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**RESEARCH
ANALYSIS
CORPORATION**

**Tacspiel War-Game Procedures
and Rules of Play
for Guerrilla/Counter guerrilla Operations**



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DEPARTMENT OF THE ARMY
OFFICE OF THE CHIEF OF RESEARCH AND DEVELOPMENT
WASHINGTON, D.C. 20310

CRDHF

17 March 1967

SUBJECT: RAC-TP-223, TACSPIEL War-Game Procedures and Rules of Play
for Guerrilla/Counter guerrilla Operations


TO:

1. Transmitted for your information and retention is (are) _____
copy (copies) of RAC-TP-223, "TACSPIEL War-Game Procedures and Rules of
Play for Guerrilla/Counter guerrilla Operations".

2. This publication was prepared under a study sponsored by the
US Army Combat Developments Command. The framework of the TACSPIEL war
game in conventional warfare is described in RAC-TP-111, "TACSPIEL War-
Game Procedures and Rules of Play(U)". This publication represents an
initial attempt to extend TACSPIEL war game models to low-intensity
warfare. Recognizing that refinement is required, this document should
prove to be a valuable reference for agencies concerned with rules for
gaming in this environment.

FOR THE CHIEF OF RESEARCH AND DEVELOPMENT:

1 Incl
as


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MILITARY GAMING DEPARTMENT
TECHNICAL PAPER RAC-TP-223
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Tacspiel War-Game Procedures and Rules of Play for Guerrilla/Counter guerrilla Operations

Addendum to Technical Paper RAC-TP-111 Dated November 1963

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FOREWORD

This addendum, "TACSPIEL War-Game Procedures and Rules of Play for Guerrilla/Counter guerrilla Operations," has been prepared by the TACSPIEL technical staff of the Military Gaming Department, Research Analysis Corporation (RAC). The development of a low-level-intensity war-gaming capability was undertaken as a substudy to support an approved US Army Combat Developments Command (USACDC) project based on the recommendation of the Army Operations Research Steering Committee in a letter to Office, Chief of Research and Development (OCD) dated 26 August 1964.

The study program presented to TACSPIEL at the start of RAC's Work Year 1965 by the Chief, Field Experiment and Troop Test Division, Directorate of Evaluation, HQ USACDC, requested a war-game evaluation of an air cavalry squadron (ACS), planned at that time to be organized by the Army in the spring of 1965. The proposed ACS was to be based on the type organic to the air cavalry brigade as described in the Fifth Draft Manuscript, Special Text 17-200-1, The Air Cavalry Brigade, HQ USACDC, dated January 1965.

The rules of play and war-game models described in this paper have been developed to war game the third and last game of the series proposed by USACDC. The first and second games of the series in a context of conventional warfare have been completed within the framework of the standard war-game rules described in RAC-TP-111, "TACSPIEL War-Game Procedures and Rules of Play."* The third game, located in Vietnam, played an ACS supporting units of an Army of the Republic of Vietnam (ARVN) Division in operations against guerrilla-type forces of hard-core Viet Cong and recruits from the local populace. There was gradual escalation of intensity across the spectrum from terrorist raids to coordinated attacks up to battalion size against ARVN forces.

These models and rules for assessment represent the initial attempt to extend the TACSPIEL War-Game Models of high-intensity warfare to a lower level of intensity. Each game rule and model described in RAC-TP-111 was examined and modified as required for guerrilla use. In many areas no changes or only minor adjustments were necessary. Thus to conduct a guerrilla game, the players, assessors, and analyst must have RAC-TP-111 available, and this publication is identified as an addendum to the basic gaming manual.

Larry J. Dondero
Head, Military Gaming Department

*Research Analysis Corporation, "TACSPIEL War-Game Procedures and Rules of Play," RAC-TP-111, Nov 63. SECRET

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**Tacspiel War-Game Procedures
and Rules of Play
for Guerrilla/Counter guerrilla Operations**

ABBREVIATIONS

AA	antiaircraft
ACP	air cavalry patrol
ACS	air cavalry squadron
ADA	air defense artillery
AFO	artillery forward observer
ARVN	Army of the Republic of Vietnam
ASA	Army Security Agency
ATL	air target locator
AVO	air-visual observer
Btry	battery
Cas	casualties
Civ	civilian
Co	company
COMINT	communications intelligence
DIP	dismounted patrol
EN	enemy
Engr	engineer
FAC	forward air controller
H	howitzer
hel	helicopter
IFU	infantry fire unit
Inf	infantry
IR	infrared
km	kilometer
LOH	light observation helicopter
LOS	line of sight
MIP	mounted patrol
mm	millimeter
Mort	mortar
Msn	mission
Mtg Engmt	meeting engagement
NOE	nap of the earth
OP	observation post
Plat	platoon
POL	petroleum, oils, and lubricants
Psn	position
PW	prisoner of war
RR	recoilless rifle
Spt	support
TAC Air	tactical air
TOE	table(s) of organization and equipment
TOT	time over target
USASA	United States Army Security Agency
Veh	vehicles
WEV	weapon-effectiveness values

INTRODUCTION

The original RAC tactical war game (TACSPIEL), a two-sided free-play analytic rigidly assessed manually operated game at the division level was designed as a research tool to support larger operations research studies of interest to the Army. Repeated game play over the past 3 years has led to product improvement and flexibility for aggregation and disaggregation of assessment models, permitting variation in gaming combat interactions of varied intensity and in game resolution.

In recent years TACSPIEL has focused on modifying an initially rather rigidly structured game to accept new models and variations in input essential for analysis of the effectiveness of new organizations, weapons, and tactics.

Following the principles of land warfare and methodology developed for high-intensity warfare contained in RAC-TP-111, "TACSPIEL War Game Procedures and Rules of Play,"* a lower-intensity gaming methodology is described herein for guerrilla/counterguerrilla operations.

The normal pattern of most free and closed games is followed, with separate rooms (Red and Blue) for the opposing player groups and a Control room for game assessment and reporting results of unit interactions. Before actual game play a militarily logical insurgency scenario is prepared to explain what has occurred in the recent past, why the opposing forces are at a particular place at a given time, what they know about each other, what the orders and missions are from higher command and/or rebel organization, and what types of troops and equipment (civil and military) are available to each side.

The game cyclic operation begins when the player teams address orders to their units (guerrilla and counterguerrilla). Control determines the extent of the directed operation during each game cycle and the results of contact or interaction between opposing game pieces (force, vehicles, and weapon systems) on the terrain board; it then reports the results to the players.

Both orders and assessment reports are constrained by the rules and must follow a specifically prescribed coded format to permit punching on IBM 80-field cards. Players implement their orders by filling out an Order Format with Order Codes.

The Order Format is delivered to the Control room where pieces are moved according to instructions and, if appropriate, interactions between units are assessed. Assessment reporting procedures are similar to ordering procedures using appropriate codes and formats. A list of order and assessment codes, supplemented by those prescribed in this document, is contained in RAC-TP-111. Users of this manual should have a copy of RAC-TP-111 for cross-referencing and guidance in the conduct and documentation of game play.

*Research Analysis Corporation, "TACSPIEL War-Game Procedures and Rules of Play," RAC-TP-111, Nov 62. SECRET

TACSPIEL		Transit-4		ORDER FORMAT				BLUE		TIME 021700 TO 021715						
Unit 1-5	Unit Posit 6-13	ORD 14-16	Auth 17-21	FU 22-25	Men 26-28	Num 29-31	Cont 32-34	C1 35-42	Desig 43-47	C2 48-55	Dir 56-57	F 58-60	Spt 61-65	Time 66-70	Fix 71-73	72-75
3C73	525676	101	C73					555685		540680	V	D		1730		

Fig. 1—Example of Order Format and Codes

Figure 1 illustrates the technique for recording codes (order to a rifle platoon by the company commander).

The order code illustrated in Fig. 1 was prepared after the following events:

The player acting as CO of Co C, 73d Inf, desires to move his third platoon now located at coordinates 525676 to point 540680 and then to its destination at 555685. The platoon will move in vehicles in deployed formation and will move cross-country since no road is available. The platoon is to begin its move at 1730.

The player selects the following code:

Code 101 — Move cross-country to C1 (via C2 if appropriate)
(V-vehicles, blank-dismounted) in formation F (C-column,
D-deployed) at Time (if appropriate).

The player makes this entry on his Order Format (Fig. 1). Codes implementing all the decisions made by a player group during an interval cycle are also entered in a similar manner on the form.

The codes and their translation to IBM cards provide ready sorting, grouping, tabulating, compiling, and other manipulating of the data concerning the events in the game.

The coding of intelligence information on the size and type of enemy units is done by reference to the column "Quality of information," which appears in many tables in this document. The possible quality levels of information indicated by the code numbers in the tables are shown in the accompanying tabulation.

Information reported	Number code
Specific size	A1
Unreported size	A2
Specific identification	B1
General identification	B2
Unknown identification	B3

By referring to the appropriate tables available to both assessors and players, identification can be translated into a number code, which is entered in the Cont column of the Assessment Format. For example, if a patrol observes an enemy company of medium tanks and, after randomizing, it is determined that the patrol obtains A1B1 information, the assessment report of the patrol has an entry of 321 (3, company size; 21, type of tanks). If, on

randomizing, it was determined that the patrol obtains only A2B2 information, the patrol reports a 002 (0, unknown size; 02, armored unit).

For convenience all probabilities in this document are expressed as ranges of 2-digit random numbers, i.e., if an event has a 60 percent probability of occurrence, the related table will show that any random number from 00 to 59 indicates that the event has occurred.

To facilitate cross-referencing with RAC-TP-111, the chapters in this document are designated by the same capital letter used to designate chapters in RAC-TP-111, with the addition of a "prime," e.g., A'.

A'. BASIC RULES

1. Technique of Play

(a) The cycle of play for orders and reports will be 6 hr of game time. At the start of each cycle, players will prepare orders to units indicating the operations to be performed (or started) during the following 6 hr. The desired time of execution of all mission orders will be shown in the Tme column on the order sheet. Planning orders will show ONO(on order) in Tme column. The player indicates his desire to have orders executed "as soon as possible" by leaving the Tme column blank.

(b) Control will determine the occurrence of contact or interaction by opposing units from consideration of the plans and orders of the opposing players. The time of these interactions within the 6-hr cycle will be established from consideration of the ordered time of execution and the appropriate performance factors or movement rates of the opposing units. When the results of the contact or interactions have been assessed, the appropriate subinterval reports will be given to the players with the report timed in 30-min intervals within the 6-hr cycle of play.

(c) On receiving these subinterval reports of contact, players can issue new or modified orders to their units involved in the contact or to any other unit for operations bearing directly on the reported contact. If players do not desire to issue new orders at this time they cannot issue orders to the involved unit until the end of the 6-hr cycle of play unless they receive subsequent subinterval reports on the units involved.

(d) At the end of the 6-hr cycle Control will generate reports on the location and activity of all units that have moved during the cycle and have not otherwise reported their final positions.

2. Resolution of Units

(a) In the counter guerrilla game, unit resolutions will be primarily at platoon level for both Red and Blue. Squad-sized patrols can be established subject to rules in Sec L'. Because of their limited size Red company and battalion headquarters detachments for infantry (rifle) units will not be represented; corresponding Blue units will be identified. Company headquarters will not be identified for support units such as artillery, mortar, and engineer units.

(b) Unit organic transportation will be separately identified only to the extent required to assess unit movement and deployments.

UNIT — H1A44 (Helicopters of 1A44) V1B76 (Vehicles of 1B76)

3. Location of Units

(a) The location of units will be given to the nearest 500 m by reporting the coordinates of the lower left-hand (SW) corner of the $\frac{1}{2}$ -km square occupied by the unit (see Fig. A'3). The location of point objects where required will be given to the nearest 100 m. All coordinates will be given in a system of eight digits.

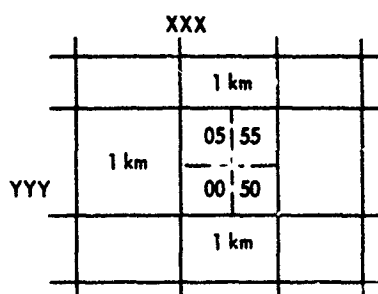


Fig. A'3—Location by Coordinates of Unit Occupying $\frac{1}{2}$ -km Square

$\frac{1}{2}$ -km square occupied	Coordinates
Lower left (00)	XXX0YYY0
Lower right (50)	XXX5YYY0
Upper left (05)	XXX0YYY5
Upper right (55)	XXX5YYY5

(b) Areas of greater size than a $\frac{1}{2}$ -km square will be designated by specifying the lower-left (SW) and upper-right (NE) corners of the area.

4. Unit Size

(a) A platoon (dismounted or in vehicles) in column is considered to have a column length of $\frac{1}{4}$ km; in tactical column the platoon has a column length of $\frac{1}{2}$ km.

(b) A deployed platoon (moving or halted) is considered to occupy a $\frac{1}{2}$ -km square. A deployed company occupies a 1-km square.

5. Planning and Order Delays

(a) In recognition of the time involved in passing information up the chain of command and the time required for planning and issuing orders, intracycle orders issued in response to subinterval contact reports will be delayed as shown in the accompanying tabulation.

Order issued by	Delay
Company	none
Battalion	1/2 hr
Regiment	1 hr
Division	1 1/2 hr

(b) Orders issued at the beginning of the 6-hr order cycle will be assumed to have been preceded by the necessary planning time.

(c) Orders for ground-unit action in response to a contact report from an air element will be delayed according to the level of command of the unit operating the air element or the level of ground-unit command that the air element is directed to support, unless air-ground liaison has been established (see para J'3).

B'. GROUND MOVEMENT RULES

1. Movement Orders

Two types of mounted or dismounted ground movements can be ordered: cross-country or on routes. Movement on road, cart track, footpath, and stream beds will be either by column or tactical column. In column, two platoons occupy 1/2-km square; in tactical column, one platoon extends through 1/2-km square. Off-route (cross-country) movement will be designated as in column, tactical column, or deployed. Tactical column is defined as a deployed formation for movement along a route when enemy contact is expected at any time.

(a) All movement orders must indicate the general type of movement desired.

Code 100 — Move on route Msn (R-road, T-cart track or footpath, S-stream bed) to C1 (via C2, if appropriate) in Dir (V-vehicles, blank-dismounted), in formation F (C-column, T-tactical column) at Tme (if appropriate).

Code 101 — Move cross-country to C1 (via C2, if appropriate) in Dir (V-vehicles, blank-dismounted) in formation F (C-column, T-tactical column, D-deployed) at Tme (if appropriate).

(b) An organizational movement order calling for the dispersal of forces over an area requires statements of the zone of responsibility, the relative positioning of units within that zone, and the individual unit objectives (see A5 TP-111).

2. Rates of Movement

Maximum rates are established for all units moving either cross-country or on roads, cart tracks, footpaths, and along stream beds. These rates vary in consideration of vegetation, percent slope, visibility, and proximity to the enemy (Tables B'2-1, B'2-2, and B'2-3).

It is recognized that movement by foot is possible in all types of terrain. However, for game purposes cross-country movement of units on foot is not allowed through marshes, bamboo thickets, and over hills with slopes greater than 60 percent, except as permitted for dispersal and reassembly of Red units (see para D'5a).

TABLE B'2-1
Movement Rates on Roads^a and Cart Tracks

Condition	Type	Road classification					
		All weather		Fair weather		Cart track	
		Day	Night	Day	Night	Day	Night
		Speed, km/hr					
Normal column	Wheeled	40	16	36 ^b	12 ^b	12 ^b	8 ^b
	Tracked	24	16	20 ^a	12 ^a	16 ^b	12 ^b
	Foot	4	4	4	4	4	4
Under fire ^c or tactical column	Wheeled	20	12	16 ^a	8 ^a	8 ^a	6 ^a
	Tracked	20	16	16 ^a	12 ^a	12 ^a	6 ^a
	Foot	2	2	2	2	2	2

^aDeployed movement along a road will be at cross-country rates (Tables B'2-2 and B'2-3).

^bImpassable in wet season.

^cFires causing 5 percent casualties will halt the unit hit and following elements for ½ hr.

(a) In determining unit moves, differences in lengths of routes within squares is ignored and the distance a unit travels moving from one 1-km square to an adjacent 1-km square is assessed as 1 km.

3. Barriers to Movement

(a) No vehicular traffic (off-road) is permissible in marshes, bamboo, dense forest, or jungles. Impassable routes or areas will be reported as follows:

Code 976 — Route impassable at/from C1 (to C2) for TYF (W-wheeled, T-tracked, F-foot movement).

Passable routes are indicated as follows:

Code 962 — The route is clear/passable from C1 to C2 for TYF movement (W-wheeled, T-tracked, F-foot movement).

(b) There is a 15-min delay on small streams and ½-hr delay on large streams (indicated by double line) for fording vehicles, on the basis that reconnaissance for traversable banks would be made. There is no delay when cart tracks or footpaths lead down to the river since this would imply fordability.

4. Bypassing Obstacles

(a) A cratered road or destroyed bridge can normally be bypassed with a 15-min delay. If terrain conditions indicate that rapid bypass action would be illogical, Control will halt unit for local "engineering" effort, as required. If it cannot be bypassed a Code 957 will be reported.

Code 957 — A TYF type (LG-log, En-entrenched) road block is located at C1 at Tme.

TABLE B'2-2
Foot Movement Rates^a

Slope, %	On footpath ^b				Cross-country movement				In streams				Terrain	
	Day		Night		Day		Night		In streams					
	Col	Tactical calc	Col	Tactical calc	Col	Tactical calc	Dep	Col	Tactical calc	Dep	Tactical calc			
											Day	Night		
														Day
Speed, km/hr														
0-60	4	2	4	2	3	2	2	2	3	2	1	1	1	Fields (bare), rice, plantations
	4	2	3	1	1	1/2	1/2	1/2	1/2	1/2	1	1	1/2	Sparse forest
	4	2	4	2	2	1	1	1	1	1/2	1/2	1	1/2	Brushwood
	4	2	4	2	0	0	0	0	0	0	0	0	0	Marsh, bamboo forest
	3	1	2	1	1	1	1/2	1/2	1/2	1/2	1/2	0	0	Dense forest, jungle
>60	2	1	1	1/2	0	0	0	0	0	0	0	0	0	Dense forest, jungle
	3	2	2	1	1/2	1/2	1/2	1/2	1/2	1/2	1	1	1/2	Sparse forest
	3	2	2	1	2	2	1	1	1	1	1	1	1	Fields (bare)
	3	2	2	1	1	1	1	1	1	1	1	1	1	Brushwood
	3	2	2	1	1	1	1	1	1	1	1	1	1	Brushwood

^aSee Table B'2-1 for foot rates on roads and cart tracks.

^bDeployed movement along a footpath will be at cross-country rates.

^cTactical column or under fire.

^dDeployed movement is allowed in these categories only when patrolling the square or when taking aggressive action against the enemy.

TABLE 3'2-3
Cross-Country Vehicular-Movement Rates

Type vehicle	Slope, %	Type movement						Terrain
		Column		Tactical column/under fire		Deployed		
		Day	Night*	Day	Night	Day	Night	
		Speed, km/hr						
Tracked	0-30	16	8	12	6	8	4	Fields (bare), rice
		12	6	10	4	6	3	Brushwood, plantations
		8	4	4	2	4	2	Sparse forest
		0	0	0	0	0	0	Dense forest, jungle, swamp, bamboo
	31-45	8	4	6	3	4	2	Fields (bare)
		6	3	5	2	3	2	Brushwood
	>45					0	0	All forests and jungle
		0	0	0	0	0	0	All types
Wheeled	0-20	12	8	8	3	0	0	Fields (bare)
		6	4	4	2	0	0	Rice and brushwood, plantations
		3	1	2	½	0	0	Sparse forest
		0	0	0	0	0	0	Swamp, dense forest, jungle, bamboo
	21-30	10	6	6	4	0	0	Fields (bare)
		6	4	4	2	0	0	Brushwood
		0	0	0	0	0	0	Sparse forest
		0	0	0	0	0	0	All other types
	>30	0	0	0	0	0	0	All types

5. Fatigue

All ground units will be limited to 12 hr continuous foot movement and/or battle activity (except artillery units in static-firing positions) and this period must be followed by a 6-hr rest before the unit can move or fight offensively. Units forced to fight with less than a 3-hr rest will be captured or destroyed. With 3 or more hr of rest, but less than 6, they may fight at one-half effectiveness. Players will maintain a record of periods of activity and rest of units.

Code 110 — Deploy at C1 to C2 for an F-hr rest at Tme.

Code 758 — This unit deployed dismounted for a Num-hr rest at Tme; rest completed at Spt time.

C'. DEPLOYMENT RULES

1. Red Base Areas

- (a) Forces will locate their major bases under the following criteria:
- (1) Adjacent to perennial streams (and upstream from hamlets if appropriate).
 - (2) Within 3 km of food supply (villages or Red cultivated rice fields).
 - (3) Near movement routes.

- (4) On commanding terrain.
- (5) With escape routes in mind.
- (6) In concealing vegetation (forests or jungle).

A Red base is assumed to consist of a cluster of food and ammunition caches together with supporting administrative facilities generally located underground. A Red base is considered to be occupied and active when a Red combat unit of company size or larger is halted deployed within 4 km of the base area for at least 1 hr. Otherwise a base is assumed to be unoccupied except for a minimum of administrative personnel.

(b) Red and Control maps will show one Red cultivated rice field near each base area. These areas will be located in a level open area where no rice fields are shown on the map. If such a field is detected, Blue receives the following report:

Code 908 — Enemy crop area at C1 to C2.

(c) Red and Control maps will show the principal routes used to stock base areas. Such routes will extend no closer than 4 km to the base area unless only one access is reasonable and then no closer than 2 km. These

TABLE C'1-1
Probability of Detection of Well-Worn Route^a
(Air photo)

Type vegetation ^b	Random number
Fields (bare), rice	00-60
Scrub, wood and plantation (except rubber)	00-30
Sparse forest	00-20
Dense forest, jungle and rubber plantation	00-05

^aRandomize for each 1-km segment of route.

^bUse dominant type of vegetation traversed by 1-km segment.

routes will be detectable by Blue photographic overflights (Table C'1-1) and, if detected, reported under the following code.

Code 978 — Route at C1 (to C2) in Dir appears to have been in heavy use.

(d) Occupied guerrilla-base areas will be assumed to be using cooking fires from 0600 to 0800 hr and 1700 to 1900 hr.

(e) It is assumed that some smoke may rise and hang above the forest canopy during morning cooking hours but not in the evening. This has a probability of visual detection (in clear weather) by observation aircraft. Aircraft equipped with infrared (IR) detection devices have a probability of picking up these cooking fires (Table C'1-2).

Company size or larger units deployed around a cache or bivouacked for rest periods in any location are also susceptible to smoke or IR pickup under the same time considerations. The unit selected as the detected unit to be reported on should fall within the center of the larger unit deployment area.

(f) Guerrilla camps may also be picked up by certain types of overflights or by reports from patrols of aural contacts. Summary data on probabilities of detection of guerrilla base camps are tabulated in Table C'1-2.

TABLE C'1-2
Probabilities of Detecting Guerrilla Encampments^a

Surveillance method	Limitations or reference	Terrain type ^b	
		Sparse forest	Dense forest or jungle
		Random-number ranges	
IR ^c	Overflight of target square(s) 0600-0800 and 1700-2200 (para C'1e)	00-19	00-04
Photo, conventional film, large scale	Sec M, RAC-TP-111	00-19	None
Photo, camouflage film, medium scale	Sec M, RAC-TP-111	00-09	00-20
Air visual (smoke), TAC Air ^d /Mohawk, other	0600-0800 only (para C'1e)	00-59	00-59
Air visual (bldgs/people), HEL ^e -NOE ^f	Overflight of target square(s)	00-09	None
Aural (patrols)	1 km, subject to detection (Table D'1-1)	00-49	00-49

^aFor air photo detection of well-worn routes see Table C'1-1.

^bEncampments will not be located in other types of terrain.

^cInfrared.

^dTactical air.

^eHelicopter.

^fNap of the earth.

2. Deployment Orders

(a) Units halted in squares containing overhead cover or hamlets will be assumed to make maximum use of the concealment unless otherwise ordered, e.g.,

Code 118 — Deploy in open at C1 (to C2) at Time.

In the absence of such an order a platoon deployed in a 1/2-km square will be assessed as being deployed in a concealed position if at least one-third of the area in the square is covered with overhead cover or buildings. Squads, patrols, and observation posts (OPs) cannot be seen if any part of the square contains vegetation or buildings.

(b) Platoons (and smaller units) may deploy on reverse slopes of ridgelines within a $\frac{1}{2}$ -km square if one third of the area is behind the ridgeline.

Code 113 — Deploy on Dir (N-north, NE-northeast etc.) side of ridgeline at C1 (to C2) at Tme.

(c) In addition to standard deployments, units may be ordered to set up ambush positions. These may be of two types—prepared and hasty. Prepared ambushes imply careful selection of fields of fire, adequate protection, and concealment. Hasty ambushes are essentially set up as a result of game interactions, for harassing and decoy operations, or where preparation time is limited. For game play the essential difference is in detection probabilities.

(d) Hasty ambushes can occupy only one $\frac{1}{2}$ -km square. One or two platoons can set up an ambush in any type of terrain, but a larger unit must locate the ambush where cover is available or on a reverse slope.

TABLE C'2-1
Probability of Detection of "Hasty" Ambushes
(Ambushes in tactical column and in adjacent $\frac{1}{2}$ km sq)

Map symbol	1 platoon		2 platoons		3 platoons or more	
	Ground	Air	Ground	Air	Ground	Air
	Random-number ranges					
Plantation dense forest, and jungle	00-01	—	00-01	—	00-02	—
Sparse forest	00-01	00-05	00-02	00-05	00-03	00-10
Brushwood	00-05	00-10	00-05	00-10	00-10	00-20
Fields (bare), rice	00-10	00-20	00-10	00-30	00-25	00-60

For prepared ambushes the probabilities in Table C'2-1 are reduced 50 percent. For units entering adjacent $\frac{1}{2}$ -km squares in deployed formation probabilities of detection are increased threefold. Thus a deployed unit in the adjacent $\frac{1}{2}$ -km squares to a platoon-size prepared ambush in dense forest or jungle has a $2 \times 0.5 \times 3$ or 00-02 chance of detecting the ambush.

A patrol must enter the ambush square to detect it. A patrol discovering an ambush reports its location and is then captured (reporting code 725).

(e) Ambushes with units in different $\frac{1}{2}$ -km squares must be prepared ambushes and require 1 hr to prepare. A prepared ambush is assumed to include provision for communication (radios or wire) to permit coordinated attacks on multiple targets. Ambush sites may be prepared in advance of occupation. If prepared sites are established but are not occupied they are invulnerable to air visual observation but a deployed unit within the same $\frac{1}{2}$ -km square has a 5 percent probability (00-04) of detecting it.

Code 977 — Enemy concealed positions at C1 (to C2) at Tme.

(f) Ambush sites under construction will have a 90 percent (00-89) probability of being detected from the air if in the open or in brushwood; 40 percent (00-39) in sparse forest and no probability in dense forest, jungle, or plantations. Ground units will report sites under construction under Code 968. Ambushes will be ordered by the following code and should include orders for postambush operations. Unless otherwise ordered Control will take the actions prescribed in E'1d.

Code 119 -- Establish Msn type (H-hasty, P-prepared) ambush at C1 (to C2) facing Dir (N-north, NE-northeast, etc.) (if appropriate) for Cont type enemy at Tme.

(g) The detection of occupied ambushes (prepared and hasty) is based in part on visual observation but primarily on the premature firing of the ambushing unit. A contributing factor is the deployment status of the ambushee regardless of being mounted or on foot. Thus a unit entering an ambush in column has no chance of either seeing the ambusher or generating premature firing. Units advancing in tactical column or deployed have increasingly better chances as indicated in Table C'2-1.

(h) Detection of prepared ambushes by aircraft is limited to the use of photography during the dry season using special chromatic films and filters (camouflage detection films) with some probability of success if pictures are taken 3 or more hr after construction of the ambush site (Table C'2-2).

TABLE C'2-2
Probabilities of Detecting Prepared Ambushes from Photo
Camouflage Missions/per km square^a

Terrain type	Ambusher platoons		
	1	2	>3
	Random-number ranges		
Fields (bare), rice	00-04	00-09	00-14
Brushwood or sparse forest	00-09	00-09	00-19
Dense forest or jungle	00-14	00-19	00-39

^aLarge-scale photography and in dry season only.

D'. CONTACT-GROUND-UNIT DETECTION CAPABILITIES

1. Aural Detection

(a) At night and in restrictive vegetation detection of a unit is limited to aural detection. The probability of such detections considers the posture, movement, and formation of opposing units as well as the terrain (Table D'1-1). Aural-contact reports are given under the following code.

Code 700 -- Enemy (Cont 000, 003, 050, 030, 040, 060 or 007 if artillery) activity heard vicinity C1 (to C2) at Tme (use Dir if aural contact is broken).

(b) Enemy encampments are assumed to be emitting a level of noise at all times that is susceptible to aural detection at 1-km range by a unit specifically scouting for campsites. Use code 700 to report location. It is also assumed that the camps are outposted and these outposts have a 50 percent chance of detecting and firing on the scouting unit. If a Blue unit is detected the outpost reports a Code 708, position (POS) and unit designator (UNIT) on the report will be that of any selected unit in the base camp. If the base camp is unoccupied (no identified unit of company size halted deployed within 4 km) the unit designation will be BASE. The detected patrolling unit reports Code 713 and Code 704.

TABLE D'1-1
Aural-Contact Detection

Status of listener	Status of opposing unit	Range of detection, km
Halted dismounted ^a	Halted dismounted ^b	Not detected
	Halted mounted	½ km
	Moving dismounted	See Table D'1-2
	Moving mounted, or encampment	1 ^c
Halted mounted	Halted mounted	d

^aMoving dismounted patrols have the same aural capability as Halted Dismounted units. Moving units greater than patrol size have no aural-detection capability.

^bNot in camp.

^c½ km if behind ridgeline with intervening dense forest.

^dNot detected if at greater range than ½ km; at ½ km or less there is a 00-49 chance of being detected.

TABLE D'1-2
Maximum Ranges for Aural Detections of Moving Dismounted
Troops (Platoon Size or Larger)^a

Terrain	Enemy movement posture	Range of detection, km
Moving on routes through all types of terrain and cross-country movement in grass, rice, and plantations	Normal column	½ km
	Tactical column	Not detected
Cross-country movement in brushwood, forests, and jungle	Normal column	1
	Tactical column	½
	Deployed	Not detected

^aListening unit must be halted dismounted or a dismounted patrol.

(c) Patrols on OPs have the same aural-detection capability as in Table D'1-2. Enemy units moving into a square occupied by a patrol/OP, in column or tactical-column formation, have a 10 percent chance (00-09) of

detecting the patrol/OP. If detected, or if the enemy unit halts in the square, the patrol/OP must move out but receives no casualties. If the entering enemy unit is moving cross-country in deployed formation, the patrol/OP will be detected and will have a 50 percent probability (00-49) of being captured (Code 778) unless his parent unit is in an adjacent $\frac{1}{2}$ -km square. In this case the patrol withdraws to the parent unit and the action is assessed under the battle model.

(d) Only forests, jungles, and rubber plantations will provide complete concealment for halted vehicles. However, vehicles cannot move through forests and jungles so their deployment is limited to the edge of the woods or on the shoulders of traversing routes.

2. Visual Detection

Random-number selection is used by Control to generate the quality of visual-contact reports. The range at which detections can be made and the detection probabilities within these range zones depend on the unit's type, movement, and concealment offered by vegetation (Tables D'2-1 and D'2-2). OPs and patrol elements are not detectable except when in the same square with an enemy unit (see D'1b).

(a) The quality of all contact reports can be increased by maintaining contact with the enemy. A unit with a scouting mission (Code 136) has a (00-49) probability of obtaining A1B1 information for each interval. However, a unit's scouts cannot operate at a distance beyond $\frac{1}{2}$ km in advance of the parent unit. There is also a 25 percent chance (00-24) that the scout will be captured during each interval.

Code 725 — This unit captured by enemy at Tme. Include EN.
Unit designator (UNIT) will be SCOUT.

3. Civilian Areas

(a) It is assumed that local civilians will have a general knowledge of Red and Blue military activities within their areas of influence. The degree to which this knowledge is passed to interested participants depends on the civilian attitude as explained in the following paragraphs. Control will assess for civilian information at midinterval and positive reports will be rendered at the close of the interval.

Code 912 — Enemy force of L (l, m, s) size moving Dir through area at Tme (midinterval)
Code 913 — Enemy force of L (l, m, s) size halted to the Dir of village at Tme (midinterval).
Code 914 — Enemy activity of L (l, m, s) size reported Dir of village time unknown. (For tracks, aural contacts, and hunters w/o watches)

(For Codes 912, 913, and 914 use CIV for UNIT and coordinates of village at center of area for POS.)

(b) Areas that are "friendly" to the respective forces will be defined respectively on Red and Blue maps and both on control maps. Limits of the friendly areas are established at 6 km from the occupied hamlets. This is

TABLE D'2-1
Ground to Ground: Quality of Visual-Contact-Report Information
in Open Terrain

Quality of information	Range, ½ or 1 km				Range, 1½-5 km			
	Foot		Vehicle/animal ^a		Foot		Vehicle/animal ^a	
	Halted	Moving ^b	Halted	Moving ^b	Halted	Moving ^b	Halted	Moving ^b
	Random-number ranges							
A ₁ B ₁	00	00-04	00-06	00-14	—	00-01	00-03	00-07
A ₁ B ₂	01-10	05-29	07-31	15-54	00-04	02-16	04-13	08-42
A ₁ B ₃ ^c	11-21	30-59	32-33	—	05-09	17-31	14	—
A ₂ B ₁	22-26	60-69	34-43	55-74	10-11	32-46	15-24	43-64
A ₂ B ₂	27-76	70-89	44-94	75-99	12-61	47-76	25-84	65-94
A ₂ B ₃ ^c	77-97	90-99	95-99	—	62-89	77-96	85-94	95-99
No report ^d	98-99	—	—	—	90-99	97-99	95-99	—

^aA mortar or artillery unit firing will be considered in the class of moving-vehicular targets.

^bFor units moving in normal column, randomize twice for quality of information obtained about them.

^cArtillery unit firing will always be identified as B₂ information.

^dThere is no probability that units under aggressive orders (i.e., fire on contact) will not be detected. In such cases assign numbers to A₂ B₂.

TABLE D'2-2
Ground to Ground: Quality of Visual-Contact-Report Information
on Units in Restrictive Vegetation^a

Quality of information	Brushwood and sparse forest				Brushwood ^b			
	Range, ½ or 1 km				Range, 1¼-3 km			
	Foot		Vehicle/animal ^c		Foot		Vehicle/animal ^c	
	Halted	Moving ^d	Halted	Moving ^d	Halted	Moving ^d	Halted	Moving ^d
	Random-number ranges							
A ₁ B ₁	—	00	—	00-04	—	—	—	—
A ₁ B ₂ ^e	00-02	01-10	00-09	05-26	—	—	—	—
A ₁ B ₃	03-07	11-25	—	27-39	—	—	—	—
A ₂ B ₁	08	26-30	10-14	40-49	—	00	—	00-01
A ₂ B ₂ ^e	09-24	31-57	15-84	50-89	—	01-05	00-09	02-21
A ₂ B ₃	25-81	58-97	85-94	90-99	—	06-25	—	22-26
No report ^f	20	98-99	95-99	—	—	26-99	10-99	27-99

^aNo visual contacts in dense forest, plantations, marsh, bamboo forests.

^bNo visual contact beyond 1 km in sparse forests.

^cArtillery or mortar units (while firing) will be considered in the class of moving-vehicular targets.

^dFor units moving in normal column randomize twice for quality of information obtained about them.

^eArtillery unit firing will be identified as B₂ information.

^fThere is no probability that units under aggressive orders (i.e., fire on contact) will not be detected. In such cases assign numbers to A₂ B₂.

based on an assumption concerning the distance from the hamlet that hunters could be expected to cover on a 1-day trip. Civilian hunters and farmers have a probability of reporting results of incidents, sightings, hearing, or locating tracks of enemy within this tribal zone as indicated in Table D'3-1.

TABLE D'3-1
Availability of Civilian Information
(Codes 912, 913, or 914)

Friendly villages	Neutral villages	Enemy villages
Random-number ranges		
00-49	00-24	00-10

(c) Areas not otherwise designated are considered neutral. The establishment of checkpoints in a hamlet or village (para L'2) generates the probability of civilian reports shown in Table D'3-1. It is assumed that information is carried at the rate of 3 km/hr from the point of contact to the village occupied by the checkpoint. For game purposes it will be assumed that map representation of 10 or more house symbols/km square constitutes a hamlet (if not identified as abandoned).

(d) Forces entering villages or hamlets identified as "enemy" under orders to establish a checkpoint (Code 309), or forces capturing an enemy village previously occupied by an opposing force have a probability of obtaining intelligence from civilians as shown in Table D'3-1. Delay times are as in neutral villages in the preceding paragraph. It will be assumed that on entry into opposing forces' hamlets, civilian runners will report this entry to the nearest friendly village or base under Code 909.

Code 909 - Enemy Cont established in control of hamlet at C1 at Tme; include EN.

(e) The following contact codes will be used for civilian-determined information. Control will identify civilian reports by the designator CIV under the UNIT column.

Code 910 - Cache is located vicinity C1 at Tme.

Code 911 - Enemy Cont tracks at C1 (to C2) in Dir at Tme; include EN.

Or Codes 700, 702, or 703 (see para D'6d).

4. Contact Options

Contact options will be given all units and used by Control to determine initial assessments when contact is made. Subsequent assessments will be based on new orders issued by the players. More than one option can be given to a unit if times (Tme) are sequential.

Code 137 -- Attack contacted Cont type enemy (use 000 if any enemy are to be attacked) at Tme.

Code 144 -- Disperse if attack by enemy Cont at C1 and re-assemble at C2 at Tme.

5. Contact Interactions

(a) The ability of a unit to engage an enemy operating under a nonaggressive option depends on the range at which the contact is established. Red units can be ordered to disperse rapidly if attacked and/or pursued (Code 144). Reassembly after dispersal takes 2 hr/km in trafficable terrain or 4 hr in untrafficable terrain (see B'2). Red units carrying a general dispersal option when no assembly area is designated (if attacked or pursued unsuccessfully by Blue) will be moved by Control to an appropriate assembly point within 2 km and the action reported to Red with a delay of 2 hr/km of movement. "Dispersed units" do not report contacts.

Code 759 -- Dispersed from Cont enemy at C1 at Tme.
Reassembled at C2.

A Blue attacker has a 5 percent (00-04) probability of closing with a Red unit at ranges of 1 km regardless of the Red unit's option. A Red attacker has a 10 percent probability (90-99) of closing with a Blue unit at ranges of 1 km or less. Units attempting to close at greater ranges are forced into the pursuit role if the enemy withdraws.

(b) Units can break contact by moving out of line of sight (LOS). In the case of pursuit the movement is time phased. The contact is assumed broken if the pursued force moves behind a ridgeline or into forest, scrub, or plantation. Unless the pursuing unit has a 3 to 1 superiority, pursuits are limited to 3 km. At night, if in fog or wholly within forests or rubber plantations, there is no probability of successful pursuit.

6. Contact Action Reports

(a) Units under orders to withdraw if attacked, or to break contact, report the results of their own action. (See D'5a for reporting from postdispersal actions.)

Code 708 -- Withdrew to break TYF (VS-visual, AU-aural, FE-fire exchange) type contact with enemy Cont at C1 (to C2) at Tme.

(b) Unsuccessful escapes or continuing pursuits are reported under Codes 714 and 707 respectively. Successful pursuits by the enemy or any actions resulting in an impending battle are reported under Code 706 for the attacking element, and Code 705 for the defending element. Codes 705 and 706 do not automatically give A1 information. A1 information is possible only if units are in the open (rice and/or bare).

Code 705 -- Under attack by enemy Cont at C1; previously reported at C2 (if applicable); at Tme; include EN.

Code 706 -- Closed with enemy Cont at C1; previously reported at C2 (if applicable); at Tme, include EN.

Code 707 — Under pursuit by enemy Cont at C1; previous position C2 at Tme; include EN.

(c) Units under aggressive or defensive options report their actions under the following codes (see also Codes 705 and 706, para D'6b).

Code 713 — Have been fired on by enemy Cont vicinity C1 (to C2) at Tme and have halted to develop the situation; include EN.

Code 715 — Fired on by enemy Cont at C1 (to C2) at Tme; am attempting to close; include EN.

Code 709 — Enemy Cont pursued to C1, previously in contact at C2; include EN.

(d) Contact reports depicting general enemy action or status.

Code 701 — Enemy Cont holding vicinity C1 in defensive position at Tme; include EN.

Code 702 — Enemy Cont halted vicinity C1 (to C2) with disposition DSP (C-column, D-deployed) at Tme; (if in column indicate Dir); include EN.

Code 703 — Enemy Cont now at C1. In DSP (C-column, D-deployed) moving in Dir at Tme (if column is on a route use R under L); include EN.

Code 704 — Enemy Cont broke contact at C1 by moving Dir from C2 at Tme; include EN.

Code 718 — Enemy Cont appeared at C1 and disappeared at C2 moving in Dir at Tme in DSP (C-column, D-deployed). If on a route indicate R under L; include EN.

7. Assessment of Patrol Operations

(a) A patrol with a mission to reconnoiter along a route that meets an enemy unit marching along that route will detect the enemy without being discovered. Two opposing mounted or dismounted patrols that meet while reconnoitering the same route will discover each other. Control will randomize to see which withdraws. In case one patrol is mounted and the other dismounted the latter will detect the former without being discovered.

(b) A patrol with a mission to follow and maintain contact with an enemy unit marching along a route will be able to maintain contact but has a 10 percent probability (00-09) of being captured each $\frac{1}{2}$ hr. When maintaining contact with an enemy marching cross-country the patrol has a 25 percent probability (00-24) of losing contact and has a 25 percent probability (00-24) of being captured during each $\frac{1}{2}$ hr.

(c) When a patrol moves into a $\frac{1}{2}$ -km square occupied by an enemy patrol/OP it has a 25 percent probability (00-24) of detecting the enemy OP and a 75 percent probability (00-74) of being detected by the enemy. When each detects the other, each patrol will withdraw 500 m. When neither contacts the other, patrols continue their missions.

(d) When a friendly and an enemy patrol have missions of establishing patrol OPs in the same $\frac{1}{2}$ -km square and both patrols arrive in the $\frac{1}{2}$ -km

square undetected, the patrols can remain in position for succeeding periods without being detected by opposing patrol OPs.

(e) When a patrol moves into an adjacent square with a halted dismounted enemy unit or camp there is a 50 percent probability of the patrol being captured. If the patrol is not captured it will report the enemy and be able to maintain contact with the enemy unit in subsequent intervals.

(f) When two opposing dismounted patrols move into the same $\frac{1}{2}$ -km square each patrol will have a 25 percent (00-24) probability of detecting the other. If only one patrol detects the other it will report and continue the mission. If both patrols detect each other each will report (Code 712) and will withdraw 500 m.

(g) Patrols engaged in reconnaissance move at tactical-column rate.

E'. BATTLES

1. Types of Battles

Counter guerrilla game battles will be classed in four types as follows:

- (1) Attack and defense of a position.
- (2) Meeting engagement.
- (3) Ambushes.
- (4) Harassing attacks.

(a) Attacks on a defended position will be ordered by Code 049. Harassing attacks may be ordered only against a halted unit or unit in a position by using Code 054.

Code 054 — Conduct harassing attack on enemy Cont at C1 (to C2) at Tme (if appropriate).

Ambushes will be ordered by Code 119 (para C'2e).

(b) Opposing units will remain in adjacent $\frac{1}{2}$ -km square for each type battle except ambushes. In an ambush the attacker and the defender units will be in the same $\frac{1}{2}$ -km square for the interval of the ambush after which the defender will withdraw to an adjacent $\frac{1}{2}$ -km square.

(c) Reports of impending battle Codes 705 and 706 will be given to the opposing players at the time of the beginning of the battle except for ambushes. In the event of a successful ambush (no prior detection by the defender) the following codes will report the results.

Code 733 — Have been ambushed by Cont (A2B1) type enemy at C1. Estimated damage to enemy is L (n, l, m, h). Enemy withdrew in Dir direction. (Leave blank if battle continues.) Own casualties increased PCT to CAS. Include EN.

Code 734 — Have executed ambush on Cont (A1B1) enemy at C1. Estimated damage to enemy is L (n, l, m, h). Own casualties increased PCT to CAS. Include EN.

(d) After a successful ambush of Blue, Red may order the dispersal of the attacking units, Code 144 (para D'4), may order the attack to continue, Code 153, or may defend from his position in a prepared ambush. If Blue is

ordered to withdraw and Red continues to attack, the following action will be assessed as a meeting engagement with Blue as the defender (subject to para D'5a). If Blue is ordered to attack and Red elects to defend, the action will be assessed as a Blue attack on a position. If both sides are ordered to attack the action will be a meeting engagement with the stronger side the attacker. In the event of a successful ambush of Red by Blue, the Red unit will be dispersed and moved to an assembly area selected by Control within 2 km of the ambush site.

(e) If an ambush is detected before the ambushee enters the same $\frac{1}{2}$ -km square as the ambusher, the resulting engagement will be assessed as a meeting engagement.

(f) In a successful Red ambush of Blue during daylight in which there are units following (not themselves ambushed) within $\frac{1}{4}$ -hr movement distance of the ambush site, these units will be considered to be participating in the attack of the ambush force and there is some probability that the ambusher (attacker) will be unable to withdraw (if ordered) and will be forced to continue in battle. If the ambush is a hasty ambush in open terrain or a prepared ambush in any type terrain the ambushee will have a 0.10 (00-09) probability of holding the ambusher in battle. This action following the ambush will be assessed as a meeting engagement with the former ambusher being the defender. In this situation the ambush reports (Codes 733 and 734) will be accompanied by Code 731 for the new attacker and Code 732 for the new defender.

(g) In a normal meeting engagement (surprise contact on both sides) players (either side) may order units to withdraw (Code 132) to avoid battle—subject to the probabilities of avoiding battle in para D'5a.

(h) Red units (including fire-support units) will be required to go to one of the Red base camps or to a previously established cache for resupply and reequipping after each battle engagement. Orders for the next action will be issued after the unit arrives at that destination. If a Red unit is forced into battle before reaching a resupply point it will have only one-half of its normal battle effectiveness. Resupply requires 1 hr after arrival at the base.

TABLE E'1-1
Time Limits on Red Attacks

Level of attack	Maximum time of continuing attack, hr	
	Attack or meeting engagement	Harassing attack
Platoon (including support fire, if any)	1½	3
Company (two or more rifle platoons and support fire)	3	6
Battalion (two or more companies)	6	12

(i) Red units will be limited as to the time that they can continue an attack according to the level of attack and type operation as shown in Table E'1-1. In attacks of company size or larger the attack positions and objectives of adjacent platoons must not be more than 2 km apart for the battle to be considered a coordinated attack.

(j) Battle (except ambushes) will be assessed in $\frac{1}{2}$ -hr cycles and reports of results (Code 726, with 803 and 872 as appropriate) will be given to each player team at this time. The attacker in any type action and the defender in a meeting engagement can be ordered to withdraw (Code 132) on the receipt of each such battle report except that orders to a defender to withdraw will be subject to the probabilities of para D'5a of being successful.

(k) Orders to a unit in a defensive position to withdraw will be executed after an additional $\frac{1}{2}$ -hr of battle. Orders for reinforcement of units in battle will be carried out by Control with consideration of movement rates plus a planning and order delay as shown in the accompanying tabulation.

Ordering Headquarters	Delay
Company	None
Battalion	$\frac{1}{2}$ hr
Regiment (Bde)	1 hr
Division	$1\frac{1}{2}$ hr

(l) Assessment of the results of battle in terms of casualties to each side and attacker advance will be based on a set of Weapon-Effectiveness Values (WEV), (Table E'2-1, Control Only), established from consideration of the type weapons available in each type unit and with consideration of the respective posture of the attacker and defender in the various types of engagements. In coordinated battles involving more than one unit (including fire-support units), the WEV of all units on each side will be added to determine the force ratio of the opposing forces.

TABLE E'2-1
Unit Weapon-Effectiveness Values (WEV)

Type of unit	Type of action					
	Attack			Defense		
	Of a position	Meeting engagement	Ambush	Of a position	Meeting engagement	Ambush ^a
Red						
Rifle platoon	6	8	8	14	8	3
60-mm mortar platoon	2	2	2	5	2	1 ^b
12.7-mm AA platoon	2	2	2	5	3	2 ^b
82-mm mortar platoon	13	12	15	15	15	2 ^b
120-mm mortar platoon	41	38	49	49	49	2 ^b
Blue						
Rifle platoon	9	11	16	18	11	4
Co HQ and weapons platoon (includes 60-mm mortar)	3	4	3	10	4	4
81-mm mortar platoon	19	16	20	20	20	2 ^b
57-mm RR platoon	1	2	3	5	3	1 ^b
155-mm H battery	21	17	21	21	21	2 ^b
4.2-in. mortar platoon	15	14	17	17	17	2 ^b
Engineer platoon	—	—	—	10	7	3
Air units (helicopter)						
Aero rifle platoon	13	14	16	25	14	4

^aUse one half of the WEV shown for "following units" that participate in defense of an ambush.

^bUse only when unit is trapped in ambush; not applicable to following units (consider small arms only).

(m) The participation in battle of fire-support units (mortar and artillery) will be ordered by Code 010 and by appropriate movement orders placing the fire-support unit within range of the battle. The effects of battle-support fires will not be explicitly assessed. If one fire-support unit is ordered to support different units, all within range but not in the same coordinated battle, the WEV of the fire-support unit will be fractionalized between the battles in proportion to the number of rifle platoons being supported.

(n) Ambushes may be established to trap a helicopter landing. To be successful the ambusher must be in the same $\frac{1}{2}$ -km square as the landing area. Troop units landing in adjacent squares will be considered as "following units" (para E'1f). If the landing zone is adjacent to the ambush site the action will be assessed as a meeting engagement. Helicopter losses will be assessed under Tables H'4-2b* or H'4-3.* The ambushee will have a 0.1 (00-09) probability of detecting the ambush (visual sighting or premature firing) before it is sprung. In this case an alternate landing zone will be used (if ordered).

2. Battle Assessment

(a) In assessment of battle, identify the type of battle and which side (Red or Blue) is attacking and which defending. Determine the weapon effectiveness values (Table E'2-1) for each type unit according to the type of battle (except harassing attacks) and the identity of the attacker or defender. Degrade the effectiveness of the rifle platoons (and fire-support units caught in ground battle) according to the casualty status of the units. Total the WEVs for each side. Determine the ratio of WEV of the attacker and defender (attacker/defender). Select the appropriate assessment table (Table E'2-2 or E'2-3) and select a random number for casualties for each unit involved in the ground battle, including fire-support units colocated with a rifle platoon but not including fire-support units supporting the battle but not themselves in battle. Submit a Code 726 report for each unit in the battle including a Code 803 or 872 (as appropriate) if the enemy included fire- or air-support units. Submit a Code 800 report from fire-support units firing in the battle. Repeat this procedure for each $\frac{1}{2}$ hr the battle continues.

(b) Harassing attacks will be assessed according to Table E'2-4.

(c) In a meeting engagement in which each side has aggressive orders, the attacker will be identified as the side with the greater total WEV.

(d) Table E'2-5 will be used to determine whether the attacker is successful in advancing and the distance of advance. If the attack advances against a defense position, the defender will be withdrawn out of contact and the attacker will be halted on the position for $\frac{1}{2}$ hr. Subsequent contact (in case of pursuit) will be assessed as a meeting engagement. Randomize during the first $\frac{1}{2}$ hr of battle to determine attacker success in advancing. If successful generate a Code 729 to defender. Movement of units will be made by Control during the following $\frac{1}{2}$ hr unless the defender can take action to counter the movement. The attacker advance will not occur if the defender can increase his supporting-weapons fire (by a WEV at least equal to one half of the amount available) during the next $\frac{1}{2}$ hr or can reinforce with a combat unit (with a WEV at least equal to one half that of the present defender) by the end of the following $\frac{1}{2}$ hr.

*These tables are classified and hence may not be included in this unclassified document.

TABLE E'2-2
Assessment of Ambush^a

Type force	Level of casualties, %	Force ratio (attacker/defender) ^b								
		≤1:3	2:5	1:2	2:3	1:1	3:2	2:1	≥3:1	
		Random-number ranges ^c								
Attacker	0	—	00-04	00-09	00-19	00-19	00-29	00-39	00-49	00-59
	5	00-09	05-24	10-29	20-39	20-49	30-59	40-69	50-89	60-99
	10	10-49	25-64	30-69	40-69	50-79	50-89	70-99	90-99	—
	15	50-69	65-84	70-89	70-99	80-99	90-99	—	—	—
	20	70-99	85-99	90-99	—	—	—	—	—	—
Ambushed unit(s)	0	00-34	00-24	00-24	00-19	00-14	00-04	—	—	—
	5	35-54	25-54	25-54	20-49	15-54	05-44	00-29	—	—
	10	55-94	55-89	55-79	50-74	55-74	45-64	30-59	00-44	00-24
	20	95-99	90-99	80-99	75-99	75-89	65-84	60-79	45-64	25-49
	30	—	—	—	—	90-99	85-94	80-89	65-84	50-79
	40	—	—	—	—	—	95-99	90-99	85-99	80-99
Following unit(s) (within 1/2-hr movement distance)	0	00-59	00-54	00-49	00-34	00-34	00-14	00-09	—	—
	5	60-89	55-84	50-79	35-64	35-74	15-64	10-49	00-44	00-24
	10	90-99	85-94	80-89	65-89	75-89	65-84	50-69	45-64	25-49
	15	—	95-99	90-99	90-99	90-99	85-94	70-89	65-84	50-79
	20	—	—	—	—	—	95-99	90-99	85-99	80-99

^aAmbushed unit(s) and attacker are in same 1/2-km square.

^bForce ratio is based on WEV of attacker unit(s) in same squares as ambushed unit(s) with one half of WEV for defender following unit(s) within 1/2-hr movement distance added to the WEV of ambushed unit(s).

^cRandomize separately for each attacker and defender unit.

TABLE E'2-3
Assessment of Battle
(Attack and defense position or meeting engagement)

Type force	Level of casualties, %	Force ratio (attacker/defender)									
		Random-number ranges ^a									
		≤ 1:3	2:5	1:2	2:3	1:1	3:2	2:1	5:2	≥ 3:1	
Attacker	0	00-09	00-14	00-14	00-14	00-19	00-24	00-29	00-34	00-39	
	5	10-19	15-24	15-29	15-39	20-49	25-54	30-59	35-64	40-69	
	10	20-39	25-49	30-59	40-69	50-79	55-84	60-89	65-94	70-99	
	15	40-59	50-74	60-89	70-89	80-94	85-99	90-99	95-99	—	
	20	60-89	75-94	90-99	90-99	95-99	—	—	—	—	
	25	90-99	95-99	—	—	—	—	—	—	—	
Defender (include fire-support units collocated with defending rifle units)	0	00-39	00-34	00-29	00-24	00-19	00-14	00-14	00-14	00-09	
	5	40-69	35-64	30-59	25-54	20-49	15-39	15-29	15-24	10-19	
	10	70-99	65-94	60-89	55-84	50-79	40-69	30-59	25-49	20-39	
	15	—	95-99	90-99	85-99	90-94	70-89	60-89	50-74	40-59	
	20	—	—	—	—	95-99	90-99	90-99	75-94	60-89	
	25	—	—	—	—	—	—	—	95-99	90-99	

^aRandomize separately for each attacker and defender unit, (except fire-support units not in adjacent squares).

If the random number drawn during the first $\frac{1}{2}$ hr does not indicate an attacker advance, randomize again during the next $\frac{1}{2}$ hr of battle. Also if the defender stops an attacker advance, randomize again in the following $\frac{1}{2}$ hr.

(e) If a successful attacker has occupied a defensive position and is subsequently attacked while in that position, he will be credited with the effectiveness of the position defenses.

TABLE E'2-4
Assessment of Harassing Attack
(Independent of force ratio)

Level of casualties, %	Attacker	Defender
	Random-number ranges	
0	00-49	00-19
5	50-79	20-59
10	80-99	60-99

TABLE E'2-5
Probability of Attacker Advance in Meeting Engagement

Size of attacking force	Distance ^a of advance, km	Force ratio			
		$\geq 1:2$	$\geq 1:2 < 2:1$	$\geq 2:1 < 3:1$	$\geq 3:1$
		Random-number ranges			
Less than a company	0	00-74	00-49	00-20	00-19
	$\frac{1}{2}$	75-99	50-74	30-64	20-49
	1	—	75-99	65-99	50-99
Company or more (2 or more platoons with fire support)	0	—	00-49	00-33	00-24
	$\frac{1}{2}$	—	50-79	34-66	25-79
	1	—	80-99	67-99	80-99

^aIf the attacker advances in an attack on a position the defending force will be withdrawn out of contact and the attacker will halt on the position for $\frac{1}{2}$ hr.

In an attack on a prepared position when the attacker has a force ratio of 2 to 1 but less than 3 to 1, there is a 25 percent (75-99) chance of advancing; with 3 to 1 or more the chance of advancing is 33 percent (67-99). In advancing, the attacker occupies the defense position and the defender is withdrawn out of contact.

F'. FIRE SUPPORT

1. Fire Mission

(a) Fire support by mortar and artillery units will be played in a manner similar to but more generalized than the model in RAC-TP-111. Players will not be required to specify the number of rounds to be fired in a mission. Fire

support may be delivered in support of ground battle (by attacker or defender in a defense of a position, in a meeting engagement, or in a harassing attack; and by attacker in an ambush), as harassing fire against a stationary target, or as specific mission fires against identified targets.

When in support of a Red ambush 60-mm and 81/82-mm mortars must be located in a $\frac{1}{4}$ -km square adjacent to the ambush site. Larger caliber weapons must be located within 1 km of the ambush site. Fires in support of a Blue ambush are required only to be within supporting range.

(b) Fires in support of battle will be ordered by placing the firing unit in direct support (Code 010) of the combat unit and moving the firing unit to a firing position within range. Casualties due to support fires will not be explicitly assessed but will be included in the battle assessment. Observation will be assumed to be performed by the supported unit. Red fire-support units can provide support for the duration of the battle as limited in para E'11.

(c) Harassing fires can be ordered against stationary targets using Code 203. Each harassing-fire mission can last up to 1 hr unless it is ordered to be stopped sooner. Observation for harassing fires by 60- and 81/82-mm mortars will be assumed to be provided by an unidentified observer from the firing unit. Harassing fire by larger weapons will be assumed to be unobserved.

TABLE F'1-1
Red Fire-Support Weapons

Weapon	Number per unit	Maximum range, km	Illumination capability
60-mm mortar	3 per platoon	2	No
82-mm mortar	3 per platoon	3.5	Yes
120-mm mortar	4 per platoon	6	Yes

TABLE F'1-2
Blue Fire-Support Weapons

Weapon	Number per unit	Maximum range, km	Illumination capability
60-mm mortar	2 per rifle company weapons platoon	2	No
81-mm mortar	4 per platoon	3.5	Yes
4.2-in mortar	3 per platoon	5	Yes
155-mm howitzer (towed)	4 per battery (2 per platoon)	12	Yes

(d) Specific mission fires for destruction or counterbattery purposes will be ordered by Codes 200, 201, 202, 204, or 205. An identifiable observer must be specified. Red fire-support units will be limited to four specific missions between resupply trips to a base or cache, unless located at a base or cache.

(e) Firing positions for fire-support units cannot be located in dense forest, jungle, rubber plantations, or marsh.

(f) Characteristics of fire-support weapons are shown in Tables F'1-1 (Red) and F'1-2 (Blue).

TABLE F'2-1
Assessment of Fire-Support Missions

Weapon	Casualties per platoon (or HQ) located in 1/2-km square of target area						
	Harassing mission (per 1/2 hr), %			Specific mission (per mission), %			
	0	5	10	0	5	10	15
	Random-number ranges						
60-mm mortar	00-89	90-99	—	00-79	80-94	95-99	—
81/82-mm mortar	00-79	80-94	95-99	00-59	60-89	90-99	—
4.2-in. mortar	00-59	60-89	90-99	00-24	25-74	75-94	95-99
155-mm howitzer	00-49	50-84	85-99	00-14	15-69	70-89	90-99
120-mm mortar	00-39	40-79	80-99	00-09	10-44	45-84	85-99

TABLE F'2-2
Assessment of Mortar Fire against Vehicles (Parked, Landing, or Taking-Off Helicopters^a or Parked Trucks)

Number killed	Weapon caliber, mm						
	60		82		120		Any
	Helicopters or trucks						
	3-11	≥ 12	3-11	≥ 12	3-11	≥ 12	Any number in revetment
	Random-number ranges						
0	00-56	00-53	00-34	00-24	00-12	00-02	00-65
1	57-89	54-87	35-74	25-62	13-47	03-15	66-93
2	90-98	88-97	75-94	63-87	48-81	16-41	94-98
3	99	98-99	95-98	88-96	82-96	42-69	99
4	—	—	99	97-99	97-99	70-90	—
5	—	—	—	—	—	91-97	—
6	—	—	—	—	—	98-99	—

^aAssess for each specific-fire mission or ambush and for each 1/2 hr of harassing fire.

2. Assessment of Fire Missions

(a) Table F'2-1 will be used for assessment of casualties of harassing and specific missions by fire-support units.

(b) Reports of receiving fire (Code 803) will indicate light (L) fire for harassing missions and moderate (M) for specific missions. In providing counterbattery information (Table F6-6, RAC-TP-111) only "size of round" will be reported. Battery location will not be reported.

(c) Mortar fires resulting in materiel losses assessed in Table F'2-2 (trucks and helicopters) will be reported by the unit sustaining the loss by Code 825.

Code 825 — L (l, m, h) fire from Cont (A2 B1 or A2 B2) located at C, destroyed Num items of TYF (B1) equipment.

H'. AIR DEFENSE

- (a) Aircraft loss due to general air situation is not played.
- (b) Local air-defense-unit capabilities are shown in Table H'1-1.* Air-defense-artillery (ADA) units can be employed in the indicated echelon (launcher, platoon, section, battery) and against the indicated aerial vehicles. Unit capabilities are assumed to remain constant throughout the game interval. The probability of ADA units destroying aircraft is shown in Tables H'1-2* and H'1-3.*
- (c) When aircraft are on the ground or hovering to land, the kill probability is assessed in accordance with H'1-5.*

I'. TACTICAL (TAC) AIR FIRE-SUPPORT OPERATION

- (a) The number of daily TAC Air missions available will be allocated by Control on a day-to-day basis.
- (b) Air superiority and deep interdiction missions for tactical aircraft are not played.
- (c) TAC Air request procedures and other standing operating procedures (SOPs) are described in Sec I of RAC-TP-111.
- (d) There are three tactical-air-control parties with Forward Air Controllers (FAC) available with each division for control of close-air-support missions. The FAC may be assigned to ground-combat units desired by players.

Code 229 - FAC number Num (1, 2, or 3) assigned (reassigned) to DESIG.

The FAC must have LOS to the target at time of attack. In the event LOS does not exist at time over target (TOT), the player may cancel the target (Code 230) or alternate FAC.

- (e) The probabilities of Tables I'1-1* and I'1-2* are used in the assessment of fire against ground-target areas. Air strikes against point targets such as bridges, OPs, patrols, etc., are assessed for damage by the use of Table I'1-3.
- (f) TAC Air missions can be employed only against targets in the open, in brushwood, or in the edge of forests and jungles.

J'. ARMY AIR OPERATIONS

1. General

Army air operations and capabilities in the counter guerrilla game will in general follow the rules and procedures contained in Sec J of RAC-TP-111.

2. Air Cavalry Troop

The SS-11 missile systems of the air cavalry troop are assumed to be replaced by the XM3 2.75-in. rocket system. The troop will operate with both the 2d and 3d Platoons equipped with rockets. The aero-rifle platoon will continue to be identified as the 1st Platoon. The scout platoon will not be operated

*These tables are classified and hence may not be included in this unclassified document.

as a platoon and will be identified in the game as four air cavalry patrols each consisting of two light observation helicopters (LOHs).

(a) The ground-combat capability of the air cavalry troop as discussed in para J2-p (RAC-TP-111) will be extended to permit ground combat for a maximum of 2 hr before resupply actions are required.

(b) In addition to the operation of the aero-rifle squads as helicopter transported patrols as discussed in para J2-j (RAC-TP-111), the aero-rifle platoon can operate in a ground-patrol area-search mode.

(c) The aero-rifle platoon can be ordered to move to a designated position (by normal air and/or ground movement orders) and ordered to establish a patrol base for area search.

Code 330 — Establish patrol base at C1 for ground-patrol area search at Tme.

Code 307 — Conduct search in area C1 to C2 at Tme.

The platoon will be assumed to organize eight four-man patrols that will be dispatched radially to search a 4.5- x 4.5-km area centered on the patrol base.

The platoon will require 1 hr after arrival at the patrol base to organize and brief the patrols. The search of the area and return of patrols to the patrol base will require 6 hr.

The patrols are assumed to have radios and to report contacts as they occur. To identify the time of enemy contacts the patrols are assumed to move away from the patrol base at $\frac{1}{2}$ km per hr. Patrol capabilities will be as discussed in Sec D'.

Loss of a patrol will be assessed as 10 percent of the platoon.

Only one such area search mission can be performed per 24 hr of game time.

(d) The armed helicopters of the utility transport helicopter companies will be employed only as escorts for helicopter transport missions and cannot be ordered to perform independent missions.

(e) The rocket platoons of the air cavalry troops can be ordered to provide "column cover" for Blue troop movements using Code 333.

(f) Armed helicopter attacks can be successful only against targets in the open, in brushwood, or in the edge of forests and jungles.

(g) Armed helicopter attack will be assessed during $\frac{1}{2}$ hr following take-off against targets within $\frac{1}{4}$ -hr flight distance of the starting position, and with a $\frac{1}{2}$ -hr delay against more distant targets.

3. Air Cavalry-Ground Unit Liaison

In order to minimize the planning and order delays established in para A'5, air-ground liaison can be established.

Code 008 — Provide air-ground liaison between DESIG (ground unit) and Spt (air cavalry unit).

This order code will be given to an air cavalry patrol (ACP) or a squad of the aero-rifle platoon. When the liaison element has been at the location (headquarters) of the unit being supported for 15 min (or more) air cavalry operations by the troop furnishing the liaison element can be ordered against

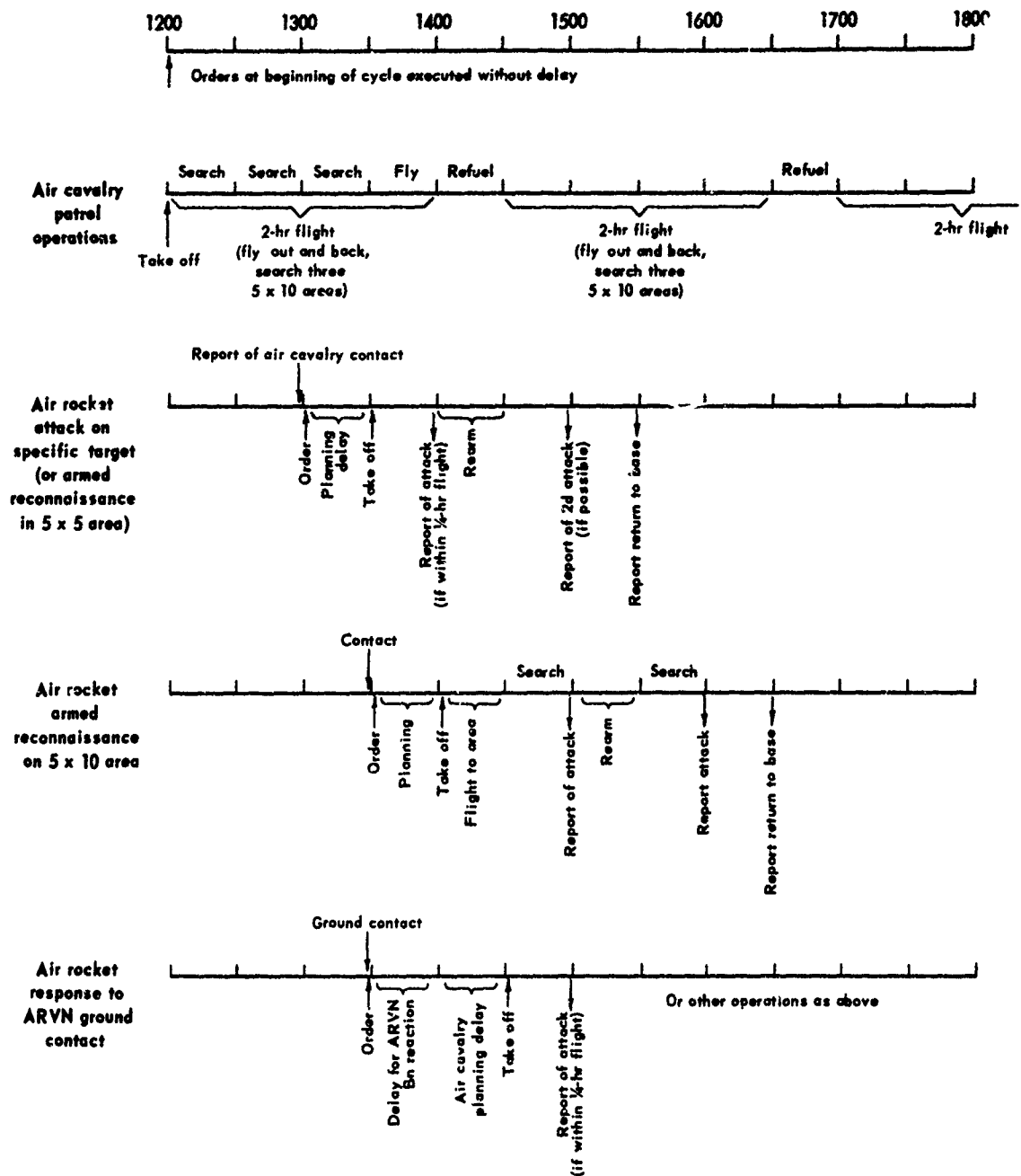


Fig. J'4-1—Example of a 6-hr Cycle of Air Cavalry Operations
(1200-1800)

enemy elements contacted by the ground unit without further delay and without randomizing for airborne sighting.

4. Cycle of Air Cavalry Operations

The cycle of ordering and execution of air cavalry operations considering the differences between orders at the beginning of a cycle and orders issued in response to an intracycle contact is shown in Fig. J'4-1.

5. Air Cavalry Assessment

Air cavalry armed helicopter support of ground battle will be assessed as specific missions.

(a) Armed helicopter attacks against Red units not in battle, ordered by Code 334 or 336, will be assessed under Table J'5-1.

TABLE J'5-1
Assessment of Casualties from Armed Helicopters

Casualties, %	Target type ^a			
	Moving platoon or fire support platoon (firing)		Halted platoon	
	Machinegun sec	Rocket sec	Machinegun sec	Rocket sec
	Random-number ranges			
0	00-29	00-09	00-29	00-19
5	30-59	10-39	30-59	20-44
10	60-89	40-79	60-89	45-84
15	90-99	80-99	90-99	85-99

^aRandomize separately for each target located in the same ½-km square.

K'. ENGINEER OPERATIONS

1. Blue Minefields

It is assumed that antipersonnel mines are an integral part of hamlet and platoon outpost defensive positions. Their separate effect on Red attackers is included in the general effects of the defensive position factor in the battle model.

Close-in perimeter defenses in the division base area may be ordered to have protective type strips laid with sizes and times as shown on Tables K1-1 and K1-3 (RAC-TP-111). This work must be done by engineers. Such protective strips are primarily antipersonnel and although they do not stop Red attacks, they do have a 50 percent (00-49) probability of causing 5 percent casualties. They are ineffective against patrols or smaller-sized units or agent penetration (see para K'7) on the basis that knowledge of their location has been compromised. Minefield gaps will be assumed and need not be ordered.

Code 500 - Lay minefield C1 to C2 (centers of ends of field)
depth of field F (insert 1) basic strip at Tme.

2. Blue Route Clearance and Denial

(a) Engineers are required to check and clear a road of mines. Times required are shown in Table K'2-1.

Code 506 — Clear mined road at C1 at Tme.

Code 955 — Minefield barrier is breached at C1 at Tme.

(b) Engineers or infantry units may reduce roadblocks as shown in Table K'2-1.

Code 508 — Clear roadblock at C1 at Tme.

Code 959 — The roadblock at C1 is reduced at Tme.

(c) Roadblocks do not normally stop a unit but do result in $\frac{1}{4}$ -hr delay (para B'4). Roadblocks on routes otherwise untraversable, i.e., steep slopes or totally restricting vegetation, are assumed to be wide enough to forbid off-road movement and must be reduced as shown in Table K'2-1 before further movement.

TABLE K'2-1
Route-Clearance Rates

Operation	Unit type, Platoon	Time required, hr	
		Day	Night
Clear mined route	Engineer	1	2
Clear log roadblock	Engineer	1	2
	Infantry	2	3
Clear entrenched roadblock	Engineer	1	2
	Infantry	3	4

3. Blue Military Bridge Construction

Most destroyed bridges are either bypassable with short delays (see para B'4) or after embankment grading with no delay. Engineer platoons may grade stream approaches under Code 534. Time requirements are 2 hr per site for one platoon and 1 hr for two platoons.

Code 534 — Grade approaches for bridge, ferry, or ford at C1 at Tme.

(a) Repairs or reconstruction of fixed bridges on all-weather highways are usually made to increase military and civilian traffic capacity and to make routes passable during the wet season and to protect against possible ford wash-outs during scattered dry-season thunderstorms. It is assumed that harassment is a recurrent affair and adequate bridging supplies are stockpiled at the division base area.

(b) Fixed bridges are assumed to have piers and pilings intact after bridge destruction by Red forces. Reconstruction must be done by engineer units at rates indicated in Table K'3-1.

Code 942 - Bridge at C1 is Num (destroyed-DES, damaged-DAM) at Tme.

Code 517 - Repair bridge/airfield at C1 at Tme.

Code 513 - Construct (fixed) bridge at C1 at Tme.

TABLE K'3-1
Bridge Repair or Construction Time

Bridge type	Status	Engineer units ^a	Time required, hr	
			Day	Night
All-weather	Destroyed	Platoon	12	16
	Damaged	Platoon	6	10

^aAn additional platoon reduces construction time by 50 percent.

(c) Engineer units ordered to repair a damaged or destroyed bridge will report on Code 944 on arrival at site and Code 940 when work is completed.

Code 940 - Fixed bridge at C1 (and C2) is intact at Tme.

Code 944 - Fixed bridge at C1 (and C2 if appropriate) is under construction at Tme. Estimated operational at Spt time.

(d) Repaired fixed bridges will have full road width and load capacity for all vehicles.

(e) Single-runway airfields damaged by agent (see para K'7) cannot be used for fixed-wing aircraft until repaired. It will be assumed that only temporary operational repairs will be measured in game play. Such repair requires 2 engineer-platoon hr of effort (day or night).

Code 965 - The airstrip at C1 is Num (DES-destroyed; DAM-damaged) at Tme.

Code 525 - Construct/repair airstrip at C1 at Tme.

(f) Damage of a petroleum, oils, and lubricants (POL) dump by insurgent agents (Code 928) will be assumed to be only partial destruction. Blue aircraft operations of the unit(s) affected will be limited to one half the normal capability during the following 6-hr period but will be normal thereafter. Blue will have the opportunity to change missions after receiving a report of POL damage (Code 928).

4. Red Minefields

Red forces have antipersonnel or antitank type mines and explosives. Their use will be limited as indicated:

(a) Antipersonnel mines including booby traps are assumed to be a part of the defensive preparation of the major Red bases. In attacks on such bases

the effects on the attacker are included in weighting the defender's posture. Blue platoons entering unoccupied base camps will be assumed to have a 10 percent probability (00-09) of receiving 5 percent casualties from these mines and/or booby traps.

(b) In prepared ambushes involving more than two Red platoons, Red may order the emplacement of mines with a 25 percent probability (00-24) of causing 15 percent casualties to mounted Blue units caught in the ambush. These casualties are in addition to those inflicted by small-arms and mortar fire. Casualties to dismounted units from mines in an ambush are negligible. It is assumed such mines are optimally spaced and electrically detonated.

Code 505 - Mine segment of road at C1 at Tme.

Code 950 - Current effectiveness degradation from minefield is up PCT to a total of CAS at Tme.

Emplacement of mines at an ambush site will add 1 hr to preparation time (para C'2e).

5. Red Route Clearance and Denial

(a) Red road blocks are prepared either of logs or by ditching (entrenching) the route. Ditched roads consist of partial entrenchment across the roads optimally spaced to stop vehicular movement (but are no hindrance to foot troops) and can be constructed anyplace. Log blocks consist of piles of logs across the route and must be constructed in wooded $\frac{1}{2}$ -km squares.

(b) Red infantry platoons can be ordered to set up harassing route-denial operations by mining or blocking roads or tracks. It is assumed their capability in vehicular-detonated mines is limited to only a few mines per site. This limits route-denial operations to one emplacement per platoon per 6-hr period. Antipersonnel mines will not be played in route-denial operations.

Code 505 - Mine segment of road at C1 at Tme.

To emplace mines in a road not previously cut (trenched), 1 hr is required. For roads previously blocked by entrenchment $\frac{1}{2}$ hr is required.

(c) Red route-denial operations in Blue controlled areas are subject to discovery by friendly civilians during daylight hours.

Code 545 - Emplace antitank mines in previously constructed road block entrenchments at C1 at Tme.

TABLE K'5-1
Red Route-Denial Rates
(In hr)

Number platoons	Entrench route		Log block	
	Day	Night ^a	Day	Night ^a
1	3	2	2	1
2	2	1	1	$\frac{1}{2}$

^aGreater speed at night is due to the comparative freedom from interruption and observation at that time.

Time rates for construction are shown in Table K'5-1.

6. Red Bridge Demolition

(a) Bridges may be prepared for demolition by a Red platoon. No more than one all-weather road bridge or two fair-weather road/track bridges can be prepared for demolition in a 12-hr period by a Red company without the unit (all platoons) returning to a base camp or cache. Time requirements are shown in Table K'6-1.

Code 515 — Prepare bridge at C1 for demolition at Tme.

(b) A unit at the bridge site may destroy a prepared bridge on order. Units within 5 km of the site can destroy the bridge on $\frac{1}{2}$ -hr notice. More distant units must be moved to the site.

Code 516 — Destroy bridge at C1 at Tme.

TABLE K'6-1
Times for Preparing Bridges for Demolition
(In hours)

All-weather-road bridges		Fair-weather-track bridges	
Day	Night ^a	Day	Night ^a
6	4	4	3

^aSee footnote to Table K'5-1.

7. Red Terrorist Activities

(a) Terrorist activity will be limited to engineer-type harassment within 5 km of Blue division base area. This will include only the blowing up of bridges or the damage of airfield runways or POL supplies. Terrorist orders or reports will be identified as "Agent" under Unit.

(b) Such activities must be in response to Red intelligence reports of Blue activities and an order for the mission. Both would be subject to ASA pickup. Only one action per 6-hr cycle can be ordered. The pickup of orders for such terrorist activity would automatically stop the mission and Red would get a Code 772.

Code 772 — Cannot accomplish Num order issued at Tme.

(c) If the order is not intercepted Red agents will have a 50 percent chance (00-49) of completing the mission or being destroyed or captured (Code 725).

(d) The numbers or movement of agents is not identified. Agent intelligence activity will be limited to two reports (para K'7f) per 6-hr period. Red will indicate general sector of activity through Code 053. An agent intelligence mission is limited to a 2 x 2-km area.

Code 053 — Scout enemy activity vicinity C1 to C2 at Tme.

In case of multiple activities in the area Control will report on Blue activity of greatest significance.

(e) The Agent radio communication point will be specifically designated by Red. If located by Blue, the station has a 25 percent probability (00-24) of moving out in the advance of Blue attacking troops but can be destroyed by artillery fire. If destroyed the station is not replaced during duration of game play. Destruction would be reported to Red using Code 725 and "radio" as Unit.

Code 277 — Establish clandestine radio at C1 at Tme.

Code 278 — Relocate radio station to C1 at Tme or if attacked.

(f) Intelligence reports from agents are limited to the following codes and will be sent to the player in the middle of the 6-hr period.

Code 868 — Estimated number Num enemy aircraft of Cont type observed taking off at C1 flying Dir direction, after loading Spt type cargo. Include EN.

Code 904 — Cont (maximum A1B2) type enemy moving at C1 in direction Dir at Tme. Include EN.

Code 953 — Minefield barrier being laid at C1 at Tme. Include EN.

Code 964 — An airstrip is under construction at C1 at Tme. Include EN.

Code 968 — A defensive position is being prepared at C1 at Tme. Include EN.

Code 974 — Helicopter landing area at C1 under construction at Tme. Include EN.

Code 916 — A POL dump is located at C1 at Tme.

(g) Orders to agents are limited to the following codes.

Code 505 — Mine segment of road at C1 at Tme.

Code 516 — Destroy bridge at C1 at Tme.

Code 538 — Ditch or crater Msn (Rd-road, AF-airfield) at C1 at Tme.

Code 539 — Blow up POL supply point at C1 at Tme.

(h) Results of agents' missions are reported under the following codes. Reports are submitted to Red players at the end of the 6-hr reporting period.

Code 943 — Bridge at C1 is damaged at Tme.

Code 960 — The road is mined at C1 to C2 at Tme.

Code 965 — The airfield at C1 is Num (DAM-damaged; DES-destroyed) at Tme. (Note: agents cannot destroy a field.)

Code 975 — Road is cratered/cut at C1 at Tme.

Code 928 — POL dump at C1 in flames at Tme.

L'. GROUND RECONNAISSANCE AND SURVEILLANCE

Radar (unit, command, and counterbattery) will not be played. The Heckler Model will not be played.

1. Patrols

(a) In the counterguerrilla game patrols will be limited to one dismounted patrol (DIP) per rifle company. Red patrols will be dispatched from and report

to the location of the 1st Platoon of each letter company. Blue patrols will be dispatched from and report to the location of the company headquarters. Patrol identification will be by a letter P followed by the designation of the platoon furnishing the patrol.

(b) Reports from Red patrols will be made by dismounted runner. Delivery of reports to players will be delayed on the basis of a 6 km/hr movement rate for runners. Blue patrols will be equipped with radios.

(c) The Blue scout platoons of the division reconnaissance company will each have a capability of organizing and employing three DIPs or three 1/4-ton truck-mounted patrols (MIPs). Patrol identification will be with a P, Q, or V followed by platoon identification.

(d) Patrols can be ordered to establish observation posts (OPs) by Code 308.

2. Checkpoints

Units of platoon size may be ordered to establish traffic-control points in enemy or neutral villages for the specific purpose of obtaining military information from local inhabitants. Checkpoint locations must be established in villages or contiguous hamlets containing no less than 15 map-indicated huts per 1-km square.

Code 309 — Establish platoon checkpoint at C1.

There is a probability that information will be received by the checkpoint unit 1 hr after its positioning, as indicated in Table D'3-1. Patrol elements/platoons not operating under checkpoint orders receive no information from civilian informants.

3. Prisoners of War

(a) In counter guerrilla situations there appears to be a reasonable probability that Prisoners of War (PWs) will be interrogated by the capturing unit and may divulge immediate information of local tactical significance. The acquisition of immediate information will be assessed on the basis of 00-49 success and then in accordance with Table L5-1 (RAC-TP-111) modified as follows:

On the line headed "Intention" captured patrols are given a 50-99 probability of divulging the last order under which their parent unit was operating at the time of capture.

Code 935 — Last order issued PWs prior to capture was Num
(use same format as for 832 — intercepted order).

M'. AIR RECONNAISSANCE AND SURVEILLANCE

1. The generalized air-visual observation (AVO) and air target locator (ATL) models in RAC-TP-111 will not be used.

2. Procedures of play and assessment for TAC Air and Mohawk photo and IR reconnaissance missions will be as contained in Sec M (RAC-TP-111) as modified by Sec C' concerning detections of Red base areas and the use of camouflage detection film.

3. Table M'3-1 will be used for assessment of detection and quality of information for aerial visual-observation missions.

TABLE M'3-1
Quality of Information from Airborne Visual Observation in Daylight^a

Quality of information	Open terrain, platoon ^c						Brushwood, sparse forest, b platoon ^c					
	Helicopter ^d				TAC Air Mohawke		Helicopter				TAC Air Mohawke	
	Cruise		Nap of the earth/ artillery forward observer				Cruise		Nap of the earth/ artillery forward observer			
					Moving ^f	Halted					Moving ^f	Halted
	Random-number ranges											
A ₁ B ₁	00-03	—	00-09	00	00	—	—	00-00	—	—	—	—
A ₁ B ₂	04-18	00-01	10-49	01-05	01-05	—	—	01-05	—	—	—	—
A ₁ B ₃	19-20	02-03	50-54	06	06-10	—	—	02-06	—	—	—	—
A ₂ B ₁	21-40	04-05	55-74	07-11	11-20	—	—	07-11	—	00	—	—
A ₂ B ₂	41-60	06-11	75-94	12-24	21-30	00-29	00-29	12-26	—	01-10	—	—
A ₂ B ₃	61-79	12-69	95-97	25-84	31-68	30-49	30-49	27-46	—	00-04	11-20	—
No report	80-99	70-99	98-99	85-99	69-99	50-99	50-99	47-99	—	60-99	05-99	21-99

^aAt night, with illumination, moving units are detectable using appropriate "halted" columns. Halted units are not detectable.

^bMust fly over square occupied by target. An AFO or FAC searching for a designated target will have a 00-13 probability of locating a deployed, cross-country moving target.

^cPatrols cannot be detected except while moving in open terrain and then only by NOE helicopter. Use "halted." Firing mortar or artillery units will be assessed as moving targets.

^dRange limitation is 3 km (and LOS for NOE flights).

^eMust fly at 3000 ft or lower.

^fFor units moving in normal column randomize twice for quality of information obtained about them. For units moving cross-country use halted columns.

TABLE M'3-2
Air-Photo Detection Probabilities with Conventional Film
(KA-30 camera, 3-in. lens, and clear weather)

Terrain	Movement status	Scale							
		Large 1/4000		Medium 1/10,000		Small 1/20,000			
		Altitude, ft							
		1000		2500		5000			
		Coverage, km							
		$\frac{1}{2} \times 45$		2×200		4×400			
		Night photo, coverage							
		$\frac{1}{2} \times \frac{1}{2}$		2×2					
		Patrol	Platoon	Route C'1c	Camp C'1f	Patrol	Platoon	Route C'1c	Platoon
		Random number ranges and quality of information							
Road/cart track/path	Moving	00-49 (A1B3) na	00-79 (A1B2) na	na ^a	na	00-09 (A1B3) na	00-69 (A1B2) na	na	00-14 (A1B3) na
Fields (bare), rice	Halted	00-19 (A2B3)	00-59 (A1B3)			00-06 (A2B2)	00-49 (A1B3)		00-09 (A1B2)
	Moving cross-country Halted/deployed	00-06 (A2B3)	00-29 (A1B3)	00-60	na		00-19 (A2B3)	00-60	00-09 (A1B2)
Brushwood	Moving		00-09 (A2B3)	00-30	na		00-04 (A2B3)		
	cross-country Halted/deployed							00-30	
Sparse forest	Moving			00-20	00-20				
	cross-country Halted/deployed							00-20	
Dense forest, jungle, rubber plantation, bamboo	No unit detection possible			00-05				00-05	

na means not applicable.

4. An airborne artillery forward observer (AFO) will have an increased capability over other air observers for targets within 3 km of the target designated. (Use Code 880)

5. Codes for camouflage-detection photo missions, assessed in accordance with Table M'3-2, are as follows:

Code 482 - Fly air-photo camouflage-detection mission type
FU (R-route, A-area) Mission number Num from
C1 to C2 at Tme.

Code 890 - Photo Msn (number) flown at Tme reports disturbed
terrain/vegetation at C1 (to C2).

O'. AIR TRANSPORT

1. Air Transport Lift Requirements

In general basic rules and assessment procedures in RAC-TP-111 are not changed. However, Table O1-3a in RAC-TP-111 (now Table O'1-1) is revised for counter guerrilla game play.

TABLE O'1-1
Transport Aircraft Lift Requirements

Size and type of unit	Number UH-1D sorties required
Infantry platoon ^a	3
Infantry company	12
81-mm mortar platoon ^{a,b}	3
4.2-in. mortar platoon ^{a,b}	4
57-mm recoilless rifle platoon ^a	2
Engineer platoon	3
Reconnaissance platoon	4

^aIncludes personnel, weapons, and ammunition, to do battle for a total of 2 hr before resupply.

^bIncludes ammunition to support battle for 2 hr or to fire four specific missions before resupply.

2. Planning Times

Planning times shown in Table O1-2 (RAC-TP-111) remain unchanged (hel, 1/2-hr nonpenetrating mission, 1-hr penetrating mission). These delay times apply only when the staging area is located at the helicopter base field. If the staging area is not located at the base field, additional time is required to move the helicopters to the staging area and load. If the staging area is less than 40 km from the helicopter base this additional delay will be 1/2 hr.

3. Altitudes

Unless otherwise ordered, all helicopter and light transport airlift operations will be made at altitudes of 1500-2500 ft to reduce vulnerability to ground fire.

4. Performance

Carrying capacity and performance characteristics given in Table O1-1 (RAC-TP-111) are applicable. Number and type of aircraft available will be listed in the table of organization and equipment (TOE).

5. Landing

An airmobile unit will not knowingly land where enemy units can bring it under direct small-arms fire. However, if the enemy is hidden and the airmobile unit does land in the same $\frac{1}{2}$ -km square the airlifted disembarking troops will be considered in an ambush situation.

Q'. UNITED STATES ARMY SECURITY AGENCY (USASA) OPERATIONS

In counter guerrilla game play the USASA Division Support Company will operate in MODE I under Division control (Table O5-1 in RAC-TP-111) as an integrated entity. Communications intelligence (COMINT) intercepts will be played on the condition reports made by Red units when they arrive at base camp areas and on the orders to and reports from terrorist groups. Control will assess these transmissions and report intercepts to players in accordance with the basic rules of this section.

Code 783 - Unit condition report; arrived Tme with total CAS condition.

T'. LOGISTICS

1. Red Logistics

In counter guerrilla gaming, detailed logistics will not be played. Food and ammunition for Red forces are located at base camps and caches. Activity of Red units will be limited, when out of base camps, to the time periods set forth in Battle Section Table E'1-1. Those Blue units which are mobile will be similarly restricted by the infantry fire unit (IFU) that is available to them as identified in original RAC-TP-111 when they are out of base areas.

2. Blue Logistics

Pregame dispositions will locate classes III and V supply-point locations for Blue air cavalry forces. Any subsequent changes during the game play will require usual (ordered) logistic support of classes III and V as well as IFU delivery.

U'. VEHICLE MAINTENANCE

In prolonged counter guerrilla play it is assumed that Blue force will have 75 percent of all aircraft (combat and transport) available for employment. As

losses occur 75 percent of remaining craft will be available on a dai'y basis (day begins 0600).

In the event of heavy losses of aircraft, Control may issue replacement from float or repair groups.

Code 918 — Due to vehicle/aircraft repair, current degradation decreased 5 percent to CAS.