GAME MANUAL



EPILEPSY WARNING

PLEASE READ THIS NOTICE BEFORE PLAYING THIS GAME OR BEFORE ALLOWING YOUR CHILDREN TO PLAY.

Certain individuals may experience epileptic seizures or loss of consciousness when subjected to strong, flashing lights for long periods of time. Such individuals may therefore experience a seizure while operating computer or video games. This can also affect individuals who have no prior medical record of epilepsy or have never previously experienced a seizure.

If you or any family member has ever experienced epilepsy symptoms (seizures or loss of consciousness) after exposure to flashing lights, please consult your doctor before playing this game.

Parental guidance is always suggested when children are using a computer and video games. Should you or your child experience dizziness, poor eyesight, eye or muscle twitching, loss of consciousness, feelings of disorientation or any type of involuntary movements or cramps while playing this game, turn it off immediately and consult your doctor before playing again.

PRECAUTIONS DURING USE:

- Do not sit too close to the monitor.
- Sit as far as comfortably possible.
- Use as small a monitor as possible.
- Do not play when tired or short on sleep.
- Take care that there is sufficient lighting in the room.
- Be sure to take a break of 10-15 minutes every hour.

USE OF THIS PRODUCT IS SUBJECT TO ACCEPTANCE OF THE SINGLE USE SOFTWARE LICENSE AGREEMENT

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1 INTRODUCTION

FLASHPOINT CAMPAIGNS: RED STORM (FPC:RS) is a fast paced and deadly game of modern grand tactical combat set in Central Germany in the 1980s during the height of the Cold War. You are the commander of ground forces ranging in size from battalions to brigades and you will have access to air strikes, helicopters, off-map artillery and even WMDs to fulfill your mission objectives.

FPC:RS is a command-oriented game. As the commander you will study the mission briefing, evaluate the tactical situation, plan your goals and issue the orders necessary to achieve them. During the orders resolution phase your subordinates will take over and do their best to make your intentions happen. As in any modern war, you can expect various difficulties, time lags and setbacks to occur. You must adjust accordingly and allow sufficient time for your orders to be passed down the chain of command, prepared and executed.

The modern combat simulated in **FLASHPOINT CAMPAIGNS: RED STORM** can be a complex affair, but you have an able staff at your side. Relax, concentrate on the big picture, and learn by doing. If you make a mistake then start over and try a different approach - there is no one right way to any given situation. Experiment, think out of the box, and learn from the lessons that you receive. Finally, enjoy!

- The On Target Simulations Team

1.1 GAME SCALE

Each game map covers an area typically measuring 20 km east to west by 15 km north to south. Give or take a hundred meters or so. Locations are arranged in a staggered hexagonal pattern and are 500 meters center to center in all directions. Militarily significant terrain is represented by a series of colors; greens for elevations, textures; for fields, trees, rural and urban areas, and markers on the map.

The forces on each side represent anything from 1,000 men in a weak battalion to 5,000 or more in a strong brigade or regiment. These forces are organized into individual maneuver units of companies or platoons represented by counters. Artillery is organized by battery (typically six or eight tubes each) or battalion (three batteries), and aircraft and helicopters by flights of two to six machines each. While most of these unit counters appear on map, certain air

and artillery assets are located off map and can be "called" to perform various missions.

Scenarios cover four to fourteen hours of game time. Depending on the size of the scenario, a game can take 30 minutes to a few hours of real time to complete. Thankfully we've included the ability to save during the game so you don't need to run a game through in one sitting.

The campaigns are a set of linked scenarios where you command a core force of units. Your objective is to win battles and keep losses low in order to bring a quick end to the war. Expect to take a few sessions to get through the campaigns. They will take a bit longer to complete with the addition of between mission refits.

1.2 UNIT SIZES AND TYPES

The unit counters in Red Storm can range in size from a single vehicle or squad to full companies with mixed fighting vehicles and infantry squads. Red Storm includes a wide array of unit types used by the countries (NATO: United States, United Kingdom, West Germany; and Warsaw Pact: Soviets)during the 1980s. Included are aircraft, armored personnel carriers (APCs/IFVs), towed artillery, anti-tank weapons, flak, helicopters, many flavors of infantry units and weapon teams, surface to air missiles (SAMs), self-propelled artillery, self-propelled anti-tank, self-propelled flak and SAMs, surface to surface missiles (SSMs), tanks, and utility vehicles. If it was a major piece of hardware during the time period we probably have in in our data.

1.3 STYLE OF PLAY

FLASHPOINT CAMPAIGNS: RED STORM is an asymmetrical turn based strategy game that is based on the WEGO system, meaning that orders given by both sides will be processed and executed simultaneously. The game is asymmetrical, because the amount of (game) time which constitutes a turn may differ for both sides. If, for example, the NATO force in a scenario is well organized, compact and has a high readiness, it may very well be that the NATO commander may issue new orders every ten minutes, while the Soviet commander must wait over twenty minutes before he can plan his moves. The time between orders is also dynamic and will change as a scenario progresses. Units may be worn out, reinforcements may arrive or headquarters may be lost. All these elements will affect the effectiveness of your (and the enemies') command. When you familiarize yourself with the rules as explained in this

manual, you will have all the knowledge you need to maximize your command effectiveness.

2 SYSTEM REQUIREMENTS

Please ensure your system meets the minimum requirements listed below.

Minimum System Requirements:

- CPU 1.4 GHz or faster (can use multi-core)
- RAM: 1GB
- Hard Drive Space: 1 GB
- OS: Windows® XP or better with DirectX 9 or higher
- Minimum Resolution: 1024 x 768
- Video Card DirectX 9 compatible or greater
- Sound Optional, DirectX 9 compatible
- Internet Connection for Multiplayer PBEM++

2.1 INSTALLING THE GAME

To install the game, insert the game DVD disc into your DVD drive. If you have disabled the Autorun function on your DVD or if you are installing from a digital download, navigate to the DVD or download file location, double-click on the installation file, and if it is a zip archive, then double click on the executable (exe) file that is shown inside the archive. The correct file name will normally include the words "SetupRelease". Follow all on-screen prompts to complete the installation.

2.2 UNINSTALLING THE GAME

Please use the Add/Remove Programs or Programs and Features option from the Windows Control Panel or the "Uninstall" link in the game's Windows START menu to uninstall the game. Uninstalling through any other method will not properly uninstall the game.

2.3 PRODUCT UPDATES, BONUS CONTENT AND REGISTERING YOUR GAME

In order to maintain our product excellence, Matrix Games releases updates containing new features, enhancements, and corrections to any known issues. All our updates are available free on our website and can also be downloaded quickly and easily by clicking on the "Check for Updates" link in your Game Menu or by using the "Update Game" shortcut in your Windows START menu folder for the game.

We also periodically make beta (preview) updates and other content available to registered owners. Keeping up with these special updates is made easy and is free by signing up for a Matrix Games Member account. When you are signed up, you can then register your Matrix Games products in order to receive access to these bonus game-related materials. Follow this process:

- 1. Sign Up for a Matrix Games Member account: THIS IS A ONE TIME PROCEDURE; once you have signed up for a Matrix account, you are in the system and will not need to sign up again. Go to www.matrixgames. com and click the Members hyperlink at the top. In the new window, select Register NOW and follow the onscreen instructions. When you're finished, click the Please Create My New Account button, and a confirmation e-mail will be sent to your specified e-mail account.
- 2. Register a New Game Purchase Once you have signed up for a Matrix Games Member account, you can then register any Matrix Games title you own in your new account. To do so, log in to your account on the Matrix Games website (www.matrixgames.com). Click "Register Your Game" near the top of the menu in the Members Club to register your new Matrix Games purchase.

We strongly recommend registering your game as it will give you a backup location for your serial number should you lose it in the future. Once you've registered your game, when you log in to the Members section you can view your list of registered titles by clicking My Games. Each game title is a hyperlink that will take you to an information page on the game (including all the latest news on that title).

Also on this list is a Downloads for Registered Games hyperlink that takes you to a page that has all the latest public and registered downloads, including patches, for your registered titles. You can also access patches and updates via our "Latest Downloads" section (http://www.matrixgames.com/products/latestdownloads.asp).

2.4 RE-DOWNLOADING YOUR GAME

If you were logged into your Members Club account when you purchased your game, it will be automatically registered and you can access an automatic redownload link by going to http://www.matrixgames.com/members/myorders. asp or using the "My Orders" link in the Members Club. If your download does not show up there, you can contact our Help Desk at http://www.matrixgames.com/support/ to receive a new download link. This process generally takes one business day, but is often faster during normal work hours.

2.5 GAME FORUMS

Our forums are one of the best things about Matrix Games. Every game has its own forum with our designers, developers and the gamers playing the game. If you are experiencing a problem, have a question or just an idea on how to make the game better, post a message there. Go to http://www.matrixgames.com and click on the Forums hyperlink.

2.6 TECHNICAL SUPPORT

Should you have a technical problem with the game, the best way to get help is to post a note in the Technical Support sub-forum of the main game forum at http://www.matrixgames.com/forums. You'll then hear back from either our Matrix Games Staff, the development team, or from one of the many helpful players of the game. This is usually the fastest way to get help. Alternatively, you can contact our Help Desk at http://www.matrixgames.com/support/. Support requests will generally be answered within 24 hours, except on weekends or national holidays.

2.7 ADDITIONAL MANUALS

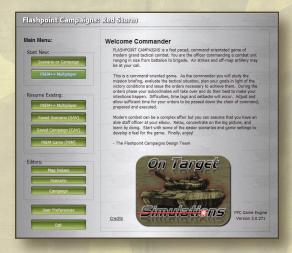
Also included on PDF with the game are the Quick Start/Tutorial Guide and the FPC Modding Guide for players to use as references. The Quick Start/Tutorial Guide will get you up and into the game quickly and show you the basics of game play with a simple scenario, but the details of the full game are included in this manual. The FPC Modding Guide explains in detail how to modify game content. Everything from making maps to new scenarios to adding new data, graphics and sounds is covered. The game is as much a construction kit as it is a game. If you think something should be added or is different or wrong,

you will have the power to change it, add it or replace it. Some modding items are very simple while others take considerable time and effort. Choose wisely.

2.8 GENDER PRONOUNS

We are happy that our game enjoys both male and female fans and players. We try to keep language in the game and manual gender neutral when possible, but sometimes use the pronoun "he" to refer to the player. This is merely to streamline the writing, and is not meant to exclude anyone.

3 MAIN MENU



Once the game has launched, the Main Menu and Welcome screen will be shown. From here the player can start a new game, load an existing game, go to the editors, change his preferences or exit back to the operating system. On the right side of the main menu, a short game overview can be read, the Credits can be opened and viewed and the current Game Engine version can be seen.

3.1 START NEW:

These menu options allow the player to start a new game either single player or multiplayer (using the PBEM++ system).

3.1.1 SCENARIO OR CAMPAIGN

Once this option is selected the player can choose to play a single scenario or start a campaign game. If the player chooses to play a single scenario, he can decide which side to play and/or if he would prefer to watch a battle between Al players unfold. If the player chooses a campaign game, the side he will play will depend on the campaign selected.

Not all options are available for all different game types. If you select an option which is does not work with the selected game type, a window will pop up informing you to choose another option.

3.1.2 PBEM++ MULTIPLAYER

In order to play a multiplayer game using the PBEM++ server, the player must first create, Slitherine PBEM++ account (see section 5.1 for details). Once this is done, he can log on to the server using this button. A lobby will then be shown where he can either create a new challenge or accept a challenge from other players. Once a game has been initiated, the player can place his troops and give his first orders. Once this is done the save game will be uploaded to the server and the opponent will download the game once he logs in.

3.2 RESUME EXISTING

These various options will allow a player to resume the various types of saved games.

3.2.1 PBEM++ MULTIPLAYER

If you are looking to resume a PBEM++ game clicking here will take you to the PBEM++ login system and then into the current games selection tab of the PBEM++ lobby.

3.2.2 SAVED SCENARIO

If the player wishes to continue an earlier (auto) saved game, he can press this button. A menu will be shown where the desired save game can be loaded.

3.2.3 SAVED CAMPAIGN

If the player wishes to continue an earlier (auto) saved campaign game, he can press this button. A menu will be shown where the desired save game can be loaded.

3.2.4 PBEM GAME

Click here if you wish to resume a standard PBEM (not PBEM++!) game. A menu will be shown where the desired PBEM game can be loaded.

3.3 EDITORS

The Editors, which can be found in the Main Menu, can be used to alter existing campaigns or scenarios to your likings, or even create completely new ones. A more detailed overview of these powerful editing tools can be found in the "Flashpoint Campaigns - Modding Guide".

3.3.1 MAP VALUES

Here players can load existing maps and alter the values of the terrain, thereby changing the way the game plays on a map.

3.3.2 SCENARIO

The Scenario Editor can be used to create new scenarios or alter existing ones.

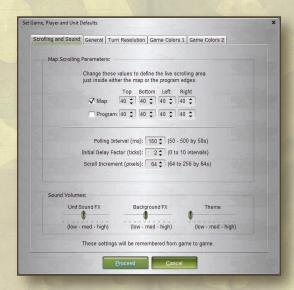
3.3.3 CAMPAIGN

The Campaign Editor can be used to create new campaigns or alter existing ones.

3.4 USER PREFERENCES

FLASHPOINT CAMPAIGNS allows the player to tweak many settings to his own preferences. This can be done both from the main menu and from within a scenario. Any changes made are saved automatically.

3.4.1 SCROLLING AND SOUND PAGE



Here the player can alter different values regarding map scrolling and sound volumes.

3.4.1.1 MAP SCROLLING PARAMETERS

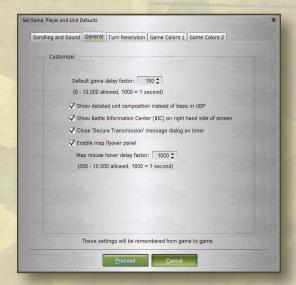
 Map edge or game edge. The map is scrolled by hovering the mouse cursor in a sensitive zone of the game. This zone can either run along the inside edge of the map or the inside edge of the entire game (program) screen. Be aware that if you choose the game edge then there may be unwanted scrolling when trying to access certain information controls.

- Effective border areas. Define the top, bottom and sides of the sensitive area independently of each other.
- Other settings. The Polling Interval is the length of time between checks
 for a map scroll measured in thousandths of a second. The polling interval
 defines one 'tick'. The Initial Delay Factor is the number of ticks before a
 scrolling action is initiated. A certain delay may be desirable to prevent
 unwanted scrolling. Finally, the Scroll Increment is the number of pixels
 that are scrolled for each tick.

3.4.1.2 SOUND VOLUMES

- Unit Sound FX. This is the volume control for unit movement and firing sounds.
- Background FX. This controls the volume of the ambient background battle noise during turn resolution.
- Music FX. This controls all other sound volumes. -> Controls beginning and endgame music themes.

3.4.2 GENERAL

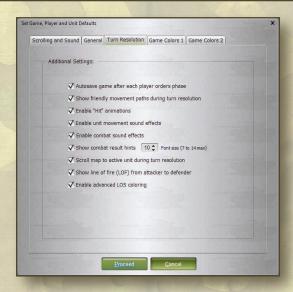


The "General" tab is where the player can alter some basic settings, like the map mouse hover delay factor and default game delay factor.

- Default Game Delay Factor: This value controls the pacing of the game during turn resolution. If you find that the resolution is happening too quickly to follow then use a larger number. If it is too slow then use a smaller number.
- Show Detailed Unit Composition: If checked the Unit Display Panel (UDP) shows the actual platform names ("T-72M") in the description window instead of a generic description ("Tank").
- Battle Information Center (BIC) on Right Side: If checked, all of the information screens show on the right side of the game screen instead of the left.
- 'Secure Transmission' message dialog box uses a timer to close. If not
 enabled then the primary game dialogs will remain on screen until the
 user clears them by selecting the Proceed button, otherwise they will
 clear themselves after an interval based on the default game delay factor.

- Enable Map Flyover Panel. If the mouse hovers over the map for a certain length of time defined in the next setting then a small window will pop up showing the contents of the location and any stacked units side by side.
- Map Mouse Hover Delay: The length of time needed to trigger the map flyover panel described above.

3.4.3 TURN RESOLUTION PAGE



Here you can tweak various settings which influence the way in which the turn resolution is displayed (these are not rule changes). Should you wish to speed up the progress, you can disable some settings here.

- Autosave game prior to each turn resolution. This will save the game immediately prior to turn resolution into the \Saved folder under the name of the scenario and with a percentage complete number. These are regular saved games and may be reopened and resumed if desired.
- Show friendly movement paths during turn resolution: Disable to speed up combat resolution.
- Enable "Hit" Animations: Disable to speed up combat resolution.

- Enable Unit Movement Sound Effects: Disable to speed up combat resolution.
- Enable Combat Sound Effects: Disable to speed up combat resolution.
- Show Combat Result Hints: If this item is checked the results of combat
 actions will be displayed as hints next to the affected unit. Here you can
 also alter the Combat Hint Font Size: The size of the combat hints displayed
 during the game can be increased or decreased by changing the value.
- Scroll Map to Active Unit: When checked the map will center on the active unit during turn resolution.
- Show Line of Fire from Attacked to Defender: If checked, a line is
 drawn on the map from the attacker to the target to show the current
 direct fire attack being resolved. In some cases the attacker may not be
 spotted, but the general area of fire may be noticed.
- Enable advanced LOS coloring: When this is turned on, the highlighted hexes will be colored in greens for good LOS or red for poor LOS from the active hex.

3.4.4 GAME COLORS PAGES





A color selection dialog exists so that individual map overlays, fire lines and other useful color markers can be edited by the player and established as new game defaults. The level of color transparency can also be changed. This will allow the player, for example, to create a distinctly different hue for each kind of overlay so that he can easily tell which is in effect at any given time. The effect of these changes can be seen in the terrain sample to the right of the selections.

NOTE: It is possible to create unsightly or even invisible colors. If you want to experiment with this you might want to consider backing up the original FPG Colors.c32.

3.5 EXIT

Click this button if you wish to close the game and return to the desktop.

3.6 CREDITS

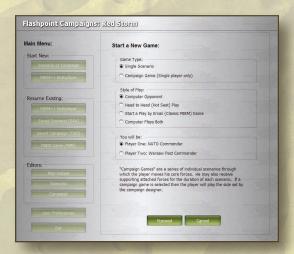
Clicking the link located on the bottom left of the menu will open a dialog screen showing you the names of all the fine people who worked hard to bring you this game.

3.7 GAME ENGINE VERSION

In the bottom of the screen the game engine version is shown. Make sure you have the same version of the game as your opponent when you play multiplayer.

NOTE: It is recommended to exit the game if you do work in the various editors then restart the game to play a scenario. This helps to make sure new values are properly initialized and avoids the possibility of odd game play issues from occurring.

4 START A NEW GAME



A HALL WATER

Once the player presses this button, a new menu will open to the right. Here the player can set the game type, the style of play and the side he wishes to be playing.

4.1 GAME TYPE

The player can either play a single scenario or a campaign game. Depending on the selection here, other options further down may be disabled.

4.1.1 SINGLE SCENARIO

A single scenario is an isolated battle. If this option is selected, the player will be able to select a specific scenario from the menu.

4.1.2 CAMPAIGN GAME

A campaign is a sequence of scenarios where the result of one scenario may influence the other. The player will be able to carry over forces from scenario to scenario. This means that campaign scenarios might play out very differently from single scenarios, because it is of vital importance to preserve your force.

4.2 STYLE OF PLAY

Here the player can decide what kind of opponent he wishes to fight if playing a scenario. If you are playing a campaign game the Style of Play options are disabled.

4.2.1 COMPUTER OPPONENT

The computer opponent is a challenging enemy that lets you enjoy the game in single player setting. You do have the option of which side you can play. Make sure to select a scenario that is built to be played from the side you choose.

4.2.2 HEAD TO HEAD (HOT SEAT) PLAY

In this mode to players can enjoy a scenario using the same computer. It can also be used for solo play, to try out new tactics, or to study possible strategies of the opposing team.

There is no selection for what side to play. Whoever has decided to be the NATO player will be player one and the other will be player two for the Warsaw Pact (Soviet) forces.

The game will prompt the players with dialog messages for when each player should enter orders or when they should both view the resolution phase of the game.

4.2.3 START A PLAY BY EMAIL (CLASSIC PBEM) GAME

This is the classic play by email mode. Players will play through a scenario by playing turns and submitting them via email to each other.

4.2.3.1 PLAY BY EMAIL (PBEM)

Designate a scenario as a PBEM game via the Player Settings screen under "Style of Play" by checking "Start a Play by Email Game". Proceed normally by selecting the side you will play, then a scenario, select the game options and hit Proceed to get into the game. After setting up your forces and doing the initial orders, hit the Start button. A Radio message will alert you that your setup is done and it is now time for your opponent to setup. Hitting the Proceed button on the radio message will cause a special PBEM screen will pop up to collect key details as seen below.

Game Name:	Time to Dance	(48 max)
Password:	password	(12 max)
File Name: Increment File:	Time to Dance 001.pbm ✓	
PBM File Destina	ation Directory:	
D:_FPG2RS\	Modules\FPRS\Saved	2
y text entered h	ere will be displayed when the gar	me is loaded:
y, Charles it's ti	me for you to dance!	

After filling out the information all you need to do is hit the Send button. You will get another Radio message telling you the game was saved and where the file is to send to your opponent.



After the first turn the file will not loaded unless the Player can supply the required password. For second and subsequent turns, each player will need to overwrite the previous .pbm file. If you change the name of the new file to something else to avoid this it will not load. If you want to keep older file, change its name instead before saving the new file!

Having loaded the .pbm file, Player 2 starts his own regular orders phase. When he is done issuing orders, Player 2 will be taken to the PBEM transmission screen where he will add a comment and send the game back to Player 1. The game will not progress any further for him.

Player 1 will receive the file and upon resuming it be taken directly to the turn resolution phase. This phase will play out live in front of him and will also record a version of events (the 'VCR recording') that will be sent to Player 2 for playback. The VCR recording for Player 2 will be shown from the view point of Player 2 and not Player 1.

If the game has not ended, then Player 1 will now enter his own new orders and continue the game as in Step 2 above.

When Player 2 receives the .pbm file in turn 2 and later, he will be taken directly to the VCR playback phase of the turn resolution that Player 1 witnessed. Player 2's orders phase will then occur when the VCR playback phase is over.

These steps will be repeated until the end of game is reached. A final .pbm file will be shared that contains the end of game data and the each player will be able to browse the terminal game state as in a normal game.

4.2.4 COMPUTER PLAYS BOTH

With this style of play selected, the player can watch two computer opponents settle their differences. It is a useful to see how the computer handles different challenges.

4.3 YOU WILL BE

Here the player will decide which side he wishes to play. This selection is greyed out if a campaign game is selected, because campaigns can only be played by one side. When playing a campaign game, the side you will play will be decided by the specific campaign you load. This selection is also greyed out if you are playing head to head or doing a single scenario with the computer playing both sides.

4.3.1 PLAYER ONE: NATO COMMANDER

Select this option of you wish to play as the NATO commander.

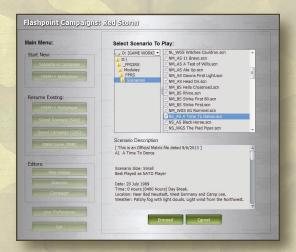
4.3.2 PLAYER TWO: WARSAW PACT COMMANDER

Select this option if you wish to play as the Warsaw Pact (Soviet) commander.

4.4 SCENARIO / CAMPAIGN SELECTION

Computer, and PBEM selections must be opposite a Human player.

4.4.1 SELECT SCENARIO TO PLAY



After selecting to play a scenario, you should be presented with the Scenario Selection dialog. By default the Scenarios folder should be selected in the folder window. If not you can navigate to it with the drive selection and folder selection controls. On the right will be a list of the available scenarios to play. Clicking on one of the *.scn files will being up a summary in the text box below the files window.

Depending on the scenario's author, The summary will tell you the size of the battle, what side the scenario is meant to be played from, time of day, location, weather, forces, any enemy intel, and back story to the scenario.

Official OTS created content will have an entry at the top of the summary stating it is an official file. If it is a user generated file an entry will state that at the top of the summary as well.

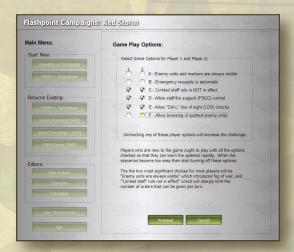
4.4.2 SELECT CAMPAIGN TO PLAY



After selecting to play a campaign, you should be presented with the Campaign Selection dialog. By default the Campaigns folder should be selected in the folder window. If not you can navigate to it with the drive selection and folder selection controls. On the right will be a list of the available campaigns to play. Clicking on one of the *.cam files will being up a summary in the text box below the files window.

Reading the Summary will tell you which side the campaign is being played from and also any other details the campaign author decides to include.

4.5 GAME PLAY OPTIONS



These options allow certain specific changes to the mechanics of the game and alter the realism/difficulty of play. The options can be set independently for both players, to allow for asymmetrical gameplay.

- Enemy Units and Markers are Always Visible. Here you can choose if
 you want to be able to view enemy unspotted units. Note: If selected you
 can see them, but that does not mean that your units can see them as
 well. When this option is selected, it is also possible to view the reports
 in the enemies Tactical Operations Center by checking the option at the
 bottom left of the TOC dialog.
- Emergency Resupply is Automatic. If enabled, any unit with fewer than
 three percent ammo remaining is automatically restored to 30% ammo
 stores during orders resolution. Unit orders have no effect on emergency
 resupply and the unit may be moving and/or fighting at the time. If this
 option is unchecked then the unit must be resupplied using Resupply
 orders.
- Limited Staff Rule is NOT in Effect. Modern military communications
 are quite complex and there are constant difficulties in sending and
 receiving communications. It takes a certain amount of time to formulate
 and issue each order and to receive every acknowledgment and situation

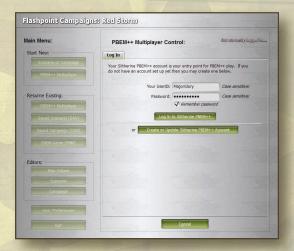
report. If this option is enabled then player will be limited to a certain number of orders that can be issued during an orders phase. Note: This rule does not apply to computer players.

- Allow Staff to Request FSCC Missions. The "FSCC" is the Fire Control
 Coordination Center through which artillery fire missions and air strikes
 are planned. If the staff is allowed to request missions then you will have
 that less direct control of your supporting assets but your staff may be
 able to take advantage of fleeting opportunities that might otherwise be
 missed. Note: This setting has no effect on Al players.
- Allow Ctrl-M Move Checks. This creates an overlay showing which
 hexes the currently selected unit might reasonably move to in the next
 hour based on currently available information. Traffic jams, wrecks, and
 engineering obstacles are not factored in.
- Allow Ctrl-L LOS Checks. This creates an overlay showing which hexes
 are visible to the currently selected unit. The player can then shift-click on
 an empty location and the overlay will change to show what the selected
 unit could from there instead.
- Allow Browsing of Enemy Units. If enabled the player can see all the details of the spotted enemy player's units in the unit description panel (UDP).

5 STARTING A PBEM++ MULTIPLAYER GAME

PBEM++ is a more advanced and user friendly way to do the standard PBEM game. In this case the games are sent back and forth via servers at Slitherine Games automatically as you finish turns and send them. The game file resides on the Slitherine server so you can technically login to your account from any computer and pick up and play your games with your friends.

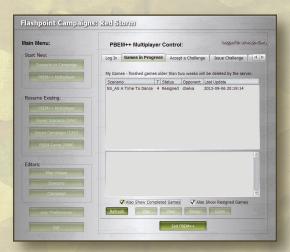
5.1 PBEM++ LOGIN



If you have an established Club account you can login using that UserID and Password. If you are new to the club or just want a separate login for PBEM you can hit the Create or Update Slitherine PBEM++ Account button and fill in the fields that are provided. There is also a button there for validating your serial number to your username.

5.2 PBEM++ GAME LOBBY

THE PBEM++ Lobby has tabs that show you:

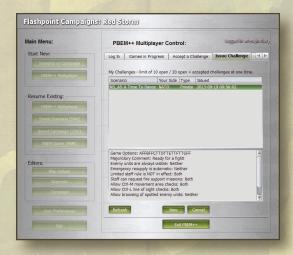


Games in Progress - You can play games ready for you to continue, view game details, resign from a game or claim a game.

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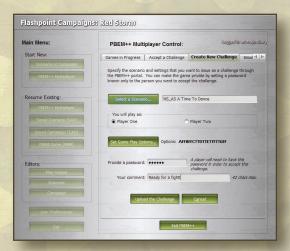
Accept a Challenge – You can select an open challenge seen here from other players.

Refresh



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Issue Challenge – In this screen you can view all of the challenges you have created for the game. You can create a new PBEM++ challenge game by hitting the New button.



Create New Challenge – To Create a new Challenge, you need to select a scenario, set which player you will be, establish the game options, provide a password (to be given to the person you want to challenge), and add a comment. When you are done, hit Upload the Challenge and everyone who logs in from FLASHPOINT CAMPAIGNS can see your challenge.

6 THE GAME INTERFACE

At a first glance, the game interface might seem a bit daunting. Do not worry. We will help you understand the different sections of the interface one step at a time. Just take some time to familiarize yourself with the interface and you will soon find out just how easy it is to get the information you need and to move your troops around the map ready for battle.

6.1 THE TACTICAL OPERATIONS CENTER (TOC)

The Tactical Operations Center (TOC) is one of the most important sources of information in **FLASHPOINT CAMPAIGNS: RED STORM**. The TOC opens at the start of each scenario and turn and provides the player with the Scenario Description and the Player Mission Briefing, which are needed at the start of the scenario. The TOC also contains the Force Roster, a table of Reported Kills and Claims and a Staff Summary Report. All of these information tabs will be updated every turn. The last tab of the TOC is the < Program Updates >. If you are playing a Campaign Game you will also see a Campaign History tab. In order to manually open the Tactical Operations Center, click "view" and select "View Tactical Operations Center (TOC)". The hotkey "F2" can also be used.

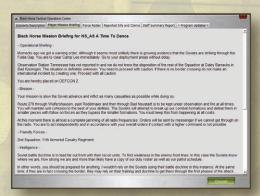
The TOC is a very useful tool and it would be wise to examine the different tabs regularly.

6.1.1 SCENARIO DESCRIPTION



The scenario description contains basic information on the scenario in question. The scenario name, size, date, time and location are all given, as well as a couple of lines to provide you with a general idea of what the scenario is about. The amount and detail of the description will vary based on scenario designer.

6.1.2 MISSION BRIEFING



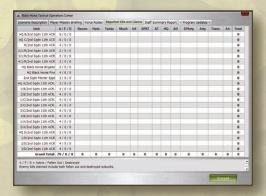
This tab provides an overview of the mission. Here it is specified what is your job as commander and which troops you have available to you. It might also contain information on enemy troops and positions. Refer to the Mission Briefing anytime when in doubt what to do. The amount of detail in the mission briefing will vary based on the scenario designer.

6.1.3 FORCE ROSTER



The Force Roster contains a list of all your available forces, which are depicted either as silhouettes or symbols. The Force Roster also provides information on the troops experience, readiness, morale and available amount of ammunition. This roster will be updated every turn to show which units have claimed kills and which units are destroyed/knocked out. Any awards for performance will also be listed here at the end of the game.

6.1.4 REPORTED KILLS AND CLAIMS



The Reported Kills and Claims tab contains a table in which all your units are listed and keeps track of all the kills and claims your units have made. Please note that 'Enemy Losses' includes both units killed and units fallen out of combat. At the end of a scenario any units gaining awards will be noted at the bottom of the dialog.

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6.1.5 STAFF SUMMARY REPORT



This is the Staff Summary Report.

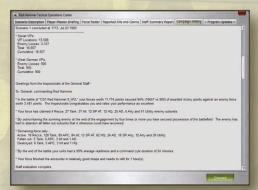
The chart in the top left corner shows the total number of 'runners' left to the player by category. Known enemy runners are also shown at the end of each game or during the game if the game options allow for spotting of enemy units.

The text area below the chart gives a summary of the runners by individual subunit type. At the end of a battle the enemies force disposition will also be listed here.

The top right corner shows the all-important VP requirements for victory. Take the time to give them a careful examination. Based on the total VP cost of the forces and the initial held objectives, the table of victory conditions is calculated. This is the percentage of VPs you must have at the end of the scenario to achieve the various levels of victory.

The VP tally in the lower right corner sums up your VP position at the current time. When the game is over the final game verdict will be displayed at the bottom of this panel.

6.1.6 CAMPAIGN HISTORY (CAMPAIGN GAME ONLY)



This tab offers a review of the disposition of your forces at the start and the end of each campaign scenario. Information about the forces used, support forces, losses, kill claims, refit operations and victory point (VP) awards will be noted in this log.

6.1.7 <PROGRAM UPDATES>

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This selection can be used to view the latest patch notes (such as rule changes, content additions) while playing a scenario.

6.2 RADIO TRAFFIC (SCENARIO ANNOUNCEMENTS)



Radio Traffic brings you information in the form of small dialogues that popup at the start of a scenario or when specific events happen. Information that may be received via the radio traffic includes:

- Information on the deployment and starting situation of a scenario
- Weather Updates and changes in visibility
- Changes in time of day and lighting conditions
- Reinforcements and withdrawals of specific units
 - Leader Killed
- HQ intercepts
- Scenario updates
- Scenario or Campaign Game has ended

6.3 THE MAIN MENU:

Shown on the main menu bar are File, View, Game and Help. Clicking the mouse on one of these will open a sub-menu with other choices. Some choices may be grayed out if not available at the time the menu is opened. The following sections will describe those items in detail.

6.3.1 THE FILE MENU

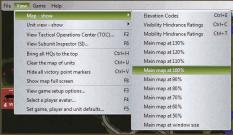


This menu covers the major file based functions of the game. Not all of these options are available at all times.

- Take Screenshot (Ctrl Z): A screenshot will be taken of the game screen
 at the current instant and saved to the \Screens subfolder in the main
 game folder as a .jpg file. You will be able to select a name to save it
 under.
- Save Game: Opens the Save Game dialog box. This allows you to name and save the current game into the Modules\FPRS\Saved folder or into a folder of your choosing by navigating your hard drive. You may return to your game after saving it or you may exit the game altogether.
- Start Next Scenario in a Campaign: Selecting this item will move you
 to the start of the next scenario in a campaign game. You will get to rest
 and refit your troops before going into battle again. This option is only
 available if you are playing a campaign.
- End Game Now: Selecting this item will immediately bring an official end the current scenario, show a dialog box indicating the scenario winner and send the player to the post-game evaluation and staff report.
- End Campaign Now: Selecting this item will immediately bring an end
 the current scenario, end the entire game, and send the player to the
 post-game evaluation and staff report. This option is only available if you
 are playing a campaign.
- Go to Main Menu: This brings you back to the main menu and welcome screen. If you choose this option you will be prompted to save the current game.
- Exit: Selecting this item will close the game and send you back to desktop.

6.3.2 THE VIEW MENU







Here you can select a number of options in order to change the information shown on the battlefield or bring up sever menus and information screens.

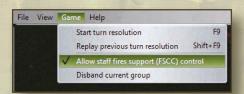
- Map Show: Here you can change the zoom level of the map or show numeric values for the map hex Elevations, Visibility Hindrance, or Mobility Hindrance.
- Unit View Show: From here you can bring up several map filters to show highlighted hexes for: line of sight (LOS), max range of fire, the area from which the selected units can be spotted and command radius (for HQ units). You can also look at all movement paths of your units or show enemy units seen by the selected unit.
- View Tactical Operations Center (F2): This will bring up the TOC containing the Mission Briefing, the Unit Diary, the Kills and Claims Chart for your forces, and the Staff Summary and other information.
- View Subunit Inspector (F6): This will bring up a menu where the player can get detailed statistics and data on the different types of units in game.

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This is the one place to get detailed information about the actual sub-unit platforms in the game (T-80BV or A-10, or Leopard 2A1, etc).

- Bring all HQs to Top (Ctrl + H): Press this button if you wish to bring all HQ units to the top of your stacks for easy access.
- Clear Map of Units (Ctrl + U): Pressing this button will hide all units from the map. This can be useful if you wish to study the terrain. Press again to restore the units to the map.
- Hide all Victory Point Markers (Ctrl + V): This will hide all victory point markers. Pressing again will place the VP markers back on the map.
- Show Map Full Screen (F8): This will hide the Battle Information Center and Unit Information Panel and show the map full screen. Hit F8 again to restore the game screen.
- View Game Setup Options (F3): Selecting this item will open the Game Setup dialog box. From there you can change any of the Game Options or Realism Options seen and set before the game starts. Once you are done adjusting the options you can hit Accept to go back to the game with the adjusted settings or press the Cancel button to return and maintain the original settings. See section 4.5 for more details.
- Select a Player Avatar (F4): This will take you to the Avatar Selection screen where you may select a badge to represent your force, rename the force leader, or rename the force itself. See section 7.7 for more details.
- Set Game, Player and Unit Defaults (F5): This will take you to the dialog screen that will let you set all other possible settings in the game. See the User Preferences information in section 3.4 for more details.

6.3.3 THE GAME MENU



• Start Turn Resolution: Selecting this item has the same effect as selecting the Start button. It will end the current player orders phase and start the turn resolution phase.

- Replay Previous Turn Resolution: The previous turn resolution can be replayed to help the player remember what has just transpired. This can be particularly helpful after loading a saved game.
- Allow Staff to Order FSCC Air and Arty Missions: Even if this option
 has been enabled for the game as a whole, there may still be times when
 you want to turn it off for a period of time and reserve all fire support
 decision making to yourself. This will let you do that.
- Disband Current Group: If a group of units has been assembled by shiftleft-clicking, this menu item will let you disband the group. You can also disband a group selection by clicking on a new unselected unit.

6.3.4 THE HELP MENU



- View Game Rules in PDF Format: Click this item to open a PDF of the game rules. They can be resized and view while the game screen is still visible.
- FPC-RS Quick Start & Tutorial: Opens the PDF copy of the Quick Start and Tutorial for the player to read while learning the game.
- FPC Modding Guide: Opens the PDF copy of the FPC Modding Guide.
 This may come in handy if you are making new content or modifying existing content.

6.4 THE BATTLE INFORMATION CENTER (BIC)

The Battle Information Center or BIC, is shown either to the left or the right side of the screen (depending on your preference) and contains a great amount of information. This information is divided into different sections which we will walk you through.

6.4.1 BATTLE CONDITIONS PANEL (BCP)

The BCP is located near the top of the BIC and shows the weather, time and visibility. These things will change during the battle, so it is important to keep an eye on.

The turn Start and Pause button is also located in this panel. Hitting Start will end the orders phase and start the turn resolution until the next orders phase.



6.4.2 THE COMMAND NOTEBOOK

The Command Notebook features a tabbed notebook with many useful displays of information or access to settings or tools necessary for the commander to have. Depending on the forces in a scenario there may be five to seven active tabs in the notebook. The following sections detail each tab of the notebook.

6.4.2.1 PLAYER TAB

The Player tab provides information about your entire force. You will find the following information:

- Force name
- Force badge graphic
- Commander's name
- Commander's status
- Commander's HQ location hex
- Current time to next orders phase
- HQ radio activity



- Number of orders given in the current orders phase Important if playing with limited orders.
- Average force readiness
- Readiness recovery per hour
- Current force VP percentage

NOTE: You can change your force name, commander name and force badge by clicking on the badge in the notebook. This will open the Avatar selection screen. See section 7.7 for more details.

6.4.2.2 C3 TAB

This tab provides Command, Control and Communications (C3) information about the current and future command cycles (time between orders phases) for your forces. You are provided the following information:

- The local Electronic Warfare (EW) hindrance value – This is the impact of enemy jamming on your communications network.
- Percentage of active head quarters
- Percentage of other subunits
- Average unit readiness
- Future command cycle time This may change during the course of the current turn if you lose HQ units.
- Chart showing the command cycles for both sides It is important to get "inside the command loop" of your opponent in order to react better to battlefield conditions.



6.4.2.3 OB TAB

When the Order of Battle (OB) tab is selected, the Chain of Command tree is displayed in the command notebook. The command and control aspects of the game make it important to know how the combat forces are hierarchically organized since it may not be obvious from the way they are deployed on the map.

Clicking on a name on the tree will take you to that unit on the map. A special menu command under the Game menu – Hide Minimap – is provided to allow for a larger viewing display for the Chain of Command tree.

You can cross attach forces using this command tree at any time during an orders phase. See section 8.3 for more details.



NOTE: Units in bold type are acting as headquarters (whether they are rated to or not) and units in red text are out of range to the Command Network.

6.4.2.4 FS TAB

Clicking on the FS tab, if present, will bring up the list of Fire Support assets allocated to your forces. This includes the following:

- On-map artillery units Mortars, Towed Field Guns, Self-Propelled Guns, and Rocket systems both towed and selfpropelled.
- Off-map artillery units Same as on map.
- Strike Aircraft Close air support (CAS) assets packing lots of bombs, rockets, and precision munitions.
- NBC Strikes NBC (Nuclear, Biological and Chemical) Strikes include nuclear, persistent chemical and non-persistent



chemical attacks. These are usually one shot items and come with a negative VP cost. Use them wisely.

The list reports unit designation, orders state, and unit composition. Clicking on one of the units in the listing will jump to that unit on the map or display the off map units in the Unit Display Panel (UDP). From there you can right click the unit to give orders like bombard or strike.

At the bottom of the tab is a check box for allowing the staff to take over the FSCC. This option allows you to change control between your AI staff and you as needed.

6.4.2.5 R&W TAB

The R&W (Reinforcements and Withdrawals) tab, if present, will list all of the forces joining the battle after the start or those forces leaving the battle at a certain time (called away elsewhere by your boss).

The listing shows the time in minutes of the arrival or departure, the forces coming in at that time and also the hex of entry (column/row).



6.4.2.6 VPS TAB

The VPs (Victory Points) tab provides a summary of the VPs currently awarded to your forces. This includes a current total of VPs for your forces, a list of VP locations on the map that your side owns, and any points through claimed kills.

Each VP location has a link you can click to jump to that location on the map and it also shows the value of the victory location.

Player	C3	OB
R&W	VPs	FX
Victory Points		
4th Pz Bde TF VPs: 1210		
Hex 0918 worth 250 VPs.		
Hex 0718 worth 300 VPs.		
Hex 1119 worth 100 VPs.		
Hex 1318 worth 100 VPs.		
Hex 1517 worth 100 VPs.		
Hex 1806 worth 70 VPs.		
Hex 2606 worth 50 VPs.		
Hex 2806 worth 50 VPs.		
Hex 2807 worth 50 VPs.		
Hex 2509	worth 70 VP	S.
Hex 2411	worth 70 VP	S.
Claimed kills worth 0		
		▼

6.4.2.7 FX TAB

The FX (Effects) tab has a handful of game setting and options commonly toggled on or off like sound effects (SFX), animations, fire lines, combat hints, unit details and auto centering to the active unit.

There is also a slider to speed up or slow down the turn resolution by adjusting the game delay.

These options are covered in more detail in other sections of this manual.



6.4.3 THE UNIT DISPLAY PANEL (UDP)

- Name: The historical designation of the unit. The maximum length for a name is 32 characters.
- Training: An identifier representing the average amount of prewar training received. These range between Untrained, Green, Average, Veteran, and Elite. This identifier will be noted before the primary type of unit. In this case "Veteran Tank"
- Subunit Summary: The summary of combat ready subunits belonging to the unit as of the last time a situation
 - report was generated. It can be detailed or general depending on player preference for "Detailed Unit Compositions", e.g. "10 x T-64B" versus "10 Tank". This summary is displayed on the Unit Description Panel when the unit is highlighted together with the time at which the situation report was last generated.
- Orders: The current orders state of the unit is stated here. Orders are covered in more detail in section 9.
- Posture: This describes the use of local defensive terrain by the unit.
 Posture is critical to calculations for spotting and combat results.
 - » Dug In The unit has taken at least a half hour of uninterrupted time to settle into its location and prepare itself for combat. Thirty minutes of such preparation can reduce casualties by 50% on average or more if in an improved position. Helicopter units may not dig in.
 - » Concealed / Covered The unit utilizes all available concealment and cover provided by local terrain but does not go so far as to dig in. The benefit received will depend entirely on the nature of the terrain it occupies and also on whether the unit is moving or standing still. Units which are moving in this posture are basically dashing from cover to cover and this will get them a partial terrain bonus. If, however, there is no cover or concealment to take advantage of, the unit is considered to be exposed. Effective speed is approximately halved. The slow speed does not mean that the unit is moving more slowly, only that its subunits need more time to plan the dashes properly.



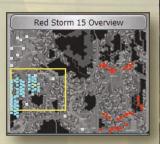
- Screen orders
- Covered posture
- 78% Readiness (+24/hr)
- 90% Ammo
- 78% Morale
- <= 8 hexes from HQ</p>
- . Pref. Standoff: 1 to 9 hexes

- » Exposed The unit utilizes neither concealment nor cover but is tactically aware and spread out. Units generally have to expose themselves to move and attack. This posture occurs in particular when vehicles are required to maintain a formation and are not allowed to take individual tactical advantage of the terrain. Effective speed is approximately 75% of maximum tactical speed.
- » Very Exposed This is a 'non-tactical posture' e.g. vehicles doing administrative road movement, vehicles parked as in peacetime. The unit is not under cover nor is it utilizing concealment; the unit is not being tactically aware. Effective speed is max tactical speed before any other modifications for terrain, roads, etc.
- Readiness: A number from 1 to 99 (best) representing the ability of the
 unit to perform as required. Readiness is lost in combat and recovered
 by resupplying. The rate of recovery per hour for the unit is shown. This
 value will turn red when critically low.
- Ammo: This is an estimate of the % ammunition load remaining either
 on board or immediately at hand. This is an elastic number since it must
 cover a variety of ammo types and allotments. The intent is simply to
 impose a reasonable ammo limitation. When a unit is out of ammo it is
 still considered to be a runner but cannot fight until it is replenished. This
 value will turn red when critically low.
- Morale: A number from 1 to 99 (best) representing the mental state of the
 unit. Morale is lost in combat by taking losses or being close to friendly
 units that take losses. Morale is recovered slowly by rest and resupply
 and occasionally by obtaining kills against other units. This value will turn
 red when critically low.
- **Distance from next higher HQ**: The range in hexes to the unit's HQ is listed. If this information is in red, the unit is out of command range.
- Preferred Standoff Range: Based on the unit's orders, it will have a
 range in hexes that it will attempt maintain between itself and any enemy
 unit. If you want a unit to stand its ground, you need to order it to hold.
- Other Information: Depending on the unit or the condition of the unit, other important information will be in the UDP. This can include the following messages: Contaminated by nuclear fallout, Chemical contamination, Shortage of special ammunitions for artillery, Amphibious capability, Unarmed, Altitude for Helicopters, and Arrival and Withdrawal times.

6.4.4 JUMP MAP

The Jump Map (or mini map) is located at the very bottom of the BIC. This can be used to get a quick overview of your positions and that of your enemy and is very useful to quickly navigate the map.

Click on a location on the jump map and the battle map will be centered to that location. The yellow box on the jump map will show you what is currently on your screen. This box will resize if the map is zoomed in or out.



6.5 THE UNIT INFORMATION PANEL (UIP)

Below the game map is the Unit Information Panel. It provides the following tools and information.

6.5.1 MAP ZOOM LEVEL AND BUTTONS

On the upper right of the UIP is the current map zoom level and buttons to zoom the map up or down within the allowable range of 130% down to 38%.

6.5.2 EVENT SPECIFIC INFORMATION

In the top middle of the UIP is a status line that displays information as to the game phase, setting waypoints, or setting target points for artillery missions.

6.5.3 HEX LOCATION INFORMATION

In the upper right of the UIP is the status of the hex currently under the cursor. This includes the location ID, Elevation, Cover and Mobility rating of the hex.

6.5.4 TACTICAL OPS CENTER DIARY



Clicking on this tab will show a log of the major activity and status of your forces. You can filter the messages by unit if you right click on a unit and select the "Filter TOC Diary by Unit" option. Once selected the information in the diary will pertain only to that unit.

6.5.5 SUBUNITS...



The Subunits tab shows a breakdown of each vehicle and/or squad in the currently selected unit counter by silhouette and description. If a unit or squad has been knocked out of the fight, an explosion graphic will be placed over the silhouette.

The window also displays the unit identifier in the upper right.

Double clicking on a silhouette with bring up the Subunit Inspector for the unit in question.

6.6 THE SUBUNIT INSPECTOR (SI)



The Subunit Inspector is your window into the details of each vehicle or squad in the scenario. You can look at the currently selected unit or switch side by setting either the NATO or Warsaw Pact buttons at the bottom if the inspector dialog. The slider bar will page you through all the units a side had in the scenario. Each subunit has the following details.

6.6.1 PLATFORM

At the top of the SI you will get the subunit's name and type (in parenthesis). There is a silhouette of the vehicle or a NATO icon for infantry squads. The victory point cost of the unit along with the mobility type (track, wheel, leg, rotor, jet, and rocket), approximate maximum speed, front and flank armor rating, crew size and dates of service (as best we could determine).

6.6.2 ARMAMENTS

Next there is a list of armaments carried by the subunit. Some units may be unarmed. If there is a weapon, the name, various penetration values (AP, HEAT,

Area/small arms) range and basic ammo load will be listed. Certain special weapon codes may also be listed after the ammo amount. They are explained below.

6.6.3 SENSORS

A list of important sensors used in spotting or ranging is next if the subunit has any. If nothing is shown then the unit is relying on the Mk1 eyeball. The full sensors list can be found below.

6.6.4 SPECIAL ABILITIES AND COUNTER-MEASURES

If the subunit has any special capabilities like advanced armor, jammers, smoke dischargers, warning receivers and other, they will be listed in this section of the inspector. The full list of special abilities and counter-measures can be found below.

6.6.5 UNIT AND SUBUNIT "SPECIAL" CODES

6.6.5.1 WEAPON SPECIALS:

- AD = Air Defense only armaments rated air defense capable can be used against helicopters and aircraft with decent accuracy. Other units shooting at air targets have very low hit probability.
- ARM = Anti-Radiation Missile Weapon targets units with active radar systems (ASR or GSR).
- CHN = Chemical Non-Persistent Chemical strike that can cause losses to exposed troops. Dissipates quickly like smoke.
- CHP = Chemical Persistent Chemical strike that remains active on the battlefield for the duration of the scenario. Will cause losses if contacted and once contacted leaves the unit contaminated and vulnerable to additional losses until the unit can rest and recover to decontaminate.
- ICM = Improved Conventional Munitions Artillery based smart submunitions with an increased capability to achieve both soft and hard target kills.
- FL = Flame based weapon Covers any weapon that uses fire as its attacking method.

- NC = Nuclear Capable Roughly a 10-20 kt warhead. The big badda boom in the game. Nations must have nuclear capability and scenario must have units in play for use or release. Does a very good job of killing exposed units in a 2-3km radius.
- PG(x) = Precision Guided Munitions Advanced munitions that rides a
 laser beam or trail a wire to their target or use GPS or Radar, basically not
 a "dumb" bomb/round. Provides a high Pk (probability of a kill) for a first
 round kill. Certain counter-measures can adversely affect these weapons.
 - » PGG for GPS systems
 - » PGO for Optical systems (TV/IR/Laser)
 - » PGR for Radar homing systems
 - » PGI for inertial systems
- SC = Scattered Mines FASCAM (family of scatterable mines) is an artillery only weapon. These are large number of track buster minelets that can be delivered on short notice via a barrage and cover a hex on the map.
- SA = Small Arms weapons These are infantry rifles, sub machine guns, assault rifles, etc.
- SW = Infantry Support Weapon or Squad Weapon These are special "one shot" weapons, mainly anti-tank carried by infantry squads or weapons like machine guns and automatic grenade launchers.
- SM = Smoke Artillery based rounds that deploy an obscuring smoke screen over a large area. Units without Thermal Sights have their line of sight severely reduced.
- TA = Top Attack weapon These weapons, mainly anti-tank guided missiles (ATGMs), engage the thinner top armor of a vehicle increasing the chance of a kill. They are countered by units with advanced armors.
- TW = Tandem Warhead A tandem warhead's job is to defeat any advanced armor like reactive armor with the first warhead then hit with a second clean HEAT warhead against the regular armor protection (in theory that is).

6.6.5.2 SUBUNIT SPECIALS:

 AM = Amphibious Unit – Can conduct slow crossing of streams and rivers with 15-30 minutes of prep time.

- LB = Level Bomber- units fly at high altitude, can only be engaged by SAMs on the map. Gun based AD systems cannot reach.
- ACA(1-4) = Advanced Composite Armor (Effectiveness) Passive armors
 constructed to be more resilient against HEAT warheads. The higher the
 number the better the protection versus a HEAT round.
- ERA(1-4){+ or -} = Explosive Reactive Armor (Effectiveness) {+=Top Covered, -=Not on sides or top} Specially constructed bricks of metal plates and explosives designed to disrupt the jet of a HEAT round and in the case of advanced ERAs (3 or 4) potentially degrade long rod penetrators as well.
- SKT = Armored Skirts Spaced armor around the side and back of a vehicle used to pre-detonate a HEAT round to diffuse the jet.
- AD = Air Defense capable Units with a specified Air Defense role.
- MMS = Mast Mounted Sights small height advantage to spotting and a reduced chance to be spotted when in cover.
- NT = Night Capable Air unit that can operate normally at night.
- AW = All Weather Air unit that can operate normally in adverse weather (rain/fog/etc).
- NBC = NBC Vulnerable The design or the composition of the unit is such that the crew has an initial risk to NBC effects. This is for infantry type units and exposed crews of other platforms. After first use of a NBC system crews will go to MOP suits reducing chance of casualties but increasing fatigue and dropping morale.
- QS = Quick Scoot capability Self-propelled artillery units that can shoot and then very quick drive off to a new location. These units have a greatly reduced chance of not being around when counter battery fire falls.
- XF = Area Fire capable

 Units can launch multiple rockets (like the BM-21 or MLRS) and saturate a large target area. Target hex and the surrounding six hexes.
- RC = Recon Unit Unit is trained in spotting enemy units and not being seen. Reduced initiative to fire on hostile units and more inclined to scoot away to not get killed /seen. Recon units can see through more clutter and see further than normal units.
- TC = Tow Capable The vehicle can tow field guns and mortars.
- TLM = Tube Launched Missile Unit has the ability to fire a missile (usually an ATGM) from the main gun barrel. Usually used at longer ranges where

the main gun kill chance is falling off. Unit can either fire gun or missile during a combat impulse, not both.

- ACM = Active Counter Measures –Systems like Arena, Trophy, or Drozd that attempt to intercept and incoming missile/projectile.
- DCM = Defensive Counter Measures Passive means like chaff and flares meant to decoy the missile away from the air unit or vehicle.
- ECM = Electronic Counter Measures Using powerful jammers to disrupt radar systems and seekers from tracking a target.
- ST = Stealth Construction Unit is designed to be very hard to detect by radar and IR systems due to its geometry and materials.
- SD = Smoke Discharger A system found on many armored fighting vehicles that creates a blinding smoke screen making it very difficult to target or track the vehicle.
- LO = Low Observable Construction Unit is designed to be difficult to detect by radar and IR systems. A more cost effective stealth capability with reduced effectiveness.
- TIJ = Thermal-Optical Jamming System Similar the Soviet Shtora which jams PGO type weapons reducing their hit probability.
- LWR=Laser Warning Receiver A system used to detect Laser range finders or laser designators. Detection allows the crew to take defensive measures against a threat.
- RWR=Radar Warning Receiver A system used to detect hostile radars and provide a pilot with warning of an impending attack, improving the chance to defeat a threat.

6.6.5.3 SENSOR LIST:

- Air Search Radar (ASR) Unit can search for aircraft and helicopters with radar.
- IR-S = Short Ranged IR Sights Allows a unit to see out to about 500 meters in the dark.
- IR-L = Long Ranged IR Sights Allows a unit to see out to about 1500 meters in the dark.
- NV = Night Vision-Light Amplification Sights Allows a unit to see in the dark very close to the same as daytime.

- TI = Thermal Imaging Sights Allows the unit to see in the dark and through smoke. Other units are more visible against the background due to the heat they give off. The system is degraded at dawn and dusk by thermal inversion.
- GSR = Ground Search Radar Radar used for spotting ground targets.
 [Not currently implemented]
- AGSR = Advanced Ground Search Radar Advanced radar used to spot and track ground targets. [Currently not implemented]
- ECCM = Electronic Counter-Counter Measures Electronic means of reducing the effects of ECM jamming on a sensor system.
- STR = Stadia Reticule Sight Basic iron sights. Poor ranging accuracy.
- STC = Stadia Coincidence Sight Advanced optical sights with good ranging capability.
- LRF = Laser Range Finder Part of an advanced fire control system.
 Provides very accurate ranging and target motion tracking.
- AGS = Advanced Gun Sight(s) Air units with advanced computer aided target tracking. Improves the chance to hit targets with weapons.
- AVS = Avionics Air units have many other computerized and advanced systems to keep them flying. No effect on game play.

6.7 AVATAR SELECTION



If you click on the unit badge in the Player tab of the Commander's Notebook, you will open the Avatar Selection dialog. You can use this dialog to select a new unit badge from the files shown in the left window. Clicking on the various images will display them to the right.

You can also change the name and rank of your likeness in the game.

You may also change the name of your force to something of your choosing.

7 THE GAME MAP

7.1 ELEVATIONS



On the battle map, you will notice that some tiles are colored differently than others. The color of the map will show the elevation level of the terrain. The more elevated the terrain is (ranging from elevation 1 to 5), the darker the tile will be. You can also check the tiles' elevation by clicking on the tile in question, or go to the 'View' menu and select 'Elevation Codes'. Placing units on high terrain will provide them with a better line of sight.

7.2 TERRAIN



The map is made up of various terrain elements applied over the elevations. Each type of terrain has mobility and visual hindrance values. The values are set in the Map Values Editor for each map used in the game.

- Clear No terrain elements visible on the elevation art. These tiles are not really "clear" but they have a small amount of rolling hills, some trees, field and buildings. Just not a significant amount to warrant art.
- **Fields** Cultivated farm fields. Fairly flat solid terrain (in the summer and if it is not raining). One of the more numerous terrain types in central Europe.
- Forest Lots of trees of various types cut with the occasional path, trail
 or road. Not so thick that driving over them is feasible.
- Rural Houses and small building found in villages and towns.
- Urban Larger government buildings, factories and apartment complexes.

7.3 ROADS

Roads connecting two hexes reduce the movement cost of leaving one and entering the other. The maps show only the major roads that run between villages, towns and cities. Rural and urban hexes are considered to have many minor streets even though they are not shown. Roads are the gray lines seen running from hex interior to hex interior across the map.

7.4 WATER OBSTACLES

- Streams These are the major streams or minor rivers of sufficient size
 that amphibious ground units must swim it and the rest must bridge it
 or use existing bridges to cross. Streams are denoted by the blue lines
 running along the edges of hexes on many maps.
- Rivers Large rivers are shown by full blue water hexes chained together.
 Rivers are crossed using two bridges. Amphibious units can slowly swim across.
- Lakes or larger Multiple blue hexes of water such that no bridge is capable of spanning it. Ground units cannot cross or occupy this terrain, but amphibious units can swim across slowly.

7.5 MAP MARKERS



- Bridge Allows units to cross a stream or river.
- Blown Bridge The bridge at this location has been destroyed and units cannot cross over the stream or river at this location.
- Chemical Contamination The hex at this location is contaminated with persistent chemicals.
- Crater a small image showing the impact point of a barrage or air strike.
- Exit Hex Location that either blue (Player 1) or red (Player 2) forces can exit the map and score victory points for the exited units.
- Gas Cloud The hex contains a non-persistent chemical.
- Improved Position An engineered defensive position improved the survivability of units within it.
- Kill Marker a small blue (Player 1) or red (Player 2) cross showing the location where a subunit was destroyed or fell out.
- Minefield A mixed anti-tank/anti-personnel minefield that attacks all
 who enter the location but particularly those who do not know it is there.
- Minefield Cleared Marker shows a minefield that has been cleared by engineers and is safe to pass through.
- Obstacle An engineered barrier that obstructs movement.
- Obstacle Cleared Marker shows an obstacle that has been cleared by engineers and is safe to pass through.
- PPF A pre-plotted fire marker shows a location where friendly artillery fire has preregistered and therefore can respond much more quickly than for standard on call artillery fire.
- Radiation Contamination The hex is littered with highly radioactive debris and fallout after a nuclear strike.

- Smoke An obscuring cloud that reduces the visibility through it greatly unless a unit is using a thermal sight.
- VP Location A banner with a point value that is awarded to the owner (blue-Player 1 and red-Player 2). Unclaimed VP locations are yellow.

7.6 USEFUL MAP OVERLAYS

The best way to quickly find out what is within spotting range of the currently selected unit is to press and hold Shift and left-click on a location to create a LOS overlay centered on that location. This answers the all-important question "What can this unit see from here?" "Here" is whatever location is currently selected.

Remember that not every enemy unit within the displayed LOS area may actually be detected – this depends on their spottable range. To see the spottable range of your currently selected unit use the popup menu item Show Spottable Range. This highlights the surrounding area from which the unit can be seen by a potential enemy unit. If an enemy unit is not in one of the highlighted hexes, the friendly unit in question is not spottable.

Finally, there is a map overlay called the Max Combat Range accessed via the popup menu. This overlay shows the area covered by longest range weapon in the unit. If that weapon is an indirect fire weapon then all hexes within range are highlighted. If it is a direct fire weapon then all hexes within the LOS and range are highlighted. Note: in some circumstances this may extend past current visible range – this is intentional.

7.7 FLYOUT MENU





If you have selected to have the Flyout Menu activated (on by default) and hover the mouse cursor over a stack of unit or an hex on the map, a Flyout menu will appears after a second or so showing you the terrain under any counters or markers, any major markers like bridges, mines, and/or obstacles, and each of the counters present in the stack. At the bottom of the Flyout menu you also get the hex location (column/row), hex elevation, and the cover and mobility hindrance value.

Beyond being helpful in seeing stacked units, you can right click on units in the Flyout to issue orders and even shift-click units to group select them.

7.8 MOVING THE MAP

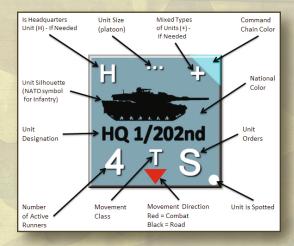
There are a few ways to move around the map during the game and they are as follows:

- Map scrolling by placing the mouse cursor near a map or program edge.
 This is defined in the Game Options.
- You can left-click and drag any non-unit part of the map to a new position on the screen in real time. Clicking a unit highlights the unit.
- You can click the Mini Map and reset the game map to the chosen location.

8 UNDERSTANDING UNITS

Units are the individual playing pieces in the game. Units are composed of one or more subunits such as vehicles, aircraft, artillery pieces, or squads of men. For example, a tank brigade HQ unit composed of 3 subunits might contain a T-80 command tank, a BMP-2 armored personnel carrier, and a BTR-60 command vehicle.

8.1 UNIT COUNTERS



- The primary constitution of unit is shown by the central graphic. In this
 case a tank is shown, so you may assume that the unit is predominantly
 composed of those. Vehicles of all types, artillery and aircraft are shown
 with vehicle graphics. Non-vehicular units use symbolic graphics.
- If the unit is composed of carrier vehicles and dismountable passengers
 then the vehicle icon will be shown while the unit is moving and the
 dominant passenger icon will be shown while the unit is stationary to
 indicated the that the passengers have dismounted.
- Immediately below the unit graphic will be an identifying unit designation.
 These tags allow the player to more quickly identify where the unit belongs in the general organization of his forces. This information is shown only to the owning player and long tags are truncated to fit.
- To quickly show who is subordinated to whom, a colored triangle is drawn in the top right corner of the counter. There are eight colors used to cover up to eight HQ formations. Beyond the eighth group no indicators are drawn. The colors used are set in the Game Options on the seconds Game Colors tab.

- A "+" in the upper right corner of the counter tells us that the unit is a
 mixed unit in the sense that it contains types of subunits other than the
 dominant type, e.g. tanks and infantry.
- The "H" in the upper left corner means that this particular unit is a headquarters unit. Some are formally organized to be headquarters and some are just acting as such. In either case, an H will appear in this location. This information is shown only to the owning player.
- The three dots at the top tell us the size of the unit, in this case a platoon. The size indicators are 'X' = brigade, 'III' = regiment, 'II' = battalion, 'I' = company (approx. 10 subunits), '...' = platoon (approx. 3 subunits), '...' section (1 or 2 subunits), and '.' = an individual subunit. This information shown only to the owning player. NOTE: For headquarters units the unit size shown is the size of the command, not of the HQ unit itself.
- The large number in the bottom left corner is the number of subunits mission-capable at the moment ("4" in this example). A subunit is mission capable (also known as a "runner") if it is physically and psychologically able to carry out its orders. The other possible states are destroyed and fallen out. A tank that has thrown a track, a truck with a conked out engine, or an infantry squad so shattered that it cannot rise from the bottom of its foxhole are examples of subunits that have fallen out. Fallen out subunits count equally with destroyed subunits for victory purposes but can be recovered between scenarios in a campaign game.
- The white letter ("S") is the first letter of the unit orders: "A" = Assault, "M" = Move Deliberate, "2" = Move Hasty, "S" = Screen, "H" = Hold, "B" = Barrage, "E" = Engineering Action, "R" = Resupply and "O" = On call. This information is shown only to the owning player. These orders will be explained in more detail in section 9.
- If a unit is currently in motion then a small triangle will be shown pointing
 in the direction that will be moved in next. If the triangle is black the unit
 is utilizing road movement going for speed over combat readiness. A
 red triangle indicated a unit moving in a combat ready formation. Slower
 moving but able to fight effectively.
- If the unit has been sighted by the enemy then a small white dot will be drawn in the bottom right corner of the counter. This is based on being lazed, shot at, or a good estimation of "we see them so I bet they can see us" for your units and actually spotting the enemy.

8.2 SPECIFIC UNIT TYPES

FLASHPOINT CAMPAIGNS: RED STORM has a very wide area of unit types covering the major platforms and squads of the cold war. The major unit types are described below.

8.2.1 LINE UNITS

Units with tank, infantry, or mechanized infantry counter icons are defined as "line" units. All other units are considered supporting specialists of some type. If a player runs out of line units then he is in serious trouble. Line units can be divided into three types: Infantry, mechanized armored fighting vehicles (+ infantry) and tanks. The specific stats of these units may vary, but in general these are there uses in battle:

- Infantry These units are weak in the open and often in need of support, but when well hidden and armed with specialized weapons like ATGMs, they pose a serious threat to any unit out there.
- Mechanized Armored Fighting Vehicles These units are quick, but often only lightly armored and should not be expected to hold their ground in the open against enemy tanks. Depending on the armaments of the unit however, they can seriously damage enemy infantry and armor.
- Tanks Tanks are the best units to kill the enemy's tanks and other armored fighting vehicles at range. Tanks have the toughest armor protection of any unit in the game. Tanks are also high value units, so don't throw them away recklessly or it will cost you your much needed victory points.

DESIGNER NOTE: INFANTRY

Infantry units perform best when dug in and in areas with plenty of cover. In built up areas like cities infantry can take down unsupported tanks. In the open, infantry becomes very vulnerable to all types of fire. Digging infantry out of high cover can be a real chore and usually requires the use of artillery and your own infantry to remove.

8.2.2 RECONNAISSANCE UNITS

Reconnaissance units are counted as line units but have some special characteristics, which make them ideal scouts. Reconnaissance units can safely operate outside of the command range with no penalties (they are trained to do this) and often have better equipment to spot enemy troops. Most of them are also harder to spot, but the downside of these units is (in most cases) that they are only lightly armed.

8.2.3 ARTILLERY UNITS

Artillery units come in all sorts of shapes and sizes. This includes small mortars, towed field guns, self-propelled artillery, and multiple rocket launchers. These units are designed to drop shells on the enemy from a great distance inflicting losses and degrading the readiness and morale of the troops being shelled.

The primary uses of artillery are discussed in the Artillery Missions section of the manual but these factors should be considered as well.

- Specialized Ammunition: The supply of specialized artillery ammo types is somewhat limited. The concept is that each artillery unit capable of firing anything other than HE rounds has a chance depending on nationality and type of round of running out of that type immediately after any given use. The percent chances of running out are listed in the National page of the appropriate National.xls file. This rule imposes a reasonable limit without descending into viewpoint-inconsistent micromanagement and bookkeeping. This will compel the player to evaluate the overall situation more rationally and not try to carpet everything on the map with ICM and minelets.
 - » If a unit runs out of an ammo type then an entry will be made in the staff diary and a combat hint will also be displayed if combat hints are enabled. To further emphasize the issue, the status information in the UDP will have the words "Out of chemical", etc.
 - » If a type of specialty ammunition has been used up then it will be restored at the conclusion of a Resupply period. Emergency resupply does not restore these critical shortages of specialized ammunition.
 - » Please note that HE is not subject to this limitation it just runs out when the final rounds of ammo are used up.
- Spotted and Unspotted Indirect Fire: Spotted indirect fire is less
 effective than direct fire by a factor of two to three. Unspotted indirect
 fire is much worse; at the instant of delivery the target unit or location is

checked to see if it is sighted by any eligible friendly unit. If it is not then the chance of any given hit is reduced substantially.

8.2.4 HEADQUARTERS

Headquarters units are the command network of your forces. These special units are the ones that draw up plans and issue orders to their subordinate forces or relays orders to forces. Keeping these units alive and in command range of their subordinated will have a major impact in your forces ability to fight and win battles.

Most upper level headquarters are full of troops and truck and command vehicles and not really meant to fight toe to toe. Lower level headquarters for companies and platoons usually have the same type of units as those they command, like tanks, and can lend firepower during a battle.

Each order out to a unit and each situation report back from a unit is a "radio event". The tally of radio events for each player over the last hour is shown in the radio traffic level gauges. Excessive use of the radio can reveal a unit's location and it will be shown on the map in a 'detected' spotted state if it is not detected already. If the unit is an HQ and the enemy staff is enabled to give FSCC missions then a high priority fire request against the HQ will be entered into the enemy FSCC mission queue. Bottom line, move your HQs on occasion if orders traffic is high or risk getting them shelled.

If a HQ unit is completely destroyed then another unit will be promoted to fill its spot in the chain of command. This is called HQ resubordination.

Any unit that has subordinate units is a de-facto headquarters unit, whether it is officially described as such or not. This state is not dependent on having HQ vehicles as subunits. The Chain of Command chart on the Map Page will show what the unit hierarchies currently are. The highest HQ (marked with "HQ" as its unit icon) is in overall command. Depending on the situation there may be intermediate level HQs as well.

HQ units can indirectly sight any enemy unit that its subordinate units have sighted. The highest HQ sights everything that any friendly unit has sighted. This is important for generating FSCC requests and reflect passing sighting of the enemy up the command chain.

Involuntary Movement: When a unit is forced to retreat it will move in the direction of immediate safety, or if there is none, towards its parent HQ.

8.2.5 HELICOPTERS

Various types of helicopters are included in the game. Helicopters can carry a variety of weapons, but they can also be assigned to preform reconnaissance tasks. Helicopters are just like any other on-map unit except for the following differences:

- They ignore all terrain costs when moving.
- They move much faster than the ground units based on their cruise speed and flight profile.
- They are assumed to fly at an average of 15 meters above the ground and LOS / LOF are calculated accordingly.
- They do not count against stacking limits in the location they occupy.
- They do not suffer a chemical / gas attack if they move through a contaminated location.
- They do not suffer minefield attacks if they move through a mined location.
- They do not suffer when moving through a nuclear contaminated location.
- Unit Posture Helicopter units cannot dig in or fortify.
- Helicopters with mast mounted sights receive a bonus to spot and a bonus to not get spotted.
- To resupply, helicopters must fly back and "land" within 1500 meters of the High HQ. This simulates landing at a forward resupply base.

8.2.6 STRIKE AIRCRAFT

Strike aircraft in the game come in two types. The close air support (CAS) aircraft or level bombers. Both can drop a massive array of ordinance on the enemy in a matter of minutes.

All aircraft are held off-map in special loiter areas for commitment to air strikes under the player's direction or FSCC control. When the air strike is complete the surviving aircraft either return to base to rearm if out of ammunition or go back on station is weapons are still available. After reaming they will return to the loiter area to await future assignment.

Doctrine generally allows for a certain number of fixed wing air close air support sorties within 40 km or so of the forward edge of battle area (FEBA). Since the FEBA is an extremely high-risk area for these valuable assets, availability will

be limited and strikes should be reserved for high value targets. Long-range artillery and helicopter assets remain the preferred platforms for routine fire missions within this zone.

NOTE: Aircraft that are rated "AW" indicates it is an All Weather aircraft, and can fly anytime visibility is 500 meters or better (in rain/snow). Non AW aircraft are grounded if the weather is poor. Aircraft with a "NT" rating can fly normally at night. Those units without a "NT" rating are grounded and cannot fly at night.

8.2.7 WEAPONS OF MASS DESTRUCTION (WMDS)

Tactical nuclear warheads and persistent and non-persistent chemical weapons cannot be used like standard units and will only show up in the FS (Fire Support) tab of the Commander's Notebook. These weapons are delivered by SSMs (Surface to surface missiles).

These weapons cost a certain amount of victory points to use and should therefore not be used lightly. It is highly advised that you only use these specialized weapons against extremely high value (and tightly packed) targets. Make sure to launch strike missions of these weapons only were they can be decisive!

8.3 UNIT RESUBORDINATION

Units are subordinated to higher units as shown in the OB tab of the Commander's Notebook in the Chain of Command (CoC) tree. If desired this can be altered by clicking on a unit in the tree and then dragging it to the HQ you wish it to serve under and releasing the mouse button.

- Subordinate units of the dragged unit accompany it and in turn fall into the new subordination branch
- Off-map and on-map units cannot be subordinated to each other.
- 'Higher level' units can be subordinated to lower level but confirmation will be required first.
- Types of units can be freely mixed and subordinated, e.g. tank to artillery, artillery to recce, even if it does not make military sense.
- Impact on game play:
 - » Artillery direct fire support eligibility will be affected
 - » Indirect sighting HQs and the FSCC will be affected.

» The game AI will organize itself using the groups defined in the CoC tree.

8.4 INACTIVE UNITS

History shows that not all units on the immediate battlefield that could have participated actually did. Accordingly, the scenario designer is allowed to place units on the map and then mark them as "inactive". This makes them unavailable for player orders or relocating in the start zones until their release is triggered.

- Inactive units are drawn on the map but they have a gray overlay to denote their status and the critical message line in the UDP will say "Inactive".
- They can be browsed but cannot be given orders of any type.
- They cannot be repositioned during the pre-game setup phase.
- Active and inactive units may stack together within normal stacking limits.
- An inactive unit cannot become the supreme HQ.
- Inactive unit radio messages are not counted towards traffic levels.
- The become active:
 - » When attacked (ground, arty or air).
 - » When an enemy appears within the standoff range.
 - » Once activated, these units behave in a normal fashion.

9 ISSUING UNIT ORDERS

You control your forces by giving orders to your units. Be aware that a certain period of time is needed by the staff to formulate and transmit your orders. The unit will need a period of time to prepare for the new order that is a function of the type of order, the training, readiness, and the tactical situation of the unit to which it is issued. Orders take as long as they take to run to completion and this may not coincide neatly with the Orders Phase intervals. Orders persist to the next turn if you do not issue new ones.



Orders can be given to a unit by right-clicking on the unit icon on the map and selecting an order from the displayed popup menu. Some orders just require selecting to set them (Screen, On Call, Hold, Resupply, etc.). Others require the player to designate up to three map waypoints or target points (Moves, Assault, Barrage, etc.). With these latter orders you must finish the order by hitting the Enter key or by clicking on the unit again either on the map or in the UDP.

If you decide in the midst of issuing a move or bombardment order that you want to do something else you can click the Esc key to stop the order. Accepting an order and then issuing a new order can also be done unless you are using the limited staff rule, in which case you will have wasted an order point – so use the Esc (escape) key instead.

If you are playing with the Limited Staff Rule off, you can issue any number of orders to a unit.

For more detailed information about plotting movement, see section 10.1.

DESIGNER NOTE: PLANNING

However true it may be that plans don't survive contact with the enemy, maneuver must be carefully pre planned. The operational commander can expect to feel more like a traffic cop than a battlefield commander of WWII vintage once maneuvering has begun. However, this is as it should be. Victory can depend on units getting to the same place at the same time. Traffic jams (only one company sized maneuver element fits easily in one map location) are gifts to opposing air and artillery forces. Hostile helicopters love a large traffic jam and are incredibly effective in destroying them.

In addition to the requirement to pre-plan, players must remain flexible to meet the rapidly changing situations common in modern combat. The reason for this necessity is lack of information. You are unlikely to know exactly where the enemy is, what they have, or what their objectives are during setup while you are making plans. A good plan will incorporate accurate guesses as to these points, will not depend too crucially upon those guesses, and will include methods to improve your intelligence on the enemy while denying him similar intelligence. Field reconnaissance will often result in the loss of the units performing the recon, so it is best to arrange that recon is not performed inadvertently by valuable non reconnaissance units.

9.1 SPECIFIC UNIT ORDERS

The primary focus of the game is the issuing of orders to your forces in a way that allows for forces to gain objectives and inflict losses on the enemy while keeping your forces intact. It can be a tall order at times, but there are a number of different orders to help you achieve your goals. They are as follows:

- On Call The unit is standing by and ready to receive an order. This is
 not necessarily a relaxing status for the unit; it is in a state of constant
 readiness and expectation of action. Use the Resupply order instead if
 you want a unit to resupply ammo, improve readiness and morale.
- Assault This is a formal attack order and is used when heavy opposition
 is expected. All vehicles are deployed in combat formation and fully
 prepared for combat. Average speed is kept relatively high to minimize
 time in the danger zone but reducing the effective use of cover along
 the way. This is the only order where a unit will voluntarily move into

a location already occupied by the enemy. The unit will switch to Hold when it arrives in the final movement waypoint.

- Move Deliberate Use this command when expecting to move against light opposition. Vehicles will mostly be in battle formation and move with tactical overwatch, but without any particular coordination with supporting arms. It will utilize a somewhat slower speed than for assault. Units with Move orders will not close with the enemy i.e. voluntarily enter a location containing a known enemy unit. They will stop adjacent to it and engage in combat instead. If the enemy location is cleared then the unit will resume its movement. Units on the move will use terrain masking and cover better than an assault move and will switch to Screen when the last waypoint is reached.
- Move Hasty This is the quickest form of controlled movement but is safe only when no opposition is expected. Vehicles move in road march (column) at 50 meter intervals and proceed to the designated location without tactical finesse. They will automatically use the road net if this will speed things up. It will switch to Move Deliberate orders if attacked by a ground unit or if an enemy unit is spotted. Units moving Hasty are not in effective combat ready posture nor are they using terrain to an advantage. When they reach the last waypoint they switch to Screen.
- Screen The unit defends in the current location using available cover and concealment but does not dig in. The unit is more apt to scoot if it takes losses and also tries to maintain a standoff range to any spotted enemies to keep its weapons at effective distance.
- Hold -The unit digs in at the current location over the course of the next half hour using the best cover the terrain can offer. The unit is very resistant to scooting if under fire and taking losses. The standoff range for units in hold is zero. This is the best stance to be in if you are looking to defend a location.
- Resupply The unit stands down and is allowed to recover from the ordeal of battle for 30 minutes or more. A unit that goes into resupply will first scoot away from enemy contact. Once in the clear, officers inspect their men and vehicles and make changes as needed. Vehicles are filled with supplies as quickly as possible, weapons are cleaned, and the men take a moment to eat and rest. Both Readiness and Morale improve when in a resupply. When resupplied, a SitRep will be generated to advise the player that the ammo supply has been either partially or fully restored. Unit recovery is much better for units within range of its HQ. If the unit is attacked or spots an enemy unit during the resupply order it will scoot away until in the clear again and start the resupply process over.





• Air Strike – The player selects an air unit from the OB or FS tab of the Commander's Notebook, right clicks the unit counter in the UDP and selects Air Strike from the menu. The player then designates a target location. This will pop up the Air Strike Controller dialog. The dialog shows the unit designation, the type of aircraft, loadout, and lets you set a delay in arrival time and also the target zone radius. The aircraft can attack any targets in this zone. After the strike if the aircraft still have weapons left it will go back on station and be on call. If the aircraft is out of ammo it will return to base to rearm and refuel. This takes about 30 minutes and then the aircraft goes back On Call.



- Barrage (Artillery only) The unit has been given a specific fire support
 mission by the player. Up to three locations ('target reference points') can
 be designated per turn for a barrage. Note: the unit will not respond to
 any FSCC requests until the mission is complete.
 - » A barrage can be suppression or neutralization levels using standard High Explosive (HE) rounds. Some units may have access to Improved Conventional Munitions (ICM), smoke, chemical and / or FASCAM (minelets) as well. The choices offered to a unit will automatically match its capabilities. All modern artillery has the capability to shoot smoke. The ability to shoot chemical or FASCAM munitions is noted in the Specials field of the unit.
 - » Technically, a "barrage" means a sheaf that is a line or wall of fire, whereas a "concentration" is against a point target. For game purposes a barrage includes a concentration.
 - » Specific barrage missions:
 - * Harassing Fire (0x): A light concentration of HE shells meant to rattle the target and do light damage to soft units. This has a chance of reducing readiness and morale of the shelled units.
 - * Suppression (1x): A moderate concentration of High Explosive (HE) shells fired in a standard barrage format. It can be destructive to any but most heavily armored of exposed units, moderately destructive to covered units, and mostly ineffective against dug in and fortified units. It does impact the readiness and morale of the shelled units.
 - * Neutralization (3x): Similar to Suppression barrage, but with three times the ammunition allocated and at a faster rate of firing, it is much more likely to result in physical destruction and fall outs of subunits. It will deplete ammunition at a rapid rate so it must be used sparingly but is potentially the most decisive fire mission that can be used. Impacts the morale and readiness of shelled units.
 - * Saturation Area Fire (7x): This option is found only on multiple rocket launchers. It allows all of the unit's rockets to be fired off in rapid succession and strike a much larger target zone. If this mission is chosen you can only select one target point and the rounds will land in the target hex and the surrounding six hexes. This is a devastating attack that can cause severe losses to man and machine. Units firing a saturation attack automatically go to zero ammo and must resupply before shooting again.
 - * Smoke: Smoke is a significant LOS hindrance to any unit without thermal imaging sights; with these sights it is a minimal hindrance.

To tell if a unit can see through smoke or not check the SUI for thermal sight".

- * ICM: These cluster munitions can do severe damage to both armored and unarmored targets. It is advised to use these munitions against tightly packed enemies.
- * Minelets: Artillery may also be able to deploy mines. Once the artillery has fired these, a minefield will be formed on the target location.
- * Direct Support: A friendly unit is designated as the 'supported unit' by an artillery unit, which will then service only fire support requests from that unit or a subordinate. The advantage is a faster response time due to a streamlined processing queue. The disadvantage is that it strips support from other units that might need it more.
- * Counter Battery: The unit will service fire support requests only against artillery units or HQ units. Note: every time an enemy onmap artillery unit shoots, there is a 30% chance that a counter battery fire support request against it will be generated. This is a good way to reduce an enemy's artillery assets.

DESIGNER NOTE: MOBILITY

Combat occurs 'over the ground', not 'for the ground'. Despite the perils of tactical movement, units need to be constantly engaged in operational movement. Once the enemy has identified them in a particular location they can all too easily be fixed in place with suppressive fires and kept out of the battle. There are few 'must have' locations to defend, so the objective is to find and defeat the enemy combat units, not seize or hold mere ground.

9.2 ENGINEERING ORDERS

While engineers are not represented as counters, they are still very much part of the game. Many functions done by engineers are abstracted into automatic functions or by certain orders given to on map units.

9.2.1 BRIDGE-BUILDING

One of their most important functions is to bridge the obstacles that may occur on the battlefield. When a ground unit needs a bridge constructed it moves into the location from which it will cross and defends while an engineering detachment arrives and does the actual bridging. The time necessary to bridge an obstacle is specified in the national defaults for each country.

Once built, these bridges remain in play for the rest of the game unless destroyed by demolition. They may not be immediately revealed if you are playing with fog of war but they will be revealed once there is a line of sight to a friendly unit.

9.2.2 BRIDGE DEMOLITION

Bridges can be destroyed by any unit located at either end of the bridge by issuing a Blow Bridge order. This simulates summoning an engineering detachment with all the necessary explosives and supporting gear. It takes 30 minutes for a unit to blow a bridge and the unit calling in the order must be able to hold the location for the 30 minutes for the job to get done. If the unit is force off of the bridge side the whole operation must start over again.

9.2.3 MINEFIELDS AND OBSTACLES

Minefields and Obstacles are placed on a map by the scenario designer. These items are hidden until they are found by units running into them in a hex. Both cases movement is stopped until the engineers clear the way through. When breached, the obstacle or minefield will switch to a yellow "cleared" version of the marker. It takes about 30 minutes to clear a hex.

Minefields also have a 10% chance of causing a unit to be damaged and fall out of service.

9.2.4 IMPROVED POSITIONS

Improved positions are engineered works placed on the map by the scenario designer. They offer more effective protection than what units can create on their own by digging in. To obtain the defensive benefit a unit must occupy a location with a friendly improved position and then select Hold orders. After 30 minutes the unit will be shown as Fortified.

The benefits are:

- The unit is harder to spot and hit.
- The unit is less likely to scoot out of this position when under fire.
- The unit will tend to shoot more often and more accurately in combat.
- The risk of loss in combat is substantially less.

NOTE: Helicopters and air units cannot take advantage of improved positions.

All improved positions are allocated by scenario design and may not be constructed during the course of a game. They are considered permanent and cannot be destroyed.

9.3 UNIT ORDERS DELAY FACTORS

Orders take time to transmit, absorb, and implement. Some are fast and some will take time. For many orders there is a preparation time before the order can commence and then a time period during which the order is executed.

If the unit is On Call or is already performing the same kind of order requested (i.e. Move to Move, Screen to Screen, just with different parameters) then the Orders Delay equals 2 minutes. Otherwise the Orders Delay equals the standard Orders Delay (2 to 60 minutes, average 5 to 10 minutes).

Other delay factors include:

- If the unit is being rested then the Orders Delay is increased by 10 minutes.
- If the unit needs to relinquish a Dug In posture then the Orders Delay is increased by 5 minutes.
- If the unit is not currently moving and the new order requires movement, then the Orders Delay is increased by 5 minutes.
- If the unit is under fire then the Orders Delay is increased by 50%.
- If the scenario electronic warfare intensity is Medium then the Orders Delay is increased by 20%, if EW intensity is High then it is increased by 33%.
- If the unit is ordered to Assault then the Orders Delay cannot be less than 30 minutes.

These are base delays and will vary based on training level of the forces, readiness of the forces and command and control losses.

DESIGNER NOTE: TEMPO

Modern combat occurs around the clock. Multiple echelons are necessary to sustain the necessary level of commitment. Each in turn works its way to the front, engages, and then disengages to rest and replenish. The idea is seize the initiative, set the tempo of combat at a level higher than the enemy can sustain, and then dislocate him with fresh units when his forces inevitably crack. In the circumstances, a fast but sloppy solution trumps a well ordered but slower solution. The other implication is that there is no time to learn on the job. All units must be fully trained in peacetime because there will be no time once the shooting starts.

9.4 INVOLUNTARY CHANGES OF UNIT ORDERS

Not all units follow orders at all times under all circumstances. Self-preservation will take over long before the very last bullet is fired or life lost. There may be an involuntary change of orders if the reaches a stress threshold limit. This limit is calculated using the current morale, training and readiness levels, losses, HQ proximity, and national factors for following orders and command flexibility.

If the limit is exceeded, attacks will stall and defenses will turn into retreats. Specifically:

- Assaults, Moves, and Resupply orders become Screens
- Screens, and Holds become Scoots to relative safety
- Specialist units (e.g. artillery, supply, etc.) revert to On Call or Scoot to safety

9.5 ISSUING ORDERS FOR MULTIPLE UNITS AT ONCE

It is possible to give orders to more than one unit at once by shift left-clicking on them to form a group and then issuing an order common to all. You can then call up a screen to schedule the timings of the orders of this group precisely. Since groups of units are not persistent group orders cannot be modified or edited once issued.

Right-click on any of the units to display the pop up window to select an order or disband the group. Only orders common to all selected units will be shown. NOTE: If waypoints are required, clicking on the map will create the appropriate number of waypoints.

The order can be accepted by left-clicking on one of the selected units or hitting the Enter key. All group members will get the same order and waypoints (plus or minus formation offsets).

Only one order point is used per group order no matter how many units are in the group. Once the order is committed, the order point cannot be recovered.

Unit movement orders are synchronized so that all arrive at each waypoint at approximately the same time. This can be dangerous to have stacks of valuable units on the map. You can after closing the order click on each unit and adjust the waypoints to different locations. Firing orders are synchronized to be simultaneous but at the slowest Current Orders Delay.

10 MOVEMENT

Movement is an important part of the game and letting your spotted units stand idle can be very dangerous, especially when the enemy fields artillery. Therefore, it is advised that you keep your units on the move as much as possible and often it is much better to give ground and get some hits on your enemies, than the other way around.

10.1 PLOTTING MOVEMENT



Any of the movement orders (Assault, Move - Deliberate, Move - Hasty) can be issued by right-clicking on the unit, selecting the appropriate order from the pop up window, and then designating one, two, or three waypoints by clicking on the map. There must be at least one waypoint for the movement order to be accepted. The unit will move towards each of the waypoints in turn and then stop when it reaches the final one and take up either a screen or hold posture.

You do not need to specify each and every location that you want the unit to pass through during movement. Just set the general outline of the path using the waypoints and the staff will calculate the best way to get there. If you keep the waypoints sufficiently close together the staff will have little discretion and the actual path followed will be closely controlled by you. You will have to issue frequent movement orders to maintain precise control and this might be time consuming and impractical if the Limited Staff Rule is in effect.



If you want to move a waypoint that has already been placed then just use the mouse to drag it to where you want it to be. To delete a waypoint right-click it and select menu item Delete Waypoint from the popup menu. Note: If you delete the last waypoint for a movement order you will find yourself back in Unit Order Mode and you must specify a new waypoint(s) or cancel the movement order altogether.



If you need to delay the arrival of a unit at various waypoints, all you need to do is select the unit, right click on a waypoint, and select Waypoint Editor from the menu. It will pop up a dialog that allows you to set delays for all of the waypoints and also shows the estimated time of arrival based on the delays you choose.

10.2 RESOLVING MOVEMENT

When the turn resolution phase begins, each unit will calculate how much time it will need to move from the current location to the next adjacent one in route to the first waypoint. This calculation will be affected by a host of both internal and external factors, but assuming that all goes well, the unit should arrive at about the expected time seen on the UDP.

Things that can go wrong include the intervention of enemy units either through physical presence triggering standoff range limits, or fire effects causing a pin or even a mission abort, blown bridges, traffic jams with friendly units that are in the way, group formation requirements, minefields and obstacles, and / or a general breakdown in battlefield direction under the stress of combat.

Sometimes a unit will be blocked from following the path the staff laid down, but will try to find a new path on its own. At other times it will give up on the mission temporarily and just try to find a place of relative safety to shelter in. An experienced commander will not count on parade square precision of movement in this game. Every leg of every movement plot can be something of an adventure into the unknown.

When the last waypoint is reached, a unit with Assault orders will switch to Hold, and a line unit with Move – Deliberate or Move – Hasty orders will switch to Screen orders, otherwise the unit will go to On Call.

Units on the move lose a small amount of readiness based on the mobility rating of the terrain. The harsher the terrain the more of a hit readiness takes.

10.3 UNIT STACKING

Up to 35 steps / vehicles / subunits are allowed to occupy each location for each side. The computer AI is allowed to relax this restriction somewhat during planning but it will be reasserted once movement begins. The computer opponent is encouraged not to over stack hexes.

DESIGNER NOTE: INITIATIVE

Players should not wait until they engage the enemy before exercising their command for by then it will be too late. In fact, you should make most of your decisions and give many of your orders before even starting play. Things like combat doctrine and reporting structures should not normally be changed during play. This reflects reality. In modern combat a lot of destruction happens very quickly. This means there is no time for battalion or brigade commander to assess the situation, make a decision, and enforce once it the shooting has started.

11 SPOTTING AND LINE OF SIGHT (LOS)

Spotting requires that the spotting unit have a clear LOS to the target and that the target be visible to the spotter at that range. Having a clear LOS to spot a target is required in order to shoot at it.

11.1 SPOTTING

A unit has a maximum spotting range within which it can potentially see any enemy unit. This will normally equal the maximum visible range for the time of day and weather except when;

- The unit is firing or moving its attention is presumed to be a least partly concentrated on that task and unit sighting is slightly reduced.
- The unit posture is Very Exposed; it is presumed to be feeling unthreatened and is not particularly attuned to its surroundings. Unit sighting range is slightly reduced.

Spotting is evaluated after every move, change of posture, or burst of fire. Spotting range is a function of weather, visibility range, posture, orders, readiness, currently moving, currently firing, special equipment like ground radar and thermal imaging, smoke, terrain, elevation, observation height, etc.

Units also have an individual "spottable range". Spottable range is a function of unit posture, size, terrain, currently moving, currently firing, etc. Enemy units beyond this range simply cannot spot them unless special sensors are involved. For example, a small non-firing infantry unit on a hilltop can see a long way but can be spotted from only a very short distance.

The current spotting and spottable ranges for each unit can be viewed by selecting the Show LOS (Ctrl-L) or Show Spottable From (Ctrl-O) function on the orders menu.

Spotting states:

- Undetected the unit counter is not revealed to the enemy in any way.
 There will be no indication that it is in a particular location at all.
- Detected The contact may be as imprecise as a rising cloud of dust or a fleeting glimpse of unknown vehicles between some trees or buildings. The unit counter with nationality and question mark (?) but no other details will be revealed. This contact is not strong enough to count as spotted

target for artillery or other types of combat. The unit is not browsable in this state and does not show up in the tally of enemy runners. If Automatic Spotting is enabled then all enemy units will be shown in this state at the minimum.

- Identified The unit has been revealed with a fair degree of accuracy. All
 counter details are shown except for name, orders and unit size. An 'area
 target' acquisition can be made by artillery but not by direct fire units. An
 example of an identified unit would be an artillery unit that has fired and
 given away its location, or an HQ that has been too busy on the radio,
 or a unit that has been previously spotted and has not yet moved away.
- Acquired As with identified but there is currently a direct LOS / LOF on it by an enemy unit. A 'point target' acquisition can be made for direct fire missions or observed arty missions. The 'acquired' dot is displayed on the lower right corner of the counter.

All headquarters and artillery units are deemed to automatically spot every enemy unit spotted by any friendly unit.

No unit can engage a target that is merely detected unless the realism option Individual Spotting Required for Combat is disabled.

11.2 LINE OF SIGHT (LOS)



Due to a combination of elevation and terrain considerations the potential exists to have sweeping vistas in some directions and to be all but blind in

others. A view from one hex to another is considered blocked if there is an intervening elevation or if the accumulated visual clutter due to cover, wrecks, and smoke along the LOS drops the visibility below 10% for most units.

LOS is checked in two steps:

First, there is a hard check of elevations between the spotter and the target. If a line from one hex to the other is broken by an elevation at or above the line at the location the LOS is blocked.

If the first check passes, the second test is to see if the accumulated visual hindrance from the terrain, smoke, wreck, etc. falls below 10% and is considered blocked.

Recon units and units with thermal sights have bonus that improve their ability to see deeper into terrain or through smoke.

DESIGNER NOTE: RECON AND INTEL

This is a game in which to be located by your opponent is often fatal so you will either wish to stay well hidden or to keep on the move. The latter will usually be necessary. In moving it is good to remember, especially for large forces on roads, that there are stacking limits. You cannot get much more than a single large, full strength company into one location. We have had attacks break down in play testing due to traffic jams. And locating one of your traffic jams is an enemy dream. Every remote delivery weapon (and a few direct fire ones) will end up trying to clear out that traffic problem for you, so avoid creating backups. Ideally the main task for your ground units will be to do mop up on such a location, having already had the air force and artillery do all the dirty work. This is more effective and a lot safer than wading into a head on ground engagement oneself. Unfortunately it is not always possible for events to work out so cleanly. So you will probably have to engage the enemy with your ground forces at some point. When you do so, keep in mind that snoopers tend to get shot at. Determining opposing strength locations with your HQ or main elements is not good practice. That is what the reconnaissance is for. You will often find that they merely present you with a flaming datum, better them than your staff vehicle.

12 COMBAT

Combat is the very focus of this game. Because of that, it is very detailed and may be confusing at first. In this section, everything that has to do with combat is explained. The different unit and ammunition types that are included in the game will make sure that a lot of different types of combat will occur during a scenario or a campaign. Even chemical and nuclear weapons might be used.

12.1 DIRECT FIRE COMBAT

All combat occurs during the turn resolution phase. Spotting is checked for all units and then each unit with Assault, Hold, Screen, Move - Deliberate, Move - Hasty, or Direct Support orders look for suitable targets among the enemy units that it can sight directly or indirectly. A combat event for each pairing of attacker and defender is created and entered into the main game event queue.

The combat event is resolved between the two units at the subunit level. The attacking unit calculates the quality and quantity of fire that it can effectively project against the defender given the number of runners that it has, the armaments that they mount, the range to the target, armaments base accuracy, attacker orders, crew quality, suppression from incoming fire, multiple targets, and special bonuses such as advanced gun sights.

This effective projection of fire is applied to the defending unit which will take losses in relation to the quantity and intrinsic protection rating of its runners, defender orders, posture, usable terrain bonus, movement, stealth, range, and special bonuses such as armor (Chobham, advanced composite, laminated, or reactive). The defender is also penalized if he has not sighted the attacker surprise is assumed for the first few shots - and if the range is one or less then there is a further penalty due to the assumption that more flanking shots are available when at such close range.

The attacker uses up a small percentage of ammo for each unit attacked and is marked as "firing". This "firing" status makes it easier for other units to spot it during the turn. Attacking also reduced a unit's readiness a small amount as the crews deal with riggers of loading and firing weapons or scanning for targets. Units occasionally gain a boost to morale if they achieve kills without taking losses.

Defending units can take losses as a result of combat. These losses are tracked to individual subunits. Readiness and morale can both be degraded by subunit losses. Morale can take a bigger hit is the HQ is out of range or if a friendly unit within 1000 meters is wiped out.

Unit 'stress' at the end of a combat is measured in runners killed + morale loss + readiness loss. If the stress is too high given the current order and training level then the unit will spontaneously give up its mission and try to retreat to a safer location by scooting.

DESIGNER NOTE: SURVIVAL

Complete units should not melt away in just a couple of minutes except in catastrophically adverse circumstances. Rarely should the voluntary loss rate exceed one vehicle per minute. All combatants are assumed to have residual survival instincts and will modify their behavior once they come under fire. They will not press on suicidal but rather will suffer a mission abort once the rate of loss passes a certain threshold - which can be aggravated by the loss of HQ vehicles. They will retire to the nearest safe location and reorganize for another attempt. Exception: the less realistically trained the troops are, the more 'dash' (voluntary risk assumption) they can be expected to show. Virtually all troops in the Soviet-style will fall into this category initially.

12.2 ARTILLERY

When artillery missions are fired you will see one or more impact animations (unless you have menu item 'Game / Show Hit and Miss Animations' turned off and menu item 'Game / Abbreviate Artillery SFX' is turned on). Each hit will register as a separate triple explosion with one orange ball of flame. Even if an artillery strike fails to kill subunits in the hex, units in the hex suffer a drop in readiness.

12.2.1 ARTILLERY MISSIONS

There are five kinds of artillery fire: direct fire over open sights, direct support of friendly units, map fire, pre-plotted fire, and on-call fire. Of course, if a unit can engage directly over open sights it will do so but that is not part of this discussion.

12.2.1.1 **DIRECT FIRE**

All artillery subunits are capable of pointing themselves at an enemy not more than 1,000 meters away and firing. The wisdom of this is highly debatable but

it can be done. Interestingly, Soviet tactics put great store in this technique and 122mm and 152mm SP howitzer assets can be attached to their assault formations to use direct fire against targets. While it is certainly much quicker than trying to organize on call fire the cost to the lightly protected artillery would be horrendous. They used this technique extensively in the second half of WW2 with the SU-76 (76mm guns mounted in light tank chassis) and the modern day 2S1 and 2S3 vehicles are the modern day inheritors of that tradition.

All other force structures might want to consider this a measure of last resort.

12.2.1.2 DIRECT SUPPORT ORDERS

Instead of selecting an enemy unit to shoot at, the intent of Direct Support is to pick a friendly unit to support with particularly quick fire missions. This allows the player to weight the attack or defense and prevent a dispersion of support to non-critical sectors at an important time.

Use a direct support order to restrict a supporting artillery unit to fire support requests only from the indicated unit or from units subordinated to that unit. Select the supported unit by clicking on its name in the commander's Notebook OB tab.

12.2.1.3 PRE-PLOTTED FIRE (PPF)

PPF represents the pre-registration of a list of locations of likely interest to the player. The artillery crews can perform all their calculations in advance and so the response time will be very fast. Most defenses rely on a lot of pre-plotted fire.

- During the player orders phase all PPFs will be shown as blue or red PPF markers rectangles placed in certain hexes on the map.
- When an artillery unit is assigned a PPF mission the response time will be 30 to 60 seconds rather than the normal On Call delay factor of several minutes to 'whenever'.
- The PPF used must be within range of the actual artillery unit assigned the mission.
- Target spotting is not necessary, but it will convey the usual accuracy bonus if it exists.
- PPFs are laid out by a scenario designer and saved with the scenario.

12.2.1.4 ON-CALL FIRE

On-call fire occurs where the player simply calls down fire on a location that is not a PPF location. On-call fire is a bit of an emergency measure, subject to many uncertainties, and may arrive too late to have the intended effect.

- Any artillery unit that is On Call, has ammo and is within range may be used for the mission.
- There can be a potentially serious time lag between the request and the mission. The biggest variable will be the expertise of the spotter and the state of the communications network with respect to electronic warfare levels. Two to three minutes is an excellent response time. Ten to twenty minutes would be a bad response time if the target is mobile and if it is longer you may want to consider cancelling the fire mission.

Plotting an artillery barrage is done by selecting the barrage order and then creating from one to three target reference points (TRPs) on the map. The firing unit will shoot a barrage of the specified type at each TRP in turn and then convert to On Call orders when the entire mission is done. There must be at least one TRP for the barrage order to be accepted. The same type of barrage selected (Suppression, Smoke, etc.) will be fired at all TRPs.

A firing mission is a somewhat hazardous undertaking for an artillery unit. There is an excellent chance that its location will be pinpointed by enemy counter battery units and a barrage dropped on it in return. There is a percent chance defined in each national data file that an artillery unit will displace by one location ("scoot") after each mission that it fires. Even if it does not move, the unit will want to keep the mission as short as possible to minimize the chance of retaliation. Fire missions will typically have a minimum of eight minutes between them to allow for these considerations.

DESIGNER NOTE: ARTILLERY

Arty support is crucial but limited – demand will far outstrip supply. Generally speaking, a frontal attack on an unsuppressed defense – no matter what the odds – will likely result in ruin. Artillery must be used to prepare the way and then support the attack. The dilemma is that artillery has its own notable supply limitations and cannot be used lavishly except for the very highest priority tasks. Five minutes of moderate firing per location ought to be considered lavish. During the attack smoke will be laid and obvious danger points suppressed, but the barrage will be limited to two-minute concentrations as needed unless resupply is assured. On the modern battlefield, quality of fire support counts more than quantity, and the destruction of units through fire alone should be considered most unlikely. Counter-battery fire is an important role and a substantial fraction (1/4 – 1/3) should be assigned to it. The same rules apply to air strikes, only more so.

12.2.1.5 FIRE SUPPORT CONTROL CENTER (FSCC)

Fire support mission requests are made either through player intervention during the orders phase or automatically through their FSCC during the turn resolution phase. Line units will automatically generate fire support requests during the course of the turn resolution based on their sighting activities as the turn unfolds. Fire support requests are also generated by the staff when ordered to prepare a fire support plan as part of the Al planning cycle.

Fire support requests are rated for target type, priority and weight of fire, and are queued in descending order of importance (priority multiplied by weight of fire requested). Fire support requests are automatically discarded as expired after 60 minutes.

Every 5 minutes during turn resolution the FSCC is called to match fire support requests to available air and artillery assets. To be "available" an artillery unit must have an On Call, Direct Support, or Counter Battery order and otherwise be ready to fire (i.e. not wiped out, not moving, not already assigned a FSCC mission, etc.) or be an On Call aircraft.

HQ stonks and counter battery missions are served first from units with counter battery orders, but if none are available then artillery units with On Call orders are used instead.

Other missions are served first by eligible artillery units with Direct Support orders, then by On Call units, and finally by units with Counter Battery orders.

Available air and artillery units are assigned to the mission until the requested weight of fire has been accumulated. The necessary combat events are created in the game event queue and the selected units will fire. The fire support request is marked as done and the rest of the list is processed until the supply of available artillery units is exhausted.

Artillery units that have manually been assigned a Barrage mission will fire as ordered and reverts to On Call when completely done. At that time they will be become available to service FSCC or player requests.

12.3 AIR POWER VERSUS AIR DEFENSE

When an airstrike is called in the air strike controller will automatically select the best value target location for the air strike within the discretionary radius allowed (they will default to the stated target if other targets only tie it for value). The target value is based on the number of visible targets less apparent air defense strength. If the target location is completely empty of targets when the air strike arrives, the attack is aborted and the aircraft returns to its on call station.

An airstrike attack starts with the sound effect of the approaching jet(s) and the following sequence of events happens:

- The target location will flash and the attacking aircraft will appear over the target unit.
- All eligible defending units (Air Defense (AD) units and units with air defense capable weapons) located within range of the target location will attempt to detect the attacking aircraft.
 - » Air defense units are much better than standard units with anti-air weapons.
- Those AD units which happen to spot the fast moving attackers will fire during the approach.
 - » If the aircraft is a Level Bomber (flying at high altitude above antiaircraft fire) it will only be engaged by detecting SAM systems.
 - » Both aircraft and air defense units have a number of electronic and other systems used to both degrade the performance of the enemy.
- Combat hints will alert the player to radar detections, AD attack evasions and finally loss of aircraft if one or more is shot down. If an aircraft is shot down then an appropriate sound effect is played.

- » Pilot readiness plays heavily into their ability to detect AD fire and avoid it. If you push your pilots on repeated passes the fatigue may lead to a mistake and a loss of the aircraft and crew.
- On the ordnance delivery pass the bomb special effects are rendered in the impact location and combat losses immediately applied to all units located there. Friendly and enemy units are both equally at risk if they occupy the impact location.

When the mission is over the aircraft will be given Resupply orders if it is out of ammo or it will return to its on call station awaiting another strike order. Aircraft put on resupply after thirty minutes they will become available and put On Call again.

12.4 NUCLEAR AND CHEMICAL ATTACKS (NBC/WMD)

These weapons are extremely powerful and not to be taken lightly. Weapons of mass destruction come in three types: Nuclear weapons, persistent chemical weapons and non-persistent chemical weapons.

12.4.1 NUCLEAR WEAPONS

A nuclear strike (has a very awesome animation) is resolved as a series of individual attacks against all units caught within the blast range. For game purposes we assume a tactical nuclear capability of approximately a 10kt yield with a 2 km blast radius. Subunits will be eliminated based on distance from the blast center in accordance with their intrinsic protection rating, NBC rating, cover and posture. Units also suffer massive losses in both readiness and morale even if they survive the blast and they are automatically contaminated. Contamination can cause additional losses over time if not dealt with. All bridges, smoke clouds, minefields and chemical contamination within the blast zone will be eliminated. The ground will be contaminated out two hexes from the blast center for the rest of the game. Units moving through the contaminated zones run the risk of additional losses and also get contaminated. All helicopters within a 5 km radius will be eliminated entirely. Contaminated units must resupply to get decontaminated.

12.4.2 PERSISTENT CHEMICAL WEAPONS

A persistent chemical strike is centered on one hex and affects that hex and the six surrounding hexes. Units caught in a persistent chemical attack can suffer losses and also take a large loss of readiness (getting into MOPP suits) and morale. Persistent chemical strikes leave markers on the map for the rest of the game. Any units moving through are attacked and also contaminated. Like nuclear contamination, chemical contamination can be removed by a resupply order. Contaminated units fight with reduced combat effectiveness caused by the protective gear.

12.4.3 NON-PERSISTENT CHEMICAL WEAPONS

A non-persistent chemical strike is centered on one hex and affects that hex and the six surrounding hexes. Units caught in a non-persistent chemical attack can suffer losses and also take a loss of readiness (getting into MOPP suits) and morale. Non-persistent chemical strikes leave gas markers on the map. These markers over time will dissipate. Any units moving through the cloud of poison gas are attacked and can lose units but are not contaminated.

DESIGNER NOTE: LETHALITY

This is the age of the empty battlefield. If you can see it, you can probably kill it. Western-style units will stay hidden unless forced otherwise by movement orders. During movement they will seek to use all available cover and move in short high-speed dashes to minimize exposure. If adequate cover is unavailable, smoke will be used lavishly. As in times past, the best movement route is the most covered route, not the shortest route. Warsaw Pact units put a higher premium on cohesion and predictability. They will be much less likely to take advantage of available cover in most circumstances.

13 SUPPLY AND LOGISTICS

Supply is the Achilles heel of all modern armies. It is burned at ferocious pace during operations and commanding officers are constantly mindful of 'topping off' their units. Given the basic scale and duration of the game, ammunition is likely to be far more of a limiting factor than fuel, rations or other forms of

supply. The lesson of the 1973 Arab Israeli war was that ammo gets used up far faster than expected; rates of 5 times greater than expected were not unheard of. It is an important part of the command dilemma to be able to ration it out effectively. In game terms, resupply is presumed to occur whenever a unit receives Resupply orders. There is a lull in the action and the supply trucks and other vehicles come forward and provide ammo and fuel to combat vehicles in place. Alternatively, individual vehicles drive a short distance to the rear to resupply and then return to their original location. As stated earlier, in order for a unit to resupply, it must be clear of enemy units and combat. Unit within the command radius of their HQ can get fully resupplied on ammo and gain more readiness and morale recovery. Units outside of the command radius get a small percentage of ammo replacement and gain a smaller improvement in readiness and morale.

13.1 AUTOMATIC EMERGENCY RESUPPLY

If this is selected in the Game Options, then any unit which runs out of ammo is automatically restored to 30% ammo if it falls below 5%. Unit orders have no effect on emergency resupply and the unit may be moving and/or fighting at the time.

Special Rule: Helicopters must be within 2 hexes of the highest HQ and not be moving. This is more realistic then allowing them to resupply in place at their forward firing positions and reflects having a forward supply base (FARP) near the high HQ.

DESIGNER NOTE: AMMUNITION

Ammunition is relatively bulky, heavy and scarce. Most units can fire off everything they carry in 10 minutes or less and yet they need to be able to go eight hours or more. This militates against high-volume low-payoff exchanges. Assume that the 'intensity half-range' is 500m. Units will generally shoot at 4x intensity at targets within that range, at 2x from 500 to 1000m, and at 1x beyond that. There is also a sniping / harassment level of fire that can occur at extreme ranges to keep the other side honest, but this need not be simulated at the company level. Both sides have stockpiled enormous quantities of ammunition and other supply, but experience has shown that it is used up at far higher than expected rates. Expect severe supply difficulties within 30 days for both sides, and potentially crippling shortages of key items within 10 days. This cannot be a long war.

14 VISIBILITY AND WEATHER

The time of day and the current weather conditions combine to define the maximum visibility that can be obtained and also impact sensors and weapons.

14.1 VISIBILITY

Dusk and dawn occur at the times of day appropriate to the region for the month of the year of the scenario.

- Daylight: if the time is between sunrise and sunset then the maximum possible visibility is 5,000 meters or more.
- Dawn occurs one hour before sunrise. During this time there is a thermal inversion of surface temperatures that degrade thermal sights and optically guided weapons.
- Dusk occurs one hour after sunset. During this time there is a thermal inversion of surface temperatures that degrade thermal sights and optically guided weapons.
- Night time: from one hour after sunset until one hour before sunrise, maximum visibility is 1,500 meters or less.

14.2 WEATHER

Weather plays an important role and has a great influence on visibility and can also impact the performance of certain weapons and sensors. The Weather in game is subject to change every twenty minutes. Weather can be:

- Clear: visibility is 5,000 meters and the chance of light rain is 3%.
- Light Rain: visibility is 2,000 meters and the chance of clearing is 6% and the chance of heavy rain is 5%.
- Heavy Rain: visibility is 500 meters and the chance of light rain is 8%.
- Dust / Haze / Fog / Mist: visibility is 1,500 meters and the chance of clearing is 5%. Fog or mist has a better chance of occurring at night and at dawn. It will burn off a few hours after sunrise.
- Rain will impact the accuracy of some optically guided weapons and also degrade the range of detection for thermal imaging sensors. It is important to take these factors into account when the weather is poor on the battle field.

DESIGNER NOTE: DISPERSION

In the age of ultra-lethal weapons, dispersion is the key to survival. Historically, troop densities have dropped every time that weapon lethality increased. Concentration of units is an invitation to wholesale destruction, yet attacks must concentrate to a degree to achieve success. Move dispersed, attack concentrated!

15 VICTORY CONDITIONS/END GAME

The victory conditions for each player are specified in detail in the mission briefings. The most important way to collect victory points is to find and secure the victory locations that have been placed on the map by the scenario designer. Blue locations are secured by player 1, red locations by player 2 and yellow locations have not been secured yet by either. An unsecured location becomes "secured" if a friendly ground unit passes through it. The values of the different locations are shown in the map marker, and also in the Commander's Notebook under the VP tab.

Players also get victory points for knocking out or destroying enemy subunits. The value of each subunit is shown in the Subunit Inspector. The same number of VP points is awarded whether the subunit is totally destroyed or just minimally damaged – either way it is a mission kill and that is what is being measured.

DESIGNER NOTE: LOS / LOF

Typical combat ranges may be a lot shorter than expected. Most improvements to direct fire weapons has been to extend the range past three km, but in most cases the LOF will not be nearly that long. At one point the Soviets calculated that 50% of all combat would occur at 500 m or less. This puts a premium on delivering the first round fast and accurately rather than at extended range. Tactical situational awareness leading to consistently getting the first shot in may well determine who lives and who dies. The best shot might not be the longest shot, or the one with most sweeping field of view, but rather the most unexpected shot.

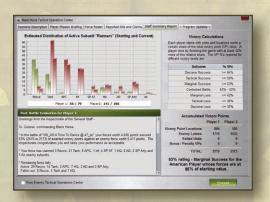
15.1 GAME END

The game is over when the end of the scenario time limit is reached or when the force strength of one side or the other drops below 30% at triggers "Sudden Death". The length of the game in hours is defined in the mission briefing. Force strength is the percentage of active units VPs over the total number of force VPs (so it starts at 100% and goes down as you accrue losses) for each side. There will also be awesome end game theme music to listen to as you review the mission post mortem.

15.2 SUDDEN DEATH

Once a side has triggered "Sudden Death" the result of the game will be a foregone conclusion. By the time a force has been eroded down to 30% of its starting value it has become combat ineffective in the grand scheme of the war. When the game ends, the winning player receives all uncontested victory locations as a bonus within a range of two kilometers from their troops and not within two kilometers of enemy units. Since this map is only a part of a very large war, combat goes on outside of the specific scenario, therefore only the victory point location near the troops from the winning side are awarded to the victor, it is unlikely that units would rush well forward to these additional objectives not knowing what other forces may be a few kilometers away.

15.3 MISSION POST MORTEM



After the game ends the TOC is brought back up on screen with the information from both sides on display for you to review. Your final score will be displayed on the bottom right of the Staff Summary Report. The graph will show the breakdown of subunits for both side and shows starting number on the left bar and ending number of the right for each side and type.

Below the graph of forces is the Post-Battle Evaluation. A representative of the General Staff Inspectorate has arrived for a quick review of your combat actions/combat decisions. This person holds your fate in his hands. He is also harried, short of sleep and unlikely to take a finely-balanced view of the nuances of your performance. He wants to get on to his next assignment and you are the obstacle preventing him.

The general will quickly evaluate your performance, telling you if you did an excellent job, you failed your mission, or something in between. This will be based on your victory points. Next the enemy subunits you claimed will be listed and the amount of units in your remaining force will be shown. The readiness of your unit will also be listed as well as the command delay. Finally the general will tell you in what shape he thinks your force finished the encounter.

At the end of the staff report, a final tally of all battle losses will be shown per side.

DESIGNER NOTE: DEPTH OF ENCOUNTER

Given the reality of deep air strikes, helicopter assaults, long-range missile fire, Special Forces and other specialist combatants, there will not be any safe rear area in the coming war. Fighting will rage the full depth of the zone of conflict on both sides of the front line. Attacks against the lines of communication will be critical to dislocating the enemy front line forces.

16 CAMPAIGN GAME



After a campaign scenario is over, the player will have a chance to refit some of the core units that he can bring with him to the next campaign scenario. Because players can move units from one scenario to the other, it is important to conserve your forces extremely well in this mode. During the campaign, the player can also see a summary of the passed battles, by checking the 'Campaign History' tab in the Tactical Operations Center. When the current scenario is over you can press 'File' and then select 'Start next scenario in campaign' to continue the campaign.

16.1 REFIT





At the end of the next campaign scenario, a refit screen will pop up. Here the player will get information on the units that are fallen out and units that were lost. The player can also click on the List non-core reinforcements attached for this scenario button to review the additional assets being provided for this scenario only. Fallen out units will return to your force for no VP cost at all, but it will take time for these units to become combat ready. The amount of hours that it will take for these units to be able to return to the field will be shown here. An estimate of the amount of subunits that will return to your force is given.

The units that were lost can be brought back to your force, but this will cost you victory points. It is up to the player to decide whether or not it is worth it to trade his precious victory points for reinforcements. An estimate of the amount of subunits that will return to your force is shown to the player.



Once you hit the Commit button to lock in your depot allowances, a dialog window will open up and inform you as to how many units your got repaired and replaced.

16.2 ENDING THE CAMPAIGN



At the end of the campaign, the player will be presented with a Campaign Summation screen where his performance is evaluated. At the top of the screen you will see your final result for the campaign, your total victory points for the campaign (useful for bragging on the forums) and how long you took to finish the campaign (another forum tidbit). The memo screen summarizes your totals, command changes, ratings in each scenario, kills and claims for the campaign and notice of any unit awards.

Now you just have to do it again and see if you can better your score.

17 SHORT-CUTS AND HOT KEYS

We understand that there is a lot of information provided here in the manual and for your ease of use, we have included a 'cheat sheet' where we have combined information on important hotkeys and player actions.

17.1 UNIT INTERFACE SUMMARY

	SINGLE UNIT	MULTIPLE UNITS		
To select a unit(s)	Left-click on unit	Shift left-click on each unit in turn. The order of selection has no consequence. To select all units in a stack, left-click on any one unit and then press Ctrl-S.		
To deselect a unit(s)	Select another unit	Shift left-click on a selected unit, or right-click and select Disband Group to deselect all units at once.		
To rotate units in a stack	n/a	Left-click on any unit in the stack and then press Ctrl-R. Each Ctrl-R will rotate the stack by one unit. Right-click on any selected unit to display a unit combined orders menu. Only Orders common to all selected units may be given.		
To start giving unit Orders	Right-click on selected unit to pop up unit orders menu			
To set unit Order waypoints	Left-click on the map or on any unit to drop a waypoint	Left-click on the map or on any unit to drop a waypoint. When the orders are finalized the individual unit waypoints may be offset slightly from the original to give effect to formation movement.		

		SINGLE UNIT	MULTIPLE UNITS	
	To complete unit Orders	Left-click on the unit again, left-clcik the unit counter in the UDP or hit the Enter key	Click the unit in the UDP, left-click on any of the group units again or hit Enter	
	To cancel unit Orders	Hit the Esc key before completing the order	Hit the Esc key before completing the order	
	To show waypoints	Select any unit with waypoints and they will be revealed automatically	Select an individual unit with waypoints and they will be revealed automatically. There is no ability to show all waypoints for a group simultaneously.	
	Moving waypoints	Drag and drop the waypoint to a new location	Select an individual unit, drag and drop the unit waypoint to a new location for that unit8	
	Deleting waypoints	Right-click on a waypoint and select Delete Waypoint from the popup menu. If all waypoints are deleted then the unit will go back into Unit Orders Mode to collect one or more new waypoints. A unit with waypoint orders must have at least one actual waypoint!	Select an individual unit, right-click on a waypoint, and select Delete Waypoint from the pop up window	
	Editing waypoint voluntary delays Conducting a Strike order for an off map artillery or air unit	Right-click on a waypoint and select Waypoint Editor from the pop up window	Assemble a group by left-clicking on the unit icons. Right-click on any selected unit and select Inspect Group Waypoints from the pop up window	

	SINGLE UNIT	MULTIPLE UNITS	
Conducting a Strike order for an off map artillery or air unit	Select an air or artillery unit from the OB panel or FS panel then right click the counter image in the UDP and select the Strike order	Not applicable	

17.2 SHORTCUT KEYS ACTIVE DURING THE ORDERS PHASE:

- F1 Open the PDF copy of the Game Manual
- F2 Open the Tactical Operations Center (TOC)
- F3 View Game Play Options
- F4 Open the Avatar Selection Dialog
- F5 Open the Set Game, Player, and Unit Defaults Dialog
- F6 Opens the Subunit Inspector
- F8 Removes the Battle Information Center (BIC) to show the more map.
- F9 Starts the Resolution Phase of the current game turn
- Shift-F9 Replays the Previous Turn Resolution
- Keypad 1 Scroll main map by one column and one row to the lower left.
- Keypad 2 Scroll main map down one row.
- Keypad 3 Scroll main map by one column and one row to the lower right.
- Keypad 4 Scroll main map by one column to the left.
- **Keypad 5** Center main map on currently selected location.
- Keypad 6 Scroll main map one column to the right.
- Keypad 7 Scroll main map one column and one row to upper left.
- Keypad 8 Scroll main map one row upwards.
- **Keypad 9** Scroll main map one column and one row to the upper right.

NOTE: These keypad keys will auto-repeat if held down.

- Ctrl-A: Show all Friendly Paths If a number of movement orders have been given it can be hard to remember just where all the movement plots have been laid out. Using this shortcut will display all friendly paths as yellow lines. If the maze of lines proves to be too complex then use the Ctrl-P key to examine individual units.
- Ctrl-B (Back) Jumps the cursor to the previous unit on the Chain of Command tree.
- Ctrl-C (Cover) Displays the visual hindrance ratings as a percentage (0 100%) directly on the map. These coverage ratings are those determined by the terrain type (e.g. urban, forest, orchard, bare, etc.).
- Ctrl-E (Elevations) Displays elevations / height zones (0 to 5 high) directly on the map.
- Ctrl-F (Max Fire Area) Displays the hexes that can be attacked by the primary weapon of the platform. It is possible to have other weapons with greater reach.
- Ctrl-H (Bring all HQs to the Top) If HQs are buried in a stack this will bring them to the top of the stack.
- Ctrl-L (Line of Sight/LOS) Create a LOS overlay for the currently selected unit at the currently selected map location. Once active you can Shift-Click any hex to see the LOS from that location.
- Ctrl-N (Next) Jumps the cursor to the next unit on the Chain of Command tree.
- Ctrl-O (Spottable From) Displays the hexes around a unit from which
 the unit can be spotted based on its current size, movement and firing
 state. This is based on normal spotting methods. Certain sensors and
 units may spot you beyond this range.
- Ctrl-R (Rotate Stack) If more than one unit is stacked in a location, select the location and use this command to rotate the top unit to the bottom.
- Ctrl-S (Select Stack) Any other units stacked with the currently selected unit will be added to the current group.
- Ctrl-T (Mobility) Shows the Mobility Hindrance values for the map based on the terrain type in the hex.
- Ctrl-U (Units) Hide or reveal all the spotted units on the main map. Useful to show terrain and terrain codes (if any).

- Ctrl-V (Hide all victory Point Markers) Hide or reveal all of the Victory Point markers on the map.
- Ctrl-Y (Spotted Enemies) Shows only those enemy units which can be seen from the currently selected unit.
- Ctrl-Z (Take Screen Shot) Takes a screen shot of the action on the monitor and saves it to your Screens folder.
- Shift Click on Unit (Grouping) Create groups of units by shift clicking on them. This allows you to view and edit their waypoints so as to better synchronize their activities. Once a group is assembled, right-click on any of them to pop up the unit menu and select "Inspect Group Waypoints". Disband a group by selecting "Disband Current Group" from same unit menu.

17.3 SHORTCUT KEYS ACTIVE DURING BOTH ORDERS & TURN RESOLUTION PHASE:

- Numeric "+" Increase Delay. Increases the basic game delay factor by 1/10 of a second up to a maximum of ten seconds. If you find the turn resolution moves too quickly, use this key to slow it down.
- Numeric "-" Decrease Delay. Decreases the basic game delay factor by 1/10 of a second up to a minimum of zero seconds. If you find that the turn resolution moves too slowly, use this key to speed it up.
- Ctrl-Q (Quiet Mode) Turns off all unnecessary sound effects and combat animations to speed up turn resolution.

18 CREDITS

18.1 OTS DESIGN TEAM

Lead Programmer and Head Honcho: Robert "Ironman" Crandall

Data, Programming, Graphics, and Sound: Jim "Cap'n Darwin" Snyder

Maps, Scenarios, and Campaign Designer: Steve "Mad Russian" Overton

Quality Czar and Testing Lead: Charles "Hawkeye" Belva

Facebook Site Design/Maintenance: Rebecca "Beck" Snyder

18.1.1 ADDITIONAL SUPPORT

Support from Matrix Games/Slitherine: Erik Rutins

Game Manual Editing: Bart Schouten

Animations: Robert Kopania, Jason Barish

Opening Theme: "The Call for Titans" – Yuri Sazonoff (Lynne Publishing)

End Game Theme: "End of the War" - 1M1 Music

18.1.2PLAYTESTERS

Al "Beachinnole" Sandrik, Christopher Abreu, Emilio Cabañero, Frédéric "Nick69" Genot, Gary Bezant, "Grim.Reaper", Jack "jack54" Herling, Jerry "Vyshka" Snitselaar, Jim "High Krausen" Daniels, Jim "Longblade" Zabek, John "von Staudt" Staudt, "Jomni", Kevin Nunez, James Sterrett, Michael "nim8or"Lange, Michael Motzkus, Michael "Toonces" Loomis, Nigel "PK Krukov" Wells, Paul "Junk2Drive" Martin, "Red Lancer", Richard "The Plodder" Lloyd, "Strykerpsg", "Ulysses101164"

OUR STRENGTH

We thank God for giving us the ability and strength to complete this project and to follow our dream. We also like to thank our families and friends for giving us their non-stop love and support during this project.

18.2 SLITHERINE GROUP / SLITHERINE & MATRIX GAMES

CHAIRMAN:

JD McNeil

PRODUCERS:

Erik Rutins, JD McNeil, Iain McNeil

MARKETING DIRECTOR:

Marco Minoli

TECHNICAL DIRECTOR:

Phil Veale

BOX AND LOGO DESIGN:

Marco Minoli, Claudio Guarnerio

MANUAL EDITING AND CONTENT:

Jim Snyder, Bart Schouten, Robert Crandall

MANUAL DESIGN AND LAYOUT:

Claudio Guarnerio

PUBLIC RELATIONS & MARKETING:

Marco Minoli, Filippo Chianetta

PRODUCTION ASSISTANTS:

Andrew Loveridge, Gerry Edwards

ADMINISTRATION:

Liz Stoltz, Dean Walker

BETA TEST COORDINATION:

Karlis Rutins

QA LEAD:

Erik Rutins

CUSTOMER SUPPORT STAFF:

Christian Bassani, Paulo Costa, Andrew Loveridge, Gerry Edwards, Erik Rutins, Iain McNeil

FORUM ADMINISTRATION:

Erik Rutins, Valery Vidershpan

WEB-DATABASE DESIGN & DEVELOPMENT:

Andrea Nicola, Valery Vidershpan, Phil Veale

NETWORK AND SYSTEM ADMINISTRATOR:

Valery Vidershpan, Andrea Nicola

TERRITORY MANAGERS:

France – Olivier Georges

Spain - Juan Diaz Bustamante

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