

QUICK REFERENCE CHART

OBSERVATION PHASE — Pause phase.

JOYSTICK activates scroll.

START takes game to Fire Order Phase.

FIRE ORDER PHASE — Crosshair cursor. You give individual units orders where to fire.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers fire orders.

OPTION cancels all fire orders.

START takes game to Movement Order Phase.

MOVEMENT ORDER PHASE — Square cursor. You give units orders to move and where to move.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers move orders.

OPTION cancels all move orders.

START takes game to Operations Phase.

OPERATIONS PHASE — No cursor. Observe the battle.

JOYSTICK activates scroll.

SELECT routes program back to Fire Order Phase.

OPTION routes program to Assault Order Phase.

ASSAULT ORDER PHASE — Arrow cursor. Give infantry units orders to assault adjacent squares.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers assault orders.

START takes game to Assault Phase.

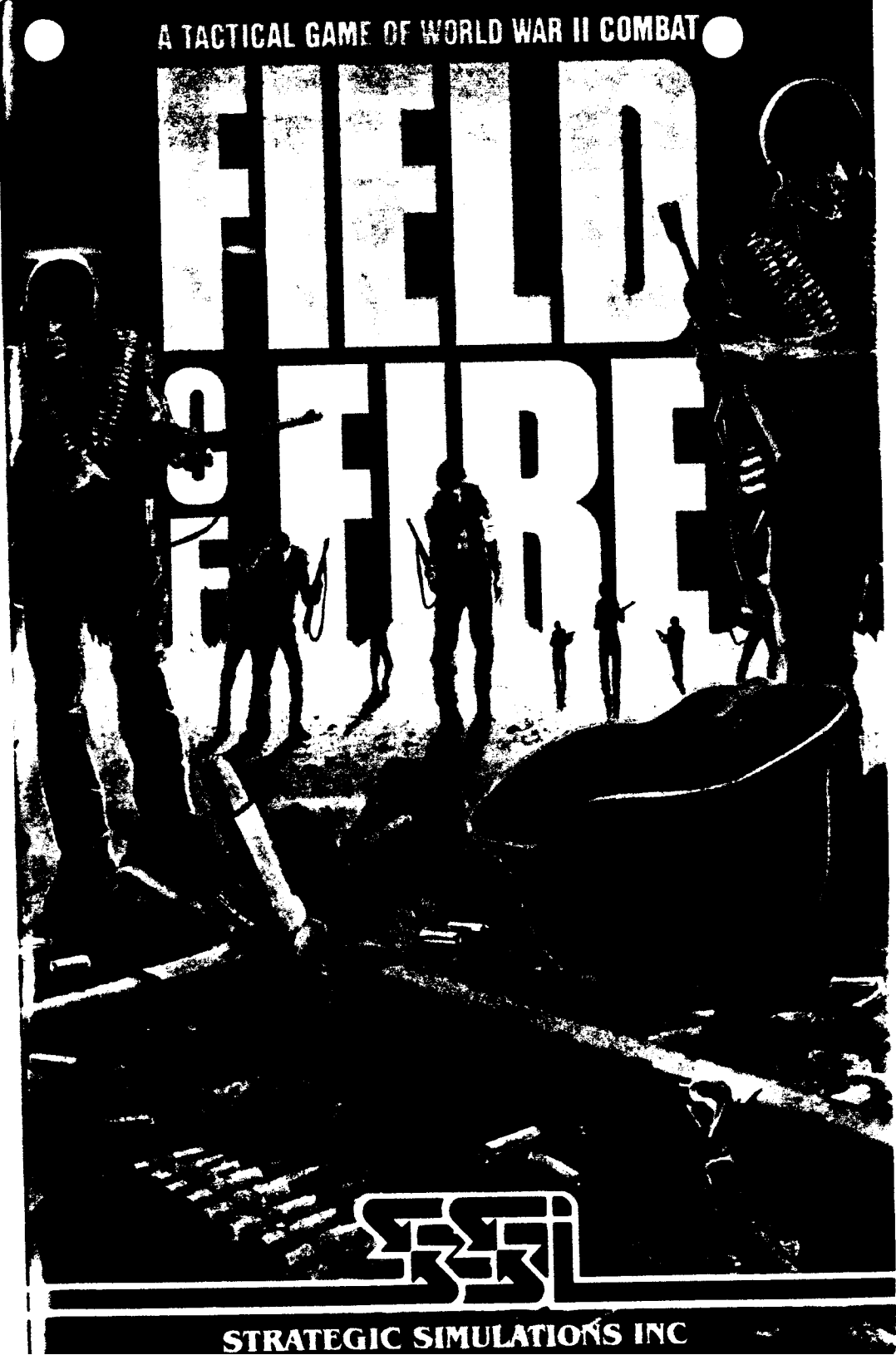
If you have any questions or problems regarding the program or game, please send a self-addressed, stamped envelope with your question to: **STRATEGIC SIMULATIONS INC.**, 883 Stierlin Road, Building A-200, Mountain View, CA 94043-1983.

Or call our Hotline Number: (415) 964-1200 every weekday, 9 to 5 (P.S.T.).

A TACTICAL GAME OF WORLD WAR II COMBAT

FIELD

OF FIRE



STRATEGIC SIMULATIONS INC

INTRODUCTION

Your command: Easy Company, one of the finest companies in the 1st Infantry Division. Your assignment: To lead Easy Company through the trials of battle to victory. Your opponent leads some of the finest — and worst — troops the Wehrmacht has fielded.

FIELD OF FIRE™ is a game about infantry in battle. With you in command of several types of forces on a variety of missions, it features 8 scenarios, each with its own tactical flavor and each taken from a battle encountered by the 1st Infantry Division in WWII.

You may choose to play any one of them as a complete game or to play the Campaign Game consisting of all 8 scenarios. (You must play them in the order listed — see SCENARIOS). If you play the Campaign Game, you will have to save the results of each scenario on a separate data disk. The Campaign Game/Character Editor must be used to play a Campaign Game. It also offers a role-playing option: You may rename your characters, thereby creating your own company to lead through the sequence of scenarios as they try to survive the rigors of battle.

LOADING THE GAME

For later use in saving the game and playing the Campaign Game, both Atari and C-64 users should format a blank disk before booting the game.

Atari: To load the game, insert the disk into drive #1 and, with no cartridges present, turn on the computer. If you have an Atari XL computer, hold the OPTION key down when turning on the computer and the game will load automatically.

C-64: To load the game, insert the disk and turn on the computer. Type LOAD ""*,8 and press RETURN. When READY appears, type RUN and press RETURN.

C-64 users please note that in the following sections, whenever START, OPTION, and SELECT keys are indicated, you are to use f1, f3, and f5 keys instead.

STARTING THE GAME

The first screen you see will prompt you to choose from two alternatives.

1) If you wish to begin play, press START to load the game. You should choose this alternative if you wish to play a single scenario with standard characters or if you are playing the Campaign Game and have a data disk saved from the Character Editor.

(ATARI ONLY: With the game loaded, after pressing START, you will see a prompt to insert the scenarios into drive #1. The scenarios are on the back side of the disk.)
2) If you wish to load in the Character Editor, press SELECT. You should choose this alternative if you wish to begin a new Campaign Game or if you have just completed a scenario as part of a Campaign Game. Please refer to the section, Campaign Game/Character Editor, for further explanation.

If you choose to begin play, you will see further instructions: Press START to begin the scenario which is now ready for play; press OPTION to enter a previously saved game; press SELECT to choose a different scenario as the names are scrolled.

If you press OPTION, you will be prompted to insert the data disk containing the saved game. Then press START to load and begin play.

If you press SELECT and choose a different scenario, then press START to load and begin play.

After you press START, you will be prompted to press START again to begin play or press SELECT to enter your characters for a campaign game. If you press SELECT, you will be instructed to insert the data disk on which your characters have been saved (see CAMPAIGN GAME/CHARACTER EDITOR).

Difficulty Levels: Level 1 is easy and level 3 is for the experienced player. Level 2 represents balanced forces. If you play the Campaign Game, you will be given no choice; you will be playing at level 2. For other games, you will be given a choice. Press the appropriate key, and the game will begin.

GAME FLOW

FIELD OF FIRE works in phases. You can go from phase to phase with the function keys. Each phase offers play options. The first phase encountered is the Observation Phase. This phase is more or less a pause phase in which you can freely look over the map and the general situation. There are three phases in which you can give orders to your units. These are the Fire, Movement, and Assault Order Phases. In two of the phases (Fire Order and Movement Order), orders given to units are executed in the Operations Phase. Assault orders are executed in the Assault Phase. Periodically, you will see the Victory Phase, in which you will be informed of your current victory level. Enemy move-

ment may also take place in this phase.

These phases occur in a set sequence; however, the player may interrupt the sequence to achieve his goals. The first phase in the sequence is the Observation Phase. The START key will take you to the next phase, the Fire Order Phase. Here, you give units orders where to fire. The START key then takes you to the Movement Order Phase, where you can give units specific movement orders. The START key will then take you to the Operations Phase in which the fire and movement orders are executed. At this point, you can interrupt play and go back to the Fire Order, then Move Order phases by pressing the SELECT key or you can go on to Assault Order Phase by pressing the OPTION key. After assault orders have been given, you can go to the Assault Phase by pressing the START key; and the assaults will be executed. The game will then show your current victory status and prompt you to either continue the game or save it. The SELECT key initiates the save sequence. Saving the game saves the current situation which may be loaded later and play continued. Pressing the START key will take the game back to the Observation Phase.

At the bottom of the map is a timer. This shows the time elapsed since the beginning of the battle. The clock advances only in the Operations and Assault Phases.

GAME CONTROLS

In addition to the above mentioned use of the console keys, you need only the joystick to control the game. In the non-order phases, the joystick allows you to scroll the map in the desired direction by moving the stick in that direction. In the order phases, there will be a cursor on the map that is controlled by the joystick.

To get the attention of a unit, place the cursor over the unit and push the button. Then move the cursor to the area in which the order is to be executed, and push the button again. For assault orders, an arrow indicates the desired direction of the assault. (Note that diagonal assaults are possible.)

Atari: Place the joystick in Port #1.

C-64: Place the joystick in Port #2.

OBSERVATION PHASE

This is the first phase you will encounter. No major game events take place in this phase and, in a sense, it is a pause phase. After the game starts, you will return to this phase

only if you press OPTION during the Operations Phase.

The joystick allows you to scroll the screen in the desired direction. You will see woods, roads, buildings, and, depending on the scenario chosen, rivers, streams, ridges, bridges, beaches, and hilltops. You will also see all of the units that are under your command for the chosen scenario. Ordinarily, you will not see the enemy units until they perform some action that makes them visible; such as firing or moving.

Directly above the map, you will see the current phase. Below the map is a lighter message window. In this message window, you will be informed of the identities of your particular units and of certain events that pertain to the action or order you are attempting to perform. Below the message window is the time clock which counts upward from the beginning of the game. It is simulated time and not real minutes. The clock ticks off time only during the Operations and Assault phases.

Once you are familiar with the area, press the START key to proceed to the next phase.

FIRE ORDER PHASE

In this phase, a cursor with a crosshair appears. Your joystick now controls this cursor. If you move it to a screen edge, the map scrolls in the indicated direction until you let up on the stick or until the map edge is reached. The cursor moves so that it will always be centered over a screen character, allowing accuracy in placing orders.

In this phase, you can tell each individual unit to fire and indicate its target area. To do this, move the cursor until the crosshair is over the unit you wish to fire. Press the fire button. The cursor will turn green, indicating that the unit is awaiting orders. (NOTE: Whenever the cursor has green in it, this indicates that a unit is awaiting orders.) The message window will identify the unit and also give its status (READY FOR ORDERS, PINNED, or SUPPRESSED). Check the unit description section of the rules for more specific information on each unit. A SUPPRESSED unit will not take orders to fire. A PINNED unit will take orders to fire as will a unit that indicates that it is READY FOR ORDERS.

Next, move the cursor to the area at which you want the unit to fire. You may receive a 'SIGHTING BLOCKED' message. If the blocked sighting message flashes in the

message window, it means that there is some terrain feature obstructing that unit's view of the target area. The fire order will be canceled, and you may fire that unit elsewhere or not fire it at all.

Each unit carries a specific weapon from which comes its main firepower. Some weapons will shoot farther than others. In this game, the mortar has an unlimited range and can be fired to any area on the map. It is also immune to sighting restrictions. However, when it fires, its shots tend to drift and may eventually wander from the intended target area.

The Tank has the greatest range with the MG close behind. Rifle range is average, with the bazooka less than average and the Engineer weaponry very limited in range.

Your forward observers can also enjoy unlimited range if they are positioned on a hilltop. Otherwise, their range is about that of a tank.

If you wish to cancel an individual fire order, simply place the cursor over the unit whose orders you wish to cancel and press the fire button twice. You will hear a beep and the fire orders for that unit will be cancelled. To cancel all fire orders at one time, press the OPTION key. Units will retain their fire orders until they are given new orders, are eliminated, or have their orders cancelled.

When a unit acknowledges a fire order, it will begin to flash. This indicates the units to which you have given orders to fire in the current phase. When you enter the Movement Order Phase, the flashing will cease. When you re-enter the Fire Order Phase, your units with the fire orders will again begin flashing. Only units which have orders to fire will flash in the Fire Order Phase.

If the unit you have chosen to receive orders has previous fire orders, a white square will flicker in which those previous orders are indicated. If you wish the unit to maintain those previous orders, hit the START key. You can then go on to another unit. Otherwise, simply give the unit new orders normally.

Units lose fire orders from time to time under special and random circumstances.

After you have given all of your units their fire orders, the START key will take you to the next phase.

MOVE ORDER PHASE

In this phase, you may give any or all of your READY FOR ORDERS units orders to move.

Units that are PINNED or SUPPRESSED will not take movement orders. Furthermore, when a unit reaches its breaking point, it will begin to move on its own and will not take orders until it recovers some. This recovery will occur during the Operations Phase.

To issue movement orders to a unit, place the cursor on the unit and hit the fire button. The cursor will turn green, and the unit will begin to flash. Move the cursor to the area to which you want the unit to move, and press the fire button again. You will see the unit flash in the object square for a second, indicating that is where it will attempt to go.

To cancel an individual unit's movement orders, simply order it go to the square it already occupies. To cancel all units' movement orders, press the OPTION key during this phase. Units will retain movement orders until they reach their destination, are given new orders, have their orders canceled, are eliminated, or are given assault orders.

When a unit is given a Movement Order, it will begin to flash. This is similar to the flashing of units given fire orders in the previous phase. Only units given orders to move will flash. Also, when a unit is ready to receive movement orders, any previous movement orders that unit may have received will be indicated by a flickering white square. To retain those previous orders, press the START key and the cursor will be free to go to the next unit. Otherwise, simply order the unit to go where you want. Sometimes, this flickering square will appear on top of the unit when you pick it up with the cursor. This indicates it has arrived at its destination from previous orders. Simply re-order it normally.

NOTE: Units can be given orders to both fire and move, with some restrictions. Units given fire and movement orders will only fire for the first two rounds in the Operations Phase, while moving. Then they will move normally with no firing. This fire while moving is less effective than firing from a stationary position. Also, Mortars will not move and fire. If given both movement and fire orders, they will ignore the movement orders and fire normally instead.

Units lose movement orders from time to time under special and random circumstances.

After you have given all of your movement orders, press the START key to proceed to the Operations Phase. To go back to the Fire Order Phase, press the START key and SELECT key simultaneously.

OPERATIONS PHASE

In this phase, your units will attempt to carry out the fire and movement orders they have been given. Also, enemy units will begin moving and returning fire along with off-map enemy artillery, which may periodically fall among your units.

You will see a prompt in the message window telling you that the SELECT key will take you back to the Fire Order Phase and the OPTION key will take you on to the Assault Order Phase. If you hit either of these keys, the appropriate word will light up in the message window indicating that the key has been registered. When an Operations Phase cycle has been completed, the game will be routed to the correct phase indicated.

The Operations Phase works in cycles in which your units move and fire along with enemy units. After all units have completed one fire or move order, a cycle is completed and the next one ensues. After roughly 14 cycles, there will be a brief pause in which your current victory status will be displayed in the message window. If the time limit for the scenario has also been reached, you will see a GAME OVER message. At this point, the game will end and you will be given a final victory status. All enemy units not eliminated and still hidden will be revealed.

During the Operations Phase, events may occur which can inhibit your units from carrying out the orders given to them. Enemy fire is the chief cause of units failing to carry out orders to their full extent. If one of your units comes under fire and the fire pins that unit, it will move and/or fire less often. The more that unit comes under fire, the greater the chance of it becoming SUPPRESSED and finally routed. The "traffic jam" effect of units all moving in and around the same area can also alter a unit's movement orders. If you are moving in a tight situation, keep on top of things and re-order units when necessary.

The Operations Phase will continue until either the game ends, or you press the SELECT or OPTION key to go to the Fire Order Phase or Assault Order Phase respectively, or the victory phase is reached, after which you will have to press the START key to get things rolling again.

ASSAULT ORDER PHASE

In this phase, the cursor will appear again as an arrow. You may give some of your units orders to assault adjacent squares. Tanks,

machine guns, forward observe and mortar units will not take orders to assault.

To issue an assault order, place the cursor over the unit you wish to assault and press the fire button. The arrow will change to black, indicating that that unit is ready to receive orders. If that unit is unable to assault or is SUPPRESSED, this will be indicated in the message window. After the cursor turns black, release the fire button. The cursor is now locked onto that unit. If you move the joystick, the arrow will move to point to the corresponding direction. Once you have the arrow pointing in the assault direction, hit the fire button again. You will see an 'ORDERS ACKNOWLEDGED' message, and the cursor will revert to its normal color. You can move on and give other units assault orders or proceed to the Assault Phase.

To proceed to the Assault Phase, press the START key.

ASSAULT PHASE

In this phase, all units given orders to assault will do so. First, an assaulting unit will throw grenades into the assaulted square. If any enemy unit occupies the square and is hidden, it will be revealed. Then, the assaulting unit charges into the assaulted square. A winner is determined, and that winner shows up on the screen in the assaulted square. A unit will assault any square except one already occupied by a friendly unit or a clear square not occupied by an enemy unit. You can give more than one unit orders to assault the same square, but if the first one wins the square, only it will enter the square. The others will simply not assault. If the first unit loses the assault and is eliminated, the next unit will assault the square normally.

At the end of all assaults, the game will proceed to one friendly and one enemy fire round. Your units will fire where previously ordered. You will then get a victory level and a prompt asking whether or not you want to save the game. If you press the START key, you will return to the Observation Phase. If you press the SELECT key, you will go to the SAVE GAME routine.

SAVE GAME

The computer will ask you to insert a formatted data disk on which the game will be saved on the disk. You may use the data disk on which you are saving the characters of a Campaign Game.

GAME PLAY SPECIFICS

Difficulty Level — Level 1 is the easiest level and level 3 is the hardest. In the higher levels more enemy units oppose your forces. Also, in the higher levels, units do not recover from PINNED and SUPPRESSED statuses as readily; and units take less fire before they are entirely eliminated from play.

Movement — Tanks and Forward Observers move two squares when possible each time. Plan for this when advancing them along with infantry or you will find them out in the boondocks on their own. Also, tanks will not enter woods, building, or river squares.

A unit with a move order will continue trying to carry out that order until it reaches its destination or becomes PINNED or SUPPRESSED. As long as the unit doesn't rout and begin moving on its own, it will retain its original orders. Once routed, you will not be able to reset its orders until it recovers fully. Also, be aware that a unit attempting to move onto another unit or attempting to enter terrain that is not legal for entry (e.g. a tank entering a building), may create a traffic jam effect in which a unit's movement orders may become a little scrambled as it searches for a route.

Combat — Units with fire orders will retain those orders unless otherwise ordered or orders are cancelled. If a unit becomes PINNED, it will still fire and take fire orders, but it will fire less often. Once SUPPRESSED, it will no longer acknowledge new fire orders and will fire only rarely if it has previous fire orders.

Casualties — Each of your units is a fire team of six men. The number of men remaining in each unit will be shown after the unit's name when that unit is picked up to receive orders. Units receive casualties, thus lowering the number of men in the unit, as a result of coming under fire. As this number gets lower, the unit's effectiveness in fire falls. Casualties are not recovered during a scenario. As casualties are taken, the leader will be the last to be hit. When the casualty number reads 1, that means that only the fire team leader is remaining in that unit. The next casualty will be that leader, eliminating the unit entirely.

Tanks — Tanks represent a special kind of unit. They cannot be eliminated by small arms fire (rifle, MG, and such). They may become PINNED by such fire, indicating that

the tank commander has been forced to slide into the tank and close the hatch, which limits the tank's effectiveness somewhat. The only types of fire that will completely destroy a tank are fire from a bazooka, anti-tank gun, or another tank. This can happen quickly as there is no morale tied to this type of anti-tank fire. Tanks will not rout nor become SUPPRESSED. Tanks can be destroyed by close assault attacks by infantry.

Assault — Assaults are all-or-nothing affairs. Either your unit will take the contested square, eliminating any enemy resistance there, or be eliminated itself. The weight is in your favor. Your units are top notch in hand-to-hand fighting. Your units may assault any adjacent square (except unoccupied clear squares), whether there is an enemy there or not. If enemy occupied, they will fight the enemy unit for the square. If not, your units will simply grenade the square and move in.

Pinned — Units that come under fire may become PINNED. PINNED units will fire a little less often than normal and will cease carrying out any movement orders they may have for the time being. When a unit recovers from a PINNED status, it becomes combat ready. Units recover during the Operations Phase on a random basis depending on the difficulty level chosen. Pinned units are a little harder to hit than combat ready units.

Suppressed — If a unit that is PINNED undergoes further hits, it will become SUPPRESSED. SUPPRESSED units will not take any orders and will rarely fire. As a unit recovers from suppression, it will go to a PINNED state. Units recover from suppression during the Operations Phase as do PINNED units. SUPPRESSED units are harder for the enemy to hit. If a SUPPRESSED unit continues to undergo fire, it may rout and begin moving on its own. It is now totally out of your control until it recovers or is eliminated.

Line of Sight — Line of sight is a straight line between a firing unit and its target. If any type of obstructing terrain exists along this line, then the firing unit cannot see and cannot fire at the target. The terrain types that block line of sight are woods, buildings, hedges, and ridge lines. If any of these types of terrain lie in the direct line between two units, then those units can't see or fire at each other.

Sighting may also be blocked by elements in the terrain not directly noticeable, such as

a growth of trees right beside a stream or road.

Units on hilltops are not under the same sighting restrictions as other units. They may see over obstructions and see (and be seen by) units behind otherwise normal obstructions.

Enemy Artillery — During the Operations Phase of some scenarios, your units will be bombarded by enemy artillery. Enemy artillery is recognized by a rushing sound followed by an explosion. This artillery will sometimes Pin and Suppress your units that are hit by it. It will not eliminate a unit entirely.

Enemy Units — In most scenarios enemy units are hidden at the start of the game. When visible, enemy units show up as dark squares with the unit symbol highlighted within the square. The symbols are the same as those used for your units, except that they are reversed.

Enemy units are revealed by five events:

1. If an enemy unit fires, you will see an "F" appear on the screen momentarily (if the screen is scrolled so that the unit's position is visible). This F will disappear and may be replaced by the enemy unit if that unit has caused enough commotion by firing to become visible to your units. If not, it will remain hidden.
2. When an enemy unit's position is fired on, the unit will appear if the fire is intense enough to cause that unit to change status (COMBAT READY to PINNED, or PINNED to SUPPRESSED). This means you should order your units to fire on suspected enemy positions to "shake them out."
3. When an enemy unit moves, if not already visible, it will become so.
4. If, at any time, one of your units tries to enter a square containing a hidden enemy unit, that unit will appear, and your unit will not enter the square.
5. If a hidden enemy unit is assaulted, it will become visible.

At times, a unit that is visible may disappear. This indicates that the unit has reached a level of exposure where it is no longer visible to your units. It will reappear under the above five conditions.

In some scenarios, there may be a counterattack. This counterattack can come at any time. Enemy units involved in a counterattack move during the Victory Level Phase rather than in the Operations Phase.

Though these counterattacks are directed at your attack, the enemy units involved in them may have intentions of breaking through your lines and into the rear areas, disrupting your lines of communication with the specific intention of ruining your day. You may notice some counterattacking units bypassing your forces. These units must be stopped at all costs.

Weapons — Each unit has various weaponry at its disposal from knives to grenades. The basic weapon that a unit will use in regular combat is the predominant weapon of that group. Rifle fire teams use rifle fire (American M1 or German Mauser). Though there may be some individuals within a rifle team that have machine pistols or even a BAR, the Rifle is the predominant weapon. Bazooka teams have one bazooka. Each man in a Bazooka team also carries a rifle, but the team is organized around the bazooka and that is its main weapon. Machine gun crews represent an American .38 cal. or a German MG32 or MG42 plus a full support element of ammunition and men.

CAMPAIGN GAME/CHARACTER EDITOR

If you choose to load in the CAMPAIGN GAME/CHARACTER EDITOR, you will be prompted to insert a data disk into your disk drive. If you wish to begin a new Campaign Game, ignore the prompt, leave your game disk in the drive, and press START. If you are returning from a scenario of the Campaign Game, insert your data disk that you saved your characters onto at the end of the scenario and press START.

If you are beginning a new Campaign Game, you will be allowed to make desired name changes (if any) to the existing characters and save them onto a formatted data disk. If you are returning from a scenario of a Campaign Game, you will first see a campaign progress report and then be allowed to make name changes and save your characters back onto the data disk.

USING THE CHARACTER EDITOR

The three prompts shown on the menu of the Character Editor correspond to three function keys on the right side of the keyboard.

Briefly, you can save a name with the OPTION key, find a name with the SELECT

key, and change a name with the START key. **SAVE:** Press the OPTION key. You will be prompted to insert your data disk and then to press START to save or OPTION to abort the save. When you first enter the Character Editor, all of the names are intact and in their original form.

When you save the names, the program checks to make sure that you are saving to the right disk to avoid inadvertently damaging files on the wrong disk. If you do not have the data disk in the drive when you try to save, you will get a disk error message and the program will return to the main menu.

CHOOSE: There are 32 characters in the game. To find the one whose name you wish to change, press and hold the SELECT key until the name appears below the prompts. **CHANGE:** Once you have a name selected, press the START key to go to the editing routine that allows you to enter the new name.

After going to the Character Editor from a scenario of a Campaign Game or after having made a name change, be sure to save the characters back onto the data disk (using the OPTION key).

PLAYING THE CAMPAIGN GAME

The Campaign Game consists of the eight scenarios played in sequence. The game disk contains standard characters (see STAN-DARD FORCES) that are used when playing a single scenario or when beginning a new Campaign Game. These standard characters assume less experienced states when beginning a Campaign Game.

At the end of each scenario of the Campaign Game, you must save your characters and enter the Character Editor. This is necessary to record your progress. You will need a blank formatted disk each time you begin a new Campaign Game; this will become your data disk for the entire game.

When you have completed a scenario, you will receive a final victory status. Your characters will have improved slightly after each scenario; the amount of improvement depends on the outcome of the scenario. If you do not like the way the battle went and want to try the same scenario again, simply reload the game and replay the scenario before you save the characters.

You will be prompted to press SELECT to save the characters. Remember that once you have saved the characters, you can only go on to the next scenario; so DON'T SAVE

YOUR CHARACTERS UNTIL YOU ARE READY TO ADVANCE TO THE NEXT SCENARIO.

After you have saved your characters you must enter the Character Editor and save the characters out again to the disk before you are allowed to advance to the next scenario.

During a scenario, if some of your characters are lost in action, they will be given the name "REPLACEMENT" when the characters are saved. You must rename them the next time you are in the Character Editor. Replacements start the following scenario as green troops and as such have reduced capabilities. Units which have taken losses are brought up to six men for the next scenario at no cost in performance.

When you first enter the Character Editor, you will be given a progress report of the Campaign that includes a casualty count and the current victory status.

SCENARIOS

There are eight scenarios on the scenario disk, each with its own particular tactical operation. They represent a series of fire-fights encountered by elements of the First Infantry Division in their advance through Africa, Sicily, and Western Europe.

The scenarios are in chronological sequence. This sequence must be adhered to if you play the Campaign Game. Otherwise, any scenario may be chosen and played by selecting the option to play single scenario. You will be given the original units in this case. These original units will have their own special characteristics as outlined in the section on the units.

Each scenario will end when one of three conditions are met: 1) The time is up (time may go over by a few minutes), 2) there are no enemy units remaining (except in scenarios in which the Americans may exit the map), or 3) there are no friendly units remaining. At the end of a scenario, you will be given a final victory condition. If you are playing the Campaign Game, you will then be asked if you want to save your characters. You don't have to save them, but if you want them to enter the next scenario then you must save them to disk. Your characters will improve after each scenario. The extent of this improvement depends on the victory level achieved.

Victory levels are determined by the difference between the number of points your forces achieve. Points are awarded for each unit eliminated and for specific events and situations as outlined in the scenario descriptions below. The possible victory levels are: Major, Moderate, Minor, and Questionable. A Questionable victory level is really no victory at all.

Some scenarios have units exiting the map. If your forces are to exit, simply order them to the exit area at an opportune time and they will be removed during the Victory Phase when they have reached the exit area.

1. NIGHT PATROL

Situation: The Tunisian Task Force had directed that Company E send a reconnaissance patrol to Masknassy. This operation will be a reconnaissance in force conducted by two platoons under your command. Your patrol will determine the size and composition of the enemy forces occupying the town. Take as many prisoners as possible, disrupt the enemy and withdraw.

Execution: Your units will start just outside the town. The town is held by a small company of Italians. It is night, but the moon is to rise shortly, lighting up the desert to an eerie glow. You are to attack the town, assaulting as many enemy positions as possible to get prisoners, and exiting off the bottom of the map. Prisoners are automatically assumed to have been captured whenever one of your units conducts a successful assault. This is the only way prisoners may be taken. Once the shooting starts, there will be a good chance that units of a nearby German position will be alerted. They may show up to see what the commotion is. They have armor so a direct confrontation with them could be disastrous. Get in, take as many prisoners as possible, then get out.

Initially, in the darkness, weapon ranges will be short. As the moon rises, ranges will increase and the screen will begin to lighten. To exit your units, simply order them to move to the bottom of the map. Units that reach the map bottom will be removed during the Victory Phase. You are not expected to have many casualties.

Game length: 1 Hour

Points: You will receive extra points for exiting units off the map after some prisoners

have been captured. The enemy receives bonus points for eliminating your units.

2. FOREVER ROAD

Situation: Sometimes, a road can seem to go on forever. The Division is advancing along a mountain road in Sicily with your company at the point. You have been given some armor support and one reinforced platoon of infantry and are ordered to advance along the road, eliminating any resistance encountered. Only token resistance is expected.

Execution: Your objective is to exit the top of the map in the road area after clearing the way of enemy units. Tanks will be able to maneuver only on or near the road. Off road movement will be tough for other units. The darker brown areas on the map represent the rugged mountainous terrain. Ideally, you should exit all your units off the top and eliminate any German unit encountered. This may not always be possible. You are expected to have cleared the road and moved on in two hours.

Game length: 2 Hours

Points: You receive bonus points for exiting your units off the top of the map. You lose points for having any units (friendly or enemy) remaining on the map at game's end.

3. OMAHA

Situation: Your company is the leading edge of the largest amphibious invasion in history: D-DAY. You are to gain a foothold on the beach and advance as far inland as possible.

Execution: Your forces start at the sea's edge and will land in two waves. There are reports of enemy armor in the area. You are to advance up the map as far as possible and hold your positions. Should any enemy armor make it to the beach, a disaster could ensue. The first wave consists of the first and second platoons. The third platoon and support elements will hit the beach soon afterwards during the first Victory Phase.

Game length: 1 Hour

Points: You receive bonus points dependent on how far inland your forces have advanced. The enemy receives bonus points for units that are close to the beach.

4. NIGHT OF ST. ANNE

Situation: The German forces are in a desperate situation. Some are about to be trapped in a rapidly closing pocket. The battle is continuing into the night. Fresh from a short

rest, your company is ordered into the attack. The German disposition and plans are unknown. They may attempt a breakout, or they may attempt a breakthrough. You are to thwart either plan.

Execution: You will start just outside the town of St. Anne. The Germans are on the move. St. Anne represents a key area as the terrain around it is impassable to armor. They must come through St. Anne. You are to advance to contact. The German forces may attempt to escape off the map in the area to the right of St. Anne, or they may attempt to break through your lines and exit the bottom of the map, stirring up some trouble in your rear areas. It is night. Ranges are short, and hedgerows are impassable to armor. The enemy will not be visible while moving until contact is made.

Game length: 1 Hour

Points: The enemy forces receive bonus points for units that exit the map at the right or off the bottom.

5. UP FROM THE BEACH

Situation: Things are looking up. The invasion has achieved a strong foothold on the continent. It is time to start moving inland to the heart of France. On the way is a critical crossroads at Balleroy where the division hopes to place its headquarters. Minor resistance is expected.

Execution: Your company, with some armor support, has worked its way to the edge of the woods along the main road leading to Balleroy. Your orders are to take the town, eliminating all German units in and around Balleroy. This must be a decisive action.

Game length: 2 Hours

Points: The enemy forces receive points for units remaining on the map at game's end.

6. FOR AACHEN

Situation: Dreaded by the infantry and dreaded by armor is the job of clearing a city, block by block. But the job must be done.

Execution: You are to advance forward, clearing the way of any German units, and take the park (wooded area) in the upper center of the map.

Game length: 1 Hour

Points: You receive bonus points for occupying the park at game's end.

7. ARDENNES DAWN

Situation: Something big is up. There are reports of a major German offensive underway. Throughout the night, scattered American forces stumbled through the town, almost all bearing a look of fear and defeat. Then, you hear the tanks.

Execution: Your forces are to halt the initial advance of the offensive. Dom Butenbach is right in the path of the main line of advance. Your company holds the town and the surrounding area. Keep it that way. The scenario starts at dawn, but the sky is growing lighter.

Game length: 1 Hour

Points: The enemy forces receive bonus points for exiting units off the top of the map.

8. ROEHER CROSSING

Situation: It's a push to the Rhine. The Roeher is one of the last obstacles.

Execution: You are part of a general advance. You are expected to encounter only token resistance. Your job is to advance across the rivers and exit off the roads in the upper right corner of the map. The advance should be somewhat cautious as it is likely that the bridges are wired for detonation.

Game length: 2 Hours

Points: You receive bonus points for exiting units off the map near and on the roads in the upper right corner.

SCENARIO HINTS

These hints are for those having trouble with a scenario. They are by no means the final word on strategy. They are useful approaches to the problems presented in the scenarios; I have found them successful. Having designed the game, I do know some of the ins and outs of success. One important factor is not to do too much at once. Don't order a unit to the top of the map in the first move. Keep things under control.

1. NIGHT PATROL

Move into town immediately and assault at every available opportunity. Don't dally. After initial contact is achieved, you can begin to assess the situation and start ordering some of your units off the map soon. Don't be intimidated by the German counterattack. If you get caught, get into cover and take

them on. If you have lost your Bazooka of HQ, then you have no anti-tank weaponry so you must get your infantry into a position to assault the enemy armor. You can try outrunning the Germans by using the road.

2. FOREVER ROAD

This is a scenario in which you should take your time. It's important to try and shake out all enemy units. Use the tanks to back up your infantry, but don't send the armor out ahead alone as anti-tank weapons are rampant in the enemy makeup. Concentrate as much firepower as possible on enemy held positions and try to avoid assaults unless they are necessary. Use short move orders to keep things under control.

3. OMAHA

Much depends on the enemy setup in the Omaha scenario. Spread your platoons into three forces, one to take the right hilltops, one to take the left hilltops, and one to clear the center road. Of the three, the center road will probably be the toughest; so give them the most support. Also, get your forward observers to a hilltop as soon as possible (within limits of safety). Together, they can really turn the table in any particular firefight.

4. NIGHT OF ST. ANNE

Spread out into the buildings and hedgerows around St. Anne until the direction of attack is determined. Divide your forces into three platoons, one to cover the right of town, one to cover the left, and one in the town itself. Then, when the attack arrives, one of your platoons should be free to move to the troubled area as backup. Don't stray too far as concentrated firepower is your key weapon.

5. UP FROM THE BEACH

This is another "take it slow" scenario. Your forces start the game already arranged for a three-pronged attack. Trouble is, one or more of your prongs may not be up to the task. This is where the armor and support (Forward Observer and Mortar) should come in. Regardless, expect to take some losses in this one as there is a lot of open terrain to cover while under fire.

6. FOR AACHEN

There should be no problems with this scenario. Keep in cover and back up your advance with the heavy stuff.

7. ARDENNES DAWN

You start this scenario with your men in some pretty good spots. There are some better spots like getting your tanks to the

hilltops and getting the bulk of the infantry into town to assault any armor, breaking through. Any of your units caught in the open or even in woods are going to find the going rough. Then again, you can't move everyone into town either. I suggest pulling all of your infantry into the town proper and leaving the bazookas, MGs and ATGs in the forward cover along with the tanks to dull the initial advance. Shoot at the enemy armor first with all available anti-tank weaponry. Keep in mind that your tanks on the hilltops have some impressive ranges.

8. ROEHER CROSSING

This scenario involves quite a bit of maneuver along with fire. You should not commit to one bridge as it may blow. Once a bridge is crossed in force, it should be safe for the rest of your forces.

QUICK REFERENCE CHART

OBSERVATION PHASE — Pause phase.

JOYSTICK activates scroll.

START takes game to Fire Order Phase.

FIRE ORDER PHASE — Crosshair cursor. You give individual units orders where to fire.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers fire orders.

OPTION cancels all fire orders.

START takes game to Movement Order Phase.

MOVEMENT ORDER PHASE — Square cursor. You give units orders to move and where to move.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers move orders.

OPTION cancels all move orders.

START takes game to Operations Phase.

OPERATIONS PHASE — No cursor. Observe the battle.

JOYSTICK activates scroll.

SELECT routes program back to Fire Order Phase.

OPTION routes program to Assault Order Phase.

ASSAULT ORDER PHASE — Arrow cursor. Give infantry units orders to assault adjacent squares.

JOYSTICK activates cursor and scroll.

TRIGGER initiates and registers assault orders.

START takes game to Assault Phase.

TERRAIN REFERENCE CHART

The following is a list of the terrain types encountered in the game and the advantage and disadvantage of each.

CLEAR This is an area devoid of any features and represents fairly open, coverless terrain. Units move through it quickly, but are prone to withering fire if in range of the enemy.

ROAD The road areas are either the gray continuous lines or the mottled lines running through the maps. Units move fastest along roads, but are limited in their available cover.

TREES These are the areas with individual trees in them. Trees offer minimal cover with little effect on movement.

RIDGES These are the broken lines running along some areas of the maps. Sometimes they precede a hilltop. They offer little cover and slow movement only slightly and are not considered high enough to be an obstruction to sighting.

HILLTOPS These are the grey circular areas spotting some of the maps. They are key terrain features offering good cover and giving a unit on them exceptional ranges, allowing the unit to see over normal obstructions to sighting.

WOODS These are the heavy green areas representing heavily wooded terrain. Units are slowed down when moving through woods. Tanks will not enter woods. Infantry units receive some defensive benefits when occupying woods. Woods obstruct sighting.

BUILDINGS These are the grey/green rectangular areas representing buildings or pillboxes. Units move most slowly through buildings. Tanks will not enter buildings. Infantry units receive excellent cover when in a building. Buildings obstruct sighting.

STREAM/RIVER These are the blue areas representing streams and rivers. Tanks will cross the thinner streams as will other units. Units are slowed down by streams. Rivers are impassable to all units and must be crossed at bridges (unless a fordable area can be found).

MOUNTAINS These are the dark brown mottled areas in the Forever Road scenario and are impassable to tanks. They slow other units down a lot, offer good cover, and obstruct sighting.

HEDGEROWS These are represented by the straight green lines and present formi-

dable obstacles to movement. In the St. Anne scenario, they are impassable to armor. Other units are slowed by them. They offer good cover to units in them and obstruct sighting.

LINE OF SIGHT

The battles take place on terrain of such a nature that sighting over great distances is not possible, due to undulations and vagaries of the areas represented. Minor obstacles dependent on weather, time of day, the position of a particular unit, and other such details are not included in the game maps. Major obstacles, which are heavy woods, high hills, hedgerows, and buildings are included. All of these features, when positioned between a firing unit and its target, block the line of sight to the target and prevent actual firing. A unit positioned on a hilltop, however, is not subject to these sighting obstacles and may see over them.

YOUR FORCES (The Standard Characters)

Each of your units represents either a Rifle fire team, a weapons crew (MG, Mortar, Bazooka), or a Tank and its crew. In addition, there are two Forward Observers to call in artillery and, in some scenarios, Combat Engineer teams. When you give a unit orders, you will see the name of the leader of the team or crew. He is the man in charge of his group, and he will be receiving the orders. After the leader's name, you will see a number indicating how many men are currently in that leader's fire team. This number will appear only for the core units of the company. Support elements (tanks and engineers) will not be given such a number. Each leader has some distinct qualities which are reflected in his team. These qualities are not present if the role playing aspect of the game is used. The role player must develop the qualities as his units progress through the scenarios.

Lieut. Noonan: Noonan is the on-board commander and his unit represents the headquarters of the units on the map. Lieutenant Noonan is an apt commander, well respected by his men. Under his direct command is a small group of men with various weaponry that may change according to the scenario. The HQ is a vital unit and should not be used in an offensive manner where there is high risk of elimination.

Sarge: "Sarge" was there at Kasserine where, some say, he personally walked up to a

erman Panzer and threw a grenade into its hatch. He seems the type that is born to be a soldier and his combat prowess is unequalled. Though offered promotion many times, he has refused to advance beyond Sergeant. "I came here to fight" he would say. He is an original member of the Company and is becoming a divisional legend. He commands a crack Rifle fire team also composed of Kasserine veterans.

Cpl. Bayard: He has seen battle and is a worthy leader, commanding a Rifle fire team with decisiveness.

PFC Mellon: A stout-hearted fun lover who turns all business when the bullets start flying. A good man who knows where he is and what has to be done. He commands a Rifle fire team.

Sgt. Kroegel: A veteran who is rapidly climbing the ranks. The army is his life. The infantry is his heart. He's a man with fierce fighting capabilities in command of a Rifle fire team.

Cpl. Portwood: "Hollywood Joe" to some. You will initiate him into the field of fire as he has just arrived from Officer Training. He is often seen sketching cartoons in his spare time. He maintains a cool determined look quite unlike the haughty arrogance expected of a new officer. He commands a Rifle fire team.

PFC Wright: A recent arrival whose prowess in battle has given him the job of commanding a Rifle fire team.

Sgt. Freda: Another new arrival. This guy has a gleam in his eye ... one you wouldn't want to see from the wrong end of his rifle. He commands a Rifle fire team.

Cpl. Whittaker: An enthusiastic fellow just over from the States. He wants to write a book about the war, but has yet to see battle. He commands a Rifle fire team.

PFC Bigham: Again and again he has shown his determination in the face of sometimes unsurmountable odds. A brave leader who is an inspiration to the members of the Rifle fire team he commands.

Sgt. Barker: A crack soldier, that is, until he got that letter that he won't let anyone read. He seems preoccupied most of the time and is constantly cleaning his weapon. He commands a Rifle fire team.

Cpl. Goldfarb: This guy keeps the unit in stitches when he gets going. Many expect

him to be a professional comedian when it's all over. As for fighting, well, he'd rather be eating though he does get the job done. He commands a Rifle fire team.

Pvt. Shawn: One of the crazy guys of the outfit. Some claim he has never fired his rifle. He does seem to have some leadership qualities and commands a Rifle fire team.

Sgt. Douglas: His accuracy with his rifle is becoming a legend at Battalion. A crack veteran commanding a Rifle fire team.

Cpl. Parker: A quiet fellow who always seems to find hidden caches of booze left behind by the fleeing enemy. He commands a Rifle fire team.

Pvt. Smith: Smitty paints a notch on his rifle after each battle. There are seven stripes on it now. He commands a Rifle fire team.

PFC Trunzo: A sound individual who seems to have the ability to make men trust him. He commands a Rifle fire team.

Cpl. Mailer: Fairly new in the platoon, Mailer likes his role commanding a Rifle fire team.

Pvt. Burns: Commands a Rifle team, though many feel he doesn't like the job.

Cpl. Billings: When Billings grabs a bazooka, everyone around him ducks. They know that an enemy tank is about to be blown up. He commands a Bazooka team.

PFC Taylor: One gets the feeling that there is always something on Taylor's mind. He does handle his Bazooka team well, though.

PFC Davis: A strong, determined individual whose leadership qualities are readily apparent. He commands a Bazooka team.

Wild Bill: Probably the nastiest person at the trigger of a machine gun in history. He is the only person in the platoon who knows Sarge's real name, as they have been close friends for as long as anyone remembers. He commands a machine gun crew.

PFC Kelly: "Machine Gun" Kelly, as he is called, can make his .38 cal. do magic. Nice to have him backing up your assaults. He commands an MG crew.

Sgt. Johns: Another original veteran of the platoon, often seen hanging around with Sarge and Wild Bill. This guy is downright nasty in combat and commands a Machine Gun crew.

Cpl. Hill: Is intrigued by trajectory and is

constantly on the radio wanting reports of where his rounds are landing. He commands the Company's mortars.

Lieut. Pyle: Pyle loves it when the artillery he calls scores a direct hit. Once, when in a forward outpost, he called to report that there were two Italians coming up the road. The Artillery battery commander thought he said two battalions and let loose with a ten minute barrage. When the smoke cleared, the two Italians emerged from some cover and continued up the road, this time with their hands held high.

Lieut. Butnik: Butnik is precise. He is constantly in communication with his battery and takes his job of Forward Observer very seriously.

Lieut. Johnston: One of the best tank commanders in the division. When his tank is running well, you can count on him.

Lieut. Mergen: Another crack tank commander whose only failing is that he pushes his tank too hard sometimes and winds up throwing a tread.

Sgt. Jones: A cool, calculating tank commander who seizes the opportunities as they arise.

Sgt. Sprock: Rommel is his hero. He respects sound tactics and carries out orders with a fervor, caring little about minor damage to his tank.

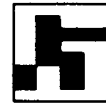
NOTE: Engineers may take on the names of the tankers.

UNIT TYPES

There are several types of units involved in the battles. Below is a list of the units and their general capabilities.



HEADQUARTERS (American only) — This unit represents a company headquarters with attached personnel and some decent weaponry, such as an occasional light anti-tank weapon or some small field artillery.



RIFLE TEAM (American and German) — These represent the standard infantry rifemen, their primary weapons being their rifles. Though their firepower is the least effective of all other weapons, their numbers make up for this deficiency. Their ranges are very short.



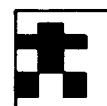
MACHINE GUN CREW (American and German) — These represent standard mount automatic weapons (MG34, MG42, .38 cal.). Their firepower is a step above the rifle and they have a greater range. You will learn to hate enemy MGs.



BAZOOKA/PANZERFAUST TEAM (American and German) — These represent the various type of rocket launchers used in the war. Their main use is anti-tank, though they may be used as anti-personnel weapons as they do have some explosive punch.



MORTAR CREWS (American only) — This represents 3 small (50mm) mortars and their crews. Their field of fire is unlimited in the game, and they do make the difference in a tight situation.



FORWARD OBSERVERS (American only) — These represent groups of men sent out ahead of the company to spot for Battalion artillery and to reconnoiter enemy positions. They move fast and the artillery they can call in is nasty.



ENGINEERS (American only) — These units show up in a few scenarios and represent combat engineers with demo charges, flamethrowers, and the like. They naturally pack a wallop in fire, though their range is severely limited.



TANKS (American and German) — These units represent, for the American forces, Sherman M4E8 medium tanks and for the Germans, anything ranging from measly PzKfw III's to Tigers. The normal tank your forces will encounter, though, will be the PzKfw IV or the Sturmgeschutz assault gun.



ANTI-TANK GUNS (American and German) — These represent anti-tank guns generally of the 75mm caliber with good range and tank knocking ability. They will also do some damage to regular troops with High Explosive rounds.

MESSAGES

There are many messages appearing in the message window during a game. The following explains them in detail.

"CURSOR IS NOT ON A FRIENDLY UNIT" — When you see this message it means that you are not positioning your cursor directly over one of your units when trying to give an order.

"READY FOR ORDERS" — This message means that the unit is combat ready and will receive all orders given it.

"WE'RE PINNED" — This message informs you that the particular unit you are indicating is Pinned.

"*SUPPRESSED***"** — The unit you are indicating is Suppressed and will not take

orders at the present time.
"THAT UNIT IS UNABLE TO ASS. [F]" — The unit is not of a type that can assault a square.
"SEL = FIRE ORDERS OPT. = ASSAULT ORDERS" — Seen during the Operations Phase to remind you to hit the SELECT key to go to the Fire Order Phase or the OPTION key to go to the Assault Order Phase.
"ALL MOVEMENT ORDERS CANCELLED" — Seen during the Movement Order Phase if you have hit the OPTION key.
"ALL FIRE ORDERS CANCELLED" — Seen during the Fire Order Phase if you have hit the OPTION key.

The message window will also identify the unit you are currently ordering. The rank and name of the leader of the fire team or crew is given along with the number of men remaining in the fire team.

TACTICS

Succeeding at FIELD OF FIRE involves the use of small unit tactics. There are a number of things that must be kept in mind regarding tactics.

1. Use available cover. When possible, give a unit an objective square that offers some cover and concealment. Better yet, if there's time, order the unit to move from cover to cover to get to its objective.
2. Suppressive fire is almost always necessary. Use your long range weapons to fire ahead of your attack to stir up and suppress possible enemy positions.
3. Maintain tight control over your units. Don't give a set of orders and then sit back and watch. Be ready to take advantage of breaks that may go your way and to regain your hold on a position that may be slipping.
4. Assault when possible. Your men are above average troops, especially when it comes to hand-to-hand fighting. If one of your units gets close enough to an enemy to assault, it's usually good to go to the Assault Order Phase and send him in.
5. Set intermediate objectives. Don't go all out right away. Decide on a series of short term objectives, keeping the overall objective in mind. Tactical level exercises require time to develop. A maneuver, such as flanking, may be one move on an operational level. But a flanking move on a tactical level needs time to develop.

6. Concentrate fire when possible. If a unit can fire, it generally should fire, even if it's at an empty square. There may be an enemy hiding there and the fire can shake him out. Reconnaissance by fire should be used in all cases when surprise is not required. Regardless of the speed of the tanks, the infantry should lead the way in battle with the tanks covering them in most cases.

8. Use your mortars every turn. They should be move rarely and should be firing always. Remember, if you do want to move them, you must fire cancel any fire order they may have.

9. Each unit type has strengths and weaknesses. Knowing these and applying them accordingly can help your play.

Tanks are very powerful. They pack a wallop when they hit and take a beating in return. However, this can be a subtle weakness; for if you do lose a tank, the balance of power in your sector may shift toward the enemy. Tanks can also disappear fast if there is enemy anti-tank weaponry about. Being bold with the armor can have its drawbacks.

Rifle teams are the meat and potatoes of your attack. They'll do a lot of the dirty work such as house-to-house fighting and assaults. Their strength is that you have many of them. Their weakness is that when out in the open, they are very susceptible to enemy fire.

Engineers have a very short range but pack a mean punch when they get a shot off. They are also excellent in assaults.

Bazooka teams are good for blowing holes in buildings (as are engineers). They have a little better range than the engineers. With all their equipment, they're not effective in an assault.

Forward Observers call in artillery. Their range is only limited to their line of sight. Get them onto hilltops whenever possible.

Machine guns are general purpose weapons. Shoot them at anything and everything. Their range allows them to help cover advancing infantry.

PLAY NOTES

Units — Learn to appreciate your riflemen. They will normally be the ones getting the job done. Tanks are fun in their apparent immunity to small arms fire, but there may be some anti-tank weaponry just around the corner. Bazooka teams should be saved for the possible appearance of enemy armor. Other than assaults, your bazookas are the

only infantry units that can stop an enemy tank.

Terrain — Go for cover and concealment. Cover is generally anything but a square with no feature in it. Woods are good and buildings are best.

Fire — Your edge is your ability to concentrate firepower into one area. This can lead to overkill, especially if there is a lot of enemy about not coming under fire. Spreading your firepower too thin is the opposite extreme. The enemy units are usually in good defensive positions and are not easily removed. Every situation has important and not-so-important targets. The critical targets are usually ranged anti-tank weapons and machine gun nests. But don't overlook the enemy rifleman. They can chew your attack to pieces.

Maneuver — Maneuver is getting your units to an effective spot. In Field of Fire, effective spots are hilltops, any cover that is in range of enemy positions, and (in certain scenarios) exit areas. Sometimes a simple order to move to a location is enough. More often, a planned series of approaches works best. Maneuver and fire must be used in conjunction. Units with the lesser ranges should close while your long range weapons offer cover fire.

DESIGNER'S NOTES

My main intention in designing Field of Fire was to create a framework around which tactical approaches to a military problem can be applied with success. I wanted this framework to remain open so that an almost unlimited set of variables could be applied to the main system, allowing the creation of an unlimited number of scenarios.

Another focus in the design was playability. This is a game you can begin playing in a manner of minutes. This does not mean that the game is simple. To do well, you will have to apply sound tactical doctrine and have a little luck here and there. Such concepts as concentration of force, cover fire, selective maneuver, and flanking need to be applied. This isn't a 'set em up and charge' game.

There were many decision points along the way of design. A critical one was "real time". There is no doubt that real time simulations can lead to exciting play. A problem arises when the desire for real time takes precedence over the play ability of the

game. In present day computers, there is a price for real time. The major problem is keeping the game simple enough for the player to react in real time. This involves a constant monitoring of the player's situation in a way that will not deter his reaction, coupled with a clean input that will allow him to react when needed. In Field of Fire, the player is in control of 32 units of varying capabilities in a battlefield of which less than one fifth can be seen at any one time. Giving the player real time control over this situation would be overwhelming without voice input and output. The thrust of this game is toward planning and execution, not speed. For, even as the game stands now, situations can

and do get out of hand. The difference is that the player is not under any pressure to hit the right button at the right time. The pressure is in making the right decision at the right time.

Another question tied to the limitations of the computer is what to include and what to delete. Tactical combat involves a multitude of factors. I started with the two important ones, maneuver and fire. Once the units could move and fire in an effective manner, I then added some detail, running it to the maximum allowable with the memory available. The details included such things as a morale system, casualties, and a wide range of unit types, weapon types, and terrain.