 2932

Please refer to FATS Customer Guidance for definition of Work Category

| Directorate & PT / Organisation Title | Merlin Project Team | Supplier Name | Aviation Requireme | ents Ltd | |
|--|---|-----------------------|---|----------|--|
| PT Leader/ Project Manager | Simon Miln | Post | | | |
| Post | DES Merlin-SI Mgr | Address | Suite 2, York House | э, | |
| Address | DE&S, Merlin Project Team Century House, Building 100, Augusta Westland Ltd | , | Colharbour Busines | ss Park | |
| | Lysander Road | | Sherborne | | |
| | Yeovil | | Dorset | | |
| Postcode | BA20 2YB | Postcode | DT9 4JW | | |
| Telephone / Fax No | 01935 70 5499 | Telephone / Fax No | 01935 813220 | | |
| E-mail | DESMerlin-SIMgr@mod.uk | E-mail | jason.becker@aviationrequirements.co.uk | | |
| UIN & RAC | D1948H | CPV Code | 71356000 | | |
| Date Draft Tasking Oi Iss | rder ued 27/01/2016 Dea | | receipt of Tenderer's le Draft Tasking Order | 17/02/16 | |

1. Schedule of Requirements

Brief summary of requirement – expand/delete rows as appropriate (full details appear below in the Statement of Requirement)

| Item No | Description | Firm Price £ (Ex VAT) |
|---------|---|--------------------------|
| 1. | Identify, review and analyse existing Merlin structural design, substantiation data and associated information including but not limited to the following: | |
| | *Strength / fatigue substantiation methodology (to determine inherent conservatism) | |
| | *Load survey or load database (to understand what has been tested under which conditions) | |
| | *Individual Critical component review (which conditions are most damaging to each) | |
| | *Previous ODR programme reports and outputs | |
| | *Existing assumed DUS documents | |
| | Existing / draft future SOI & SIOU documents | |
| | (Note* DO will be tasked to provide information and support to this work) | |
| 2. | a. *Identify, review and analyse existing Merlin integrated monitoring and recording systems to determine their specification and capabilities | |
| | b. Assess available FDR (Flight Data recording) parameters versus required FDR parameters necessary to validate operating usage including detailed capture methods and frequencies. | |
| | c. Identify any existing integrated monitoring systems' capability shortfalls, appropriate potential enhancements and / or supplementary data collection solutions to achieve required FDR parameters. | |
| | (Note* DO will be tasked to supply supporting information) | |
| 3 | In parallel with ID1 and 2 identify, investigate and where possible draw on other non-traditional ODR programmes such as Puma and Wildcat with a view to minimising or negating the use non-integrated specialised instrumented flying of small fleet samples. The ultimate goal would be semi/continuous whole fleet(s) of individual aircraft data acquisition. | |
| 4. | Develop a proposed definition for a tailored innovative Merlin all Mks operating usage validation programme which meets the intent of RA5720(4) ODR requirements (for acceptance by MAA as an AAMC) based on and supported by the body of existing design and usage monitoring information gathered and analysed during work at IDs 1, 2 & 3. | |
| 5. | Provision of a comprehensive peer reviewed technical report based on innovative RW usage validation methodology providing the necessary foundation of knowledge and recommendations to the Merlin TAA to guide the scope and management of a cost efficient future programme to validate structural operating usage. | |

| 6. | Deliverable 1 – Merlin all Mks Operating Usage Validation Programme (AUVP) Definition Study – Initiation Presentation to Stakeholders of anticipated forward plan | |
|-----------------|--|------------|
| | Deliverable 2 – Four interim progression meetings and written reports 30/06/16; 12/08/16 (including brief to Integrity Working Group Meeting) 23/09/16 and 04/11/16. | |
| | Deliverable 3 - Merlin all Mks AVUP Definition Study – Stakeholders Meeting, Presentation of Findings, Conclusions and Feasabilty Recommendations | |
| | Deliverable 4 (Final) - Merlin all Mks AVUP Definition Study (on or before 18/01/17) consisting of: | |
| | a. Final Customer Report. | |
| | b. Merlin Operating Usage Foundation Body of Information Package. | |
| | c. Stakeholder endorsed Statement of Requirements (SoR) for the accomplishment of Merlin Future Operating Usage Validation Programme. | |
| | d. A tailored structured plan for achievement of an MAA RA compliant Merlin all Mks AVUP. | |
| | e. Merlin all Mks AVUP Definition Study Stakeholder Closure and final briefing meeting | |
| | Total: | £99,936.00 |
| Support Info | Contract award is subject to AW consent to / for proposed supplier's access to and handling of proprietary Design and other information. All access to DO provisioned information will be on-site at AgustaWestland Yeovil accompanied by an MOD representative. Provision will be made to provide office accommodation and facilities to contracted staff in MOD Building 100 on the AW site in Yeovil subject to satisfactory security clearances etc. | |

STATEMENT OF REQUIREMENT

| Unique Tasking Order Number: | Issue Number & Date: | Unique Reference Number: |
|------------------------------|-----------------------------------|--------------------------|
| FTSD/HELSS0046 | Issue 02 Dated: | |
| | 13 th April 2016 (ITT) | |

Task Title: PROVISION OF MERLIN STRUCTURAL USAGE VALIDATION PROGRAMME DEFINITION STUDY.

Brief Description of Task:

A comprehensive independent review of existing Merlin structural design / substantiation data and integrated monitoring capabilities with the aim of establishing a solid foundation knowledge of the type design to be owned by the MPT. Analyse gathered information to determine feasibility of and use to define bespoke future operating usage validation programme plan.

Background/Justification:

- 1. The regulatory requirements for through-life integrity management of aircraft structures are defined in MAA RA5720 (Structural Integrity Management Issue 2). A key mandatory programme within this regulatory framework is the conduct of an Operational Data Recording (ODR) programme. The Merlin Project Team (MPT) undertook a comprehensive ODR programme on Merlin Mks 1 and 3 which concluded in 2011 and 2012 respectively. Whilst successful, these programmes were complex, protracted and costly.
- 2. Accordingly, the intent of MAA MASAAG Paper 120 (currently in draft) is to develop a cost-effective generic approach to Rotary Wing usage validation and contains improved guidance material concerned with meeting the original intent of RA5720. MASAAG 120 proposes that existing aircraft data recording systems are exploited to determine the usage and that damage is assessed through the correlation with existing qualification data.
- 3. The methodology described in MASAAG 120 places particular emphasis on the programme technical definition phase and recommends that this activity should review the level of risk associated with usage. This can only be achieved through a thorough assessment of the existing helicopter design and qualification data, enabling more intelligent and targeted use of other sources of information. The effectiveness of this approach has been demonstrated on the Puma HC Mk2, which is proceeding with a usage validation programme that is appropriate to the degree of risk which can be attributed to usage.
- 4. It is essential that the approach to undertaking such a usage validation programme is carefully defined and planned with the assistance of suitable subject matter expertise to ensure that clear, appropriate, risk-aligned technical aims are established and can be achieved within a cost-effective work schedule.

Requirements:

- 5. The aim of the Task is to define an effective and efficient usage validation programme for all Merlin Mks, supported by the MPT and platform DO. There will be follow-on tasks dependent on the outcome of this first phase.
- 6. The Task will involve a comprehensive independent review of existing Merlin structural design, substantiation data and assessment of integrated data monitoring capabilities with the aim of establishing solid foundation knowledge of the type design to be retained by the MPT to inform all future usage validation activity and related programmes. In turn, this task will also inform the scope of work required for further analysis or measurement and identify any monitoring system capability enhancement(s) and / or alternative sources of data collection necessary to achieve the defined objectives.
- 7. Requirement detail as above in Para 1 Schedule of requirements ID 1 5 incl

Deliverables and Timescales:

As detailed above in Para 1 Schedule of requirements ID 6.

Schedule 3 (Tasking Order Form)

Technical Expertise

This task requires technical expertise in the definition and development of usage validation programmes across a range of RW platforms. Evidence of experience in the successful application of innovative RW usage validation methodology is considered essential to the satisfactory outcome of this task.

Government Furnished Assets (GFA) (List all GFA applicable to the task in accordance with DEFCON 611 (Edn 07/10)& 694 (Edn 02/12)):

- Access to Proprietary DO design information and data (subject to prior DO authorisation of winning bidder) and acceptance of non-disclosure agreement.
- DII(f) access will be required to review RESTRICTED and Proprietary Documentation and information. Please note that in accordance with the DE&S Desk Policy, availability of a desk cannot be guaranteed. Every effort will be made to allocate a desk as and when required, but this must be requested in advance via the Desk Booking System in place to find and allocate an available desk.

Additional Quality Requirements & Standards: Timescale: 9 Months Commencement Date: 25th April 2016 DEF STAN 0970 Part 1 Section 3 Leaflet 38

Delivery Date: 30th Jan 2017 (Final), see SoR Id 6

for interim deliverables

Project Manager: DES Merlin-SIMgr

Date: 13th April 2016 Signature: **Original Signed**

| 2. | Or | de | er (| $C \circ$ | n | di | ti | n | n | c |
|----|----|----|------|-----------|---|----|----|---|---|---|
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All conditions of the framework shall apply as supplemented by the terms selected below. The two sets of conditions become a binding contract at the time of signature on the Schedule.

| Type of Contract | | | | |
|--|------------|--|-------------|--|
| Competitive | | | | |
| Competitive Award Criteria & Weight | tings | See Attached Selection Criteria at An | nex B | |
| | | | | |
| Reverse Auction used? | | | | |
| Single Source | | | | |
| | | | | |
| General Conditions | | | | |
| DEECON 624 (Edn 04/10) Line of | | DEECON 602 (Edn 10/04) Aircraft | | |
| DEFCON 624 (Edn 04/10) – Use of Asbestos in Arms, Munitions or War Materials | | DEFCON 603 (Edn 10/04) – Aircraft Integration and Clearance Procedure | | |
| DEFCON 176A (Edn 06/08) - MOD | | Additional Conditions | | |
| Requirements For Competition In Subcontracting (Non-Competitive | | A sheet is to be attached detailing any conditions | | |
| Main Contract) | | that have been added | l | |
| <u>c</u> | hoose on | e of the following: | | |
| DEFCON 92 (Edn 08/90) – Failure of Performance DEFCON 614 (Edn 09/03) - Default | | | \boxtimes | |
| | | | | |
| Special Indemnity Conditions | | | | |
| DEFCON 661 (Edn 10/06) - War Risk I | ndemnity | , | | |
| DEFCON 661A (Edn 05/02) - War Inde | mnity Ris | sk (Alternative Version) | | |
| DEFCON 684 (Edn 01/04) - Limitation | upon Cla | im in Respect of Aviation Products | | |
| DEFCON 638 (Edn 12/08) – Flights Lia | bility and | Indemnity | | |
| | | | | |
| Pricing Conditions Required | | | | |
| Firm Priced at Outset (this applies to all tasks other than by exception) | | | | |
| Exceptionally, if other than Firm Priced complete Appendix 4) | at Outset | (include additional conditions in attachment & | | |
| Payment Terms (Use of P2P and Payment on Completion are the default) | | | | |

| DEFCON 522 (Ed | In 07/09) — | | | 3 (Edn 04/06) - | | |
|--|---|------------------------|-------------------|-----------------------------------|---------------|----------|
| Payment | ah aanamiatad Fanna | | Government | Procurement C | ard | ⊔ |
| (IT applicable aττα: 522A) | ch completed Form | | | | | |
| DEFCON 643 (Ed | In 07/04) - Price | <u> </u> | Milestone/Sta | age Payments | | <u> </u> |
| | ax price tasks above | | | ige rayments I 649 (Edn 07/99 |) below) | lп |
| £250k) | ax price tacks above | | (**** | (| ,, | _ |
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| DEFCON 127 (Ed | , | | | 9 (Edn 07/99) - | | |
| Fixing Condition for | | | | Tasks with delive | erables where | |
| below £250k) | use in Max price tasks | | 1 <i>'</i> | been made for ge payments in a | dvance of | |
| Delow £250k) | | | completion) | je payments in a | idvarice or | |
| DEFCON 5 (Edn (| 07/99) – MOD Form | | | 9 (Edn 07/08) | – Packaging | |
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| ì | , | | Explosives) | | | |
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| Alternative Payme | ent Arrangements Rec Innot be made through | quirea the MOD inve | nice naument de | nartment (ea fe- | tacke placed | |
| | nnot be made through nt departments), please | | | | | |
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| | ριοριιαίο | | | | | |
| Milestone/Stage | Key | Deliverable | | Due Date | % | Value £k |
| No | - | | | | | (ex VAT) |
| 1 | Merlin all Mks Or | nerating Usa | nge Validation | 11/05/2016 | | |
| | Programme (AUVP) | | | | | |
| | Presentation to St | | | | | |
| | forward plan | | | | | |
| 2 | Four interim progress | | | As per the | | |
| | reports: 30/06/16, 1 | , | • | dates in key deliverable 2 | | |
| | Merlin Integrity W 23/09/16 and 04/11/1 | Vorking Gro | oup Meeting); | deliverable 2 | | |
| | | | | 00/44/40 | | 1 |
| 3 | | VUP Definit | | 30/11/16 | | |
| | Stakeholders Meeting Conclusions and Fea | | | | | |
| 4 | | | | All on or | | 1 |
| 4 | Merlin all Mks AVUF consisting of: | Definition S | tudy (by 2016) | All on or before | | |
| | | oport | | 30/01/17 | | |
| | a. Final Customer R | • | dation Dady of | | | |
| | b. Merlin Operating Information Package. | Usage Found | dallon body of | | | |
| | | ndorsed S | statement of | | | |
| | Requirements (SoR) | | | | | |
| | Merlin Future Ope | | ge Validation | | | |
| | Programme. | | | | | |
| | d. A tailored structu an MAA RA compliant | | | | | |
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| should be subject to a reasonable | Stakeholder Closure a | | • | | | |
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| i retention nasen on | | | | | | |
| retention based on % of total cost) | Satisfactory deliver | y of all wo | rk under the | | | |

| | | | (asiming size is simily |
|---|------------------------|---------------|---|
| Intellectual Property Rights | ; | | |
| consulting FTS/STS Customer (| Guidance or w | ith DIPR, it | appropriate condition(s) by ticking the boxes below after fappropriate. In the event that no boxes are ticked in this sperty generated under the Task shall be subject to the |
| DEFCON | Tick Applic | As able | Tasking Order Line Item (tick as appropriate) |
| <u>II</u> | DEFCON 703 | 3 does not | apply then select either: |
| DEFCON 705 (Edn 11/02) | | All | The following Item Nos. only (insert below) |
| | <u> </u> | <u>o</u> | ⊥ R <u>:</u> |
| DEFCON 14 (Edn 11/05), 15 (insert edition that applies) 21 (insert edition that applies), 126 (Edn 11/06) & DEFFORM 315 | | Ali | ☐ The following Item Nos. only (insert below) DEFCON 21 Edn 10/04 |
| DEFCON 14 (Edn 11/05), 16 (Edn 10/04), 21 (insert edition that applies) & DEFFORM 315 | | AII | ☐ The following Item Nos. only (insert below) |
| DEFCON 14 (Edn 11/05), 90 (Edn 11/06) & 126 (Edn 11/06) | | All | The following Item Nos. only (insert below) DEFCON 90 Edn 11/06 |
| DEFCON 14 (Edn 11/05), 91 (Edn 11/06) & 126 (Edn 11/06) | | AII | The following Item Nos. only (insert below) |
| Other, as specified in a special IPR condition to be applied to the Tasking Order | | All | ☐ The following Item Nos. only (insert below) |
| No intellectual property condit DIPR before ticking this box). | tions apply (<i>r</i> | efer to | |
| Issue of Government Stores | | | |
| DEFCON 23 (Edn 08/09)* – S | Special Jigs, | Tooling ar | nd Test Equipment |
| | | | |
| Controlled Information | n (autient On | ndition FO | of Cabadula 1) |
| Issue of Controlled Informatio | , | | ´ L |
| (if ticked then list Controlled Info | rmation and a | ttach list to | Tasking Form) |
| Payment of Customs Duty - | select one | box only | |

Issue of Certificate in accordance with EU

(Council) Regulation 150/2003

DEFCON 619A (Edn 09/97) - Customs

Duty Drawback

Schedule 3 (Tasking Order Form)

| Progress Reports | 3 | | | | | | |
|--|---|-------------------|----------|---|-------------|-----------------------|----------|
| current version of I Scientific and Tech | reports must utilise th DRRS Format Standa nnical Reports Prepar m Ministry of Defence | rds for ed for | | DEFCON 642 (Edn 06/97) – Progress Meetings | \boxtimes | Frequency required | Monthly |
| Brief Description | | | | | | | |
| DEFCON 619A (E Duty Drawback | dn 09/97) - Customs | | 1 | of Certificate in ac ncil) Regulation 15 | | | |
| | | | | | | | |
| Transport – selec | t one box only | T | | | | | T . |
| DEFCON 621A (Example 1) Transport (if the Auresponsible for transport fo | uthority is | | | CON 621B (Edn 10 ontractor is respor | | | |
| Liquidated Damag | nes annlicable? | | | | | | |
| (Refer to Condition 4 | | | | | | | |
| Task Item 1 | £ | per da | v/week | /month up to a ma | ximum | of £ | |
| Task Item 2 | £ | • | • | month up to a ma | | | |
| Task Item 3 | £ | per da | y/week | /month up to a ma | ximum | of £ | |
| Task Item 4 £ per day/week/month up to a maximum of £ | | | | | | | |
| Task Item 5 | £ | per da | y/week | /month up to a ma | ximum | of £ | |
| Force Majeure Maximum period o | f extension of time in | the case | e of a F | orce Majeure Eve | nt | | |
| | | | | | | | |
| Quality Assurance According to the requirements of: | e Conditions product or scope of | the we | ork to | be carried out, t | he Coi | ntractor shall | meet the |
| AQAP 2110 – NAT Production | O Quality Assurance | Require | ements | for Design, Devel | opment | and | |
| Deliverable Qualit | ty Plan requirements | 3 | | | | | |
| DEFCON 602A (Ed Assurance with Qu | | | | ON 602B <i>(Edn 12/</i> ince without Qualit | | uality | |
| AQAP 2105 – NAT | O Requirements for D | Deliverin | g Qual | ity Plans | | | |
| Software Quality Assurance requirements | | | | | | | |
| AQAP 2210 – NATO Supplementary Software Quality Assurance Requirements to AQAP 2110 | | | | | | | |
| Air Environment (| Quality Assurance re | equirem | ents | | | | |
| Authorised Flight a | - Ministry of Defence nd Ground Running (I requirement of the Ta | Mandato | | | | | |

Schedule 3 (Tasking Order Form)

| Relevant MAA Regulatory Publications (See attachment for details) | | | | | |
|---|------------------------------|--|-----|--|--|
| Additional Quality Require | ments (See Annex C for | details) | | | |
| Warranty | | | | | |
| Express Warranty (See atta details) | 1 | Warranty – remedies implied by general aw | | | |
| Security | | | | | |
| DEFCON 659 (Edn 06/09) | sified 'Confidential' or abo | ove to be placed with a UK Contractor – attach | | | |
| 3. Price | | | | | |
| TOTAL CONT | RACT PRICE | TYPE OF PRICING | | | |
| £99,93 | 36.00 | Firm | | | |
| 4. Authority Tasking Ord | ler Commercial Office | er Authorisation | | | |
| Name Susan B | | | | | |
| Position Des Hels | s-Comrcl- Cat-Proc10 | | | | |
| Signature SME | Buns. | | | | |
| Date 13 th April | 2016 | Telephone Number 01935 70 5420 | | | |
| 5. Acknowledgement by s | upplier | | | | |
| Name | | | | | |
| Position | | | | | |
| Signature | | | | | |
| Date Telephone Number | | | | | |
| 6. Record of Authorised Changes | | | | | |
| CHANGE ISSUE NUMBER | DATE OF ISSUE | COMMENTS / REASON FOR CHAI | NGE | | |
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7. Final Administration

Where the output of any research or study is a Technical Report, the Report is to be completed in accordance with the current version of the ATHENA Defence Research Reports Specification - 'Format Standards for Scientific and Technical Reports Prepared for the United Kingdom Ministry of Defence'. MOD Customers may obtain this document via the www.dstl.gov.uk. **The Contractor** shall send a copy of the report on CD ROM in unlocked pdf format to:

Dstl Knowledge & Information Services, Bldg 247, Dstl Porton Down, Salisbury Wilts SP4 0JQ. Tel: 01980 613971

Any staff on DII can search the ATHENA system via the online science gateway to ascertain if particular research or a study already exists. Access can be requested utilising a password (supplied) via this link: http://osg.dstl.r.mil.uk/SignIn/SignIn.aspx/

On receipt of the order acknowledgement from the Contractor, the **Authority's Commercial Manager (who placed the task)** must send a copy of the acknowledged final tasking order form together with a completed DEFFORM 57 AND DEFFORM 111 (Edn 07/12) to:

DGFM-FMSSC Walker House Exchange Flags Liverpool L2 3YL

A copy of the acknowledged final tasking order form must be sent by the **Authority's Commercial Manager (who placed the task)** electronically to the FATS team at the following address:

DESComrclCC-FATS1b@mod.uk

However, if this is not possible, please send a hard copy to:

DES Comrcl CC/FATS 1b Poplar Level 2 #2218 MOD Abbey Wood South Bristol BS34 8JH

Appendix 1 to Schedule 3 (Tasking Order Form) - DEFFORM 111)

DEFFORM 111 (Edn 07/12)

Appendix - Addresses and Other Information

1. Commercial Officer

Susan Burns

DESHELS Comrcl CatPoc 10

Building 100, Century House

Agusta Westland

Lysander Road

Yeovil

Somerset BA20 2YB

Email:

DESHels-Comrcl-CatProc-10@mod.uk

8. Public Accounting Authority

- 1. Returns under DEFCON 694 should be sent to DBS Finance ADMT - Assets In Industry 1, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD 2 44 (0) 161 233 5397
- 2. For all other enquiries contact DES Fin FA-AMET Policy, Level 4 Piccadilly Gate, Store Street, Manchester, M1 2WD **2** 44 (0) 161 233 5394

2. Project Manager, Equipment Support Manager or PT Leader

(from whom technical information is available)

Simon Miln

Merlin PT

Building 100, Century House

Agusta Westland

Lysander Road

Yeovil

Somerset BA20 2YB

Email: DesMerlin-MechSIMgr@mod.uk

9. Consignment Instructions

The items are to be consigned as follows:

N/A

3. Packaging Approving Authority

N/A

(Where no address is shown please contact the Project Team in Box 2)

10. Transport. The appropriate Ministry of Defence Transport Offices are:

A. DSCOM, DE&S, DSCOM, MoD Abbey Wood, Cedar 3c, Mail Point 3351, BRISTOL BS34 8JH

Air Freight Centre

IMPORTS 2 030 679 81113 / 81114 Fax 0117 913 8943 EXPORTS 2 030 679 81113 / 81114 Fax 0117 913 8943

Surface Freight Centre

IMPORTS 2 030 679 81129 / 81133 / 81138 Fax 0117 913 8946 EXPORTS 2 030 679 81129 / 81133 / 81138 Fax 0117 913 8946

4. (a) Supply/Support Management Branch or JIGSAW Order Manager:

Tel No: N/A (b) U.I.N.

JSCS Helpdesk No. 01869 256052 (select option 2, then option

JSCS Fax No. 01869 256837 www.freightcollection.com

5. Drawings/Specifications are available from

As required see SoR

11. The Invoice Paying Authority (see Note 1)

Ministry of Defence

2 0151-242-2000

DBS Finance

Walker House, Exchange Flags

Fax: 0151-242-2809

Liverpool, L2 3YL Website is:

www.mod.uk/DBSFinance

6. For contracts containing DEFCON 5, mauve Copies of MOD Form 640 are to be sent to

(where no address is shown the mauve copy should be destroyed)

12. Forms and Documentation are available through *:

Ministry of Defence, Forms and Pubs Commodity Management PO Box 2, Building C16, C Site

Lower Arncott

Bicester, OX25 1LP (Tel. 01869 256197 Fax: 01869 256824) Applications via fax or email: DESLCSLS-

OpsFormsandPubs@mod.uk

Quality Assurance Representative:

Commercial staff are reminded that all Quality Assurance requirements should be listed under the General Contract Conditions.

AQAPS and DEF STANs are available from Stan 1, Kentigern House, 65 Brown St, Glasgow, G2 8EX. A self addressed label should be sent with each application. Website is: www.dstan.mod.uk

NOTES

- 1. Forms. Hard copies, including MOD Form 640 are available from address in Box 12., All other invoicing forms e.g. AG Forms 169 and 173, are available from the website address shown at Box 11.
- 2.* Many DEFCONs and DEFFORMs can also be obtained from the MOD Internet Website;

https://www.aof.mod.uk/aofcontent/tactical/toolkit/index.htm

Appendix 2 To Schedule 3 (Price Summary)

| Supplier price summary: To be completed by the supplier in support of a quotation provided in response to an ITT for the requirement captured on the above Draft Tasking Order Form. | | | | | | |
|--|--|---------------------------|--|--------------------------------|----------------|-------|
| 1. 2. | | | | | | |
| Date of submiss | ion: | | | | | |
| In response to your request for a quotation reference Dated | | | | | | |
| *The work can b | e undertaken and our c | letailed resp | onse is attached. | \boxtimes | | |
| *We are unable | to provide the resource | s/deliverable | es identified on this | occasion. | | |
| (* Check box as | appropriate) | | | | | |
| Signed: Date: | Original si | gned | Name | : (Block Capitals) | | |
| 2. Task ti | tle): | | | | | |
| 3. Unique | e Reference Number | | | | | |
| 4. Start D | ate: | | Com | pletion Date: | | |
| 5a. Quotation Broad Capability Area No. | Grade | Hourly rate quoted at ITT | Hourly rate quoted for this task | Reduction on original ITT rate | No of Hours | Total |
| 5b. Travel | Rail Motor Mileage (max pr mile) | • | Unit cost £0.25 (inc VAT) | Number of Journeys / Mile | es | Total |
| 5c. Subsistence | Estimated expenditure Accom Misc (please sta | modation Meals | Unit cost | Number of Night/Days | | Total |
| | | , | The above T&S co | osts relate to the pe | eriod | to |

Sub-contractor Price

5d.Other
Costs

Sub-Contractor Details

Materials

Other (Please provide details below)
Description

Cost

Total Price

\$99,936 (excl. VAT)

Appendix 3 to Schedule 3 (Montreal Protocol Substances)

CFCs - Production of controlled CFCs has stopped.

| CFC-11(trichlorofluoromethane) | CFC-211 |
|-------------------------------------|---------|
| CFC-12(dichlorodifluoromethane) | CFC-212 |
| CFC-13 | CFC-213 |
| CFC-111 | CFC-214 |
| CFC-112 | CFC-215 |
| CFC-113 (trichlorotrifluoroethane) | CFC-216 |
| CFC-114 (dichlorotetrafluoroethane) | CFC-217 |
| CFC-115 (chloropentafluoroethane) | |

The above substances are also used in blends: e.g. CFC-500 (CFC-12/HFC-152a) CFC-502 (CFC-115/HCFC-22).

| Halons - | Production of controlled Halons has stopped. |
|------------|--|
| Halon-1211 | (bromochlorodifluromethane - BFC) |
| Halon-1301 | (bromotrifluoromethane - BTM) |
| Halon-2402 | , |

| HBFCs - | Production has stopped. | | | | |
|--|--|--|--------------------------------|--|--|
| CHFBr ₂ C ₂ H ₂ | F ₂ Br ₂ | C ₃ HF ₄ Br ₃ | $C_3 H_3$ | F ₂ Br ₃ | |
| CHF ₂ BrC ₂ H ₂ | F ₃ Br | C ₃ HF ₅ Br ₂ | $C_3 H_3$ | $\overline{F_3}Br_2$ | |
| CH ₂ FBrC ₂ H ₃ | FBr ₂ | C ₃ HF ₆ Br | $C_3 H_3$ | F ₄ Br | |
| | $C_2 H_3 F_2 Br$ | $C_3 H_2$ | FBr ₅ | C ₃ H ₄ FBr ₃ | |
| C ₂ HFBr ₄ | C ₂ H ₄ FBr | $C_3 H_2$ | F ₂ Br ₄ | C ₃ H ₄ F ₂ Br ₂ | |
| C ₂ HF ₂ Br ₃ | | $C_3 H_2$ | F ₃ Br ₃ | C ₃ H ₄ F ₃ Br | |
| C ₂ HF ₃ Br ₂ | C ₃ HFBr ₆ | $C_3 H_2$ | F ₄ Br ₂ | C ₃ H ₅ FBr ₂ | |
| C ₂ HF ₄ Br | C ₃ HF ₂ Br ₅ | $C_3 H_2$ | F ₅ Br | $C_3 H_5 F_2 Br$ | |
| C ₂ H ₂ FBr ₃ | C_3 HF $_3$ Br $_4$ | $C_3 H_3$ | FBr₄ | C ₃ H ₆ FBr | |

HCFCs - Production to be run down and phased out by 2015. Certain use controls apply.

| HCFC-21 | HCFC-141 | HCFC-225ca | HCFC-243 |
|----------|-----------|------------|----------|
| HCFC-22 | HCFC-141b | HCFC-225cb | HCFC-244 |
| HCFC-31 | HCFC-142 | HCFC-226 | HCFC-251 |
| HCFC-121 | HCFC-142b | HCFC-231 | HCFC-252 |
| HCFC-122 | HCFC-151 | HCFC-232 | HCFC-253 |
| HCFC-123 | HCFC-221 | HCFC-233 | HCFC-261 |
| HCFC-124 | HCFC-222 | HCFC-234 | HCFC-262 |
| HCFC-131 | HCFC-223 | HCFC-235 | HCFC-271 |
| HCFC-132 | HCFC-224 | HCFC-241 | |
| HCFC-133 | HCFC-225 | HCFC-242 | |
| | | | |

CARBON TETRACHLORIDE (CCI ₄) - Production has stopped. 1,1,1-TRICHLOROETHANE (C₂ H₃ CI ₃) - Production has stopped. METHYL BROMIDE (CH₃Br) - Production limits apply.

Appendix 4 to Schedule 3 (DEFFORM 539A (Edn 08/13) Tenderer's Commercially Sensitive Information)

ITT Ref No:FTS/DHELSS0046 Description of Tenderer's Commercially Sensitive Information: Detailed Pricing Information / Price Breakdown (Not Total Contract Value) Cross Reference(s) to location of sensitive information in Tender: N/A Explanation of Sensitivity: Commercial Details of potential harm resulting from disclosure: N/A Period of Confidence (if applicable): N/A Contact Details for Transparency / Freedom of Information matters: Name: Position: Address: Aviation Requirements Ltd, Suite 2, York House, Coldharbour Business Park, Sherborne, DT4 9JW Telephone Number:

Email Address: @ aviationrequirements .co.uk

DETAILED TECHNICAL STATEMENT OF REQUIREMENT - PROVISION OF MERLIN STRUCTURAL USAGE VALIDATION PROGRAMME DEFINITION STUDY REPORT

References:

- 1. Military Aviation Authority Regulatory Article RA5720 Structural Integrity Management, Issue 2.
- 2. Military Aircraft Structures Airworthiness Advisory Group (MASAAG) Paper 120 Guidance Material for Structural Usage Validation on Rotary Wing Aircraft (to be issued).

Background

- 1. The regulatory requirements for through-life integrity management of aircraft structures are defined in Reference 1. A key mandatory programme within this regulatory framework is the conduct of an Operational Data Recording (ODR) programme. The Merlin Project Team (MPT) undertook a comprehensive ODR programme on Merlin Mks 1 and 3 which concluded in Sep 2011 and Apr 2012 respectively. Whilst successful, these programmes were complex, protracted and costly.
- 2. Accordingly, the intent of Reference 2 (currently in draft) is to develop a cost-effective generic approach to Rotary Wing (RW) usage validation while meeting the original intent of Reference 1. Reference 2 proposes that existing aircraft data recording systems are exploited to determine the usage and that damage is assessed through the correlation with existing qualification data.
- 3. The methodology described in Reference 2 places particular emphasis on the programme technical definition phase and recommends that this activity should review the level of risk associated with usage. This can only be achieved through a thorough assessment of the existing helicopter design and qualification data, enabling more intelligent and targeted use of other sources of information. The effectiveness of this approach has been demonstrated on the Puma HC Mk2, which is proceeding with a usage validation programme that is appropriate to the degree of risk which can be attributed to usage.
- 4. It is essential that the approach to undertaking such a usage validation programme is carefully defined and planned with the assistance of suitable subject matter expertise to ensure that clear, appropriate, risk-aligned technical aims are established and can be achieved within a cost-effective and timely work schedule.

Requirements

- 5. The aim of the Task is to define an effective and efficient usage validation programme for all Merlin Mks, supported by the MPT and platform DO. There will be followon tasks dependent on the outcome of this first phase.
- 6. The Task will involve a comprehensive independent review of existing Merlin structural design, substantiation data and assessment of integrated data monitoring capabilities with the aim of establishing solid foundation knowledge of the type design to be retained by the MPT to inform all future usage validation activity and related programmes. In turn, this task will also inform the scope of work required for further analysis or measurement and identify any monitoring system capability enhancement(s) and / or alternative sources of data collection necessary to achieve the defined objectives.

Output

7. The principal output from this Task will be a peer reviewed technical report, based on innovative RW usage validation methodology, providing the necessary foundation knowledge and recommendations to the Merlin TAA to guide the scope and management of a cost-efficient programme to validate structural usage.

Deliverables and Timescales

8. The outputs from this task should be as follows:

Deliverable 1 – Merlin all Mks Operating Usage Validation Programme (AUVP) Definition Study – Initiation Meeting and Presentation to Stakeholders on intended forward plan

Deliverable 2 – Four interim progression meetings and written reports at: 30/06/16, 12/08/16 (including brief at Merlin Integrity Working Group meeting) 23/09/16 and 04/11/16.

Deliverable 3 - Merlin all Mks AVUP Definition Study - Stakeholders Meeting, Presentation of Findings, Conclusions and Feasabilty Recommendations.

Deliverable 4 (Final) - Merlin all Mks AVUP Definition Study (by 30th Jan 2017) consisting of:

- a. Final Customer Report.
- b. Merlin Operating Usage Foundation Body of Information Package.
- c. accomplishment of Merlin Future Operating Usage Validation Programme.
- d. A tailored structured plan for achievement of an MAA RA compliant Merlin all Mks AVUP.
- e. Merlin all Mks AVUP Definition Study Stakeholder Closure and final briefing meeting.

Technical Expertise

9. This task requires technical expertise in the definition and development of usage validation programmes across a range of RW platforms. Evidence of experience in the successful application of innovative RW usage validation methodology is considered essential to the satisfactory outcome of this task.