STATEMENT OF WORK (SOW)

JOINT INTELLIGENCE TRAINING GROUP

DEFENCE INTELLIGENCE SYNTHETIC TRAINING ENVIRONMENT (DISTE)

26 JULY 2018

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SECTION 1:
BACKGROUND: DEFENCE INTELLIGENCE SYNTHETIC TRAINING ENVIRONMENT (DISTE)

1. Within the Chief of Defence Intelligence[1] (CDI) AOR, the Commander Cyber and ISR[2][3] and the ISR Customer Executive Board (CEB) have directed Joint Intelligence Training Group (JITG) to rebalance Intelligence, Geospatial, Security and Photographic training redacted information

ISSUE

2. The operational experience of the past decade and the requirement to re-set the provision of Intelligence for the challenges of the 21st Century redacted information
3. has clearly shown there is a gap between the output standard of Tri-Service Phase 2 Intelligence trainees and the real-world environment directly supporting operations redacted information
4. Redacted information
5. **Key Benefit.** The key benefit of the proposed DISTE will be the increase in ability of JITG phase 2 and phase 3 trainees; their 'match fitness' in the words of CGS. It will deliver to the front-line, Intelligence professionals for all three Services, individually and collectively, effectively prepared for the challenges of tempo and ambiguity in the current and future operational environment redacted information. It will provide Intelligence professionals properly trained to support key new capabilities. It will reduce the requirement for on the job training whilst operationally deployed and enhance interoperability with allies. In sum, frontline capabilities are enhanced. JITG is currently unable to meet the increasing requirements; the creation of a DISTE will enable JITG to meet the current and emerging requirements and capability gaps.

[1] CDI – 3* Appointment.
[2] Intelligence Surveillance and Reconnaissance.
[3] 2* Appointment responsible to CDI.

SECTION 2: MOD POLICIES, GUIDANCE AND DIRECTION

4. **Defence Strategic Direction (DSD).** DSD16 recognises the important role that synthetic and simulation training plays in improving effectiveness and reducing costs in the long term. Subsequently, several important polices, guidelines, ways-of-working (WoW) and organisations have been constructed to improve and maintain standards, as well as provide a medium for better value and evolution across the MOD. Some of these aspects will now be more broadly described for background and context in this section.

5. **Defence Policy for Synthetics and Simulation**. Defence simulation policy[4] vision is "By 2020, Defence will have a coherent framework of synthetic and simulation capabilities that are cost effective, interoperable and rapidly reconfigurable. This will be supported by a DSC[5] that together will provide common, shared enablers to maximise the utility of synthetics and simulation to enhance operational capability and use Defence resources efficiently". The Defence simulation policy directs:

a. **Development.** Synthetic and simulation generation is to be developed coherently across Defence and exploited to deliver the widest possible benefits to support Defence Final Outputs, wherever there is a clear value for money (vfm) and operational benefit in doing so.

b. **TLB.** All DISTE plans and activities are to conform to JSP 822 and the JFC TLB simulation and synthetic generation strategies and plans.

c. **Capability.** Simulation and synthetic generation capability change activities must be compliant with the TE&S TA[6] direction and include engagement with the DSC.

d. **Ownership.** All DISTE simulation and synthetic generation must catalogue their applications and data, and map them against the Defence Information Reference Model (DIRM) to enable wider reuse and vfm for the MOD. The MOD retains all intellectual property rights to material used or planned; generated and/or stored regarding any aspect of the DISTE.

e. **Interoperability.** A simulation and/or synthetic generation system's interoperability is to be developed through a common architectural approach and exploited to support applicable requirements that enable and complement Joint and Coalition force preparation.

6. **SOSA Design Principles.**[7] These principles lay down the requirement for designing capability with a view to meeting wider Defence capability, rather than a single, stove-piped project or solution. The principles recognise the requirement to build on the System of Systems Approach and those most applicable to the DSC direct:

[4] JSP822 Part 1 /5.3 page 102 - Simulated Training.
[5] Defence Training, Education & Simulation Centre - now known as the Defence Simulation Centre (DSC).
[6] Training, Education & Simulation (TE&S) Technical Authority (TA).
[7] JSP906 Part 2 – Defence Principles for Coherent Capability – System of Systems Approach (SOSA).

a. **Unify Defence.** Defence will achieve its operational and business objectives through risk driven and benefits led governance that focuses on getting the best for Defence. The governance will be used to enable cross boundary 'ways of working' through: assigning authority, implementing controls, and directing leads responsible for achieving DSC goals on behalf of the whole of Defence.

b. **Minimise Diversity.** Auditable measures will be taken to ensure that the number of different systems, components, tools, facilities and infrastructure used to generate the DISTE capability for Defence, is minimised across all DLoDs,[8] and included with its CONEMP-USE.

c. **Develop and Deliver for Re-use.** Capability development and delivery shall ensure that new or changed capability solutions, decision support information and enabling services, are developed to enable maximum reuse across Defence and other Partners across Government now and in the future.

d. **Choose Proven Ways and Means First.** The starting point for Defence in choosing ways and means will be to use proven methods, practices and solutions (typically Commercial off the Shelf (COTS) or Modified off the Shelf (MOTS) elements) where possible. When this option has been rejected (through evidence based decisions) considering performance, cost and/or time, then a bespoke option or new ways and means may be developed.

e. **Ensure Commonality of Service Provision across Defence.** Defence's operational, business processes and functions will be supported by common, governed, and quality assured enabling services. Defence Authorities will, accordingly, actively ensure and measure their usage and effectiveness.

f. **Develop and Deliver Capability for Flexibility, Adaptability and Interoperability.** Defence will develop and deliver operational and business capability for flexibility, adaptability and interoperability, to fully exploit the utility of acquired capability and improve operational agility.

g. **Use Open Standards and Approaches.** Military and business capability solutions will be developed using a common set of open standards and approaches (typical of industry) in a way that is not detrimental to security, innovation or operational superiority. Solutions will be designed to allow Defence to easily reconfigure systems and services as required.

[8] Defence Lines of Development.

7. **Defence Simulation Centre (DSC).** The DSC is a single point of focus for the exploitation of simulation and synthetics within Defence and is integrated with a regulatory framework provided by the DTEC rule-set.[9] This in turn is overseen by the DTEC TE&S TA (Dep Hd Joint Training and Simulation), to enable an environment where simulation and synthetic generation assets and data can be procured and/or developed to improve their exploitation and further use by Defence following the SOSA principles. Presently, this area is developing fast within Defence and there is a degree of complexity to understand. To help understand and navigate a path in working with the MOD, the DSC IAG[10] was formed so that commercial and academic entities involved in Defence synthetic training could get advice and guidance when working with the MOD; this group is a useful link into the DSC. The DSC has research, development and exercise facilities that could be utilised for DISTE purposes if required and where agreements can be brokered with the DSC. Additionally, the C4ISR-Jt Simulation Training cell at JFC Northwood will provide support in interacting with the DSC and aid in the development of a DISTE CONEMP and its evolution to CONUSE.

8. **DCDC.**[11] As the MOD's think tank, DCDC helps inform Defence strategy, capability development, operations and provides the foundation for joint education. DCDC staff is drawn from the sS, the Civil Service and partner nations, working with NATO, the EU, UN and a global network including other Partners across Government and industry.

9. **DCDC Outputs and Responsibilities.** The Strategic Trends Programme, which provides the long-term strategic context for policy-makers; concepts, which outline how Armed Forces and Defence may operate in the future; doctrine, which provides guidelines for commanders based on best practice and operational experience; and oversight of the legal content of operational law training. The work of DCDC informs strategic force development in the MOD, joint force development and command-level force development within the Commands. This centre provides pivotal material for the MOD, and therefore DISTE exercises should usefully synchronise with its outputs and responsibilities. The centre provides an excellent resource given its interoperability with other organisations and Allies. Therefore, the DISTE must utilise DCDC expertise in developing its DATE[12] exercise scenario and simulated operational capabilities; both aspects are critical in the development of a DISTE CONEMP and future CONUSE.

[9] JSP 822 Part 2 /2.1 page 135 – DTEC Modelling and Simulation Rules.
[10] DSC Industry Advisory Group.
[11] Development, Concepts and Doctrine Centre.
[12] Decisive Action Training Environment

SECTION 3: THE DISTE CONCEPT AND DEVELOPMENT

10. **DISTE.** The DISTE is a capability that combines the generation of an intelligence synthetic training environment, including an exercise scenario across all domains that can specialise in delivering bespoke DATE based MARITIME, LAND, AIR and Joint OPINT exercises; a physical facility, and the enabling exercise support provided by a DISTE Support Team (DST). The DST will be required to carry out 3 functions to enable the DISTE capability to function successfully:

a. **1 - Facility.** The DST is to ensure that the DISTE facility is a safe and secure environment to conduct training, maintaining MOD standards for such infrastructure. This service will require no intelligence training, but previous experience in providing such support would be useful.

b. **2 - Enable Training.** Enabling training entails providing direct support to instructing staff at to control the delivery of the exercises event, injects and scenario development during exercise from the control room. This is to be done under instruction from the instructors: the DST is not instructing but enabling the exercise to develop under instructor direction. This service will require no intelligence training, as all actions will be in in response to instructor direction. However, previous experience in providing such a support would be useful.

c. **3 – Exercise Conversion and Scenario Generation.** All identified exercises will be converted to run within the DISTE by the DST: this will mean that present and future exercise material will need to be converted and generated to meet DISTE functionally. The DATE scenarios were not designed to deliver specific OPINT exercise objectives,[13] and therefore will need to be developed to truly reflect OPINT in the present and future WITIA[14] up to UK secret. Additionally, the scenarios used are required to be generated from a variety of the most recent and developing DATE scenarios: these presently cover several global regions, and are to be exploited to provide both the breadth and depth for all domains for bespoke OPINT purposes. This will require a technical ability and an understanding and appreciation of OPINT to ensure that present and future intelligence needs to the exercise and scenario are met; future development is described further later in this section. Exercise development must be able to support planned and dynamic exercise and scenario inputs and be DSC and DTEC compliant; all software required to generate the scenario and operational environment is to be free for MOD and DSC and DTEC are the authorities on what can be used for this generation. Additionally, although none are foreseen, the JITG TLAN may have its own specific technical constraints and should be investigated prior to commitment to any software package.

11. Redacted information

12. **Work and Development.** All work will be developed in partnership with JITG, and aim to: exercise Ph 2, and eventually Ph 3 trainees; provide feedback to improve better ways of

[13] DATE scenarios have been developed to exercise command decision making, and on their own do not represent enough breadth or depth of the OPINT information environment JITG requires.
[14] Warfare in The Information Age.

working for OPINT; a realistic OPINT environment and scenario and the ability to function with and amongst Allies. These are themes that permeate through the conceptual scope of work.

CONCEPTUAL SCOPE OF WORK

13. **Partnership Phases of Development**[15]. The DST will be supporting the delivery of training and enabling JITG trainers to deliver exercises in pursuit of achieving exercise, collective and individual TOs[16]. The DST shall achieve this with its own distinct identity and through the DISTE Partnership Phases of Development. These are integral phases of CONEMP and CONUSE development and are described as follows and illustrated at Graphic 1 to provide a broad understanding.

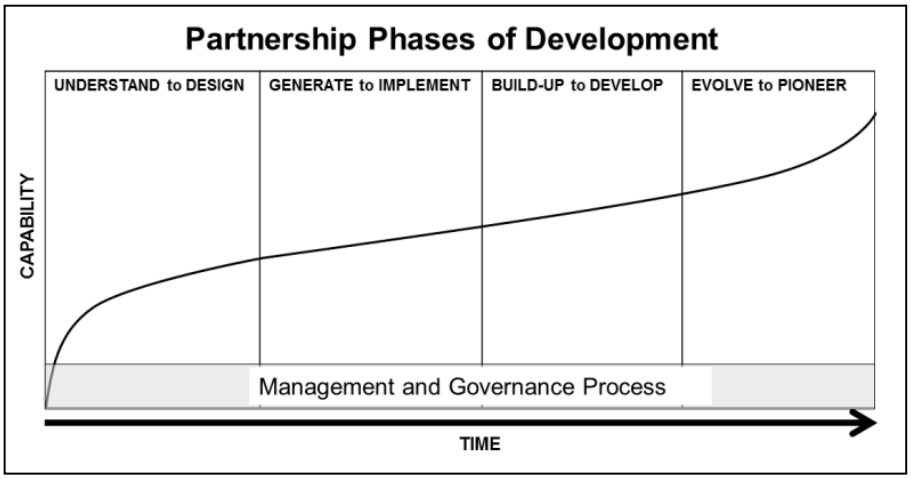
a. **UNDERSTAND to DESIGN.** UNDERSTAND to appreciate the precise JITG exercise requirement; the Exercise Service Request (ESR) is the mechanism to determine the JITG TDD[17] exercise requirements and DESIGN work generated accordingly.

b. **IMPLEMENT to GENERATE.** Using the ESR, the DST will IMPLEMENT and GENERATE an exercise event that meets the needs of the ESR. This work is managed, prioritised and monitored within the DISTE-XP,[18] to provide exercise delivery timelines and for TDD to publish a DST supported Exercise Order that will effectively underpin the whole training event. On completion of a training event a PxR[19] is constructed and will subsequently become the basis for evolving the DISTE capability and service.

c. **BUILD-UP to DEVELOP.** All work agreed as fit for delivery from the Schedule of Work will be programmed into the DISTE Exercise Plan. This plan will illustrate where an exercise event is in its planning in accordance with its ESR and an Exercise Order issued appropriately. The BUILD-UP of a DISTE Schedule of Work can be established and developmental planning can be programmed and progressed as bedrock of exercise scenario and exercise material increases.

d. **EVOLVE to PIONEER.** The ever-increasing pace of technology means that WITIA changes at tempo. Therefore, DISTE software is to EVOLVE in tandem with the operational intelligence environment, seizing opportunities to PIONEER new practices and technologies in partnership with JITG and the DSC. The partnered production of a DISTE CONEMP and CONUSE will be pivotal to this Pioneering relationship.

[15] PPoD
[16] Training Objectives.
[17] Training Delivery Division.
[18] DISTE Exercise Plan.
[19] Post-Exercise Report.



Graphic 1. Partnership Phases of Development.

14. **Governance and Management.** The DISTE Governance and Management process at Section 4 describes how the Partnership Phases of Development will be monitored, assessed and endorsed.

SECTION 4: WORK REQUIREMENTS

15. **Introduction.** The DST will be responsible for enabling exercise training in the DISTE throughout various stages of the training year in support of TDD Training Wings. The following section outlines several factors that will contribute towards routine success.

16. **Period of Performance**. The period of performance for the DISTE is 44 weeks per year, beginning from the agreed start date for 3 years, and pending KPIs[20] being achieved. All work must be scheduled in as per the DISTE Management paragraph at 18, d. Any modifications or extensions will be requested through JITG HQ and the DST manager for review and discussion via the weekly management meetings**,** monthly management reviews and quarterly JITG Training Boards. Any alteration will remain within the DST working routine: 0800 – 1730; Monday to Friday; 44 weeks per year. These timelines will not be flexible, only the timings of the 44 weeks will be subject to alteration as a result of adjusting agreed forecasts.

17 **Place of Performance**. The DST will perform most its work at JITG at JFC Chicksands. The agreed use of other facilities, such as the DSC or elsewhere, can be arranged but would be clearly stipulated in the ESR and the DISTE-XP.

18. **Governance and Management Process**. The DST will be required to meet with the TDD Liaison Officer once a week for a weekly status meeting; once a month for a Performance Endorsement meeting; bi-monthly for a contractual meeting and once a quarter for the JITG Training Board to sign off on all proposed training on the DISTE-XP. A summary of the Governance and Management Process is at Graphic 2.

a. **Exercise Service Request - What and how it will be done?** ESRs outline the precise requirement needed from an exercise and what, in detail, will be needed from the DISTE, the DISTE Facility and the DST. The ESR will define what work will need to be achieved in the Schedule of Work and arranged in consultation and partnership with the

[20] Key Performance Indicators.

Training Wings. The ESRs will be routinely developed, refined and monitored at the Weekly Management Meeting and the Monthly Performance Endorsement Meeting.

b. **Schedule of Work - When will it be done and completed?** The Schedule of Work will organise what work needs to be done by the DST to get an ESR (an exercise) onto the DISTE-XP. The product will be an exercise order defining all aspects of the exercise. The DST schedule of work will be visualised on a near real-time dashboard – Exonaut may provide a platform for this. The Governance and Management Process will be carried out during weekly, monthly and quarterly meetings, all of which will provide a systematic method to understand the overall requirement and standard of work.

c. **DISTE-XP – When will it be done?** Defined at the Training Board the DISTE-XP is the agreed plan of exercise activity. All events will have gone through a decision-making process, to prioritise and sequence events to maximise the capacity of the DISTE, in support of JITG training. All details regarding the DISTE-XP will be agreed and formalised at the JITG Training Board. No event will be entered on to the DISTE-XP without a full Schedule of Work being completed and signed off as ready and only completed after the PxR has been ratified through this process.

(1) **Priorities. 1.** JITG Ph2 training; **2.** JITG Ph3 training for JFC, sS**; 3.** JITG Allied Training; JFC Allied Training; sS Allied Training.

(2) **Technologies.** The DST will focus on building up a sophisticated and complex DATE based scenario for use across the spectrum of current and future intelligence operational environments. The aim is to provide a simplified and user-friendly approach for existing and future exercises and enable the design and delivery of training exercises in partnership with designated TDD trainers. It is imperative that the DST utilises existing IT platforms whilst developing new methods of delivery and communication whilst keeping up to date with emerging technologies. The Exonaut software package will be available for use on the JITG TLAN[21] and is to be utilised as the primary exercise management application.[22]

(3) **PxR.** A post-exercise report from the DST is required after each exercise to assess all aspects of the exercise. This will be the bedrock for evolving the entire DISTE capability. The PxR will have a customer satisfaction matrix that will indicate whether the ESR was met and to what standard, with an indicator of where improvements could be made.

d. **DISTE Management.**

(1) **Facility Management.** DST will provide JITG with a DISTE facility management plan in accordance with all relevant MOD policies. This will include: running and maintaining the secure upkeep of the facility and its servers; exercise scenario and associated management software. All JITG and MOD policies and standards will apply.

(2) **Monthly Performance Reports.** The DST will present monthly performance reports to TDD for review and approval at the JITG Monthly Performance

[21] Training Local Area Network
[22] All Intellectual Property Rights (IPR) related to the DISTE; its material and/or its generations is to be retained by the MOD.

Endorsement Meeting. The monthly report will include a review of all the KPIs and PIs achieved, detailing the development and progress of agreed ESRs in line with the Schedule of Work and the DISTE-XP. Any issues and risks identified will be captured in a RAID[23] log and reviewed at the meeting. This will be an important aspect of the JITG Monthly Performance Endorsement Meeting, which enables payment.

(3) **Capability Status.** A capability and works schedule dashboard is to be maintained describing the present operational status of the facility, planned activity and risks to both. This is to be available to DST management, TDD and JITG HQ. The DISTE business continuity plan is to be constructed in partnership with the TDD Liaison Officer and will be internally triggered by adverse criteria on the capability dashboard being met. JITG site wide business continuity plan will be overarching.

<table>
<tr><th colspan="2">Governance and Management Process</th></tr>
<tr><th>Governance</th><th>Management & Development</th></tr>
<tr><td>Defence Simulation Centre (DSC), C4ISR-Jt Simulation Training & Development, Concepts & Doctrine Centre (DCDC).
(governance, guidance and practical help and support)</td><td rowspan="2">CONEMP → CONUSE
(partnered production)

DCDC. Material for Futures, Concepts, Doctrine, Legal and Analysis and Research material is to be used in DISTE development.

DISTE Exercise Plan (DISTE-XP)
• Forecast of agreed and complete DIST Exercise activity.
• PXRs for all training events to be attached to the event for completion.</td></tr>
<tr><td>JITG (1/4) Training Boards
• Chaired by Dir TSD.
• DISTE agenda item.
• Broad JITG attendance to include DST.</td></tr>
<tr><td>JITG Monthly Performance Endorsement Meeting
• Chaired by CO TDD
• J6, Civ Serv Spt, TDD Wgs & DST in attendance.
• DISTE – CONEMP-CONUSE evolution.</td><td>Monthly Performance Report
• KPIs and PIs against assessed performance.
• RAID – format standard assessed and standards endorsed.
• RAID format to inform & log performance & development.</td></tr>
<tr><td rowspan="3">JITG Weekly Management Meeting
• SO2 DISTE and DST.</td><td>Schedule of Work (SoW)
Status of:
1. ESR development.
2. Exercise Orders including DISTE CONOP and PXR objectives.</td></tr>
<tr><td>Exercise Service Requirement (ESR)
• ESR to be generated for each exercise in partnership with JITG.</td></tr>
<tr><td>Dashboard – Visualisation
• Status of SoW
Priorities and risks to events.
• Events ready for DISTE-XP.
• Status on ESRs & other developments work.

• Facility Operational Status
• Serviceability status – server, software.
• Bookings etc.</td></tr>
</table>

Graphic 2. Governance and Management Process.

19. **Required DST Services.** The DST support is delivered to JITG as a set of defined services. The achievement of the User's Requirements URD and achieved through the provision of Services defined in the accompanying DISTE SOR. An ESR would normally require the delivery of multiple services but delivered in both size and scope to meet the tailored need of a training event; the ESR is key to generating a successful exercise and training event. The full scale of what, how and when services are to be delivered will be defined and agreed within the ESR and authorised against a timeline at the JITG Training Board.

20. **DST Service Delivery – Flexibility.** Experience has shown definitively that the requirement for DST services to deliver a specific training event will likely change at short

[23] Risks, Actions, Issues and Dependencies.

notice. It is therefore imperative that the delivery of DST services remains as flexible as possible throughout the planning process. There must also be flexibility to accommodate additions to the SOW and SOR, where a change to circumstances results in a MOD demand for new training events, possibly at short notice (short notice being a minimum of one month). To achieve this flexibility the process for the DST to deliver services must allow, within reasonable limits, changes to the schedule of work and tasking orders. Flexibility will be achieved through:

a. **Time.** Alter the time of delivery of a service against the original forecast, but any alteration will remain within the DST working routine: 0800 – 1730; Monday to Friday; 44 weeks per year. These timelines will not be flexible, only the timings of the 44 weeks will be subject to alteration as a result of adjusting agreed forecasts.

b. **Service Change.** Convert a service from one type into another.

c. **Additional Service.** Add a new service to satisfy an emergent need; this may be the addition of an existing defined service, or the creation of a new one. Any alteration will remain within the DST working routine: 0800 – 1730; Monday to Friday; 44 weeks per year. These timelines will not be flexible, only the timings of the 44 weeks will be subject to alteration as a result of adjusting agreed forecasts.

d. **Agreed Handover Period.** Terms of a handover of the DISTE facility to JITG staff must be agreed in the ESR that exceed DST working hours. An official JITG representative is to take full responsibility during the periods that DST staff are not working. JITG staff will use all the DISTE facilities to enable exercise activates to continue seamlessly. DST staff will work from 0800 to 1730, Mon – Fri, and for 44 weeks per year.

21. **Exercise Information Environment: Exercise Synthetic Generation and Simulation.** The DISTE training audience is primarily military intelligence trainees. The level of realism experienced by the DISTE training audience is determined by the information that they are given. The information they have available creates the information environment within which trainees practice the conduct of intelligence staff processes and decision making. The creation of this information environment with the exercise scenarios for each specialist and joint domains is therefore the key to the success of an event. The intelligence information delivered to the trainees stimulates their staff process or decision making activities, either directly or through compilation and analysis of available data and information: the end state is an OPINT training environment that realistically emulates 21st Century WITIA up to UK Secret.

22. **DISTE - not a Simulator.** The synthetic requirement to generate a realistic OPINT environment is heavily based on the information environment created. The information environment may be supported by some constructive simulation and very occasionally may utilise elements of Virtual and Live simulation (LVC – Live Virtual and Constructive). Simulation is a small part of the overall DISTE capability.

23. **Exercise Control Synthetic Generation and Simulation Control.** If simulation is used, it is isolated from the trainees by Exercise Control (EXCON) or using interfaces to Operational CIS. Reporting of events and outcomes generated by the synthetics and simulation are therefore received by trainees in a realistic manner and not from a gaming terminal. Whereas immersive simulation training is dependent upon the computer simulation for delivery of the training benefit, DISTE uses the simulation computer to provide the quantity and quality of detailed information required to provide a realistic simulated intelligence information environment. The DISTE simulation operates in two regards within a training event:

a. **Operational Environment.** The trainees conduct the exercise in a synthetic generation of an operational environment that matches their training objectives which, in most cases, will look and feel remarkably like the environment they would encounter for real. Within that physical environment they conduct the exercise in a simulated information environment. All the information they receive is a synthetic generation of the information products they would receive, manipulate, analyse, make decisions on, prepare, and communicate in their many formats. This simulated information environment, and its control throughout an event, is critical to the success of that event in meeting its training objectives.

b. **Scenario.** The detailed information about the forces and other entities contained in the scenario is generated by a synthetic generation engine external to the training audience environment. The synthetic generation engine may be computer based or manual but in either case it is the results from the synthetic generation that are communicated, via emulated or real CIS means, to the users for them to react to within their simulated information environment. The scenario will be the latest version of DATEv3 and will develop in sophistication and complexity over time to match evolving TOs and operational realism. This must include a variety of DATE scenarios from around the world that can develop along the PPoD for MARITIME, LAND, AIR and JOINT scenarios. DCDC will provide a MOD endorsed conceptual and academic reference of present and future operational environments that should provide a pivotal scenario reference point.

24. **Exercise Control.** The success of a training event relies on the effectiveness of the EXCON organisation. This organisation has three distinct roles that have separate requirement sets that must all be met to ensure successful delivery of the event:

a. **Running the Exercise.** EXCON manages the running of the training event. This covers the real-life support for all participants and the regulation of exercise play events through the management of the Major Events List (MEL) and the enactment of the Major Injects List (MIL) in partnership with the TDD trainers.

b. **Simulated Commands.** EXCON includes the provision of superior, subordinate and peer command organisation that interact with the player audience organisation(s) to generate the simulated environment within which the exercise is conducted.

c. **Other Entities.** One of the roles of EXCON is to provide a synthetic generation of organisations around the training audience organisation(s) to emulate a realistic operating environment. This will include; the superior headquarters enacted by the Higher Control (HICON). HICON will be the source of orders, direction and guidance as well as the allocator of resources. Subordinate headquarters are enacted by the Lower Controls (LOCONs). LOCONs are the recipients of trainees' orders and direction, and will request guidance and subsequently be allocated resources to enable them to achieve their missions. The flanking and peer command level organisations, represented by Sideways Controls (SIDECONs), may be military formations, Partners Across Government (PAG) or Non-Governmental Organisations (NGO) with whom the training audience organisation(s) must coordinate and cooperate to achieve their mission. An important aspect of creating a 21st century operating environment will also be emulating OSINT in a plethora of realistic forms.

SECTION 5: INDICATORS, ENDORSEMENTS AND OTHER REQUIREMENTS

25. **KPIs and PIs.** DISTE KPIs[24] and PIs[25] are in Section 6 at Table 1 and will include cross references to the SOR. These indicators detail what the JITG requirement entails and the progress and delivery of these will be monitored and determined at the quarterly JITG Training Boards. The training board will use the Partnership Phases of Development outlined at Section 3 to act as a programme for the DISTE activity and development. Guideline targets are broadly described against Partnership Phases of Development below:

a. **0-12 Months - UNDERSTAND to DESIGN phase.**

(1) **0-3 Months.** The governance and management structure is to be implemented and the DISTE CONEMP established with JITG.

(2) **3-6 Months.** The first 3 exercises: Redacted information to have been completed or in the DISTE-XP to be conducted.

b. **6-18 Months - IMPLEMENT to GENERATE phase.** Implement and generate the present 34x Ph 2 exercises into the DISTE-XP and enable them to be conducted within the DISTE. The conduct of these exercises within the DISTE are to conform to priorities at 18, c, (1).

c. **8-30 Months - BUILD-UP to DEVELOP phase.** The DISTE exercise scenario is to be built up and developed in partnership with JITG, to incorporate 3 x Ph 2 DI analyst training exercises. Additional Ph 3 exercises of 1 x DI Mission Manager exercise and 3 x Mission Team exercises and 1 x Intelligence Leaders exercise and 3 x Intelligence Cell exercises for each of the sS. The requirements and details for these exercises will need to be defined and developed with TRAs, but exercise generation can be conducted as valuable preparatory activity.

d. **24-36 Months - EVOLVE to PIONEER phase.** The DISTE exercise scenario is to evolve and pioneer in partnership with JITG: Redacted information. The requirements and details for these exercises will need to be defined and developed with TRAs, but exercise generation can be conducted as valuable preparatory activity. This phase will endeavour to increase the range and complexity of exercises available beyond the 36-month point, developing the joint CONUSE with JITG into and beyond 2021.

26. **Endorsement Process – Work Acceptance.** The endorsement of progress against work agreed at the JITG Training Board will be made at the JITG Monthly Performance Endorsement Meetings. This endorsement will then be provided to JITG ResFin[26] for payment. All DISTE work will be routinely managed in partnership between the TDD Liaison Officer and the DST, but all work will be accepted through the JITG Training Board. The Training Board and the monthly performance endorsement meeting will be the points for arbitration and official recording of issues through the RAID process, as is currently practiced by JITG.

27. **Other JITG and MOD Operating Requirements.**

a. **Security Clearances.**

[24] KPIs defined by JFC Commercial are “indicators that have monetary consequence attached to failure of delivery.”
[25] PIs defined by JFC Commercial are “the minimum standard required to meet contractual obligations.”
[26] Resources and Finance

(1) **Access.** All DST will require SC vetted clearances and JITG SO3 J2/Sy will be the POC for confirming clearances and endorsing access to JFC Chicksands and JITG.

(2) **Defence Network Accounts.** SC clearances must be held by those allocated to the contract at the time of the start-up meeting; Baseline Personnel Security Standard (BPSS) is required for MODNET(O). A charge for alteration is incurred if changes are made; this is to be borne by the DST.

(3) **Defence Network Accounts SyOps.** DST will have access to MODNET(O), which are only to be used for work pertaining to the DISTE and compliance to normal MOD governance and procedures will apply. Defence Network Accounts will only be provided once the DST has acquired the correct clearances on the national vetting database.

b. **Server Access.** The DST will be granted access to JITG servers and all necessary IT Functions needed to deliver, support and maintain the agreed DISTE-XP, but the DST must follow all relevant MOD policies and work must be agreed with JITG CIS SVCS, who are responsible for the JITG TLAN. Work conducted on the TLAN must also be mindful of the following when factoring the ways and means of delivering what is required:

(1) **Develop.** SQEP[27] will be needed to develop servers and software required to support the synthetic generation of the DATE intelligence operating environment and its scenario. It should be noted that synthetic generation will be conducted over the JITG Training LANs (TLANs) Secret and Official Sensitive and sufficient resource should be provided to develop synthetic generation systems in both domains. Redacted information.
Virtualisation of software should also be considered, and Citrix and VMWare have proven capabilities that could achieve this effect.

(2) **Test.** Experience in System Centre Configuration Manager (SCCM), Hyper-V and the development of the synthetic system, to assist with the installation and testing of the synthetic system(s) on the TLAN Test-bed (TLAN (T)) would be required. A method of routinely delivering system integration with DISTE work on the TLAN will be needed and the JITG change team, led by the JITG change team manager, will co-operate in jointly installing and integrating the virtual HDD's created during the development stage on the TLAN (T) network. The bespoke synthetic software and existing TLAN applications and services will be subject to a test plan to prove concept and assess strengths and weaknesses. The change manager will be responsible for the production of, and recording the results of testing as per the JITG application integration process. Redacted information. The DST will be responsible for the development of any process and documentation unique to the synthetic software package that has been generated.

(3) **Integrate.** Upon successful completion of the test plan, the DST and the JITG change team, led by the JITG change team manager, are to work together to install and integrate the virtual HDDs created during the development/test stage on the TLAN Official-Sensitive (TLAN (OS)) and TLAN Secret (TLAN(S)) networks. The change manager, supported by the DST is to ensure that all relevant documentation

[27] Suitably Qualified Experienced Personnel.

required as per the JITG transition process is provided to the JITG CIS SVCS team, and that all services are checked prior to transition into live operation. JITG CIS SVCS team assisted by the DST are to ensure that the synthetic software is incorporated into the IT Service Management patching, upgrade, anti-virus and back-ups regime. It is the responsibility of the DST to document any deviations from the standard processes. It should be noted that the configuration of the TLAN network(s) servers in High Availability (HA) clusters, results in the ability to support the VMs necessary for the synthetic system, but without the requirement to deploy the additional servers procured to support the DISTE. Therefore, phase 3 and phase 4 are interchangeable, or can be run simultaneously should the resource become available.

(4) **Build.** The change team supported by the DST are to install the servers, Storage Area Network (SAN) and core switches in the DISTE Network Equipment Room (NER) and configure them as part of the management VLAN utilising the cross-site fibre connection to the DISTE facility; the servers are to be configured to join the TLAN (OS) HA cluster and TLAN(S) HA cluster; the SAN(s) are to be configured to mirror the existing SANs in their respective networks. The servers are to be configured to load share and provide resilience. The change team will produce an Operating System (OS) disk image for the DISTE desktop PCs and the change team, assisted by the DST, will be required to build the PCs remotely across the network. Redacted information the intercom system and the Audio-Visual system, the change manager, supported by the DST is to ensure that all relevant documentation required as per the JITG transition process is provided to the JITG CIS SVCS team, and that all services are checked prior to transition into live operation. The DST shall be responsible for configuring all bespoke synthetic applications, including importing scenario data. The service demarcation point or junctions of maintenance will be agreed after the system has been integrated and tested.

(5) **Support.** Service support of the DISTE synthetic package will require a level of system administration expertise from the DST Redacted information. As the DISTE will extend the existing TLAN(s), the centralised management, monitoring, load sharing and administration of the TLAN will make it difficult to segregate and apportion administration tasks directly to the DISTE synthetic network. Consequently, the DST will work closely with the ITSM Ops team. The DST will be responsible for creation, deletion, modification and management of Active Directory (AD) and any specific application accounts for use by the DISTE and import/export (IMPEX) of data to and from the synthetic system(s). The ITSM Ops team shall be responsible for the management, monitoring, patching, updates, anti-virus, incident response and fault resolution up to and including the DISTE servers, network equipment and End User Devices (EUDs). Except for synthetic software configuration issues, which will be the sole responsibility of the DST. TSS shall be responsible for providing incident response and fault reporting of the following equipment: Redacted information. JITG CIS SVCS shall be responsible for the scheduling and financing of technical refresh and upgrades required ensuring that the equipment meets the standards laid out in JSP440. An integrated and co-operative approach is desired to support the system that benefits the whole of JITG training.

(6) **Disposal.** JITG CIS Services shall be responsible for the secure sanitisation and disposal of data storage equipment. The DST shall be responsible for ensuring

that all data to be retained is removed and stored in an appropriate manner in accordance with JSP 440 prior to disposal. Physical equipment carcasses are to be disposed of through the JITG QM's chain, ensuring that the DISTE AinU is updated.

c. **Servicing.** All programming, testing and network outages will be planned through weekly scheduling meetings and the monthly reviews, which will be attended by a JITG CIS SVCS representative. This process is described in detail in the Governance and Management Process and summarised at Graphic 2.

28. **Known Constraints.** Any solution developed to meet the DISTE requirement must comply with the design principles developed by Defence Training and Education Capability (DTEC). These include:

a. **DMSP.** Mandating the use, and re-use, of the DTEC Modelling & Simulation (M&S) Standards Profile (DMSP) Version 3.0.

b. **Exportable Synthetic and Simulation Data.** All synthetic and simulation environments shall be exportable to the DSC in the mandated formats.

c. **R&D.** No unauthorised work, research or development is to be carried out by the DST without prior agreement of the JITG Training Board and DSC. All developments – products, capabilities or procedures - are the property of JITG and the MOD.

29. **DISTE Facility Exploitation by Other Organisations**

a. **Non-JFC Use.** The DISTE capability and its facility will be available to organisations outside JFC to exploit for their own training events but must be processed and agreed at the JITG Training Board in line with established JITG training practices.

b. **3rd Party Use.** Use of DISTE facilities to support 3rd party exercises may be in addition to the Schedule of Work in support of the DISTE-XP, but should be agreed within the mechanism already described in Section 4.

30. **Assumptions Summary.**

a. **Geospatial Data.** It is assumed that any solution for DISTE will be able to provide Geospatial data output for inclusion in the DSC data repository.

b. **Cyber.**

(1) It is assumed that the successful contractor will hold the Cyber Essentials Plus certification, as recommended by the MoD. Failure to operate within its ways of working would be a contractual breach.

(2) It is assumed that synthetic generation of cyber-attacks, and responses to the same, will only occur on dedicated training systems.

c. **Allies.** It is assumed that interoperability between Allied and coalition partner

OPINT systems need only be emulated to enable the training objectives to be met.

d. **New Training Events.** It is assumed that preparation for new major training events can occur simultaneously with on-going training events, and that subsequent training events can be implemented within 4 weeks of any exercise.

e. **CIS.** It is assumed that Operational CIS representation is to be as close to the real Operational CIS Human-Computer interface (HCI) as feasible i.e. emulated.

SECTION 6: KEY PERFORMANCE INDICATORS

Key Performance Indicator Number & Detail		Performance Indicator Letter and Detail	SOR Reference
SOW SECTION 2: MOD POLICIES, GUIDANCE AND DIRECTION			
1	All MOD policies, guidance and directives are to be applied and adhered to throughout all management, synthetic and simulation generation and enabling activity within, and for the DISTE.	a. **Development.** Compliance to auditable development standards for synthetic and simulation generation is to be provided during monthly performance endorsement meetings, for vfm to be seen and cross MOD benefits clear and maximised – para 5a. b. **JFC TLB.** All DISTE plans and activities are to conform to JSP 822 and the JFC TLB simulation and synthetic generation policies and strategies. This compliance is to be auditable and provided during monthly performance endorsement meetings – para 5b. c. **Capability.** Activities regarding simulation and synthetic generation capability change must be compliant with the TE&S	DST2.01 – DST2.02

		TA[28] direction and include engagement with the DSC. This compliance is to be auditable and provided during monthly performance endorsement meetings – para 5c. d. **Ownership.** All synthetic and simulation generation must catalogue their DISTE applications and data, mapping them against the Defence Information Reference Model (DIRM). The MOD retains all intellectual property rights to material used or planned; generated and/or stored regarding any aspect of the DISTE. All aspects of compliance are to be auditable and provided during monthly performance endorsement meetings, enabling transparency for Defence level scrutiny – para 5d. e. **Interoperability.** A simulation and/or synthetic generation system's interoperability is to be developed through a common architectural approach and exploited to support applicable requirements that enable and complement Joint and Coalition force preparation. The process for this compliance is to be auditable and provided during monthly performance endorsement meetings para 5e.	
2	Defence and DSC direction, governance, policies, principles and facilities are to be adhered to and/or used to establish and develop the DISTE by using auditable governance and management processes.	a. **Minimise Diversity.** The DST is to ensure that the number of different systems, components, tools, facilities and infrastructures used to generate DISTE capability, is minimised across all DLoDs[29] and included within the DISTE CONEMP-CONUSE. Compliance is to be auditable and provided during monthly performance endorsement meetings – para 6b. b. **Develop and Deliver for Re-use.** Capability development is to ensure that new or changed capability solutions, decision support information and enabling services, are developed to enable maximum re-use across Defence. This compliance activity is to be auditable and provided during monthly performance endorsement meetings so that compliance can be monitored - para 6c. c. **Choose Proven Ways and Means First.** The DISTE shall use DSC proven and approved ways and means, which uses recognised methods, practices and solutions (typically Commercial Off the Shelf (COTS) or Modified Off the Shelf (MOTS) elements where possible. When these options have been rejected (through evidence based decisions) a bespoke option or new ways and means may be developed through the DSC, with prior permission obtained via the quarterly JITG Training Board. Compliance with this process is to be auditable during monthly performance endorsement meetings to ensure Commonality of Service Provision across Defence – para 6d.	DST2.01 – DST2.02

[28] Training, Education & Simulation (TE&S) Technical Authority (TA).
[29] Defence Lines of Development.

		d. **Ensure Commonality of Service Provision across Defence**. Defence's operational, business processes and functions will be supported by common, governed, and quality assured enabling services. Defence Authorities will, accordingly, actively ensure and measure their usage and effectiveness through inspections. Therefore, commonality of service provision for the DISTE is to be auditable and provided during monthly performance endorsement meetings – para 6e. e. **Develop and Deliver Capability for Flexibility, Adaptability and Interoperability.** The DISTE will develop and deliver operational and business capability for flexibility, adaptability and interoperability, to fully exploit the utility of the DISTE and improve operational agility for OPINT training for JITG. These three areas are key for DISTE success within the DSC framework and subsequently these are quarterly Training Board auditable requirements – para 6f. f. **Use Open Standards and Approaches.** Military and business capability solutions will be developed using a common set of open standards and approaches (typical of industry) in a way that is not detrimental to security, innovation or operational superiority. DISTE solutions will be designed to allow Defence to easily reconfigure systems and services as required. This is to be auditable and provided during monthly performance endorsement meetings – para 6, g.	
3	The application of the SOSA principles for designing, generating and developing the DISTE capability are to be clearly auditable to meet a 100% of Defence and DSC aims and are accurately reflected in the DISTE CONEMP - CONUSE.	a. **Defence Simulation Centre (DSC).** The DTEC rule-set,[30] overseen by the DTEC TE&S TA that enables efficient MOD agreed procurement for synthetic and simulation generation, assets and data, all follow Defence's SOSA principles. The SOSA principles are to be adopted throughout every aspect of the DISTE and the DSC IAG[31] is to be involved in linking into the DSC. Additionally, the C4ISR-Jt Simulation Training cell at JFC Northwood is to provide further support with these interactions with the DSC. Interactions with both organisations must be auditable and provided during monthly performance endorsement meetings - para 7. b. **DISTE CONEMP–CONUSE.** The DST is to support, enable and jointly generate and develop, with JITG, a DISTE CONEMP and its evolution into a working CONUSE. Progression is to be auditable and provided during monthly performance endorsement meetings in line with Partnership Phases of Development - para 7.	DST2.01 – DST2.02

[30] JSP 822 Part 2 /2.1 page 135 – DTEC Modelling and Simulation Rules.
[31] DSC Industry Advisory Group.

4	DCDC is to be the primary source of reference in generating an operationally relevant WITIA scenario and integrated in to the DISTE CONEMP and working CONUSE.	a. **DCDC Operational Environment.** The DST must utilise DCDC expertise and products in developing its DATE[32] exercise scenario to maintain OPINT WITIA relevance - inclusions and developments will need to be auditable, and provided during monthly performance endorsement meetings – para 8/9. b. **CONEMP-CONUSE Development.** DCDC input into OPINT and scenario development of the DISTE CONEMP and working CONUSE is critical in providing coherence across the MOD. All DCDC activity is to be auditable and provided during monthly performance endorsement meetings – para 8/9.	DST2.01 – DST2.02
SECTION 3: THE DISTE CONCEPT AND DEVELOPMENT			
5	The DST is to generate, in partnership with JITG, a functional DISTE CONEMP progressing to a working CONUSE that incorporates a rolling 3-year action plan that delivers the DISTE Partnership Phases of Development.	a. **Operationally Relevant CONEMP-CONUSE.** In partnership with JITG generate a functional CONEMP that can progress to a working CONUSE. Auditable progress will be monitored and discussed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3. b. **Rolling 3 Year Action Plan.** The DISTE CONEMP and CONUSE is to include a rolling 3-year action plan to achieve and maintain the DISTE Partnership Phases of Development. Auditable progress will be routinely assessed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3. c. **DISTE Partnership Development Phases.** CONEMP-CONUSE and Action Plan work is to include the following DISTE Partnership Phases of Development: All aspects under Section 3 are key deliverables within each monthly performance endorsement meeting and will be assessed as to whether the endorsement threshold has been reached. (1) **Governance and Management.** The governance and management process (described at Section 4) is to be	DST3.01 – DST3.07

[32] Decisive Action Training Environment.

		implemented within the first 30 days of the start date; this will be a key deliverable of the first monthly performance endorsement meeting. (a) **Conduct.** DST Conduct is to be 100% compliant with MOD policy and guidelines on behaviour always, especially those documents pertaining to Phase 2 training environments. (b) **DST Identity.** The DST is to have a visually distinct civilian identity; smart and well groomed; clean and well-kept clothes and shoes – in line with the standard of dress of JITG trainers and a Phase 2 training environment. (c) **Exercises.** DISTE exercises are to be managed, governed and agreed in partnership with JITG and in line with Section 4 of the SoW. (d) **DISTE Physical Appearance.** The DISTE facility is to set the highest standards amongst Ph 2 training facilities in maintaining its cleanliness, hygiene and serviceability; the DISTE is to be inspected so comparable data across sS sites will be available. (2) **UNDERSTAND to DESIGN.** A detailed UNDERSTANDING of the training needs is to be achieved before design work can begin, to appreciate the precise JITG exercise requirements; the Exercise Service Request (ESR) is the mechanism to capture exercise requirements and DESIGN work generated accordingly. The ESR is to be produced by the DST but supported and agreed by JITG before being processed. This process is to be auditable and agreed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 4. (3) **IMPLEMENT to GENERATE.** The DST is to IMPLEMENT and GENERATE an exercise event that meets the needs of the ESR. This work is to be managed, prioritised and monitored within the agreed Schedule of Work and the DISTE-XP, to provide exercise delivery timelines and for TDD to publish a DST supported Exercise Order. On completion of a training event a PxR is to be constructed and will subsequently become the basis for evolving the DISTE capability and service. Auditable progress will be assessed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3 and 4. (4) **BUILD-UP to DEVELOP.** Agreed work will be developed in the Schedule of Work and when fit for delivery will be programmed into the DISTE Exercise Plan. The BUILD-UP of a DISTE Schedule of Work will be produced, and developmental planning programmed and progressed	

		as the catalogue of exercise scenario and exercise material increases. Auditable progress will be assessed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3. (5) **EVOLVE to PIONEER.** DISTE software is to EVOLVE in tandem with the operational and OPINT environments, seizing opportunities to PIONEER new practices and technologies in partnership with JITG and the DSC. The partnered production of a DISTE CONEMP and CONUSE will be pivotal to this pioneering relationship. Auditable progress will be assessed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3.	
SECTION 4: WORK REQUIRMENTS			
6	Serviceability of all aspects of the DISTE facility and enabling services are to meet a 100% delivery of the agreed DISTE-XP to standard and minimally achieve 80% customer satisfaction on all PXRs.	a. **Period of Performance**. The period of performance for the DST is 44 weeks, starting from contract commencement for 3 years, pending achievement of KPIs. All work is to be scheduled as at para 18, d. Any modifications or extensions are to be requested through the TDD Liaison Officer, HQ TDD and the DST manager. Auditable progress will be assessed at monthly performance endorsement meetings and the quarterly training boards in line with SOW detail at Section 3. b. **Place of Performance**. The DST will perform the majority of its work at the DISTE facility and within TDD at JFC Chicksands. The agreed use of other facilities, such as the DSC or elsewhere, can be arranged but is to be agreed and clearly stipulated in the ESR and the DISTE-XP. c. **Governance and Management Process**. The DST is required to meet with the TDD Liaison Officer for a weekly status meeting; once a month for a Performance Endorsement meeting and once a quarter for the JITG Training Board to sign off all proposed training on the DISTE-XP. A summary of the Governance and Management Process is at Graphic 2 – para 18. (1) **Exercise Service Request.** ESRs outline the precise requirement needed from an exercise and what, in detail, will be needed from the DISTE, the DISTE Facility and the DST. The ESR will define what work will need to be achieved in the Schedule of Work and arranged in consultation and partnership with the Training Wings. The	DST4.01 – DST4.06

		ESRs will be routinely developed, refined and monitored at the Weekly Management Meeting and the Monthly performance endorsement Meeting. – para 18a. (2) **Schedule of Work.** The Schedule of Work will organise what activity will be done by the DST to get an ESR onto the DISTE-XP and include the following aspects routinely: (a) **Ex Order.** Exercise order defining all aspects of the exercise is to be issued by TDD but with the support and input from the DST to include, design and construction timelines for all exercises in line with agreed timings – para 18b. (b) **DST Schedule.** All (100%) DST activity is to be reflected in the schedule of work and visualised to detail on to a close to real time dashboard that can be maintained and observed by DISTE users and JITG management – Exonaut may provide a platform for this – para 18b. (3) **DISTE-XP.** The DST is not to enter a without it being formally processed as per para 18c. (a) **Priorities.** The following priorities are to determine workload: 1 - JITG Ph2 training; 2 - 2a. JITG Ph3 training for JFC, 2b. sS; 3 – 3a. JITG Allied Training, 3b. JFC Allied Training, 3c. sS, 3d. Allied Training - para 18c (1). (b) **Technologies.** The DST is to build up a sophisticated and complex DATE scenario for use across the spectrum of current and future intelligence operational environments. The interface is to be simple and enable a user-friendly approach for existing and future exercises to be designed and delivered in partnership with designated TDD trainers. It is imperative that the DST utilises existing IT platforms whilst developing new methods of delivery and communication; keeping up to date with emerging operational intelligence technologies in conjunction with the DSC. All technological advances are an integral part of the Partnership Phases of Development and will therefore be crucial deliverables in meeting these targets. Exonaut will be available for use on the JITG TLAN[33] and is to be utilised as the primary exercise enabling and management application [34]– para 18c (2). (c) **PXR.** The DST is required to generate a PXR after each exercise to assess all aspects of the exercise. This will be the bedrock for evolving the DISTE capability. All PxRs will have a customer (trainers) satisfaction matrix that will indicate whether the ESR was met and to what standard – 80% minimum satisfaction requirement. The	

[33] Training Local Area Network

[34]All Intellectual Property Rights (IPR) related to the DISTE; its material and/or its generations is to be retained by the MOD.

review of all PXRs will take place at the monthly performance endorsement meetings where improvements to service can be planned based upon customer evidence - 18c (3).

d. **DISTE Management.**

(1) **Facility Management.** DST will provide JITG with a DISTE facility management plan in accordance with all relevant MOD policies. This will include running and maintaining the secure and clean upkeep of the facility, including its servers, exercise scenario and associated management software. A 100% compliance to JITG and MOD policies and standards is to apply – para 18d (1).

(2) **Monthly Performance Endorsement Reports.** The DST will present in the first week of every month, a monthly performance endorsement report to TDD for review and approval at the JITG Monthly Performance Endorsement Meeting. The monthly report will provide evidence against achieving all KPIs and PIs, as well as detail against the development and progress of ESRs agreed and completed in line with the Schedule of Work and the DISTE-XP. Any issues and risks identified will be captured in a RAID[35] log and reviewed at the meeting. This will be an important aspect of this meeting which will assess contract obligations and will ultimately enable payment – para 18d (2).

(3) **Capability Status.** A capability and works schedule dashboard is to be maintained to describe the present operational status of the facility, planned activity and risks to service delivery. This is to be available to DST management, TDD and JITG HQ in near real time. The DISTE business continuity plan is to be constructed in partnership with the TDD Liaison Officer and will be internally triggered by adverse criteria on the capability dashboard being met. The JITG site wide business continuity plan will be overarching– para 18d (3).

e. **DST Service Delivery.** Planned requirements may change at short notice; therefore, it is imperative that the delivery of DST services remains as flexible as possible throughout: changes to the ESR, Schedule of Work and DISTE-XP maybe required. Where circumstances result in a MOD demand for new training events, possibly at short notice (short notice being a minimum of one month) and achieved through the governance and management process but will include the following (para20):

(1) **Time.** Alter the time of delivery of a service against the original forecast - para 20a.

[35] Risks, Actions, Issues and Dependencies.

		(2) **Service Change.** Convert a service from one type into another - para 20b. (3) **Additional Service.** Add a new service to satisfy an emergent need; this may be the addition of an existing defined service, or the creation of a new one – para 20c. (4) **Handover Period.** Terms of a handover of the DISTE facility and enabling exercise tasks to JITG staff must be agreed in the ESR for exercises that exceed DST working hours but flexibility will be needed as MOD timelines may be impacted – para 20d.	
7	Using a variety of global DATE scenarios that can support specific MARITIME, LAND, AIR and JOINT OPINT exercises, supply, support and generate a means by which a realistic OPINT training environment that can emulate a DCDC endorsed picture of 21st Century WITIA. This should be achieved Redacted information in line with the partnership phases of development and achieving a minimum 80% PXR customer satisfaction.	a. **DISTE - not a Simulator.** The information environment may be supported by some constructive simulation and very occasional elements of Virtual and Live simulation (LVC – Live Virtual and Constructive) if stipulated in the ESR. Simulation is a small part of the overall DISTE capability and effort should be weighted accordingly – para 22. b. **EXCON - Synthetic Generation Control.** Simulation is to be isolated from trainees by EXCON or using interfaces to Operational CIS. Reporting of events and outcomes generated by the synthetics and simulation is to be received by trainees in a realistic manner and not from a gaming terminal. DISTE is to use synthetics and simulation via computer to provide the quantity and quality of detailed information required to provide the agreed emulated information environment. All details will be stipulated in the ESR. The DISTE synthetic generation is to operate in 2 regards within a training event (para 23): (1) **Operational Environment.** The trainees are to conduct all exercises in a synthetic generation of a realistic operational intelligence information and physical environment. All the information received is to be a synthetic generation of the information products they would receive, manipulate, analyse, make decisions on, prepare, and communicate in their many formats on operations or as stipulated in the ESR. This simulated information environment, and its control throughout an event, is critical to the success of that event in meeting its training objectives. This will be an important assessed aspect of the JITG Monthly Performance Endorsement Meeting and PXR, which enables payment - para 23a. (2) **Scenario.** The detailed information about the red, blue, black forces, civ pop etc. and other entities contained in the scenario, is to be generated by a synthetic generation engine external to the training audience environment. The synthetic generation engine may be computer based or manual but in either case it is the results from the synthetic generation that are communicated, via emulated or real CIS means, to the trainees for them to respond to within their emulated information environment. This is to include the	DST4.01 – DST4.06

emulation of OSINT in a plethora of realistic forms. The scenario is to use a variety of global DATE scenarios that can support specific MARITIME, LAND, AIR and JOINT OPINT information environments. This is to develop in sophistication and complexity over time to match evolving TOs and operational realities as defined with the DCDC, sS TRAs and DI. This will be an important assessed aspect of the JITG Monthly Performance Endorsement Meeting and PXR, which enables payment – para 23b.

c. **Exercise Control.** The success of a training event relies on the effectiveness of the EXCON organisation. This organisation has 3 distinct roles that have separate requirement sets that must be met to ensure successful delivery of the event. All aspects of exercise control will be an important assessed aspect of the JITG Monthly Performance Endorsement Meeting and PXR, which enables payment - para 24. The roles are:

(1) **Running the Exercise.** EXCON manages the running of the training event. This covers the real-life support for all participants and the regulation of exercise play events through the management of the Major Events List (MEL) and the enactment of the Major Injects List (MIL) in partnership with the TDD trainers - para 24a.

(2) **Simulated Commands.** EXCON includes the provision of superior, subordinate and peer command organisations that interact with the trainee audience and/or organisation(s) to generate the synthetic intelligence environment within which the exercise is conducted – para 24b.

(3) **Other Entities.** EXCON is to provide a synthetic generation of organisations around the training audience organisation(s) to emulate a realistic operating environment. This will include; the superior headquarters enacted by the Higher Control (HICON). HICON will be the source of orders, direction and guidance as well as the allocator of resources. Subordinate headquarters are enacted by the Lower Controls (LOCONs). LOCONs are the recipients of trainees' orders and direction, and will request guidance and subsequently be allocated resources to enable them to achieve their missions. The flanking and peer command level organisations, represented by Sideways Controls (SIDECONs), may be military formations, Partners Across Government (PAG) or Non-Governmental Organisations (NGO) with whom the training audience organisation(s) must coordinate and cooperate to achieve their mission – para 24c.

SECTION 5: INDICATORS, ENDORSEMENTS AND OTHER REQUIRMENTS			
8	The DISTE governance and management process is to be followed in delivering against 100% of the targets set within the DISTE Partnership Phases of Development.	a. **Endorsement and Developmental Targets.** All levels of performance will be monitored, assessed and endorsed using the Governance and Management process. Targets described against the DISTE Partnership Phases of Development are: – (1) **0-12 Months.** The governance and management structure – para 25a. (a) **0-60 Days.** The governance and management structure is to be implemented (within 30 days) and the DISTE CONEMP established with JITG within 60 days. (b) **3-6 Months.** The first 3 exercises to be delivered are: Redacted information are to be have been, and /or are in the DISTE-XP to be imminently conducted. (2) **6-18 Months - IMPLEMENT to GENERATE phase.** Implement and generate the present 34x Ph 2 exercises into the DISTE-XP and enable them to be conducted within the DISTE. The exercises conducted within the DISTE is to conform to priorities at 18, c, (1). (3) **8-30 Months - BUILD-UP to DEVELOP phase.** The DISTE exercise scenario is to be built up and developed in partnership with JITG, to incorporate: 3x Ph 2 DI analyst	DST5.01 – DST5.04

		training exercises. Additional Ph 3 exercises to include: 1x DI Mission Manager and 3x Mission Team exercises and 1x Intelligence Leaders' and 3x Intelligence Cell exercises for each of the sS. The requirements and details for these exercises will need to be defined and developed with TRAs, but exercise generation is to be conducted as valuable preparatory activity – para 25d. (4) **24-36 Months - EVOLVE to PIONEER phase.** The DISTE exercise scenario is to evolve and pioneer in partnership with JITG. Redacted information. The requirements and details for these exercises will need to be defined and developed with TRAs, but exercise generation can be conducted as valuable preparatory activity. This phase will endeavour to increase the range and complexity of exercises available beyond the 36-month point, developing the joint CONUSE with JITG into and beyond 2021. b. **Endorsement Process – Work Acceptance.** The endorsement and monitoring of progress against work agreed at the JITG Training Board will be made at the JITG Monthly Performance Endorsement Meetings. This endorsement will then be provided to JITG ResFin for payment. All DISTE work will be routinely managed in partnership between the TDD Liaison Officer and the DST, but all work will be accepted through the JITG Training Board. The Training Board and the monthly performance endorsement meeting will be the points for arbitration and official recording of issues through the RAID process, as is currently practiced by JITG: no other process is to be pursued – para 26.	
9	100% MOD compliance with all JITG and MOD operating requirements, procedures, constraints and assumptions; particularly security and IT services.	a. **MOD and JITG Compliances.** Other JITG and MOD Operating Requirements. Breaches in any MOD policy or procedures may result in contract termination. (1) **Security Clearance.** All DST employees are to have SC vetted clearance and JITG SO3 J2/Sy will be the POC for confirming clearances and endorsing access to JFC Chicksands and JITG. The DST is to be responsible for secure and appropriate access to the DISTE facility and within internal compartmental areas (syndicate rooms/control room building access points etc.) It is the DST's responsibility to implement and enforce HOTO procedures for when exercise proceed outside DST normal working hours. (2) **Defence Network Account.** SC clearances must be held by those allocated to the contract at the time of the start-up meeting; Baseline Personnel Security Standard (BPSS) is required for MODNET(O). A charge for alteration is incurred if changes are made; this is to be borne by the DST.	DST5.01 – DST5.04

(3) **Defence Network Accounts SyOps.** DST will have access to MODNET(O), which are only to be used for work pertaining to the DISTE and compliance to normal MOD governance and procedures will apply. Defence Network Accounts will only be provided once the DST has acquired the correct clearances on the national vetting database

b. **Server Access.** The DST will be granted access to JITG servers and all necessary IT functions needed to deliver, support and maintain the agreed DISTE-XP, but the DST must follow all relevant MOD policies and work must be agreed with JITG CIS SVCS, who are responsible for the JITG TLAN. Work conducted on the TLAN must factor in the following ways and means of delivery:

(1) **Develop.**

(a) **Personnel.** SQEP to develop servers and software required to support the synthetic generation of the DATE intelligence operating environment and entities/events within the scenario – no unauthorised personnel are to work on the JITG TLAN.

(b) **JITG TLANs.** Synthetic generation is being conducted over JITG's Secret and Official Sensitive TLANs, and sufficient resource should be provided to develop synthetic generation systems in both domains.

(c) **VHDD.** The Virtual Hard Disk Drives are to redacted information integrate with the current Training LAN configuration at JITG.

(d) **Virtualisation.** Virtualisation of software should also be used; Citrix and VMWare have proven capabilities that could achieve this effect.

(2) **Test.**

(a) **SCCM.** Experience in System Centre Configuration Manager (SCCM), Hyper-V and the development of the synthetic system, to assist with the installation and testing of the synthetic system(s) on the TLAN Test-bed (TLAN (T)) is essential.

(b) **System Integration.** A method of routinely delivering system integration with DISTE work on the TLAN will be needed and the JITG change team, led by the JITG change team manager, will co-operate in jointly installing and integrating the virtual HDD's created during the development stage on the TLAN (T) network.

(c) **Test Plan.** The bespoke synthetic software and existing TLAN applications and services will be subject to a test plan.

(d) **Change Manger.** The change manager will be responsible for the production of, and recording the results of testing as per the JITG application integration process.

(e) redacted information

(f) **Documentation.** The DST will be responsible for the development of any process and documentation unique to the synthetic software package that has been generated.

(3) **Integrate.**

(a) **Test Plan and HDD.** Upon successful completion of the test plan, the DST and the JITG change team, led by the JITG change team manager, are to work together to install and integrate the virtual HDDs created during the development/test stage on the TLAN Official-Sensitive (TLAN (OS)) and TLAN Secret (TLAN(S)) networks.

(b) **Documentation.** The change manager, supported by the DST is to ensure that all relevant documentation required as per the JITG transition process is provided to the JITG CIS SVCS team, and that all services are checked prior to transition into live operation. The DST is to document any deviations from the standard processes. Note. Configuration of the TLAN network(s) servers in High Availability (HA) clusters, results in the ability to support the VMs necessary for the synthetic system, but without the requirement to deploy the additional servers procured to support the DISTE. Therefore, phase 3 and phase 4 are interchangeable, or can be run simultaneously should the resource become available.

(5) **Build.**

(a) **Servers.** The change team supported by the DST are to install the servers, Storage Area Network (SAN) and core switches in the DISTE Network Equipment Room (NER) and configure them as part of the management VLAN utilising the cross-site fibre connection to the DISTE facility; the servers are to be configured to join the TLAN (OS) HA cluster and TLAN(S) HA cluster; the SAN(s) are to be configured to mirror the existing SANs in their respective networks. The servers are to be configured to load share and provide resilience.

(b) **PCs.** The change team, assisted by the DST, is required to build the PCs remotely across the network.

(c) **Documentation.** The DST is to ensure that all relevant documentation required as per the JITG transition process is provided to the JITG CIS SVCS team, and that all services are checked prior to transition into live operation.

(e) **Configuration.** The DST shall be responsible for configuring all bespoke synthetic applications, including importing scenario data. The service demarcation point or junctions of maintenance will be agreed after the system has been integrated and tested.

(6) **Support.**

(a) **Service Support Expertise.** Service support of the DISTE synthetic package will require a level of expertise Redacted information

(b) **Additional Requirements.** The DST is to work in partnership with the ITSM Ops team, but will also be responsible for creation, deletion, modification and management of Active Directory (AD), import/export (IMPEX) of data to and from the synthetic system(s) as well as providing any specific application accounts for use by the DISTE.

(c) **Configuration.** The DST is to be responsible for DISTE synthetic software configuration issues.

(d) **Working Approach.** An integrated and co-operative approach is desired to support the system that benefits the whole of JITG training.

(7) **Disposal.**

(a) **Data Security.** JITG CIS Services shall be responsible for the secure sanitisation and disposal of data storage equipment.

(b) **Retained Data Storage.** The DST shall be responsible for ensuring that all data to be retained is removed and stored in an appropriate manner in accordance with JSP 440 prior to disposal.

(c) **Physical Equipment.** Physical equipment carcasses are to be disposed of through the JITG QM's chain, ensuring that the DISTE AinU is updated.

c. **Servicing.** All programming, testing and network outages will be scheduled through the governance and management process and attended by a JITG CIS SVCS representative.

d. **Known Constraints.** Any solution developed to meet the DISTE requirement must comply with the design principles developed by Defence Training and Education Capability (DTEC). These include:

(1) **DMSP.** Mandating the use, and re-use, of the DTEC Modelling & Simulation (M&S) Standards Profile (DMSP) Version 3.0. Para 28, a.

(2) **Exportable Synthetic and Simulation Data.** All synthetic and simulation environments shall be exportable to the DSC in the mandated formats. Para 28, b.

(3) **R&D**. No unauthorised work, research or development is to be carried out by the DST without prior agreement of the JITG Training Board and DSC. All developments – products, capabilities or procedures - are the property of JITG and the MOD. Para 28, c.

e. **DISTE Use by Other Organisations.**

(1) **Non-JFC Use.** The DISTE capability and its facility will be available to organisations outside JFC to exploit for their own training events but must be processed and agreed at the Training Board in line with established JITG training practices. Para 29, a.

(2) **3rd Party Use.** Use of DISTE facilities to support 3rd party exercises may be in addition to the Schedule of Work in support of the DISTE-XP, but should be agreed within the mechanism already described. Para 29, b.

f. **Assumptions Summary.**

(1) **Geospatial Data.** It is assumed that any solution for DISTE will be able to provide Geospatial data output for inclusion in the DSC data repository. Para 30, a.

(2) **Cyber.**

(a) It is assumed that the DST will have achieved and maintain Cyber Essentials Plus Certification ways of working throughout its contract.

(b) It is assumed that synthetic generation of cyber-attacks, and responses to the same, will only occur on dedicated training systems. Para 30, b, (2).

(3) **Allies.** It is assumed that interoperability between Allied and coalition partner OPINT systems need only be emulated to enable the training objectives to be met. Para 30, c.

(4) **New Training Events.** It is assumed that preparation for new major training events can occur simultaneously with on-going training events, and that

		subsequent training events can be implemented within 4 weeks of any exercise. Para 30, d. (5) **CIS.** It is assumed that Operational CIS representation is to be as close to the real Operational CIS Human-Computer interface (HCI) as feasible i.e. emulated. Para 30, e.	

Table 1. Key Performance Indicators and Performance Indicators.

Acceptance

Approved by:

_____ Date: _____

<Approvers Name>
<Approvers Title>

ABBREVIATIONS

AAR	After Action Reviews
AIRINT	Air Intelligence Wing
AoR	Area of Responsibility
ASpecs	Assessment Specifications
AStrat	Assessment Strategy
AV	Audio Visual
BCP	Business Continuity Plan
BPSS	Baseline Personnel Security Standard
CAOC	Coalition Air Operations Centre
CDI	Chief of Defence Intelligence
CEB	Customer Executive Board
CGS	Chief of the General Staff
CIS	Communications and Information Services
Civ	Civilian
COESCEN	Contemporary Operation Environment Scenario
COIN	Counter Insurgency
CONEMP	Concept of Employment
CONOP	Concept of Operations
CONUSE	Concept of Use
COTS	Commercial off the Shelf
CUB	Commanders Update Brief
CV	Curriculum Vitae
C4ISR	Command, Control, Communications, Computers, Intelligence, Surveillance and Reconnaissance
DATE	Decisive Action Training Environment
DBS NSV	Defence Business Services National Security Vetting
DBS	Disclosure Barring Service
DCDC	Development Concepts and Doctrine Centre
DCI3	Director of Cyber Intelligence and Information Integration
DDA	Disability Discrimination Act
DEFCON	Defence Readiness Condition
DI	Defence Intelligence
DII	Defence Information Infrastructure
DIRM	Defence Information Reference Model
DISTE	Defence Intelligence Synthetic Training Environment
DISTE-XP	DISTE Exercise Plan
DLoD	Defence Lines of Development
DMSP	DTEC Modelling & Simulation (M&S) Standards Profile
DS	Directing Staff
DSAT	Defence Systems Approach to Training

DSC	Defence Simulation Centre
DSD	Defence Strategic Direction
DST	DISTE Support Team
DTEC	Defence Training and Education Coherence
DTTT	Defence Train the Trainer
EO	Enabling Objectives
ESR	Exercise Service Request
EXCON	Exercise Control
FM	Facilities Management / Manager
FOC	Full Operating Capability
FTS	Formal Training Statement
GFE	Government Funded Equipment
H&S	Health and Safety
HCI	Human-Computer Interface
HICON	Higher Control
HOTO	Hand Over Take Over
HR	High Readiness
HUNINT	Human Intelligence
IAG	Industry Advisory Group
iaw	in accordance, with
iHub	Information Hub
IMINT	Imagery Intelligence
Intreps	Intelligence Reports
Intsums	Intelligence Summary
IOC	Initial Operating Capability
ISR	Intelligence, Surveillance and Reconnaissance
ISS	Information Systems and Services
IT	Information Technology
ITO	Integrated Training Objective
ITSM Ops	IT Service Manager Operations
JAIC	Joint Air Intelligence Course
JFC	Joint Forces Command
JITG	Joint Intelligence Training Group
JMIC	Joint Maritime Intelligence Course
JR	Junior Ranks
JSP	Joint Services Publication
KPI	Key Performance Indicator
LOCON	Lower Control
MEL	Major Events List
MIL	Major Injects List
Mil	Military

MOD	Ministry of Defence
MODNET	Ministry of Defence Network
MOP	Measurement of Performance
MOTS	Modified off the Shelf
MTM	Management Training Manual
NID	Naval Intelligence Division
NER	Network Equipment Room
NGO	Non-Government Organisation
NSV	National Security Vetting
(OS)	Official Sensitive
OC	Officer Commanding
OFMI	Officer Military Intelligence
OPAIC	Operational Air Intelligence Course
OPAIC(R)	Operational Air Intelligence Course (Reservists)
OpInt	Operational Intelligence
OPMI 1 / 3	Operator Military Intelligence Class 1 / Class 3
OPS	Operational Performance Statement
OPSEC	Operational Security
Ops Team	Operations Team (to include DST, SMEs, Trg Wing Trainers/DS)
ORs	Other Ranks
ORBAT	Order of Battle
OS	Operating System
OSINT	Open Source Intelligence
PAG	Partners Across Government (previously Other Government Departments (OGD))
PAT	Portable Appliance Testing
PI	Performance Indicator
PM	Programme Manager / Project Manager
PPoD	Partnership Phases of Development
PXR	Post Exercise Report
QM	Quartermaster
QS	Quality Standard
RAID	Risks, Actions, Issues and Dependencies
ResFin	Resources and Finance
RFC	Request for Change
RFI	Request For Information
RMP	Recognised Maritime Picture
ROE	Rules of Engagement
RSMS	Royal School of Military Survey
(S)	Secret
SAN	Storage Area Network
SC	Security Check

SCCM	System Centre Configuration Manager
SDSR	Strategic Defence and Security Review
SHEP	Safety, Health, Environmental Protection
SIDECON	Sideways Control
SIGACT	Special Interest Group on Algorithms and Computation Theory
SIGINT	Signals Intelligence
SME	Subject Matter Expert
SNCO	Senior Non-Commissioned Officer
SNMGM	Standing NATO Maritime Group Mediterranean
SO	Standing Order
SON	Statement of Need
SOR	Statement of Requirement
SOW	Statement of Work
SOTR	Statement of Training Requirement
SOTT	Statement of Training Task
SP	Service Provider
SQEP	Suitably Qualified Experienced Personnel
sS	Single Services
STE	Synthetic Training Environment
SVCS	Services
TDD	Training Delivery Division
TDW	Training Delivery Wing
TE&S TA	Training, Education & Simulation (TE&S) Technical Authority (TA)
TFHQ	Task Force Headquarters
TGHQ	Task Group Headquarters
TL	Team Leader
TLAN	Training Local Area Network
TLAN(T)	TLAN Test-bed
TLB	Top Level Budget holder
TO	Training Objective
TPS	Training Performance Standard
TRA	Training Requirements Authority
TSD	Training Services Division
TSS	Technical Support Section
TY	Training Year
UIO	Unit Intelligence Officer
UKEO	United Kingdom Eyes Only
UR	User Requirement
URD	User Requirement Document
VBS2	Virtual Battlespace Simulator v2
VfM	Value for Money

VHDX	Hyper Virtual Hard Disk
VHDD	Virtual Hard Disk Drive
VLAN	Virtual Local Area Network
WISREP	Weapons Intelligence Section Reports
WITIA	Warfare In The Information Age
WF	White Force
WOW	Ways of Working
WO1	Warrant Officer Class 1