Mission Analytics Review System (MARS)

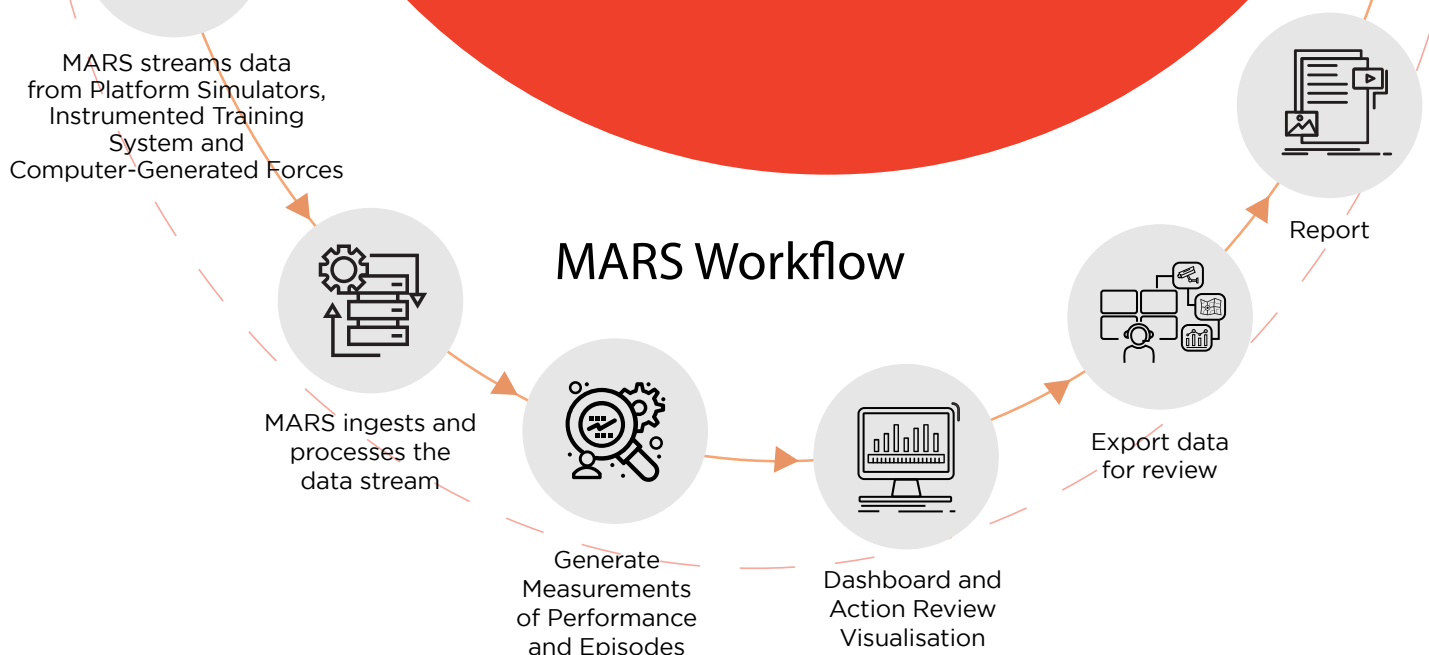## Enhance Training Performance with Training Analytics

Traditional military training performance reviews are often conducted through manual observation and recording by trainers during exercises. These evaluations tend to rely heavily on the subjective judgment and experience of individual trainers, which can sometimes lead to inconsistencies and a lack of standardised measurement.

Trainers face a significant workload in managing the collection and analysis of training data, especially when dealing with multiple trainees or larger units. This manual process makes it difficult to scale assessments efficiently or to systematically track progress over time. Furthermore, extracting meaningful trends and actionable insights from manually recorded data is challenging, which can hinder continuous improvement efforts.

Leveraging technology, we develop a cutting-edge solution, the Mission Analytics and Review System, to empower our customers to harness data digitally for training performance and efficiency.

The system is designed to provide comprehensive after-action reviews for military training and operations. To reduce dependency on human resources, Mission Analytics and Review System is scalable and capable of performing analyses ranging from small to large scale. It provides objective training analytics and visualisation of training data and performance through automated data mining, trend analysis, and infographics, as well as evidence-based competency assessments for trainees and trainer evaluations.

Mission Analytics and Review System connects to and gathers information from computer-generated forces, platform simulators and instrumented training systems, enabling the review of activities across multiple units during training, the analysis of tactics, techniques and procedures at the platform level and the quantification of group-level performance.

MARS Workflow

Set-up Training Scenario

MARS streams data from Platform Simulators, Instrumented Training System and Computer-Generated Forces

MARS ingests and processes the data stream

Generate Measurements of Performance and Episodes

Dashboard and Action Review Visualisation

Export data for review

Report

BENEFITS

By leveraging The Mission Analytics and Review System, participants can share their observations and reflections in real-time, ensuring that feedback are recorded in the system. This fosters seamless collaboration among diverse stakeholders in the process, whether they are trainers or trainees.

This digitised approach provides a single source of truth that consolidates all observations and reflections, making information easily accessible and transparent to everyone involved. As a result, trainers can monitor progress, identify gaps and tailor their strategies more effectively, while trainees gain the opportunity to engage actively, track their own development and learn from feedback.

Furthermore, digitisation provides detailed records that can be reviewed at any time, ultimately enhancing the quality and impact of training programs.

KEY FEATURES

Automated Performance Metrics

• Reduce time spent quantifying mission performance

Intelligent Episode Mining

• Quickly identify key engagements and assess attrition with advanced data mining capabilities.

During Action Review

• Review training progress, enabling immediate feedback and faster learning cycles.
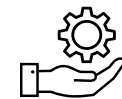
Seamless Data Export

• Enable extraction of datasets and reports for external review and analysis.
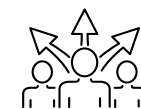
ACTION REVIEW

ACCESS PAST RESULTS

Access a library of past training missions, review results of different tactical outcomes and plan your exercise
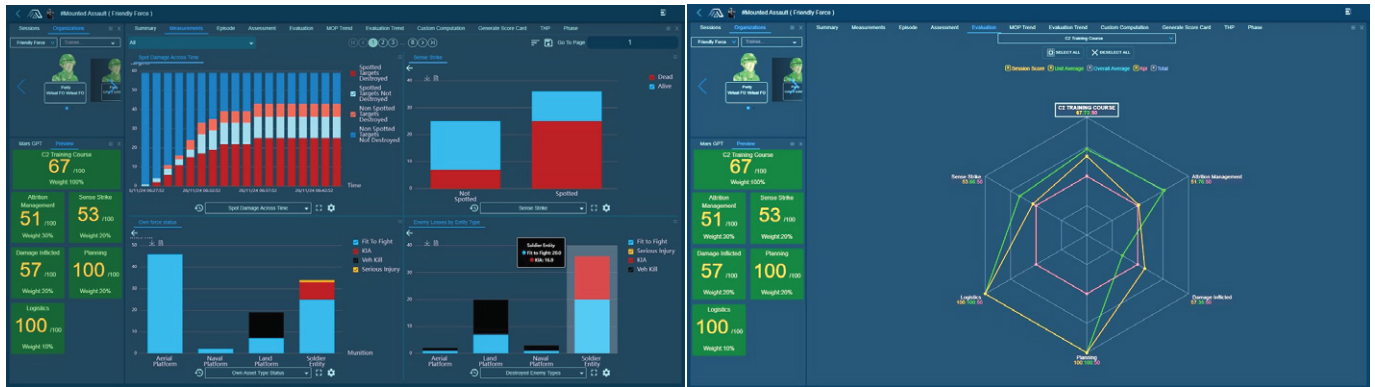
MONITOR MISSION ANALYTICS IN REAL TIME

View the "live" data stream and real-time analytics of the mission for intelligent sense-making. Gather insights from crucial events and plan your tactics

RECEIVE INSTANT TRAINING FEEDBACK

Access training performance at the team and individual levels with immediate feedback for improvement and future mission success
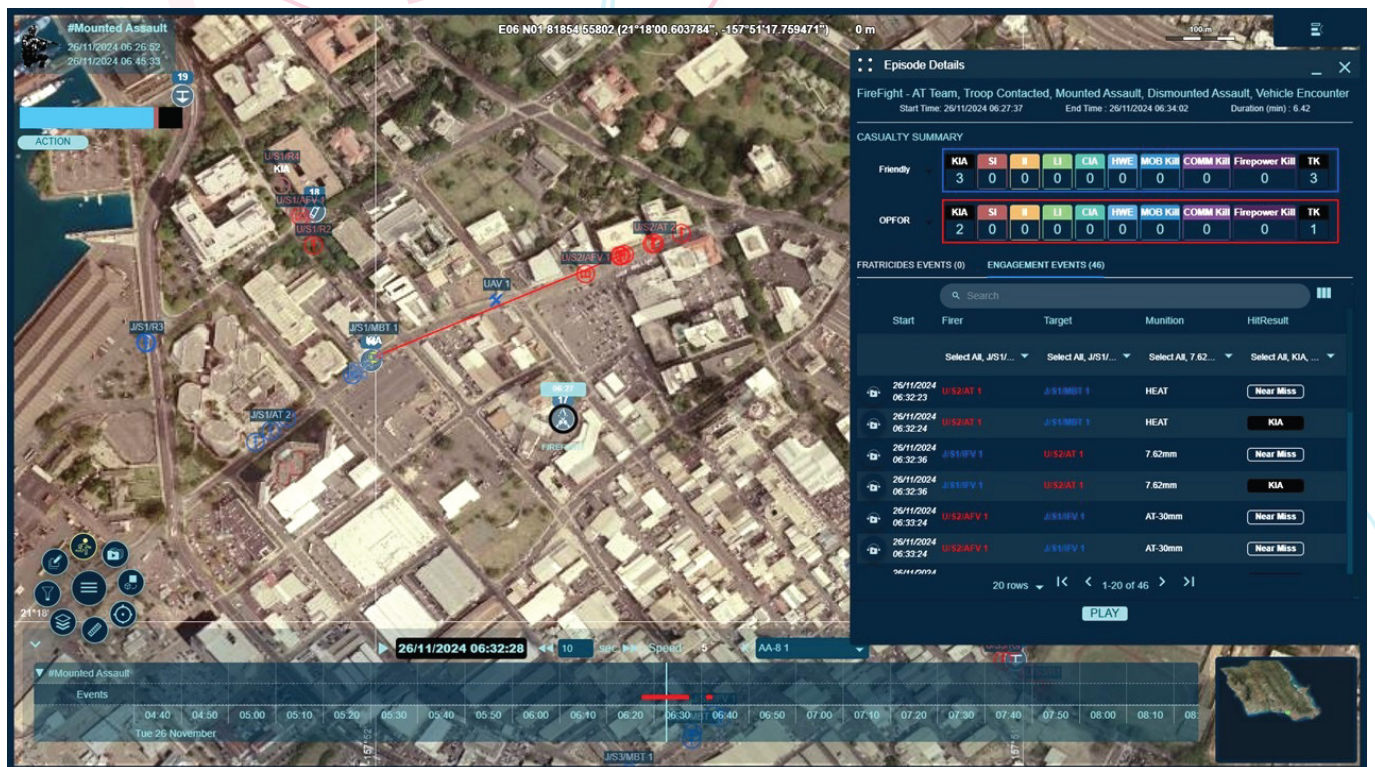
MARS allows trainers to view automatically computed measurements, analyse timelines of engagement events and evaluate session results against KPIs. It supports trend measurements and scoring across sessions, enabling trainers to slice and dice datasets to extract meaningful insights and present them through various types of charts.

Computed measurements

Evaluate session results against KPIS

The platform also offers episode overlays, providing an overview of engagements from multiple domains. Trainers can use detailed episode data to reduce the time spent assessing battle damage and can playback session data during or after training without disrupting the training flow.
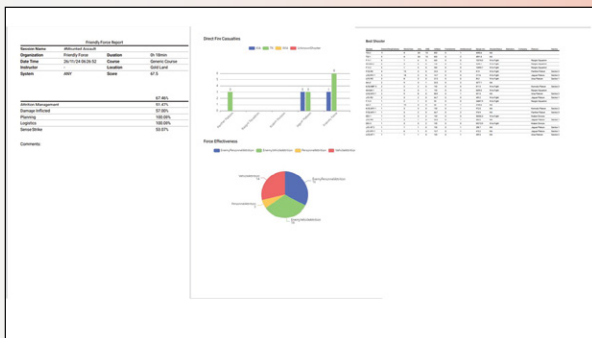

Fire Fights Battle Damage Assessment

Finally, MARS allows trainers to compile and export training data, which can be provided to trainees as take-home packages in editable formats. This ensures that trainees have access to detailed records of their sessions for further review and learning.

Geospatial Annotation for debrief and review

Export to PDF Reports

Export to excel reports

PRODUCT OFFERINGS

Depending on whether there's a need to analyse VR-Forces specific messages or simply to just analyse an integrated training comprises of different systems talking on HLA/DIS, system integrators can purchase the package of MARS that would best fit their requirements and budget.

FEATURES	MARS Lite	MARS	MARS VRF Lite	MARS VRF
Episode Mining	✓	✓	✓	✓
Attrition Measurements	✓	✓	✓	✓
Weaponry Related Measurements	✓	✓	✓	✓
Exportable Data	✓	✓	✓	✓
During Training 2D Playback		✓		✓
Spot Report Related Measurements			✓	✓
Aggregate Simulation Analysis			✓	✓
Logistics Related Measurements			✓	✓

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