CONCEPTS GUIDE

SL 4F

USAREUR-AF

CONCEPTS GUIDE — SL 4F COMPANION — MISSION COMMAND WARFIGHTING FUNCTION · MAVEN SMART SYSTEM (MSS)

Specialist Course Manual

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

26 MARCH 2026

DRAFT — UNOFFICIAL — NOT FOR OPERATIONAL USE

CONCEPTS GUIDE — SL 4F COMPANION — MISSION COMMAND WARFIGHTING FUNCTION · MAVEN SMART SYSTEM (MSS)

Forward: MSS does not change the nature of Mission Command. It changes the speed, fidelity, and integration of the information that supports it. The seven principles of Mission Command remain doctrinal constants. The information environment in which those principles are exercised has changed fundamentally. **Prereqs:** SL 1, SL 2, and SL 3 (all required for track entry). Read this Concepts Guide before beginning SL 4F task instruction. **Purpose:** This guide develops the operational mental models required to effectively integrate MSS into Mission Command functions. It is a prerequisite companion to SL 4F and must be read before beginning SL 4F task instruction. This guide is conceptual — it develops understanding, not procedures. No step-by-step tasks appear here. *HQ USAREUR-AF · v1.0 · 2026 · DISTRIB: USG only*

SECTION 1 — MISSION COMMAND DOCTRINE AND DATA (ADP 6-0)

BLUF: MSS does not change the nature of Mission Command. It changes the speed, fidelity, and integration of the information that supports it. The seven principles of Mission Command remain doctrinal constants. The information environment in which those principles are exercised has changed fundamentally.

1-1. The Seven Principles and Their Relationship to Data

ADP 6-0 establishes seven principles of Mission Command. Each has a relationship to data — not because doctrine says so, but because each principle depends, in some way, on the quality of information available to commanders and staffs.

Build cohesive teams through mutual trust. Cohesion is not a data product. Mutual trust is not built by dashboards. However, trust between a commander and staff is degraded when staff-provided data is unreliable, outdated, or unsupported by analysis. MSS supports this principle indirectly by giving staffs more accurate, current data to work with — reducing the frequency of corrections, retractions, and conflicting reports that erode command relationships.

Create shared understanding. This principle has the most direct relationship to data of the seven. Shared understanding requires that commanders, staff, and subordinates hold a common picture of the situation, the mission, and the operational environment. MSS enables shared understanding when it is used as a common operating picture — not just by higher headquarters, but by subordinate commanders and staff sections simultaneously. Shared access is a precondition. Shared literacy is equally required.

> **NOTE**
>
> Shared understanding (ADP 6-0) is not achieved by giving subordinates access to a platform they cannot read. MSS access without training produces shared confusion, not shared understanding.

Provide clear commander's intent. Commander's intent is a command function, not a data function. MSS does not help a commander articulate intent. MSS does help the staff confirm that operations are proceeding consistent with that intent — by making execution data visible against planned end states.

Exercise disciplined initiative. Subordinates exercise disciplined initiative when they understand the commander's intent deeply enough to act without explicit orders in changing conditions. MSS data visibility can support this by keeping subordinate commanders situationally aware — but only if they have access to it and can interpret what they see. A company commander who can see the battalion's readiness picture, logistics status, and current task organization on MSS makes better disciplined-initiative decisions than one who is operating on a two-hour-old radio update.

Use mission orders. Mission orders delegate authority and specify what must be accomplished — not how. MSS does not change what mission orders are or how they are written. It does affect the information environment in which they are executed. When subordinates and commanders share a live common operating picture, the implicit situation assumptions embedded in a mission order remain valid longer — or become visibly invalid sooner, prompting earlier order adjustments.

Accept prudent risk. Risk decisions are command decisions. MSS informs risk by making the operational picture more current and complete. A commander who can see a real-time logistics status, personnel accountability, and equipment readiness has a more accurate basis for risk acceptance than one operating on periodic status reports. The risk decision itself — accepting or declining — remains a command function. MSS does not make it.

Develop others. Leader development requires feedback — accurate, timely information about performance and learning. MSS supports this principle at the organizational level by making unit performance data visible: readiness trends, training completion rates, exercise outcomes. The feedback loop that develops subordinate leaders requires a commander who uses that data intentionally for coaching and development — not a platform that generates it.

1-2. What MSS Changes and What It Does Not Change

MSS changes three things about the Mission Command information environment.

Data integration replaces data silos. Before MSS, readiness data lived in GCSS-Army, personnel data in IPPS-A, training data in DTMS, and each staff section maintained its own spreadsheets to bridge the gaps. An S3 building a force-generation briefing pulled numbers from four systems and hoped they reconciled. On MSS, those sources feed a unified Ontology layer. A single Workshop dashboard can display unit readiness, personnel fill, equipment status, and training progression — updated from authoritative sources, not last week's data call.

Products are persistent, not ephemeral. Traditional staff products — slides, reports, spreadsheets — become outdated the moment they are published. MSS dashboards and Workshop applications update continuously from source data. The commander who opens a readiness dashboard at 0600 and again at 1500 sees current data both times. The staff does not regenerate the product; the product regenerates itself.

Assessment is continuous, not only periodic. The Battle Update Assessment (BUA) cycle traditionally drives assessment at defined intervals. MSS enables continuous assessment — not because the operations tempo increases, but because the data between BUA cycles is visible. Significant changes in readiness, logistics status, or personnel accountability appear in the platform before the next battle rhythm event, giving the staff time to investigate and prepare rather than discover problems during the brief.

MSS does not change command authority, the operations process, or the requirement for human analysis and judgment. It does not change the seven principles of Mission Command. It does not change what staffs are responsible for. It changes the speed and fidelity of the information supporting those constants.

1-3. The Misconception: "MSS Will Command for You"

This misconception surfaces in several forms. Some commanders expect MSS to produce decisions. Some staff officers treat MSS products as recommendations rather than inputs. Some units reduce analytical rigor after platform adoption, assuming the platform handles interpretation.

None of these are correct.

MSS is not a command system. It does not issue orders, establish priorities, or make decisions. It does not apply the commander's intent to a dataset and generate a recommended course of action. Every data product on MSS is an input to human judgment, not a substitute for it.

The danger of this misconception is not theoretical. A staff section that reports MSS data without analysis — "Sir, B Company is at C-3" — has added no analytical value. The commander already has access to the same dashboard. What the commander needs is: "B Company's decline is driven by PMCS backlog on three M1A2 platforms. Parts are requisitioned, EDD is 14 days. At current trajectory, they will not recover to C-2 before DEFENDER. Recommend adjusting task organization for Phase I or submitting an expedited requisition." The platform provided the data. The staff must provide the assessment.

NOTE

ADP 6-0 places command authority and decision-making authority with commanders. No platform capability changes this. Staff sections that substitute data reporting for analytical advising have not improved their value with MSS — they have replaced one form of incomplete support with a faster one.

1-4. Shared Understanding and Shared Data Access

ADP 6-0's shared understanding principle is operationally demanding. Staffs work hard to achieve it through briefings, rehearsals, and orders. MSS changes the mechanics of shared understanding without changing its requirement.

When all echelons — corps, division, brigade, battalion — have access to the same live MSS products, the situational picture is shared continuously, not just at discrete briefing events. A subordinate commander who opens the same readiness dashboard the G3 used to brief the CG this morning has the same current picture. If conditions change at 1400, both see it simultaneously — not after the next battle rhythm event.

This continuous shared access does not guarantee shared understanding. Understanding requires interpretation: what does this data mean? What does it imply about intent and execution? Shared access provides the raw material for shared understanding. Developing that understanding still requires commander engagement, well-built orders, and trained subordinates who can read and interpret MSS products.

Establishing shared MSS access and ensuring subordinate leaders can read and interpret platform products is a Mission Command responsibility — not a technical one.

1-5. What "Data-Informed" Mission Command Actually Means

The phrase "data-informed decision-making" is common in discussions of MSS and digital transformation. It is worth defining precisely, because it is often either overstated or understated in operational practice.

Understated: treating MSS as only a reporting tool — a faster way to collect and display the same information staffs always collected. This approach misses the integration and analysis capabilities that distinguish MSS from a digital clipboard.

Overstated: treating MSS data as a sufficient basis for operational decisions — as though the data, properly displayed, produces the correct decision without commander judgment. This approach misrepresents what data can and cannot do, and is directly contradicted by ADP 6-0's emphasis on commander judgment as central to Mission Command.

Data-informed Mission Command means: commanders and staffs use integrated, current, analytically assessed data as one input among several to operational decisions. Other inputs include commander experience, tacit knowledge about unit and personnel factors that no data system captures, political and

institutional context, and the commander's judgment about risk. MSS improves one category of input. It does not reduce the others.

The Mission Command practitioner who understands this distinction will use MSS confidently — neither dismissing its capabilities nor overrelying on its outputs. That balance is the professional competency SL 4F develops.

VIGNETTE: During a brigade-level WAREX at Grafenwoehr, the brigade S3 built a readiness synchronization dashboard in MSS that consolidated all battalion readiness, equipment status, and training completion data into a single Workshop view. The CG and S3 used it daily for planning. Battalion S3s, however, had not been given access or training on the dashboard — they continued submitting manual readiness reports by email. At a planning meeting, the brigade S3 referenced readiness numbers that differed from what a battalion S3 had just reported. The discrepancy traced to a two-day ingestion lag in one data source — which the brigade S3 was unaware of because no one had validated it. The fix required a data quality correction, two hours of revalidation, and a delayed planning decision. The root cause was not technical — it was the lack of a shared understanding process that included subordinate sections in the same MSS environment their higher headquarters was using. After the exercise, the brigade established a shared MSS orientation requirement for all battalion S3s before the next major exercise.

SECTION 2 — THE OPERATIONS PROCESS MENTAL MODEL (ADP 5-0, FM 5-0)

BLUF: MSS accelerates and informs every activity of the operations process. It does not replace any of them. Understanding where MSS contributes — and where it does not — prevents the failure mode of substituting data visibility for operational thinking.

2-1. The Operations Process and Where MSS Fits

FM 5-0 describes the operations process as the major command activities: plan, prepare, execute, and assess. ADP 5-0 establishes the underlying cognitive framework: understand, visualize, describe, direct, lead, and assess. MSS contributes to each activity — with different tools and at different intensity.

Understand. Understanding the operational environment (OE), the problem, and the mission is the foundational cognitive activity of the operations process. MSS informs understanding by making the current state of the OE more visible: unit readiness, personnel status, logistics posture, and terrain data integrated across sources. A commander developing an understanding of the OE before MDMP can examine readiness trends, sustainment status, and personnel fill rates on MSS — reducing the data-assembly burden on the staff and allowing more time for analytical development of understanding.

Understanding is not the same as situational awareness. MSS maximizes situational awareness — it makes the current picture clear. Understanding requires asking: what does this picture mean for the mission? What is the nature of the problem? What constraints does this situation impose? MSS provides the data. The operations process provides the framework. Commanders and staffs do the cognitive work.

Visualize. Commanders visualize the desired end state and the conditions required for success. This is a command cognitive activity, not a data activity. MSS supports visualization indirectly by giving commanders current, accurate data about unit capabilities, enabling more realistic assumptions about what the force can accomplish. A readiness picture showing three of six battalions below C-2 changes what is operationally realistic — and therefore shapes how the commander visualizes what success looks like and what sequencing is required.

Describe. Commanders describe their visualization through commander's intent, planning guidance, and orders. MSS does not help commanders describe their intent. MSS products can help staffs confirm that described intent aligns with actual capability — but the verbal and written expression of commander's intent is a leadership function that no platform mediates.

Direct. Direction flows through orders, plans, and control measures. MSS does not generate orders. It does support the staff work that informs direction: MDMP products, synchronization matrices, task organization analysis. A staff building a plan with current MSS readiness data makes more realistic assumptions than one working with static pre-MDMP snapshots.

Lead. Leadership is a human activity. MSS has no direct role in the exercise of leadership. MSS can inform a commander's leadership decisions — knowing that a subordinate unit is under sustained readiness pressure, for example — but the act of leading, motivating, and developing subordinates is not data-driven.

Assess. Assessment is where MSS contributes most significantly. Continuous assessment — comparing current conditions to planned end states — is both enabled and transformed by persistent MSS data visibility. See Section 5 for the full treatment of assessment.

2-2. The Planning-Executing-Assessing Cycle and MSS

FM 5-0 describes the operations process as a continuous cycle: plan → prepare → execute → assess → plan again. MSS reshapes this cycle in two practical ways.

MSS extends the planning horizon. Planning with static data means working from a snapshot. Planning with MSS data means working from a current, integrated view of unit capabilities. The staff's ability to answer planning questions — How many platforms are available? What is the current supply rate? How many soldiers are deployable? — improves when those answers come from live MSS products rather than data calls submitted days before the planning cycle begins. The practical effect: planning products are more realistic, assumptions are more defensible, and the gap between planned and actual capability is reduced.

MSS accelerates assessment. Traditional assessment relies on periodic updates: the BUA, the targeting meeting, the logistics sync. Between those events, the picture is frozen at the last reporting cycle. MSS makes assessment continuous by keeping the operational picture current. Significant departures from planned end states — a battalion falling below a readiness threshold, a logistics node falling behind consumption rate — appear on MSS between battle rhythm events. The staff can investigate and prepare before discovering the problem during the brief.

2-3. Mental Model: The Staff Officer Who Never Sleeps

A useful mental model for MSS in the operations process: MSS is the staff officer who never sleeps. This officer always has current data. They always know the readiness status, the logistics posture, the personnel picture. They are monitoring every dashboard simultaneously, at all hours.

This staff officer has one critical limitation: no insight. They can tell you what the data says. They cannot tell you what it means. They do not know what the commander's intent is, what decision is pending, or what threshold matters. They will show you every number without prioritization.

The staff officer who never sleeps has value — tremendous value. Continuous, accurate, current data is a capability that traditional staffs cannot match manually. But that staff officer requires a partner: a human analyst who can take the current data, apply operational context and commander's intent, identify what matters, and produce an assessment that enables a decision.

MSS is the first partner. The Mission Command practitioner is the second. Neither is sufficient alone.

> **NOTE**
>
> FM 5-0 requires continuous assessment as a command activity. MSS enables the data visibility that makes continuous assessment feasible. The assessment itself — evaluation of progress toward end states and identification of required adjustments — remains a human command activity (FM 5-0, Chapter 5).

2-4. Planning with MSS Data vs. Planning with Static Data

Static planning data is a snapshot: the readiness report from last Tuesday, the logistics status from the last BUA, the personnel accountability from the last PERSTAT. By the time planning products are built, that data is already aging.

MSS planning data is current: the readiness status from this morning's GCSS-Army feed, the logistics posture updated from the last transmission cycle, personnel accountability from the most recent IPPS-A transaction. The gap between data currency and planning reality is compressed.

This creates a practical planning discipline shift. Staffs accustomed to static data build buffers and margins to account for data staleness — a readiness estimate might carry a 10% degradation assumption to account for the lag between the last report and current reality. With live MSS data, that buffer can be

reduced — but not eliminated. Understanding the ingestion lag for each MSS data source, and accounting for it in planning assumptions, is a Mission Command practitioner skill that SL 4F develops.

2-5. MDMP and MSS — Accelerating the Planning Cycle

MDMP is not optional when MSS is available. Mission analysis, COA development, COA analysis (war game), COA comparison, and orders production are not compressed away by better data. They are improved by it.

The most tangible MSS contribution to MDMP is in mission analysis. Step 2 of MDMP requires the staff to analyze the operational environment, identify constraints and facts, and develop assumptions. Traditionally, this step consumes significant staff time in data collection — assembling readiness, logistics, and personnel snapshots before analysis can begin. With MSS, that data is immediately accessible. The staff can enter mission analysis with current, integrated data and spend more of the available planning time on actual analysis.

COA development benefits from MSS in a different way: assumptions about unit capability are grounded in current data rather than planning factors derived from historical averages. A BCT S3 planning a breach operation can pull current M1A2 readiness, engineer equipment status, and breaching assets availability from MSS rather than assuming full equipment density. The plan that results is more realistic from the start.

NOTE

FM 5-0, Chapter 2: Mission analysis is the most important step of MDMP. Its quality determines the quality of everything that follows. MSS improves mission analysis by providing current data for environmental assessment — it does not shorten the analytical work that mission analysis requires.

The risk introduced by MSS in MDMP is false precision: building plans around very specific current-state data without accounting for the change between planning and execution. A plan built Monday on MSS data that assumes 94% readiness may encounter 84% readiness by the exercise D-Day two weeks later. Current data is more accurate than stale data for the planning moment — it is not a substitute for planning assumptions that account for change over time.

2-6. The XO as MSS Integration Enforcer

The executive officer (XO) occupies a unique position relative to MSS in the operations process. As the primary staff integrator, the XO is responsible for synchronizing staff effort across functional sections — and data synchronization is a subset of that function in an MSS-equipped headquarters.

The XO's MSS-related responsibilities are not technical. They are coordinative and quality-control functions:

Cross-section data consistency. When the S3's readiness picture contradicts the S4's equipment status picture, the XO is responsible for resolving the discrepancy before it reaches the commander. MSS makes these contradictions more visible — they show up as inconsistencies in connected dashboards. The XO must have enough MSS literacy to recognize when cross-section data is inconsistent and to drive the resolution.

Assessment quality enforcement. The XO reviews staff products before commander presentation. In an MSS environment, this review includes confirming that products meet the standard of analysis plus recommendation — not data reporting alone. The XO who accepts "B Company is at C-3" as a complete brief has not enforced assessment quality.

Battle rhythm data readiness. The XO manages the battle rhythm. In an MSS environment, this includes confirming that the pre-brief data preparation cycle is completing — that the staff is conducting interpretation and synthesis, not assembling data in the last 30 minutes before each event.

The XO does not need to be the most MSS-proficient person in the headquarters. They need to be proficient enough to hold sections accountable for the quality of the products MSS enables.

SECTION 3 — STAFF MENTAL MODELS: DATA OWNERSHIP AND RESPONSIBILITY (FM 6-0)

BLUF: Every staff section owns data. Owning data means knowing what it says, knowing its limitations, and being responsible for its quality. MSS makes data more visible — it does not transfer responsibility for data quality to the platform.

3-1. Data Ownership by Staff Section

FM 6-0 establishes staff responsibilities by functional area. Those functional responsibilities extend to data: the staff section that owns the function owns the data that supports it.

Staff Section	Data Domain	Primary MSS Data Sources	Quality Responsibility
S1/G1	Personnel accountability, strength, casualties, replacements	IPPS-A, casualty reporting systems	Personnel Officer / S1 NCO
S2/G2	Intelligence, threat assessment, terrain analysis, enemy activity	DCGS-A, CIDNE, GEOINT feeds	Intelligence Officer, ASAS operators
S3/G3	Operations, task organization, readiness-to-mission linkage, training status	DTMS, unit readiness integration, OPORD tracking	Operations Officer, XO

Staff Section	Data Domain	Primary MSS Data Sources	Quality Responsibility
S4/G4	Logistics, supply rates, equipment readiness, maintenance status, Class I–IX	GCSS-Army, fuel/rations tracking, maintenance management	Logistics Officer, Master Logistician
S6/G6	Network status, communications architecture, platform availability	Network monitoring tools, MSS connectivity status	Signal Officer, Chief Warrant Officer

This table is not exhaustive. Its point is structural: every staff section has data it owns, sources it draws from, and responsibility it cannot delegate to the platform.

3-2. The Data Stewardship Concept

Data stewardship means: the staff section that uses data is responsible for knowing its limitations. This is a simple principle with significant operational implications.

An S3 who builds a readiness-to-mission analysis from GCSS-Army data ingested to MSS owns the accuracy of that analysis. If the GCSS-Army data has reporting lag, the S3 is responsible for knowing that and accounting for it in the product. If the ingestion pipeline dropped a unit's records during a system migration, the S3 who presents that briefing without noticing the gap bears responsibility for the incomplete picture.

MSS does not verify data for you. It presents data. The staff officer who consumes MSS data for a commander product is responsible for:

- Knowing the source system for each data element
- Understanding the ingestion frequency and lag
- Recognizing the difference between a data anomaly and an operational change
- Validating significant findings against authoritative source systems before briefing

Data stewardship is not about technical depth — it is about operational accountability. You do not need to understand how the GCSS-Army connector was built. You do need to know that it updates every four hours and that weekend transactions may post Monday morning.

3-3. How Functional Staff Officers Relate to MSS Data Differently

The S1 relationship to MSS data is accountability-driven: personnel numbers are precise reporting requirements with legal and administrative consequences. An S1 who presents MSS-derived personnel strength data to the commander must know whether that data reflects IPPS-A transactions from this morning or from 48 hours ago — because the difference may matter for deployment authorization, hazard pay, or casualty reporting.

The S2 relationship to MSS data is analytical: intelligence data supports assessment and visualization. The S2 uses MSS to integrate threat data with unit positions and readiness data — building a common picture that supports IPB and targeting. The S2's concern is currency and source reliability, not just administrative accuracy.

The S3 relationship to MSS data is operational: readiness and task organization data directly inform OPORD construction and execution decisions. The S3 is typically the staff section most exposed to the consequences of bad readiness data — a task organization built on a C-rating that was recorded before a significant maintenance event is a planning risk.

The S4 relationship to MSS data is transactional: logistics status is updated continuously through GCSS-Army transactions, and supply rates change with consumption. The S4 must understand which MSS products reflect committed transactions vs. on-hand balances vs. projected receipts — because conflating these creates a dangerously optimistic logistics picture.

The S6 relationship to MSS data is architectural: the S6 owns the network that MSS runs on. Their concern is platform availability, data transmission integrity, and what happens to data visibility when network conditions degrade. The S6 is also responsible for ensuring MSS is accessible to the right users at the right classification level.

3-4. Cross-Staff Data Dependencies: Why S4 Data Quality Affects S3 Decisions

Staff sections are not data-independent. The readiness picture the S3 uses to build a task organization depends on logistics data owned by the S4 — because equipment readiness (C-rating) is partially determined by maintenance status, which is driven by Class IX availability, which is an S4 data domain.

The chain is direct: S4 reports Class IX shortfall inaccurately (or late) → equipment maintenance backlog grows unreported → S3 reads C-ratings as higher than actual → S3 builds a task organization assuming capability the unit does not have → execution fails at the point the plan assumed capability.

MSS makes these dependencies more visible — a connected Ontology model can show the relationship between supply status and readiness trends — but it does not eliminate them. Cross-staff data quality requires:

- Standing coordination between S3 and S4 on readiness data definitions and thresholds
- S3 awareness of S4 reporting cycle and ingestion timing
- S2 awareness of the difference between reporting the enemy threat (their data domain) and unit readiness to respond (S3 domain)
- S1 data informing the S3's manpower picture for task organization

Mission Command practitioners must understand these dependencies, not just their own section's data. An S3 who does not know the S4 data lag is building on an unstated assumption that may not hold.

3-5. The Staff Section Data Review — a Recurring Responsibility

FM 6-0 assigns staff sections ongoing responsibility for the information in their functional domain. In an MSS environment, this responsibility extends to the quality of data appearing in MSS from that section's source systems.

Each staff section should conduct a periodic data review — weekly at minimum during operational periods — that checks:

- Are the section's source systems feeding MSS correctly? (Is GCSS-Army current? Is the IPPS-A feed updating?)
- Are there obvious anomalies in the section's MSS data that indicate a reporting error vs. an operational change?
- Are subordinate units' data quality issues affecting the section's MSS products?
- Are Workshop applications and dashboards that the section uses still accurate, or have data schema changes or pipeline updates affected them?

This review is not a technical task. It does not require the staff section to understand how MSS ingests data from source systems. It requires the staff section chief to look at their MSS products with an operational eye and ask: does this match what I know to be true about the current situation? If the answer is "no" or "I'm not sure," the section should investigate before the data is briefed to a commander.

VIGNETTE: A 1st Armored Division G1 section noticed during a pre-deployment readiness review that the MSS personnel strength data showed 14 more deployable Soldiers than the battalion's internal accountability roster. Investigation revealed that IPPS-A records for Soldiers who had begun a medical separation process had not been updated to reflect their non-deployable status — the IPPS-A feed to MSS was showing administrative strength, not operational strength. The G1 corrected the records in IPPS-A, validated the updated feed to MSS, and added a pre-deployment data validation checklist item to confirm IPPS-A non-deployable coding before any MSS-derived strength figure was briefed as operationally accurate. The MSS data had been technically accurate — it reflected exactly what IPPS-A showed. The IPPS-A data had been incomplete. The G1's data stewardship responsibility included both systems, not only the platform.

SECTION 4 — CCIR MENTAL MODEL (FM 6-0)

BLUF: A CCIR is a decision threshold, not a reporting requirement. MSS converts CCIRs from periodic checks to continuous monitoring — but only if they are defined correctly from the start.

4-1. What a CCIR Really Is

FM 6-0 defines CCIRs as elements of information the commander has identified as critical to making decisions and maintaining situational awareness. The key word is decisions. A CCIR is not a reporting requirement. It is not a metric the commander wants to track. It is a specific piece of information that — when received — enables or requires a specific command decision.

This distinction matters operationally. A reporting requirement says: "Tell me the readiness status of all brigades daily." A CCIR says: "Notify me if any brigade readiness falls below C-2, because at that threshold I must make a task organization decision before the exercise."

The CCIR is tied to a decision. The decision has a decision-maker, a threshold, and an action. Without all three elements, what looks like a CCIR is actually a reporting preference.

NOTE

FM 6-0, paragraph 2-18: CCIRs consist of priority intelligence requirements (PIR) and friendly force information requirements (FFIR). Both are commander-defined, decision-linked thresholds — not standing report formats.

4-2. Information the Commander Wants vs. Information Required for a Decision

Commanders want to know many things. They want current force status, threat picture, weather, logistics posture, training completion, and personnel accountability. This is normal and appropriate. Not all of it is CCIR-level.

CCIR-level information has three properties: 1. It is specifically connected to a pending or anticipated command decision 2. The commander cannot make that decision without it — or the decision would change significantly based on this information 3. There is a threshold — a specific condition or value — at which the information crosses from "good to know" to "must act now"

MSS makes it technically possible to monitor everything continuously. This is an operational risk if it obscures the distinction between CCIRs and general situational awareness. Staffs that treat every MSS-visible data point as potentially CCIR-level will create reporting noise that buries actual CCIRs in volume.

4-3. How MSS Converts CCIRs from Periodic Checks to Continuous Monitoring

Before MSS, CCIRs were checked at reporting cycle intervals: the morning BUA, the logistics sync, the readiness review. A CCIR threshold that was crossed at 1400 might not be reported until the 1800 BUA — a four-hour gap between event and commander awareness.

MSS enables continuous CCIR monitoring. A Workshop application or Contour dashboard configured with a CCIR threshold alert can surface the threshold event as it occurs — not at the next battle rhythm event. The S3 whose readiness CCIR is set to alert when any battalion falls below C-2 sees that alert in real

time when the condition is met.

This continuous monitoring capability has a prerequisite: the CCIR must be precisely defined. A vague CCIR — "notify me if readiness degrades" — cannot be operationalized in MSS. It has no threshold. "Notify me if any assigned battalion's PMCS-reportable readiness falls below C-2 for two consecutive reporting cycles" is operationalizable. It has a metric (PMCS readiness), a unit scope (assigned battalions), a threshold (below C-2), and a duration condition (two consecutive cycles).

The work of making CCIRs MSS-compatible is staff work, not technical work. It requires the S3 and the commander to define CCIRs precisely enough that a Workshop developer can configure an alert. This precision discipline also improves CCIR quality independently of MSS — vague CCIRs are as operationally useless as they are technically unmonitorable.

4-3-1. Translating Commander's CCIRs to MSS-Monitorable Thresholds

The translation from a doctrinal CCIR to an MSS-monitorable alert requires the operations officer or XO to work through each CCIR and answer four questions:

1. **What is the exact metric?** Not "readiness falls" — which readiness metric, measured how, in which system? PMCS completion rate from GCSS-Army? C-rating as reported by unit commanders? Equipment density against authorization?
2. **What is the precise threshold?** Not "falls significantly" — what numerical or categorical value constitutes the threshold event? Below C-2? Below 85% PMCS completion for two consecutive reporting cycles? Three or more platforms of the same type in deadlined status simultaneously?
3. **What is the unit scope?** The alert applies to which units? All assigned battalions? All direct-support units? A specific equipment platform type across the brigade?
4. **Who receives the alert?** The alert that fires when a threshold is crossed goes to whom? The section chief? The XO? The operations officer? The commander directly?

This four-part translation work should be completed for every CCIR before the planning phase begins. The output is a documented CCIR translation worksheet — a one-page summary per CCIR that the S6 or C2DAO can use to configure Workshop alerts.

4-4. CCIR Inflation: Too Many CCIRs, Too Much Noise

CCIR inflation is the accumulation of CCIRs beyond what the commander can act on. It happens when:

- Staff sections add CCIRs to protect themselves ("I didn't want to be the one who didn't report it")
- CCIRs are not reviewed and retired after the associated decision has been made
- CCIRs are defined broadly enough to trigger frequently on normal operational variation
- MSS visibility creates pressure to formally track everything the platform can monitor

An inflated CCIR list produces noise. When every data movement triggers a CCIR-level alert, the commander and staff become desensitized to alerts. The actual threshold event — the one that requires immediate action — competes with dozens of lower-significance notifications.

The correction is CCIR discipline. CCIRs should be reviewed at each MDMP cycle and as conditions change. Each CCIR should have: - An owner (which staff section is responsible for monitoring and reporting) - A threshold (the specific condition that triggers reporting) - A linked decision (what commander decision does this CCIR enable) - An expiration condition (when does this CCIR no longer apply)

VIGNETTE: During a V Corps pre-DEFENDER planning cycle, the G3 section entered the planning phase with 23 active CCIRs — accumulated from the previous exercise without review. When the CCIR list was mapped to pending command decisions, 14 of the 23 had no associated decision in the current planning horizon. After a 90-minute CCIR review with the XO and operations officer, the list was reduced to 9 operational CCIRs, each with a defined threshold, an assigned monitoring section, and a Workshop alert configuration. Subsequent battle rhythm events were cleaner — commanders received fewer notifications, and the notifications they received were actionable. 10th AAMDC conducted a similar review and found that IAMD-specific CCIRs — sensor degradation thresholds, interceptor inventory triggers, and airspace coordination alerts — had been buried in the general CCIR list without differentiation. Separating IAMD CCIRs into a dedicated monitoring track with automated MSS alerts reduced response time to air defense readiness changes from hours to minutes.

SECTION 5 — ASSESSMENT MENTAL MODEL (FM 5-0, ADP 5-0)

BLUF: Better data visibility does not automatically produce better assessment. Assessment requires human evaluation of what the data means and what action it requires. MSS closes the observation gap. The assessment gap requires additional staff discipline to close.

5-1. MOE vs. MOP: The Foundation of Assessment Product Design

FM 5-0 distinguishes between measures of effectiveness (MOE) and measures of performance (MOP). This distinction is foundational for MSS product design and is consistently misapplied.

Concept	Definition	Question Answered	Example
Measure of Performance (MOP)	Criterion to assess friendly actions (tasks)	Are we doing things right?	Percentage of PMCS inspections completed on schedule
Measure of Effectiveness	Criterion to assess changes in the system affected by our	Are we doing the right things?	Unit readiness rate at D-Day relative to the C-2 threshold

Concept	Definition	Question Answered	Example
(MOE)	actions		required for the mission

The difference is not academic. An MOP tells you whether a task was executed. An MOE tells you whether that task produced the desired effect.

A unit can achieve 100% PMCS completion (MOP) and still fall below C-2 readiness (MOE) — because PMCS completion alone does not guarantee readiness when Class IX supply is inadequate, operator training is incomplete, or unit density has changed. An assessment that reports only MOPs without MOEs tells the commander what was done, not whether it worked.

NOTE

FM 5-0, paragraph 5-24: Commanders and staffs use MOEs to assess changes in conditions and MOPs to assess task accomplishment. Both are required for complete assessment. MSS product design that captures only MOP data produces incomplete assessment products.

5-2. The Assessment Gap: Data Visibility vs. Assessment Quality

MSS eliminates the observation gap: the time between when something happens and when the staff sees the data. Eliminating the observation gap does not eliminate the assessment gap: the distance between seeing the data and understanding what it means and what action it requires.

The assessment gap exists because: - Data shows what happened; assessment requires explaining why and what it implies - MOPs are visible in MSS; MOEs require construction from multiple data sources and analytical judgment - Current status is available continuously; trend analysis and projection require deliberate analytical work - MSS surfaces anomalies; distinguishing anomalies that require action from those within normal variation requires domain expertise

The assessment gap is closed by staff discipline, not platform capability. It requires staffs to move from "the data shows X" to "the data shows X, which means Y for the mission, which requires Z decision by [date]."

5-3. Closing the Assessment Loop

ADP 5-0 describes assessment as a continuous activity that flows through four steps: observe, evaluate, recommend, decide. The loop is only closed when observations produce decisions and decisions produce execution.

Observe. MSS maximizes observation. Continuous data feeds, live dashboards, and CCIR monitoring make observation systematic and persistent. This is the step most improved by MSS.

Evaluate. Evaluation is analytical work: what does the observed data mean in relation to planned end states? This step is supported by MSS tools but not performed by them.

Recommend. Recommendation converts evaluation into an action proposal. MSS does not recommend. The staff recommends. A staff that observes and evaluates but does not recommend has stopped short of its advisory function.

Decide. The commander decides. MSS informs the decision but does not make it.

Assessment failure typically occurs at the evaluate → recommend transition. Staffs are comfortable reporting data. They are uncomfortable making explicit recommendations because recommendations carry risk. The discipline of continuous assessment requires the staff to make recommendations consistently, even under uncertainty, and to characterize their uncertainty explicitly.

5-4. Assessment Debt: Observing Without Recommending

Assessment debt accumulates when a staff observes consistently but recommends infrequently. Every BUA produces a rich data picture, accurately reported, with trend analysis. But decisions that the data has been indicating for weeks — a readiness threshold trending toward critical, a logistics shortfall growing across three cycles — are never surfaced as recommendations until they become crises.

Assessment debt is not a data problem. It is a staff culture problem. MSS can make it worse by generating so much data that the staff becomes focused on reporting completeness rather than recommendation quality.

The correction is structural: every significant data point in a commander brief requires an accompanying assessment — trend, implication, recommended action or decision point.

5-5. The Assessment Cycle and Battle Rhythm Integration

ADP 5-0 treats assessment as a continuous activity, not a scheduled event. The practical implication: battle rhythm events are assessment synchronization points, not assessment events. The assessment product briefed at a BUA should reflect continuous analysis conducted since the last BUA — not analysis conducted in the two hours before the meeting.

NOTE

ADP 5-0, paragraph 1-47: Assessment is continuous. It is not an event in the operations process — it is a concurrent activity that runs across all phases. MSS data visibility enables, but does not substitute for, the human analytical effort that continuous assessment requires.

SECTION 6 — THE COMMAND POST AS A DATA ENVIRONMENT (ATP 6-0.5)

BLUF: The CP is an information-processing node. MSS changes the volume, velocity, and integration of data flowing through it. Display discipline and network dependency management are Mission Command responsibilities that MSS amplifies, not eliminates.

6-1. CP Echelons and Their Data Density Requirements

ATP 6-0.5 establishes command post organization by echelon. Each echelon has different data requirements based on its role in the operations process.

CP Echelon	Primary Function	Data Density Requirement	MSS Role
Main CP	Primary command, control, and synchronization node	Highest — full staff, all functional areas, all reporting cycles	Full MSS integration; Workshop applications, Contour dashboards, full Ontology access
TAC CP	Forward command presence, close operations decision authority	Medium — essential operational data for immediate decisions	Focused MSS access — readiness, position, logistics essentials; simplified dashboards
Alt CP	Continuity of operations; assumes Main CP function if Main is degraded	Must replicate Main CP capability	Full MSS access configured identically to Main CP for seamless transition
Assault CP	Immediate actions; minimal footprint	Minimal — only the data required for the immediate mission	Minimal MSS — mobile device access or limited Workshop application for key metrics

6-2. The CP as an Information-Processing Node

The CP's function is to receive information from multiple sources, process it into actionable commander products, and issue direction. MSS changes its character in three ways.

Volume increases. MSS aggregates data from sources that previously required separate queries or data calls. This is an advantage when the staff has the capacity to process it. It is a liability when the staff lacks that capacity and drowns in data without producing assessment.

Integration depth increases. The MSS Ontology links data elements that were previously separate. Equipment readiness links to maintenance records, which link to Class IX supply status, which links to logistics node location and capacity. This depth requires staff literacy.

Response time expectations change. When data is available continuously, the commander's expectation of staff awareness shifts. "We didn't know until the next BUA" is not an acceptable explanation when MSS data was current three hours before the BUA.

6-3. Display Discipline: Not Every Screen Needs to Show Everything

Display discipline is a Mission Command function. The commander and XO, working with staff section chiefs, should establish:

- **The primary display:** What does the main briefing screen show by default?
- **Section displays:** Each staff section's workstation shows its functional dashboard — these are work surfaces, not briefing surfaces.
- **Briefing priority:** When a battle rhythm event is in progress, the briefing display shows the product being briefed — not the live operational feed.
- **Alert protocols:** When an MSS alert fires, which screen does it surface on, and who acknowledges it?

6-4. Network Dependency and What to Do When MSS Is Unavailable

Every CP with MSS integration should maintain a degraded operations capability:

Identify the most recent snapshot. Before a planned movement or operation in which network availability is uncertain, capture a snapshot of the most critical MSS products.

Maintain manual backup products. Battle rhythm products generated by MSS dashboards should have a manual version that can be updated by reporting.

Know the authoritative source systems. When MSS is unavailable, data returns to its source: GCSS-Army for logistics, IPPS-A for personnel, DTMS for training.

Establish reconstitution protocols. When network is restored and MSS comes back online, who validates that the data is current?

> **NOTE**
>
> ATP 6-0.5 requires CP redundancy planning and continuity of operations for command functions. MSS dependency analysis is a component of CP PACE planning.

6-5. Data Presentation Discipline — What the Commander Sees

Mission Command practitioners must apply data presentation discipline to every product they put in front of a commander. The discipline framework has four questions:

What decision does this product support? Every commander product should be designed around a specific decision or a clearly defined situational awareness requirement.

What is the minimum data required? Display the data the decision requires — not all the data that is available.

Is assessment visible alongside data? Raw data requires commander interpretation. Synthesized assessment pairs data with analytical finding.

Can the product be understood in under two minutes? If a commander must spend more than two minutes orienting to a product, the product is not ready.

SECTION 7 — COMMON FAILURE MODES FOR MISSION COMMAND PRACTITIONERS ON MSS

BLUF: Eight recurring failure modes account for most MSS integration problems in Mission Command functions. Each has a recognizable pattern, a cause, and a correction.

7-1. Failure Mode: The Briefing Room Demo

Description: The staff opens the live MSS platform during a commander's brief and navigates through dashboards in real time while the commander watches.

Why it happens: Staff sections do not complete sufficient pre-brief synthesis. The platform is used as the product instead of the source for the product.

Correction: All MSS products for commander briefings are prepared before the brief. The live platform is available for follow-on questions — it is not the primary briefing medium.

7-2. Failure Mode: Data Without Assessment

Description: Staff sections report data to the commander without analytical assessment. The staff briefs numbers the commander already has on the same dashboard.

Why it happens: Staff sections conflate data reporting with analytical advising.

Correction: Establish a standing SOP: every data point in a commander brief must be accompanied by an assessment of trend and an implication for mission or decision.

7-3. Failure Mode: CCIR Inflation

Description: CCIRs accumulate beyond what the commander can act on. The commander becomes desensitized to alerts.

Why it happens: Staff sections add CCIRs protectively. CCIRs from previous operations are not retired.

Correction: Review the CCIR list at every MDMP cycle. Each CCIR requires: an owner, a precise threshold, a linked command decision, and an expiration condition.

7-4. Failure Mode: Single-Section MSS Dependency

Description: Only one staff section can navigate the platform, creating a single point of failure.

Why it happens: Initial platform rollouts designate one technical point of contact, and broader training never follows.

Correction: All staff section chiefs and senior NCOs require baseline MSS proficiency (SL 1 minimum). Distribute the capability.

7-5. Failure Mode: Treating MSS as the Single Source of Truth

Description: Staff sections discontinue validation against source systems. When MSS data lags or reflects an ingestion error, the error is briefed as current operational truth.

Why it happens: When the platform works well, it builds confidence. Confidence becomes habit. Habit replaces validation.

Correction: Validate significant data points against authoritative source systems before decisions. Know the data freshness timestamps and ingestion lag for each MSS source.

7-6. Failure Mode: Assessment Debt

Description: The staff observes diligently and reports accurately but does not consistently recommend. Conditions requiring command decisions are observed cycle after cycle without generating a recommendation.

Why it happens: Recommendations carry risk. Staff sections default to reporting when uncertain about making recommendations above their functional authority.

Correction: The XO and operations officer must enforce: every significant trend reported in a battle rhythm event produces a recommendation or a named decision point.

7-7. Failure Mode: Shared Understanding Failure — Higher Has MSS; Subordinates Do Not

Description: The higher headquarters has full MSS integration. Subordinate units have limited or no access, creating an asymmetric information environment that contradicts the shared understanding principle of Mission Command.

Why it happens: MSS rollouts proceed top-down. Access management decisions limit subordinate access during rollout phases.

Correction: Shared MSS access is a Mission Command planning requirement. Establishing MSS access and literacy at subordinate echelons is a command task — it belongs in the training plan.

7-8. Failure Mode: Over-Reporting Noise

Description: Every data anomaly triggers an immediate report or escalation, regardless of whether it represents an actual operational problem.

Why it happens: The platform's continuous visibility creates pressure to act on everything. Escalation thresholds are not defined in the unit SOP.

Correction: Develop and codify escalation thresholds in the unit SOP: CCIR-level event (immediate commander notification), BUA-reportable event (next scheduled battle rhythm event), or staff-resolved matter (handled below commander level with a log entry).

SUMMARY — MISSION COMMAND PRACTITIONER MENTAL MODEL CHECKLIST

Before using MSS data to support a commander brief or assessment, confirm each item.

Item	Check
The data source and ingestion lag are understood for each metric being briefed	
Each data point in the brief is accompanied by a trend assessment and operational implication	
MOEs (effectiveness of operations) are reported alongside MOPs (task completion)	
CCIRs are current, precisely defined, and linked to command decisions	
The CCIR list was reviewed at the last planning cycle and outdated CCIRs were retired	
Assessment findings include a recommendation or named decision point	
Significant data points have been validated against authoritative source systems	
The brief leads with synthesized assessment; the live platform is the backup	

Item	Check
Subordinate commanders have access to and can interpret the same MSS products being used	
Degraded operations capability is identified for the next major operation or movement	

This guide is a prerequisite companion to SL 4F. Proceed to SL 4F for task-based instruction in MSS integration within the Mission Command warfighting function.

RELATED TRACKS AND PUBLICATIONS

WFF Peer Tracks

All six WFF tracks are at the same tier. Mission Command is the integrating WFF — SL 4F practitioners receive and present data products from all five peer WFF tracks on the COP and CCIR dashboard.

Track	Title	Prereq	Relationship to Mission Command WFF
SL 4A	Intelligence WFF	SL 1 + SL 2 + SL 3	PIR-derived CCIR components; INTSUM feeds the intelligence picture on the COP
SL 4B	Fires WFF	SL 1 + SL 2 + SL 3	Fires products integrate into the CCIR dashboard; FSCM overlays on the COP
SL 4C	Movement and Maneuver WFF	SL 1 + SL 2 + SL 3	Force tracking, phase lines, objectives — the ground maneuver layer of the COP
SL 4D	Sustainment WFF	SL 1 + SL 2 + SL 3	LOGSTAT feeds commander FFIR thresholds; sustainment picture on the COP
SL 4E	Protection WFF	SL 1 + SL 2 + SL 3	Protection status integrates into the COP; CCIR thresholds consume protection data
SL 4F	Mission Command WFF	SL 1 + SL 2 + SL 3	This track

Specialist Tracks (Prerequisite: SL 3)

For technical specialists producing products that Mission Command practitioners consume, specialist tracks are available after completing SL 3.

Track	Title
SL 4G	ORSA (→ SL 5G)
SL 4H	AI Engineer (→ SL 5H)
SL 4M	ML Engineer (→ SL 5M)
SL 4J	Program Manager (→ SL 5J)
SL 4K	Knowledge Manager (→ SL 5K)
SL 4L	Software Engineer (→ SL 5L)
SL 4N	UI/UX Designer (→ SL 5N)
SL 4O	Platform Engineer (→ SL 5O)

NOTE — New Doctrine Content in SL 4F: SL 4F now includes the FM 6-0 IM six-task mapping (Table 1-3: Collect/Process/Store/Display/Disseminate/Protect), an information relevance criteria→VAULTIS-A crosswalk (Table 1-4: Accurate/Timely/Useable/Complete/Precise/Secure mapped to VAULTIS-A dimensions), and an enhanced Appendix D with section-level detail for 14 governing publications including FM 3-0 and ATP 5-0.3. These sections ground Mission Command data management in their authoritative doctrinal sources.

HEADQUARTERS, UNITED STATES ARMY EUROPE AND AFRICA Wiesbaden, Germany 2026