* APPENDIX H

FRATRICIDE AVOIDANCE

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." It is a complex problem, old as warfare itself, that defies a simple solution.

H-1. MAGNITUDE OF THE PROBLEM

The rapid, nonlinear modern battlefield creates command and control challenges for every leader. For example, thermal imagery devices and accurate, lethal weapons enable soldiers to acquire, engage, and destroy targets at extended ranges. However, even these sophisticated tools do not allow positive identification of targets by visual means alone beyond about 1,000 meters, and even within this range, the intensity and the clarity of the thermal image is often degraded by rain, dust, fog, smoke, snow, or other battlefield obscuring factors. This example is only one of how fratricide incidents could occur; leaders and soldiers *must* maintain constant situational awareness throughout every operation.

H-2. SITUATIONAL AWARENESS

In order to avoid fratricide, all leaders must develop techniques for maintaining situational awareness, and they must include these techniques in their SOPs. Examples of techniques that might be useful include—

- Monitoring on the next higher net.
- Listening to radio cross talk between units.

- Accurately reporting and navigating between positions.
- Training, using, and exchanging liaison officers.

H-3. RISK ASSESSMENT

Leaders at every level must identify fratricide risk factors and communicate them up and down the chain of command. Figure H-1 shows an example work sheet for computing fratricide risk in the context of mission requirements. The work sheet divides six mission-accomplishment areas into specific factors whose potential effect on the risk of fratricide is assessed as low (1 point), medium (2 points), or high (3 points). The column total is compared to the chart at the bottom of the example work sheet to determine the relative likelihood of fratricide.   However, the commander bases his final assessment both on observable risk factors like the ones on the work sheet, and on his feelings about other, less tangible factors.   This work sheet is a training tool for sensitizing chains of command to potential fratricide situations. As units become proficient with the checklist, the checklist will be a quick mental exercise to be carried over to combat operations.

	FACTORS	RATINGS SCALES	RISK LEVEL
SUBORDINATES' UNDERSTANDING OF PLAN	Commander's intent	(1) Clear . . . . Unclear (3)	1
	Complexity of plan	(1) Simple . . . . Complex (3)	3
	Enemy situation	(1) Known . . . . Unknown (3)	2
	Friendly situation	(1) Clear . . . . Unclear (3)	1
	Rules of Engagement	(1) Clear . . . . Unclear (3)	1
ENVIRONMENT	Visibility between units	(1) Favorable . . . . Unfavorable (3)	3
	Battlefield visibility	(1) Clear . . . . Obscured (3)	2
	Battle tempo	(1) Slow . . . . Fast (3)	1
	Target ID	(1) Positive ID . . . . No ID (3)	1
CONTROL MEASURES	Command relationships	(1) Organic . . . . Joint or combined (3)	2
	Audio	(1) Loud and clear . . . . Jammed (3)	1
	Visual	(1) Clearly visible . . . . Obscured (3)	3
	Graphics	(1) Clear . . . . Not understood (3)	1
	SOPs	(1) Used . . . . Not used (3)	1
	Liaison officers	(1) Proficient . . . . Untrained (3)	1
	Location and navigation	(1) Accurate . . . . Questionable (3)	3
EQUIPMENT (compared to US)	Friendly equipment	(1) Similar . . . . Different (3)	3
	Enemy equipment	(1) Different . . . . Similar (3)	1
TRAINING LEVELS	Individual proficiency	(1) MOS qualified . . . . Untrained (3)	1
	Unit proficiency	(1) Trained . . . . Untrained (3)	1
	Rehearsals	(1) Multiple . . . . None (3)	1
	Habitual relationship	(1) Yes . . . . No (3)	3
	Endurance	(1) Alert . . . . Fatigued (3)	1
PLANNING TIME AVAILABLE (1/3 to 2/3 Rule)	Higher HQ	(1) Adequate . . . . Inadequate (3)	2
	Own HQ	(1) Adequate . . . . Inadequate (3)	2
	Lower HQ	(1) Adequate . . . . Inadequate (3)	2
	TOTAL RISK ASSESSMENT	26 to 46 points – LOW RISK 42 to 62 points – MEDIUM RISK 58 to 78 points – HIGH RISK	44

Figure H-1. Example fratricide risk assessment
work sheet.

H-4. PREVENTIVE MEASURES

Avoiding fratricide begins with planning and continues throughout execution. Figure H-2, (page H-6), is a checklist of planning considerations for leaders and soldiers. These considerations are not directive in nature nor are they intended to restrict initiative. Figure H-3 asks questions an OPORD should answer in order to help avoid fratricide.

a. **Planning.** A good plan clearly explains the enemy situation, the friendly situation, and the commander's intent, which helps avoid fratricide. Commanders may consider the status of each of the following to help determine the potential for fratricide:

- Clarity of the enemy situation.
- Clarity of the friendly situation.
- Clarity of the commander's intent.
- Complexity of the operation.
- Planning time available to all levels.

b. **Preparation.** During this phase, commanders must consider other indicators of fratricide risk:

- The number and type of rehearsals.
- The level of training and proficiency of the unit and of the individual soldiers.
- The soldiers' endurance levels.
- The habitual relationships between the units conducting the operation.

c. **Execution.** An in-stride risk assessment and reaction are necessary to avoid situations that may pose unforeseen fratricide risk. Commanders must consider the following:

- Visibility between adjacent units.
- Battlefield obscuration factors and the ability to positively identify targets.
- Similarities and dissimilarities between friendly and enemy equipment.
- Density of vehicles on the battlefield.
- Tempo of the battle.

H-5. ROLE OF GRAPHICS

To use graphics to clarify their intent, to add precision to their concept, to communicate their plan to subordinates, and to *avoid fratricide,* commanders at

all levels must understand what operational graphics are, and when and how to use them (FM 101-5-1).

H-6. BRIEFBACKS AND REHEARSALS

Briefbacks and rehearsals are useful in identifying planning errors.

a. **Briefbacks.** Commanders' briefbacks ensure subordinates understand their intents. Commanders use briefbacks to inform their subordinates where fratricide risks may exist, then tell them how to reduce or eliminate those risks. They also briefback complex plans to eliminate any confusion that could otherwise contribute to fratricide.

b. **Rehearsals.** The type of rehearsal conducted determines in part what risks are identified. Ideally, rehearsals should extend to all levels of command and involve all key players.

H-7. RESPONSE TO A FRIENDLY FIRE INCIDENT

Leaders and soldiers have specific and immediate responsibilities in the event of a friendly fire incident. Leaders must identify and stop the incident, assess the risk of its recurrence, and establish controls to prevent it. Crew responsibilities are as follows:

a. **When a Crew Engages a Friendly Force.** As soon as a crew realizes they have engaged a friendly force, they must—

(1) Cease fire.

(2) Report on the next higher net, including the identity of the friendly force, if known; if not, they at least report the number and type of vehicles in the force, its location, the direction and distance to the victims, the type of fire used, and the target effects.

b. **When a Crew Observes a Friendly Fire Incident.** If a crew sees someone else engage a friendly force, they must—

(1) Seek cover and protect themselves.

(2) Report on the next higher net, just as if they had engaged the friendly force themselves, except they also provide the direction and distance to the firer.

(3) Provide a visual friendly recognition signal.

(4) Provide assistance, once doing so is safe.

☐ Identify or assess potential fratricide risk in the estimate of the situation, and express it in the OPORD or FRAGO.

☐ Maintain situational awareness: current intelligence, unit locations or dispositions, denial areas (minefield or FASCAM), contaminated areas such as ICM or NBC, SITREPs, and METT-T.

☐ Ensure positive target identification. Review vehicle and weapon ID cards; know how far and in what conditions vehicles or weapons can be positively identified.

☐ Enforce avoidance measures such as constant supervision of the execution of orders and performance to standard through the use of doctrinally sound tactics.

☐ Recognize the signs of battlefield stress. Deal with it quickly and effectively to 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.

☐ Ensure SOPs are consistent with doctrine in order to simplify mission orders. Periodically review and change them as needed.

☐ Allow as much planning time as possible for you and your subordinates.

☐ Use common language or vocabulary, including doctrinally correct standard terminology and control measures such as fire support coordination line (FSCL), zone of engagement, and restrictive fire line (RFL).

☐ Ensure coordination is thorough.

☐ Plan or establish good communications.

☐ Plan collocated CPs, if appropriate to the mission.

☐ Establish liaison as appropriate.

☐ Ensure the ROE are clearly understood.

☐ Consider the effects of fratricide on key elements of terrain analysis (OCOKA).

☐ Rehearse whenever the situation allows.

☐ Use position locating and navigating devices (GPS); know where you are and where adjacent units are (left, right, leading, and following-on), and synchronize tactical movement.

☐ Include fratricide incidents in AARs.

Figure H-2. Planning considerations for
fratricide avoidance.

1. SITUATION
a. Enemy Forces.
  • Where are the enemy forces?
  • What similarities exist between enemy and friendly equipment that could lead to fratricide?
  • What is the enemy's deception history and capability?
  • What languages do enemy forces speak, and could these increase the risk of fratricide?

b. Friendly Forces.
  • What differences in language, uniform, or equipment exist between friendly forces that could lead to fratricide during any *combined* or *joint* operation?
  • What is the friendly deception plan?
  • Where are adjacent units (left or right, leading, or following-on)?
  • Where are neutral and noncombatant personnel?

c. Own Forces.
  • What are the levels of proficiency of individual soldiers, crews, and your unit as a whole?
  • Will fatigue be a factor during the operation, and have you prepared an effective sleep plan?
  • Is your unit acclimatized to the area of operations?
  • What is the status of training on any new equipment, and how old is rest of the equipment?
  • What MOPP requirements will apply to the operation?

d. Attachments and Detachments.
  • Have attached elements been provided with this information?
  • Are detached elements provided this information by their gaining units?

e. Weather.
  • What are the light and precipitation (visibility) conditions expected?
  • What effect will the heat or cold have on soldiers, weapons and other equipment, and vehicles?

f. Terrain.
  • Is the terrain urban, mountainous, hilly, rolling, flat, desert, swampy or marshy, prairie or steppe, jungle, densely forested, or openly wooded?
  • Have you evaluated the terrain using the factors of OCOKA?

Figure H-3. Checklist of questions addressing fratricide avoidance.

2. MISSION
Are the mission and all its associated tasks and purposes clearly understood?

3. EXECUTION
a. **Concept of the Operation.**
    (1) *Maneuver.* Are main and supporting efforts identified?
    (2) *Fires.* (Direct and indirect)
       – Are priorities of fire identified?
       – Have target lists been developed?
       – Have the fire execution matrix and overlay been developed?
       – Have locations of denial areas (minefields—FASCAM) and contaminated areas (ICM, NBC) been identified?
       – Are the locations of all supporting fires targets identified in the OPORD and OPLAN overlays?
       – Are aviation and CAS targets clearly identified?
       – Has the direct-fire plan been developed?
       – Have FPF been designated?

    (3) *Engineer tasks.*
       – Where are friendly minefields, including ICM and FASCAM?
       – Are obstacles identified, and what is the approximate time needed to reduce or breach each one?

    (4) *Tasks to subordinate unit.* Are the appropriate friendly forces identified for each subordinate maneuver element?
    (5) *Tasks to CS and CSS units.* Have locations of friendly forces been reported to CS and CSS units?
b. **Task Organization.**
       – Has the unit worked under this task organization before?
       – Are SOPs compatible with the task organization (especially with attached units)?
       – Are special markings or signals, such as cats' eyes, chemical luminescent lights, or panels, needed in order to positively identify uniforms and equipment?
       – What special weapons and equipment are to be used? Do they look or sound like enemy weapons or equipment?

c. **Coordinating Instructions.**
       – Are direct and indirect fires included in the rehearsal?
       – Is a briefback necessary?

Figure H-3. Checklist of questions addressing fratricide avoidance (continued).

– Are appropriate control measures clearly explained and illustrated in the OPORD and overlays? Have these measures been disseminated to everyone who has a need to know? How will they be used to synchronize the battle and prevent fratricide?

– Have target and vehicle identification drills been practiced?

– Do subordinate units know the immediate action drill or the signal to communicate "Cease fire" or "I am friendly," in case they should come under unknown or friendly fire? Do they know what to do if this does not work?

– Is guidance included about handling dud munitions such as ICMs and CBUs?

4. SERVICE SUPPORT

– Are trains locations and ID markings known to everyone?

– Do medical and maintenance personnel know the designated routes between trains and units?

5. COMMAND AND SIGNAL

a. **Command.**

(1) Where are the commander and key staff members?

(2) What is the chain of command?

b. **Signal.**

(1) Do instructions include signals for special and emergency events?

(2) Do they address how to identify friendly forces to aircraft?

(3) Do they include backup code words and visual signals for all special and emergency events?

(4) Are SOI distributed to all units with a need-to-know such as higher, lower, adjacent, leading, and follow-on units?

**Figure H-3. Checklist of questions addressing
fratricide avoidance (continued).**