**Statement of Requirement**

**The provision of a flight planning software application for the Royal Air Force**

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| **A** | **General Requirements** |
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| **A.1** | **Scope of Requirement** |
| A.1.a | This is the Statement of Requirement (SOR) is for the provision of a software application for a flight planning system for the Royal Air Force Air Transport/Air-to-Air Refuelling (AT/AAR); Intelligence, Surveillance, Targeting & Reconnaissance (ISTAR) Platforms; Flight Training (FT) Fleets; and Royal Air Force Aerobatics TEAM (RAFAT). The process should be underpinned by a single, integrated software application, which delivers functionality that will automate much of the flight planning function and deliver efficiencies in staff effort. The operational requirement is for accurate aeronautical flight planning data and documentation, including integrated ancillary information (flight plans, charts, weather, Notices to Airmen (NOTAMs), Standard Instrument Departure (SIDs) and Standard Arrivals (STARs), Special Departures, comprehensive worldwide General Aviation documentation and briefing tool) to support worldwide 24/7 operations. The current contract is due to expire on 31 Mar 2023. The SOR must deliver a functioning application in sufficient time to allow for training of personal and the migration of current databases, such that a capability gap is not created, by 31 Mar 2022. |
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| **A.2** | **Definitions** |
| A.2.a | In addition to the definitions detailed in the Terms and Conditions of the Contract the following definitions shall also apply. Where the definitions below contrast to those detailed in the Terms and Conditions of the Contract then the definitions within the Terms and Conditions of the Contract shall take precedence. |
|  | Definition | Interpretation |
|  | Contractor’s Personal Use | Any use of MOD furnished property, facilities or equipment intended for the primary benefit of the Contractor or the Contractor’s Personnel which is contrary to the MOD’s interests is considered personal use. |
|  | Contractor’s Personnel | Any employees, including sub-contractors or other agents working on behalf of the Contractor, shall be deemed the Contractor’s Personnel. |
|  | Designated Officer | The Designated Officer is the MOD representative responsible for the Requirement and is as defined at Box 2 of DEFFORM 111 of this Contract. |
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| **A.3** | **Abbreviations and Acronyms** |
| A.3.a | In addition to the abbreviations and acronyms detailed in the Terms and Conditions of the Contract the following abbreviations and acronyms will be used. |
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| ACARS - Aircraft Communications Addressing and Reporting System | IFPS – International Flight Planning System |
| AI – Aeronautical Information | ISTAR - Intelligence, Surveillance, Targeting & Reconnaissance |
| AIDU - Aeronautical Information and Documentation Unit | JAR OPS – Joint Aviation Requirement Operations |
| AMPA – Advanced Mission Planning Aid | METAR – Meteorological Aerodrome Report |
| AOC - Air Officer Commanding | MOD - Ministry of Defence |
| ARINC- Aeronautical Radio Incorporated | MODNET – MOD Network |
| AT/AAR – Air Transport/ Air to Air Refuelling | MPRS – Mission Planning and Resolution System |
| BOCS – Brize Norton Operational Control Suite | NOTAMs – Notice to Airmen |
| BZAO – Brize Norton Air Staff Orders | OC - Officer Commanding |
| CFMU – Central Flight Management Unit | OSD – Out of Service Date |
| DAFIF – Digital Aeronautical Flight Information File | PED – Portable Electronic Device |
| DO - Designated Officer | RAD – Route Availability Document |
| DoD – Department of Defence | RAF - Royal Air Force |
| DSCOM – Defence Support Chain Operations and Movements | RAFAT – Royal Air Force Aerobatic Team |
| EFB – Electronic Flight Bag | SATCOM – Satellite Communications |
| ETOPS – Extended Twin Engine Operations | SC - Security Check |
| ETP – Equal Time Point | SID – Standard Instrument Departure |
| EU OPS – European Union Operations | SITA - Société Internationale de Télécommunications Aéronautiques |
| FOA – Flight Operations Assistant | SME – Subject Matter Expert |
| FT – Flight Training | SoR - Statement of Requirement |
| FTMS – Flight Tasking and Management System  | STAR – Standard Instrument Arrival |
| FTS – Flight Training School | TACAN – Tactical Air Navigation |
| GASO – Group Air Staff Orders | TAF – Terminal Area Forecast |
| GPS – Global Positioning System |  |

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| **A.4** | **References** |
| A.4.a | In addition to the references detailed in the Terms and Conditions of the Contract the following references shall also apply as well as any subsequent revisions and amendments to the references. This list does not absolve the Contractor from conforming to any other relevant publications. |
|  | Reference | Version | Source |
|  | Data Protection Act 2018 | 2018 c. 12 | <http://www.legislation.gov.uk/ukpga/2018/12/contents/enacted> |
|  | Government Security Classifications | 1.1 | <https://www.gov.uk/government/publications/government-security-classifications> |
| **A.5** | **Site** |
| A.5.a | The sites accessing the services are: RAF Brize Norton, RAF Waddington, RAF Northolt, RAF Lossiemouth, RAF Scampton. The site for any delivery will be RAF Brize Norton, CARTERTON, Oxfordshire OX18 3LX. |
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| **A.6** | **Security** |
| A.6.a | The Contractor is to ensure that all of the Contractor’s Personnel have Security Check (SC) clearance. Where the Contractor’s Personnel does not have SC clearance that individual will not be allowed access to MOD facilities or data. |
| A.6.b | All information related to or generated by this Contract is to be treated in the appropriate manner in accordance with Government Security Classifications. The classification of the material to be handled shall not exceed OFFICIAL-SENSITIVE in nature. |
| A.6.c | All personal data processed under this Contract is to be treated in accordance with the Data Protection Act 2018. |
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| **A.7** | **Site Access** |
| A.7.a | All contractors will have to report to the Main Gate with the appropriate identification and authority to gain access to the site. Unless they already have a pass, which allows unescorted access, they are to contact their sponsor for the visit to ensure they are properly escorted whilst visiting the unit. |
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| **A.8** | **Safety and Environmental Provisions** |
| A.8.a | When on the Site the Contractor is to comply with all MOD Safety, Health and Environmental Protection regulations and policy. Escorted contractors should also comply with any instructions relating to safety given to them by their escort. Contractors are not to enter any aircraft manoeuvring areas unless they are properly authorised to do so by the unit they are visiting. |
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| **A.9** | **Hours of Operation and Times of Delivery** |
| A.9.a | The services shall be provided on a 24/7 basis and support provided to allow for this. Access to any of the sites utilising the service will generally be 0800-1700 Mon-Fri, excluding Bank Holidays. Access outside of these times can be arranged with the sponsor of the visit at each site. |
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| **A.10** | **Contract Monitoring** |
| A.10.a | For the purposes of contract monitoring, representatives of the Contractor will routinely report to the Designated Officer on the performance of the Contract. |
| A.10.b | The Contractor is responsible for the performance of the Contract by any sub-contractors or other agents working on behalf of the Contractor. The Contractor is to deal with any issues relating to any sub-contractors or other agents working on behalf of the Contractor, this however does not exclude sub-contractors or other agents working on behalf of the Contractor from attending any Contract Monitoring meeting or contributing to any report where it is appropriate for such sub-contractors or other agents to do so. |
| A.10.c | If any sub-contractors or other agents working on behalf of the Contractor are found unsuitable, for whatever reason, the Contractor is to engage with the relevant sub-contractors or other agents to broker a resolution. |
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| **A.11** | **User Requirement Table** |
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| A.11.a | The detailed user requirements are detailed in the following table. The priorities are defined listed in the requirements table are outlined below: |

| **UR** | **Requirement** | **Justification/ADDITIONAL INFO** | **Additional Comments/QUANTITY** | **Standard of Performance**  |
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| **B.1** | **IT Support - General.** |  |  |  |
| B.1.1 | Provide software to support all flight planning related activities of the RAF AT/AAR, ISTAR and FT Fleets and RAFAT. Must deliver end to end functionality from task inception to completion. | The Contractor is to include a three month period prior to full implantation of the system to action: transfer of data from pervious contractor / system, training of RAF personnel, and any other integration activity. |  | Successfully:- Provide software that support all AM tasking. - Provide the ability to add new aircraft into the database.  |
| B.1.2 | Worldwide 24/7 electronic access to flight planning capabilities through secure Internet connection. | Access to flight planning information and briefing material from deployed locations for 24/7 operations. | User access to be via standalone or MODNET secure internet access. | Successfully:- Provide an Ethernet enabled capability - Provide a resilience through dongle and / or WIFI enabled access.  |
| B.1.3 | All functional areas to be fully integrated. Data sharing and data migration between functional areas to be invisible to user. | Data must be consistent and accurate throughout the system. |  | Successfully:- Provide a database that is 100% assured and accurate.  |
| B.1.4 | Provide sufficient software licences to support the user community. | All users must be able to access the system when required. | Up to 100 write access users and up to 300 read access users. Licences must support 50 concurrent users. | Successfully: - Up to 100 write access users and up to 300 read access users.- Licences must support 50 concurrent users. |
| B.1.5 | Provide automatic alert notifications, colour coded warnings to alert to changes within the full spectrum of flight planning, using 'attention getters' for any user action that would result in a flight planning solution that contravenes 2Gp Ops Manuals. | Users to be alerted when planning is outside of Ops Manual Pt 1&2&3 regulations and Acft Ops Manual | Weather Operating Limits. Airfield selections outside acft operating limitations. | Successfully:- Produce a product that has a zero-failure rate to alerting the user of contraventions. |
| **B.2** | **Information.** |  |  |  |
| B.2.1 | System must be capable of ingesting ARINC and/or DAFIF worldwide navigation databases. | Flight planning information critical to successful route planning. | DAFIF data is to be that configured and supplied by No1 AIDU. | Successfully:- Produce a product with zero failure rate. |
| B.2.2 | Provide a detailed and fully editable database of airfields. Download can be provided from exiting system as a start point. | Critical information used in the planning and execution of tasks. | To include key information related to the use of the airfield by user fleets and the ability to create user defined airfields. | Successfully:- Produce a product with zero failure rate. |
| B.2.3 | Provide a detailed and fully editable database of user aircraft fleets. Download can be provided from exiting system as a start point. | Critical information used in the planning and execution of tasks. | To include details of aircraft type, role and configuration. | Successfully:- Produce a product with zero failure rate. |
| B.2.4 | Provide platform specific military patterns and profiles. Download can be provided from exiting system as a start point. | Ease of planning for the use of military centric flying operations. | Reduces the workload of the planner when information is contained within the system. | Successfully:- Produce a product with zero failure rate. |
| B.2.5 | The ability to incorporate tactical air navigation (TACAN) routes and military routes defined in the US Department of Defense (DoD) DAFIF Database. | Ease of planning for the use of military only routes. | See above. | Successfully:- Produce a product with zero failure rate. |
| **B.3** | **Flight Planning Function.** |  |  |  |
| B.3.1 | The facility to run and submit flight plans using client software downloaded onto PC utilizing a fully comprehensive software suite. | Home/Main base functionality providing a comprehensive flight planning tool for operators trained in the advance functions. | Should provide the maximum use of automation and databases to minimise the operator input requirements. | Successfully:- Produce a product with zero failure rate. |
| B.3.2 | The facility to run and submit flight plans utilizing an on-line version requiring a web-login only and no client software. This facility should provide, as a minimum, basic flight planning and crew briefing facility for use by aircrew. | An aircrew flight planning tool allowing operators without main base operations support to plan and file flight plans from home base or when deployed. | Must not rely on any requirement for IT hardware to be provided by the user. | Successfully:- Produce a product with zero failure rate. |
| B.3.3 | The ability to check and file flight plans and obtain valid CFMU approved routings with automatic 4D capability encompassing the Eurocontrol Route Availability Document (RAD). | To give maximum chance of the flight planner achieving a first-time success when submitting a flight plan to the IFPS. | The management of airspace is increasingly reliant on automation and the system must be capable of developing in line with the future requirements for international flight planning. | Successfully:- Produce a product with zero failure rate. |
| B.3.4 | The facility to run and store flight plans for submission at a later date. | Allow strategic planning of planned routes to alleviate operating pressures on the day of flight. |  | Successfully:- Produce a product with zero failure rate.- Produce a product which does not limit the number of stored plans.  |
| B.3.5 | The facility to pre-submit flight plans based on a timed auto release. | Allows minimal/nil operator inputs on the day of flight for standard scheduled flights. |  | Successfully:- Produce a product with zero variation in time.  |
| B.3.6 | Meteorological data from recognised provider of aviation meteorological information in a suitable format for operations and aircrew pre-flight briefing to include METAR, TAF & graphical printable weather displays for winds aloft, significant weather, icing and other weather formats and warnings. | One system containing all the relevant planning information necessary to plan with full knowledge of the task at hand to give an efficient dispatch output. | Data must be able to be displayed concurrently or overlaid on to the main mission graphic/chart. | Successfully:- Produce a product with zero failure rate. |
| B.3.7 | NOTAMs for operations and aircrew pre-flight planning from recognised provider of aviation NOTAMs | One system containing all the relevant planning information necessary to plan with full knowledge of the task at hand to give an efficient dispatch output. |  | Successfully:- Produce a product with zero failure rate.- Produce a product that refreshes automatically for new NOTAMS.  |
| B.3.8 | Platform specific, meteorologically optimized flight plans, using the most fuel or time efficient routes and altitudes that include the full integration of international route structures, SIDs, STARs and Global Positioning System (GPS) procedures. | Brakes-off to brakes-on optimisation to allow all distance and altitude profiles to be accurately input to a plan for fuel or time efficiency. | Examples of the international routes are:1. Atlantic Organised Track System. 2.Pacific tracks. 3.North American Route Structure. | Successfully:- Produce a product with zero failure rate and iaw acft design and performance specifications |
| B.3.9 | The capability to use historical /statistical meteorological data for planning purposes. Historical meteorological information should be provided from recognised provider of aviation meteorological information. | Strategic planning is a vital requirement for operations and meteorological data varies around the globe over the seasons. Historical data provides a more accurate long-term planning capability. |  | Successfully:- Produce a product that has no limitations on historical MET information. |
| B.3.10 | The ability to optimise the output of a flight plan based on aircraft payload. | To ensure that the maximum load lifting capability of an aircraft over a route is achieved. |  | Successfully:- Produce a product with zero failure rate. |
| B.3.11 | Perform platform specific fuel onloads and offloads down to low-level (500ft). | To meet the AAR requirements of military aircraft, extending their range. |  | Successfully:- Produce a product with zero failure rate and iaw acft performance specifications  |
| B.3.12 | Perform platform specific payload offloads down to low level (500ft). | To meet the airdrop capability of AT aircraft over strategic distances and altitudes. |  | Successfully:- Produce a product with zero failure rate and iaw acft performance specifications |
| B.3.13 | The ability to auto-avoid designated countries. | The RAF has specific standing requirements to avoid sensitive countries. This capability may be required for any country at any time. | An ability to select ‘avoidance of FIR’ and /or ‘avoidance of international / sovereign territory (+12NM)’ is highly desirable.  | Successfully:- Produce a product with zero failure rate. |
| B.3.14 | The ability to auto-avoid operator defined areas. | Sensitive areas are likely to have to be avoided at any time for various reasons and the system must be flexible enough to allow this as an operator defined area that can be stored for automatic avoidance. |  | Successfully:- Produce a product with zero failure rate. |
| B.3.15 | Provide the output of an electronic crew briefing tailored to the user requirement. | RAF 2 Gp crews require an electronic briefing capability. | To include a minimum of Pilot log, relevant departure, arrival and alternate METAR and TAF, enroute alternate TAF, graphical printable weather displays for winds aloft, significant weather, icing and other weather formats and warnings and NOTAMs. | Successfully:- Produce a product with zero failure rate. |
| B.3.16 | Utilise multiple means of communicating information – Fax, email, SITA, SATCOM, ACARS and the ability to develop and include emerging communication technologies. | RAF Aircraft operate from a wide range of bases with varying communications facilities and it is necessary to provide for as many communication methods, both to the crew and the aircraft, as possible. | The latest generation of RAF transport aircraft possess communication capabilities equivalent to modern civilian aircraft and any system must be capable of exploiting these methods. The system must also be able to work with legacy systems. | IAW current and future acft capabilities. |
| B.3.17 | The ability to perform Equal Time Point (ETP) and Extended Twin Engine Operations (ETOPs) calculations. | A critical function mandated by JAR/EU Ops regulations and 1 / 2Gp Ops Manual. | This has become a complex manual calculation to perform, and the automation of the process is more efficient and accurate. | Successfully:- Produce a product with zero failure rate and iaw current and future acft capabilities.  |
| B.3.18 | The ability to optimise the use of stored aircraft fleet and route information with the flexibility to adjust the output for automatic optimisation. | Allow the use of stored route and aircraft data that can be quickly and accurately adjusted for the conditions of the day. |  | Successfully:- Produce a product that has no limitations on historical MET information. |
| B.3.19 | The ability to upload, update and store specific aircraft performance data. As a minimum: MTOW, Fuel Load, Fuel burn rates, Equipment Fits, Aircraft configuration. More details can be provided on request, download of data currently used can be made available. | Storing aircraft performance data in flexible, editable databases is efficient and necessary when operating fleets of varying fits. |  | IAW acft design and performance specifications.  |
| B.3.20 | The ability to upload, update and store specific aircraft flight plan data. Data required to be all fields and data formats of standard flight plan. | Storing aircraft flight plan data in flexible, editable databases is efficient and necessary when operating fleets of varying fits. | Aircraft across diverse fleets have differing Comm/Nav/Dat capabilities that must be readily identifiable and accessible by airframe number. | Successfully:- Produce a product that has no limitations on historical information. |
| B.3.21 | The capability of integrating with electronic AI products to produce a full mission briefing capability. | A developing requirement to provide full end to end mission AI products from interactive applications. | As an electronic format compatible with EFB or PED. |  |
| **B.4** | **Administration and Training.** |  |  |  |
| B.4.1 | Produce software user guides, database administration guides. | Aid the user in use of the application. | Guides to cover all aspects of the application. |  |
| B.4.2 | Deliver a fully comprehensive and on-going flight planning training programme relevant to the needs of the RAF. | Allow users to operate the software effectively. | Training must be tailored to each functional area of the organisation and DSAT compliant and supported by appropriate training documentation. | Successfully:- Produce a DSAT compliant training package.  |
| B.4.3 | Deliver a system to run concurrently with the current application for a minimum period of 3 months. | Required to prove the application is capable, 3 months ties in with a full planning cycle. |  |  |
| B.4.4 | Migrate all historic flight planning data from the current system. Data types and volume can be provided as required | Provides an established library of route and aircraft data to minimise disruption to changeover. | Data must be migrated to allow ease of access. | Successfully:- Be able to transfer all data held within the current Flight Planning software.  |
| B.4.5 | 24/7 support and advice for system, operational and technical information issues, contactable by telephone and email.Response from helpdesk to be immediate to log calls. Resolution will be dependant upon complexity of the issue. Service should be denied no more than 12 hours. | Required to provide SME advice in operating the application and to deal with errors or anomalies. | Experience of complexity of flight planning software requires a support level commensurate with the hours of operation of the user to deal with real time issues. | Successfully:- Be able to provide operational and technical support 24 hours a day for 365 days a year. - Tech solutions must be provided within 3 hours of the issue- Fully rectification must be provided within 12 hours.  |
| B.4.6 | Provide progress reports and meet with the Authority to discuss the IT support system on a regular basis. | Will allow for development and possible enhancements to the application. | Periodicity of meetings and reports to be agreed between Authority and application provider. | Successfully:- Establish a quarterly performance review with customer |

**Annex C**

**Key Performance Indicators**

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| **KPI Number** | **KPI Description** | **Incident Measure** | **Relevant SORs** |
| 1 | Licence Holders | The customer has up to 100 write access users and up to 300 read access users. Licences must support 50 concurrent users. | B.1.4 |
| 2 | Software Performance and Resilience | A zero-fail rate but where incidents occur technical solution to an event is to be given within 3 hours of occurrence, with no software outage being sustained for longer than 12 hours. | B1.5-B3.21, B4.5 |
| 3 | Software Performance | Calculations and data must be IAW acft design and performance specifications. | B1.5-B3.21 |
| 4 | Training | All training courses must be DSAT compliant | B4 |