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COURSE SYLLABUS

SL 4B



COURSE SYLLABUS — SL 4B: FIRES WARFIGHTING FUNCTION

Maven Smart System (MSS) — USAREUR-AF

HEADQUARTERS
UNITED STATES ARMY EUROPE AND AFRICA
(USAREUR-AF)
Wiesbaden, Germany

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26 MARCH 2026

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MAVEN SMART SYSTEM (MSS) — USAREUR-AF

Field	Detail
Level	SL 4B — Fires WFF Track
Duration	3 days (24 hours)
Prerequisites	SL 1, SL 2, SL 3 (Go evaluations on file); CONCEPTS_GUIDE_TM40B_FIRES (required reading before Day 1)
Audience	Fire support officers, FSEs, targeting officers, artillery and mortar officers and NCOs, fire support NCOs at BCT echelon and below
Format	Instructor-led seminar + demonstration + tabletop exercise + practical evaluation
Location	MSS Training Environment (standard user access sufficient)

BLUF: SL 4B teaches fires staff to integrate MSS into fires and targeting workflows — configuring FSCMs on the COP, managing targeting data, building effects assessment dashboards, and supporting BDA workflows. Course applies MSS capabilities to processes in FM 3-09, ATP 3-09.42, and FM 3-60. No coding or pipeline experience required.

LEARNING OBJECTIVES

#	Objective
1	Configure fires data layers on the COP — FSCMs, active target lists, BDA status overlays — with data freshness verification
2	Build a targeting data product distinguishing confirmed from suspected targets, with attribution to reporting source and data-as-of timestamps

#	Objective
3	Configure fires-relevant CCIR alerts — target-engaged status, effects-confirmed status, and FSCM violation triggers
4	Display and track FSCMs on the MSS COP with correct symbology and authority reference
5	Build an effects assessment dashboard integrating BDA data from multiple fires elements with explicit data currency indicators
6	Identify and respond to targeting data staleness or reporting source gaps before a targeting working group
7	Apply OPSEC procedures to fires products: classification markings, distribution restrictions, export handling for targeting data
8	Distinguish reported effects (what fires elements transmitted) from assessed effects (what the targeting officer judges) and communicate that distinction explicitly

PRE-COURSE CHECKLIST

Complete **5+ duty days before Day 1:**

- Read CONCEPTS_GUIDE_TM40B_FIRES in full — Day 1 builds directly on it
- Confirm MSS training account is active
- Bring one recent or notional target list from your unit, or a published targeting product from a recent exercise — used as a reference during the Day 3 tabletop
- Review your unit's current FSCMs and FSCM display standards — Day 1 asks you to replicate them in MSS

DAILY SCHEDULE

Day 1 — Fires Data Layers, FSCM Configuration, and COP Setup

Time	Block	Method	Content
0800– 0900	1	Brief	Doctrinal context: FM 3-09, FM 3-60; how MSS supports fires and targeting; role of the fires COP in targeting board preparation
0900– 1100	2	Demo/La b	Fires COP configuration: FSCM overlays, target list layers, data sources; display standards by echelon

Time	Block	Method	Content
1100–1115	—	Break	
1115–1200	3	Lab	Data currency verification: reading FSCM update timestamps, tracing BDA reporting sources, identifying stale feeds
1200–1300	—	Lunch	
1300–1500	4	Lab	CCIR configuration for fires: translating fires-related CCIRs into MSS alert thresholds; target-engaged and effects-confirmed triggers
1500–1515	—	Break	
1515–1700	5	Exercise	CCIR drill: given commander priorities and a sample dataset, configure 3 fires CCIRs and verify they trigger correctly

Evening reading: TM-40B, Chapter 2 (Targeting and the D3A Process in MSS) — confirmed vs. suspected target distinction and attribution requirements.

Day 2 — Targeting Data Workflows, BDA Products, and Effects Assessment

Time	Block	Method	Content
0800–0830	—	Review	Day 1 questions; FSCM configuration review — common display errors
0830–1030	6	Demo/Lab	Targeting data product build: structuring the target list in MSS, coding confirmed vs. suspected status, linking attribution to source reports, setting data-as-of timestamps
1030–1045	—	Break	
1045–1200	7	Lab	BDA data integration: pulling BDA feeds from fires elements into a single effects assessment display; coding BDA status by target; managing multiple reporting sources
1200–1300	—	Lunch	
1300–1500	8	Demo/Lab	Effects assessment dashboard: building a BDA status product for the targeting board; distinguishing reported from assessed effects; data caveat formatting

Time	Block	Method	Content
1500– 1515	—	Break	
1515– 1700	9	Exercise	Targeting product drill: build a targeting data product and effects summary from a provided dataset; evaluator reviews for confirmed/suspected distinction, timestamps, and source attribution

Evening reading: TM-40B, Chapter 8 (Fires Assessment and Reporting) and Chapter 3 (Fire Support Planning).

Day 3 — Degraded Reporting, Data Staleness, and Practical Exercise

Time	Block	Method	Content
0800– 0900	10	Brief	Targeting data staleness: procedures when BDA or target reporting stops updating; manual backup; what to brief when MSS fires data is incomplete
0900– 1030	11	Demo/L ab	Degraded BDA scenarios: running a targeting working group with partial or stale fires data; OPSEC for incomplete products; escalation to S3 and S6
1030– 1045	—	Break	
1045– 1100	12	Brief	Practical exercise scenario brief; product standards checklist review; targeting board ground rules
1100– 1200	—	Prep	Practical exercise setup and planning time
1200– 1300	—	Lunch	
1300– 1700	13	Eval	Practical exercise: configure fires COP and FSCMs, build targeting data product, set fires CCIRs, build effects assessment dashboard, respond to a BDA data staleness inject, brief findings to evaluator in role as S3/FSO

REQUIRED READING

When	Reading
Before Day 1	CONCEPTS_GUIDE_TM40B_FIRES (complete)

When	Reading
Day 1 evening	TM-40B, Ch 2 (Targeting and the D3A Process in MSS)
Day 2 evening	TM-40B, Ch 8 (Fires Assessment and Reporting)
Day 2 evening	TM-40B, Ch 3 (Fire Support Planning)
Day 3 (review)	TM-40B, Ch 10 (Degraded Operations) — skim before Day 3 brief

PRACTICAL EXERCISE

Scenario: You are the FSE at a BCT headquarters during a combined arms live-fire exercise. The commander requires FSCMs on the COP, a current targeting data product, and fires CCIRs active before a targeting working group in four hours. Mid-exercise, the BDA reporting feed from the supporting fires element stops updating.

#	Task
1	Configure fires COP layers — FSCMs, target list, BDA status overlay — and verify data currency for all feeds
2	Build a targeting data product distinguishing confirmed from suspected targets, with source attribution and data-as-of timestamps
3	Configure 3 fires CCIRs from the provided commander's fires CCIR guidance card
4	Build an effects assessment dashboard showing BDA status by target across all active fires elements
5	Respond to the BDA data staleness inject: identify the affected feed, characterize the gap, and brief the evaluator on what will and will not be briefed to the targeting board
6	Apply OPSEC procedures to the final targeting product before simulated distribution

Go standard: Pass 5 of 6 tasks. No-Go on Task 2 (targeting data product) or Task 5 (data staleness response) = automatic No-Go regardless of total score.

GO CRITERIA

Task	Hard Standard
Targeting data product	Confirmed/suspected status must use both visual coding AND source attribution — not just a column header. Grouped confirmed/suspected targets fail
Data staleness inject	Characterize which BDA elements are affected vs. current, then brief the targeting board on what they will/will not receive. Attempting to restore the feed instead of characterizing will miss the intent
Data-as-of timestamps	Must appear on the targeting product. A product without visible timestamps on the target list and BDA sections fails Task 2

Function-Specific Go Criteria — Fires

Criterion	Standard
FSCM display	FSCMs must be displayed as distinct layers from target data — a COP where FSCMs and target locations use the same layer fails this element
BDA reporting distinction	Effects assessment dashboard must explicitly separate "reported effects" (source attribution required) from "assessed effects" (analytical judgment, not raw data) — a single effects column fails
Fires CCIR thresholds	CCIRs configured on target status must reference the fires tracking object (confirmed target, suspected target, or specific munitions count) — generic "readiness below X%" CCIRs are not fires CCIRs

KEY TIPS

Risk	Guidance
FSCM layers	FSCMs displayed but not linked to an authoritative data source fail the data currency check — know how to connect a layer to a source before Day 1
Confirmed/suspected distinction	Every target must have a coded status AND source attribution entry. Bring your unit's target list format as a reference
BDA data staleness	The targeting board cannot wait for feed recovery — the FSE must tell the board exactly which targets have current BDA and which do not. Practice characterizing the gap out loud before

Risk	Guidance
inject	you arrive
CCIR troubleshooting	Fires CCIRs most commonly fail because the alert is tied to the wrong object type — attaching a munitions CCIR to a personnel readiness feed produces no triggers. Verify the CCIR's data source is the fires tracking dataset, not the unit readiness dataset

ASSOCIATED EXERCISE AND EXAMS

Item	Reference
Practical Exercise	EX_40B (EXERCISE.md + ENVIRONMENT_SETUP.md) — exercises/EX_40B_fires/
Pre-course exam	EXAM_TM40B_PRE — exercises/exams/EXAM_TM40B_PRE.md
Post-course exam	EXAM_TM40B_POST — exercises/exams/EXAM_TM40B_POST.md

RELATED WFF TRACKS

SL 4B is one of six WFF tracks. All require SL 1, SL 2, and SL 3 as prerequisites.

Track	WFF	Audience
SL 4A	Intelligence	G2/S2 staff, targeting officers, all-source analysts
SL 4B	Fires	FSOs, FSEs, targeting officers, fires NCOs
SL 4C	Movement & Maneuver	G3/S3 staff, operations officers, maneuver planners
SL 4D	Sustainment	G4/S4 staff, logistics officers, supply chain managers
SL 4E	Protection	FP officers, CBRN officers, provost marshal staff
SL 4F	Mission Command	Battle captains, XOs, CDRs, MC-function staff

Personnel completing multiple WFF tracks do not repeat SL 1, SL 2, or SL 3. Enrollment is independent for each track.

USAREUR-AF Operational Data Team Syllabus SL 4B | Version 1.0 | March 2026

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