o Avoidance/Elimination: i.e. choosing an alternate route to avoid a hazard, or repairing an unsafe bridge to eliminate a hazard

CRM Worksheet Instruction:

List Controls for each hazard in Column 8 of DA Form 7566

CRM Worksheet NOTE: We cannot determine the Residual Risk Level in Column 9 until we know whether our controls can be implemented and supervised. We will return to Column 9 later.

b. **Determine How to Implement.** Controls must be implemented to be effective; to reduce risk. They must be feasible, suitable, acceptable, and clearly communicated to those who will implement them. Verbal or written orders, mission briefings, SOPs, load plans, pre-combat checks, battle-rosters/crew assignments, safety briefings, and mission briefings, are several examples of how to implement controls.

CRM Worksheet Instruction:

Enter how each control will be implemented (briefing, orders, inspection, etc.) in Column 10 of DA Form 7566.

- c. **Determine How to Supervise.** Missions and activities must be supervised to ensure that everyone understands and implements CRM controls; to prevent complacency and indiscipline; and to identify new hazards.
- o Supervision may be accomplished through direct leadership, spot-checks, inspections, and reports.
- o Commanders and leaders are responsible for supervision. Leaders must remain engaged. Even when using the buddy system, someone is always in charge.

CRM Worksheet Instruction:

Enter how each control will be supervised, and who is responsible, in Column 11 of DA Form 7566.

d. Reassess Risk to Determine Residual Risk Level.
 Once we've developed controls, and identified how they will be implemented and supervised, we must reassess each hazard

to determine the Residual Risk Level, which is the risk remaining after controls are applied. Controls should reduce the probability and severity of hazards, and may reduce the risk level of a hazard. *CRM Worksheet Instruction:*

Reassess, and enter the residual risk level for each hazard in Column 9 of DA Form 7566.

e. **Determine Overall Risk Level.** The overall risk level for the mission or activity must be equal to, or greater than, the highest residual risk level for any given hazard. The overall risk level for the mission or activity may be even higher based on the number of lower risks, and overall complexity of the mission.

CRM Worksheet Instruction:

Check the appropriate box to indicate the overall risk level in Block 13 of DA Form 7566.

f. **Make Risk Decisions.** Risk decisions must always be made at the appropriate level of command. Check your organization's risk decision approval policy to determine who has the authority to approve your mission or activity. Remember, off-duty, the decision is probably yours. Would you sign your family up for a High or Extremely High Risk activity? Is the benefit worth the potential cost?

CRM Worksheet Instruction:

- 1. Enter the name, rank, and duty position of the appropriate Risk Decision Authority in Block 14 of DA Form 7566.
- 2. Forward DA Form 7566 to the appropriate Risk Decision Authority for review and signature in Block 14.d.

NOTE: Column 12 is not to be completed until after the mission or activity is completed.

Step 4: Implement Controls

Having completed steps 1 through 3 of the CRM process, Step 4 takes place during the preparation, execution, and evaluation

phases of any mission or activity. This is the step where we put our planning into practice; where we implement our controls. Controls may be implemented during rehearsals and training events for missions; they may be implemented during packing and setup for an activity. Controls will certainly be implemented during the execution of the mission or activity.

Step 5: Supervise and Evaluate

Supervise

Leaders must be engaged as supervisors to ensure that CRM controls are properly implemented. Leaders supervise to find and correct complacency, indiscipline, and lack of understanding. They must also maintain situational awareness to identify new hazards, and adjust controls as necessary. This is reapplying Step 1, which demonstrates the cyclical nature of the CRM process. Engaged leadership makes all the difference. Even when using the buddy system, someone always knows when an unsafe condition exists; someone can always make a difference.

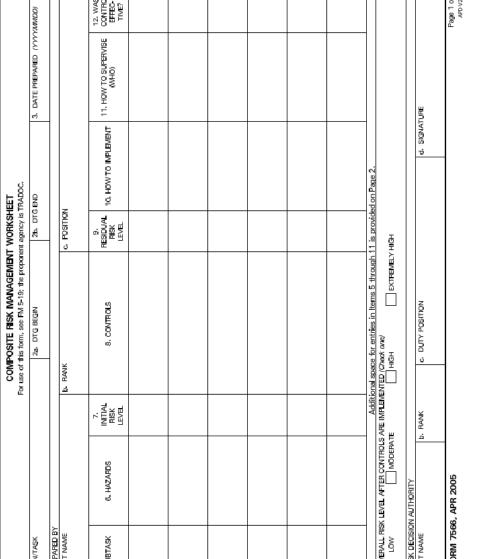
Evaluate

Evaluation must occur during all phases of any mission or activity. Evaluations reveal deviations from the standards. After-Action-Reviews (AAR) must be conducted following completion of any mission or activity to answer the following questions:

- Were hazards correctly identified? Were new hazards discovered during the mission/activity?
- Were hazard assessments accurate?
- Were controls effective? Did solutions match the problems?
- Were controls understood, implemented, and effective?
- Was supervision effective?
- Were CRM guiding principles adhered to?

CRM Worksheet Instruction:

In column 12, enter whether each control was effective or not. File your CRM Worksheet for future reference.



Composite Risk Management Quick Reference Booklet

(For more detail, see FM 5-19)

The purpose of this booklet is to provide a quick reference to the Composite Risk Management (CRM) process and CRM Worksheet. CRM is the Army's primary decision making process for identifying, assessing, and controlling hazards. It is an essential element of the Army Operations Process, Troop Leading Procedures, Military Decision Making Process, and other organizational planning processes. CRM applies to both Soldiers and Army Civilians, across the full spectrum of Army missions and activities, both on and off duty. CRM is a force protection tool used to reduce the risk of personnel injuries, equipment damage, and harm to the environment.



Figure 1: The CRM Process

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CRM is "composite" because it deals with hazards from all sources: tactical and non-tactical, threat-based and accident-based. The primary premise of CRM is that it does not matter where or how a loss occurs, the result is the same--decreased combat power or mission effectiveness. The guiding principles of CRM are:

- o Integrate CRM into all missions, operations, activities, and processes.
- o Make risk decisions at the appropriate level.
- o Accept no unnecessary risk.
- o Apply CRM cyclically and continuously.
- o Do not be risk averse. Live by the Warrior Ethos, the Soldier and Army Civilian Creeds, and complete the mission.

DA Form 7566, Composite Risk Management Worksheet, provides a standardized means of documenting the CRM process A copy of the CRM Worksheet may be found at the back of this booklet.

CRM Worksheet Instruction:

Block 1. Enter the name of the Mission/Task/Activity.

Block 2.a & b. Enter the Date/Time Group to indicate when the mission/activity will begin and end.

Block 3. Enter the date you prepared the worksheet.

Block 4.a.b.c. Enter your name, rank, and position.

Column 5. List the tasks/subtasks which must be accomplished to complete the mission/activity. If necessary, refer to SOP, Field Manuals, Soldiers Manual of Common Tasks, Job Books, etc.

Step 1: Identify Hazards

a. Hazards are conditions with the potential to cause personnel injury, equipment or property damage, environmental harm, or mission degradation.

b. Use the METT-TC model to identify mission hazards:



Mission - What hazards are unique to the mission? For example, improper material loading, and ineffective ground guide/driver communications are common hazards to rail operations.

Enemy - What hazards are posed by enemy forces? Can we expect IED, small arms, mortars, RPG?

Terrain and Weather - Are road conditions favorable? Are canal crossings stable? Are there dangers of personnel falling from dangerous elevations? Are there water obstacles to cross? What are the weather conditions? Will precipitation or obscuration (i.e. blowing sand) limit visibility? Is Heat or Cold injury a hazard? Are storms forecast?

Troops and Equipment - Are troops adequately trained and experienced? Are they in good physical and mental condition? Are leaders competent and experienced? Is command climate healthy? Are command/control/communication systems

functioning? Do we have the right equipment for the mission? Is equipment in safe operating condition?

Time - Is there sufficient time to plan and prepare for the mission? Are we rushing the mission and overlooking hazards? Is there a safer time to conduct the mission?

Civilian Considerations - Will the mission create unacceptable risk to civilian personnel or property? Will civilians pose a hazard to the mission? What are the Rules of Engagement?

c. For Activities, use the ADTPTL model.



Activity - What hazards are unique to the activity? For example, fixed bases on a softball field pose known hazards to players' ankles. Gas grill operator manuals list many hazards to be noted.

Disrupters - Anyone who may willfully oppose your activity. For example, criminals may disrupt your night on the town; ill-tempered neighbors may disrupt your barbecue; protestors may disrupt your group's conference, and insects and wildlife may pose hazards to outdoor recreation.

Terrain and Weather - Terrain hazards may include slopes, elevation, unstable terrain, road conditions, and water obstacles. Weather hazards include precipitation, wind, lightning, and temperature.

People and Equipment - Hazards associated with people include lack of training, discipline, knowledge, maturity, leadership, physical and psychological condition. Equipment hazards include faulty design, improper maintenance or operation, and unsafe equipment condition.

Time - Insufficient time to plan, prepare, and conduct an activity may cause us to overlook hazards. Choosing the right time to conduct an activity is also important (i.e. choosing to drive in early morning fog, rather than waiting until it dissipates).

Legal - Activities must be evaluated to ensure they are legal. In addition, participants may be held liable for negligent or reckless behavior.

CRM Worksheet Instruction: List the hazards associated with each task/subtask in Column 6 of DA Form 7566.

Step 2: Assess Hazards

a. Consider each hazard identified in Step 1.

If no risk management controls are applied, what is the probability of that hazard leading to an accident or incident? Is it frequent, likely, occasional, seldom, or unlikely? A few defining examples are listed below:

- Frequent POV accidents, falling, combat casualties, sporting accidents
- o Likely Motorcycle accidents, pedestrian accidents, drowning, Army Motor Vehicle accident, heat injuries
- o Occasional Aviation accidents, negligent weapons discharge, Army Combat Vehicle accident
- o Seldom Electrocution, alcohol poisoning
- o Unlikely Earthquake and flood

b. Determine the severity of impact if the hazard is encountered. Will its effect be catastrophic, critical, marginal, or negligible?

c. Determine the initial risk level for each hazard using the Risk Assessment Matrix (Figure 2). If the probability of a hazard

occurring is "Likely" and the severity would be "Critical", the initial risk level is "High."

| RISK ASSESSMENT | | | | | | | |
|------------------|-----|-------------|-------------|-----------------|-------------|---------------|--|
| | | Probability | | | | | |
| Severity | | Frequent A | Likely B | Occasional C | Seldom D | Unlikely E | |
| Catastrophic | I | Е | Е | н | Н | М | |
| Critical | II | Е | Н | н | М | L | |
| Marginal | III | н | М | М | L | L | |
| Negligible | IV | М | L | L | L | L | |
| E_Extremely High | | H₌ High | N | M - Moderate | | L-Low | |

Figure 2: Risk Assessment Matrix

CRM Worksheet Instruction: Enter the initial risk level for each hazard in Column 7 of DA Form 7566.

Step 3: Develop Controls and Make Risk Decisions

a. Develop controls. Controls are actions taken to eliminate or reduce risk to an acceptable level. Many controls may be found in SOPs, regulations, field manuals, and operator manuals. The USACRC, and other safety websites, are another source for identifying controls. In many cases, controls must be developed through problem solving based on experience and knowledge. Controls normally fall into one of three categories:

- o Training and Education: i.e. HMMWV
 Egress/Assistance Training
- o Physical: i.e. signs, fences, and body armor

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