

IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.
2. Re-read the section in your computer's manual that tells you how to load software. Try to load software again.
3. If you can adjust the volume on your recorder, try different settings, both higher and lower.
4. If possible, load another program from a tape or disk you know works on your computer. This will prove that your equipment works. Try once more to load your game.
5. The normal reason software will not load is tape recorder or disk drive head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read software made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.
6. If the program still cannot be loaded, send the software, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the software or play the game, and what you did to try to get it to load.) to:

Avalon Hill Microcomputer Games
4517 Harford Road
Baltimore, Maryland 21214

Defective software will be replaced.

FIRE PHASE COMMANDS

- Ø Done
- 99 Computer will display known enemy positions
- L Line of Sight check
- F Fire
- A Area Fire

MOVEMENT PHASE COMMANDS

- Ø Done
- 99 Computer will display known enemy positions
- L Line of Sight check
- M Move
- S Place Smoke Grenades

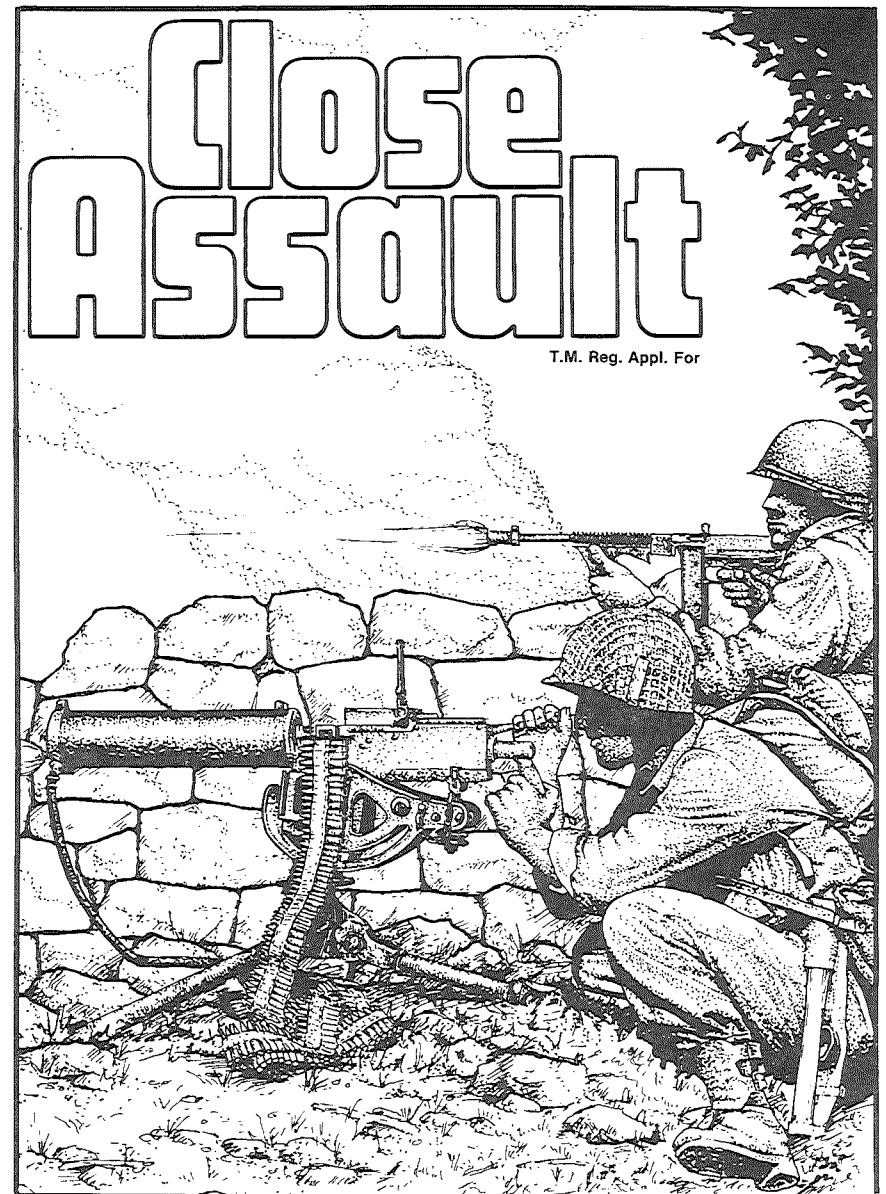
MOVEMENT FACTOR CHART

ACROSS A ROAD HEX-SIDE	1 MF
ACROSS A CLEAR HEX-SIDE	2 MF
ACROSS A WALL OR HEDGE HEX-SIDE	4 MF
ACROSS A CLIFF HEX-SIDE	NOT ALLOWED
INTO A WOODS HEX	2 MF
INTO A BUILDING HEX	2 MF
INTO A HIGHER HEX	2 MF
INTO A HEX WITH SMOKE	2 MF



microcomputer games

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T.M. Reg. Appl. For

FOR:

ATARI 800®: 40K Cassette, 40K Diskette

Apple II®: 48K Cassette, 48K Diskette

TRS-80®, Model I & Model III, Level II: 48K Cassette, 48K Diskette

CLOSE ASSAULT IS AVALON HILL'S TRADEMARK NAME FOR ITS COMPUTER GAME
OF WWII TACTICAL INFANTRY COMBAT

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Close Assault

Tactical Infantry Combat in World War II

1. INTRODUCTION

In order to play **Close Assault**, you will need one of the following computers: TRS-80 Model I or III with Level II BASIC and 48K memory; Apple II (Integer or Applesoft BASIC) with 48K memory; Atari 800 with 40K memory. The **Close Assault** GAMEMASTER program is supplied on a cassette tape or a floppy diskette. (This game comes with one or the other—not both!) The detailed instructions for loading the program on each type of computer are at the end of the rules. Note that the program will run virtually identically on all three computers, the major difference being speed.

Close Assault breaks new ground by being one of the first games to combine the advantages of pure board games and pure computer games. Like a board game, **Close Assault** is played on a colorful and detailed map with unit counters which represent the forces of each side. The visual impact is much greater than on even the best of computer graphics displays. On the other hand, like a computer game, **Close Assault** does not force players to keep track themselves of all the “nitty-gritty” details that can bog even the best board game into a morass of double-entry bookkeeping. But the computer program for **Close Assault** is more than simply a play aid—it makes possible true solitaire play (the computer can play for either side) and double hidden movement, which are very difficult to do in a conventional board game.

Veteran board game players may find that the rules of **Close Assault** are somewhat less complex than they might desire. For example, all artillery and mortar fire is assumed to have taken place before the game begins. Veteran computer game players may dislike the necessity of physically moving playing pieces for the computer, and the obvious lengthening of playing time which that implies. It is our intent that the many advantages of this new hybrid game system will far outweigh any minor nuisances. Perhaps the most important advantage is that it is not possible for the players of **Close Assault** to calculate in advance the probability of success of an attack. Since the computer resolves all battles, the players are never given a “combat results table” from which they can plan their strategies. This means that actual “combat experience” with the game is necessary before the players learn the right and wrong ways to conduct small-scale infantry combat.

The rules are divided into numbered sections, each section covering one major topic. Please read the rules carefully before you begin play.

2. UNIT COUNTERS

2.1 Unit counters are die-cut cardboard pieces used to represent the men in **Close Assault**, color-coded according to nationality: brown, Soviet Union; green, United States; light-blue, Germany. Each unit counter has a three-digit identifier printed near the top. There are also smoke counters to indicate areas with temporary smoke screens.

2.2 A squad counter represents about ten men with infantry small arms. Likewise, a crew counter represents about four men that are used primarily to man support weapons. Each unit counter has three numbers printed on the bottom, left to right: **FIREPOWER**, the nominal firepower of the unit at full strength and normal range; **RANGE**, the maximum normal range; **MORALE**, a measure of the unit's ability to keep fighting under stress. The **HIGHER** the numbers the better, in all three categories.

2.3 Individual leaders are an important part of the **Close Assault** game system. Leaders are not represented by actual counters on the mapboard but are, like support weapons, recorded on the Squad Record Pad by writing their appropriate number beside the squad or crew they are placed with. Leaders have two important numbers: their morale rating (first number), and their leadership rating (second number) (see chart 2.6). Again, the higher the numbers the better. Note that leaders have no "range" or "firepower" ratings; they must be placed with a squad or crew in order to be effective.

2.4 Elite squads are represented by unit counters that have the soldiers printed in red on the counter. Only elite squads may be given Demo Charges or Flamethrowers. Line or Rifle squads and crews have the soldiers printed in black.

2.5 Smoke counters are placed and removed during the game according to the procedures in paragraph 10.

2.6 Following is a chart listing the number and identity of the various units in **Close Assault**. Note that all Russian units start with the number 1; all American units with number 2; all German units with number 3.

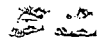





UNIT NUMBER	NATIONALITY	TYPE
101-105	Russian	6-2-8 Guards*
106-115	Russian	4-4-7 Rifle
116-119	Russian	2-3-7 Crew
120-124	Russian	Light Machine Gun
125-129	Russian	Medium Machine Gun
130-131	Russian	Heavy Machine Gun
132-133	Russian	Demolition Charge
134	Russian	Flamethrower
135	Russian	10-3 Leader
136	Russian	9-2 Leader
137	Russian	8-2 Leader
138	Russian	8-1 Leader
139	Russian	7-1 Leader

UNIT NUMBER	NATIONALITY	TYPE
200-205	American	8-4-8 Parachute*
206-215	American	6-6-7 Line
216-219	American	2-4-7 Crew
220-224	American	Medium Machine Gun
225-229	American	Heavy Machine Gun
230-231	American	Demolition Charge
232-234	American	Flamethrower
235	American	10-3 Leader
236	American	9-2 Leader
237	American	8-2 Leader
238	American	8-1 Leader
239	American	7-1 Leader
300-305	German	8-3-8 Assault*
306-315	German	4-6-7 Rifle
316-319	German	2-4-7 Crew
320-323	German	Light Machine Gun
324-327	German	Medium Machine Gun
328-329	German	Heavy Machine Gun
330-331	German	Demolition Charge
332-334	German	Flamethrower
335	German	10-3 Leader
336	German	9-2 Leader
337	German	8-2 Leader
338	German	8-1 Leader
339	German	7-1 Leader

* Elite Units

2.7 A Squad Record Pad (see below) is provided for your convenience. On the Record Pad you may wish to record the casualties a unit suffers, leader and support weapons placed with a unit during setup (or, in the case of enemy units, as they become known during the course of play). To the right of the "UNIT #" block are separate blocks for recording Casualties, Light Machine Guns (LMG), Medium Machine Guns (MMG), Heavy Machine Guns (HMG), Demolition Charges (DEMO), and Flamethrowers (FLAME). To indicate what weapon, leader or casualties just enter the appropriate number.

CLOSE ASSAULT SQUAD RECORD PAD

UNIT #	LEADER #	 CASUALTIES	 LMG	 MMG	 HMG	 DEMO	 FLAME
ELITE 0	235	1				230	232
ELITE 1		1+1		226			233
ELITE 2	237					231	
ELITE 3		2			225		

3. THE MAP BOARD

3.1 The map board represents generalized terrain in Europe. It has been divided into hexagons in order to regulate movement and combat. Each hexagon (hex) has an identification code consisting of one or two letters followed by a number. Hexes having the same letter are considered to be a column. Each hex is 40 scale meters across.

3.2 Only entire hexes can be used for placing units. For example, hexes A1 and D10 cannot be used; C10 and EE1 can be used.

3.3 Features on the map board are important to the play of **Close Assault**. If a feature is drawn within a hex, it applies to the ENTIRE hex. If a feature is drawn on a hex-side, it applies to movement or combat that occurs between the two hexes joined by the common side.

3.4 The height of a hex is indicated by the background shading of the hex. Green is the lowest level (CC7), light brown is higher (CC4), and dark brown is higher yet (DD2). Each height difference is about equal to one story of a building.

3.5 Woods are dark green areas with black treetop outlines (E7).

3.6 Wheatfields or areas with tall brush are light yellow (T8).

3.7 Wooden buildings are brown (T6). A wooden building is one story tall.

3.8 Stone or brick buildings are gray (T4). A stone building is two stories tall. Note that in **Close Assault**, a unit in a stone building is considered to be on the second story.

3.9 Shell holes are indicated by brown pock marks (X2). They are considered to be a result of recent mortar and artillery bombardment.

3.10 Roads are drawn as solid tan lines. Squads can move faster along roads provided there are no shell holes. For example, a squad could move faster from Z5 to Y5 to Y4, but not to Y3. (See 5.6 below.)

3.11 Reference will be made later in the rules to "open" hexes. A hex is open if it contains no woods, shell holes, buildings, or wheatfields regardless of other terrain features. For example, hex X4 is open, while hexes X3, X2, and X1 are not.

3.12 A stone wall is represented as a gray hex-side (K2 to K3).

3.13 A hedge is represented as a dark green hex-side (L6 to M6).

3.14 A cliff is represented as a black-brown hex-side (D3 to C4) is the only cliff hexside).

3.15 A hex-side with none of the above features is a clear hex-side.

4. SEQUENCE OF PLAY

4.1 **Close Assault** is played in turns, with each turn being two scale minutes. (Note that it will take longer to play the turn than two minutes. This game is not a test of speed; the players have as much time as they wish to make a move, within reason.) The turns in **Close Assault** follow a rigid sequence. This sequence is executed twice each turn, once for each player. The player designated as the **ATTACKER** in the specific scenario being played goes first; the player designated as the **DEFENDER** goes second. The player whose turn it is will be referred to as "player A", while the other player will be referred to as "player B".

4.2 The entire game is played using the following "computer program":

BEGIN

SETUP (SCENARIO);

TURN: = 1;

REPEAT

PLAYERA: = ATTACKER; PLAYERB: = DEFENDER;

SEQUENCE;

PLAYERA: = DEFENDER; PLAYERB: = ATTACKER;

SEQUENCE; TURN: = TURN + 1

UNTIL (TURN = LIMIT);

REPORT (VICTORY)

END (* ONE GAME *);

(For those who are interested in computer programming, this actually IS, with some modification, the main section of the **GAMEMASTER** program!)

4.3 The **SEQUENCE** of each half-turn consists of six phases in which very different actions occur. The phases are:

RALLY PHASE

PREP FIRE PHASE

MOVEMENT PHASE

DEFENSIVE FIRE PHASE

ADVANCING FIRE PHASE

ADVANCE AND ROUT PHASE

CLOSE COMBAT PHASE

The computer makes sure that the phases are executed in the proper sequence.

4.4 In the **RALLY PHASE**, the computer checks for both players to see if demoralized squads and leaders are rallied (section 8) and if broken weapons are repaired (section 11).

4.5 In the **PREP FIRE PHASE**, player A can fire at any units of player B that are in line of sight (LOS) of the firing unit. LOS is explained in section 6, and **FIRE COMBAT** is explained in section 7.

4.6 In the **MOVEMENT PHASE**, player A can move his units which did not fire in the **PREP FIRE PHASE**, according to the rules explained in section 5.

4.7 In the **DEFENSIVE FIRE PHASE**, player B can fire at any units of player A that are in his units LOS.

4.8 In the **ADVANCING FIRE PHASE**, player A can fire any units with remaining MF at any units of player B in LOS. The effectiveness of this fire is in proportion to the MF remaining.

4.9 In the **ADVANCE AND ROUT PHASE**, units of player A can move one hex regardless of their previous actions. (See rule 5.9.) This is the **ONLY** time player A can move into a hex containing squads of player B. In addition, all units which are demoralized will be moved BY THE COMPUTER into cover if they are not in cover already, as explained in section 8.

4.10 In the CLOSE COMBAT PHASE, the computer will resolve the hand-to-hand fighting that occurs when units of both sides occupy the same hex. In order to avoid complications, it is a "duel to the death". Broken units will not CLOSE COMBAT very well, while berserk units (see 8.6) are especially fierce in CLOSE COMBAT. The presence of an unbroken leader with a squad also has a profound effect on the outcome.

5. MOVEMENT

5.1 During the MOVEMENT PHASE of a turn, player A can move all, some, or none of his units which did not fire during the preceding PREP FIRE PHASE.

5.2 Units can be moved in any direction or combination of directions up to the limits of their MOVEMENT FACTORS (MF). For each new hex entered, the unit will expend a portion of its MF depending on the terrain.

5.3 Units can move over and stack on top of other units of the same nationality without restriction. However, putting too many squads in the same hex invites heavy losses from enemy fire. Two squads in one hex is a reasonable limit for the prudent player.

5.4 Units cannot move over or stack with enemy units during normal movement.

5.5 All units have a uniform MF allotment regardless of type, except for support weapons which must, of course, be carried. The basic allotment is 8 MF. If a unit begins the MOVEMENT PHASE with an unbroken leader, it receives an additional 4 MF for a total of 12 MF.

5.6 A unit expends MF when it moves according to the following table:

ACROSS A ROAD HEX-SIDE	1 MF
ACROSS A CLEAR HEX-SIDE	2 MF
ACROSS A WALL OR HEDGE HEX-SIDE	4 MF
ACROSS A CLIFF HEX-SIDE	NOT ALLOWED
INTO A WOODS HEX	2 MF
INTO A BUILDING HEX	2 MF
INTO A HIGHER HEX	2 MF
INTO A HEX WITH SMOKE	2 MF

A unit ALWAYS pays one of the "ACROSS" costs, but if it moves into a shell hole, wheatfield, or open hex on the same or lower level, it pays no EXTRA "INTO" cost. Example: A unit moving from U9 to U8 would pay 2 (ACROSS CLEAR HEX-SIDE) plus 2 (INTO WOODS HEX) plus 2 (INTO HIGHER HEX) for a total of 6 MF. Note that a unit entering a stone building from outside is considered to be going up (to the second floor) for an additional 2 MF. Note also that road hex-sides are negated by shell holes (i.e. treated as clear hex sides).

5.7 SUPPORT WEAPONS do not move by themselves but must be carried by squads and/or leaders. The number of men needed to carry each of the five support weapons is given in the following table:

LIGHT MACHINE GUN (LMG)	2 MEN
MEDIUM MACHINE GUN (MMG)	3 MEN
HEAVY MACHINE GUN (MMG)	4 MEN
FLAMETHROWER (FLAME)	1 MAN
DEMOLITION CHARGE (DEMO)	1 MAN

When the game begins, players decide which support weapons are assigned to which squads. Up to two support weapons can be carried by one squad. If the squad has been assigned a leader and he is still alive, he will help carry the weapons if necessary. IMPORTANT: Only elite units have the training to use demolition charges and flamethrowers.

5.8 There are several penalties associated with carrying support weapons. A squad loses MF equal to one less than the number of men required to carry the heaviest support weapon of the squad. This represents the additional command and control burden of heavier weapons as well as extra weight. The men carrying machine guns may fire neither the machine guns nor their normal weapons during the subsequent ADVANCING FIRE PHASE (they are assumed to be setting up in the new hex at that time). Men carrying flamethrowers and demolition charges use them instead of their usual weapons at any time they are in range.

5.9 Movement during the ADVANCE AND ROUT phase is not executed using MF. Each undemoralized unit of player A can move one hex in any direction, except that units can never cross a cliff hex-side. (See 3.14 and 5.6.)

6. LINE OF SIGHT (LOS)

6.1 Line of sight (LOS) refers to whether there is unobstructed vision from one hex to another. LOS is always symmetrical, i.e. if there is LOS from hex A to hex B, then there is LOS from hex B to hex A.

6.2 LOS is ALWAYS clear between adjacent hexes.

6.3 LOS can be blocked by buildings, wheatfields, woods, changes in elevation, and smoke. Hedges and walls do not block LOS, although they do affect movement (5.6) and combat (7.8).

6.4 The basic rule for determining LOS is common sense plus a smattering of trigonometry. A story of a building, a forest, or wheatfields are all equal in height to one elevation level. When two hexes are on the same level, they are in LOS as long as no obstacles higher than that level intervene. When two hexes are on different levels with an obstacle between of intermediate height, then trigonometry must be used to determine whether LOS is blocked. Note that any feature in a hex blocks the ENTIRE hex.

6.5 In all cases the computer is the final authority on LOS. In fact, the players do not need more than a general idea of how to calculate LOS because each player is allowed to check at any time he needs to know (moving and firing) whether a hex IN WHICH HE HAS A UNIT is in LOS of any other hex. The computer will check (and report only to him) what, if anything, blocks the LOS. Example: a player has a unit in hex W7. He requests a LOS check to hex H2. The computer responds, "LOS W7 TO H2: CLEAR." He then requests a check to hex T8, and the computer responds, "LOS W7 TO T8: BLOCKED IN U8."

7. FIRE COMBAT

7.1 There are two types of combat in Close Assault: FIRE COMBAT and CLOSE COMBAT. CLOSE COMBAT is short and bloody, and is completely handled by the computer (see 4.10). Players will spend most of their time planning and executing FIRE COMBAT in order to fulfill their objectives.

7.2 When a player is directed by the computer during the game, he can "fire" the weapons of his units at targets in hexes in the units' LOS. (LOS is explained in section 6.) Each unit can fire at any individual target or area if the target is in LOS and the range to the target is no greater than twice normal range. An exception is that flamethrowers and demolition charges cannot be used at more than normal range.

7.3 Each man in each squad or crew is important when executing FIRE COMBAT. Most squads begin with 10 men. Crews, whose main purpose is to fire machine guns, begin with 4 men. As casualties are taken, units will lose men individually until all men are killed (KIA), wounded (WIA), or missing (MIA). To reflect the typical mode of Russian infantry tactics, Russian units have more men but poorer weapons.

7.4 The computer displays the status of units as needed during the course of play. The display indicates how many men are left, the FIREPOWER of the unit if all men use their normal weapons, what additional support weapons are being carried, and other useful information. The status display helps a player decide how to allocate the FIREPOWER of a unit.

7.5 When a unit is directed to fire at a target, the computer checks LOS and one or more men are assigned from the squad to operate support weapons (if in range) as follows:

APPROXIMATE RANGE		
LIGHT MACHINE GUN (LMG)	1 MAN	7-8
MEDIUM MACHINE GUN (MMG)	2 MEN	10-12
HEAVY MACHINE GUN (HMG)	2 MEN	16
FLAMETHROWER (FLAME)	1 MAN	2
DEMOLITION CHARGE (DEMO)	1 MAN	1

A squad will ALWAYS use support weapons whenever it can EXCEPT that DEMOLITION CHARGES are ONLY used against targets in buildings.

7.6 The computer calculates the actual FIREPOWER of the unit based on the number of men firing, MF remaining, leadership, terrain, and other factors; every man counts. Note that rule 5.8 may prevent several men and support weapons from being available to fire. The computer display will reflect this.

7.7 Targets can be designated in one of two ways. First, the firing unit can select a specific enemy squad WHOSE COUNTER IS ON THE BOARD (See section 13.) and aim its fire at that unit only. This is the normal method and should be used when one or two squads occupy a hex. The other method is to designate AREA fire, which affects all units that are in the hex at lower effective FIREPOWER. AREA fire can be directed at suspected enemy positions.

7.8 There are many variables which affect the outcome of a FIRE COMBAT. One of the challenges of the game is that the players are not told exactly what they can expect in the way of terrain and range modifiers. Only the aforementioned "combat experience" will give players a feel for the merits of different kinds of defensive terrain and tactics. However, in the spirit of the U.S. Army Officers Field Manual, the following lists the

general types of FIRE COMBAT modifiers, ranked from best for the firing unit (at the top) to worst (at the bottom):

TARGET MOVING (RUNNING UPRIGHT) IN THE OPEN
FIRING AT POINT BLANK RANGE
FIRING FROM ABOVE
TARGET PRONE (NORMAL POSITION)
TARGET BEHIND A HEDGE
TARGET IN A SHELL HOLE
TARGET IN THE WOODS (BEHIND A TREE)
TARGET BEHIND A STONE WALL
TARGET IN A SMOKE SCREEN
FIRING OUT OF A SMOKE SCREEN
TARGET IN A WOODEN BUILDING
TARGET AT LONG RANGE
TARGET IN A STONE BUILDING

Combinations of the above are possible. For instance, the player should expect a lot of casualties when he fires at point blank range, from above, at a unit running in the open. Firing at long range at a target in a stone building is not likely to do much.

8. MORALE

8.0 In most battles, the number of men killed in action (KIA) or wounded in action (WIA) is quite small when compared to those who fled or sought personal safety at the expense of their assigned mission. The troops in *Close Assault* are assumed to be battle hardened veterans who have already proven their ability to withstand great battlefield stress. Nevertheless, morale is the heart of the issue, for beneath the surface of any organized army lurks a terrified mass of men who long for home and peace.

8.1 All squad and crew units have a MORALE rating which is printed on the counter. This rating is used to determine whether the unit will become demoralized during combat, and to determine when (if ever) the demoralized unit is rallied and resumes normal actions. See chart 2.6 for morale of leaders; a leader's morale precedes his leadership modifier.

8.2 During FIRE COMBAT, the computer will check the morale of attacked units. The success or failure of a morale check is influenced by the MORALE rating of the unit being checked, the LEADERSHIP of its leader (if any) (see 9.3), and the severity of the circumstances. For example, if a squad of ten men takes eight casualties, it is reasonable to assume that the two survivors will be demoralized (at least for one turn).

8.3 Units which fail a morale check are demoralized, or "broken". They are not "flipped over" on the board or otherwise differentiated from other units. When it comes time to move, the computer will automatically take over and attempt to move the unit into cover. When it is time to fire, demoralized units will be skipped. The player who owns the demoralized units will therefore know if his units are demoralized, but the other player can only guess.

8.4 If a demoralized unit fails a subsequent morale check, all men in the unit (including any leader the unit may have) run away from the battle and become missing in action (MIA). The unit is removed from play. Exception: if the key leader's ("your") squad flees the field, the human player for that side (if any) will retain control of his forces (see 9.5).

8.5 During the RALLY PHASE (see 4.4), the computer checks each demoralized unit to see if it rallies. A rallied unit can immediately resume all activities. The presence of an unbroken leader with the squad helps (9.3), but is not absolutely necessary. A unit might remain demoralized until the end of the game. There is no penalty for failing the rally check.

8.6 It is possible that a rallied unit will go berserk. (This is much more likely for the Russians than the Americans or Germans.) As with a demoralized unit, a berserk unit is not distinguished on the board. The computer gains control of all berserk units. Berserk units drop all support weapons, move toward the nearest enemy, and attempt CLOSE COMBAT, fighting to the last man and ignoring all further morale checks. When a squad or leader goes berserk, it triggers a chain reaction for all squads and leaders in the same hex. Units remain berserk until the end of the game.

9. LEADERSHIP

9.0 Squad leadership is the key to success on the infantry battlefield. A greatly outnumbered force can often neutralize a superior force if its combat cadre (a small group of experienced and motivated men) is superior. The squad leader is the cutting edge of a combat group and the following rules reflect his pivotal role.

9.1 The LEADERSHIP rating of each leader unit affects all combat and morale results of the squad it is leading. Broken leaders have no LEADERSHIP value. The computer handles all details of LEADERSHIP calculations, but the players must be aware of the effects of LEADERSHIP because clever use of leader units is the key to success.

9.2 LEADERSHIP increases the effectiveness of units engaged in FIRE COMBAT or CLOSE COMBAT. Units gaining the benefit of LEADERSHIP average higher enemy casualties for a given FIREPOWER, or equivalently, have a greater EFFECTIVE FIREPOWER. Experience will give players an idea of how important this can be.

9.3 LEADERSHIP improves the EFFECTIVE MORALE of a unit when morale checks are conducted. For example, if a unit with a nominal MORALE rating of 7 has an unbroken leader with a LEADERSHIP rating of 2, the EFFECTIVE MORALE of the unit is 9 ($= 7 + 2$).

9.4 Leaders also improve movement capabilities of units (see 5.5).

9.5 IMPORTANT: Leader #35 of your side represents YOU when you are playing the game. It has the highest MORALE and LEADERSHIP ratings, and is thus the most valuable unit in the game. As long as this unit is in play, you control your non-broken and non-berserk units. If "you" should be killed or wounded, however, your subordinates (i.e. the computer) will take over for the rest of the game. If this happens, it is still possible for you to win if you placed your forces in a good tactical position before your unit was eliminated.

10. SMOKE GRENADES

10.1 All elite squads begin the game with smoke grenades.

10.2 Each unit with smoke grenades may ONCE PER GAME designate any adjacent hex (or their own hex) while moving and throw their smoke grenades into that hex. The target hex immediately becomes a "smoke" hex and the computer will direct the player to place a smoke marker.

10.3 Each RALLY PHASE after the smoke grenades are set, the computer checks whether the smoke is blown away. If it is, the computer will direct the smoke marker to be removed. Smoke may last only one sequence, or it may last the rest of the game. On the average, it will last one complete turn (two sequences). If more than one smoke marker is placed in one hex, the hex remains a smoke hex until all markers are removed (as directed by the computer), but there is no extra effect from multiple markers. Note that the computer calls for smoke markers to be removed ONE at a time.

11. SUPPORT WEAPON MALFUNCTIONS

11.1 Whenever support weapons are fired, there is a chance they will malfunction, overheat, or simply run out of ammunition. The computer automatically checks for malfunctions. When a support weapon malfunctions the computer will display the fact that it has malfunctioned when the owning player moves or fires.

11.2 During the RALLY PHASE, the computer checks all malfunctioning support weapons. Malfunctioning weapons can be repaired, ruined permanently, or continue to malfunction.

11.3 Demolition charges are permanently ruined when they are used. In other words, they explode and are removed from the player stats.

11.4 Flamethrower refueling and repair is not done in the midst of battle, for obvious reasons. When a flamethrower malfunctions, it is removed from the player stats.

11.5 The probability of malfunction varies for each support weapon depending on type and nationality. This is another area in which only "combat experience" will give players an idea of the importance of malfunctions.

12. HIDDEN UNITS

12.1 All units begin the game in "hidden" status. Hidden units are NOT placed on the map.

12.2 As units move or fire in an enemy LOS, or are adjacent to enemy units, they are spotted. The computer does all checking automatically. Once a unit loses its hidden status, it remains spotted for the rest of the game.

12.3 When one person plays against the computer, it is permissible for him to place all of his units on the map even if they are technically still hidden. This makes movement much easier. The computer's forces will be added to the map as the game progresses. The computer GAMEMASTER is honest enough to "forget" the positions of your hidden units when it moves and fires.

12.4 When two persons play against each other, there are two ways to make moving easier. The first is for the moving player to ask his opponent to go away, place his hidden units temporarily and move them, remove his

hidden units, and then ask his opponent back in the room. Since this can be cumbersome, it is more convenient to follow 12.5 instead.

12.5 Duplicate units and a duplicate map can be obtained from Microcomputer Games at a reasonable cost. Each player can then maintain his own map with his units and any of the enemy units he has spotted. The most logical physical arrangement is to place the maps on either side of the computer, behind screens. While moving, players keep each other up to date on the positions of units that are spotted. There is also a command to the GAMEMASTER that gives the current positions of all discovered units which helps keep the two maps correct. Once all units are discovered, only one map is needed. See current Parts List (enclosed) for price of the **Close Assault** extra board and counters.

13. SCENARIOS

13.1 Close Assault is a game system rather than a reenactment of one specific battle. When the game begins, the players choose the basic scenario and which nations will fight on the ATTACKING and DEFENDING sides. There are three basic scenarios: Harassment of Advance, Strong Point Attack, and Player Design. In each scenario, the ATTACKING and DEFENDING players are assigned mutually exclusive sections of the map in which to set up their units. In addition, the ATTACKING player is assigned a target area and it is his job to maintain more men in that area than the DEFENDING player at the end of the game. (Victory conditions are discussed in more detail in paragraph 14.) In the descriptions below, the "x" in a unit number refers to the selected country: 1 = Russian, 2 = American, 3 = German.

13.2 In the Harassment of Advance Scenario, the ATTACKING player has many more men than the DEFENDING player. The objective is for the ATTACKING player to get as many men as possible from one side of the map to the other in ten turns. The DEFENDING player cannot hope to hold ground, but he can try to cause enough enemy casualties and confusion to delay the advance. The historical situation depends on the nations selected as ATTACKER and DEFENDER according to the following table:

ATTACKER	DEFENDER	BATTLE
Germany	Russia	The Road to Moscow, September 1941
Germany	U.S.A.	The Battle of the Bulge, December 1944
Russia	Germany	The Road to Berlin, March 1945
Russia	U.S.A.	Stalin Doublecross, Hypothetical 1945
U.S.A.	Germany	Normandy Breakout, July 1944
U.S.A.	Russia	Truman Doublecross, Hypothetical 1945

The set-up area for the attacker is from column B through column E. The set-up area for the defender is from column G through column FF. The goal area is from column CC through column FF.

The attacker receives squads x03 through x16, support weapons x20 through x29, and all leaders.

The defender receives squads x15 through x19, support weapons x20 through x24, and all leaders.

13.3 In the Strong Point Defense Scenario, the forces were more balanced. The objective of the ATTACKING player is to take control of a strongly defended area of great importance, represented here as a road junction, within ten turns. The DEFENDING player has fewer men, but he can more easily take advantage of covering terrain, especially stone buildings. The historical situations are found in the following table:

ATTACKER	DEFENDER	BATTLE
Germany	Russia	The Gates of Stalingrad, October 1942
Germany	U.S.A.	Nuts! Bastogne, December 1944
Russia	Germany	The Gates of Stalingrad, January 1943
Russia	U.S.A.	Truman Was Expecting It, Hypothetical
U.S.A.	Germany	Siegfried Line, November 1944
U.S.A.	Russia	Stalin Was Expecting It, Hypothetical

The set-up area for the attacker is from column F through column J, and column Y through column AA. The set-up area for the defender is from column O through column T. The goal area is from column O through column T.

The attacker receives squads x03 through x16, support weapons x25 through x34, and all leaders.

The defender receives squads x06 through x18, support weapons x20 through x29, and all leaders.

13.4 The Player Design Scenario is just what the name implies: a scenario designed by the player to cover his own favorite battle. The player or players define the nations involved, the specific units, committed to the battle, the set-up areas, and the objectives. The GAMEMASTER program will prompt for all the information it needs. (See section 15)

13.5 The degree of difficulty can be adjusted by proper selection of the attacking and defending countries. The Russian side will be at an advantage because their units have more men. This is especially true when the computer plays for the Russians because its preferred style is best suited to the Russian forces. The easiest scenario to win against the computer is the Harassment of Advance with the Russians (human) attacking and the Germans (computer) defending. The most difficult scenario to win against the computer is the Strong Point Defense with the Germans (human) defending and the Russians (computer) attacking. The balance of forces in the game is not meant to reflect the overall situation in World War II, but rather to provide interesting tactical battles.

14. VICTORY CONDITIONS

14.0 For as long as men have fought wars, philosophers have debated the meaning of victory. Many generals have "won" on the field of battle, only to find that political conditions or excessive casualties rendered the victory meaningless. **Close Assault** by no means intends to provide a definitive philosophical answer; it simply reports the immediate tactical victor of the battle. However, information on KIA, WIA, and MIA men is provided so that players have something to discuss as they debate the larger questions after the game.

14.1 The GAMEMASTER program evaluates the victor according to the number of men in the area defined as the objective. In the Harrassment of Advance Scenario, the ATTACKING player must have at least 100 men more than the defending player in the objective area by the end of the tenth turn. In the Strong Point Defense Scenario, the ATTACKING player must have a simple majority of men in the objective area. The players set the victory level in the Player Defined Scenarios.

15. RUNNING THE GAMEMASTER PROGRAM

15.0 The first step in playing Close Assault is to load the GAMEMASTER computer program. The instructions for doing this are given below. Note that each computer has different instructions for loading the program. However, once the program is loaded, all computers will respond nearly identically.

15.1 When a new game begins, the GAMEMASTER program must set the units and victory conditions. For the TRS-80 (only), the computer will ask for any key to be pressed in order to begin the game. Following that, the computer will ask which scenario to play. The choices are 1: Harassment of Advance; 2: Defense of Strong Point; or 3: Player Defined. Just press the key corresponding to your choice (1, 2, or 3). It is not necessary to press RETURN (or ENTER) except on the Atari.

15.2 The computer will ask for the countries of the DEFENDER and ATTACKER. The choices are 1: Russia; 2: America; 3: Germany. Press the corresponding key for your choice, with no RETURN (or ENTER) necessary except on the Atari.

15.3 The computer will ask whether it (the computer) will play for each of the two counters designated in 15.2. You should press the Y or N keys according to your answers (yes or no). IF A PERSON WILL PLAY, PRESS "N". IF THE COMPUTER WILL PLAY, PRESS "Y". RETURN (or ENTER) is not necessary except on the Atari.

15.4 If you designated "3" in 15.1, the computer will ask you many questions in order to define the scenario. Since the answers to these questions will require more than one letter, you must press RETURN (or ENTER) for each answer after you have typed it on the keyboard. For the DEFENDING and ATTACKING countries, the computer will ask for:

- A. The lowest and highest squad ID numbers to be used.
- B. The lowest and highest weapon ID numbers to be used.
- C. The east (right) and west (left) set-up boundaries.

The lowest and highest ID numbers define a continuous string of units to be used in the scenario, for example squads 102 through 114.

When entering the boundaries, type the hex number of any hex in the boundary column. For example, "F7 [RETURN or ENTER]" and "J5 [RETURN or ENTER]" would allow units to be set up in columns F through J inclusive on any valid row. The rows specified (7 and 5 in this example) are irrelevant but MUST be added because the computer checks for a valid hex number.

The program assumes that there will be one leader per squad to a maximum of five leaders per country.

The program will also ask for:

- D. The east (right) and west (left) goal boundaries.
- E. The number of turns.
- F. The number of men by which the ATTACKER must win.

15.5 IMPORTANT: When entering unit ID numbers, if you make a mistake DO NOT attempt to backspace (erase) the error because the program will interpret this as your signal to end the number. Instead, retype the last two digits of the ID number you really wanted before you push RETURN or ENTER (no spaces). The computer will automatically adjust to the correct ID as long as the last two digits are correct. Backspacing when entering hex numbers is permitted.

15.6 If the computer is playing for a country, then there is nothing else you have to do to set up the forces for that country. If you are playing for a country, the computer will ask you for the hexes in which to place your units (type hex numbers in your set-up area followed by RETURN or ENTER) and with which squads it should place your weapon and leader units (type unit ID numbers followed by RETURN or ENTER).

15.7 When both sides have set up their units, the regular sequence will begin with turn 1. If a person is playing when it is time to move or fire, the computer will need information entered on the keyboard. The methods for entering this information for movement and firing are very similar.

15.8 Before you move or fire, the computer will list on the screen the positions of spotted enemy units and the status of all of your units. The program calculates when the screen is "full" and will wait for any key to be pressed to continue the list in order to give you time to read the data, move enemy units, and make any notes you need. The list uses many abbreviations to compress the data on the display (most of the time, one screen each will suffice for the status and enemy position reports). Most of the abbreviations are obvious, but just to make sure: SQD = SQUAD; LDR = LEADER; LMG = LIGHT MACHINE GUN; MMG = MEDIUM MACHINE GUN; HMG = HEAVY MACHINE GUN; DEMO = DEMOLITION CHARGE; FLAME = FLAMETHROWER; BRKN = BROKEN; BSRK! = BERSERK!; HIDN = HIDDEN; SMOK = HAS SMOKE GRENADES; STGUP = SETTING UP.

For example,

SQD 307 9 MEN LDR 338 BRKN MMG 324 STGUP T4

means that SQUAD 307 with 9 men and LEADER 338 (who is BROKEN but the rest of the SQUAD is not) is setting up MEDIUM MACHINE GUN 324 in hex T4. Note that BRKN can refer to a SQUAD, LEADER, or WEAPON depending on its location on the line (right after the unit to which it refers).

15.9 When the step 15.8 is complete, the computer will ask for the ID of a squad to move or fire. Type the number of the squad you desire (followed by RETURN or ENTER). The computer will display the status of the squad, then ask for your choice of squad action (if the squad is still active). Note that you do not have to perform an action and so this is also a good way to check the status of any of your squads. The squad numbers can be entered in any order.

If you enter an invalid squad number (like "99"), the computer will display known enemy positions, the status of all of your units, and then ask for another squad ID number (see 15.8). This is a useful method for checking enemy and friendly units during the course of moving or firing in case you forgot something or are unsure.

15.10 If you are firing, your choices are LOS CHECK, FIRE at one enemy unit, or AREA FIRE. Type the first letter of your choice (RETURN on Atari). For LOS CHECK and AREA FIRE, you will be asked for the target hex. Type a valid hex number and RETURN or ENTER. If the choice is FIRE, type the ID number of an enemy squad followed by RETURN or ENTER. When LOS is blocked to the target hex, FIRE and AREA FIRE requests automatically become LOS CHECKS with no penalty to the firing unit. If your choice is not one of the above (L, F, or A), the computer will ask for a new squad ID.

15.11 If you are moving, your choices are LOS CHECK, MOVE, or SMOKE GRENADES (if the squad has any). For all of these requests, the computer will ask for a hex number. The LOS CHECK is the same as 15.10 above.

MOVE will require entry of one or more hexes that the unit will move into, followed by RETURN or ENTER for each one. When the unit is finished moving, type a plain RETURN or ENTER. The computer will display the MF of the unit as it moves and save any remaining MF. In this way, you come back to the unit later in the same MOVEMENT PHASE and move it again (if it has MF left). Note that when a concealed unit is moved, the computer will take a few seconds to check to see if any enemy units can see it moving. This will slow the game down a bit. After most units are spotted, the game will progress very quickly.

Throwing smoke grenades is very simple: just type the target hex followed by RETURN or ENTER. The computer will direct a smoke marker to be placed in the hex unless it is out of range.

15.12 When you are finished moving or firing all units, type "0" followed by RETURN or ENTER for the squad number. This signals the computer to proceed with the next PHASE.

15.13 When the computer is moving or firing, it will display many messages on the screen. The purpose of this is more to let you know that the program is working than to convey detailed information. The position and squad status reports are your main "windows" to the details of the game as it progresses. When the computer directs you to do something, such as removing a smoke marker or mark-off a ruined support weapon, it will stop the game and wait for you to press RETURN (or ENTER). A message on the screen to that effect will prompt you to push the key when you are ready.

15.14 When no persons are playing (for instance, the computer was directed to play itself or both commander leaders are dead), the computer suspends the need for all keyboard input and finishes the game as quickly as possible. The computer can play a full game in ten to twenty minutes (approximately).

15.15 The following computer messages require some additional explanation:

UNITS SPOTTED WHILE MOVING—When a unit is moved adjacent to a hidden enemy unit, the enemy unit becomes spotted and the GAMEMASTER program will print a message giving the squad ID number and hex.

COMBAT RESULTS—The GAMEMASTER reports the number of casualties when a unit is fired upon. All players are entitled to this information. However, results of morale checks are not reported and are therefore known only to the owning player. Note that casualties do not include leaders; if a leader is killed or wounded, the GAMEMASTER gives a separate message.

CURRENT FIREPOWER—When a player enters a unit ID to fire during FIRE COMBAT, the GAMEMASTER displays the status of the unit including CURRENT FIREPOWER. This number does NOT include the firepower of any support weapons the unit may be carrying. These will always be added into the FIRE COMBAT of the unit when possible. Note that the CURRENT FIREPOWER is truncated to an integer on the display but is calculated more precisely internally.

15.16 At the end of the game, the computer prints the results for each country, determines a winner, and asks whether to start a new game. Because a complete game can be played in a reasonable length of time, there is no provision to save a game in progress.

16. SOME CONCLUDING REMARKS— DESIGNERS NOTES

Strategy game players have demonstrated an almost incredible ability to absorb complex rules and procedures. Programmed instructions, i.e. learning the rules a few at a time and playing games of increasing difficulty, makes the task somewhat easier, but there is still a very large amount to learn. If the designer is willing to limit himself to a small audience, the only absolute limit to this is the amount an intelligent person can learn in a lifetime. At this level, the distinction between an enjoyable evening passtime and a life-long career at the Army War College is hazy indeed.

In contrast, game players have not generally been asked to perform mathematical operations more complex than odds ratio calculations. Instead, they are given tables of results which approximate underlying functional relationships that are either implicit or explicit.

With computer games, the situation is neatly reversed. A computer has no problem performing thousands of arithmetical operations to arrive at a combat result, but a computer program full of the exceptions and special cases found in most strategy games will quickly grow beyond the bounds of today's home computers. In addition, the flow of information to and from the computer (known as "input/output" in computer jargon) is constrained to a format which is very rigid unless a large amount of precious program memory is allocated to this task.

It has become fashionable to program computer strategy games with map boards that are displayed on the screen. Besides limiting the game to only those computers which have high-resolution graphics capabilities, this approach uses a huge amount of limited resources to store and manipulate the display, usually with disappointing results. For this reason, the decision was made to use a physical map board and unit counters rather than a computer display. Whether this was the correct decision remains to be seen.

Every man in **Close Assault** is important, and the computer accounts for them all. The firepower numbers on the squad unit counters are only approximations of the more accurate firepower factors calculated by the program internally, invisibly to the players. The computer keeps track of all of the details that affect a unit's firepower without burdening the players.

The computer is the perfect judge for double hidden movement. This adds a realistic and exciting dimension that is missing in most board games and clumsily handled in others. One feature of the double hidden movement which is unfortunate is that the players know when their units are spotted and when they are not. Perhaps this is not true to life, but one can always say that the unit knows it has been spotted because it draws sniper fire.

Another boost to realism is the limited knowledge the players have about the status of each other's squads. The results of morale checks are not reported except when entire units flee the field, keeping the opponent guessing whether the squads are broken or (heaven forbid) berserk. As on the real battlefield, this information can only be inferred from the behavior of the enemy units.

The computer can become the perfect opponent for solitaire play. It never gets tired and does not mind being defeated. By careful selection of scenarios and opposing countries, the solitaire player can make the game as hard or easy as he desires.

One of the most important advantages of the computer assisted game is that there are no combat results tables for the players to consult. This gives the experienced "commander" an advantage over the traditional game statistician who delights in finding the extra one factor to bring an attack up to the next level on the table. Since every firepower factor makes a difference, however slight, in every attack, perhaps that one factor would be better spent somewhere else.

The last, and perhaps most important, advantage is that it is not really necessary to understand the rules fully before playing—or even read them at all! (Note, however, that playtesting has shown that some familiarity with the rules is needed in order to enter your commands efficiently.) If a new player wishes, he can simply load the program and go; the computer prompts for the information it needs and will not let players break the rules. This is arguably the best way to learn a game, reading the rules only after some initial experience has been gained.

The final judgment about this new type of hybrid game system must come from YOU, the player. We hope you have as much fun playing **Close Assault** as we did developing it.

17. EXAMPLE OF PLAY AND TACTICS

The best way to learn how to play a new game is to observe the game being played by people already familiar with the rules. This is doubly true for **Close Assault**, for not only are there complex rules to learn, but there is also the added dimension of becoming accustomed to entering the moves into the computer.

This section is a run-through of the first two turns of an actual game played by the designer against the computer. The best way to follow the course of the game is to move the units on the board as indicated.

SET SCENARIO: After the game is loaded and running, the computer asks:

PICK THE SCENARIO

1. HARASSMENT OF ADVANCE
2. STRONG POINT DEFENSE
3. DESIGN YOUR OWN

YOUR CHOICE:

We decide on the Harassment of Advance Scenario, and so we push the "1" key. The computer next asks:

DEFENDING FORCE

1. RUSSIAN
2. AMERICAN
3. GERMAN

YOUR CHOICE:

We decide to let the Germans defend, and so we punch the "3" key. The computer asks next:

ATTACKING FORCE

1. RUSSIAN
2. AMERICAN

YOUR CHOICE:

We decide to let the Russians attack, and so we push the "1" key. The next question is:

WILL THE COMPUTER PLAY FOR THE GERMAN FORCE (Y/N)?

Since we want to play the Germans, we push the "N" key. Finally, the computer asks:

WILL THE COMPUTER PLAY FOR THE RUSSIAN FORCE (Y/N)?

Since we want the computer to run the Russian forces, we push the "Y" key.

INITIAL PLACEMENT: The computer automatically places the Russian units in their starting locations toward the left edge of the board. They will be attempting to reach within a few hexes of the right edge of the board by turn 10. The Germans will be trying to prevent this by destroying the Russian squads or delaying them. The Germans will win if they prevent the Russians from having more than 100 more men than the Germans in the goal area (right edge) by the end of turn 10.

Since the Germans are vastly outnumbered, they cannot hope to hold a defensive line. This is essentially a suicide mission, in which the Germans plan to make many Russian troopers die for Mother Russia before they in turn die for the Fatherland. The Germans have two advantages: First, every squad will have its own leader, improving both firepower and mobility. Second, their weapons, generally speaking, have longer ranges. Therefore, the Germans place their units so as to maximize their chance for spotting and firing on Russian units at long range. The Russians, on the other hand, have more men per unit, and so they generally will prefer close combat.

The computer requests:

SET UP UNITS FOR GERMAN FORCES
RIFLE SQUAD 315 START HEX:

The stone building at M2, N1, and N2 has good visibility into probable lanes of Russian advance. Recall that any unit in a stone building is considered to be on the second story, which gives advantages in both LOS and fire combat. We decide to put SQD 315 in N2, and so we type:

N2 [RETURN or ENTER]

The computer goes through the other squads one by one. We place them as follows:

CREW SQUAD 316 in O5.
CREW SQUAD 317 in M2.
CREW SQUAD 318 in O5.
CREW SQUAD 319 in M2.

Next, we place the support weapons with their crews. The computer asks:

LIGHT MACHINE GUN 320 WITH WHICH SQUAD?
and we type

319 [RETURN or ENTER]

The computer goes through the other support weapons one by one. We place them with the following squads:

LIGHT MACHINE GUN 321 with CREW SQUAD 318.
LIGHT MACHINE GUN 322 with CREW SQUAD 317.
LIGHT MACHINE GUN 323 with CREW SQUAD 316.
MEDIUM MACHINE GUN 324 with RIFLE SQUAD 315.

Finally, we place the leaders with squads similarly to the support weapons, as follows:

LEADER 335 with RIFLE SQUAD 315.
LEADER 336 with CREW SQUAD 318.
LEADER 337 with CREW SQUAD 319.
LEADER 338 with CREW SQUAD 316.
LEADER 339 with CREW SQUAD 317.

Although we could have put two support weapons in some squads, in this case we expect all units to take high casualties and so the weapons are spread out. The medium machine gun and the best leader were placed with SQD 315 because this squad has the most men. Remember that if LDR 335 is eliminated, the computer will play the rest of the game for the German forces because that leader represents the human player!

Once all the units are placed, the computer begins the regular turn sequence of the game. Before we begin, one final note: Due to varying line lengths, some computers must abbreviate more than others. We will use the most abbreviated form. Most of the abbreviations should be self-explanatory (see the rules if not).

RUSSIAN PREP FIRE FOR TURN 1: Since the Russians have not spotted any German units yet, they have no prep fire.

RUSSIAN MOVEMENT FOR TURN 1: The computer moves all of the Russian units toward the right edge. Before a unit is spotted, it takes several seconds for the computer to complete its move because each hex into which it moves must be checked for LOS to all enemy units. Once a unit is spotted, it REMAINS SPOTTED for the rest of the game whether or not it happens to end up in an enemy LOS on a given turn. The computer reports spotted movement as it occurs.

GERMAN DEFENSIVE FIRE FOR TURN 1: We receive the following status reports prior to firing:

KNOWN RUSSIAN POSITIONS:

SQD 102 LDR 135 LMG 123 MMG 129 G8
SQD 103 LMG 121 LMG 122 E5
SQD 105 LDR 138 H9
SQD 106 LMG 124 E2
SQD 107 F1
SQD 109 MMG 127 E1
SQD 110 LDR 139 H1
SQD 114 LDR 136 H1

STATUS OF GERMAN UNITS:

SQD 315 HIDN 10 MEN LDR 335 MMG 324 N2
SQD 316 HIDN 4 MEN LDR 338 LMG 323 O5
SQD 317 HIDN 4 MEN LDR 339 LMG 322 M2
SQD 318 HIDN 4 MEN LDR 336 LMG 321 O5
SQD 319 HIDN 4 MEN LDR 337 LMG 320 M2

The spotted Russian units either moved through our LOS or are in it now. Notice that our units are still hidden because they have neither moved or fired in Russian LOS.

The computer asks:

SQUAD ID (0 = DONE)?

We want to fire SQD 315, and so we type

315 [RETURN or ENTER]

The computer comes back with

SQD 315 HIDN 10 MEN LDR 335 MMG 324 N2
FIREPOWER: 5
LOS CHECK, FIRE, AREA FIRE
YOUR CHOICE:

Note that the listed firepower (5) does not include the firepower of the medium machine gun and is greater than the nominal firepower printed on the unit (4) because the squad has an unbroken leader. We wish to fire at

Russian SQD 102 in G8, and so we push the "F" key and the computer responds:

FIRE AT WHICH SQUAD?

We type

102 [RETURN or ENTER]

and the computer comes back with

LOS N2 TO G8: BLOCKED IN J6.

SQUAD ID (0 = DONE)?

Since SQD 315 does not have SQD 102 in its LOS, the computer automatically converts the fire command to an LOS check (with no penalty). We have to re-enter the command beginning with the squad ID.

As a matter of fact, SQD 102 is not currently in the LOS of any German unit. It moved through German LOS during the movement phase, and so it is spotted and will remain spotted. The following results were obtained for defensive fire:

SQD 315 FIRES AT SQD 103

SQD 103: 0 KIA/WIA

SQD 316 FIRES AT SQD 114

SQD 114: 0 KIA/WIA

SQD 317 FIRES AT SQD 114

SQD 114: 0 KIA/WIA

SQD 318 FIRES AT SQD 114

SQD 114: 0 KIA/WIA

SQD 319 FIRES AT SQD 114

SQD 114: 3 KIA/WIA

The bad luck of the first four fire combats was balanced by the good luck of the last one. The computer automatically added the support weapons to these fire combats. From now on, only fire combats which have noticeable results will be listed.

We can get another status report at any time by typing

99 [RETURN or ENTER]

instead of squad ID. If we do that now, we notice that our squads are no longer hidden and that no support weapons have malfunctioned.

To end the defensive fire phase (or any other phase), type

0 [RETURN or ENTER]

RUSSIAN ADVANCING FIRE PHASE FOR TURN 1: No effect.

RUSSIAN ADVANCE FOR TURN 1: The computer has four basic options for moving a unit. It can move toward the goal area, it can move into cover, it can move to put an enemy unit in LOS for subsequent fire combat, or it can charge an enemy unit and attempt close combat. It selects the option based on the overall situation. By combining options for different units on different turns, the computer can evolve a fairly sophisticated strategy (for a dumb machine). The Russian advance for this turn is

SQD 102 MOVES TO H8.

SQD 103 MOVES TO F5.

SQD 104 MOVES TO I6. (Spotted with LDR 137, MMG 128.)

SQD 105 MOVES TO I10.

SQD 108 MOVES TO F7. (Spotted with LMG 120.)

SQD 110 MOVES TO I1.

SQD 114 MOVES TO I1.

RALLY PHASE: Nothing noticeable.

GERMAN PREP FIRE PHASE FOR TURN 1: Squad 104 looks tempting out in the open in I6. Squads 315, 316, and 317 fire at it with no apparent effect. Finally,

SQD 318 FIRES AT SQD 104.

SQD 104: 2 KIA/WIA

SQD 104 FLEES THE FIELD!

One of the previous attacks must have broken the unit without causing any casualties. It broke again, resulting in the remaining men going MIA. One less Russian squad to worry about, one more job for the NKVD.

GERMAN MOVEMENT PHASE FOR TURN 1: None.

RUSSIAN DEFENSIVE FIRE PHASE FOR TURN 1: No effect.

GERMAN ADVANCING FIRE PHASE FOR TURN 1: None.

GERMAN ADVANCE PHASE FOR TURN 1: Our units could move one hex if it were to our advantage, but things seem to be working out O.K.

RALLY PHASE: No apparent effect.

RUSSIAN PREP FIRE PHASE FOR TURN 2: None.

RUSSIAN MOVEMENT PHASE FOR TURN 2: The Russians mount an attack on M2 and N2. The spotted Russian units at the end of movement are as follows:

SQD 101 H9

SQD 102 LDR 135 LMG 123 MMG 129 L8

SQD 103 LMG 121 LMG 122 I5

SQD 105 LDR 138 N7

SQD 106 LMG 124 H1

SQD 107 I1

SQD 108 LMG 120 H8

SQD 109 MMG 127 H1

SQD 110 LDR 139 M3

SQD 111 G5

SQD 114 LDR 136 L1

GERMAN DEFENSIVE FIRE FOR TURN 2: It is imperative that the Germans prevent close combats with full-strength, unbroken squads with leaders.

SQD 317 FIRES AT SQD 114

SQD 114: 3 KIA/WIA

SQD 319 FIRES AT SQD 114

SQD 114: 1 KIA/WIA

Squad 114 is lucky to be in the woods or this would have been worse.

SQD 315 FIRES AT SQD 110

SQD 110: 7 KIA/WIA

Squad 110 is in big trouble. The computer was naive to try a frontal assault in the open, but this is a great simulation of Russian tactics (or lack thereof) in World War II.

SQD 318 FIRES AT SQD 110
SQD 110: 1 KIA/WIA
SQD 110 FLEES THE FIELD!

The back of this assault has been broken.

These examples should get you started with **Close Assault**. Remember that the computer never allows the rules to be violated and never rubs it in if you should lose the first few games!

18. CASSETTE LOADING INSTRUCTIONS

ATARI®

Close Assault is a machine language program which requires at least 40K RAM memory. It is loaded from the cassette tape by following these steps in exact order:

1. Turn off the ATARI computer and remove all ROM program cartridges from the left and right slots, including the BASIC cartridge. Do not remove the Operating system cartridge.
2. Make sure that the cassette is completely rewound on the ATARI side. Place it in the cassette player.
3. Push the yellow START key to the ATARI keyboard and KEEP IT DOWN.
4. Turn on the ATARI. It will beep once to let you know it is ready to load a tape. When it beeps, release the START key and press the PLAY button on the recorder.
5. Press any key on the ATARI keyboard. The cassette player will begin to run and the program will load. It will take several minutes to complete loading because of the length of the program. If you like, you can turn up the volume to hear the loading process and verify that all is proceeding correctly.
6. When the entire program is loaded, the cassette player will stop automatically and the game will begin. You should rewind the cassette and put it back in the box.

APPLE®

Close Assault is a machine language program, not BASIC. It must be loaded and run from the Apple monitor.

1. Position the tape to the beginning of the Apple program, by listening to the tape. The Apple program is located on side two after the TRS-80 program, and can be recognized by the difference in the sound of the program, and especially by the "pure" quality of the calibration tone at the beginning of the program. Position the tape to just after the beginning of the calibration tone.
2. From BASIC type: **CALL-151** and press the RETURN key. The Apple jumps to the monitor mode and prompts with an asterisk ("*").
3. Type: **800.8900R 800G** but DO NOT press the RETURN key yet.
4. Press the PLAY button on your recorder and immediately press the RETURN key.
4. The program will load and the game will begin automatically.

TRS-80®

Close Assault is a machine language program, not BASIC. It must be loaded and run in the TRS-80 System mode. There are two sections to be loaded, one containing the computer instructions and one containing the game data.

1. Get to the SYSTEM mode from Level II BASIC by typing **SYSTEM** and pressing the ENTER key. (NOTE, MODEL III OWNERS TYPE: **L** after the **Cass?** prompt, then **SYSTEM**). The TRS-80 will respond by putting "*" on the screen.

2. Put the **Close Assault** tape in the cassette recorder, make sure it is on side 2 and rewind all the way, and press the play button.

3. Type: **CLOSE** [ENTER]

This will load the first part of the game. The TRS-80 will flash an asterisk in the upper right-hand corner of the screen to indicate that it is loading. When it is finished, it will put another "*" on the screen.

4. Type: **DATA** [ENTER]

This will load the data portion of the game. The computer will again write "*" when it is done.

5. Type: **/** [ENTER]

This will start the program executing.

19. DISKETTE LOADING INSTRUCTIONS

APPLE®

Close Assault is designed to play on your Apple II. To play, insert the disk into your 3.2 or 3.3 Disk Drive and "boot" the system.

ATARI®

Close Assault is a machine language program. Turn off the computer and remove all ROM program cartridges from the left and right slots, including the BASIC cartridge. Do not remove the Operating system cartridge.

To load the Atari Diskette insert it into your disk drive. Turn on your disk drive and then the computer. The program will load and play automatically.

TRS-80®

The TRS-80 diskette is in a TRS-80 Model I format. To use the diskette on the TRS-80 Model III the program must be converted to the Model III format. Refer to your TRS-80 Model III Disk SYSTEM Owner's Manual for the proper procedure to CONVERT the diskette.

Boot the system. On the TRS-80 Model I the DATA/CMD file will load automatically. On a converted Model III disk you must type **LOAD DATA/CMD** and press the ENTER key. The first part of the program will be loaded. When the READY prompt appears again, type **CLOSE** [ENTER]. The second part of the program will load and the game will begin.

IF YOU CANNOT LOAD THE PROGRAM

1. Check your equipment carefully to be sure that all cables and connections are correct.
2. Re-read the section in your computer's manual that tells you how to load software. Try to load software again.
3. If you can adjust the volume on your recorder, try different settings, both higher and lower.
4. If possible, load another program from a tape or disk you know works on your computer. This will prove that your equipment works. Try once more to load your game.
5. The normal reason software will not load is tape recorder or disk drive head misalignment. Your computer may be able to save and load programs on its own recorder, but be unable to read software made on a different recorder for this reason. Be sure your recorder heads are correctly aligned. Your local computer store or dealer can help you with this.
6. If the program still cannot be loaded, send the software, with a complete description of the problem (what type of computer you have, what the computer says, if anything, when you try to load the software or play the game, and what you did to try to get it to load.) to:

Avalon Hill Microcomputer Games
4517 Harford Road
Baltimore, Maryland 21214

Defective software will be replaced.

FIRE PHASE COMMANDS

- Ø Done
- 99 Computer will display
known enemy positions
- L Line of Sight check
- F Fire
- A Area Fire

MOVEMENT PHASE COMMANDS

- Ø Done
- 99 Computer will display
known enemy positions
- L Line of Sight check
- M Move
- S Place Smoke Grenades

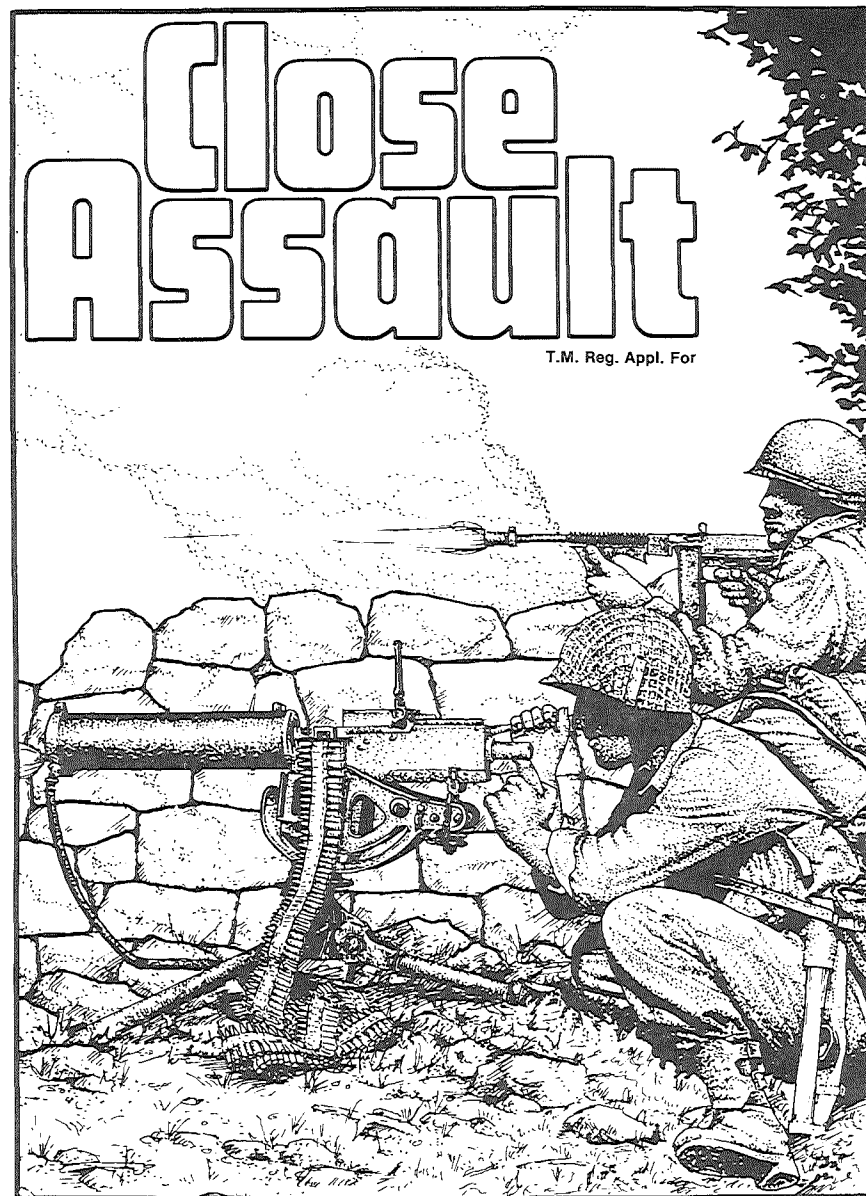
MOVEMENT FACTOR CHART

ACROSS A ROAD HEX-SIDE	1 MF
ACROSS A CLEAR HEX-SIDE	2 MF
ACROSS A WALL OR HEDGE HEX-SIDE	4 MF
ACROSS A CLIFF HEX-SIDE	NOT ALLOWED
INTO A WOODS HEX	2 MF
INTO A BUILDING HEX	2 MF
INTO A HIGHER HEX	2 MF
INTO A HEX WITH SMOKE	2 MF



microcomputer games

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FOR:

ATARI 800®: 40K Cassette, 40K Diskette

Apple II®: 48K Cassette, 48K Diskette

TRS-80®, Model I & Model III, Level II: 48K Cassette, 48K Diskette

CLOSE ASSAULT IS AVALON HILL'S TRADEMARK NAME FOR ITS COMPUTER GAME
OF WWII TACTICAL INFANTRY COMBAT