Mission Command Staff Trainer (MCST)

New Material Introductory Brief

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What is MCST?

- MCST is a software tool used to train Battle Command (BC) staff officers in operations of the Mission Command system-of-systems in a pre-deployment environment

- MCST stimulates ABCS WMA systems with situation awareness data and tactical messages that add realism to staff training drills

- MCST supports multiple data exchange protocols:

  | PASS/DDS | USMTF |
  | VMF | OTH-GOLD |

- MCST communicates with WMA systems through a unit's ABCS tactical network during staff training

- MCST is Microsoft Windows based and runs on readily available COTS computers

- MCST provides low overhead, garrison-based ABCS system-of-systems training without the need for large scale simulation exercises

- MCST is fielded from Battalion through Division to deploying AC, ARNG, and AR units via Unit Set Fielding, as well as to regional Mission Command Training Centers

- Units or training centers may use MCST to train, sustain or rehearse collective battle staff or ABCS operator skills
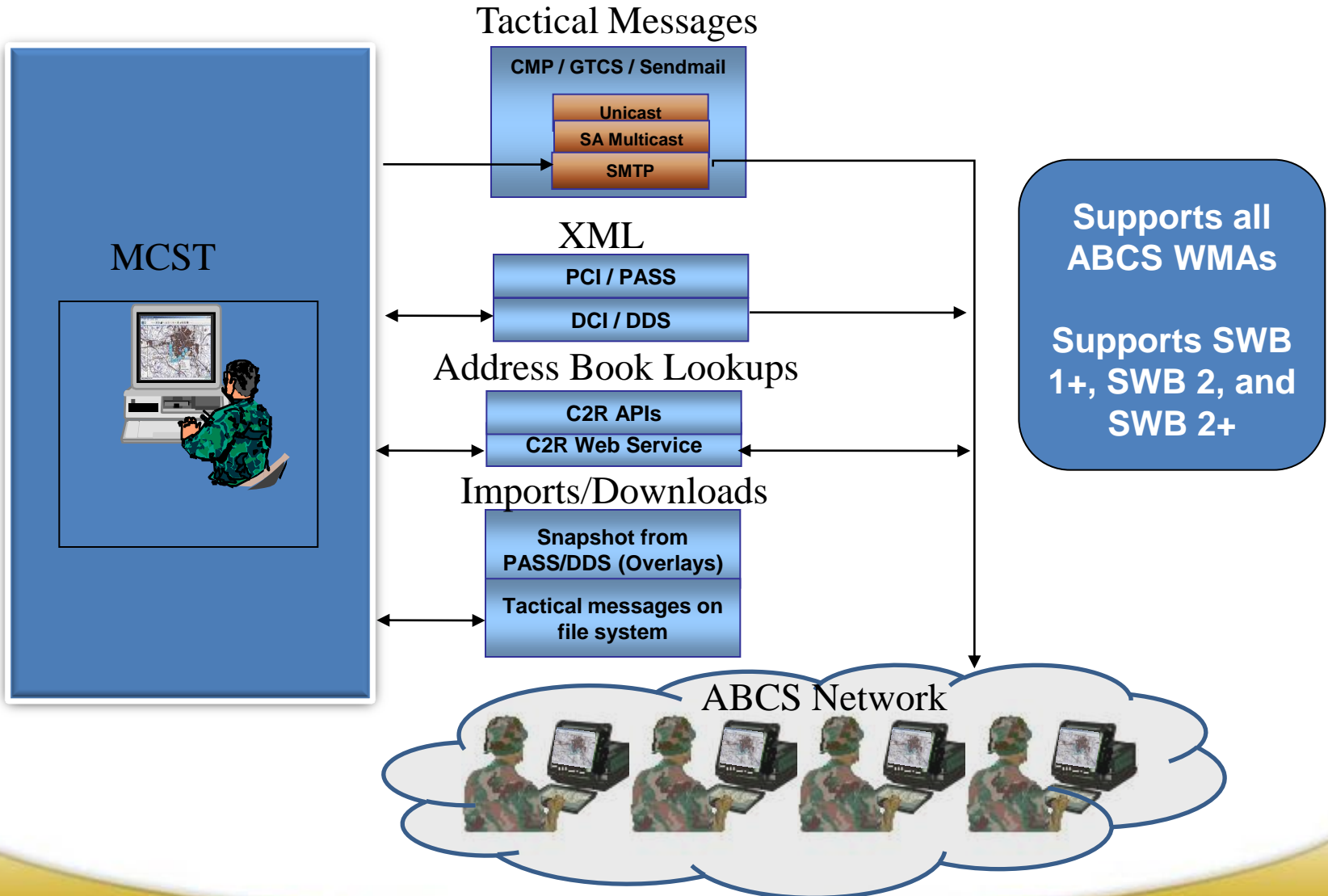
MCST Uses

Train:

- Battle staffs (battalion – corps)
- Refresh and sustain operator skills/cells and elements for example:
  - Command Post of the Future
  - Division G2
  - Corps G3
  - Brigade S2/3
  - Battalion S2/3
- Maintain proficiency of highly perishable Army Battle Command System skills (supports Battle Command as a Weapon System)
- Rehearse staff coordination
- Train-up for exercises and events
- Training of specific tasks and battle drills
- National Guard & Army Reserve training
- Battle rhythm establishment for the battle staff

MCST Architecture

Tactical Messages

CMP / GTCS / Sendmail

- Unicast
- SA Multicast
- SMTP

XML

- PCI / PASS
- DCI / DDS

Address Book Lookups

- C2R APIs
- C2R Web Service

Imports/Downloads

- Snapshot from PASS/DDS (Overlays)
- Tactical messages on file system

MCST

Supports all ABCS WMAs

Supports SWB 1+, SWB 2, and SWB 2+

ABCS Network

Supported Systems

- GCCS-A
- AMDWS
- C2PC
- AFATDS
- BCS3

- MCWS (CPOF)
- DCGS-A
- TAIS
- FBCB2 JCR
- JADOCS

MCST Features

- Produces and sends friendly and enemy force situation awareness data to WMA systems
- Provides a selection of editable events to stimulate WMA systems with:
  – Point-to-point tactical messages
  – SA multicast messages
  – Publish & subscribe service publications
- Events may be triggered immediately, at designated times, or relative to a StartEX time
- CADRG map view supports plotting of enemy positions and friendly unit movement
  – Friendly and enemy positions are displayed using MIL-STD-2525 icons
  – Friendly unit routes can be created, edited, and saved for later use
  – Positions are reported regularly as unit icons move along routes
  – Unit speed and altitude on route can be adjusted while moving
  – Multiple unit icons can move independently along a single route
  – Route waypoints can be repositioned even as unit icons move along the route
- Uses force information from the unit's C2R address book
  – Personalizes friendly force icons, URNs, unit names, and roles to unit being trained
  – Configures MCST to communicate with the unit's WMA systems

Messages Supported

Variable Message Format (VMF)

K02.01 – Fire Support Operations Check Fire Message
K02.04 – Fire Support Operations Call for Fire Message
K02.05 – Fire Support Operations Shell Report
K02.06 – Fire Support Operations Observer Mission Update
K02.09 – Fire Support Operations Target Data
K02.11 – Fire Support Operations Ammunition Inventory
K02.12 – Fire Support Operations Command To Fire
K02.14 – Fire Support Operations Message to Observer
K02.16 – Fire Support Operations End of Mission and Surveillance
K02.18 - Fire Support Operations Fire Unit Status
K02.22 – Fire Support Operations Subsequent Adjust
K02.37 – Fire Support Operations Observer Readiness Report
K02.40 – Fire Support Operations Cannon/Mortar Fire Orders
K02.44 – Fire Support Operations Target Element Data Entry
K02.47 – Fire Support Operations Launcher Configuration Update
K02.50 – Fire Support Operations Commanders Target Acquisition Guidance
K03.02 – Air Operations Engagement Report/Battle Damage Assessment
K04.02 – Intelligence Operations Land Route Report
K05.01 – Land Combat Operations Position Report
K05.11 – Land Combat Operations Strike Warning
K05.12 – Land Combat Operations REDCON
K05.13 – Land Combat Operations Threat Warning Message
K05.14 – Land Combat Operations Situation Report
K05.17 – Land Combat Operations Overlay Message
K05.19 – Land Combat Operations Entity Data Message
K07.03 – Combat Service Support Logistics Report
K07.04 – Combat Service Support Personnel Status
K07.06 – Combat Service Support CTIL/BRIL Action Message
K07.09 – Combat Service Support Supply Point Status Report

K00.03 – Security Report
K01.01 – Free Text
K03.06 – Mayday Message
K04.01 – Observation Message
K04.03 – Obstacle Report
K04.09 – Bridge Report
K05.02 – Nuclear, Biological, Chemical Report One

United States Message Text Format (USMTF)

F002 – General Administration (SALUTE)
A659 – Air Tasking Order (ATO) (USMTF_2000)
C448 – NBC1 Bio/Chem Report (USMTF_2004)
C281 – ATI -Artillery Target Report(USMTF_2004)
C454 – NBC1 Rota Report (USMTF_2004)
C488 – NBC1 Nuc Report (USMTF_2004)
C505 – Nuclear Strike Warning Message (USMTF_2004)
D280 - ATI – Target Information Request(USMTF_2004)
D281 - ATI – Target Criteria(USMTF_2004)
D670 – Air Support Request (USMTF_2000)
E500 – Air Early Warning Message (USMTF_2004)
F658 – Airspace Control Means Request (ACMREQ)(USMTF_2000)
F756 – Airspace Control Order (ACO)(USMTF_2000)
S201 – Support Battlefield Geometry (USMTF_2004)
S308 - ATI – Intelligence and electronic warfare(USMTF_2004)

PASS/DDS

AIRTRACK (AIR-TRK)
Enemy Situation (ENEMY_SIT)
Geographic Reference (GEO-REF)
Target (TARGET)
Weather Warning and Forecasts (WEATHER)
Weather Warning and Forecasts 2 (WEATHER2)
Observed Position Report
Overlay (NBC/Obstacle)
Unit Task Organization
Airspace Control Order

Import only, not editable

MCST Training

- Objective: Provide select personnel in units, training organizations, and institutions the skills necessary to use the MCST to inject scenarios into ABCS for SoS collective staff training.

- MCST operator training package developed IAW TRADOC Reg. 350-70
  - Pre-loaded scenarios are included in the training package and are utilized by NET teams during initial training
  - 8 hour block of instruction

MCST Training

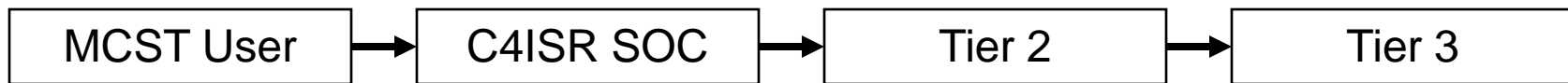| Subject	Responsibility	Who in Unit (Target Audience)	Who in Training Organization (IKP)	Training Requirements	Training Team
MCST Connectivity w/ABCS	Ensures MCST connect to ABCS systems	S6 Reps and/or FA53/57	Network tech	▶ Confirmation that the rep(s) understands how to connect their ABCS systems ▶ Hands-on training to install and set-up the MCST software to connect to the unit's ABCS systems	**PD CS NET**
MCST Operator	Primary MCST operator: sets up the MCST database, friendly and enemy unit locations and order of battle (OOB), plans staff training exercises	Battle Captains and Battle Staff NCOs inS3	Operator	▶Overview/use of scenarios ▶Hands-on MCST operator training ▶Scenario and event creation and editing	**PD CS NET**

Unit Provided Training Resources

- Classroom

- Tables and chairs for 20 students (max)

- 1 Windows XP or Vista based computer w/MS Office 2003 or 2007 and Adobe Reader per student

- Local administrator username and password

- Closed network connectivity - hub

- 120V AC

- Digital projector w/remote control

- Overhead screen

- Podium

MCST Help Desk and Support

SIF Support Operations Center Tiered Approach

MCST User	→	C4ISR SOC	→	Tier 2	→	Tier 3

Garrison/Field Support:

1. MCST operator contacts 24X7 C4ISR Support Operations Center (SOC) for help
2. SOC logs trouble ticket and attempts to resolve
3. If unable to resolve, SOC escalates trouble ticket to PD CS MCST project lead who acts as both tier 2/3 support

SOC Contact Info:

Direct: (254) 287-1608 DSN: (312) 737-1608 Toll Free: (877) 839-0813
DSN: (312) 259-7089 STE: (254) 618-7525 DSN: (312) 259-7525
Fax: (254) 618-7089
NIPR: c4isr.support@us.army.mil
SIPR: soc.support@us.army.smil.mil
URL: https://sif.kc.us.army.mil

Software and Information Access

- MCST AKO Knowledge Center
  https://www.us.army.mil/suite/kc/10244567
  – Current Software Release
  – Software Version Description
  – Installation Procedure
  – User's Manual
  – MCST Training Slides

- MCST Single Interface to the Field (SIF)
  https://sif.kc.us.army.mil
  – Overview
  – Software Version Description
  – Installation Procedure
  – User's Manual
  – MCST Training Slides

Points of Contact

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