BATTLEGROUND: ARDENNES Readme
VERSION 1.33 4/97
Added Next Stack hot key CTRL-X.
Fix for Windows 95 white hex outline problem.
Added Extreme Fog-Of-War Optional Rule (no melee odds, no strength points
  for units in non-clear, non-smoke, non-fort hexes, and no morale).
Added red-highlighting of strength value of units not at full strength.
Change so that only External Passengers are visible to other side when
  Extreme FOW is in effect.
Added network play capability.
Fixed the Windows 95 white hex-outline problem.
New Accelerator key "Ctrl-X" moves the Hot Spot to the Next Stack.
Added an Extreme Fog-Of-War optional rule, which when in effect (note:
normal FOW must also be in effect) hides units' morale, melee odds, the
Strength Points (SP) of units in non-clear (including smoke and
fortification) hexes, and the passengers of transport vehicles (but not
those riding "externally" on tanks and other such armored vehicles).
When a unit drops below full strength, its SP number in the Unit List
turns from black to red.
TCP/IP INTERNET PLAY
Internet play is now supported. Prior to beginning TCP/IP Internet play,
both players should ensure that they have a valid TCP/IP connection
established on their computers. Typically this is a service of your Internet
Service Provider.
1. Select "Modem Host" or "Modem Caller" from the Menu screen.
2. Select "Internet Connection".
3. The Modem Host should select a new scenario or resume a previously saved
   game. The Modem Caller should select the corresponding module for the
   chosen scenario or battle.
4. A dialog on the Modem Host system will appear, containing the Internet
   address for the Modem Host. Note: Typically this address is changed by
   your Internet Service Provider each time an Internet Connection is
   established.
5. The Modem Host should then provide the Caller with this address. This
   can be done by calling the Caller on a separate line, by sending the
   address through E-Mail, or by using an Internet "chat" program. The
   Modem Caller will then type this address into his Internet connection
   dialog. He can also specify an encryption key at this time. He should
   then choose Connect on the Connection dialog.
6. At this point, both players will have a Communication Dialog, and play
   will start or continue similar to standard Dial Up Modem Play (see
   section 7.1 in the Players Guide).
Added an "Internet Connection" menu item to the Special Menu. Normally you
will initiate Internet play after choosing either "Modem Host" or "Modem
Caller" from the main Menu Screen. However, if you wish to initiate it from
within the main program, you should select the "Internet Connection" menu
item prior to selecting "Modem Host" or "Modem Caller" in the Special Menu.
VERSION 1.32 2/97
Fixed incorrect Major Victory VP total in scenario 20 "The Tables Turned"
(dec20all.scn).
Corrected playing of bazooka video when 60mm mortars are fired.
Reduced the use of smoke by the A/I.
When FOW is in effect, *all* Improved Positions, Fortifications and
Minefields are now hidden. They are revealed when within the LOS of a
friendly unit in the same manner as if they were enemy units [Exception:
no "?" (Unknown-Unit) marker appears when a unit is adjacent to them; they

appear automatically whenever their hex is entered].

Added an "Initial View" item to the Options Menu. The Initial View menu item is used to define the initial view of the map shown when the main program is started. This may be set to any of the standard 2D or 3D map views, or it may be set so that it is always the view that existed when the program was last closed.

Added a "Rules..." button in the A/I Selection Dialog. Selecting this button allows the player to use one or both of the following optional rules:

INDIRECT FIRE BY THE MAP: This option allows indirect-fire (only) weapons of both sides to attack any hex on the map (within range, but regardless of LOS). To fire by the map, simply right-click on the target hex as if firing normally.

If the target hex is in the LOS of a friendly (to the firer) unit and contains one or more visible enemy units, the normally applicable attack strength is used. If the target hex is in the LOS of a friendly unit but contains no visible enemy unit, the normally applicable attack strength is halved. If the target hex is not in the LOS of a friendly (to the firer) unit and contains no visible enemy unit, the normally applicable attack strength is quartered.

The firing player will not receive a fire-effect report if the target hex contains no visible enemy unit. The enemy player will receive a fire-effect report in two-player hot-seat and play be e-mail.

DIGGING-IN CAPABILITY: This option allows non-vehicular units to create Improved Positions during play. To have a unit attempt to dig in, Select it during its Movement Phase, then Select the Toggle Digging-In item in the Units Menu. If the unit is able to begin digging in, the "wheel" icon in its data area in the Unit List will change to the "improved position" icon.

A unit cannot attempt to dig in if it is disrupted, vehicular, has fired in the preceding Prep Fire Phase, and/or has already conducted an activity in the current Movement Phase. Digging in is prohibited in a hex that already contains an Improved Position or a Fortification.

A unit digging in cannot move or engage in any other movement-related activity, has its attack strength (H# and S#) halved, cannot initiate an assault, and counter-assaults at half of its otherwise-applicable strength. A hidden unit digging in within enemy LOS is significantly more likely to be revealed.

If a unit becomes disrupted or retreats while digging in, its digging-in status is immediately lost. A player can voluntarily cancel his unit's digging-in status during any friendly phase by Selecting first the unit and then the Toggle Digging-In menu item.

VERSION 1.31 1/97
Fixed corruption of battle file caused by choosing "Cancel" in Two-Player Hot-Seat Replay option.
Fixed PBEM replay bug that caused crashes and hangs due to inadvertant word-wrap in .bte file.

VERSION 1.3 9/96
SPECIAL OPTIONS: Clicking on this new menu-screen button lets you start (or resume) a game using either Play by E-Mail (PBEM) or Hotseat with Fog of War.

HOTSEAT WITH FOG OF WAR: This "Special Options" choice allows two players to play a scenario using the same computer, with Fog of War in effect. When one player has finished making his moves and/or attacks, the program draws a blank map for the start of the next phase and informs him that it is now his opponent's turn to move or attack.

VICTORY POINTS: VPs are now deducted per Strength Point (SP) lost. Unit VPs, objective VPs and scenario VP levels have been recalculated accordingly. A

unit's "VP" number in the Unit List now represents its *per-SP* value. To find the unit's total VP value, multiply its VP number by its current number of SPs.

The new method of calculating unit VPs makes the per-SP value of some weak units higher than that of more powerful units - but to view this as meaning the weak unit is "worth more" than the strong one is comparing apples and oranges. Each full-strength platoon's VP total is divided by the number of SPs it contains to arrive at its per-SP value, so one with only two SPs will tend to have a higher per-SP value than one with six SPs even though the latter will have a higher overall VP value.

ASSAULT PHASE: When a hex becomes devoid of defending units as the result of an Offensive Fire Phase attack, it becomes a Vacant Hex. (A red triangle icon appears in the hex to mark it as such.) A Vacant Hex may be assaulted during the next Assault Phase, and the assaulting unit(s) will automatically occupy the hex.

Added bazooka video and sound effects.

Improved the AI targeting algorithm.

Added an Air Power reminder to the Command Report.

All units have their movement allowance halved while they are disrupted. Their Unit List entry shows this halved allowance.

The red firing line does not appear if the firing unit's hex is not spotted.

When a unit fires, its facing on the 3D map changes so that it faces its target.

The Artillery Dialog now uses shorter unit names so that the hex coordinates are always visible.

Right-clicking in the Unit List changes the current terrain picture to a diagrammatical display of the Hot Spot hex's hexside terrain.

Fixed crash caused by airstrikes.

Fixed bug that sometimes allowed trucks to spot for firing smoke.

INDIRECT-FIRE CLARIFICATION: An indirect-fire attack is applied against each unit in the target hex. In addition, each target unit's Strength Points (SPs) are multiplied by the applicable nominal attack factor and the result is then divided by 5 to find the effective attack factor vs. that unit. (In other words, effective AF = [nominal AF# * SP#] / 5)

For example, a target unit of 5 SPs will have the nominal AF applied to it. A target unit of 2 SPs will have 2/5 of the AF applied to it. The rationale for this calculation is that the indirect-fire results against a single target unit of, e.g., 4 SPs should be the same as the total indirect-fire results against two target units of 2 SPs in the same hex. The calculation will apply the indirect AF against target units proportional to their SPs, thus resulting in a total combat result comparable to firing at a single unit of the same total strength.

VERSION 1.2 4/96

PLAY BY E-MAIL: The menu screen now offers a "play by e-mail" (PBEM) option. To start a PBEM game, Select the button for this option, and Select whether or not you are starting a new scenario. Next you choose the scenario. When the map appears, choose the local side (i.e., the side you will play) and whether or not Fog of War will be used. You can also set the Advantage (see below) at this point. Then Select "OK", and proceed with play. When the Defensive Fire Phase begins, you will get a message that local control is over. You will be prompted to save the game (note that it must retain a ".bte" extension) and e-mail the saved-game file to your opponent.

To resume the game on his end, the opponent downloads the file into the subdirectory that contains the map used by that scenario. He then double-clicks on the BATTLEGROUND: ARDENNES main program icon, Selects the PBEM option, and answers "No" to the question of whether he is starting a

new PBEM game. He then Selects the appropriate Map Set and saved-game file, and Selects "OK". At this point an automatic "Replay" option to see the other player's most recent moves/attacks is presented. After the replay is finished (or if the player chooses not to view it), the next phase begins and play resumes. At the end of local control, a prompt to e-mail the file will appear.

The same procedure is followed to play the remainder of the game, with each player alternately playing and e-mailing the game to his opponent. For more details on PBEM, Select "General Help" in the game's Help Menu, then Select "1.1.9 Special Menu".

ADVANTAGE: The A/I Selection dialog that appears when a new scenario is started allows you to give an advantage to one side or the other. Giving an advantage means that combat losses for that side will be reduced below normal and combat losses for the other side will be increased above normal. Advantage values can range from 0 to 100 for either side. The default value of "0" means that neither side gets an advantage. The Set Advantage menu item is used to view or change the current Advantage value associated with a battle. Advantage values cannot be changed during a modem-play or PBEM game, however.

RECORDING BATTLES: Selecting the "Record Battle" feature of the Special menu allows you to record a scenario as you play it. You can then "replay" this saved battle later by Selecting "Replay" from the File menu.

When you Select "Record Battle", a dialog box will appear which allows you to name the file. After doing so, Select "OK" - and from this point all turns will be saved into this file. At any time during play, you can Select "Record Battle" again to turn off this feature.

When you want to view the replay file, Select "Replay" in the File menu. To halt the replay, press the "Esc" key. To resume the replay, Select "Restart Replay" in the Special menu. Note that the replay will be from the perspective of the other side in the game.

IMPORTANT: You cannot record modem-play or PBEM battles. (The Record Battle feature operates automatically during PBEM games.)

Corrected font and icon problems in the scenario editor.
Corrected the number of M7 self-propelled artillery batteries allotted to U.S. armored divisions by the scenario editor.

VERSION 1.12 4/96
Fixed A/I bug that caused the program to hang when A/I anti-aircraft fire was directed at an air unit in the same hex as the firing unit.
To view a unit's description in the Unit Handbook *while* that unit is Selected in the main program, Select "Unit Handbook" in the Help Menu (or press F2).

VERSION 1.11 3/96
Corrected video display problem.

VERSION 1.1 2/96
NEW MAP: A new Battleview map has been added. In the Display menu it is called the "3D Zoom-Out Map", and shows the map at 50% of its normal size.
NEW TOOLBOX BUTTONS: Two new Toolbox buttons have been added.

The button showing a cross with an arrow at each of its tips hides (or displays) the Unit List and Terrain Info Box. When these are hidden, more of the map appears in their place. To Select a unit in the current Hot Spot hex when the Unit List is hidden, *right-click* on that hex to reveal the Pop-Up Selection Dialog, then left-click on the name of the desired unit in the dialog (holding down the Shift or Ctrl key while doing so will let you Select more than one unit).

The button with a bulls-eye and a "prohibited" symbol toggles (on or off) a display of which hexes can be in the LOS of the current Hot Spot

hex. An "X" in a hex indicates *no* LOS. Note that this display does *not* reflect scenario-specific effects, such as visibility (weather), the presence of smoke/wrecks, etc.

NULL MODEM: Null Modem capability has been added to Modem Play. Null-modem play requires a direct cable connection between the two computers. Users should obtain a suitable serial communication cable and a null-modem connector (available at computer supply stores). Note that under null modem, the *exact* baud rate for both machines must be Selected. Note also that some older machines may not have serial ports that can handle speeds at or above 9600 baud, so a lower rate may have to be used.

To start a scenario using null modem, launch the game by double-clicking on the " Battleground: Ardennes" program item. Follow the same onscreen procedure for starting a normal modem game (see p.39 of the Players Guide), but answer "Yes" when the question "Are you using a null-modem cable?" appears.

To start a null-modem scenario via the "Kampfgruppe Peiper", "Roadblock at Clervaux" or "Battle for Bastogne" program item, decide who will be the Host and who will be the Caller (see the first paragraph of 6.1 on p.39 of the Players Guide). Each player then launches the game by double-clicking on the program item appropriate for the agreed-upon scenario. Once the map appears on his screen, the Host Selects "Modem Host", and the Caller Selects "Modem Caller", in the Modem Menu. Both players then configure their modem port and baud rate. Upon successful connection, the Host selects "New" from the File Menu (if starting a new scenario) or "Open" (if resuming a saved battle), and opens the scenario. Play then begins.

The modem-play Dial Dialog now "remembers" the previous number dialed. The modem-play "phantom unit" bug in the Movement Phase and several other small bugs have been fixed.

STRENGTH POINTS: Each unit now has a Strength Point (SP) size which has an impact on combat, stacking, wreck effects, and the passenger capacity of transport vehicles. The unit's SP size appears within a circle in the lower left-hand corner of its illustration in the Unit List. Only when a unit has been entirely eliminated is it counted as a loss for VP purposes (and listed as a loss in the Strength Dialog).

COMBAT: In combat, a unit attacks a number of times equal to its SP size, and SP-loss results reduce the defender's SP size accordingly. (See "NEW CRT" below.)

STACKING: Maximum stacking per hex is now 24 SP or six units, whichever is reached first. Passengers do not count, but wrecks do (see next paragraph). If more units than the Unit List can display at one time occupy a hex, two small arrows will appear in the lower right-hand corner of the screen. Left-clicking on these arrows will scroll the Unit List display.

WRECKS: Each time a hard target loses a SP, it leaves a one-SP wreck. Only when the number of wreck SPs in a hex reaches six does the wreck affect LOS like smoke. The maximum number of wreck SPs that can exist in a hex is 18. A wreck icon with no smoke depiction indicates that less than 6 wreck SPs exist in the hex, while an icon with a smoke depiction indicates 6-18 wreck SPs. To find the exact number, put the Hot Spot in the wreck hex and check the wreck's SP size in the Unit List.

PASSENGERS: Each "carrier" vehicle unit (i.e., truck, wagon, basic halftrack) can carry *one* unit whose SP size is less than or equal to the carrier unit's SP size. Each other vehicle type able to transport an infantry-type unit can carry *one* such unit whose SP size is less than or equal to *twice* that vehicular unit's SP size.

NEW CRT: The Combat Results Table has been changed to incorporate SP losses. A positive number indicates a SP loss of that amount, and a "D" indicates a Disruption result. However, Disruption results do not automatically cause Disruption of the target unit. Instead, the program counts the number of Disruption and SP results caused by the attack, then divides that number by the SP size of the target to find a percentage chance of actual Disruption. Note that the combat results given onscreen are the *net* results of the attack. If an attack causes a SP loss *and* Disruption, that target also suffers a morale loss of one.

FOG OF WAR: When FOW is in effect for a side, its hidden units will *not* automatically be revealed when they are in enemy LOS. The program makes a calculation for each hidden unit at the start of the turn, and again at the end of the Movement Phase, to find which will remain hidden and which are revealed. Generally, infantry and antitank guns are the hardest to reveal. In addition, for any two units of the same kind, the one with a bigger SP size will be revealed more easily than the other.

ARTILLERY AVAILABILITY: At the beginning of each friendly Player Turn, the program makes a die roll for each of the friendly side's Indirect-Fire units that fired in the previous turn to see which ones are still "available" to fire again. The "Next Phase Report" lists how many are "out of ammo" (i.e., not available for the present turn). The artillery-availability numbers appear in the Terrain Info Box when you right-click in it. They are labeled "Ammo", and are given in the form "#/#", with the Allied # on the left and the Axis # on the right. Each number represents the percentage chance of being able to fire again.