

APPENDIX B

FRATRICIDE PREVENTION**Introduction**

The problem of fratricide is as old as warfare itself. It is a complex problem which defies simple solutions. Fratricide is defined as "the employment of friendly weapons, with the intent to kill the enemy or destroy his equipment and facilities, which results in unforeseen and unintentional death, injury, or damage to friendly, neutral, or noncombatant personnel." This is obviously a broad definition. This appendix focuses on actions leaders take with current resources to reduce the risk of fratricide. Second, it identifies actions that leaders and crews take to stop friendly fire incidents when they occur.

Magnitude of the Problem

The modern battlefield is more lethal than any in history. The pace of operations is rapid. The battlefield's nonlinear nature creates command and control challenges for all unit leaders.

Our ability to acquire targets using thermal imagery exceeds our ability to identify targets as friend or foe. The accuracy and lethality of modern weapons makes it possible to engage and destroy targets at these extended acquisition ranges.

Add to this the problem of battlefield obscuration. Rain, dust, fog, smoke, and snow degrade the ability to identify targets by reducing the intensity and clarity of thermal images. The effects of battlefield obscuration must be considered when relying on thermal identification.

On the battlefield, positive visual identification cannot be the sole engagement criterion at ranges beyond 1,000 meters. Situational awareness is key and must be maintained throughout an operation.

Following are recommended actions to take at crew and leader level, if a friendly fire incident occurs.

Crew actions when victims of friendly fires. The crew should--

- * React to contact until you can recognize friendly fire.
- * Report the following on the next higher unit net:
 - o Receipt of friendly fire.
 - o Location, direction, and firing vehicle.
 - o Visual recognition signal to cease fire.
- * Request for medical help as needed.
- * Not to return fire when you positively identify the firing element as friendly.

Crew actions when engaging friendly fires. The crew should--

Cease fire.

Report the following on the next higher net:

- o The engaged friendly force (if unknown, report number and type of vehicles).
- o Location.
- o Direction of friendly force and distance to victim.
- o Type of fire.
- o Target effects.

Crew actions when observing a friendly fire incident. The crew should--

- * Seek cover and protect self.
- * Report the following on the next higher net:
 - o Engage friendly force.
 - o Location.
 - o Direction of friendly force and distance to victim or firer.
 - o Type of fire.
 - o Target effects.
- * Provide a visual friendly recognition signal.
- * Provide assistance as needed when safe.

Leader actions. Leader actions focus on identifying and stopping the friendly fire incident and establishing controls to prevent its recurrence. Leaders should--

- * Find or stop firing.
- * Conduct in-stride risk assessment.
- * Identify or implement controls to prevent recurrence.

Preventative Measures

Reduction of fratricide risk begins with the planning phase of an operation. It continues through the execution of the operation.

The following are considerations for identifying fratricide risks in the planning, preparation, and execution phases of a given operation.

Planning phase. A good plan which is well understood helps to reduce fratricide risk. The following considerations help indicate the potential for fratricide in a given operation:

- * The clarity of the enemy situation.
- * The clarity of the friendly situation.
- * The clarity of the commander's intent.
- * The complexity of the operation.
- * The planning time available to all levels.

Preparation phase. Additional fratricide risks may become clear during rehearsals. Consider--

- * Number and type of rehearsals.
- * Training and skill levels of unit and individuals.
- * The habitual relationships between units.
- * The endurance of the soldiers conducting the operation.

Execution phase. During execution, instride risk assessment and reaction are necessary to overcome unforeseen fratricide risk situations. Consider--

- * Intervisibility between adjacent units.
- * Amount of battlefield obscuration.
- * Ability or inability to positively identify targets.
- * Equipment similarities or dissimilarities between enemy and friendly vehicles.
- * Vehicle density on the battlefield.
- * The tempo of the battle.

Risk assessment must be conducted at all levels during the planning, preparation, and execution phases of all operations. Identification of fratricide risk factors is conducted at every level and the results clearly communicated up and down the chain of command. Table B-1 (page B-3) provides a format for considering fratricide risk in the context of mission requirements. It also suggests fratricide reduction measures and has a quick-reference risk assessment chart.

Table B-1. Fratricide risk assessment chart

FACTORS	LOW (1)	MEDIUM (2)	HIGH (3)
1. <u>Understand Plan:</u>			
*Cdr's Intent	Clear		Foggy
*Complexity	Simple		Complex
*Enemy Situation	Known		Unknown
*Friendly Situation	Clear		Unclear
*ROE	Clear		Unclear
2. <u>Environment:</u>			
*Intervisibility	Favorable		Unfavorable
*Obscuration	Clear		Obscured
*Battle Tempo	Slow		Fast
*Positive Target ID	100%		0%
3. <u>Control Measures:</u>			
*Commo	Relationships	Organic	Joint/Combined
*Audio	Loud/Clear		Jammed
*Visual	Well Seen		Obscured
*Graphic	Standard		Not Understood
*SOPs	Standard		Not Used
*LNOs	Proficient		Unsure
*Location Or Navigation	Sure		Unsure
4. <u>Equipment:</u> <u>(Compared To Us):</u>			
*Friendly	Similar		Different
*Enemy	Different		Similar
5. <u>Training:</u>			
*Indiv Proficiency	MOS Qual		Untrained
*Unit Proficiency	Trained		Untrained
*Rehearsal	Multiple		None
*Habitual Relationship	Yes		No
*Endurance	Alert		Fatigued
6. <u>Planning Time</u> <u>(1/3 To 2/3 Rule):</u>			
*Higher HQ	Adequate		Inadequate
*Own HQ	Adequate		Inadequate
*Lower HQ	Adequate		Inadequate
Overall Fratricide Assessment	Low 26-46*	Medium 42-62*	High 58-78*
*Commander may use numbers as the situation dictates. Numbers alone may not give accurate fratricide risk assessment status.			

Fratricide Reduction Measures

These fratricide reduction measures are provided as reminders for prudent or appropriate actions to reduce fratricide risk. They are not directive in nature, nor intended to restrict initiative. Apply these to METT-T situations as appropriate:

- * Maintain *SITUATIONAL AWARENESS*--current intelligence, unit locations or dispositions, denial areas (minefield or FASCAM), contaminated areas (ICM or NBC), SITREPS, and METT-T.
- * Ensure *POSITIVE TARGET IDENTIFICATION*. Review vehicle and weapon ID cards; know at what ranges and under what conditions positive ID of friendly vehicles and weapons is possible.
- * Establish *COMMAND CLIMATE* that stresses *FRATRICIDE PREVENTION*. Enforce fratricide prevention measures and constant supervision of execution of orders and performance to standard through use of doctrinally sound tactics, techniques, and procedures.
- * Recognize the signs of *BATTLEFIELD STRESS*. Take quick effective action to deal with it and maintain unit cohesion.
- * Conduct individual and collective (unit) *FRATRICIDE AWARENESS TRAINING*, target identification or recognition, fire discipline, and leader training.
- * Develop a *SIMPLE, DECISIVE PLAN*.
- * Give *COMPLETE and CONCISE MISSION ORDERS*.
- * Use *SOPs* that are consistent with doctrine to simplify mission orders. Periodically review and change as needed.
- * Strive for *MAXIMUM PLANNING TIME* for you and your subordinates.
- * Use *COMMON LANGUAGE* or vocabulary and doctrinally correct *STANDARD TERMINOLOGY AND CONTROL MEASURES* (for examples, fire support coordination line, zone of engagement, restrictive fire line).
- * Ensure thorough *COORDINATION* is done.
- * Plan for and set up good *COMMUNICATIONS*.
- * Plan for *COLLOCATED CPs*, as appropriate to the mission (for example, passage of lines).
- * Establish or designate *LIAISON OFFICERS* as appropriate.
- * Make sure *RULES OF ENGAGEMENT* are clear.
- * Consider the effects of *KEY ELEMENTS OF TERRAIN* analysis on fratricide (observation and fields of fires, cover and concealment, obstacles and movement, key terrain, and avenues of approach).
- * Conduct *REHEARSALS* whenever situation allows time to do so.
- * Be in the right place at the right time. Position location or navigation equipment. Know *YOUR LOCATION and LOCATIONS OF ADJACENT UNITS* (left, right, leading, and following on). Synchronize tactical movement.
- * Include *FRATRICIDE INCIDENTS* in after-action reviews.

Maintaining situational awareness at all levels is key to fratricide reduction. Units must develop techniques, similar to those listed, to gain and maintain situational awareness in SOPs:

- * Eavesdropping on next higher net.
- * Cross talk on radio between units.
- * Accurate position reporting and navigation.
- * Training and use or exchange of LNOs.

Rehearsals are a primary tool in identifying and reducing fratricide risk. Consider the following when conducting rehearsals:

- * Brief-backs ensure subordinates understand the commander's intent. They often highlight areas of confusion, complexity, or planning errors.
- * The type of rehearsal conducted impacts on the risks identified.
- * Rehearsals should extend to all levels of command and involve all key players.
- * Ensure subordinates know where fratricide risks exist and what to do to reduce the risk.

Graphics are a basic tool that commanders at all levels use to clarify their intent. Graphics add precision to their concept and communicate their plan to subordinates. As such, graphics are very useful in reducing the risk of fratricide. Commanders at all levels must have absolute understanding of the definitions and purpose of operational graphics and techniques of their employment. See FM 101-5-1 for the definitions of each type of graphic control measures.

Fratricide Risk Considerations

The format in Table B-2 (pages B-6 and B-7) parallels the five-paragraph OPORD. The considerations or factors listed key on fratricide reduction and are structured where they would likely appear in the OPORD. This is not a change to the OPORD format nor an addition.

Table B-2. Format for fratricide reduction

<p>PARAGRAPH 1: SITUATION</p> <ul style="list-style-type: none"> a. Enemy Forces: <ul style="list-style-type: none"> o Equipment and uniform similarities. o Language. o Deception capabilities and past use. o Similarities which could lead to fratricide. o Location. b. Friendly Forces: <ul style="list-style-type: none"> o Similarities or differences in allied forces' language, uniform, and equipment (combined operations). o Differences in US services equipment and uniform (joint operations). o Similarities which could lead to fratricide. o Differences which could prevent fratricide. o Deception plan. o Location of your unit and adjacent units (left, right, leading, or follow-on). o Location of neutrals and noncombatants. c. Attachments and Detachments: <ul style="list-style-type: none"> o Do attached elements know the previous information? o Are detached elements supplied the previous information by gaining units? d. Own Forces: <ul style="list-style-type: none"> o Status of training (individual, crew, or unit) skill. o Fatigue (at the time of the operation or sleep plan). o Acclimatization to area of operations. o Equipment (new, old, and mix; status of NET). o MOPP requirements. o Weather: <ul style="list-style-type: none"> oo Visibility (light data and precipitation). oo Hot or cold (effect of weapons, equipment, and soldiers). e. Terrain: <ul style="list-style-type: none"> o Topography and vegetation (urban, mountain, hilly, rolling, flat, desert, swamp or marsh, prairie or steppe, jungle, dense forest, or open woods). o OCOKA. <p>PARAGRAPH 2: MISSION</p> <p>Is the mission, with associated tasks and purposes, clearly understood?</p> <p>PARAGRAPH 3: EXECUTION</p> <ul style="list-style-type: none"> a. Task Organization: <ul style="list-style-type: none"> o Has unit worked under this organization before (familiarity)? o Are SOPs compatible with the task organization (especially with attached units)? <ul style="list-style-type: none"> Uniform and equipment: Are special markings or signals needed for positive identification (cat's eyes, chemical lights, or panels)? o What special weapons or equipment are to be used? Do they look or sound like enemy weapons or equipment?
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Table B-2. Format for fratricide reduction (continued)**b. Concept of the Operation:**

- o *Maneuver.* Are main and supporting efforts identified to ensure awareness of greatest fratricide danger?
- o *Fires (direct and indirect).*
 - oo Priorities of fires identified.
 - oo Target list(s).
 - oo Fire execution matrix and overlay.
 - oo Location of denial areas (minefields or FASCAM) and contaminated areas (ICM or NBC).
 - oo Location of all supporting fire targets identified in OPORD or OPLAN (overlays).
 - oo Aviation and CAS targets clearly identified.
 - oo Direct fire plan.
 - oo FPF.
 - oo Sector limits (check and verify).
- o *Engineer.*
 - oo Barrier breaching -- Are friendly minefields, including FASCAM and ICM dud contaminated areas, known?
 - oo Are obstacles identified, along with approximate time for reduction/breaching? *Task to each subordinate unit.* Are friendly forces identified, as appropriate, for each subordinate maneuver element?
- o *Tasks to CS and CSS units.* Are friendly forces identified to CS and CSS units?
- o *Coordinating instructions.*
 - oo Rehearsal -- Will one be conducted? Is it necessary? Direct and indirect fires included?
 - oo Brief-back necessary?
 - oo Constraints and limitations. Are appropriate control measures clear and in OPORD or overlay? Are they known by everyone who has a need to know (assembly area, attack position, line of departure, axis of advance or avenue of approach or direction of attack, phase lines, objective(s), movement times, restrictive fire lines, fire support coordination line, zone of engagement, limits of advance, main supply route, coordination points, LP or OP, challenge, and password)? What is the plan for using these control measures to synchronize the battle and prevent fratricide?
 - oo Target or vehicle identification drills.
 - oo What is the immediate action drill or signal for "Cease fire" or "I'm friendly" if element comes under unknown or friendly fire? Is there a backup action?
 - oo Include guidance in handling dud munitions (ICM and CBUS).

PARAGRAPH 4: SERVICE SUPPORT

- o Ensure train's location and identification marking are known by everyone.
- o Ensure medical and maintenance personnel know routes between train and units.

PARAGRAPH 5: COMMAND AND SIGNAL**a. Command:**

- o Where is the location of the commander and key staff?
- o What is the succession of the command?

b. Signal:

- o Do instructions include signals for special and emergency events? Do instructions include how we identify ourselves to aircraft?
- o Do instructions include backup for code words and visual signals for all special and emergency events?
- o Are signal operating instructions distributed to all units with a need-to-know (higher, lower, left, right, leading, or following)?