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of Defence



Maritime Command and Staff Trainer (MCAST)

Annex K – Key Performance Indicators (KPIs)

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MARITIME COMMAND AND STAFF TRAINER
Key Performance Indicators (KPIs)

1. KPI Table

Below is a table to summarise the distinct list of Key Performance Indicators (KPIs) used within the Maritime Command and Staff Trainer (MCAST) contract:

The payments at Annex J are subject to the performance measures in the KPI table below:

KPI Subject	Metrics	Comments to Inform Sentencing (Not Exhaustive)	Impact on KPI
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KPI Subject	Metrics	Comments to Inform Sentencing (Not Exhaustive)	Impact on KPI
	<p>support/advice under the Royal Navy's direction.</p> <p>K2.3 Targets Support. Targets Subject Matter Expert (SME) support is to be available throughout the execution working period of the relevant exercise to provide Targets support/advice under the Royal Navy's direction.</p> <p>K2.4 Real Life Support (RLS). RLS is to be available throughout the execution working period and the STARTEX/Tear Down phases of the relevant exercise to provide RLS support/advice under Royal Navy direction.</p> <p>K2.5 Observers. Observer SME(s) are to be available throughout the execution phase of the relevant exercise to provide Observer support/advice under Royal Navy direction.</p> <p>K2.6 White Force/Other SMEs. The contracted White Force/Other SMEs are to be available throughout the execution phase of the relevant exercise to provide SME support/advice under Royal Navy direction.</p>		
<p>KPI 3</p> <p>Execute Combat Information Systems (CIS)</p>	<p>The Operational Availability of the MCAST System for each exercise shall be no less than 98%.</p>	<p>Downtime occurs when the Training Audience has the flow of the exercise and/or the generation of their core output interrupted by a Failure of the MCAST System.</p> <p>Impact to exercise delivery and Training Audience to be assessed through 'Sentencing' of 'in-use'</p>	<p>K3.1: One SC per rounded percentage point below specified 98% availability for the entire exercise (total training hours for that exercise) where it is determined the</p>

KPI Subject	Metrics	Comments to Inform Sentencing (Not Exhaustive)	Impact on KPI
		hardware and software only. Impact will be determined on the Audience's ability to meet the Training Objective.	event causing the downtime is a Major Failure.
KPI 4 Exercise Execution – Identification of Persistent Minor Failures	Ensure successful delivery of the exercise by rectifying identified persistent Minor Failures. The cumulative impact of persistent Minor Failures at an average of 4 Minor Failures per exercise day shall be considered for KPI sentencing.	Impact to exercise delivery and the Training Audience to be assessed by the Lead User through 'Sentencing' of 'in-use' hardware and software only.	One SC if the Preliminary Sentencing panel considers this metric is breached, per training exercise.
KPI 5 Exercise Readiness	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> <div></div> </div>	<div> <div></div> <div></div> <div></div> </div>
KPI 6 Social Values	Ensure the social values outlined in Annex P are upheld for the duration of the contract. K6.1 Effective measures to deliver the following benefits through the contract:	The Authority will determine if the reports comply with the proposed reporting structure set out in Annex P Questions SV1 and SV2, with monthly monitoring and quarterly reporting.	One SC if any metric has been breached.

KPI Subject	Metrics	Comments to Inform Sentencing (Not Exhaustive)	Impact on KPI
	<p>Influence staff, suppliers, customers and communities through the delivery of the contract to support environmental protection and improvement.</p> <p>Reporting metrics:</p> <ul style="list-style-type: none"> • Number of people-hours spent protecting and improving the environment under the contract, by UK region. • Forecast reduction in emissions of greenhouse gases arising from the performance of the contract, measured in metric tonnes carbon dioxide equivalents (MTCDE). • Forecast reduction in water use arising from the performance of the contract, measured in litres. • Forecast reduction in waste to landfill arising from the performance of the contract, measured in metric tonnes. <p>K6.2 Effective measures to deliver the following benefits through the contract: Demonstrate action to identify and tackle inequality in employment, skills and pay in the contract workforce.</p> <p>Reporting Metrics:</p>		

KPI Subject	Metrics	Comments to Inform Sentencing (Not Exhaustive)	Impact on KPI
	<ul style="list-style-type: none"> • Total percentage of full-time equivalent (FTE) people from groups under-represented in the workforce employed under the contract, as a proportion of the total FTE contract workforce, by UK region. • Number of FTE people from groups under-represented in the workforce employed under the contract, by UK region. • Total percentage of people from groups under-represented in the workforce on apprenticeship schemes (Level 2, 3, and 4+) employed under the contract, as a proportion of all people on apprenticeship schemes (Level 2, 3, and 4+) within the contract workforce, by UK region. • Number of people from groups under-represented in the workforce on apprenticeship schemes (Level 2, 3, and 4+) employed under the contract, by UK region. • Total percentage of people from groups under-represented in the workforce on other training schemes (Level 2, 3, and 4+) employed under the contract, as a proportion of all people on other training schemes (Level 2, 3, and 4+) within the contract workforce, by UK region. 		

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Annex K – Key Performance Indicators

2. Definitions

“Lead User” The Lead User for the MCAST capability is Commander Fleet Operational Sea Training (COMFOST), as the Training Delivery Authority (TDA), who will own the Training and Organisational Defence Lines of Development (DLOD) deliverables. Training delivery will be delegated to Joint Tactical Exercise Planning Staff (JTEPS) assisted by Tier 1 Training Providers (TPs).

“Agreed Delay” An Agreed Delay shall mean any request made to delay the start date of the training exercise and agreed by the Lead User after the lock in date but prior to the commencement date of the exercise.

Such requests are to be made in writing to the Lead User as soon as a practicable after such a delay is foreseen with a response to be given within five working days.

“Failure” A Failure, for the purpose of the KPIs, means an incident that results in the MCAST System not operating in accordance with the Statement of Work at Annex A. The incident start time shall be the point at which the Contractor becomes aware of the Failure.

“Major Failure” is any loss of System capability which prevents or has a severe impact on the achievement of Training Objectives or AAR. The downtime for a Major Failure shall contribute to the unavailability of the System.

“MCAST System” The system used by the Contractor to deliver the exercise (including AAR) in accordance with the Statement of Work at Annex A. The MCAST System does not include any GFA that may be utilised by the Contractor as part of the exercise delivery.

“Minor Failure” When there is no effect on the delivery of training/no impact to the achievement of Training Objectives, but a repair/maintenance activity must be undertaken. This excludes scheduled maintenance but includes those actions which are necessary to correct faults identified during an exercise, and any faults identified during any stage of the program which impede functionality. The downtime for a Minor Failure shall not count towards the unavailability of the System but it shall be recorded.

“Prevention of the Training Objective being achieved” This shall be determined by the Lead User or the delegated authority on their behalf. This preliminary sentencing will be done at the end of the exercise.

“Training Objective” the statements of training output to ensure that the training activity is focussed with a definite purpose such that the Defence need is met.

The **Operational Availability (A_o)** shall mean the availability of the MCAST System and shall be calculated, in the context of total number of training hours, using the following formula:

$$A_o = \frac{UPTIME}{UPTIME + DOWNTIME} \times 100\%$$

Where:

a. Uptime is defined as the total time during an exercise that the System should be available for scheduled training and Training Objectives can be delivered.

b. Downtime is defined as the total time during an exercise that the System is not available for scheduled training (i.e. the total time taken from defect notification to defect rectification) and Training Objectives cannot be delivered.

The Lead User shall inform the contractor at the earliest opportunity that a fault/issue has developed and at Preliminary Sentencing decide/declare if Training Objectives could or could not be achieved for each failure reported. This shall be the incident start time to record.

“Rounding” In all cases when determining a trigger for the Availability KPIs (i.e. KPI 3) the Operational Availability (A_o) value shall be rounded down to the nearest whole number.

Example:

KPI 3 requires a 98% availability. If A_o is determined as 96.9%, it shall be rounded down to the nearest whole number resulting in 96%, triggering a review of KPI 3 and the application of two SCs (as per the “Impact on KPI” column entry for this KPI: “One SC per rounded percentage point below specified 98% availability...”).

“Available Quarterly Performance Payment” This refers to the portion of the quarterly payment that is subject to the remedies outlined in Annex K. The value of any Service Credits deducted in a quarterly period shall not exceed the value of the Available Quarterly Performance Payment. Refer to the Stage Payment Plan (Annex J) for more detail.

3. Worked Examples

[illegible]

3.2 KPI 2 Exercise Execute/Delivery

- 3.2.1 For each element of agreed support, no absentees were recorded against the agreed resource. No Service Credit deducted under KPI 2.
- 3.2.2 There was one absentee against Scenario Support for two days of the exercise, and one absentee against Simulation Support for one day of the exercise, recorded against the agreed resource. The Lead User determined these absentees had a negative impact

on the Training Audience. A total of three Service Credits are deducted under KPI 2. This leads to a performance deduction but does not impact delivery of the service enough to require a Rectification Plan to be submitted to the Authority as per Clause 6.1.

- 3.2.3 During the exercise it has been recorded that several contractors have been absent over six days of the exercise, this has been deemed by the Lead User to have a negative impact on the Training Audience. A total of eight Service Credits are deducted under KPI 2. This leads to the full quarterly performance deduction from the quarterly payment and impacts delivery of the service requiring a Rectification Plan to be submitted to the Authority as per Clause 6.1.2

3.3 KPI 3 Execute CIS

- 3.3.1 During a 10 day (8-hour day) exercise the MCAST System is unavailable for 60 minutes. During the 60 minutes where the MCAST System is unavailable, the Training Audience continues to train despite loss of Opposing Forces (OPFOR) trackers. Therefore, at Preliminary Sentencing the Lead User determines the failure had no effect on the delivery of training/no impact to the achievement of Training Objectives. This is logged as a Minor Failure. No Service Credits are deducted under KPI 3.

- 3.3.2 During a 10 day (8-hour day) exercise the MCAST System is unavailable for 150 minutes . The operational availability for the training exercise is:

$$A_o = (100 \times (4650 / (4650+150))) = 96\%. \text{ Hence K3 is triggered.}$$

During the 150 minutes where the MCAST System is unavailable, the Training Audience cannot continue to train and the Lead User determines that the Training Objective is impacted negatively as a result. This is logged as a Major Failure. Two Service Credits are deducted under KPI 3.

- 3.3.3 During a 10 day (8-hour day) exercise the MCAST System is unavailable for 220 minutes in total across 5 separate failures.

Failure 1: 60 mins

Failure 2: 40 mins

Failure 3: 50 mins

Failure 4: 50 mins

Failure 5: 20 mins

For four (failures 1–4) of the five failures comprising the 200 minutes where the MCAST System is unavailable, the Training Audience could not continue to train and the Lead User determines that the Training Objective is impacted negatively as a result. This is logged as four Major Failures, failure 5 is logged as a Minor Failure.

The operational availabilities for the training exercise is:

$$A_o = (100 \times (4600 / (4600 + 180))) = 95\%$$

This is logged as five Major Failures. Three Service Credits are deducted under KPI 3.

3.4 KPI 4 Exercise Execution – Identification of System Persistent Minor Failures

3.4.1 During a 10 day (8-hour day) exercise the MCAST System is unavailable for 60 minutes on 1 occasion.. At Preliminary Sentencing the Lead User determines the failure had no effect on the delivery of training/no impact to the achievement of the Training Objectives. This is logged as 1 Minor Failure.

1 Minor Failure is under the daily average of 4 required to trigger KPI 4, therefore, no Service Credit is deducted. =

3.4.2 During a 10 day (8-hour day) exercise the MCAST System is unavailable for a total of 180 minutes. There are 20 periods of unavailability, two periods on each day of the exercise. At Preliminary Sentencing the Lead User determines the failure had no effect on the delivery of training/no impact to the achievement of the Training Objectives . This is logged as 20 Minor Failures.

2 Minor Failures per day is under the daily average of 4 required to trigger KPI 4, therefore, no Service Credit is deducted.

3.4.3 During a 10 day (8-hour day) exercise the MCAST System is unavailable for a total of 480 minutes. There are 40 periods of unavailability, 4 periods on each day of the exercise

At Preliminary Sentencing the Lead User determines the failure had no effect on the delivery of training/no impact to the achievement of the Training Objectives. These are logged as 40 Minor Failures.

As 4 Minor Failures per day is equals the daily average of 4 required to trigger KPI 4, KPI 4 is triggered incurring loss of a Service Credit. A total of one Service Credit has been deducted under KPI 4 for this training exercise.

3.7.1 The Contractor has provided a comprehensive quarterly report covering all the specified monthly reporting metrics. No Service Credits are deducted for KPI 6.

3.7.2 The Contractor has not provided reports for SV1 or SV2 triggering KPIs K6.1 and K6.2. Two Service Credits are deducted.

The sentencing of incidents for MCAST shall be comprised of two stages:

- 4.1 **Preliminary Sentencing** – The initial allocation of an incident, typically at the same time as occurrence. This preliminary sentence shall be assigned by the Lead User or their representatives, which shall be captured within the MCAST monthly report to the Authority. It does not constitute an authoritative sentence which will occur at Formal Sentencing.
- 4.2 **Formal Sentencing** – This shall be conducted by the Incident Sentencing Committee (ISC), to be held in conjunction with the quarterly progress meetings. The allocation of a preliminary sentence to all incidents acts as a useful expedient for reducing discussion on routine incidents where the sentencing code is clear and is a useful start to discussion. This enables the ISC to concentrate on matters that are unclear or contentious. Evidence² to support the ISC must be provided to the Authority 10 working days prior to the ISC meeting for distribution to members. The Authority ILS Manager shall act as arbitrator where agreement cannot be reached.
- 4.3 ISC members will be called from the Authority, Lead User, Prime Contractor, and sub-contractors as required. Nominally the Panel will consist of the members listed below. Additional attendees may be invited at the discretion of either the Ministry of Defence (MOD) or the Contractor.

Authority	Users	Contractor
ILS Manager	Lead User	ILS Manager
Project Manager	User representative	Project Manager
Project Engineer	Training Audience representative	Project Engineer
Commercial		Commercial
As Required		
MCAST Section Lead	Sponsor	Director

² The Contractor shall record all Major and Minor Failure reports (and all following process information) in the Performance Tracker and Monthly/Quarterly Reports. These will be reviewed and confirmed as part of the ISC meeting.

Failures caused by the loss of infrastructure/services, Operator error, Accident, Misuse and Neglect (AM&N) by Users, and GFX equipment/software shall not count towards unavailability but shall be recorded. These failures shall be confirmed at the ISC.

5. Service Credits

- 5.1 The Service Credits shall be incurred per exercise and totalled to calculate the quarterly figure. The Contractor shall deduct the Service Credits from the Quarterly Performance Payment for the quarter in which they were incurred. The Service Credits shall be agreed or determined following the provision of the Performance Tracker in Appendix A to Annex K after each exercise, in accordance with the Statement of Work at Annex A. Following the deduction of the Service Credits the total amount payable by the Authority in respect of that Quarterly Performance Payment shall be invoiced by the Contractor.
- 5.2 If any Service Credits are accrued by the Contractor in the last quarter of the Contract Period, the amount of those Service Credits may be set off by the Authority against any sums due from the Authority to the Contractor or may be recoverable by the Authority from the Contractor as a debt.
- [REDACTED]
- 5.4 Service Credit Ceiling - The Contractor shall not in any given payment period be subject to the deduction of Service Credits which have a value in excess of 100% of the Available Quarterly Performance Payment.

6. Persistent Failures

- 6.1 Where the Contractor incurs repeated Service Credits in any of the following combinations a Rectification Plan will be required to be submitted to the Authority:
- 6.1.1 Service Credits deducted over the same KPI over two consecutive Quarters.
 - 6.1.2 Six (6) or more Service Credits deducted in a single Quarter.
 - 6.1.3 Eight (8) or more Service Credits deducted over two consecutive Quarters.
- 6.2 The draft Rectification Plan shall:
- 6.2.1 Identify the cause of those Service Credit deductions against KPIs,
 - 6.2.2 Specify the steps that the Contractor proposed to take to rectify and avoid any recurrence of such Service Credits,
 - 6.2.3 The programme of activity and timescales for rectifying the cause of such Service Credits; and
 - 6.2.4 Be in sufficient detail for it to be properly evaluated by the Authority.
- 6.3 If the Authority considers that the draft Rectification Plan provided by the Contractor is unacceptable in that:
- 6.3.1 It is insufficiently detailed to be properly evaluated; and / or
 - 6.3.2 The programme and timescales proposed in it are not acceptable; and/or
 - 6.3.3 It is unlikely to sufficiently rectify the cause of such Failures and / or Unavailability.
- The Authority shall as it considers appropriate, specify a period of time for the Contractor to revise the draft Rectification Plan.
- 6.4 Where the Authority specifies a period of time for the Contractor to revise the Rectification Plan:
- 6.4.1 The Contractor shall within that period produce such revised drafts of the Rectification Plan as the Authority may require and shall take into account in such revised drafts any comments by the Authority so as to address the issues raised;
 - 6.4.2 If at the end of the specified period the Authority considers that the revised Rectification Plan is unacceptable, it may reject the draft Rectification Plan.
- 6.5 Where a Rectification Plan is agreed by the Authority, the Contractor shall carry it out in accordance with its provisions including any timescales specified in it (or, where no timescales are so specified, in accordance with such timescales as the Authority may require).

- 6.6 The Contractor shall provide to the Authority, in accordance with the timescales specified in the Rectification Plan (or, where no timescales are so specified, in accordance with such timescales as the Authority may require):
 - 6.6.1 Regular updates on the implementation of the Rectification Plan; and
 - 6.6.2 Evidence of the implementation of the Rectification Plan, and shall, if required by the Authority and at the Contractor's expense, take all necessary steps to enable the Authority to monitor the implementation of the Rectification Plan.
- 6.7 If, the Contractor has:
 - 6.7.1 Failed to provide the Authority with a draft Rectification Plan which the Authority has agreed; or
 - 6.7.2 Failed to implement the Rectification Plan in accordance with its terms or, despite its implementation, the Rectification Plan fails to rectify the cause of such Failures and / or nonavailability.
- 6.8 Subject to the above, the Authority may, as it considers appropriate:
 - 6.8.1 Give the Contractor a further opportunity to provide and / or implement a revised Rectification Plan (to be agreed by the Authority), in accordance with such timescales as the Authority may require; or
 - 6.8.2 Treat such event as a material breach of the Contract in accordance with Clause 40 (Contract Termination for Contractor Default). This shall constitute a material breach.

7. Continuous Review

- 7.1 The Authority will continuously review the KPI and Service Credit mechanism, where required, changes will be agreed in accordance with Appendix H (Change Control Procedure).