150-C2-5116
Conduct Course of Action Comparison
Status: Approved

Conditions: The staff officer receives an order from higher headquarters (HHQ) or the commander derives a mission requiring the staff officer to conduct course of action (COA) comparison. The staff officer receives guidance on conducting course of action comparison in a dynamic and complex operational environment (OE) throughout operations to achieve mission objectives. Hybrid threats contest the unit's objectives in all five domains (land, maritime, air, space, and cyberspace), all three dimensions (human, physical, and information), and the electromagnetic spectrum (EMS). All eight operational variables (political, military, economic, social, information, infrastructure, physical environment, and time [PMESII-PT]) are present and dynamic for brigade and above; four or more variables are present for battalion and below. The order from HHQ includes all applicable overlays and/or graphics, area of operations (AO) boundaries, control measures, and criteria for subsequent tactical actions. All necessary personnel and equipment on the unit's modified table of organization and equipment (MTO&E) are available. The unit is task-organized with necessary units and reinforced with assets from higher to accomplish assigned tasks. The staff officer has communications with subordinate units, adjacent units, and HHQ. The staff has organized the four components of the command and control (C2) system to support decision making, facilitate communication, and conduct operations.

Note: Conduct the task using Secret//Releasable (S//REL) classified mission partner network (MPN) to enable command and control, decision making, and shared understanding with mission partners (collaboration and the display and sharing of relevant information), which realistically portrays a mission partner environment (MPE). The Army will likely conduct operations on an MPN, within an MPE in a combined theater. Produce orders and other staff products on the MPN, utilizing SIPR NOFORN by exception only.

Environment: Some iterations of this task should be performed with degraded command and control networks, degraded conditions in the electromagnetic spectrum, and/or with degraded, denied, and disrupted space operations environment (D3SOE). This task should not be trained in MOPP 4.

Standards: The staff officer evaluates COAs independently and against set evaluation criteria approved by the commander or the commander's designated representative. The staff officer identifies the advantages and disadvantages of each COA, compares COAs to determine cost and benefit, which enables recommending and selecting a COA with the highest probability of success. The staff officer also develops a COA in an OPLAN or OPORD. Conducting COA comparison is conducted in accordance with (IAW) FM 5-0, established timelines, the commander's intent, orders from higher headquarters, the Army Ethic, and standard operating procedure (SOP), while adhering to the GO / NO-GO criteria without error.

Special Conditions: None

Safety Risk: Low

MOPP 4: Never

Task Statements

Cue: The staff officer receives an order from higher headquarters (HHQ) or the commander derives a mission requiring the staff officer to conduct COA comparison.

DANGER

Leaders have an inherent responsibility to conduct risk management to ensure the safety of all Soldiers and promote mission accomplishment.

WARNING

Risk management is the Army's primary decision-making process to identify hazards, reduce risk, and prevent both accidental and tactical loss. All Soldiers have the responsibility to learn and understand the risks associated with this task.

CAUTION

Identifying hazards and controlling risks across the full spectrum of Army functions, operations, and activities is the responsibility of all Soldiers.

Remarks: For questions, concerns, or comments, please contact: usarmy.leavenworth.tradoc.list.mission-command-coe-dot-ted@army.mil

Notes: The term 'staff officer' refers to the unit chief of staff (COS), executive officer (XO), deputy commanding officer (DCO), and/or another designated officer as directed by the commander.

Step 5: Course of Action (COA) Comparison

Purpose: Identifies costs and benefits between COAs to facilitate commander's decision on the best COA.

Key inputs	Sub-steps	Key outputs
• Updated running estimates. • Refined COAs. • Evaluation criteria. • War-game analysis results. • Updated assumptions.	• Conduct advantages and disadvantages analysis. • Compare COAs. • Develop COA decision brief.	• Staff-recommended COA. • Cost and benefits between COAs. • COA selection rationale. • Updated running estimates. • Updated assumptions. • Updated intelligence preparation of the battlefield (IPB).

FM 5-0, Para 5-191 Figure 1-1
Course of Action (COA) Comparison

Performance Steps

1. The staff officer conducts a course of action (COA) comparison.

2. The staff officer directs the staff to analyzes and evaluate the advantages and disadvantages of each COA from their perspectives.
   • Presents findings to the other staff members for consideration.
   • Outlines each COA, highlighting its advantages and disadvantages.
   • Compares the advantages and disadvantages of the COAs to identify their benefits and associated risks with respect to each other.

3. The staff officer implements a decision matrix.
   • Identifies rankings from 1 to the number of COAs that exist.
   • Adds the unweighted ranks in each row horizontally and records the sum in the total column on the far right of each COA.
   • Multiplies the same ranks by the weights associated with each criterion and notes the product in parenthesis underneath the unweighted rank.
   • Adds these weighted ranks horizontally and records the sum in parenthesis underneath the unweighted total in the total column to the right of each COA.
   • Compares the totals to determine the most preferred (lowest total) COA based on both unweighted and weighted ranks.
   • Identifies the most preferred solution.

   Note: This matrix uses evaluation criteria developed during mission analysis and refined during COA development to help assess the effectiveness and efficiency of each COA.

Table 5-9. Sample decision matrix

Weight[1]	1	2	1	1	2	
Criteria[2]						
Course of Action (COA)	Simplicity	Maneuver	Fires	Civil control	Mass	Total
COA 1[3]	2	2 (4)	2	1	1 (2)	8 (11)
COA 2[3]	1	1 (2)	1	2	2 (4)	7 (10)

Notes.
[1]The chief of staff or executive officer may emphasize one or more criteria by assigning weights to them based on a determination of their relative importance. Higher weights correspond to emphasized or more important criteria.
[2]Criteria are those approved by the commander during the mission analysis brief.
[3]COAs selected for war gaming have rankings assigned with regards to each criteria based on relative advantages and disadvantages of each COA. For example, when compared for relative simplicity, COA 2 is simpler than COA 1 and is therefore ranked 1, with COA 1 ranked 2.
[4] For this example a lower score is the better COA

FM 5-0, Para 5-193 Figure 2-2
Sample Decision Matrix

4. The staff officer directs the staff not to rely solely on the decision matrix as the basis for the solution. However, the decision matrix:
- Facilitates dialogue between the commander and staff.
- Guards against reaching conclusions from a quantitative analysis of subjective weights.
- Resolves changes in judgement due to the relative weighting of criteria.
- Evaluates whether to accept the results of the decision matrix or to execute one of the other COAs.

5. The staff officer compares the feasibility of each COA.
- Identifies the one with the highest probability of success.
- Identifies the most likely threat COA.
- Identifies the most dangerous threat COA.
- Identifies the most important stability task (optional at the discretion of commander).
- Identifies the most damaging environmental impact (optional at the discretion of commander).

6. The staff officer recommends the COA that best accomplishes the mission.
- Poses the minimum risk to the force and mission accomplishment.
- Places the force in the best posture for future operations.
- Provides the maximum latitude for initiative by subordinates.
- Provides the most flexibility to meet unexpected threats and opportunities.
- Provides the most secure and stable environment for civilians in the area of operations.

7. The staff officer conducts a COA decision briefing to the commander.
- The commander's intent of the higher and next higher echelon commanders.
- The status of the force and its components.
- The current intelligence preparation of the operational environment (IPOE).
- Each COA considered, including:
  - o Assumptions used.
  - o Concept of operations brief review.
  - o COA analysis results.
  - o Modifications to friendly COAs.
  - o Evaluation criteria results.
  - o Advantages and disadvantages (including risks) of each COA.
- The recommended COA.
Note: If a significant disagreement exists, then the staff officer should inform the commander and discuss, if necessary.

8. The staff officer requests the commander's decision on a COA.

(Asterisks indicates a leader performance step.)

Evaluation Guidance: Score the Soldier GO if he/she passes all performance measures. Score the Soldier NO-GO if the Soldier fails any performance measure. If the Soldier scores NO-GO, show the Soldier why he/she failed and show the Soldier how to perform the measure correctly.

Evaluation Preparation: Brief the Soldier: Explain expectations to the Soldier by reviewing the task standards. Stress to the Soldier the importance of observing all cautions and warnings to avoid injury to personnel and, if applicable, damage to equipment.

PERFORMANCE MEASURES	GO	NO-GO	N/A
1. The staff officer conducted a course of action (COA) comparison.			
2. The staff officer directed the staff to analyzes and evaluate the advantages and disadvantages of each COA from their perspectives.			
3. The staff officer implemented a decision matrix.			
4. The staff officer directed the staff not to rely solely on the decision matrix as the basis for the solution. However, the decision matrix: • Facilitated dialogue between the commander and staff. • Guarded against reaching conclusions from a quantitative analysis of subjective weights. • Resolved changes in judgement due to the relative weighting of criteria. • Evaluated whether to accept the results of the decision matrix or to execute one of the other COAs.			
5. The staff officer compared the feasibility of each COA.			
6. The staff officer recommended the COA that best accomplishes the mission.			
7. The staff officer conducted a COA decision briefing to the commander.			
8. The staff officer requested the commander's decision on a COA.			

Supporting Reference(s):

Step Number	Reference ID	Reference Name	Required	Primary	Source Information
	FM 5-0	Planning and Orders Production	Yes	Yes	
	LOCAL SOP	LOCAL SOP	Yes	No	

TADSS :

TADSS ID	Title	Product Type
20-101	Joint Land Component Constructive Training Capability -Multi-Resolution Federation - Standard Configuration	DVC
71-ALOTT	Army Low Overhead Training Toolkit	SIM
71-20	Common Hardware Platform (CHP)	DVC

Equipment Items (LIN): None

Materiel Items (NSN) :

Step ID	NSN	LIN	Title	Qty
	7010-01-443-2309		Computer System, Digital: AN/TYQ-45A	1

Environment: Environmental protection is not just the law but the right thing to do. It is a continual process and starts with deliberate planning. Always be alert to ways to protect our environment during training and missions. In doing so, you will contribute to the sustainment of our training resources while protecting people and the environment from harmful effects. Refer to the current Environmental Considerations manual and the current GTA Environmental-related Risk Assessment card. Refer to FM 3-34.5 Environmental Considerations and GTA 05-08-002 ENVIRONMENTAL-RELATED RISK ASSESSMENT.

Safety: In a training environment, leaders must perform a risk assessment in accordance with current Risk Management Doctrine. Leaders will complete the current Deliberate Risk Assessment Worksheet in accordance with the TRADOC Safety Officer during the planning and completion of each task and sub-task by assessing mission, enemy, terrain and weather, troops and support available-time available and civil considerations, (METT-TC). Note: During MOPP training, leaders must ensure personnel are monitored for potential heat injury. Local policies and procedures must be followed during times of increased heat category in order to avoid heat related injury. Consider the MOPP work/rest cycles and water replacement guidelines IAW current CBRN doctrine. Refer to GTA 05-08-012 INDIVIDUAL SAFETY CARD.

Prerequisite Individual Tasks :

Task Number	Title	Proponent	Status
150-C2-5112	Conduct Mission Analysis	150 - Mission Command (Individual)	Approved
150-C2-5115	Conduct Course of Action Analysis (War-Gaming)	150 - Mission Command (Individual)	Approved
150-C2-5110	Conduct Receipt of Mission	150 - Mission Command (Individual)	Approved
150-C2-5114	Engage in Course of Action Development	150 - Mission Command (Individual)	Approved

Supporting Individual Tasks :

Task Number	Title	Proponent	Status
150-C2-5117	Prepare a Warning Order	150 - Mission Command (Individual)	Approved

Supported Individual Tasks :

Task Number	Title	Proponent	Status
150-LDR-5012	Conduct Troop Leading Procedures	150 - Mission Command (Individual)	Approved
150-LDR-5100	Lead the Operations Process	150 - Mission Command (Individual)	Approved
150-LDR-5014	Lead the Rapid Decision-Making and Synchronization Processes	150 - Mission Command (Individual)	Approved

Supported Collective Tasks :

Task Number	Title	Proponent	Status
71-TA-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
71-TA-7600	Conduct Countering Weapons of Mass Destruction Operations	71 - Mission Command (Collective)	Approved
71-JNT-6250	Protect Civilians from Attack	71 - Mission Command (Collective)	Approved
71-TA-5111	Conduct the Military Decision-Making Process	71 - Mission Command (Collective)	Approved
71-BN-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
71-CORP-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
71-DIV-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
31-CO-0201	Conduct Partner Nation Military Advisory Assistance for Special Forces	31 - Special Forces (Collective)	Approved
71-BDE-5111	Conduct the Military Decision-Making Process	71 - Mission Command (Collective)	Approved
33-CO-0011(Step: 1.)	Integrate a Psychological Operations company Headquarters with a Supported Unit Headquarters	33 - Psychological Operations	Approved
71-BN-5002	Conduct Rapid Decision Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Superseded
71-BN-5111	Conduct the Military Decision-Making Process	71 - Mission Command (Collective)	Approved
71-DIV-5002	Conduct Rapid Decision Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Superseded
71-CORP-5002	Conduct Rapid Decision Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Superseded
71-CORP-5111	Conduct the Military Decision-Making Process	71 - Mission Command (Collective)	Approved
71-BDE-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
71-DIV-5111	Conduct the Military Decision-Making Process	71 - Mission Command (Collective)	Approved
31-SEC-0403	Coordinate Sensitive Activities	31 - Special Forces (Collective)	Analysis
33-DET-0011(Step: 1.)	Integrate a Psychological Operations Detachment with a Supported Unit Headquarters	33 - Psychological Operations	Approved
03-PLT-0020(Step: 1.)	Maintain Platoon Command Post (CP)	03 - CBRN (Collective)	Approved
34-PLT-9044	Provide Support to Situation Development	34 - Combat Electronic Warfare and Intelligence (Collective)	Approved
71-BDE-5002	Conduct Rapid Decision Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Superseded
80-CO-5000	Provide Sustainment Support to Army Special Operations Forces (ARSOF)	80 - Special Operations	Approved
71-CMD-5002	Conduct Rapid Decision-Making and Synchronization Process (RDSP)	71 - Mission Command (Collective)	Approved
03-TM-0020(Step: 1.)	Maintain Team Command Post (CP)	03 - CBRN (Collective)	Approved
03-DET-0020(Step: 1.)	Maintain Detachment Command Post (CP)	03 - CBRN (Collective)	Approved

Knowledges :

Knowledge ID	Knowledge Name
K0003	Know the steps of the Military Decision Making Process (MDMP)
K0232	Know the elements of a COA sketch
K0004	Recognize the role IPB plays in the MDMP process
K0005	Understand the concept of Area of Operations (AO)
K0006	Understand the concept of Area of Interest (AI)

K0192	Understand the concept of wargaming

Skills :

Skill ID	Skill Name
S0602	Ability to Communicate Effectively in Writing
S0026	Differentiate specified, implied and essential tasks

ICTL Data : None