

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
GAME MANUAL

1. THE DECISIVE BATTLES GAME SYSTEM

Decisive Battles of the American Civil War (Vol I) recreates six important battles from the first years of the War between the States. The American Civil War lasted four years and its one million casualties reflect the determination and ferocity with which it was fought. Hopelessly outnumbered in terms of manpower and materiel, the thirteen confederated southern states kept their secession hopes alive by dint of commitment, superior leadership and a fair amount of luck. The American armies which took the field in 1861 were little more than untrained militia, led for the most part by inexperienced officers and clumsily trying to copy the military systems of the major European powers.

Four years later these same armies were a match for any European contemporary. They had evolved new tactics to accommodate the vastly increased effect of musketry on the battlefield. The use of trench warfare so characteristic of the Great War some 50 years later was pioneered by American armies. Railways were used to expedite the flow of supplies and reinforcements to contested areas so that for the first time in the history of warfare, armies could stay in the field almost all year round.

In the end, of course, the Union triumphed. Robert E. Lee's surrender at Appomattox Courthouse in April of 1865 marked the effective end of the Confederacy. The Decisive Battles Game System has been specifically designed to recreate the battles of this era. Volumes II and III cover battles from the middle and latter years respectively.

To get started with the game, we recommend that you follow this sequence.

- (i). Read the specific information for your computer type in the scenario booklet for details on installation and start-up.
- (ii). Play through the introductory tutorial described in the scenario booklet.
- (iii). Select any scenario and start playing, referring to this manual as necessary. You should read the Player's Notes for a particular scenario before playing it for the first time as they contain useful background information.

This manual contains two major sections. Part One, The Game Routines explains the operation of the game system and contains all that you need to know to play a game. Part Two,

WarPlanô explains the use of the scenario design routines, including WarPaintô, SSG's icon and terrain editor. While you do not need to read this section to play the game, it will provide some insights into the deeper workings of the game system. In addition, we would encourage everyone to find out just how easy it is to modify existing scenarios or create original work.

2. THE TYPES OF GAME MENUS

The order menus which drive the game can be divided into four types.

(a) Branch Menus - These menus signpost the route to other menus [2,4,7,9]. Note that most of them also provide some information.

(b) Information Menus - These menus provide specific information on the various forces and functions in the game [3].

(c) Action Menus - These menus are the centre of the game system. All of the orders used in the game are given through them [5,6,8,10,11,12].

(d) Single Function Menus - [1].

3. THE GAME MENUS DESCRIBED

Menu H (Game Master)

This screen always appears at the beginning of each turn. It is common to both players. It is the first screen you will see after completing the scenario selection details and choosing <START>.

In the four lines of text above the menu window, you are told the date, the time of day, the current turn number and the total number of turns in the game.

Below the menu window you are told whether it is daylight, dawn, dusk or night and the weather condition.

Menu 1 (Save Game Utility)

This is a single function menu which allows you to load or save a game, change the DOS path to the current disk or directory or load an 'auto saved game' if present.

To save a game, locate the <SAVE GAME> line with the arrow keys and type (RET). A large catalog window displays a list of current save game files. Use an arrow key to move the cursor bar to the location in which you wish to save the game. If that location contains an existing file, then the current game will be saved over that file. Empty slots are marked 'free'. When you have chosen a location, type (RET).

The menu window now displays the <COMMENT> and <SAVE IT>

lines. Choosing <COMMENT> allows you to edit both the name of the game and a three line synopsis. When you are ready, locate the <SAVE IT> line and type (RET).

To load a game, choose <LOAD>. Use the arrow keys to move the cursor bar to the desired game location and type (RET).

The chosen game will be loaded.

The <PATH> command allows you to change the current disk or directory for loading and/or saving games. The default is the directory from which the game was run. When typing disk identifiers, please type a colon (:) after the drive letter (e. g. B:). The path is limited to 26 characters.

Save game disks must be formatted by DOS before use.

The <LOAD AUTO> command will load an auto saved game if one is present.

Menu 2 (Operations Master)

This is a branch menu. The information appearing above the menu window identifies the commander of the Army, his second in command if present and the name of the Army. The icon representing the Army HQ appears to the left of the commander's name. The information below the menu window tells you how many victory points your side has accumulated to date, a leader and troop casualty summary and whether you have more victory points than your opponent at this point in the game. IBM users are given an indication of their performance to date in the lower right of the screen. The game is considered contested if there is less than a 20% difference between each side's VP total. Otherwise you will be told you are winning or losing.

The menu window is divided into two sections. These are Operations and Reports.

The <ROSTER> function allows IBM users access to a detailed breakdown of their forces. Every HQ and brigade is listed, along with their strengths, artillery complements and current condition. Destroyed and reinforcing brigades are included. Use the arrow, home, end, or Pg Up/Down keys to locate individual units or to page through the report. Hit (RET) to select the unit high-lighted by the menu bar. The game map appears with the cursor identifying the chosen unit. Note that brigades have a 9-character I.D. in the IBM version.

We recommend that you examine the <MAP WALK> menu before issuing instructions, especially while you're learning the game.

Note that this same <MAP WALK> function is available in several menus to make information easier to access.

If you select <OPTIONS>, IBM users will be given access to five optional features. Menu 12 will give you all the details. Apple II/C-64 users have the <OPTIONS> line replaced with <RESIGN>. The <RESIGN> option is for use when, for whatever reason, you wish to end the game. The game will stop and the end of game screen will be printed. You will be prompted to avoid accidental resignations.

Menu 3 (Map Walk)

This is an information menu. On selecting <MAP WALK> from Menu 2, 8, 10 or 11, the cursor is thrown into the map. Use the I,J,K,M keys, the arrow keys or the 1-6 keys to march the cursor across the map which will scroll once the cursor reaches the edge. Type (0) to centre the screen on the cursor.

At any time you may type (RET) to bring up the menu window. You may examine the ownership of hexes, examine the terrain by temporarily clearing units from the map or examine the terrain masked by the road network.

You may move the cursor from objective to objective either by naming the objective you wish to go to or using the arrow keys to cycle through them.

You may also move the cursor from unit to unit by naming the unit you wish to go to. The term unit describes any combat formation, either brigade or HQ.

Use the arrow keys to select the piece of information you wish to examine and then type (RET). To terminate a display, type (RET) to replace the cursor in the menu window, use the arrow keys to select the display you wish to turn off and type (RET) again to complete the process.

More than one display may be examined at the same time. Be warned, however, that in some cases the information from one display will overprint another. Once you have finished, type (ESC/f1) to return to Menu 2. All displays will be turned off.

You can (and should) use this menu to get information on enemy units. It is also useful for examining terrain, especially in active portions of the map, and as a source of information on the condition of friendly units. The information appearing to right of the map describes the contents of the hex identified by the cursor. What information you see depends upon what is in the hex.

The majority of hexes will be empty, nor will an objective be present. For these hexes, you will be told the movement point cost for entering the hex, how much natural cover or protection the hex will offer to an occupant and the

expected visibility or sighting into or through the hex. Below this information, the terrain type is named and below this name is a three-part iconic display. In the left-hand compartment you are shown the terrain icon for the hex. In the centre compartment you are shown a schematic summary of the location of the cursor in relation to the whole battlefield. In the right-hand compartment the nationality icon of the side controlling the hex is displayed.

If an active objective is present in the hex, the middle part of the report will display its details. You are told for which turns the objective is active, how many turns you have held the objective to date and the number of VPs awarded for its control, both on a per turn basis and at end of game. The name of the objective appears above the terrain type name.

If an enemy unit is present in the hex, the top part of the report will display its details. You are shown an iconic representation of the enemy unit. Underneath this you are told whether the unit is in line or column and whether it appears steady or shaken. A unit is shaken when its current cohesion value is 3 or less, unless it occupies a fortification.

As you can see by moving the cursor around the maps, all of these displays are separate from each other. However, when a friendly unit occupies a hex, all information on the display except for the terrain name and the three-part iconic display are replaced with data on the friendly unit.

A brigade report contains the following information. A boxed display identifies the brigade, its type and its current order. At the top of the screen you are shown the HQ icon of the formation to which the brigade is attached. The name of this HQ, its current order and the objective, if any, it has been directed to are also displayed. Where two objectives are shown, you should read this as the second objective being the real one. The first objective simply defines the line of march.

There are four separate icons directly above the brigade ID. They provide a simple summary of the status of the brigade. From left to right the icons display the brigade type icon, whether the brigade is shattered or occupies a battlefield entrenchment or fortification, whether the brigade is within the communication range of its superior HQ and finally whether an order has been issued to the brigade for this turn.

Below the brigade ID are details of the brigade's current effective strength (rounded off to the nearest 100 men), the

number of guns attached to the brigade, the current cohesion level and the experience and leadership ratings of the brigade.

In Summary

A summary of the effects of the <MAP WALK> menu appear below.

Control. All terrain icons are replaced with the Union or Confederate control icon. Hexes containing units do not display a control icon; in every case a hex occupied by a unit will be controlled by that unit. It is difficult to overstate how important hex control is in the play of the game. Units in friendly territory are not usually visible to the opposing player.

Roads. The road network is temporarily removed to reveal the hex types underneath.

Clear. All units are temporarily removed from the map to reveal the hex types underneath.

Name Objective. A cursor appears above the menu window. Type in the name of the objective you wish to examine. Once the computer has enough letters to distinguish it from other objectives, the screen and cursor will centre on that objective.

Cycle Objective. The cursor appears on the nearest objective and from there the arrow keys are used to cycle the cursor from one objective to the next.

Name Unit. A cursor appears above the menu window. Type in the name of the unit you wish to examine. Once the computer has enough letters to distinguish it from other units, the screen and cursor will centre on that unit.

Menu 4 (Army Master)

This is a branch menu. The screen has centred on your present location; i.e. your Army HQ. If the Army HQ has not yet arrived on the battlefield, the screen will centre on its scheduled arrival hex. The Army ID is repeated above the menu window while the personal status of the Army commander and his second in command is given below the window. The army leaders can be OK, wounded, captured or killed.

You use this menu to choose the location you wish to send your Army HQ to and to select the personal profile you wish to adopt for the next hour of the battle.

Menu 5 (Move Army HQ)

This is an action menu. There are four mechanisms by which you can move your Army HQ.

Position the cursor over the <OBJECTIVE> line and type

(RET). You will be allowed to name the objective you wish to move your Army HQ to or use the arrow keys to cycle through the available objectives until you locate the one of your choice. Only objectives currently under friendly control may be selected.

Position the cursor over the <CONTROL> line and type (RET). The pinwheel appears in the menu window and you may select a Corps HQ from it. The Army HQ will move to the Corps HQ. This line will be overprinted with a solid bar if there are no corps under your command.

While an Army HQ occupies a hex adjacent to the Corps HQ and its last move order was to that Corps HQ, it assumes direct command of the formations subordinate to the Corps HQ as though they were its own.

If none of the above mechanisms will allow you move your Army HQ to its desired location, position the cursor over the <CURSOR> line and type (RET). You will be given control over the cursor appearing on your current Army HQ location. Use the arrow keys, the 1-6 keys or the I,J,K,M keys to move the cursor to the chosen location and then type (RET). Only hexes under friendly control may be selected. Your Army HQ has now been ordered to that location.

If you wish to cancel an Army HQ move or to halt HQ movement, select <STAND>.

Once ordered to move, an Army HQ will take the quickest route to its chosen destination and become stationary once it reaches that location. Remember that the staff effectiveness rating of your Army HQ will be slightly reduced while it is moving. A careful commander will do his best to keep HQ movement to a minimum.

An Army HQ may directly supersede the orders of any friendly brigade within four hexes of its location as explained in subsequent menu descriptions. Similarly, your Army HQ staff rating is temporarily reduced when enemy brigades are within five hexes of the HQ's location. You should keep these two points in mind when positioning your Army HQ.

Menu 6 (Personal Profile)

This is an action menu. Basically, you must choose the level of personal danger you wish to expose yourself to for the next hour. There are pros and cons for each choice. Your choice will remain active until you change it in a subsequent hour or conditions make it ineligible. The default profile is sensible.

Heroic. You will only be allowed to choose this profile if there is a targeted friendly brigade within four hexes. You

and a small escort are considered to have moved into the front line to personally direct the battle.

For the hour immediately following your decision to be heroic, there will be a temporary reduction in your Army HQ staff value. As compensation, all targeted brigades within three hexes of your Army HQ will receive a combat bonus. Leading by example may be the only way to prevent a disaster. However, the cost of courage is not cheap. You will be exposed to enemy fire and bayonet point. You run the risk of being wounded, incapacitated or even killed. Furthermore, the rest of your Army will be virtually leaderless until you return to your Army HQ. You will not be allowed to select a heroic profile after the Army commander has suffered either a killed, wounded or captured combat result.

To put this profile in perspective, you should find that in most of your battles you never have to select it!

Bold. You will only be allowed to choose this profile if there is a targeted friendly brigade within four hexes. In this case, you remain at your HQ and have chosen to maintain a high profile for the purpose of stiffening your men.

A small combat bonus is conferred on targeted friendly brigades within four hexes at a cost of some danger to yourself and a slightly reduced staff efficiency

This profile should be selected when all is going well (i.e. you have no need to send off new orders to your subordinates) and you wish to get your men off to a good start.

Sensible. You have chosen to expose yourself to the normal level of danger present on the nineteenth century battlefield. This is roughly equivalent to a 2% chance of being killed or wounded in a normal day's fighting. All brigades within command radius of your Army HQ may be stiffened by your presence or they may ignore you. In any case, your staff effectiveness rating will not be affected.

Cautious. The difference between a cautious profile and a sensible profile is small. By selecting a cautious profile you are reducing the risk of personal danger to zero. You also give up all chance of inspiring your men. There is no change to your staff effectiveness rating. You should not confuse cautious with cowardly; I'm sure there are no Schimmelpennings (a luckless Union General found hiding in a pig-sty after the Battle of Gettysburg) playing this game.

Which of the two latter profiles you choose will depend on the local situation. It really boils down to how lucky you feel.

Menu 7 (HQ Select)

This is a single function menu. The pinwheel appears in the menu window and you may use the arrow keys to select any of the Corps or Division HQs directly subordinate to your Army HQ. Note that Division HQs subordinate to Corps HQs do not appear in the pinwheel unless your Army HQ is temporarily directing the Corps HQ as explained in Menu 5. Brigades never appear in the pinwheel. If the radio flag is on then Corps headquarters are not used in the game. The pinwheel bar identifies the HQ which is centred on the screen. The information available for each subordinate HQ is as follows. The top two lines of the screen show the ID of the HQ and its current command, either offensive, defensive or reserve. A HQ with an offensive command can have up to two objectives displayed beneath its ID. A HQ with a defensive command will have one objective displayed below its ID. A HQ with a reserve command will have no objectives displayed beneath its ID.

There are four separate icons directly above the menu window. They provide a simple summary of the command status of the HQ. From left to right the icons display the on-screen HQ icon (corps or division), the HQ type (infantry or cavalry), whether the HQ is within the communication range of the Army HQ and finally whether a command has been issued to the HQ for this turn. Obviously, a HQ cannot receive a command while it is out of communication.

Below the menu window you are told the leadership and staff ratings of the HQ. If the HQ commander has been incapacitated (i.e. killed, wounded or captured) then the leadership line will tell you there is a new commander. You are not told how capable he is! To issue a command to the selected HQ, type (RET).

Menu 8 (HQ Order)

This is an action menu. It is used to give the HQ its orders for the next hour.

HQs which are out of communication with the Army HQ will only be able to access the <MAP WALK> line in the menu. A message in the menu box will inform you that the HQ is out of command. HQs which are in communication with the Army HQ will have access to the full range of options in the menu. There are three command types, the effects of which are explained below. Note that the chosen command type will have an effect on both communications and combat.

The Offensive Command. An offensive command allows the Army

commander to select either a friendly or enemy controlled objective as the destination for the HQ. Furthermore, an additional objective may be specified to define the route of march.

Position the cursor on the <OFFENSIVE> line and type (RET). You can use the arrow keys or the name routine to locate the chosen objective. Type (RET) to accept the objective. When issuing this command, you must specify the manoeuvre point as the first objective and the intended destination as the second objective. If you don't need to include a manoeuvre point, you must type (RET) twice. Once you have completed this routine, you are returned to Menu 7.

A corps HQ which has been given this command will check its subordinate formations and, where necessary, amend their orders to comply with the new command. How quickly this happens; indeed, whether it happens at all will depend on the leadership rating of the corps HQ. The corps HQ itself will accompany one of its subordinates. Note that the HQ icon is not allowed to enter enemy controlled territory. Remember that to supersede the authority of a corps HQ over its subordinates, you will have to select that corps HQ from Menu 5 and wait until you are adjacent to it.

A division HQ which has been given this command will execute it as soon as conditions allow. A poor division commander may take longer to obey his command than a capable officer. A division in contact with the enemy may take some time to disengage.

Once a formation reaches its destination it will 'listen' and look for enemy units. Should any be detected within 5 hexes, then the formation will march to engage them; i.e. they will march to the sound of the guns. Note that formations subordinate to a corps HQ may not all take exactly the same route as specified for the corps HQ nor will they all select the same objective; they will not, however, stray very far away. If there are no visible or audible enemy, then the formation will deploy to defend its objective(s).

Do not attempt a major redeployment of engaged troops. You will almost certainly end up with a disaster.

The Defensive Command. A defensive command allows the Army commander to select a friendly controlled objective as the destination for the HQ. You will not have access to enemy controlled objectives.

Position the cursor on the <DEFENSIVE> line and type (RET). You can use the arrow keys or the name routine to locate the chosen objective. Type (RET) to accept the objective. Once

you have completed this routine, you are returned to Menu 7. The command is implemented much the same as the offensive command except that formations which have reached their destination will not march to the sound of the guns but will deploy and defend their objective. There is always a small chance that a commander who is out of communication with his superior will spontaneously decide to march to the sound of the guns.

The Reserve Command. A reserve command instructs the subordinate HQ to withdraw from action and rest or simply to wait in place until the appropriate time for its employment. A corps HQ with a reserve command will usually call off any attacks made by its subordinates. Offensive commands will be changed to defensive or reserve commands depending on circumstances.

A division HQ will instruct its component brigades to withdraw from action where applicable and to recover lost cohesion. Brigade responses are covered in the notes accompanying the description of Menus 10 and 11.

Note that cavalry formations will generally continue in a screening role until a deterioration in their own condition compels a withdrawal.

Do not confuse the HQ reserve command with the brigade reserve order. They are quite different.

Special Note. On the first am turn of any day after the first day of a battle, you may be allowed access to all the corps and division HQs subordinate to the army HQ. See the note in Chapter 6 for more details.

Menu 9 (Brigade Select)

This is an information menu. Brigades are the combat units in the game. All of the actual fighting is done by them. The orders which they can be given are generally dependent upon their current circumstances. The information given here on each brigade is exactly the same as you see when you access the brigade through the <MAP WALK> routine. Use the arrow keys to cycle through the brigades.

When the <RADIO> flag is set for a scenario, all brigades can be accessed by the army HQ from this menu. When the flag is not used (thus recreating a more authentic nineteenth century battlefield), only certain brigades can be accessed by the army HQ through this menu.

These brigades are: all brigades which are directly attached to the army HQ and which are in communication (including brigades directly attached to a corps which is being temporarily superseded by the army HQ); all brigades within 4 hexes of the army HQ which are in communication, no matter

to whom they are subordinated.

Note that those brigades within four hexes which are subordinated to a corps or division HQ will display the order which their commander has chosen for them this turn. You may override the order if you wish.

Independent brigades attached directly to the army HQ which are out of communication cannot be accessed at all and you will have to rely on their commanders to do the right thing. Note that you may always access every brigade through the <MAP WALK> routine; you just won't be able to tell it to do anything.

Once you have selected the brigade you wish to assign an order to, type (RET) to bring up the brigade order menu. There are two distinct brigade order menus. Which one you get is determined by your proximity to enemy units.

A brigade adjacent to an enemy brigade will always use the engaged order menu. A brigade within two hexes of an enemy brigade will generally use the engaged order menu. The exceptions are when a river, bridge or ford intervenes, when the friendly brigade is unsighted or when a prohibited hex intervenes. A brigade more than two hexes away from all enemy brigades will always use the manoeuvre order menu. An engaged brigade is distinguished on the screen from a manoeuvre brigade by the fact that the intended target of the engaged brigade is identified by the battle cursor.

Menu 10 (Engaged Order)

This is an action menu. The engaged order menu appears at the bottom of the information panel. Some of the information concerning the brigade has changed.

The top four lines show the type of enemy unit targeted, whether it is in column or line formation (mounted/dismounted for cavalry, limbered/unlimbered for artillery) and whether it is steady or shaken. A brigade will be shaken if its cohesion is less than 4 unless it is in a fortification.

The four status icons and the brigade ID do not change. There is some additional information concerning the equipment of the brigade. You are told both the type of small arms and the type of artillery used by the brigade.

The <MAP WALK> routine is identical to the routine available through Menu 2. Below the <MAP WALK> line are the four options available to an engaged brigade.

Note that a surprised brigade will have these options replaced with a message that informs him of his bad luck.

Only brigades moving in column can be surprised. Brigades

which are encamped are always considered to be in column for this purpose.

To select an option, position the cursor on the appropriate line and type (RET). You will be returned directly to Menu 9. The four options are.

Assault. This option is available to all brigades adjacent to their targeted enemy opponent unless a river hex-side intervenes. It is a full-scale brigade charge combined with a volley of musketry. The targeted enemy brigade will almost always fire before the charge goes in so that a well positioned, determined defender is very difficult to dislodge on a one-on-one basis. If you are not adjacent to your opponent, you will be denied access to the <ASSAULT> line.

Skirmish. This option is always available when the enemy brigade is two hexes away. It may or may not be available when the enemy brigade is adjacent. Your brigade is told to stand and fire at its opponent when he is adjacent or to send a couple of regiments forward to harass your opponent if he is two hexes distant.

This is the order which gives you the best chance to fire first, particularly if you did not move in the previous turn. The artillery component of a brigade cannot fire if the brigade moved in the previous turn unless the brigade is cavalry.

If you are adjacent to your opponent, not in a fortification, not separated by a bridge, ford or river hex-side and the combined cover values of your hex and your opponent's hex are less than 4, you will be denied access to the <SKIRMISH> line.

Advance. This option is always available when the enemy brigade is two hexes away. It is also available when your opponent is adjacent and separated from you by a river hex-side. Where possible, the order will move you adjacent to your opponent. The brigade will deliver a volley of musketry but generally not until all stationary brigades have fired first. Use this order to get into position to deliver an assault.

Withdraw. This is the only option which is always available to an engaged brigade, regardless of whether it is one or two hexes away. The brigade will attempt to move out of contact with both its opponent and any other enemy present. A cavalry brigade given a withdraw order will fight as though it had a skirmish order but move as though it had a withdraw order.

Menu 11 (Manoeuvre Order)

This is an action menu. The manoeuvre order menu appears at the bottom of the information panel. Some of the information concerning the brigade has changed.

The information above the brigade ID does not change. Below the brigade ID you are told whether the brigade is in line or column (mounted/dismounted for cavalry, limbered/unlimbered for artillery), its size and artillery strength, the number of movement points available for the coming turn and the maximum number of hexes it may move regardless of its MP allowance.

The <MAP WALK> routine is identical to the routine available through Menu 2. Below the <MAP WALK> line are the six options available to a manoeuvre brigade. Note that a manoeuvre brigade cannot be surprised.

Column/Objective. A brigade attached to a division will display the <COLUMN> line, a brigade attached to a corps or army HQ will display the <OBJECTIVE> line.

This means that a brigade attached to a division cannot be given a separate objective; placing it in column will direct it to the current objective of its division HQ. An independent brigade may be given a separate objective.

Position the cursor on the <COLUMN> line and type (RET). You will be returned directly to Menu 9. Position the cursor on the <OBJECTIVE> line and type (RET). The cursor will move to the map and centre on the brigade's last objective. If there is no last objective, the cursor will centre on the nearest objective. Use the arrow keys or the name routine to locate the chosen objective and type (RET). You will be returned directly to Menu 9.

Deploy. This order allows the commander a one hex radius in which to reposition the brigade. Position the cursor on the <DEPLOY> line and type (RET). The cursor will move to the map and centre on the brigade. The brigade icon will flash alternately with an indicator icon to show the direction the brigade will move in.

Use the arrow keys to redirect the indicator icon and type (RET) when it is facing in the chosen direction. Once a direction has been chosen, the indicator icon will disappear to be replaced with an action icon over the chosen hex. In the ensuing turn, the brigade will move into the hex identified by the action icon.

Regroup. A brigade with a regroup order will attempt to move as quickly as possible to its superior HQ. Position the cursor over the <REGROUP> line and type (RET). You will be returned directly to Menu 9. A brigade to which the division

HQ is attached cannot regroup; rather it will act as the locus for regrouping by other brigades in the division.
Stand. A brigade with a stand order will stay exactly where it is. Position the cursor over the <STAND> line and type (RET). You will be returned directly to Menu 9.

Reserve. A brigade must be in reserve to recover lost cohesion. Never miss an opportunity to put a brigade into reserve if its cohesion is fair or worse. Position the cursor over the <RESERVE> line and type (RET). You will be returned directly to Menu 9. Brigades in reserve will not move and are automatically surprised if they enter the engaged order routines. Shattered brigades cannot go into reserve if their cohesion is 4 or greater. Other brigades cannot go into reserve if their cohesion is 6 or greater. Brigades with objective/column or regroup orders will move in column (mounted for cavalry, unlimbered for artillery). If they are forced into the engaged order routines while they have these orders, there is a chance they may be surprised. The higher the leadership and experience, the lower the chance of being surprised. A surprised brigade is considered to have had insufficient time to deploy for combat and suffers accordingly.

Battlefield entrenchments can be dug by certain infantry brigades. A side must be specified in the briefing setup as capable of entrenchment. If this is the case, then infantry brigades which do not move or fire in a particular turn may dig a battlefield entrenchment. The entrenchment will disappear as soon as the brigade leaves the hex or is given an assault order. Shattered brigades will not benefit from entrenchments. Battlefield entrenchments are treated as fortifications with a value ranging from 1 - 3.

Menu 12 (Options)

There are five options available.

The <RESULTS> line will tell you the final score if the scenario were to end at this point. Hit any key to return to the options menu.

The <ADVICE> line will display a couple of paragraphs of handy hints for the scenario. Hit any key to return to the options menu.

The <RESIGN> line operates as explained in Menu 2.

The <SOUND> line toggles the sound on/off.

The <AUTO SAVE> line activates the Auto Save feature. When Auto Save is on, the scenario in play will be saved at the end of each turn. Only one file is maintained and it is overwritten each turn with the current turn. This file can be

loaded using the <LOAD AUTO> line in Start Menu C.

4. THE GAME SYSTEMS

The major systems which operate within the game are sighting (visibility), communications, combat, cohesion and manoeuvre. There is quite a bit of inter-relation between these systems but for ease of clarification they have been discussed separately.

To play the game, all you need to know is what the menus do and how to use them. To understand what is going on behind the scenes and to play the game well, you should read this chapter carefully.

Sighting

After a couple of introductory games, most people will want to play the game with the <EXPOSED> flag switched off. Not knowing where all your opponent's troops are, not knowing how many he has, add a completely new dimension to the play of the game.

The sighting rules work like this. There are two mechanisms by which a unit may be sighted. The first is by the eyeball contact of a friendly unit, the second is by a patrol picket represented in the game by the hex control icons you can observe in the <MAP WALK> routine.

Each terrain type on the map has a cover value assigned to it. These values can be found from the <MAP WALK> routine. The computer sums the cover values between each friendly unit and every enemy unit within five hexes, including both the hex occupied by the friendly unit and the hex occupied by the enemy unit.

The sighting value is increased by 4-15 points for each of the following conditions which apply; overcast, rain, snow, dawn, dusk, night, heavy fog and light fog.

The sighting value is increased by 8 for each intervening hex. A random number of 0-7 is added. If the final sighting value is less than 56, the enemy unit is sighted.

Furthermore, the maximum sighting range at night or in heavy fog is one hex. As you can see, it is possible for a unit which sights an enemy unit to remain undetected by that enemy unit!

A sighting check is made at the end of each turn and all units which have been sighted by this mechanism are so flagged and become visible on the map.

The second mechanism for sighting has nothing to do with enemy units or terrain type. Whenever a friendly unit moves adjacent to an enemy control icon, it is flagged as picketed

and immediately becomes visible on the screen. Simultaneously with this, as the friendly unit moves across the map, it switches the control icon of every hex adjacent to its path except hexes across a river, bridge or ford hex-side and hexes adjacent to an enemy unit. For example, you would only see the first unit of a column of troops moving along a road which was enemy controlled at the start of the turn. It would be up to you to decide if the force was a single brigade or a whole corps!

A picket check is made every time a unit moves and the picket flag is set as soon as a positive result is triggered.

At the beginning of each turn, the sighting status of all units is updated. All units with the picketed flag set become unsighted. All units with the sighting flag set become picketed.

Communications

When you play the game with the <RADIO> flag set, there is no need to worry about communications at all. You are always in control of every HQ and brigade in your force. Again, however, after you have played a couple of games, you will want to experience a more authentic battle environment. Switching the <RADIO> flag off will introduce you to the frustrations and challenges of the pre-twentieth century battlefield. With both the <RADIO> and <EXPOSED> flags switched off, you can be sure of a very exciting experience.

At the beginning of each turn, every brigade and HQ on the board except for the army HQ makes a check with its superior formation. As a result of this check, every brigade and HQ will be either in communication or out of communication. Army HQs are always considered in communication. Troops yet to arrive on the battlefield are always out of communication.

Whether a brigade or HQ is in communication or out of communication is displayed in its status report as described in Menus 7 and 9.

The mechanism by which this judgement is made is as follows. The distance between the unit and its superior unit is measured in hexes and cross-referenced to the communications table. The number obtained is the base chance measured against a random 15 (i.e. a number between 0 and 15) that the unit will be in communication.

There are several variables which modify the base chance before it is checked against the random number. Note that the base chance can never fall below 0; i.e. there is always

at least 1 chance in 16 that a unit will be in communication.

Time of Day. Night (-4), dawn, dusk (-2).

Weather. Rain, snow, heavy fog (-3), drizzle, light fog (-1).

Staff Rating. Add the staff value of the testing unit's HQ.

Corps Modifiers. Infantry corps (0), cavalry corps (+4)

Division Modifiers. Infantry division (0), cavalry division (+6), army HQ (+2), corps HQ (0).

Brigade Modifiers. Infantry brigade (0), mounted infantry, artillery brigade (+6), cavalry brigade (+8), army HQ (+2), corps HQ (1), division HQ (0).

Miscellaneous Modifiers. For army HQs: -2 if enemy brigade within 4 hexes, -1 if moved last turn, -3 if heroic, -1 if bold; for corps HQs: -1 if enemy brigade within three hexes, -1 if offensive command.

First am Turn Provisions

On the first move turn of each day after the first day of the battle, there may be a special opportunity to issue commands to corps and division HQs. If there have been 6 consecutive no move turns (i.e. the move value in the briefing routine is set to 0, then an army HQ will be allowed access to all on-map HQs for command purposes. This is to simulate the nightly briefing which would (should) have occurred.

An army commander will have the most control over his forces when his army HQ is not engaged, is stationary and the weather is good. The more you move around, the more closely you get involved in the action, then the more tenuous will be your control over your troops.

You must strike the right balance between committing yourself personally and directing your army efficiently. The player who does this consistently better than his opponent will win.

Combat

After you have issued commands and orders to your troops, the first on-screen events you will witness after selecting the <RUN 5> line are the combat reports. The target unit of each battle is identified by the action icon and all brigades attacking it are identified by indicator icons.

The information panel describes the battle represented on-screen by the combat icons. The attacker's information always appears above the defender's information.

The combined strength of all attacking brigades is shown

together with the defending brigade's strength. The combat result is shown as a number of hits and a cohesion loss. The relationship between hits and cohesion is detailed later in this section and an explanation of cohesion provided in a later section. Leaders may be killed, wounded or captured. Firstly, you need to know who fights who, in what order these fights are carried out and what factors are used to calculate fire and melee values.

Target Selection. Only brigades select targets. Brigades and HQs may be selected as targets. Each brigade must select one eligible enemy unit within its range as its target. Target selecting priorities are as follows. Note that occasionally they will be violated to reflect the uncertainty of war.

Each brigade will select the closest enemy brigade.

Each brigade will select an untargeted enemy brigade in preference to an already targeted enemy brigade.

Each brigade will select a deployed enemy brigade in preference to an enemy brigade in column.

Obviously, this routine is used only when there is more than one potential target.

In summary, this means that adjacent enemy units will almost always be chosen in preference to more distant enemy units and that multiple brigades cannot gang up on a single brigade unless it is alone.

Sequence of Attack. Each brigade fires and/or melees separately. For convenience of combat reporting, however, all attacks against a single unit are displayed as a combined attack. The screen would look too messy if we did it any other way. We tried several display systems. What we ended up with is by far the best. There is no distinction between sides in these combat routines.

Not every brigade which selected an opponent in the target selection routine is actually eligible to attack. Artillery brigades which moved in the preceding turn cannot fire. Similarly, the artillery component of non-artillery brigades which moved last turn will not contribute to their brigade's fire value unless the brigade type is cavalry.

All other attacking brigades fall into one of four categories. All brigades within one category will attack before any brigades in subsequent categories will attack. Within a category, every brigade consults a formula to determine the order of attack.

The four categories are.

(i). Infantry and mounted infantry in line, dismounted cavalry (unless with assault orders) and unlimbered artillery which did not move in the preceding turn.

- (ii). Infantry and mounted infantry in line, dismounted cavalry (unless with assault orders) and unlimbered artillery which did move in the preceding turn.
- (iii). Infantry, mounted infantry and cavalry which has been surprised (i.e. in column).
- (iv). Cavalry with assault orders. For game purposes, this is considered to be a cavalry charge. Note that any brigade with a small arms type which has a range of 0 also fits into this category. There are no such unit types in Civil War battles. A Zulu impi, for example, would have a small arms type with 0 range.

Within each category, the mechanism used to determine the sequence of attack is calculated from the following formula.
 Cohesion + 0.5 (lead. + exp.) + brigade type + brigade order + rnd (3)

Where brigade type is artillery (+4), all others (0) and brigade order is skirmish (+6), assault or advance (+2), withdraw (0). Note that a cavalry brigade with a withdraw order is treated as though it had a skirmish order for the purpose of determining the sequence of attack.

In summary, every attacking brigade has been assigned a position in the firing order. Properly deployed, prepared troops will generally fire first. And, as you will see from the firing mechanics, firing first is a tremendous advantage.

The Fire Value. Each brigade determines its fire/melee value according to the following data.

- (i). Artillery Brigades
 - (a). Add all battery strength points
 - (b). Add 1 for each point of experience above 4
 - (c). Add 1 for each point of leadership above 4
 - (d). Add rate of fire value
 - (e). Add effectiveness value (if opponent is adjacent)
 - (f). Add penetration value (if opponent is not adjacent)
 - (g). Subtract 2 for every intervening hex
 - (h). Subtract half of the cover value of the firer's hex (unless in a fortification)
 - (i). Subtract the cover value of the target's hex (unless in a fortification or the target has an assault order)
 - (j). Subtract twice the fortification value of the target's hex (unless the target has an assault order)

All artillery brigades have a maximum fire value of 6 in rain, snow, heavy fog or at night. Artillery brigades with a withdraw order may not have a fire value greater than 8.

The fire value of the artillery component of other brigade types is calculated in the same way.

(ii). Infantry, Mounted Infantry and Cavalry Brigades

Note that cavalry brigades with assault orders and all brigades with a small arms range of 0 are treated differently.

(a). Add all of the first 8 strength points, half of the next 8 strength points and one quarter of the remaining strength points

(b). Add 1 for each point of experience above 4

(c). Add 1 for each point of leadership above 4

(d). Add 1 for every regiment in the brigade above 4

(e). Add fire value of the small arms type

(f). Add twice the melee value of small arms type (if order is assault)

(g). Subtract half of the cover value of the firer's hex (unless in a fortification)

(h). Subtract the cover value of the target's hex (unless in a fortification or the target has an assault order)

(i). Subtract twice the fortification value of the target's hex (unless the target has an assault order)

Surprised brigades cannot have a fire value greater than 2.

Brigades with a withdraw order cannot have a fire value greater than 8. Note that cavalry brigades with a withdraw order are treated as though they had a skirmish order.

Brigades with a small arms range of 0 cannot have a fire value greater than 2. Brigades have a maximum fire value of 6 in rain, snow, heavy fog or at night. Brigades firing at a non adjacent opponent have their fire value reduced to 25%.

(iii). Cavalry Brigades with Assault Orders

This group includes all brigades with a small arms range of 0 who are assaulting.

(a). Add all strength points

(b). Add 1 for each point of experience above 4

(c). Add 1 for each point of leadership above 4

(d). Add 1 for every regiment in the brigade above 4

(e). Add twice the melee value of small arms type (if current order is assault)

(h). Subtract twice the cover value of the target's hex (unless in a fortification or the target has an assault order)

(i). Subtract three times the fortification value of the target's hex (unless the target has an assault order)

Brigades have their fire/melee value reduced by 50% in rain, snow, heavy fog or at night.

As a final modifier, the current cohesion rating of a brigade affects its fire value. Cohesion value 6 or 7 = no effect, 4 or 5 = 75%, 2 or 3 = 50%, 1 = no fire value.

All brigades with an assault order are eligible to receive a combat bonus if a heroic army commander is within four hexes. This bonus can be as much as 50% again of the brigade's fire value.

The fire value is the principal factor used in calculating how much cohesion a brigade loses as a result of being fired upon. Cohesion is explained in the following section.

Cohesion

The gradual reduction in a brigade's fighting ability throughout the game is measured through a fluctuating Cohesion Value. The cohesion value is decreased as a consequence of taking losses from combat. The cohesion value can only be increased while a brigade is in reserve.

As soon as a brigade's cohesion value drops to 0, then the brigade is removed from play.

As soon as a brigade's cohesion value drops to 2, it shatters. There is no additional effect when a shattered brigade's cohesion value drops to 2.

If the shatter flag in the brigade creation screen is set to 1, then the brigade begins the game in a shattered condition. If the flag is set to 0, then the brigade begins the game in a normal condition.

A normal brigade may recover to a cohesion value of 6. A shattered brigade may recover to a cohesion value of 4. During night turns, normal brigades may sometimes recover to a cohesion rating of 7, shattered brigades may reach a cohesion rating of 5.

A brigade's cohesion value can only drop as a consequence of sustaining casualties in combat. Each time a brigade is a target for enemy fire, it immediately checks to see if a cohesion value loss has occurred. This loss is implemented immediately.

The procedure for calculating a brigade's cohesion value loss is given below. Note that HQs do not have a vulnerability value. If they are subject to enemy fire, they make an automatic retreat of 2-4 hexes.

Step One. Calculate the target's vulnerability value using the following formula.

Current Cohesion + 0.5 (lead. + exp.) + brigade type + brigade size + rnd 3

where brigade type is artillery (8), infantry (6), mounted infantry, cavalry (4), all surprised brigades, all reserve

brigades (0) and brigade size is 1-4 SPs (0), 5-8 SPs (1), 9-16 SPs (3), 17+ SPs (6).

Step Two. Compare the fire value with the vulnerability value to obtain the number of hits scored. Table 2 gives the details.

Each hit scored is one random (1) chance of causing a cohesion loss except against a brigade with a withdraw order or a brigade with the encamped flag set. In the former case it is one random (3) chance of causing a cohesion loss and in the latter case it is an automatic loss of one cohesion point.

Step Three. At the completion of all combat, each brigade fired on makes a cohesion check to see if its current orders are over-ridden. The test is:

Current Cohesion + 0.5 (lead. + exp.) + fortification value + tactical factor + confidence factor + command factor + current order + previous turn + rnd 7

where tactical factor is fired at through frontal hex-sides (4), enfiladed (0), the confidence factor is the number of friendly brigades within three hexes minus the number of enemy brigades within 2 hexes, the command factor is heroic army leader in range (3), bold army leader in range (2), sensible army leader in range (1), cautious army leader in range (0), current order is assault (2), withdraw (-2).

Note that an account is also made for events which occurred in the previous turn. Friendly brigades within four hexes and enemy brigades within 3 hexes may have an affect. Subtract 1 for each friendly brigade which retreated, 3 for each friendly brigade which shattered and 7 for each friendly brigade which was KIA'd. Add 2 for each enemy brigade either retreated, shattered or KIA'd.

The maximum negative value of this variable is -7. There is no limit as to how large it may be. Finally, the effect of a KIA'd brigade may persist for up to two turns.

- (a). If this value is 0 - 6, then a shattered brigade is eliminated, all other brigades become shattered and flee 3-4 hexes to the rear.
- (b). If this value is 7 - 10, then the brigade shatters and flees 3-4 hexes to the rear.
- (c). If this value is 11 - 15, then brigade retreats 1-2 hexes to the rear.
- (d). If this value is 16+, then there is no effect.

Remember that independent of these results, as soon as a brigade's cohesion value drops to 2 it will shatter and as soon as it drops to 0 it will disappear (KIA) for the rest of the game.

Manoeuvre

Once the last combat report has been displayed, the movement routines are activated. The computer determines in which order the units will move. This is based on staff, experience, leadership, cohesion, current order and a small random component. If necessary, the movement routine will be divided into a series of pulses. This is to ensure that every unit has the maximum opportunity to complete its movement without being blocked by friendly units.

The menu window will display the word <running> throughout the duration of the movement routines. The screen will centre on each unit as it moves. Note that there will be no indication of the movement of unsighted units. The number of movement points available to a unit can be reduced by any of the following; bad weather, time of day, low cohesion, poor leadership or just plain bad luck. Units out of communication are more likely to lose MPs.

6. WINNING THE GAME

The game will end with the completion of the movement routine on the last turn. The victory screen will appear and summarise the players' performance.

Additionally, players may elect to end the game at any time by selecting the <RESIGN> line from Menu 2. If this is done, victory points will be displayed as though the game was scheduled to end on that turn.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
SCENARIOS (VOL I)

There are 6 scenarios included with the Decisive Battles of the American Civil War Vol I game. The First Bull Run scenario (#1) is the tutorial and is highly recommended for beginners. In order of increasing complexity, the other scenarios are Shiloh (#2), Fredericksburg (#5), Second Bull Run (#3), Antietam (#4) and Chancellorsville (#6).

Each scenario is accompanied by a short historical briefing, a situation map an order of battle, player's notes and scenario variants.

Before playing a scenario, we recommend you read all the notes and examine the situation map.

1. THE BATTLE OF FIRST BULL RUN

July 21st, 1861

The first major battle of the Civil War was fought at Bull Run, near Manassas railway junction (after which the battle is sometimes named). The armies involved were not large by Civil War standards. On the Union side, led by Brigadier-General Irvin McDowell, were approximately 30,000 men divided into four divisions under Tyler, Hunter, Heintzelman and Miles. On the Confederate side, led by Brigadier-General Pierre Gustav Toutant Beauregard, was a similar number of troops divided into thirteen infantry brigades under Bonham, Ewell, Jones, Longstreet, Cocke, Early, Holmes, Kershaw, Evans, Jackson, Bartow, Bee and Smith and one cavalry brigade under Stuart. Few of the troops on either side had been in battle before.

Each general had planned a turning movement on the right flank but confusion in the orders meant that the Confederate attack did not develop properly and it was on Beauregard's left flank that the battle was mostly fought. McDowell's plan involved a feint by Tyler's division at the stone bridge and a further feint by a brigade of Miles' reserve division at Blackburn's ford. Simultaneously, Hunter's and Heintzelman's divisions would attack from the north, having crossed Bull Run at Sudley Springs.

McDowell had allowed for the difficulties of moving his inexperienced troops into position by starting the flanking movement at 2.00 am but even so they did not reach Sudley Springs until 9.30, some two and a half hours late. By this time the false attacks at the stone bridge and Blackburn's ford had been underway for some hours and Beauregard was

becoming highly suspicious at their lack of progress. When he received a message that troops were crossing the Bull Run at Sudley Springs he knew at once that this must be the main attack and moved accordingly.

McDowell had about 18,000 men in his attacking force and Beauregard was obliged to feed in troops piece-meal and several times the defence nearly broke. He was aided by men like Evans and Bee who moved in their brigades on their own initiative and by the staunchness of Jackson's Virginians.

Bee's rallying cry "There is Jackson standing like a stone wall", was the origin of Jackson's famous nickname.

By about 3.30 pm his line was not only solid, it overlapped the Union lines on their right flank and he gave the orders for an attack. The green Union troops gave back, at first in a fairly ordered retreat, but as the pressure continued cries of "Betrayal!" broke out and they panicked and ran. The equally green Confederate troops, however, were too disorganised to follow up and the Union army retreated safely to Washington. Casualties were about 2,000 Confederate to 3,000 Union.

PLAYER'S NOTES

UNION. The only thing wrong with the Union plan in this scenario is that your men are not experienced enough to implement it! Command delays will prevent you from reaching New Market in time to set up a solid line of defence. You can expect next to no control over the brigades near Centreville. Do not be tempted to commit your troops piecemeal. It is better to forgo a little ground if it allows you to make a co-ordinated attack.

Your chance of victory improves markedly if you play with the radio flag on.

CONFEDERATE. Your troops are not much better than your opponent's; it's just that you have less distance to cover to reach the likely battlefield. With no corps or division subordination, you must keep your Army HQ within 4 hexes of the main battle area and take your chances that you will keep enough control over your other brigades to hold onto the major Bull Run crossing points.

Form a steady line just south of New Market and let the Federals move against you. If nothing untoward occurs, you should have enough men to beat them back. If you play with the radio flag on, you can experiment with a push to Centreville from the south.

SCENARIO VARIANT

(a). The Federals were completely surprised to find the brigades of Jackson, Bartow, Bee and Smith on the battlefield; they had freshly railed in from the Shenandoah. In fact, troops were still debarking after midday! You can remove these brigades completely from the data base or better still give each an arrival turn of 1, 2, 3 or 4 and set a likelihood value for each of 4 or 5. As you will see, the Civil War very nearly got off to a completely different start.

2. THE BATTLE OF SHILOH

April 6th-7th, 1862

The battle fought between Shiloh Church and the Pittsburg Landing on the Tennessee River was initiated by Confederate Generals Johnston and Beauregard in an attempt to catch the Union Armies divided. Ulysses S. Grant, Halleck's second in command, was camped on the Tennessee with 40,000 men in six divisions. He was awaiting the arrival of Buell's Corps with a further 20,000 men. The Confederate forces also numbered 40,000 and were divided into four corps together with Forest's cavalry brigade. As Grant's flanks were protected there was no alternative but a frontal attack. Johnston and Beauregard relied on surprise to tip the balance in their favour.

Setting out from Corinth on 3rd April, Johnston planned to attack on 4th but the inexperience of his marchers and the difficult wooded terrain meant that his troops were not in position until the evening of the 5th. By this stage, Beauregard wanted to call the whole thing off, convinced that surprise had been lost. He was wrong, but he should have been right. The men blundered along with all sorts of noise and inefficiency. Grant, however, was convinced that his enemy would not leave Corinth and ignored all indications to the contrary.

When the attack came on the morning of the 6th, therefore, Grant's army was still cooking its breakfast. Prentiss and Sherman were nearest to the point of attack and both abandoned their coffee rapidly. Nevertheless they managed to form a rough line and McClernand came up to fill the gap between them. Although many of the troops were green, most of them held to their guns, giving way only under heavy pressure. Prentiss was making a stand in the natural shallow trench of a sunken road, soon to become known as the "Hornets' Nest". As the day wore on he held his position against twelve assaults and two hours of point-blank

cannonade from 62 guns. Finally, outflanked and surrounded he surrendered at 5.30 pm, his entire division killed, wounded or captured.

His stand had given Grant what he needed, which was time. Lew Wallace's division was camped some five miles away and Nelson's division of Buell's Corps was somewhere across the river and he sent out urgent messages hurrying them on. In the event neither arrived in time to fight that day but Grant managed to hold a line about one and a half miles back from his starting position. The Confederate attack became disjointed as units became mixed in the rough, wooded terrain. Matters were not helped much by the death of Albert Sidney Johnston who bled to death from a severed femoral artery.

Beauregard had received a false report that Buell was moving towards Decatur so he made no effort to withdraw overnight. Although he did not realise it, his position was hopeless. Grant had more than 20,000 fresh troops and outnumbered his opponent significantly. The Union attack initially took the Confederate troops by surprise and they gave ground but Beauregard was able to make an orderly withdrawal. Casualties on both sides were high: 13,047 Union and 10,694 Confederate, almost one quarter of the troops involved, figures which shocked both sides. There were cries for Grant's dismissal but the pragmatic Lincoln refused. "I can't spare this man" he said "He fights." Each side claimed some sort of victory but the strategic advantage was definitely with the Union for the South was never again strong enough to re-take Western Tennessee.

PLAYER'S NOTES

UNION. Your Army HQ does not arrive until turn 3 which is probably for the best since your sleepy, front line troops are getting pounded by the Rebs just as you arrive at Pittsburg Landing. You must try to stem the rout. Cloud field is a good place to set up a solid line of defence. Wheel your artillery batteries into position here. Your objective on the first day is to hang onto the vital landing so that Buell's men can reinforce you on the second day. The Rebs will run out of puff if they don't capture the Landing and you can expect to take back most of the lost ground by game's end.

CONFEDERATE. Johnston and Beauregard have deployed for an all-or-nothing assault against an unprepared enemy. Hit the forward Federal brigades as hard as you can while they are

still encamped. You can expect to destroy 3 to 6 units this way. Keep on the move with the aim of preventing Grant from establishing a solid line. If the Federals firm up too soon (and too far away from the Landing), you will find it heavy going to reach the Tennessee. By late afternoon, reinforcing Federals will have evened up the forces and your own men will be exhausted. Don't throw tired men against fresh troops!

If you're close to the Landing on the morning of the second day, you can try one more assault. Otherwise, dig in and delay the Federal counter-attack as long as possible.

SCENARIO VARIANT

(a). General Earl van Dorn and his Army of the Trans-Mississippi was supposed to meet up with Johnston's Army of the Mississippi at Corinth by the end of March, 1862. As events turned out, van Dorn was "foiled" in northern Arkansas near Pea Ridge so that he never made the rendezvous. Let's assume he arrived on the battlefield on the evening of the 6th and his troops were ready for action on the morning of the 7th. To add Van Dorn's troops to the data base will require the addition of 1 corps HQ (#5), 2 divisions (#5-6) and 6 brigades (#19-24). The division and brigade data can be found in the accompanying tables. The corps HQ data is as follows (Van Dorn) (3) (16) (0) (14) (0) (4) (13) (9) (0) (3) (2) (2) (7).

IBM users will find the variant units already installed in the Shiloh data base. Their arrival times have been set to 95 to deactivate them. To bring them to life, set the arrival time of Van Dorn's Corps to 14, Little, Slack and Green's brigades to 14, Hebert and McIntosh's brigades to 15 and Pike's brigade to 16.

To add a little suspense to Van Dorn's participation, assign a likelihood value of 4 or 5 to all the brigades and the corps HQ.

THE BATTLE OF SECOND BULL RUN

August 29th-30th, 1862

The second battle at Bull Run Creek occurred after several days of manoeuvre on the part of both armies. Lee turned Pope out of a strong defensive position near Sulphur Springs on the Rappahannock by sending Jackson around behind his lines to destroy his supply base at Manassas, which he burned on 27th. Pope set out in pursuit but could not find Jackson until a sharp engagement at Groveton on the evening of 28th revealed his position. Pope's army consisted of

60,000 men divided into five corps under Sigel, McDowell, Heintzelman, Porter and Reno. Lee's consisted of about 52,000 in two corps under Jackson (25,000) and, when he arrived, Longstreet (27,000).

Jackson was deployed in a NE-SW line in an unfinished railway cutting in the woods to the north of Groveton. Pope planned co-ordinated attacks on both flanks but this proved impossible as McDowell and Porter had been delayed in the darkness. However, he sent in Sigel, Reno and Heintzelman. An attack on Jackson's left flank nearly broke through but was held in some savage hand-to-hand fighting. All day, Jackson's line wavered as it was struck by repeated attacks but it never quite broke. Pope was annoyed with Porter for not attacking Jackson's right but Porter refused, saying that he was facing Longstreet and half the Confederate army. Pope did not believe him but it was true - Longstreet had arrived mid-morning, but took no part in the battle that day, being worried about reports of troops at Manassas (this turned out to have been Porter).

On the 30th, Pope, observing only a few of Jackson's troops, assumed that he was retreating and prepared to follow up. In point of fact, his own position was precarious in the extreme for Jackson had simply pulled back into the woods for a rest. With Longstreet deploying to the south, Pope was in the jaws of a "V", the apex of which was bristling with artillery. Pope took time to prepare his "pursuit" properly and it was not until mid-afternoon that the attack was launched. The canny Longstreet waited until all the reserves were committed before unleashing his artillerymen. They sent heavy, rapid fire into the flank of the advancing Union troops who fell back shattered.

At last, Longstreet sent his soldiers forward. Jackson's men, realising this, also swept forward and the jaws of the nut-cracker closed. The Union retreat, although precipitate, was a marked contrast to the retreat from 1st Bull Run, almost a year before. It lacked the overall sense of panic, and a number of fighting stands meant that the retreat was successfully carried out. Nevertheless, the casualty figures - Pope's total of killed, wounded and captured came to 18,000 compared to Lee's 9,000 - told the story.

PLAYER'S NOTES

UNION. Delays on the evening of the 28th have meant that not all of your troops are in position to assault Jackson's men, now deployed along an unfinished rail-road cut north of Groveton. It will take quite some time to get all your men

into position. Indeed, you will need three or four turns to get up to the front yourself. You may not be able to prevent your lead units from engaging the Rebs until you get there in person and deploy them out of harm's way. Only a co-ordinated attack has any hope of driving Jackson off Sudley Mountain.

Beware of Longstreet's arrival. His men begin appearing on the afternoon of the 29th. Defence in depth is the right plan for the second day.

CONFEDERATE. Tactically, the situation is pretty simple. Jackson's men are too outnumbered to consider moving away from their good position. What they must do is hold out against all attacks until Longstreet is in position to launch a counter-attack. If the Union general has been sensible and not wasted his men piecemeal, it will be a hard fight to reach the major objectives. Against a spent Federal force, however, you have a real chance of driving the foe across Bull Run for a second time.

SCENARIO VARIANT

(a). Had Pope been able to assemble his troops as intended, the going would have been much tougher for Jackson. Assume Porter and Heintzelman had moved with greater speed. Relocate all units from Porters Corps to any hex within 2 hexes of the Bethlehem Church. Relocate all units from Heintzelman's Corps to any hex within 3 hexes of New Market. Relocate pope's Army HQ to hex 14,9 (New Market). Do not change the arrival times.

THE BATTLE OF ANTIETAM

17th September, 1862

McClellan's 80,000-strong army arrived at Antietam Creek on the afternoon of 15th November to find Lee with 18,000 in a strong position in front of Sharpsburg. There was no attack on the 16th as McClellan wanted a clear look at the terrain and at Lee's dispositions before attacking, which increased Lee's numbers to 26,000 when Jackson arrived at noon. When the attack started on 17th, Lee's army was still scattered, but by the end of the day, the missing divisions of McLaws, Anderson and A. P. Hill would arrive. McClellan's plan consisted of an upstream crossing by Hooker, Sumner, Mansfield and Franklin, followed by an attack on Lee's left, where Jackson was placed and a simultaneous attack on Lee's right by Burnside against Longstreet. In the event, the attacks were not well co-ordinated.

Hooker was the first to attack and in spite of fierce resistance he pushed back the Confederate line. He was viciously counter-attacked and driven back by the men of Hood's division who, in the Dunker churchyard, had been having their first hot meal for days and were consequently furious at being interrupted. Mansfield then attacked along the same route. Mansfield himself was killed but his corps took and held a forward position just short of the church. Williams, now in command, sent for re-inforcements to exploit the position. Sumner's corps came up, but by a different route, and the lead division was caught in column on the flank by McLaws division (which had arrived earlier in the morning) and massacred.

This was basically the end of the attack on that flank, but Sumner's remaining two divisions pressed forward against D. H. Hill who was holding the centre with the newly arrived Anderson. Hill had a strong position in a sunken road but, due to a misunderstanding, the brigade on the left fell back and the others became open to enfilading fire and were also forced to retire. They were too weak to withstand an assault and Franklin, arriving with another five brigades, saw this and requested permission from Sumner to advance. But Sumner, still shaken by the mauling of his first division, refused and so, despite Franklin's pleas, did McClellan. This ended the attack in the centre.

On the south flank, Burnside had been trying all morning to get across the river by the bridge which was thereafter to bear his name. His four divisions were being held at bay by a single brigade under the command of Robert Toombs. It is perhaps typical of the unfortunate Burnside that he forgot to check the depth of the water by the bridge, which was easily wadeable. About one o'clock he finally stormed the bridge and in the face of this, and another division which had found a ford downstream, Toombs fell back. After more delays Burnside finally got the main attack underway at 3.00 pm and drove towards Sharpsburg. All was going well when A. P. Hill arrived after a forced march from Harper's Ferry. Hill's men had replaced their tattered uniforms with the neat, new blue ones they found at Harper's Ferry and this caused much confusion as they drove into Burnside's left flank. The attack, which had been just about to swamp Lee, was broken in the nick of time and driven back.

Casualties were heavy on this, the bloodiest day of the war being 11,000 Confederate and 12,000 Union. Strategically, the victory was McClellan's for Lee's position was impossible and he was obliged to retreat. Considering the

possibilities missed for a crushing victory, however, it cannot be considered anything but a tactical failure.

PLAYER'S NOTES

UNION. You are in for a day of intense frustration. You outnumber the Rebs nearly 3 to 1 yet are hamstrung by an unco-operative staff structure and some pretty dreadful corps commanders. There's no doubt you will do much better with the radio flag on! You can count on Fighting Joe Hooker to get the ball rolling in the north. In the centre there will be more reluctance. To keep Burnside moving forward you must virtually accompany him into the battle. You must somehow apply pressure all along the Confederate front to prevent them from establishing a fresh reserve. Most Reb units are very small (and therefore brittle as you will see from the explanation of the combat mechanics given in the game manual) and cannot survive more than 2 or 3 hours in battle.

CONFEDERATE. Your army is in a desperate position and by all rights should have no chance of avoiding destruction. However, you have been reprieved. Your one chance is the Union commander... McClellan. The early danger will come from the north as Hooker gets underway at first light. With normal luck you will be able to beat off his challenge before other formations get into the fight. Reinforcements begin arriving around midday and these should provide the strength to hold the centre. You must hope that Burnside cannot cross the creek until late afternoon at best when Ambrose Hill's men appear to protect the escape route across Harper's Ferry.

SCENARIO VARIANT

(a). What if McClellan had suffered a bad bout of flu on the 16th and had therefore been unable to take command during the battle? And why not make Sumner and Burnside likewise affected?

Some changes have to be made to the command structure. Begin by placing Hooker in command of the Army of the Potomac. His army HQ stats are (Hooker) (-) (Army of) (the Potomac) (15) (9) (0) (7) (1) (0) (0) (9) (4) (5) (5). Promote Meade to replace Hooker. Meade's corps stats are (Meade) (6) (2) (0) (0) (0) (6) (7) (9) (0) (4) (4) (3) (7). Promote Seymour to replace Meade. Seymour's division stats are (Seymour) (4) (0) (0) (6) (7) (4) (4). Add a new brigadier, Roberts, to replace Seymour. Other than the I.D., the brigade data is

unaltered.

Sack Sumner. Promote Sedgwick to command the corps.

Sedgwick's corps stats are (Sedgwick) (17) (9) (0) (0) (2)

(0) (0) (9) (0) (6) (4) (4) (7). Promote Howard to replace

Sedgwick. Howard's division stats are (Howard) (5) (0) (2)

(0) (0) (5) (3). Add a new brigadier, Owen, to replace

Howard. Other than the I.D., the brigade data is unaltered.

Sack Burnside. Promote Rodman to command the corps. Rodman's

corps stats are (Rodman) (13) (17) (0) (0) (2) (0) (0) (9)

(0) (4) (3) (5) (7). Promote Fairchild to replace Rodman.

Fairchild's division stats are (Fairchild) (8) (0) (1) (11)

(0) (4) (3). Add a new brigadier, Kimball, to replace

Fairchild. Other than the I.D., the brigade data is

unaltered.

Now the Union can have some fun!

THE BATTLE OF FREDERICKSBURG

13th December, 1862

Fredericksburg was Ambrose E. Burnside's only major battle as commander as the Army of the Potomac but it forms a textbook example of bad generalship. He had hoped that by crossing the river at the obvious point he would take the devious Lee by surprise, which was in itself a great piece of optimism. Nevertheless, when he discovered that Lee was ready and waiting he did not cancel his attack but went ahead, which represents optimism of a much more profound sort. His so-called plan of battle was nothing more than a direct frontal attack, uphill, against a veteran army in a heavily fortified position and it produced much the disaster that might be expected.

Lee allowed the army to cross unopposed on the 12th and it spread out on the plain south of Fredericksburg. A heavy fog covered the low ground until mid-morning of the 13th when the battle got under way. Longstreet held the Confederate left on Marye's Heights, opposed by Sumner and Hooker. Jackson held the right where the slope was much less steep and he was opposed by Franklin.

About 11.30 am the first attack went in at Marye's Heights. Longstreet had deployed in a strong, barricaded position in a sunken road and the attack was bloodily repulsed. After a pause it came back, failed, came back and then failed again without a soldier having got within 50 yards of the Confederate position. On the opposite wing, Meade's small division managed to break through the Confederate line by trudging through an unguarded bog, but they were massacred by a strong counter-attack.

After this double failure there was a pause, then about 4.00 pm Sumner and Hooker were ordered to continue the assault on Marye's Heights and three more attacks went in, with as little success as before. By 6.00 pm, well after sunset, Hooker himself finally called a halt without reference to his superior. "Finding that I had lost as many men as my orders required me to lose" he wrote sarcastically in his battle report "I suspended the attack".

Apart from some minor artillery work on the following day, that was the end of the battle. Burnside wanted to continue the assault but his subordinates persuaded him against it. The 14th was a day of truce and on the 15th Burnside retreated under cover of a storm. All Burnside had achieved was the official casualty totals of 12,653 Union to 5,309 Confederate and this latter was reduced by more than a thousand when it was discovered that many independent-minded Southern soldiers had taken advantage of the confusion to go home for Christmas.

PLAYER'S NOTES

UNION. A good sub-title for this scenario would be No Way Out. The Confederate position behind Fredericksburg is virtually impregnable and the Rebs are only slightly more vulnerable further south on the flat between Lee's Hill and Hamilton Crossing. If you discover a way to work the Rebs out of their defences and/or drive them off Marye's Heights, let me know!

CONFEDERATE. It's party time! The only danger confronting the troops defending the Stonewall is boredom; i.e. they will get tired of killing blue-bellies. It is possible to get into trouble further south if you get too reckless and expose your men on open ground. Beware of the stationary Union reserve artillery deployed on the east bank of the Rappahannock. Come within range and you'll get chewed up pretty bad.

SCENARIO VARIANT

(a). Burnside's only conceivable chance of capturing Fredericksburg would have been if he had managed to catch the Rebs by surprise. We can simulate this by making the Rebs encamped when the scenario begins. Go to the <SETUP> menu and enter a value of 1 for the South on the Encamped line.

THE BATTLE OF CHANCELLORSVILLE

2nd-4th May, 1863

In conception, and to a certain extent in execution, Chancellorsville was one of the most elegant battles of the Civil War despite being fought in an awkward tangle of vegetation known as the Wilderness. It involved three extensive turning movements with first Lee, then Hooker, then Lee again being obliged to change front and manoeuvre. Hooker's total force of 130,000 was more than twice the size of Lee's.

Despite its ignominious conclusion, Hooker's plan was excellent. Having sent his cavalry to attack Lee's communications he crossed upriver with a force of about 60,000: Couch's corps crossing at United States Ford and Slocum, Howard and Meade crossing further upstream at Kelly's Ford. Sedgwick simultaneously crossed just below Fredericksburg on pontoon bridges and established a bridgehead. On 30th April Hooker paused at Chancellorsville to order Sickles' corps to join him from the left, bringing his force to over 75,000.

Looking at Sedgwick's bridgehead, Lee guessed that the main attack would be from upstream and was obliged to leave his prepared positions, sending Jackson to re-inforce Anderson and McLaws who were holding the line there. However, on 1st May, when Union and Confederate forces marched into each other, Hooker unaccountably failed to press forward and fell back on Chancellorsville.

The following day, it was Hooker who was turned, for Jackson had taken a circuitous route south to attack Hooker's right flank near the Wilderness Church. Due to the delays of the march, Jackson was not able to attack until after 5.00 pm and while it drove the flank inwards, Hooker's army was still intact at sunset, two hours later. In a tragic accident, Jackson was wounded in the left arm by his own men, from complications of which he died a week later.

May 3rd saw Hooker's army contracting in an ever-diminishing arc, towards the U. S. Mine Ford. The withdrawal was mostly directed by Couch as Hooker had been temporarily disabled when a shell caused a section of his headquarters to descend upon him. Lee occupied Chancellorsville at about 10.00 am and was preparing a further assault when he was turned for the second time.

The cause was Sedgwick who, after hard fighting, had driven Early from Marye's Heights and was now marching towards Lee's rear. Lee was forced to send McLaws with 7,000 men to slow him down which he managed to do, holding Sedgwick east of the Salem Church overnight. In the morning Lee, realising

that Hooker had gone completely onto the defensive, left Jackson's corps (now under Stuart) to hold him and moved against Sedgwick's position. He could not shift him from Bank's Ford however, across which he escaped that night. Lee moved back against Hooker, who still outnumbered him from a strong defensive position. But Hooker's nerve had gone and he too retreated back across the Rappahannock. As he said later "For once, I lost confidence in Joe Hooker".

PLAYER'S NOTES

UNION. For the first time since Antietam, the Union has the Confederate army in a position where it can be destroyed. Your corps commanders are mostly capable and your men ready and keen to avenge the previous year's disasters. Develop a steady attack along the whole front and be ready to unleash your main attack when it becomes clear where Jackson is. You have many more men than your opponent and more than enough time to get the job done. There is a small chance that one or both sides will receive reinforcements from the east. Above all, don't emulate Hooker and hide under a tree!

CONFEDERATE. Hooker's bold manoeuvring has placed the Army of Northern Virginia in dire peril. It is in imminent danger of being crushed from east and west. The day begins with Jackson's corps moving into place for a fierce counter-attack. Whether you go ahead with this attack or otherwise, the main body will have to hold on grimly in the face of an overwhelming opponent. Should Sedgwick's men appear from the east, your doom is assured. If Early arrives first (and especially if Sedgwick doesn't arrive at all), your chances will improve considerably.

SCENARIO VARIANT

(a). Jubal Early had been given the job of screening Fredericksburg against an attempted breakout. Assume the Federals had been under the command of a less adventurous soldier and that they had stayed put in their bivouacs. Remove all of Sedgwick's troops from the data base. Change the likelihood value for all of Early's troops to 7.

Run 5 Magazine

Additional scenarios have been published in our support magazine, Run 5. Each issue contains at least two new scenarios for our various game systems as well as suggestions on game play, variations to existing scenarios, order of battle information for scenario designers, errata

(features?) and historical articles. The magazine is a very useful tool for anyone interested in getting more from their original investment in the game. Subscription details are provided on a separate enclosure.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
SCENARIOS (VOL II)

GAINES MILL

June 27th, 1862

During McClellan's retreat from Richmond, known as the Seven Days, many battles and skirmishes were fought. One of the deadliest was fought on 27th June on Turkey Hill, near Gaines Mill.

Lee had expected McClellan to make a stand along the line of Powhite Creek. A. P. Hill sent in his lead brigade against the riflemen clustered around a building known as Gaines Mill and, after a short fire-fight, the enemy retreated. Lee was just thinking that the whole exercise had been far too easy when there was the sound of heavy firing and Hill's lead brigade came back at the double. Hill brought up three more brigades and, as Longstreet was arriving on the right, sent them in again. Again, the heavy firing and again the troops came back, wild-eyed and diminished in number.

Two miles east of Gaines Mill was a creek known as Boatswain Swamp. It flowed through a clear, boggy area around the front of the flat-topped Turkey Hill. Three separate lines of infantry, one above the other, were dug in and the crest was bristling with guns. Fitz-John Porter had three divisions and orders to hold the hill while the rest of the army retreated, and he and his men were determined to do just that.

Lee ordered Longstreet to make a demonstration on the right while he found out what had happened on the opposite wing where D. H. Hill and Jackson were supposed to be attacking and drawing defenders towards them. He found that Jackson had been delayed by taking a wrong road and had ordered Hill to delay his attack also. Lee ordered Ewell to go in on A. P. Hill's left in support while he sorted things out.

A. P. Hill's men, by this time, had had enough. "You need not go in" they said to Ewell's veterans. "We are whipped; you can't do anything". The veterans, unimpressed, went in at the charge. Again, the triple line of fire and the guns roared out, and such men as were still standing promptly ran back. The only solution seemed to be a general assault, all along the line. By 5 o'clock, Lee had all his men in position in a near semi-circular arc; in order from north to south were D. H. Hill, Ewell, Jackson, A. P. Hill and Longstreet. As the attack went in Hood's Texas brigade and Law's brigade punched through into the centre.

Porter had, by this time, been re-inforced with another

division and was feeling confident. McClellan had sent orders to hold on until dark and had indicated that he would be sending reinforcements. As the massed attack came in his men fired, reloaded and fired at incredible speed. Hood's and Law's brigades lost nearly a thousand men before they even reached Boatswain Swamp but they took their losses and kept coming and as they closed to bayonet range the Union centre panicked and broke. Fourteen guns and two complete regiments were captured at the point of breakthrough.

Still, this was not the same army that had scattered at First Bull Run. In the falling dusk the retreat was made successfully, covered by 6,000 unperturbed regulars under Sykes and two fresh brigades sent in as re-inforcements. Lee had captured 22 guns, over 2,000 prisoners and had control of the field and could thus claim a victory but he had lost 8,500 men in the process. Porter, including the 2,000 prisoners, had lost 6,837 but had held his position throughout the day. It is unlikely that he was unhappy with the result.

PLAYER'S NOTES

UNION. As the Union Commander at Gaines Mill Your main decisions will be in the employment of your reserves. Superb employment of reserve brigades was the keynote in Porter's defence at Gaines Mill, to emulate his success observe Lee's attacks as they develop and have reserves in position.

CONFEDERATE. The price of victory for the South is the blood of its best men. The only way to minimise your losses is to attack quickly and efficiently. Time is the most valued asset, establish A. P. Hill and Longstreet's attack orders and, if necessary, ride North to direct Jackson's men in an attempt to flank the Federal lines.

SCENARIO VARIANTS

(1). Jackson's sluggish arrival was the primary cause of Southern problems in this battle. Assume he had arrived earlier. Subtract 2 from the arrival time of Jackson's HQ and brigades 1-14 and 27; also change their likelihoods to 6.

(2). While Porter held off the majority of the Confederate Army, McClellan's Force of nearly 60,000 men was bluffed by a diversion orchestrated by Magruder and Huger with only 25,000 troops.

Repeated requests for reinforcements by Porter were denied, with only Slocum's Division (Taylor, Barton and Newton) and the Brigades of French and Meagher being released. Had these units arrived earlier, Porter's position would have been much less desperate. To simulate an earlier arrival, change the arrival turns of brigades 64-66 to 0 and 67-68 to 1. Change

the likelihood value for brigades 67-68 to 6.

STONES RIVER (MURFREESBORO)

December 31st, 1862

On the evening of 30th December 1862, Rosecrans, advancing south-east from Nashville, met with Bragg at Stones River, in front of the town of Murfreesboro. Rosecrans had about 44,000 troops under the commands of Crittenden, Thomas and McCook. Bragg was defending with about 34,000 under the commands of Breckenridge, Polk and Hardee. Both commanders planned to attack the following morning and each had the same basic battle-plan - to attack the enemy right - but only Bragg achieved anything like his intent. Rosecrans had ordered a long line of campfires to be kindled beyond his right flank in order to trick Bragg into stripping his own right where the attack would land.

The trick worked in a sense - Bragg certainly moved troops there - but the effect was not what Rosecrans had intended. Ever methodical, he ordered his troops to attack immediately after breakfast. Bragg, however, had ordered his troops to attack before breakfast. Hardee ploughed through McCook's three divisions, caught by surprise while the coffee was still brewing. The divisions of Johnson and Davis immediately routed but Sheridan, commander of the third division, was made of sterner stuff. Polk's Corps was in the fight by now and Withers' division ran into a determined defence in a difficult tangle of rocks, scrub and trees. Three separate charges were repulsed.

Then Polk's second division, under Cheatham, arrived. Cheatham had the reputation of being the most profane man in the army. "Give 'em hell, boys!" he shouted. His corps commander was handicapped in this regard by being the Bishop of Louisiana but he was equal to the occasion. "Give them what General Cheatham says, boys!" he called. "Give 'em what General Cheatham says!" The boys did, and despite the significant amount of hell that came their way also, they forced Sheridan back.

Although the line was now bent at an angle of nearly ninety degrees, Sheridan's stand had given Rosecrans the time he needed to organise a defence. The left flank he anchored at the ford across Stones River. He then rode back and forth, directing the defence in person.

The critical point in the line was at the bend of the right angle - a four acre stand of cedars, known locally as the Round Forest and soon to be christened "Hell's Half-Acre" by the soldiers. On the high ground behind the trees, Rosecrans

concentrated his artillery. Bragg attacked repeatedly but in a piecemeal fashion, first with a Mississippi brigade, then with a Tennessee brigade, then with two brigades sent across by Breckinridge and finally with another two brigades from the source. The cotton field in front of Round Forest became a shambles of dead and dying men but the attacks could not withstand the concentrated firepower and none achieved the objective.

When the sun went down at 4.30 pm, Bragg had lost about 9,000 men but he was aware that his opponent had lost more, including over 3,000 captured in the first rush. He had achieved a decisive victory and he knew it. The only problem was, no-one had told Rosecrans.

Rosecrans certainly thought long and hard about retreat but in the end he decided to hold his position. Throughout New Year's day the two armies stared at each other while their commanders wondered what to do next.

On Jan. 2nd Bragg sent Breckinridge on an ill-advised assault against the Union right but Rosecrans had had a full day to re-organise his defences and the assault was beaten back in just over an hour, with more than 1700 casualties. The next day, Bragg received reports that his opponent was receiving new supplies and re-inforcements and he realised that he must withdraw.

Casualties for the battle had been heavy. The North had lost 13,249 (including 3717 captured) and the South 11,739 (including 2,500 captured). Tactically a bloody draw, the battle was a strategic victory for the Union. Rosecrans had taken Murfreesboro and Northern Tennessee.

SCENARIO VARIANTS

(1). Breckinridge was notified of Van Cleve's initial moves across Stones River and prepared for a Union attack. He was not told, however, of the Union Division's quick withdrawal to support Rosecrans' crumbling right flank. Consequently, Breckinridge failed to immediately comply with Bragg's orders to re-deploy across the river and support Polk. This failure is simulated in the scenario by the uncertain and late arrival of Breckinridge's corps HQ. Change the HQ arrival to 0, its likelihood to 7, and its location to 14,8 thus giving Bragg early access to this corps.

(2). Both Generals planned to attack their opponents right flank; Bragg got the jump on Rosecrans with McCown's dawn attack. The reverse could have been the case. To assume it was, re-position McCown's Division and the two Western Brigades of Cleburne's Division so they are just West and North of Hardee's HQ. Also move Wharton's cavalry south 2

hexes, Pegram's cavalry south 3 hexes. Change Breckinridge's arrival details as in Variant (1) above. For the North, Van Cleve and Wood's Divisions, with Morton's Pioneer Brigade should be deployed 1 hex distant from Breckinridge's positions, Wood on Van Cleve's right. Crittenden and his division commanders' orders must be changed to offensive, with Murfree Hill and Murfreesboro as objectives. Also move Crittenden's HQ to the East Bank.

PLAYERS NOTES

UNION. The Right flank will crumble almost immediately, stabilising it is your first priority. However, try to keep your options open with some of Crittenden's' Corps in case a quick thrust for Murfreesboro is possible later in the game; if not, a central reserve is always useful.

CONFEDERATE. As Bragg you must drive Hardee viciously into the Union right flank gaining ground before the enemy can react. Breckinridge can be moved to support Polk, or if not required, moved north to skirmish across the river at the Union left as Polk attacks.

GETTYSBURG

July 1st 3rd, 1863

The three-day battle fought at Gettysburg was not initially intended by either commander. It started when Heth (of Hill's corps) marched towards the town, intending to get shoes for his ill-shod Confederate soldiers from the Gettysburg factory. He ran into Buford with two brigades of cavalry and matters escalated from there. Two Union corps under Howard and Sickles arrived mid-morning and Heth's troops were badly cut up. More Confederate troops marched in and fighting increased. Early, marching down the Harrisburg road caught and routed Howard mid-afternoon and soon the whole Union force was in retreat. Several thousand were captured as they tried to funnel through the Gettysburg streets. Those who escaped capture rallied on Cemetery Hill, named for the cemetery on its summit.

Lee sent a message to Ewell on the left to attack the position if he thought there was a chance of success. This was the sort of message he was accustomed to send to Stonewall Jackson and it would undoubtedly have sent Jackson charging in to dislodge the badly shaken Union troops. But Jackson was two months in his grave and Ewell was uncertain and so did not attack. About 25,000 Confederate and 20,000 Union troops were involved on this first day, with casualties 8,000 and 9,000 respectively (half of the latter being prisoners).

During the night the rest of Meade's army, with the exception of Sedgwick's corps arrived and took up position. Meade was disposed on a curved ridge in the approximate shape of an inverted fish-hook with two hills, Little and Big Round Top, at the "eye". Lee's plan of attack was to feint with Ewell at the barb and attack with Longstreet at the Little Round Top end.

Little Round Top commanded the entire Union position and it was temporarily left uncovered but Brigadier General Warren, the Union army's chief engineer, acted on his own initiative to cover the hill. He was just in time, and a nasty little regimental level fight ensued, but he held on.

Longstreet had no great belief in the attack but he sent it in, from south to north: Hood at 4 pm, McLaws at 5 pm and Anderson at 6 pm. Apart from gobbling up a good proportion of two divisions unwisely posted in a forward salient the attack achieved little, which was unsurprising as by now it was 8 brigades attacking 22 in a solid defensive position. Sedgwick had arrived while the attack was in progress and was added to the defence.

At the other end of the line, Johnston and Early attacked at 7 pm and 8 pm respectively. They were not particularly successful either, although Early did manage to effect a lodgement on the point of the hook. By now Meade had his army together and had 80,000 men and 354 guns against Lee's 50,000 and 272.

The morning of the third day saw heavy fighting in the north where Ewell was lodged. The fight swayed to and fro but the Confederate troops were driven off by mid-morning.

The main assault was planned for the Union centre. Lee planned to use Pickett's division (about 4,600 men) and Heth's (about the same number but badly cut up on the first day) with a few others to bring the total up to about 11,000.

A heavy bombardment started about 1.00 pm which pounded the Union centre for over an hour and a half, but it caused only few casualties. At 2.30, the Union batteries ceased fire to make the Confederates think they were knocked out or out of ammunition and the ruse worked. The main attack came in.

The Confederate army advanced in beautifully dressed lines across the three quarters of a mile of open ground. The Union artillery opened fire again and against the massed ranks it was impossible to miss. Some troops did succeed in reaching the Union position and even made a brief breakthrough but they were soon repulsed by the reserve. Barely half of those who set out returned, the attack having cost 5,000 casualties.

Remarkably, Confederate morale was not completely shattered and the army dug in grimly, awaiting Meade's counter-attack. But Meade had just seen the results of attacking an entrenched enemy and he didn't feel like trying it from the opposite point of view. Lee was ultimately able to retreat unmolested.

The battle was one of the bloodiest of the war with a total of over 50,000 casualties, 23,000 Union and 28,000 Confederate. Inside the Gettysburg cemetery was a sign, which had apparently escaped notice: "All persons found using firearms in these grounds will be prosecuted with the utmost rigor of the law."

PLAYERS NOTES (DAY 1 SCENARIO)

UNION. Placement of Reynold's HQ is critical, as directing the arriving Union units well is central to your success. A position near Gettysburg will give a good mix of communication and brigade control. Of course, the historical option is to lead from the front - and get yourself killed!

Remember your men can build entrenchments if stationary.

CONFEDERATE. To win, Lee (you!) will need to quickly deploy forward, using the South's numerical advantage before Union help arrives. You must take Gettysburg to have any chance of winning.

SCENARIO VARIANTS (DAY 1 SCENARIO)

(1). The Campaign Variant. A complete arrival schedule for all three days of the Gettysburg battle is already entered in the Day 1 scenario. The few changes necessary to create a three day game are listed below.

Enter the Day One page of the briefing screen and change the move column for turn 10 from 'END' to 'MOVE' by typing 1. Change the Union Army Commander to 'Meade'. The only changes to Meade's Day 2 scenario values are arrival = 4 and location = 14, 26. Change Lee's Army HQ as follows. Arrival = 4; offensive objectives = 12 and 22.

(2). Delayed Reinforcements. To simulate the uncertainty of arrival times for both sides reinforcements, subtract 2 from the arrival turn values for all units arriving between turns 6 and 13. Also change the likelihood value for these modified units to 5.

PLAYER'S NOTES (DAY 2 SCENARIO)

UNION. Correct management of reserves is central to winning Union tactics. Anticipate problems by keeping a constant watch on enemy movements and the condition of your men. Maintaining communications with your Corps Commanders is more important than getting involved in the trenches.

CONFEDERATE. Control for the confederate commander is

difficult due to his exterior lines of communication. Paying personal visits to your corps commanders' HQs is the best way of ensuring your plans run smoothly. Experience will show who needs a guiding hand (or you can check up on their ratings before the battle by using WARPLANô). To assure victory the South must break the Union lines and take at least one of the major "Big Point" objectives.

SCENARIO VARIANTS (DAY 2 SCENARIO)

(1). Longstreet may have placed Hood's division north of McLaws rather than the historical, more southern position. To simulate this, move Hood's brigades north, and change Hood's and McLaws' division HQ objectives to 18,16 and 19,22 respectively.

(2). The following brigades are included in the data base with a minimal chance of arrival due to their failure to be committed at Gettysburg. To improve their chances, change the likelihood values for the following brigades to 2. Bde Nos. 8,13,14,15,46,47,118,119,120.

CHICKAMAUGA

September 19th-20th, 1863

The Chickamauga Creek (chickamauga meaning "stagnant water" or, more sensationally, "river of death") flows approximately north-south into the Tennessee River, a few miles east of Chattanooga, through heavily wooded country. On 18th September the armies of Rosecrans - approximately 65,000 men in three corps under McCook, Thomas and Crittenden - and Bragg - a similar number in five corps divided into two wings under Polk and Longstreet who had just made a long rail journey from Virginia with about 12,000 men.

Bragg had planned to attack on 18th but delays meant that nothing happened, except that Rosecrans shifted his position northward to be nearer the Rossville Gap - his retreat route to Chattanooga in an emergency. On 19th the battle started at the north end of the line when Thomas moved to drive off what he thought was a single brigade. This quickly escalated into a slugging match with both sides pouring in more troops. Fighting spread south in the afternoon when Stewart's division, sent to help against Thomas, accidentally attacked a mile to the south. It hit Van Cleve's division and drove it back almost to Rosecrans' HQ at the Widow Glenn's house. Here, however, they met Reynolds' and Negley's divisions heading north and it was suddenly three divisions to one. Stewart was obliged to retreat back across the north-south, Lafayette Road.

As this attack was failing Hood, without orders, sent in the

divisions of Johnson and Law, immediately to the south. These met Davis' division which fell back. Again Widow Glenn's house was in view but again two divisions came to the rescue - this time those of Wood and Sheridan, and Johnson and Law too had to fall back beyond the road.

As the sun was setting Cleburne, at the far north end of the line, attacked and drove Thomas back almost a mile but he was still in good order as darkness fell. Throughout the night, the Confederate soldiers could hear their northern counterparts felling trees and hurriedly putting together barricades.

Rosecrans was not displeased with the situation. Although it had been close at times, his line had held together and there seemed to no reason why it should not continue to do so. Bragg also was quite pleased with the way things had gone, despite the unco-ordinated nature of the day's attacks, and he ordered Polk and Hill to attack at dawn.

Or rather, he thought he had so ordered, but the messenger could not find Hill in the darkness and by the time everything had been sorted out and the attack finally sent in, it was approaching ten o'clock. Rosecrans' soldiers had not been idle during this period of grace and the breastworks now had a grim and solid look about them. The series of divisional attacks which Bragg had ordered in the north were prosecuted with great enthusiasm but could not break the well-defended line.

The battle might well have continued in this manner until Bragg had worn his army down to nothing had not Rosecrans here made a catastrophic mistake. His aides reported to him a "gaping hole" between Reynolds' and Wood's divisions and, apparently forgetting his own dispositions, Rosecrans sent an order to Wood to "close up and support" Reynolds. Brannan was posted between the two and the only way Wood could support was to go around Brannan, which he did. There he met Thomas who said that Reynolds did not need support - he had just repulsed an attack by Stewart, but sent Wood, on his own (Thomas') responsibility, to reinforce the left. This created the "gaping hole" which had previously had no reality.

Longstreet, meanwhile, had been carefully massing four divisions for an attack and, as Wood's last units were leaving, they went in, leaping over the deserted barricades and charging into the vulnerable Union flanks. The army fell apart, a good third of it routing back to Chattanooga.

Rosecrans himself went with them to organise a defence which might well have been necessary had it not been for Thomas.

Thomas, in an action that was to earn him the nickname of

"The Rock of Chickamauga", refused to succumb to prevailing panic. Thus Kershaw, rushing in with two Confederate brigades, met with a bloody repulse. The Confederate army gave Thomas everything it had but, re-inforced by two brigades from Granger, who had been in reserve guarding the Rossville Gap, managed to more or less hold on until dark. They were obliged to leave many of the wounded behind and Bragg was to report a total of more than 8,000 prisoners. The Confederate victory had been at a terrible cost, however. Final casualties were 16,170 for the Union and 18,454 for the Confederacy, including in the latter case, 14,674 wounded. For the number of men involved, this was the bloodiest battle of the war.

PLAYER'S NOTES

UNION. The Union Player should aim to deploy his units to cover the roads leading to Rossville and McPhersons Gap. Thomas' corps will move towards Kelly's Farm and Brotherton. You should position the army HQ subordinate divisions south of Brotherton. Once this sector is organised, you may ride north and adjust Thomas' divisions. This is a confused battle, care must be taken to ensure that gaps large enough to allow an enemy penetration do not exist in your lines. The Rebels need to break your line to win. A stubborn defence will make the price too high.

CONFEDERATE. During the first day many confused clashes will result. As the South's Commander, you should try to keep the North off balance while planning for tomorrow's attack. During the night briefing (first AM turn, Day 2) you should issue orders to implement your plan. This is the only time when communications are possible to all commanders. Longstreet is your best commander, using him wisely is the key to success. Remember, piecemeal attacks by single divisions are a good way to lose lives, and the game.

SCENARIO VARIANTS

(1). Bragg appointed Leonidas Polk to command the South's Right Wing (represented by Polk's large corps). His performance in this role was sluggish at best! An alternative choice would have been D. H. Hill; a resourceful and experienced leader. To give Daniel Hill his chance, change Polk's HQ as follows; ID = D. H. Hill, Movement = 5, Leadership = 5, Staff = 5.

(2). Thomas had effective control of more units during this battle than Rosecrans. For a change in perspective we can put the Union Player in Thomas' shoes by swapping Thomas' Corps H. Q. name, position, arrival, movement, leadership, staff and troop strength values with those in the Army HQ, and

giving the First Corps defensive orders, with an objective of Viniard (10). Also all divisions with a corps assignment of 0 will need a value of 6, those with 6 must be switched to 0. These changes essentially put you in command of Thomas' Corps with Rosecrans as a subordinate corps commander.

CHATTANOOGA (MISSIONARY RIDGE)

November 23rd-25th, 1863

Holding Missionary Ridge during the siege of Chattanooga, Bragg had extremely strong position. Grant planned to use Thomas' four divisions in a holding action on the plain in front while Sherman, who had just made a devious detour through the mountains with four divisions, attacked Bragg's right flank along the ridge. Hooker was to attack Lookout Mountain on the left with three divisions and Howard held two divisions in reserve. Bragg was defending with seven divisions, with Cleburne holding the right flank and Stevenson on Lookout Mountain.

On 23rd November, Thomas was ordered to move out of the city and take up a position half-way across the plain. Thomas' men had heard through the grapevine that Grant had doubts about their morale after Chickamauga and were on their best behaviour. They marched out with the precision of a review and the Confederate outposts on Orchard Knob and Bushy Knob were enjoying the show when suddenly, the trumpets blew and they were swamped in a rush of soldiers.

On 24th, Sherman attacked smoothly on Bragg's right, brushing aside all opposition, until he held the high ground. In late afternoon, contemplating the next day's attack along the ridge, he suddenly realised that he wasn't on the ridge at all. He had been tricked by the unfamiliar terrain and he was on an isolated hill, separated from the main ridge. He dug in, realising that he had everything to do again on the morrow.

Meanwhile, Hooker had been attacking Lookout Mountain. On the steep and rocky terrain the two Confederate brigades put up a good showing but against the pressure of three divisions they could only fight a delaying action. During the night they were pulled back to Missionary Ridge by Bragg who felt that they would be more use in the defence there. Thomas did nothing this day.

On 25th, virtually nothing went as Grant planned. In the early morning the American flag could be seen flying on the summit of Lookout Mountain and Grant waited confidently for Hooker to advance on Rossville and Bragg's left wing. He waited some time however, for the terrain was extremely

difficult and there was a delay of over four hours while Hooker got into position.

Sherman, at the other end of the line, had run into a wall. Cleburne's single division held off attacks by Sherman's four. Grant sent Howard's two divisions over to help and Cleburne drove them off too. Sherman attacked repeatedly and with vigour but he simply could not budge Cleburne, entrenched on the high ground.

At 3.30 pm with Hooker in position at one end and Sherman stalled at the other Grant looked doubtfully at Bragg's triple line of entrenchments, at the base of the ridge, midway up, and on the crest, and ordered Thomas to take those at the base. Thomas' men were still annoyed that their morale might be called into question and they took the trenches at a rush.

Once there, however, they found themselves subject to plunging fire from the trenches above. They could not stay there, only go back or forward. They elected to go forward. A wild spirit caught hold of them and the entire four divisions charged up the steep slope. It couldn't really be done but, aided by Bragg's poor siting of his entrenchments which left large sections of the hill in defilade, they swept over the summit and the Confederate line broke and scattered.

Thomas' men had proved to everyone's satisfaction that their morale was as good as ever. Total casualties were 5824 for the North and 6667 for the South, including 4146 captured or missing. Years later, someone remarked to Grant that Bragg must have thought his position impregnable. Grant smiled wryly. "Well" he said, "it was impregnable."

SCENARIO VARIANTS

(1). The pontoon bridge at Brown's Ferry was destroyed by floods before P. J. Osterhaus' division could cross, consequently this division fought with Hooker rather than with Sherman as originally intended. Assume the bridge held. Change the corps assignment of Osterhaus' division to 8 (Sherman) and re-position his brigades (81 and 82) along the road to Shermans Bridge. Change the division objectives to 22 and 18 and the brigade objectives to 22.

(2). Prior to the battle Sherman issued orders for Hooker to move north across Browns Ferry and through Chattanooga, rather than fight his way over Lookout Mountain and across Chattanooga Creek in order to reach Missionary Ridge. This plan was also thwarted by the destruction of Browns Ferry. Assume it could be accomplished. Position Hooker's corps and brigades in Chattanooga, change corps and divisional objectives to 5 and 6 and brigade objectives to 5.

PLAYER'S NOTES

UNION. You are in an excellent position to carry out a double envelopment of Missionary Ridge and thereby minimise the casualties incurred during the final assault on the Rebel breastworks. Wait until one or preferably both flanks are turned before loosing Thomas' Corps for the knockout blow in the centre.

CONFEDERATE. The South is outnumbered and must conserve forces whenever possible. Give ground wherever necessary on Lookout Mountain, and try to re-deploy back to Missionary Ridge by the morning of Day 2. A balance must be struck between holding the northern flank and weakening the centre.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
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WILDERNESS

May 5 - 6, 1864

Fought in the tangle of undergrowth that had overset Joe Hooker, the battle of Wilderness was a total and bloody confusion. Normally steady troops often broke and ran when unexpected attacks broke out of tangled vegetation a bare 20 yards away and on both sides units tended to become mixed, making the transmission of orders difficult.

Three main roads led into the Wilderness from the west and south-west: the Turnpike and Plank Roads from Orange, and the Catharpin Road from Gordonsville. Ewell was ordered to take his corps along the plank road and form a defensive position and wait for Hill, on the Plank Road and Longstreet on the Catharpin to arrive. Longstreet had much farther to travel than the other two.

Ewell deployed successfully and ran into Warren's corps. Initially, Ewell's forward brigade was routed but the attackers were soon outflanked and routed in their turn. Two more blue divisions were surprised and driven off, some fleeing into Confederate lines so completely had they lost their sense of direction. Ewell did not advance beyond his original position and spent the afternoon digging in.

Hill, coming slightly later up the plank road, made heavy contact with Hancock who had been given orders to backtrack from the Catharpin Road to deal with him. The terrain decisively favoured the Confederate defenders but it was still 25,000 versus 7,500 and Hancock would probably have broken through were it not for the fall of darkness.

Both commanders were planning attacks for the following day.

Grant sent Burnside to fill the gap between Warren and Hancock and Warren was to keep Ewell occupied while the main attack went in on Hill. Lee planned to shift Longstreet from the Catharpin Road to the Plank Road and have Hill sidle north to fill the gap.

Longstreet's corps was delayed until well after sunrise.

Hill's troops, who had neglected to entrench overnight, were pushed back, although in good order, and matters were getting critical when Longstreet's lead brigade finally arrived. By about 10.00 o'clock, the line had been restored.

There was then something of a lull. Grant, at this point, had both flanks exposed and no centre, for Burnside had got himself lost in the tangle and was wandering around in

circles with two divisions. Ironically, by having disappeared, Burnside put in an effective defence on the right flank. Gordon, commanding the Confederate far left brigade repeatedly asked permission to attack the open flank but was refused because Burnside was unaccounted for.

On the Union left, not only was Hancock's flank open, but an unfinished railroad cutting led right up to it. Longstreet was not the man to miss such an opportunity and he sent Sorrel with three brigades into the attack. At 11.00 am he exploded into the Union flank with dynamic results. As Hancock said to Longstreet years later "You rolled me up like a wet blanket."

The Confederate units had become terribly mixed-up, however, and two actually started firing on each other. Longstreet went forward to stop it and was badly wounded and had to be carried from the field. Command went to General Field who spent the next four hours sorting the units back into some sort of order.

At 6.00 pm Gordon finally got permission to attack the Union right when Lee himself came up to investigate. Burnside had by this time found the centre opposite Hill and his phantom flank protection worked no longer. Gordon charged in and started to roll up the flank, but darkness fell before Grant suffered any major disaster.

The following day saw both sides entrenched and very little fighting. Grant had been decisively beaten, losing 17,666 casualties to his opponent's 7,800 and being turned on both flanks. It was a far worse disaster than Hooker had suffered on the same ground. Unlike Hooker, however, Grant managed to avoid defeat by the simple expedient of refusing to acknowledge it. He marched for Spotsylvania and Lee would have to do his work all over again.

PLAYER'S NOTES

Union. As Grant, your first task is to prevent the advancing units of A. P. Hill's Corps from reaching the Brock Road. Only then can you afford the luxury of planning offensive moves. The North has the initiative but be ready for Longstreet's arrival on Day 2. If you lose control of the Brock Road you will probably lose the game.

Confederate. Lee must drive quickly along the Orange Plank Road until a solid Union line is encountered, then extend his flanks and consolidate. Pushing too hard against Union positions that are steadily being reinforced will drain too much Southern blood. Place your artillery carefully as there are few open areas for its effective employment. (Note that artillery units cannot move through wilderness unless a

track is present.) The South can win without cutting the Brock Road but to do so you must dish out much more punishment than you take.

SCENARIO VARIANTS

(1). Lee commanded the battle from the south and gave Ewell little guidance apart from instructing him to coordinate his actions by reference to the sound of the battle raging to his south. To give Lee a different perspective, we can start him on the northern flank with Ewell. Do this by changing the South's Army HQ location to 0,11.

(2). Each commander had only a limited knowledge of his opponent's forces and strength throughout this engagement. To create more uncertainty during the game, modify the arrival times for the following units, using either or both options as you choose:

(a). Longstreet arrives earlier. Change Longstreet's HQ and Brigades arrival time to Day 1, 11 am and the likelihood value to 5.

(b). Hancock's arrival uncertain. Subtract 7 from Hancock's HQ and Brigade arrival times and change likelihood to 2.

SPOTSYLVANIA

May 10 - 12, 1864

After the battle of Wilderness, Grant attempted to march around Lee's right flank to Spotsylvania and thus place himself between his opponent and his capital, Richmond. Lee, however, anticipated the movement and Anderson, leading the vanguard, was just in time to hold off Grant's lead elements. On 9th May there was some skirmishing, during which Sedgwick, one of Grant's ablest commanders, was killed by a sniper but the main activity was Confederate troops digging into a strongly fortified position.

Grant was left with three unpalatable alternatives. Do nothing (the McClellan gambit). This would allow Lee to detach troops elsewhere. Manoeuvre around Lee again (the Sherman/Grant gambit). This would simply postpone the confrontation, shortening Lee's lines of communication in the process. Assault the fortifications (the Burnside gambit). This would almost certainly lead to a bloody repulse.

To one of Grant's temperament, option three was really the only choice despite the risks. A major assault was planned for 5 pm. Warren appealed for permission to attack early, believing he saw the possibility of a breakthrough. Grant let him have his head but Warren was repulsed in what was to prove the pattern of the day.

Colonel Emory Upton, however, came up with a plan to assault on a narrow front in 4 lines, not returning fire until the entrenchments were reached. He achieved a penetration but a supporting action by Wright's Division was routed and Upton had to fight his way out again.

Nevertheless, Grant was impressed with the idea and planned to repeat the whole manoeuvre on a grand scale using Hancock's Corps. The 11th was spent in preparation and on the 12th, the attack went in. Hancock was to attack the salient frontally, supported by Burnside to the east and Wright to the west. Warren was to attack further west in order to tie up more of Lee's troops.

Initially, the attack succeeded well. An intelligence error had led Lee to believe that Grant was retreating and consequently the 22 guns in the salient had been withdrawn. General Edward Johnson ordered them back again but they were still being moved when the attack went in and nearly all were captured without firing a shot. Three generals, 30 guns and a full division of men were taken in the first rush. However, the penetration was not smooth, being held up by stubborn pockets of resistance and by the unfamiliar terrain and soon 20,000 men were packed into an extremely small area.

A counter-attack by Gordon slammed into the packed mass of men with devastating effect and the assault degenerated into close fighting across barricades. The salient, soon to be known as the "Bloody Angle", was the scene of some of the nastiest and most prolonged fighting in the war. From early morning until midnight, men fought at arm's length across the barricades. The hail of lead was such that an oak, fully two feet in diameter, was felled by small-arms fire.

Burnside's supporting attack was a total failure, his men contenting themselves with long distance sniping. Wright's attack went in much more vigorously but his men were held at the barricades and joined Hancock's Corps in the close fighting. Warren's attack, on the Confederate left flank, was late getting under way and did not close in until 9 am. It was soon repulsed and this enabled Lee to send more troops across to the salient.

Despite the long day's fighting, Lee's position held but at the cost of about 6,000 killed, wounded or captured. Grant's total was similar and slightly higher at 6,820. As at Wilderness, Grant had failed to break Lee's veteran army but again he refused to concede defeat. After a further week of skirmishing he set off again for another rendezvous at Cold Harbor.

PLAYER'S NOTES

Union. Those Southern boys have been busy digging - facing you are lines of well-placed breastworks, bristling with guns. Deploy your men and launch the best co-ordinated attack possible. Force your opponent to commit his reserves and hope you can crack his lines enough to break through with some fresh troops.

Confederate. As Lee, the aim is to hold your ground. The "Bloody Angle" around McCoull's Farm will probably fall to Northern assaults but you should be able to regain it. If things get desperate and the North aren't pressuring you on the west bank of the Po River, create an extra reserve with either Mahone's or Heth's Divisions.

SCENARIO VARIANTS

(1). Before the start of the scenario, a flanking move carried out by General Hancock's command along the eastern side of the map caused Lee to re-deploy Heth on his left flank and move Mahone across the Po River. To re-create the original situation, make the following changes:

(a). Add a dawn turn at 4 am on Day 1 and add day-move turns between this and those already in existence.

(b). Remove Confederate entrenchments from the west bank of the Po River and substitute the appropriate underlying terrain as per the map.

(c). Move Mahone's Division east of the Po River.

(d). Move Heth's Division to positions near Spotsylvania and change his HQ's Objective to 8.

(e). Change Hancock's orders to OFFENSIVE with Objectives 5 and 6. Change Birney's and Gibbon's orders to OFFENSIVE with Objectives 5 and 6. Change Barlow's orders to OFFENSIVE with Objectives 17 and 6.

(2). A storm arrived during the night of 11th causing lowered visibility on the following day. To create clear weather throughout this scenario, change the Weather to CLEAR on Days 2 and 3 and remove all fog.

COLD HARBOR

June 1 - 3, 1864

At the end of May 1864, Grant attempted to move his army around Lee and the Army of Northern Virginia to Cold Harbor. On 31st May, a day-long cavalry battle between Sheridan and FitzLee took place and Sheridan managed to take Cold Harbor. He was not convinced he could hold it for long but direct orders from Grant and Meade told him to do his best. Lee had anticipated Grant's movement and planned to attack and defeat the northern army in detail as it moved up,

starting with Sheridan's troopers. Lee himself, however, was suffering from an abdominal complaint and was unable to take the field personally and in his absence the attack was bungled.

On the morning of 1st June, Kershaw's division attacked Sheridan's cavalry. The lead brigade was commanded by the inexperienced Col Keitt who led the charge in gallant 1861 style and promptly perished in a hail of bullets. His men, who had spent the last two years in soft garrison duties, fled at the sight and the veteran troops on the flanks were obliged to give back also. The attack degenerated into a panic retreat.

By midday, Wright arrived with three divisions to relieve Sheridan and dug in. Lee was obliged to call off further attacks. Towards sunset, Meade pushed Smith's and Wright's divisions forward into jumping-off points for the following day's attack.

The attack did not happen on 2nd because Hancock's Corps did not arrive until 6.30 am, two hours late, and they were too tired from their long night march to assault immediately. The attack was then set for 5 pm but Confederate activities on the flanks, including the taking of Turkey Hill, decided Grant to postpone it until the 3rd.

Grant was convinced that Lee's army was almost finished and this caused him to plan the attack carelessly. Little or no provision was made for communication or co-ordination and virtually no reconnaissance was carried out. The men, however, were deeply pessimistic about their chances and many spent the evening sewing pieces of paper with their names on onto their coats so that their bodies might be identified.

Their pessimism was fully warranted and the attack was a massacre. It ran into carefully prepared fields of fire and few men made it anywhere near the barricades. In approximately eight minutes the attack had been bloodily repulsed and that was it. Grant ordered further assaults but the local commanders to a man chose to interpret this to mean a stepped-up rate of fire only. None would advance into the certain death awaiting them in front. Eventually, at 1.30 pm Grant gave in and suspended the assault order.

Casualties for the battle were 1500 Confederate and 7000 Union, most of the latter having been incurred in the first few minutes of the charge. With uncharacteristic gloom, Grant remarked "I regret this assault more than any one I ever ordered". Up at the sharp end, regret was even greater. A diary recovered from one of the Union corpses held the

following entry: "June 3. Cold Harbor. I was killed."

PLAYER'S NOTES

Union. At Cold Harbor, Grant faced an interlocking system of trenches and fieldworks that would, with the addition of barbed wire and machine guns, have been right at home on any WWI battlefield. Heavy losses are unavoidable and the careful coordination of attacking brigades is essential for any chance of a Northern (Pyrrhic!) victory. Choose a valuable victory hex as your primary objective and attempt to maximise victory points gained against troop losses. And don't forget to pin a name tag to the back of your coat - just in case!

Confederate. The first day will probably see a penetration into your lines around New Cold Harbor. When reinforcements arrive, concentrate on regaining the fortification lines with deliberate, well-timed attacks on the fatigued Federals. Position the artillery brigade to best advantage as the Union attack develops. It can give you a significant edge if used properly.

SCENARIO VARIANTS

- (1). The Scenario varies from history by allowing Hancock's Corps to arrive fresh and ready for battle on day 2. In reality this unit arrived in such an exhausted state that Grant was forced to postpone his attack until the following day. To recreate this situation, make the following changes.
 - (a). Replace the END at dusk on Day 2 with MOVE
 - (b). Give all of Hancock's Brigades (#58 - #68 and #76) a cohesion of 4
 - (c). Change Hancock's Corps and Division HQ orders to RESERVE, with no set objectives
 - (d). Make the North defensive on Day 2
 - (e). Add 2 to the fort value of all Southern and Northern breastworks.

This should result in the historical crushing Southern victory.

- (2). The timely arrival of Hill's Corps saved the day for the South. To give the North a real chance, change Hill's Corps HQ and all his brigade's (#22 - #34) likelihood values to 5, thereby delaying their arrival.

ATLANTA

July 22, 1864

In replacing Johnston with Hood, the Confederate High Command expected an aggressive approach to Sherman's advance on Atlanta. In this regard, Hood did not fail to deliver. On July 20th he made a sortie which became known as the Battle

of Peachtree Creek. Launched against the rock-steady Thomas, it achieved little but on the following day Wheeler's cavalry reported that McPherson, on the Union left, had neglected to protect his flank. Hood saw an opportunity here for a decisive victory and sent Hardee on a circuitous night-march, with orders to attack the exposed flank at dawn. He withdrew the rest of his troops to Atlanta's inner defences and sent Wheeler to attack Decatur and the Union baggage train.

Things did not go completely according to plan due partly to bad luck and partly to bad management. There were delays in the process of disengagement and it was not until 3 am. that the last of Hardee's corps had left the Atlanta entrenchments. The men were also tired after the heavy fighting on 20th and skirmishing on 21st. It was not until noon, therefore, that Hardee arrived at his objective and launched the attack.

The results were variable. Maney's division went in too far to the left and hit an entrenched position. Cleburne, next in line, was much more successful and made a substantial penetration. On the right, however, Bate and Walker ran into an unexpected defence. An entire Union corps, under Dodge, had spent the morning engaged in destroying the railroad to the north and was marching back as Bate and Walker moved forward. They immediately faced left and the column turned into a long defensive line.

McPherson, one of the North's most able generals, was killed in the battle. He was at headquarters with Sherman when he heard firing and went to investigate. He ran into Cleburne's men and was shot down as he tried to ride away. Sherman sent few re-inforcements across, wanting to give McPherson's veterans a chance for revenge.

His faith in them was warranted. There was hard fighting around Bald Hill, held by Leggett but the gallant corps commander Logan took command of McPherson's army and the critical point held. At the end of the day, Hood had nothing to show for his efforts except for 8,000 casualties to Sherman's 3,700. Unlike Johnston, Hood did not fully appreciate that aggression was not necessarily the better part of valour.

PLAYER'S NOTES

Union. You begin the game with your southern flank turned and your first job is to stabilise it. Fuller and Sweeny will probably need help but don't over-react, as Hood's attack from Atlanta must be dealt with as it arrives. General McPherson was killed during this battle, largely due

to his moving around the field without an adequate escort. As the Northern commander we recommend that you be more sensible in your command profile.

Confederate. Hood begins the game at his HQ in the Atlanta fortifications. He has the option to wait until Hardee is engaged and then control Cheatham's Corps or to move to the southern flank and direct Hardee's units as they drive into the Northern rear. Either choice is valid and as the action unfolds, success can depend on whether you are in the right place at the right time.

SCENARIO VARIANTS

(1). Just after McPherson ordered Dodge's Corps to deploy south protecting his exposed flank, Sherman commanded Dodge to move east and destroy the railroad lines around Decatur. McPherson persuaded Sherman to withdraw his orders and thus prevented Hood's outflanking movement from having devastating effect. To simulate Dodge's removal, make the following changes.

(a). Relocate Dodge's HQ and Brigades to 17,2.

(b). Change arrival time to Turn 1 and likelihood to 3. (This gives this unit a 25% chance of not arriving at all, or else arriving with a 2-7 turn delay.)

(2). Hood's plan called for Hardee to be in position for his attack at dawn but delays on the approach march prevent this. To make the battle begin at dawn, enter the briefing screen for Day 1 and place a dawn turn at 5 am and add day turns as necessary to fill the existing gap. Move Dodge's HQ and Brigades to 8,3; 9,3; 10,3 and 11,3 respectively.

(3). Historically, Hood delayed the commitment of Cheatham's Corps. To simulate this, change Cheatham's Corps HQ and Brigades likelihood value to 6.

FRANKLIN

November 30, 1864

After Sherman took Atlanta, Hood obtained permission to launch what was to be a futile expedition into Tennessee. On 28th-29th Schofield, retreating north, had escaped from a trap, largely due to a mix-up of orders on Hood's side. Hood was absolutely furious and it is possible that this warped his judgement.

He arrived at Franklin to find Schofield dug in and in the process of repairing the bridge across the Harpeth River so that he could continue towards Nashville. Two of Hood's seven divisions were still well to the rear, as well as all but eight of his guns, so he had with him about 30,000 men. Schofield was entrenched with 34,000 and 60 guns.

Furthermore, there was two miles of open plain before the town. Hood's subordinates were aghast when he ordered a general attack but, in the grand tradition of Ambrose E. Burnside, he refused to listen and at 4.00 o'clock, about one hour before sunset, the attack went in.

Initially the attack went surprisingly well, due to a mistake on the Union side. Wagner had two of his brigades in a forward position across the turnpike, about half a mile in front of the main defences. As Hood's army started forward Wagner neglected to send a message ordering the two brigades to retreat and the colonels in charge delayed to fire volleys into the approaching enemy.

They left their retreat too late and were swamped and routed by the oncoming charge. As they ran back, Cheatham's and Brown's divisions followed in close pursuit and were thus shielded from hostile fire. They broke into the entrenchments and tried to turn the guns there on the defenders but the horses had bolted with the primers. Suddenly, tired from having run half a mile, they found themselves under fire from about two dozen guns and when the reserve, under Opdycke, charged in, they were forced to fall back and try to find cover outside the works.

This was the high point of the attack. French, Walthall and Loring, attacking the Union left, were caught in heavy fire from across the river from Fort Granger and from masked batteries, and in small arms fire from entrenched troops armed with repeating rifles. At 7.00 pm, an hour after full darkness, Hood committed the reserves but although fighting went on until 9.00 o'clock nothing was achieved.

Schofield retreated during the night and Hood had wrecked his army. Six generals were killed, including the highly competent Cleburne, one captured and five badly wounded. 6,252 veterans were casualties, including 1,750 dead.

Schofield had suffered 2,326 casualties and was falling back on re-inforcements. Hood continued the pursuit to Nashville, to lose heavily in a battle with Thomas on 15th December, but essentially, any hope of a successful campaign ended here at Franklin.

PLAYER'S NOTES

Union. Initially, the Northern commander must decide whether to sacrifice Wagner's Division and buy a little more time or attempt to minimise losses by withdrawing them before they are over-run. Once the Southern attack commences in earnest, try to keep some reserve brigades ready to plug any gaps. Steadfast defence is the key to success at Franklin.

Confederate. For the South to succeed, a carefully planned,

co-ordinated attack is essential. The concentrated fire power of entrenched Federals can easily shatter the most gallant of Southern brigades. Piecemeal attacks will hand a victory to your enemy, tarnishing your reputation as an up-and-coming Confederate commander.

SCENARIO VARIANTS

(1). Most of Hood's artillery was not in position for use during the attack. This explains the lack of guns in the majority of Southern brigades. To give the rebels their full complement of artillery, edit the Franklin OB by giving all brigades the same battery strengths and artillery types as in the Nashville scenario (brigades #1 - #27).

(2). Wood's Division took no part in the fighting and remained north of the Franklin River. To give them a chance of arrival, subtract 7 from the arrival value and enter a likelihood value of 3 for Union brigades #54, #55 and #56.

NASHVILLE

December 15 - 16, 1864

Following his disastrous defeat at Franklin, Hood still declined to see the folly of his ways and continued on to Nashville where Thomas was heavily entrenched with about 55,000 men. As Hood's own army was now composed of less than 40,000 it was difficult to see what he could do. The only plan he could come up with was to dig in outside Nashville, hope that Thomas would attack him and that he could then repulse Thomas and follow up into Nashville.

Thomas was not the most impulsive of men, however, and he watched unconcerned, well supplied behind his strong defences, as the ill-supplied Confederate army shivered in its trenches in the bleak December weather. Still, if Thomas was in no hurry, his superiors were and he received a stream of telegrams, urging him, with varying degrees of politeness, to advance. A cold snap turned the ground to ice on 8th but a thaw on 13th at last enabled him to manoeuvre. On 15th December he struck. His plan was elegantly simple. Steedman would demonstrate against Hood's right, where Cheatham was in command. Everyone else would execute a large-scale left wheel and smash into Hood's left, rolling up Stewart's Corps. As Hood had somewhat unwisely detached Forrest's cavalry to deal with the Murfreesboro garrison it seemed quite likely that the movement would succeed. It did, although not perfectly. Heavy fog delayed the initial movement and it was not until 8 o'clock that Steedman went in. His attack met a stubborn resistance and was repulsed but it was not expected to succeed in any case.

By noon, Thomas had some 48,000 men lined up and ready to attack on Hood's left. Stewart's Corps, depleted by detachments and casualties, was only about one tenth of that number.

Several outlying redoubts, however, put up a stiff resistance and it was not until after 4.00 pm that the left wing collapsed. The retreat was not a rout and Hood succeeded in forming a new line, some two miles back from the first and his remaining soldiers spent the night digging in. Hood still refused to run away.

The following day was initially fairly quiet while Thomas got his army reorganised. Hood had also changed around his corps and now Stephen Lee was holding the right, Cheatham the left and Stewart the centre. Lee had scarcely been engaged the previous day and his men held firm against attacks by Wood and Steedman. But on the left, Cheatham was in trouble for Wilson had got his cavalry around behind him, cutting off his line of retreat.

Finally, about 4 o'clock, the artillery rain stopped, Schofield and Smith went in and the Confederate position fell apart. Only a rallying action by Lee prevented the army from being completely overwhelmed. In the two days of fighting, Hood had lost about 1,500 killed or wounded and 4,500 taken prisoner. Thomas had lost about 3,000. Hood had finally completed the destruction of his army, begun with the futile attacks at Atlanta five months earlier.

PLAYER'S NOTES

Union. Thomas has manoeuvred into an excellent position to outflank Hood's lines. To complete this fine piece of generalship you must drive for Shy's Hill and attempt to cut the Southerners off from their line of retreat along the Franklin Pike. Keep your men moving but don't push too hard as some fresh troops may be needed to pry any entrenched rebels loose from those vital southern objectives.

Confederate. As Hood, you start the game at HQ, well to the rear. Initial HQ placement is critical to your control of the situation. The majority of your first line is now useless so you should aim to form a second line of defence anchored on Shy's Hill and stretching to Overton Hill. To win, the South must minimise troop losses and grimly defend the Franklin Pike.

SCENARIO VARIANTS

(1). Forrest's cavalry corps was not recalled from Murfreesboro early enough to reach Nashville in time for the battle. A composite division under Jackson has been included in the OB with a very low likelihood of arrival. To improve

Hood's chances of early cavalry reinforcement, change the arrival time of Brigades 30, 31 and 32 to 4, 5 and 6 respectively and change their likelihoods to 3.

(2). The arrival of two Southern Corps commanders (Cheatham and S. D. Lee) is delayed. This allows a better simulation of the initially uncoordinated Southern withdrawal towards their lines of communication when it became apparent that their entrenched line was totally outflanked. To give the Southern player more control, change the arrival times for S. D. Lee and Cheatham to 0.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
TUTORIAL (VOL I)

1. GETTING THE GAME TO RUN

(a). System Requirements. This program requires an IBM PC/XT/AT or PS/2, a Tandy or other IBM compatible computer, with 512K of memory. The program supports the following graphics cards - EGA, CGA, MCGA, VGA, Hercules and uses the 16 colour version of Tandy CGA. The program disk does not include DOS and requires IBM/MS-DOS Version 2.1 or higher to run.

(b). Backup and Hard Disk Installation. The game disks are not copy protected. Floppy disk users should use the standard DOS commands to copy the disks before use. Do not use the original disks for game playing.

Hard Disk users should create a directory on their hard disk and copy all of the files from the floppy disks to that directory. All program files must be in the same directory for the game to run. The path to this directory should not be longer than 26 characters.

(c). 3.5" Disk Offer. If you need 3.5" disks for your system, please return the 5.25" disks to us together with \$5.00 plus \$2.50 for postage and packing. North American users should send their disks to our US Office, everyone else should use our Australian Office.

(d). Starting the Game. Boot your computer with DOS. Floppy disk users should insert their copy of Disk One in drive A: and type db1 followed by (RET). Hard Disk users should change to the directory containing the program files and type db1 followed by (RET).

Floppy disk users should note there is one scenario on Disk One as well as the program files. The other five scenarios are on Disk Two. The tutorial will explain how to locate and load in the scenario of your choice. There is a readme file on Disk One.

(e). System Set Up. The Set-Up menu allows you access to the user options in the game. It is not necessary to worry about it while you're learning the game. Use the arrow keys to locate the <SET UP> line and type (RET).

Choosing <EDIT> will allow you to customise four options. Use the arrow keys to cycle through the options.

(i). Scrolling. The settings are 0-6. 0 = no scrolling; 1-6 = scrolling speed where 1 is slow and 6 is fast. The default setting is 3. CGA users have only one scroll speed (it doesn't matter which setting you choose). Type (RET) to

cycle through the speed settings when the <SCROLLING> line is high-lighted. Type (ESC/DEL) to recover the menu window.

(ii). DEL = ESC. The default settings in the game allow the DEL key to substitute for the ESC key. If you dislike this option, type (RET) to disable it.

(iii). Sound. This toggles the sound effects in the game to `on' or `off'.

(iv). Auto-Save. Setting this option to `on' will automatically save the game as soon as <RUN 5> is selected. Only one file is maintained and it is overwritten each turn keeping the last turn always available. This file can be loaded using the <LOAD AUTO> command in the Save Game Utility.

Choosing <SAVE> will save your choices to disk in a special file.

Choosing <LOAD> will load the current options from that file, if it exists.

The <PATH> command sets the DOS path for all DOS operations like loading and saving files. It is restricted to 26 characters in length. When specifying drive names you must include the colon (:) as part of the path.

(f). Video Trouble Shooting. EGA and VGA systems will start up with our "full-map" graphic routines. Other graphic boards use our standard graphic routines. The program makes its best guess at your computer's video mode and should run. In the unlikely event that the program gets it wrong you can use a command line switch to force the program into the appropriate video mode. This takes the form (db1)(space)(n)(RET) where n is a single character; i.e. c = CGA, e = EGA, t = Tandy, m = MCGA, h = Hercules, v = VGA and f = switch off "full-map" graphics. The only reason EGA/VGA users would have to switch off "full-map" graphics (and instead use standard graphics) is for rapid testing of original scenarios or the initial creation of an original game map as described in the WarPaintô chapter of the Game Manual.

(g). DOS Details. In the real world of DOS, save game files are maintained with the name DF_nnn.DXG where nnn is a number between 001 and 050. Scenario files have the scenario name followed by a .DFX suffix. You can use normal DOS commands to delete or copy these files if necessary, but since you can save over existing files it should not be necessary to use DOS often. In addition, the "full-map" graphic routines use an additional file with the same prefix as the game file and a .LBM suffix. Again, see the WarPaintô chapter in the Game Manual.

2. LEARNING TO PLAY THE GAME

On July 21st, 1861, the first major battle of the American Civil War took place. In the rolling farmland north of Manassas Junction, Irvin McDowell's newly-raised army was confronted, and eventually routed, by the reinforced Army of the Potomac under the command of Pierre Beauregard.

The first battle of the war will be your first experience with the Decisive Battles Game System. The armies are not large and their internal structure is very simple. The Union army is organized into 4 divisions while the Confederate army is a loose collection of 14 independent brigades. A complete Order of Battle for both sides is given in Part Two of this manual.

In this tutorial, you are going to take command of the Confederate army while the computer controls the Union forces.

As well as this manual, you'll need to have the data card (if appropriate for your computer) in front of you.

(a). Starting Up. Start up your computer using the procedure given on the start side of the menu card. Menu A (Start Up Menu) appears to the right of the title page. As is the case with every menu in the game, you use the arrow keys to locate your choice from the menu and then type (RET) to select it. IBM users may alternatively use a function key to locate and select a menu item. The <SET-UP> line in Menu A is the third line in the menu; therefore f3 will select it.

Similarly, f4 will select the <GOTO DOS> line.

If you select the wrong menu, don't worry. Apple II and IBM users type (ESC) to go back to the previous menu; C-64/128 users type (f1). IBM and Apple II users should note that the (DEL) key will serve as the (ESC) key in most situations.

IBM users can turn the sound on/off through Menu 12 of the Game Routines. Apple II and C-64 users should type Cntl (S) to turn on/off the sound. Apple II and C-64 users with a B&W monitor should type Cntl (B).

(b). Selecting the First Bull Run Scenario. Before we can start play, we have to select the First Bull Run scenario, tell the computer that we will control the South forces and decide which game options we wish to use.

Use either arrow key to locate the <GAME> line and type (RET) to go to Menu B (Location Select). At this point, IBM owners using 5.25" floppy disks should remove Disk One from the drive and replace it with Disk Two. Apple II owners with

one disk drive should remove the game disk, turn it over and put it back in the drive.

Use an arrow key to locate the <SCENARIO> line and type (RET) to go to Menu C (Scenario Menu).

Use an arrow key to locate the <1ST BULL R> line and type (RET) to go to Menu E (Edit Utility). The scenario briefing screen is displayed to the left of the menu window. IBM users must select the <LOAD GAME> line and then position the cursor over the <First Bull Run> line and type (RET).

Use an arrow key to locate the <EDIT> line and type (RET) to go to Menu N (Game Options). There are two (IBM) or three (Apple II and C-64) options available when you play the game.

(i). Exposed. When the exposed flag is set, all units on the map will be visible at all times. If the exposed flag is not set, only currently sighted units will be visible on the battlefield.

(ii). Enhanced (Apple II and C-64 Only). When the enhanced flag is set, computer controlled forces will be given certain bonuses. For example, unit size, leadership and staff ratings may be increased.

(iii). Radio. When the radio flag is set, you will have automatic communications with every unit in your command. If the radio flag is not set, only those units directly attached to the army HQ and within communications range can be given orders.

For tutorial purposes, we will choose to set the exposed and radio flags but leave the enhanced flag alone. Position the cursor on the <EXPOSED> line and type (RET). An Options in Effect box has appeared below the menu window showing that the exposed flag has been set. The cursor will return automatically to the <CONTINUE> line. Select the <RADIO> line to add this flag to the options box then select <CONTINUE> to go to Menu F (Handicap Utility).

Since this is only a tutorial, we will give ourselves a break. The handicaps below the <NO EFFECT> line benefit the South, those above benefit the North. The effect of a handicap is to modify the victory point awards, it does not affect the artificial intelligence nor the composition of the forces. Note that the handicap structure for IBM users asks you to select a veteran, normal or novice opponent. Select a novice.

Use an arrow key to locate the <MAJOR> South line and type (RET) to go to Menu G (Player Select). Locate the <SOUTH> line and type (RET). The cursor has been thrown into the briefing screen and you have the opportunity to change the

commanders' names. Do this if you wish, otherwise type (RET) until you get back to Menu E (Edit Utility).

Have a last look at the briefing screen and you'll see the South has a major handicap advantage (IBM users will be opposed by a novice computer general which is a fair description of McDowell), the North forces will be run by the computer and exposed and radio flags are set.

Use an arrow key to locate the <START> line and type (RET) to go to Menu H (Game Master).

That's the preliminaries over with. We're just about ready to play.

Turn your menu card over to the game side.

(c). The First Turn. This tutorial is a brief introduction as to how the game plays. It is not intended to be a description of everything that can happen. The Game manual describes in detail the full use of each menu. Once you have some experience with the game menus, we recommend you read Chapter 5 in the Game manual for an explanation of the major game systems controlled by the computer.

Back to Menu H. A current turn briefing appears above the menu window. The date is July 21st, 1861, it is 6 am and this is the first of the fourteen turns in the game. Below the menu window you can see it is daylight and the weather is clear.

In the bottom centre of the map is the town of Manassas. Five Confederate brigades can be seen to the north. Your army HQ is at Manassas. Don't worry that you can't see it yet; you are still asleep and it won't be until turn 2 that your HQ appears.

The <NORTH> and <RUN 5> lines in the menu have been overprinted with a solid bar to show that you cannot access them. The solid bar will disappear from the <RUN 5> line after the <SOUTH> line has been accessed. This is to guard against accidentally selecting <RUN 5> before issuing your orders. The <NORTH> line will always be overprinted during the game. The computer does not want you to see what it is doing!

Locate the <SOUTH> line and type (RET). This brings up Menu 2 (Operations Master). Your choices here are <PERSONAL>, <COMMAND>, <ORDER>, <RESIGN> or <OPTIONS>, <MAP WALK> and <ROSTER> (IBM Only).

The map has not changed, just the information above and below the menu window. Above the menu window you can see the army I.D. Johnson is Beauregard's second in command. Below the menu window you are given a casualty and victory point

summary. Obviously, there are no losses yet. The VPs show what your score would be if the game was to end at this moment.

The <PERSONAL>, <COMMAND> and <ORDER> lines are over-printed with a solid bar because you are not present on the battlefield this turn. You will wake up in time to command your army next turn. The computer will direct your troops until you are able to command them yourself. Type (ESC/f1) to go back to menu H and then select <RUN 5> to activate the turn.

There will be a flurry of activity from the Union forces near Centreville. One or two of your brigades may redeploy slightly.

(d). The Second Turn. Back to Menu H again. It is now turn 2 (7 am). Select the <SOUTH> line. You will see that the <COMMAND> line is still over-printed with a solid bar. This is because you have no corps or division HQs to give orders to.

(i). Reviewing Your Forces. Before issuing orders we'll examine the battlefield, the objectives and the enemy forces.

Select the <MAP WALK> line to go to Menu 3. The screen has cantered on a hollow, flashing cursor. Use the arrow keys, the I, J, K and M or the 1-6 keys to move the cursor over the map. The map will scroll once the cursor reaches the edge. Type (0) to centre the screen on the cursor. IBM users can use function keys f1-f9 to select 9x9 map sections; i.e. f1 will select the top left section, f3 will select the top right section.

At the very bottom of the information panel, you will see a three-part icon display. From left to right this shows you the type of terrain in the hex, which sections of the map are in use for this scenario together with the relative position of the cursor and which side currently controls the hex. The name of the terrain type appears immediately above the display.

Move the cursor to Centreville. Centreville is an objective. Its name appears above the terrain type name and its victory point details are described. Move the cursor to any one of the Union brigades on the road to the stone bridge. The icons at the top of the information panel tell you it is an infantry brigade while below that you are told its formation and condition.

Type (RET) to bring up the map walk menu. Select <ROADS>; all roads are removed from the map. Type (RET) to bring up

the menu again then select <ROADS> to replace the road network.

<CONTROL> allows you to see which side controls a particular hex. <CLEAR> removes all units on the map so you can see the terrain underneath.

Move the cursor to the Confederate brigade defending Ball's Ford. This is Coker's infantry brigade. The information provided is mostly self explanatory; more details are available in the Game Manual.

(ii). Operations. Go back to Menu 2. The <PERSONAL> line is the place where you must decide where to put your army HQ and how personally involved you want to get in the battle. Select <PERSONAL>. Below your menu window you will see that both yourself (P. G. T. Beauregard, that is) and General Johnson are OK. In the battle you can get captured, wounded or even killed!

Select <PROFILE> and you will be presented with the four profiles you may choose from. You may change your profile each turn. Your profile will not change from turn to turn unless you enter this menu and change it. You always begin with the default value set to <SENSIBLE>. The words here mean pretty much what they say. Heroic will inspire all troops within four hexes of your position while increasing the likelihood of a nasty accident. Cautious will keep you safe and sound but the effect on your men may prove disastrous. For this tutorial, keep your profile on <SENSIBLE>.

Select <MOVE HQ>. This is the mechanism by which you move your HQ around the map. <STAND> tells the army HQ to remain exactly where it is. <CURSOR> gives you access to the cursor so that you can use the I,J,K,M keys, the arrow keys or the 1-6 keys to move your HQ to the location of your choice. Note that you will not be allowed to select an enemy controlled hex as your destination.

<CONTROL> directs the army HQ to move as quickly as possible to a friendly corps HQ for the purpose of placing it under direct command. Since there are no Confederate corps at First Bull Run, this option has been over-printed by a solid bar. <OBJECTIVE> allows you choose an objective as the destination for the army HQ, using either the arrow keys or the name routine.

Since history tells us that McDowell is crossing Bull Run at Sudley Springs, we will use our foresight to prepare a tough reception for him around New Market. Select <OBJECTIVE>, cycle through the arrow keys until you locate New Market and then type (RET).

Now that the personal matters have been taken care of, it's time to give orders to your brigades. Type (ESC/f1) until you get back to Menu 2 and then select <ORDERS>.

Because the radio flag is set, you have communications with all of your brigades. Use the arrow keys to cycle through them. You may wish to compare the on-screen displays with the Order of Battle printed in Part Two of this booklet. IBM users have on-screen access to the Order of Battle via the <ROSTER> function.

Defending Union Mill's Ford is Ewell's brigade. His last order appears below his I.D. box; i.e. he has been ordered to defend the Union Mills Ford objective. Locate his brigade using the arrow keys and type (RET) to bring up the manoeuvre order menu. The <MAP WALK> option is exactly the same as the routine in Menu 2.

You may give Ewell's brigade any one of 5 orders. At the moment there is no need to change Ewell's orders.

Locate the following brigades and give them all <REGROUP> orders. This tells them to go the current destination of the army HQ; i.e. to New Market. The brigades are Bee, Early, Bartow, Jackson and Holmes. These are the men we will use to stop the Federals.

Go back to Menu H and select <RUN 5> to execute the turn.

(e). The Third Turn. Select <ORDER> from Menu 2. By now, Evans brigade defending the Stone Bridge has probably started a fight with some brigades from Tyler's division. Locate Evans brigade and type (RET). If he is engaged, then you will get the engaged order menu.

There are 4 combat choices. Evans will have already decided what he is going to do. Outnumbered, he will almost certainly withdraw. This is a sensible thing to do when faced by superior numbers so don't change his order. Options which for one reason or another are not currently available will be over-printed with a solid bar. If Evans has not yet engaged, leave him where he is. Bull Run is a good defensive position.

No-one will have reached New Market yet, so just make sure that the 5 brigades you gave regroup orders to haven't changed them and then select <RUN 5>.

(f). The Game Plan. Hunter and Heintzelman's divisions have arrived on the battlefield. Their lead brigades may have even crossed Bull Run. It's time to deploy your forces to meet them. Bee and Bartow's brigades should be at New Market. <SELECT> deploy from the manoeuvre order menu and

you will get control of the indicator cursor.

You may move the brigade one hex in any direction you chose.

Use the arrow keys to select the direction, then type (RET)

to confirm it. Deploy the brigades so that they form a line

at right angles to McDowell's path.

Experiment with both the manoeuvre and engaged orders. Later

on in the battle you may wish to send a couple of brigades

on an offensive push to Centreville using the <OBJECTIVE>

order.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
TUTORIAL (VOL II)

1. GETTING THE GAME TO RUN

(a). System Requirements. This program requires an IBM PC/XT/AT or PS/2, a Tandy or other IBM compatible computer, with 512K of memory. The program supports the following graphics cards - EGA, CGA, MCGA, VGA, Hercules and uses the 16 colour version of Tandy CGA. The program disk does not include DOS and requires IBM/MS-DOS Version 2.1 or higher to run.

(b). Backup and Hard Disk Installation. The game disks are not copy protected. Floppy disk users should use the standard DOS commands to copy the disks before use. Do not use the original disks for game playing.

Hard Disk users should create a directory on their hard disk and copy all of the files from the floppy disks to that directory. All program files must be in the same directory for the game to run. The path to this directory should not be longer than 26 characters.

(c). Starting the Game. Boot your computer with DOS. Floppy disk users should insert their copy of Disk One in drive A: and type db2 followed by (RET). Hard Disk users should change to the directory containing the program files and type db2 followed by (RET).

Floppy disk users should note there is one scenario on Disk One as well as the program files. The other five scenarios are on Disk Two. The tutorial will explain how to locate and load in the scenario of your choice. There is a readme file on Disk One. All the program and scenario files are on the one disk in the 3.5" version.

(e). System Set Up. The Set-Up menu allows you access to the user options in the game. It is not necessary to worry about it while you're learning the game. Use the arrow keys to locate the <SET UP> line and type (RET).

Choosing <EDIT> will allow you to customise four options. Use the arrow keys to cycle through the options.

(i). Scrolling. The settings are 0-6. 0 = no scrolling; 1-6 = scrolling speed where 1 is slow and 6 is fast. The default setting is 3. CGA users have only one scroll speed (it doesn't matter which setting you choose). Type (RET) to cycle through the speed settings when the <SCROLLING> line is high-lighted. Type (ESC/DEL) to recover the menu window.

(ii). DEL = ESC. The default settings in the game allow the DEL key to substitute for the ESC key. If you dislike this

option, type (RET) to disable it.

(iii). Sound. This toggles the sound effects in the game to `on' or `off'.

(iv). Auto-Save. Setting this option to `on' will automatically save the game as soon as <RUN 5> is selected. Only one file is maintained and it is overwritten each turn keeping the last turn always available. This file can be loaded using the <LOAD AUTO> command in the Save Game Utility.

Choosing <SAVE> will save your choices to disk in a special file.

Choosing <LOAD> will load the current options from that file, if it exists.

The <PATH> command sets the DOS path for all DOS operations like loading and saving files. It is restricted to 26 characters in length. When specifying drive names you must include the colon (:) as part of the path.

(f). Video Trouble Shooting. EGA and VGA systems will start up with our "full-map" graphic routines. Other graphic boards use our standard graphic routines. The program makes its best guess at your computer's video mode and should run. In the unlikely event that the program gets it wrong you can use a command line switch to force the program into the appropriate video mode. This takes the form (db2)(space)(n)(RET) where n is a single character; i.e. c = CGA, e = EGA, t = Tandy, m = MCGA, h = Hercules, v = VGA and f = switch off "full-map" graphics. The only reason EGA/VGA users would have to switch off "full-map" graphics (and instead use standard graphics) is for rapid testing of original scenarios or the initial creation of an original game map as described in the WarPaintô chapter of the Game Manual.

(g). DOS Details. In the real world of DOS, save game files are maintained with the name DF_nnn.DXG where nnn is a number between 001 and 050. Scenario files have the scenario name followed by a .DFX suffix. You can use normal DOS commands to delete or copy these files if necessary, but since you can save over existing files it should not be necessary to use DOS often. In addition, the "full-map" graphic routines use an additional file with the same prefix as the game file and a .LBM suffix. Again, see the WarPaintô chapter in the Game Manual.

2. LEARNING TO PLAY THE GAME

Following hard upon the Union disaster at Chancellorsville in May of 1863, Robert E. Lee took the Army of Northern

Virginia north into Pennsylvania, into the heart of the Union. The purpose of this hastily organised offensive was no less than the salvation of the Confederacy. With her coastline tightly blockaded, most of her ports in northern hands and her economy verging on disintegration, President Davis was desperate for some relief. This unexpected opportunity to put political pressure on Lincoln, to encourage European powers to grant diplomatic recognition and to follow up on a supposedly demoralised army could not be let go to waste.

President Lincoln viewed the Confederate drive with concern, ever pre-occupied with the security of his capital at Washington. The Army of the Potomac, eager to reverse the seemingly endless string of defeats it had suffered and with George Gordon Meade now commanding, was sent in pursuit of their Southern foe.

On the morning of July 1st, just a little north-west of the small, rural township of Gettysburg, the brigades of Henry Heth's division ran into a detachment of Union cavalry under the command of John Buford. The battle was joined and throughout the day troops from both armies poured in to reinforce the escalating struggle. Commanding the Union forces on this day was Maj-Gen John F. Reynolds; Meade did not arrive on the battlefield until July 2nd.

You are invited, in this tutorial, to take on the role of John Reynolds. You will command those elements of the Army of the Potomac which became available throughout the first day and you will be expected to blunt the Confederate drive on or about the historic Cemetery Hill. Your computer will command the Rebels.

As well as this manual, you'll need to have the data card in front of you.

(a). Starting Up

Start up your computer using the procedure given on the start side of the menu card. Menu A (Start Up Menu) appears to the right of the title page. As is the case with every menu in the game, you use the arrow keys to locate your choice from the menu and then type (RET) to select it. IBM users may alternatively use a function key to locate and select a menu item. The <SET-UP> line in Menu A is the third line in the menu; therefore f3 will select it. Similarly, f4 will select the <GOTO DOS> line.

If you select the wrong menu, don't worry. Apple II and IBM users type (ESC) to go back to the previous menu; C-64/128 users type (f1). IBM and Apple II users should note that the

(DEL) key will serve as the (ESC) key in most situations. IBM users can turn the sound on/off through Menu 12 of the Game Routines. Apple II and C-64 users should type Cntl (S) to turn on/off the sound. Apple II and C-64 users with a B&W monitor should type Cntl (B).

(b). Selecting the Gettysburg Day 1 Scenario

Before we can start play, we have to select the Gettysburg Day 1 scenario, tell the computer that we will control the North forces and decide which game options we wish to use. Use either arrow key to locate the <GAME> line and type (RET) to go to Menu B (Location Select). At this point, IBM owners using 5.25" floppy disks should remove Disk One from the drive and replace it with Disk Two. Apple II owners with one disk drive should remove the game disk, turn it over and put it back in the drive.

Use an arrow key to locate the <SCENARIO> line and type (RET) to go to Menu C (Scenario Menu).

Use an arrow key to locate the <GETTY 1> line and type (RET) to go to Menu E (Edit Utility). The scenario briefing screen is displayed to the left of the menu window. IBM users must select the <LOAD GAME> line and then position the cursor over the <Gettysburg Day 1> line and type (RET).

Use an arrow key to locate the <EDIT> line and type (RET) to go to Menu N (Game Options). There are two (IBM) or three (Apple II and C-64) options available when you play the game.

(i). Exposed. When the exposed flag is set, all units on the map will be visible at all times. If the exposed flag is not set, only currently sighted units will be visible on the battlefield.

(ii). Enhanced (Apple II and C-64 Only). When the enhanced flag is set, computer controlled forces will be given certain bonuses. For example, unit size, leadership and staff ratings may be increased.

(iii). Radio. When the radio flag is set, you will have automatic communications with every unit in your command. If the radio flag is not set, only those units directly attached to the army HQ and within communications range can be given orders.

For tutorial purposes, we will choose to set the exposed and radio flags but leave the enhanced flag alone. Position the cursor on the <EXPOSED> line and type (RET). The cursor will return automatically to the <CONTINUE> line. Select <RADIO> in the same way. Select <CONTINUE> to go to Menu F (Handicap Utility). An Options in Effect box has appeared below the

menu window showing that the exposed and radio flags have been set.

Since this is only a tutorial, we will give ourselves a break. The handicaps below the <NO EFFECT> line benefit the South, those above benefit the North. The effect of a handicap is to modify the victory point awards, it does not affect the artificial intelligence nor the composition of the forces. Note that the handicap structure for IBM users asks you to select a veteran, normal or novice opponent. Select a novice. AII/C64 users select the <MAJOR> north line.

You have been processed through to Menu G (Player Select). Locate the <NORTH> line and type (RET). The cursor has been thrown into the briefing screen and you have the opportunity to change the commanders' names. Do this if you wish, otherwise type (RET) until you get back to Menu E (Edit Utility).

Have a last look at the briefing screen and you'll see the North has a major handicap advantage (IBM users will be opposed by a novice computer general which is an unfair description of Lee?), the South forces will be run by the computer and the exposed flag is set.

Use an arrow key to locate the <START> line and type (RET) to go to Menu H (Game Master).

That's the preliminaries over with. We're just about ready to play.

Turn your menu card over to the game side.

(c). The First Turn

This tutorial is a brief introduction as to how the game plays. It is not intended to be a description of everything that can happen. The Game Manual describes in detail the full use of each menu. Once you have some experience with the game menus, we recommend you read Chapter 5 in the Game Manual for an explanation of the major game systems controlled by the computer.

Back to Menu H. A current turn briefing appears above the menu window. The date is July 1st, 1863, it is 9 am and this is the first of the fourteen turns in the game. Below the menu window you can see it is daylight and the weather is clear.

In the centre of the map is the town of Gettysburg. Reynolds' head-quarters (that's you) is stationed in the middle of town.

The <SOUTH> and <RUN 5> lines in the menu have been overprinted with a solid bar to show that you cannot access

them. The solid bar will disappear from the <RUN 5> line after the <NORTH> line has been accessed. This is to guard against accidentally selecting <RUN 5> before issuing your orders. The <SOUTH> line will always be overprinted during the game. The computer does not want you to see what it is doing!

Locate the <NORTH> line and type (RET). This brings up Menu 2 (Operations Master). Your choices here are <PERSONAL>, <COMMAND>, <ORDER>, <RESIGN> or <OPTIONS>, <MAP WALK> and <ROSTER> (IBM Only).

The map has not changed, just the information above and below the menu window. Above the menu window you can see the army I.D. Below the menu window you are given a casualty and victory point summary. The small number of casualties shown are stragglers from those brigades which have been force-marching since dawn. The VPs show what your score would be if the game was to end at this moment.

The <PERSONAL>, <COMMAND> and <ORDER> lines are the menus you use to give orders to your forces, the <RESIGN> line ends the game immediately and the <MAP WALK> line allows you to review your forces, enemy forces, the battlefield and objectives. The <ROSTER> line displays your complete Order of Battle.

(d). Reviewing Your Forces

Before issuing orders we'll examine the battlefield, the objectives and the enemy forces.

Select the <MAP WALK> line to go to Menu 3. The screen has centred on a hollow, flashing cursor. Use the arrow keys, the I, J, K and M or the 1-6 keys to move the cursor over the map. The map will scroll once the cursor reaches the edge. Type (0) to centre the screen on the cursor.

At the very bottom of the information panel, you will see a three-part icon display. From left to right this shows you the type of terrain in the hex, which sections of the map are in use for this scenario together with the relative position of the cursor and which side currently controls the hex. The name of the terrain type appears immediately above the display.

Move the cursor to Pitzer School. It is in the southeast corner of the map. IBM owners can use the f1 - f9 keys to scroll the map in large increments. Pitzer School is an objective. Its name appears above the terrain type name and its victory point details are described.

Move the cursor to any one of the Confederate brigades in the northwest sector of the battlefield. The icons at the

top of the information panel tell you it is an infantry brigade while below that you are told its formation and condition. Note that one of the four brigades is an artillery formation.

Type (RET) to bring up the map walk menu. Select <ROADS>; all roads are removed from the map. Type (RET) to bring up the menu again then select <ROADS> to replace the road network.

<CONTROL> allows you to see which side controls a particular hex. <CLEAR> removes all units on the map so you can see the terrain underneath.

Move the cursor to the Union brigade two hexes south-east of the northernmost Confederate brigade. This is Devin's cavalry brigade from Buford's cavalry division. The information provided is mostly self explanatory; more details are available in Chapter 5 of the Game Manual.

(e). Operations

Go back to Menu 2. The <PERSONAL> line is the place where you must decide where to put your army HQ and how personally involved you want to get in the battle. Select <PERSONAL>.

Below the menu window you will see that your current condition is OK. In the battle you can get captured, wounded or even killed!

Select <PROFILE> and you will be presented with the four profiles you may choose from. You may change your profile each turn. Your profile will not change from turn to turn unless you enter this menu and change it. You always begin with the default value set to <SENSIBLE>. The words here mean pretty much what they say. Heroic will inspire all troops within four hexes of your position while increasing the likelihood of a nasty accident. Cautious will keep you safe and sound but the effect on your men may prove disastrous. For this tutorial, keep your profile on <SENSIBLE>. Historically, Reynolds assumed a heroic profile on this day. At the end of it, he was dead!

Select <MOVE HQ>. This is the mechanism by which you move your HQ around the map. <STAND> tells the army HQ to remain exactly where it is. <CURSOR> gives you access to the cursor so that you can use the I,J,K,M keys, the arrow keys or the 1-6 keys to move your HQ to the location of your choice. Note that you will not be allowed to select an enemy controlled hex as your destination.

<CONTROL> directs the army HQ to move as quickly as possible to a friendly corps HQ for the purpose of placing it under direct command. <OBJECTIVE> allows you chose an objective as

the destination for the army HQ, using either the arrow keys or the name routine.

For the moment, leave your HQ in Gettysburg.

Now that the personal matters have been taken care of, it's time to give orders to your subordinates. Type (ESC/f1) until you get back to Menu 2 and then select <COMMAND>. The <COMMAND> line gives you access to all your division commanders presently on the battlefield. There is only one of them at the moment; Buford's cavalry division. Note that when the radio flag is set all corps commanders, and their icons, are removed from the game.

Buford's defensive order is to hold Herr Tavern. Type (RET) to bring up Buford's order menu. We will keep Buford on the defensive but move his defensive position from Herr Tavern back to the McPherson house. Select the <DEFENSIVE> line and you will see the data for the Herr Tavern objective. It's #23 of 23. McPherson is #22. Tap the left arrow key once or the right arrow key 23 times. You can also use the Name routine to find an objective. Type (n) then (mcp). As soon as the routine recognises an exclusive group of letters, it will jump to that objective.

Type (RET) again to get back to the Command Display. Buford's defensive order is now centred on the McPherson house.

Type (ESC/f1) until you get back to Menu 2 and then select <ORDER>. The <ORDER> line gives access to all the brigades currently on the map. There are just 2 at the moment.

Each brigade is identified by a 3 (IBM 9) character ID; the Order of Battle details in Part 2 of this booklet will tell you each brigade commander's full name. For example, Gamble's brigade (Gam) is cavalry, it belongs to Buford's division, it is in skirmish formation, it has 1600 men and 6 guns, its cohesion rating is excellent and its leadership and experience ratings are fair. Use the arrow keys to cycle through the two brigades so far on the battlefield.

Locate Devin's cavalry brigade (Dev). Type (RET) to bring up the brigade order menu. Just to be on the safe side, we will order Devin to fall back. Use the arrow keys to select the <WITHDRAW> line and type (RET). Likewise, order Gamble's cavalry brigade (Gam) to withdraw.

We are now ready to end the turn. Go back to menu H and select <RUN 5>. Battle reports are presented one after another and you should tap the <SPACE> bar to move on to the next report. A full explanation of the combat mechanics is given in Chapter 5 of the game Manual. Basically, firing units are shown as arrows pointing in the direction of the

target unit. Once the battles are over, the computer will begin moving troops. If the exposed flag had not been set, only those units visible to each other would have been seen.

(f). What to Do Next

Read the scenario notes for this battle in Part 2. You must try to delay the Rebs as long as possible before falling back to Cemetery Hill. Experiment with the order menus. If you're uncertain about what to do, accept the computer's advice and do not change the order. Refer to Chapters 4 and 5 of the Game Manual when necessary.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
TUTORIAL (VOL III)

LEARNING TO PLAY THE GAME

After the fall of Atlanta, Confederate General John Bell Hood obtained permission to march his army into Tennessee and harass the Union forces and Sherman's supply lines. He chased Union General John M. Schofield north across the State as Schofield tried desperately to link up with the main force under Thomas at Nashville.

At Franklin, Schofield found the bridge across the Harpeth River was down so he was obliged to dig in while he repaired it. Hood arrived before he could complete the bridge and attempted an immediate assault to try and take Schofield's force before it escaped.

John Schofield was in a stronger position than he realised, however, and his men managed to withstand Hood's fury, despite some initial penetration of their lines.

You are invited, in this tutorial, to take on the role of John B. Hood. You will command the Army of Tennessee and see if you can do better than this aggressive Confederate leader. Your computer will command the Union Forces. As well as this manual, you'll need to have the data card in front of you.

(a). Starting Up

Start up your computer using the procedure given on the start side of the menu card. Menu A (Start Up Menu) appears to the right of the title page. As is the case with every menu in the game, you use the arrow keys to locate your choice from the menu and then type (RET) to select it. IBM users may alternatively use a function key to locate and select a menu item. The <SET-UP> line in Menu A is the third line in the menu; therefore f3 will select it. Similarly, f4 will select the <GOTO DOS> line.

If you select the wrong menu, don't worry. Apple II and IBM users type (ESC) to go back to the previous menu; C-64/128 users type (f1). IBM and Apple II users should note that the (DEL) key will serve as the (ESC) key in most situations. IBM users can turn the sound on/off through Menu 12 of the Game Routines. Apple II and C-64 users should type Cntl (S) to turn on/off the sound. Apple II and C-64 users with a B&W monitor should type Cntl (B).

(b). Selecting the Franklin Scenario

Before we can start play, we have to select the Franklin scenario, tell the computer that we will control the South forces and decide which game options we wish to use.

Use either arrow key to locate the <GAME> line and type (RET) to go to Menu B (Location Select). At this point, IBM owners using 5.25" floppy disks should remove Disk One from the drive and replace it with Disk Two. Apple II owners with one disk drive should remove the game disk, turn it over and put it back in the drive.

Use an arrow key to locate the <SCENARIO> line and type (RET) to go to Menu C (Scenario Menu).

Use an arrow key to locate the <FRANKLIN> line and type (RET) to go to Menu E (Edit Utility). The scenario briefing screen is displayed to the left of the menu window. IBM users must select the <LOAD GAME> line and then position the cursor over the <Franklin> line and type (RET).

Use an arrow key to locate the <EDIT> line and type (RET) to go to Menu N (Game Options). There are two (IBM) or three (Apple II and C-64) options available when you play the game.

(i). Exposed. When the exposed flag is set, all units on the map will be visible at all times. If the exposed flag is not set, only currently sighted units will be visible on the battlefield.

(ii). Enhanced (Apple II and C-64 Only). When the enhanced flag is set, computer controlled forces will be given certain bonuses. For example, unit size, leadership and staff ratings may be increased.

(iii). Radio. When the radio flag is set, you will have automatic communications with every unit in your command. If the radio flag is not set, only those units directly attached to the army HQ and within communications range can be given orders.

For tutorial purposes, we will choose to set the exposed and radio flags but leave the enhanced flag alone. Position the cursor on the <EXPOSED> line and type (RET). The cursor will return automatically to the <CONTINUE> line. Select <RADIO> in the same way. Select <CONTINUE> to go to Menu F (Handicap Utility). An Options in Effect box has appeared below the menu window showing that the exposed and radio flags have been set.

Since this is only a tutorial, we will give ourselves a break. The handicaps below the <NO EFFECT> line benefit the South, those above benefit the North. The effect of a handicap is to modify the victory point awards, it does not affect the artificial intelligence nor the composition of

the forces. Note that the handicap structure for IBM users asks you to select a veteran, normal or novice opponent. Select a novice. AII/C64 users select the <MAJOR> south line.

You have been processed through to Menu G (Player Select). Locate the <SOUTH> line and type (RET). The cursor has been thrown into the briefing screen and you have the opportunity to change the commanders' names. Do this if you wish, otherwise type (RET) until you get back to Menu E (Edit Utility).

Have a last look at the briefing screen and you'll see the South has a major handicap advantage (IBM users will be opposed by a novice computer general), the North forces will be run by the computer and the exposed and radio flags are set.

At this time, if you wish, you can observe the computer playing against itself. This will give you an idea of the flow of the game and how the combat and movement mechanics work. Use the <EDIT> line of Menu E to return to Menu G (Player Select) and select <OBSERVE>.

Use an arrow key to locate the <START> line and type (RET) to go to Menu H (Game Master).

That's the preliminaries over with. We're just about ready to play.

Turn your menu card over to the game side.

(c). The First Turn

This tutorial is a brief introduction as to how the game plays. It is not intended to be a description of everything that can happen. The Game Manual describes in detail the full use of each menu. Once you have some experience with the game menus, we recommend you read Chapter 5 in the Game Manual for an explanation of the major game systems controlled by the computer.

Back to Menu H. A current turn briefing appears above the menu window. The date is 30th November 1864, it is 11 am and this is the first of the eleven turns in the game. Below the menu window you can see it is daylight and the weather is clear.

The map shows two Union units towards the top of the screen and a single Confederate unit at the bottom. Don't panic! More units are on their way.

The <NORTH> and <RUN 5> lines in the menu have been overprinted with a solid bar to show that you cannot access them. The solid bar will disappear from the <RUN 5> line after the <SOUTH> line has been accessed. This is to guard

against accidentally selecting <RUN 5> before issuing your orders. The <NORTH> line will always be overprinted during the game. The computer does not want you to see what it is doing!

Locate the <SOUTH> line and type (RET). This brings up Menu 2 (Operations Master). Your choices here are <PERSONAL>, <COMMAND>, <ORDER>, <RESIGN> or <OPTIONS>, <MAP WALK> and <ROSTER> (IBM Only).

On the first turn only, the <PERSONAL>, <COMMAND> and <ORDER> lines are overprinted. This is because General Hood, the figure you represent, does not arrive on the field until the third turn.

The map has not changed, just the information above and below the menu window. Above the menu window you can see the army I.D. Below the menu window you are given a casualty and victory point summary. The VPs show what your score would be if the game was to end at this moment.

The <PERSONAL>, <COMMAND> and <ORDER> lines are the menus you use to give orders to your forces, the <RESIGN> line ends the game immediately and the <MAP WALK> line allows you to review your forces, enemy forces, the battlefield and objectives. The <ROSTER> line displays your complete Order of Battle.

(d). Reviewing Your Forces

Before issuing orders we'll examine the battlefield, the objectives and the enemy forces.

Select the <MAP WALK> line to go to Menu 3. The screen has centred on a hollow, flashing cursor. Use the arrow keys, the I, J, K and M or the 1-6 keys to move the cursor over the map. The map will scroll once the cursor reaches the edge. Type (0) to centre the screen on the cursor.

At the very bottom of the information panel, you will see a three-part icon display. From left to right this shows you the type of terrain in the hex, which sections of the map are in use for this scenario together with the relative position of the cursor and which side currently controls the hex. The name of the terrain type appears immediately above the display.

Move the cursor to Moselys Hill. It is in the northern half of the map. IBM owners can use the f1 - f9 keys to scroll the map in large increments. Moselys Hill is an objective. Its name appears above the terrain type name and its victory point details are described.

Move the cursor to any one of the Union brigades in the northern half of the battlefield. The icons at the top of

the information panel tell you it is an infantry brigade while below that you are told its formation and condition. Note that one of the units is Schofield's HQ.

Type (RET) to bring up the map display menu. Select <ROADS>; all roads are removed from the map. Type (RET) to bring up the menu again then select <ROADS> to replace the road network.

<CONTROL> allows you to see which side controls a particular hex. <CLEAR> removes all units on the map so you can see the terrain underneath.

Objectives can be selected either by using the arrow keys to cycle through them or entering the objective name.

Friendly units can be located by entering their name.

Move the cursor to the Confederate cavalry brigade at the bottom of the map. This is Biffle's cavalry brigade from Chalmers' division. The information provided is mostly self explanatory; more details are available in Chapter 5 of the Game Manual.

We can't actually give any orders yet until our HQ arrives.

Go back to Menu H and select <RUN 5> to end the first turn.

Turn 2 you will find is much the same as turn 1. Your enemy is organising his forces while all you can do is check things out with your cavalry. Life is like this sometimes!

After making any investigations you wish using the <MAP WALK> function, go back to Menu H and select <RUN 5> again.

(e). Subsequent Operations

By now your forces should be flooding on. Most importantly, Hood himself (you!) should have arrived.

Go back to menu 2. The <PERSONAL> line is the place where you must decide where to put your army HQ and how personally involved you want to get in the battle. Select <PERSONAL>.

Below your menu window you will see that your current condition is OK. In the battle you can get captured, wounded or even killed!

Select <PROFILE> and you will be presented with the four profiles you may choose from. You may change your profile each turn. Your profile will not change from turn to turn unless you enter this menu and change it. You always begin with the default value set to <SENSIBLE>. The words here mean pretty much what they say. Heroic will inspire all troops within four hexes of your position while increasing the likelihood of a nasty accident. Cautious will keep you safe and sound but the effect on your men may prove disastrous. For this tutorial, we suggest you keep your profile on <SENSIBLE>.

Select <MOVE HQ>. This is the mechanism by which you move your HQ around the map. <STAND> tells the army HQ to remain exactly where it is. <CURSOR> gives you access to the cursor so that you can use the I,J,K,M keys, the arrow keys or the 1-6 keys to move your HQ to the location of your choice. Note that you will not be allowed to select an enemy controlled hex as your destination.

<CONTROL> directs the army HQ to move as quickly as possible to a friendly corps HQ for the purpose of placing it under direct command. Because the radio flag is set, Corps HQs do not appear and this line will be overprinted.

<OBJECTIVE> allows you to choose an objective as the destination for the army HQ, using either the arrow keys or the name routine.

For the moment, leave your HQ where it is.

Now that the personal matters have been taken care of, it's time to give orders to your subordinates. Type (ESC/f1) until you get back to Menu 2 and then select <COMMAND>. The <COMMAND> line gives you access to all your corps and division commanders presently on the battlefield. Note that because the radio flag is set, Corps headquarters are not present. Only division headquarters appear under the <COMMAND> line.

Because the radio flag is set, you will be able to give orders to all your division commanders each turn. A list of your commanders appears in the menu window. The commander in the centre of the window is highlighted and information on his command appears above and below the window. All three have <OFFENSIVE> commands with two objectives. Don't change the commands this turn.

Go back to Menu 2 and select the <ORDER> line. You are now able to issue orders to all of your brigades. Again, if the radio flag were not set, the number of brigades you would have access to would be severely restricted. Each brigade is identified in a small window in the centre of the information display. Use the arrow keys to cycle through the brigades so far on the battlefield.

If either of the cavalry brigades are in contact with the enemy it would be better to withdraw them. Locate Biffle's brigade and hit (RET) to bring up the brigade order menu. Select <WITHDRAW>. We don't want to waste our troopers at this stage of the battle.

Go back to menu H and select <RUN 5>. Battle reports are presented one after another and you should tap the <SPACE> bar to move on to the next report. A full explanation of the combat mechanics is given in Chapter 5. Basically, firing

units are shown as arrows pointing in the direction of the target unit.

Once the battles are over, the computer will begin moving troops. If the exposed flag had not been set, only those units visible to each other would have been seen.

(f). What To Do Next

Read the scenario notes for this battle given later in this booklet. You have more men than Schofield but must attack a very tough position. This short scenario will give you an ideal opportunity to practice the attack co-ordination vital to successful operations against fortifications. Experiment with the command and order menus. If you're uncertain about what to do, accept the computer's advice and do not change the order. Refer to Chapters 4 and 5 when necessary.

DECISIVE BATTLES OF THE CIVIL WAR
Strategic Studies Group (SSG)
CONSTRUCTION KIT MANUAL

1. INTRODUCTION

The following notes are meant as a guide to WarPlan. The information they contain will also provide some insights into how the game works, and should be read at some stage even if you never construct your own scenarios.

Varying an existing scenario is fairly straight-forward and the easiest way to get the most out of your game. All of the scenarios in the game come with suggested variations which can be easily implemented. However, designing an original scenario will require a reasonable degree of familiarity with the game itself. We publish complete scenarios for the Decisive Battles Game System in our magazine Run 5. The magazine contains all the information required to create entirely new games using WarPlan and WarPaint. For details on Run 5 magazine, please contact Strategic Studies Group (SSG).

2. USING THE DESIGN MENUS

The data card contains a schematic display of the design menus. They operate in the same way as the Game Menu that you have already used.

You cannot make changes to the historical scenarios themselves; rather you must save the scenario onto a save game disk and then edit the data. This is to prevent you from accidentally corrupting the historical scenarios. Nor can you edit a game in progress. Only scenarios with a game turn number of zero may be edited.

3. PREPARING A DISK

Whether making a variation to an historical scenario or creating an original scenario, the procedure for preparing a save game disk is essentially the same. Examine the Start and Design menus. If you have not formatted a Decisive Battles save game disk, prepare one using the procedure given in Chapter 3 of the Game Routines.

When making a change to an historical scenario, select the <CREATE> line from Menu A and type (RET) to obtain Menu B. If the template which is providing the source for the variation is on a scenario disk, select the <SCENARIO> line and type (RET). Select the chosen scenario from Menu C. The computer will automatically process you through to Menu J (Create Master). If the template which is providing the source for the variation is on a save game disk, select the <DISK> line and type (RET).

Load the chosen file from Menu D. The computer will automatically process you through to Menu J (Create Master). Use WarPlan and WarPaint to make whatever changes you wish to the data and then come back to Menu J.

Select the <DISK> line to go to Menu D. Select the <SAVE> line. Locate the desired save location in the catalog with the arrow keys and then type (RET). You will be offered an opportunity to enter a comment. Use it if you wish, otherwise select the <SAVE GAME> line and type (RET).

IBM users can store scenario and save games in the same catalog. Thus, there is no Menu D in the IBM routines.

When you wish to create an original scenario, repeat the above procedure but before entering data use the <CLEAR> line in Menu J to erase the data bases.

4. THE WARPLAN DESIGN MENUS

This section describes the various menus in WarPlan together with explanations of their functions. The order in which they are presented represents a convenient sequence for the creation of a new scenario. Once you completed your new scenario, we suggest you run it through in <OBSERVE> mode several times to fine tune the game balance. To assist with this process, type Cntl (F) at any time to enter the fast resolution mode.

(a). MAP DATA (Menu 5)

(i). Map Size/Info (Menu 6)

The map size in Decisive Battles is variable. Each map element is 9 hexes wide by 9 hexes deep. There may be up to three elements across and three down. Thus, the maximum size of a battlefield is 27 by 27 hexes. At a suggested ground scale of 300-500 yards per hex, this represents an area somewhere between 20 and 60 square miles.

In creating a scenario, map size must be set before anything else. Select the smallest map size that can comfortably support the action you wish to represent. Apart from being less work, smaller maps will mean faster games.

The top left sector should always be set to 0. Set the bottom right sector variable to the appropriate value. To make a 9 x 9 grid (i.e. a 1 sector map), set the bottom right sector variable to 0!

IBM users can choose colours for river, coast-line and map-edge hex-sides. Road and cursor colours are also selectable.

(ii). Define Terrain (Menu 7)

There are thirty-two (32) terrain shapes in Decisive Battles. Each shape can be completely redrawn using our powerful WarPaint graphics editor. The names and sighting, movement, cover and fortification effects of each terrain type are defined here. It

is possible to represent the ground conditions of any battlefield by judicious use of names and effects. Use the (RET) key to advance the cursor through the screen.

Examine any (or all) of the game scenarios and the blank design form in Appendix A.

For each terrain shape you wish to use, enter a 1-11 character name.

The sighting value represents the ease of visibility into and through the hex. A value of 0 specifies that there is no impediment to visibility; i.e. the hex is easy to see through. A value of 15 specifies that the line of sight is completely blocked. Values of 8-15 will create super dense terrain and may result in adjacent units being unable to see each other.

The movement value of a hex specifies how many movement points each unit must expend when traversing it. Units in column formation will pay only 1 MP when using visible roads no matter what terrain type is underneath. Hidden roads do not affect the movement value of a hex. Note that terrain types with an MP value of 0 prohibit entry for any unit.

The terrain symbol along the top of the screen corresponds to the line currently being edited by the cursor.

The cover value of a hex measures the extent of natural protection from enemy attack provided by the terrain type. This does not include any man-made structures. A value of 0 specifies that there is little or no protection afforded to units occupying the hex. A value of 7 indicates tremendous protection. Note that brigades defending hexes with high natural cover values may have more difficulty in bringing fire to bear on the enemy than a brigade in more open terrain. Assaults launched from heavily covered hexes are less effective than assaults from open ground. There is a balance to be struck. Brigades assaulting from open terrain will suffer more severely than brigades assaulting from heavily covered terrain.

The fortification value measures the extent of man-made rifle pits, breastworks and basic field defences in a given hex type.

We have allowed the use of 31 hex types to ensure there are enough to construct detailed field defences. A value of 7 specifies the extensive development of field defences. A value of 0 specifies none. A separate entry should be used for North and South fortifications.

By examining the terrain data bases in each of the historical scenarios, you can quickly see how to implement these values in your own designs. Field defence construction became an ever more important battlefield tactic to both sides as the war progressed. The Confederacy, particularly, excelled in the preparation of complex and deadly entrenchments.

In many instances, you will note several hex shapes with the same name and effect values. The large number of hex types available has allowed us to customise terrain features to produce a more aesthetically pleasing battlefield.

(iii). Map Create Utility (Menu 8)

It's probably a good idea to make a draft version of your battlefield before completing the rest of the map data. However, we strongly advise you not to edit the map screen until all the information in Menus 6 and 7 has been compiled and entered into the program. IBM users should read the note at the end of this section.

A 9 x 9 hex section of the map will appear with a white, hollow, flashing cursor. In the top right of the screen you will find the hex co-ordinate of the cursor's current location. In the bottom right of the screen you will see the terrain name, the icon corresponding to the name, the relative position of the cursor in relation to the whole map and the icon identifying the side which controls the hex. If the hex has been defined as an objective, the name appears immediately above the terrain name.

There are 32 terrain types which can be entered. River, bridge and ford hex-sides can be entered. Roads can be added to a hex. Every hex must be identified as North or South controlled.

The I,J,K,M and 1-6 keys will move the cursor around the battlefield. Type (0) centre the screen on the cursor.

IBM users can use the f1 - f9 function keys to select sequential 9x9 sectors of the map; i.e. f1 selects the top left sector, f9 selects the bottom right sector.

To create a terrain type in a hex, type (T)(n) where n = a number between 0 and 31. Please see the blank terrain effects chart in Appendix A. Note that terrain types T1-T3 require you to type (T)(n) (SPACE). This is to distinguish them from double digit terrain types which use 1-3 as the first number. Terrain types T0 and T1(SPACE) are water hexes. T0 cannot be entered by any units. T1(SPACE) can be entered by all units and is therefore suitable as a bridge, ferry, ford or pontoon link across a wide body of water. Terrain types T2(SPACE)-T31 can be entered by all unit types and it is these types which make up the land component of the battlefield.

The road structure needs some explanation. There are two types of roads; functional roads and cosmetic roads. Functional roads are those used by the movement routines to march columns of men long distances. Cosmetic roads are those which end in dead ends, the map edge or anywhere which could confuse the computer. Use a cosmetic road if you don't want the computer to treat the hex as a road when moving troops in column or determining march routes. Units using either type of road pay 1 MP per road hex entered. To

add a functional road to a hex, type (R) while the cursor is over the hex. Type (R) again to remove the road. To add a cosmetic road to a hex, type (C) while the cursor is over the hex. Type (C) again to remove the cosmetic road.

Functional roads are one of two types; normal or hidden. Type (R) (X) to specify a hidden road. The road icon is masked by the terrain icon and any units using the road will pay the movement value of the terrain in the hex.

The movement routines will nonetheless use hidden roads as though they were normal roads when determining march routes and column movement. This technique is suited for picking out a track through dense terrain where placing a normal road would confer too great an advantage on the user. Type (X) again to convert the hidden road back to a normal road.

To create a river hex-side, you must type three keys. The first is (S). This identifies a hex-side. The second is a number between 1 and 3. This identifies north, north-eastern and south-eastern hex-sides respectively. Note that the south hex-side of one hex is the north hex-side of the hex directly below it. In this way, all 6 hex-sides can be edited. The third is a number between 1 and 3. (1) identifies a river. (2) identifies a bridge. (3) identifies a ford.

Type (S0) to clear all hex-sides from a particular hex. Rivers cannot be crossed except at fords or bridges. The presence of small streams can be accounted for in the terrain types.

Unlike our previous design kits, cities are created by using the terrain types; they are not a separate flag.

To set control of a hex to North or South, type (RET) to bring up the map menu and select <SET NORTH> or <SET SOUTH> as appropriate. All hexes, except T0s, will have their terrain icon replaced by the North or South control icon. As the cursor moves, it will leave a trail of the appropriate control icons behind it.

To change control, type (RET) to bring up the map menu and select <RESET ALL>. You are back at square one and can repeat the procedure using the other control icon. When editing hex control from scratch, the default value is South.

For convenience, you can set the cursor to automatically produce a terrain shape. With the cursor flashing on the chosen terrain, type (RET). This brings up the map menu on the right of the screen. Selecting <SET SHAPE> from this menu will lock the current terrain shape to the cursor. You may now move the cursor and the selected shape will be created wherever the cursor is moved. Type (RET) again to go back to the menu and select <RESET ALL> to turn off the shape.

We suggest you keep the map size as small as possible for your first original scenario.

All maps are compromises between the actuality of the terrain and its representation. Do not feel afraid to be creative with terrain to make the map work properly within the game system.

Important Note for IBM Users. If your IBM supports an EGA or VGA card and you have a colour monitor, you will be able to use our "full-map" graphics. There are a few changes you need to be aware of when you are building a new map. There are up to 250 full map icons which can be used to create the map. However, there are still only 32 different terrain types. In other words, the new graphics are purely an overlay covering the basic terrain shapes. What you must do is first create a map using the basic graphics (i.e. go to DOS and re-enter the program, disabling the "full-map" graphics). For example, the Decisive Battles Vol I game is usually started with the command db1. To start up without the "full map" graphics, use the command db1 f.

Build up the map using the standard graphics and save as normal. Return to DOS and restart with the "full-map" graphics enabled. You can now go to the WarPaint routines and prepare brilliant, 16 colour terrain shapes and unit icons. These icons are stored in a .lbm file and are DPAINT2 (c Electronic Arts) compatible. Note that when you place these full-map hexes on the map, the original terrain type and name will remain in the lower right of the screen.

Finally. Issue 14 of our Run 5 magazine contains an extensive article on the use of "full map" graphics.

(b). UNIT DATA (Menu 9)

(i). Limits (Menu 10)

The limits menu is used to divide the available unit blanks between the North and South. Select <FORCES> and by typing the (RET) key repeatedly you will see there are three values to be entered.

There are a maximum of 15 Corps which may be created. When you type a number into the <CORPS> line you are allocating the available Corps between the North and South. The South is allocated a number of Corps equal to 1 less than the number entered. For example, if you type (8) the South will be allowed a maximum of 7 Corps. This number appears in the <max> column of the Southern Corps line.

The procedure for allocating divisions and brigades is identical. For example, a value of 19 in the division line would mean that the Rebs could use a maximum of 18 divisions, the Union 21. We have chosen this way of unit allocation so that we can produce the largest possible force pool in the smallest amount of memory. Note that the value range displayed to the left of the North forces shows the current, legitimate range for each entry.

(ii). Weapons (Menu 13)

Examine the blank weapons roster in Appendix A. If the scenario you are preparing is set in the American Civil War, then the weapons roster used in all of the historical scenarios should be more than adequate. Otherwise, you will have to make your own. There are 31 possible weapon types you may use. These must be divided between artillery types and small arms types. You will have already used Menu 10 (Define Limits) to select the number of each type you require.

Artillery

To create an artillery type, complete the following steps.

I.D. Enter a 1-11 character name to identify the artillery type.

RANGE. Enter a value between 0 and 5. This is the effective range, measured in hexes, of the artillery type. For example, in a scenario where the ground scale is 500 yards/hex, a 6pd smoothbore would have an effective range of 2 hexes.

RATE OF FIRE. Enter a value between 0 and 7. This value measures the reliability, ease of use and rate of fire of a gun.

EFFECTIVENESS. Enter a value between 0 and 7. This value measures the performance of the gun at close range; i.e. the effectiveness of its fire into an adjacent hex.

PENETRATION. Enter a value between 0 and 7. This value measures the fall-off in performance as the range of the gun increases. A value of 0 means that the gun has little effect beyond the first hex. A value of 7 means that the gun retains much of its effectiveness at its maximum range.

Small Arms

To create a small arms type, complete the following steps.

I.D. Enter a 1-11 character name to identify the small arms type.

RANGE. Enter a value of 0 or 1. A value of 0 indicates that the small arms type is primarily for melee use. A value of 1 indicates that the small arms type is primarily a projectile weapon. Troops armed with both melee and projectile weapons should be assigned a value corresponding to their primary type.

FIRE EFFECT. Enter a value between 0 and 7. This value is a quantitative measure of the firepower delivered by the small arms type.

MELEE EFFECT. Enter a value between 0 and 7. This value is a quantitative measure of the melee performance of the small arms type.

For example, Civil War cavalymen used firearms for skirmishing but switched to sabres on the occasion of a charge. The fire effect of the pistol should be 1 or 2 while the melee effect of a sabre in the hands of a mounted cavalryman should be 5 or 6. However, Civil War cavalymen were not primarily employed in a charging role so the range should be set at 1.

(iii). Forces (Menus 11)

Examine the blank force rosters in Appendix A. One of these should be prepared for each formation in the game. Do not attempt to edit the screen until these rosters have been completed.

The most important thing to note about troop creation in the Decisive Battles System is that there is no fixed organisational structure. For example, brigades may be attached to divisions, or corps, or even directly to the Army HQ. Such a flexible structure is the best way to reflect the operational employment of troops in the nineteenth century.

Army HQs

COMMANDER. Enter a 1-11 character name to identify the commander of the Army.

SECOND IC. Enter a 1-11 character name to identify the second in command of the Army. This variable should only be used where a second in command was officially appointed such as Beauregard at Shiloh. A 2IC will reduce the adverse effects of a C-in-C casualty.

HQ I.D. Enter one or two 1-11 character names to identify the Army.

LOCATION. Enter the x, y map co-ordinates of the Army HQ's start or arrival hex.

ARRIVAL. Enter a number between 0 and 95. This is the turn that the Army HQ will arrive on the map. An arrival number of 0 means the HQ begins the game deployed on the map. A human player will have no control over his subordinates until the Army HQ appears on the map.

OFFENCE #1. Enter a value between 0 and 23. A value of 0 specifies that there is no offensive objective; any other value identifies the chosen objective. Only enemy controlled objectives should be chosen.

OFFENCE #2. Enter a value between 0 and 23. As above. A computer Army commander will attempt to capture the first objective before moving on to the second objective.

DEFENCE #1. Enter a value between 0 and 23. A value of 0 specifies that there is no defensive objective; any other value identifies the chosen objective. Friendly controlled objectives must be chosen.

DEFENCE #2. Enter a value between 0 and 23. As above. A computer Army commander will defend both objectives, giving preference, if necessary, to the first defensive objective.

HQ MOVEMENT. Enter a value between 0 and 15. It is the number of movement points the Army HQ has available each turn to move over the map. The value should reflect the vigour shown by the Army's commander throughout the battle. The value should also be related to the movement allowances of other troops and to the terrain

effects. In general, an Army HQ should have a higher movement allowance than a Corps HQ.

STAFF. Enter a value between 0 and 7. This value is a subjective evaluation of the amount of preparation the Army HQ has done for the battle. Factors which are included in this rating are battlefield familiarity (recon), extent and detail of the briefings given to subordinates, staff experience and the overall confidence of the army in its commander.

STRENGTH. Enter a value between 0 and 7. This value simply describes the size of the provost guard accompanying the Army HQ. The units are 100s of men. It is not suitable for offensive use.

LEADERSHIP. Enter a value between 0 and 7. This value is only used when the computer is placed in command of an Army. Human commanders must rely upon their own judgement and intuition when issuing orders to subordinates. You can expect a much tougher battle from a commander with a high leadership value than from a lowly rated duffer.

Corps HQs

ARMY HQ I.D. Enter 1-9 character name to identify the Corps or its commander.

LOCATION. Enter the x, y map co-ordinates of the Corps HQ's start or arrival hex.

CORPS TYPE. Enter a value of 0 or 1. A value of 0 specifies an infantry corps; a value of 1 specifies a cavalry corps.

ARRIVAL. Enter a number between 0 and 95. This is the turn that the Corps HQ will arrive on the map. An arrival number of 0 means the HQ begins the game deployed on the map. You will not be able to issue commands to the subordinates of a particular corps until that corps' HQ has entered the map. Brigades belonging to a Corps not yet on the map may be directed by the Army commander provided they are within the four hex immediate command range.

ORDERS. Enter a number between 0 and 2. 0 = offensive, 1 = defensive, 2 = reserve. A Corps formation must have an offensive order to move on an enemy controlled objective or to issue such an objective to a division HQ under its control. A Corps with an offensive order may select two objectives, the first defines the route of march to the final destination.

A Corps with a defensive order may move, or issue such an order to a subordinate division HQ, only to a friendly controlled objective. Only one objective can be given to a corps with a defensive order. A Corps with a reserve order will hold in place, awaiting further orders. A Corps with a reserve order will not pay any attention to an objective. Note that the Army commander can change these orders as soon as the Corps HQ comes within communication range. The primary function of these orders is to make sure that newly arriving troops do not mill about aimlessly

but move sensibly into battle.

OBJECTIVE #1. Enter a value between 0 and 23. A value of 0 specifies no objective; any other value identifies a particular objective. The previous paragraph describes their purpose.

OBJECTIVE #2. Enter a value between 0 and 23. As above.

HQ MOVEMENT. Enter a value between 0 and 15. It is the number of movement points the Corps HQ has available each turn to move over the map. The value should reflect the vigour shown by the Corps' commander throughout the battle. The value should also be related to the movement allowances of other troops and to the terrain effects. In general, Corps HQs should have more MPs than subordinate brigades of the same type.

DAILY COMMITMENT. This value is used only by computer army commanders. For any particular day of a battle, a corps commander can be specified as being completely out of communication. The army commander will not be able to issue orders to the corps commander. An example of where this feature is used is the Chattanooga scenario. Thomas, one of Grant's corps commanders, is a very capable officer. However, on the first day of the battle, Grant wanted Thomas to remain on the defensive while Sherman's and Hooker's troops moved into position. For a human commander, implementing this plan is no problem. For the computer, it's not so easy. The Union is on the offensive on the first day and thus the first time a computer controlled Grant gets in contact with Thomas, he will be given an offensive command. By using this value to put Thomas out of communication with Grant on the first day of the battle, the computer can properly implement Grant's historical plan. Enter 0 if this feature is not to be used by the corps. Enter 1 if the corps is to be isolated on the first day only, enter 2 if the corps is to be isolated on the second day only, enter 3 if the corps is to be isolated on the first and second days only, enter 4 if the corps is to be isolated on the third day only, enter 5 if the corps is to be isolated on the first and third days only... etc; i.e day 1 =1, day 2 = 2, day 3 = 4 and day 4 = 8. If the corps is to be isolated for more than one day, add the value for those days together.

LEADERSHIP. Enter a value between 0 and 7. This value measures the experience, confidence and determination of the Corps commander. It is especially important when the Corps HQ is not in communication with its Army HQ and must rely on its own initiative to get things moving.

STAFF. Enter a value between 0 and 7. This value is a subjective evaluation of the amount of preparation the Corps HQ and its commander have done for the battle. Factors which are included in this rating are battlefield familiarity (recon), extent and detail of the briefings given to subordinates, staff experience

and the overall confidence of the corps in its commander. These are the same criteria used to rate the Army staff values.

STRENGTH. Enter a value between 0 and 7. This value simply describes the size of the provost guard accompanying the Corps HQ. The units are 100s of men. It is not suitable for offensive use.

LIKELIHOOD. Enter a value between 0 and 7. This value measures the likelihood of a Corps HQ appearing on its start or arrival hex at the scheduled time. A value of 7 means that the Corps HQ is certain to arrive. HQs or brigades on the same side with the same likelihood value will be delayed by the same number of turns. Units with values of 4 or less may not arrive at all.

Division HQs

DIVISION HQ I.D. Enter 1-9 character name to identify the Division or its commander.

CORPS. Enter a number between 0 and 15. This number defines the place the division will occupy in the order of battle. An entry of 0 places the division directly under the command of the Army HQ. An entry of 1-15 places the division under the command of the Corps HQ identified by that number.

DIVISION TYPE. Enter a value of 0 or 1. A value of 0 specifies an infantry division; a value of 1 specifies a cavalry division.

Mounted infantry divisions should be classified as infantry divisions for this purpose. You should not place artillery brigades in divisions but rather attach them to Corps or Army HQs. Division artillery should be distributed among the component brigades.

ORDERS. Enter a number between 0 and 2. 0 = offensive, 1 = defensive, 2 = reserve. A division must have an offensive order to move on an enemy controlled objective. A division with an offensive order may select two objectives, the first defines the route of march to the final destination. A division with a defensive order may move only to a friendly controlled objective. Only one objective can be given to a division with a defensive order. A division with a reserve order will hold in place, awaiting further orders. A division with a reserve order will not pay any attention to an objective. Note that the Army commander, or the Corps commander, can change these orders as soon as the division comes within communication range. The primary function of these orders is to make sure that newly arriving troops do not mill about aimlessly but move sensibly into battle.

OBJECTIVE #1. Enter a value between 0 and 23. A value of 0 specifies no objective; any other value identifies a particular objective. The previous paragraph describes their purpose.

OBJECTIVE #2. Enter a value between 0 and 23. As above.

LEADERSHIP. Enter a value between 0 and 7. This value measures the experience, confidence and determination of the division commander. It is especially important when the Division HQ is not in communication with its superior HQ and must rely on its own initiative to get things moving.

STAFF. Enter a value between 0 and 7. This value is a subjective evaluation of the amount of preparation the Division HQ and its commander have done for the battle. Factors which are included in this rating are battlefield familiarity (recon), extent and detail of the briefings given to subordinates, staff experience and the overall confidence of the division in its commander. These are the same criteria used to rate the Army and Corps staff values.

Brigades

BRIGADE I.D. Enter a 1-3 character name to identify the brigade or its commander. IBM users can enter a 1-9 character name.

UNIT SIZE (IBM Only). Enter a 1-3 character name to identify the size of the unit; e. g. Bde, Rgt, Bn or Bty. This is cosmetic only and appears on the unit roster in the IBM version.

LOCATION. Enter the x, y map co-ordinates of the brigade's start or arrival hex.

CORPS. Enter a number between 0 and 15. This number helps define the place the brigade will occupy in the order of battle. An entry of 1-15 places the brigade directly under the command of the Corps HQ identified by that number. An entry of 0 means that the brigade is not under the command of any of the corps in the game.

DIVISION. Enter a number between 0 and 39. This number helps define the place the brigade will occupy in the order of battle.

An entry of 1-39 places the brigade directly under the command of the Division HQ identified by that number. An entry of 0 means that the brigade is not under the command of any of the divisions in the game. Note that if both Corps and Division values are 0, then the brigade will be under the direct command of the Army HQ.

ARRIVAL. Enter a number between 0 and 95. This is the turn that the brigade will arrive on the map. An arrival number of 0 means the brigade begins the game deployed on the map.

BRIGADE TYPE. Enter a value of 0-3. A value of 0 specifies an infantry brigade, a value of 1 specifies a mounted infantry brigade, a value of 2 specifies a cavalry brigade and a value of 3 specifies an artillery brigade.

OBJECTIVE. Enter a value between 0 and 23. A value of 0 specifies no objective; any other value identifies a particular objective.

In general, the only brigades which need objectives are independent brigades attached to Corps or Army HQs or brigades scheduled as reinforcements. If a reinforcing brigade does not

have an objective, it will mill about for one turn before receiving instructions from its superior HQ.

SMALL ARMS TYPE. Enter a value between 0 and 31. A value of 0 specifies that the brigade is not equipped with small arms. A value of 1-31 specifies which small arms type from the weapons list has been issued to the brigade.

ARTILLERY TYPE. Enter a value between 0 and 31. A value of 0 specifies that the brigade is not equipped with artillery. A value of 1-31 specifies which artillery type from the weapons list has been issued to the brigade.

TROOP STRENGTH. Enter a value between 0 and 31. This value describes the size of the brigade in increments of 100 men.

MOVEMENT. Enter a value between 0 and 15. It is the number of movement points the brigade has available each turn to move over the map. We recommend that Infantry and artillery brigades be given 4-8 MPs, mounted infantry and cavalry brigades 6-12 MPs. Brigades which were capable of particular initiative or enthusiasm can be given a 1-3 MP bonus. The final value chosen should also take into account the movement point costs of the terrain on the battlefield.

ARTILLERY STRENGTH. Enter a value between 0 and 15. This value specifies the number of artillery pieces in the brigade. For all Civil War battles, we recommend that 1 point of this value be equal to 2 pieces of artillery. Thus, a typical 6 gun battery attached to a brigade would have an artillery strength of 3.

SHATTERED. Enter a number between 0 and 1. A value of 0 indicates that the brigade begins the game in a normal condition. A value of 1 indicates that the brigade begins the game suffering from a recent mauling. The effect is the same as for a brigade shattered in the course of the game.

LEADERSHIP. Enter a value between 0 and 7. This value measures the experience, confidence and determination of the brigade commander. It is especially important when the brigade is not in communication with its superior HQ and must rely on its own initiative to get things moving.

COHESION. Enter a value between 0 and 7. This value should be set at 7 unless the scenario begins in the middle of a battle. Cohesion measures the current fighting condition of the brigade as described in the game routines section.

EXPERIENCE. Enter a number between 0 and 7. 0 = green and unreliable (but not necessarily useless), 7 = elite troops of the highest quality (for example the Iron Brigade or the Stonewall Brigade). The average brigade should have an experience between 3 and 5, although this value should increase toward the end of the war; especially for Confederate brigades.

REGIMENTS. Enter a number between 0 and 7. This number specifies

the number of regiments (or major sub-units) which make up the brigade. It is a very good indicator of the brigade's flexibility.

LIKELIHOOD. Enter a value between 0 and 7. This value measures the likelihood of a brigade appearing on its start or arrival hex at the scheduled time. A value of 7 means that the brigade is certain to arrive. HQs or brigades on the same side with the same likelihood value will be delayed by the same number of turns.

(iv). Objectives (Menu 12)

Examine the blank objective chart in Appendix A.

A maximum of 23 objectives per scenario can be created. The <FORWARD> and <BACK> lines in the menu window are used to bring up the next objective. The <EDIT> line is used to enter the objective and set its parameters. The <MAP> line is an alternative method of positioning the objective on the map.

Each objective must be given a 1-11 character name and an x, y map location.

Victory points for each side can be awarded for the possession of an objective on a turn by turn basis throughout the game and/or at the end of the game.

When awarding points throughout the game, you must select the turn that point scoring will begin and the turn on which it will end.

If you wish to create an objective simply as a signpost for the direction of your troops, then don't assign any VPs for its possession.

A manoeuvre value of 0-15 is available to make a particular objective more attractive to the computer's movement routines. The higher the value, the more likely is the computer to route troops through that point. The best way to get the feel for this tool is to have a careful look at the historical scenarios. Then, if the troops in your scenario are reluctant to go the way you want them to, experiment with the manoeuvre value.

(c). TITLE (Menu 15)

Enter a 1-16 character name for the scenario. There are up to three 26 character lines you can use for a sub-title to the scenario.

Enter a 1-9 character name to identify the North nationality.

Enter a 1-9 character name to identify the South nationality.

These character names will be the ones appearing in the first game menu; i.e. Menu H (Game Master).

(d). BRIEFING (Menu 14)

(i). Rosters (Menu 15)

There are two items to enter here. The advice window allows you to enter several paragraphs of handy hints for each side. These can be accessed during the game from Menu 12.

The roster menu should only be edited once you have entered all the data for your forces. The display shows your forces organised in a standard military way. All you have to do is tidy up the appearance by inserting line spaces to make the roster look professional. Look at one of the scenarios to see what can be done. To do it, use the arrow keys to select the <EDIT> line and then the arrow keys again to move the bar cursor to the line below where you wish to insert a space. Hit (RET) to insert the space. Blank lines are identified by the word <insert>. To remove a blank line, position the bar cursor over the blank line and hit (RET).

(ii). Scenario Setup (Menu 16)

Enter the turn, day, month, year and century that the scenario begins.

A maximum movement distance (in hexes) must be specified for each type of unit. A separate specification is made for each nationality. Enter a value between 0 and 15. We recommend, for Civil War battles, these values; infantry brigades (4-6), mounted infantry brigades (6-9), artillery brigades (4-9), cavalry brigades (6-12) and HQs (9-15).

To recreate the conditions of a surprise attack, enter a value of 1 in the <Encamped> line for a side which is caught unprepared by the enemy assault. If there is no surprise, enter a value of 0.

To allow a side to construct battlefield entrenchments in the course of the scenario, enter a value of 1-7 in the <Entrench> line. A value of 0 means a side cannot construct battlefield entrenchments. Entrenchments increase the cover value of a hex. The higher the entrenchment value, the more protection a unit will receive.

In addition to the victory points awarded for the occupation of objectives, points are also awarded for causing casualties to enemy leaders and troops. A value of 0-31 can be entered for each category.

IBM Only. A combat value of 0-7 has been added to reflect the change in unit density in combat as the war progressed; i.e. the lethality of the rifled musket forced troops to abandon the exposed formations characteristic of the Napoleonic Wars. A value of 0 describes very exposed formations; a value of 7 describes formations deployed to minimise enemy firepower.

(iii). Scenario Details (Menu 16)

Examine the blank briefing form in Appendix A as well as any of the scenarios.

A scenario may last as long as 4 days. These routines fill out much of the background information necessary to get the game moving.

For each day the expected atmospheric weather must be defined,

whether each side is expected to take the offensive must be decided and three values must be entered for each of the 24 hours in a day.

WEATHER. Enter a value between 0 and 4. 0 = clear, 1 = overcast, 2 = drizzle, 3 = rain, 4 = snow.

NORTH OFFENSIVE. Enter a value of 0 or 1. A value of 0 puts the North on the defensive for the day. A value of 1 puts the North on the offensive for the day.

SOUTH OFFENSIVE. Enter a value of 0 or 1. A value of 0 puts the South on the defensive for the day. A value of 1 puts the South on the offensive for the day.

MODE. Enter a value between 0 and 3. 0 = night, 1 = dawn, 2 = dusk, 3 = day.

MOVE. Enter a value between 0 and 3. 0 = no move, normal cohesion recovery will occur; 1 = normal move, both sides will move and fight; 2 = end game, a normal move is completed and then the game ends; 3 = skip, no move and no cohesion recovery is allowed.

FOG. Enter a value between 0 and 2. 0 = no fog, 1 = light fog, 2 = heavy fog.

5. WARPAINT

WarPaint is entirely new to wargame construction. Even we are amazed at just how useful it is. Every icon in the game can be edited, including all unit and terrain icons.

5.1 WARPAINT (Menu 17)

The <GRAPHICS> line gives access to the icon editor. The <STORE> and <RECALL> lines are used to install or extract a graphics set from any save game or scenario disk.

To transfer the graphics from one scenario to another, you would execute the following steps. Load the source scenario, and use the <STORE> line to load the graphics. Remove that disk and insert the destination disk. Load the destination scenario and use <RECALL>. The graphics that were in the source scenario are now in the destination scenario. Save the altered scenario and the change is permanent.

The <FULL MAP> line gives IBM users access to the "full-map" graphic routines.

5.2 DESIGN GRAPHICS (Menu 18)

The screen shows a large boxed section on the left. This shows a pixel by pixel representation of an icon. Below it the icon is shown in white and the allowable colours as it would look upon the screen. The icon number is shown above the menu box. The current selected colour is shown below the menu box. Selecting the <EDIT> line shows a flashing cursor in the top left of the icon box. The box is fourteen elements across by 16 elements down. The presence of a pixel is shown by a white square and its

absence by a white dash.

The I, J, K, and M keys or the arrow keys are used to move the cursor around the icon box. At any location the (RET) key creates a pixel if none is present and removes it if one is. As you make changes in the large icon box these are reflected in the small icons at the bottom of the screen.

The rules for manipulating the screen icons are a trifle complicated and may vary from computer to computer. They are explained in detail below.

After using the edit function type (ESC) to leave. Apple II/C64 users will be asked to <SAVE> or <IGNORE> their changes and must make this choice before returning to Menu 21. Choosing <SAVE> incorporates any changes you have made while <IGNORE> returns the icon to its previous shape. IBM users have access to the <CLIP> function described below.

The <COLOR> option allows you to change the selected colour of the icon. The <STORE> and <RECALL> options allow you transfer an icon between different icon numbers, allowing easy variations.

The <CLEAR> option blanks the screen, and for IBM users, at the same time transfers the previous image to the clip location. The <CLIP> option restores the screen with the image currently in the clip location.

5.3 "FULL-MAP" GRAPHICS (Menus 19-21)

These notes offer some suggestions for the use of the "full-map" graphics available to IBM users with EGA or VGA cards and a colour monitor. Read the note at the end of text in Menu 8 (Map Create Utility). It explains how to disable the "full map" graphics so the basic map can be created.

Users with EGA or VGA cards can access our enhanced graphics routines for the 250 icons which make up the different terrain shapes and the 60 odd icons which represent units and other functions.

The cumbersome <SAVE> and <IGNORE> lines from the standard graphic routines have been replaced by a 'Clip' feature. Whenever you edit a shape, the original shape is transferred to the 'clip' window. To restore the original shape, select <CLIP> from the menu window.

The enhanced graphics routines have a number of additional features. Select <PAINT> to bring up the enhanced graphic menu. <EDIT> will take you into the icon image. Use the arrow keys to locate the pixel you wish to edit. Use the Tab/Shift Tab keys to select a colour from the palette at the bottom of the screen.

Type <d> to set the drag key. This will trail the chosen colour after the cursor. Type <d> again to turn off the drag feature.

<TRIAL MAP> will show you what your terrain shape will look like on a full screen.

<CHNGE CLR> allows you to change a particular colour to another. Select <CHNGE CLR> and then use the arrow keys to locate on the terrain shape the colour you wish to change. Now hit (ENTER) and use the arrow/tab keys to locate from the palette the colour you wish to substitute.

<SHIFT> shunts the terrain shape in the direction specified by the chosen arrow key. Use this feature to vary a particular terrain shape.

<FLIP HORZ> will flip the shape horizontally.

<FLIP VERT> will flip the shape vertically.

<MAKE HEX> will bring in the corresponding terrain shape from the standard graphic routines.

The f1-f8 and Alt f1-f8 keys will select a particular colour. The f9 key will select the colour under the cursor. Tab/Shift Tab and +/- will select the next colour in either direction.

A little familiarity with these routines will teach you all you need to know.

TECHNICAL NOTES

(a). IBM Users. IBM users have neither pixel nor colour-mixing problems! The CGA card has fewer colour choices than the EGA card. Note that Tandy users have the same number of colour choices as an EGA user.

(b). Icon Functions. All icons have a particular function. In the case of the terrain icons (numbers 0 to 31), the functions and the name are defined in the terrain menu. All other icons serve a particular purpose which does not change. If you edit the Confederate Army HQ icon to look like a woods symbol, it will still function as an Army HQ.