Europa Series
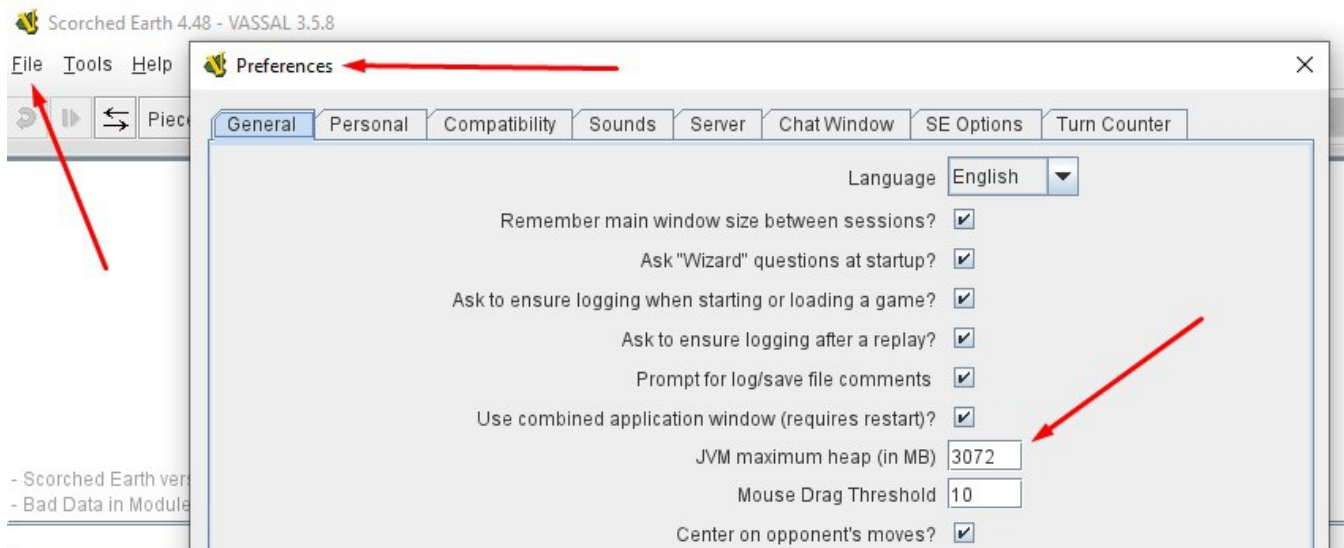# Scorched Earth/Fire in the East
(Europa II/extension to Europa I)
German (& Axis) invasion of Russia, June, 1941 through December, 1944

First off, as you know, this computer game uses the Vassal engine (www.vassalengine.org) to control the game and handles most of the mechanics of the game but you'll need to know the rules of the board game to actually play it correctly (and effectively) – those are included as a PDF. Also, if you are blessed with lots of extra room (and can buy a ping pong table for setting up a physical game), and a wife or husband who thinks it is great you've occupied the entire living room for a month or two playing the game (causing it to look like a destroyed WWII Division's bivouac area during your gaming time), then you're more fortunate than me and you don't need this computer game I've coded; I've coded this game simulation for those of us who are not as blessed. In addition, this game is no longer being published unfortunately, but is an excellent game on the subject, with considerable research done by the designers. I would hate to see their excellent work lost over time.

Up-front I want to give credit to those who helped me in this project: my good friend and playtester Douglas Trumble (who also playtested with me the board game Scorched Earth in 1987); and, Tom Crispin whose excellent suggestions help reduced the size of the computer "footprint" of the game to something that could fit in and run in most, if not all, computer's memory. Also, Dan Hatchen, a fellow programmer, who's advice and suggestions considerably sped up this game's search for conditional reinforcements!

If you have any questions, suggestions or comments regarding this game or these instructions, please let me (Jim Mattatall) know your thoughts at jimsvassal@gmail.com.

You will need to set Vassal's JVM Maximum heap value to 3072 (MB). This game is large and uses a lot of resources. If you don't set this value, you may get an "out of memory" error. You can try less but I received an out of memory error with it set at 2048 (MB) but had no problem with 3072 (MB).

The Europa I - Fire in the East was the first "monster game" that I played. I was privileged to be invited to helped play test **Europa II - Scorched Earth**, an extension of Europa I - Fire in the East. It is a WWII (World War 2) operational level board game covering the war between the Axis (primarily German) and Russia. The conflict (42 months or 3 ½ years) is what this game represents. I've implemented it from

the board game to a computer game that covered, in this computer simulation, the campaign of the German surprise attack, June 1941, through the end where the Soviet has almost had pushed the Axis out of the USSR, with the game finishing at the end of December 1944. Most, if not all, the bookkeeping mechanics of the board game are now handled by the computer leaving the players free to concentrate on their strategy to win with whatever side they are playing.

This Computer game will control and handle the routine "mechanics" of playing the board game and what those rules require in tracking values, eliminating the need for a table in the living room to hold the game, the need to have everyone in the same room or at the same time, and a bunch of paper & pens for keeping tract of losses, replacements, combats, calculating odds, etc. What you will need to supply is a winning strategy, with operational tactics and knowledge of the game rules - the wise use of planning, grand tactics and knowledge of the rules (this is the "combat experience") that will give you an edge in this game (or most any other game for that matter).

– **Keyboard Combinations Nomenclatures used in the game:**
Alt-? = Hold the *Alt* key on keyboard and press a key following the "-".
Ctrl-? = Hold the *Ctrl* key on the keyboard and press a key following the "-".
Ctrl Shift-? = Hold the *Ctrl* and *Shift* key on the keyboard and press a key following the "-".
Alt Ctrl Shift-? = Hold the *Alt, Ctrl* and *Shift* keys on the keyboard & press a key following the "-".

Shift-? *There are no keyboard combinations that use only the "Shift key and a letter or symbol" to avoid the possible accidental keyboard activations during a conversation or messaging in the Chat window.*

– **The Game Turn Sequence** from the board game in Scorched Earth is what's given here in phases –

The turn phases has German turn phases, then Soviet turn phases, making one Game Turn:

German's turn phases –	Soviet's turn phases –
1. Initial:	1. Initial:
2. Movement:	2. Movement:
3. Air:	3. Air:
4. Combat:	4. Combat:
5. Exploitation:	5. Exploitation:

The above is one game turn which represents ½ month of time in game time scale. Two game turns is one month of represented real time.

However, the games's first turn (Game Turn 0) is the Axis surprise turn and you should start this German Surprise turn on Jun I '41 (Game Turn 0) skipping through all Axis phases except Movement, (Surprise/Special) Air, and Combat phases. Skip through all Soviet phases on this turn. Begin normal turn sequences on Axis Initial phase, Jun II '41 (Game Turn 1) - yes, this does mean the Axis gets 2 moves in before the Soviet can react. If you're the Soviet player, plan for this in your deployment.

There are a number of actions you can do in each phase. A detailed list of these actions is available in the rules or in the "Charts" button under the "Turn Sequence" tab on the Main map menu bar. Also, all the keyboard combination needed for each phase in the turn sequence is detailed under the section where it is used and described below in "**How to play this game as given by Phases**" on page 14 below.

Situation: The Germans, without most of their allies joining (the Axis Allies), have planned a Surprise Attack against the Soviet army and are attempting to win a victory over the Soviet before they can regroup from the Axis attack. The Soviet army was caught in the middle of reorganizing the army after the Soviet's disastrous winter war in Finland (in 1940) and the purge of their officer corps. The Soviets were hoping the Axis will delay any attack until the Soviet army was strong enough to attack first.

Victory Conditions:

Germans - The victory points must be 15 or more points to win a (marginal or higher) German victory. (See Rule 37.B. & C. on page 29 of the game rules.)

Soviet - The victory points must be 14 or less points to win a (marginal or higher) Soviet victory. (See Rule 37.B. & C. on page 29 of the game rules.)
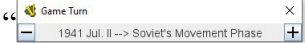
Game start: The Game Turn will be started on Turn 1941 Jun, I (to run the German movement phase, Surprise air attack phase, and combat phase, advancing through all other German phases and all Soviet phases during this Surprise turn), then continue with the regular turns starting on Jun, II '41. (The normal game turns begin on Jun II '41 and will be designated below the computer game Time Record Chart as Game Turn 1. *(If the Game Turn does not show 1941 Jun I, then put the mouse over the Game Turn Icon and Left-Click then Right-Click the displayed Phase and select "Set Turn". Select the starting phase from the list that comes up [Initial phase] for 1941 Jun I).* Starting on this phase you'll need to perform the Surprise Turn first against the Soviets consisting of the Surprise German Air Attack by Clicking on the "Execute Air Phase – Surprise !" button then performing one German movement phase, one Special Air phase, and one German combat phase then clicking the game turn through the other German phases and all Soviet phases on the 1941 Jun I turn,

without the Soviets doing anything in any of these phases, until you reach the Axis Initial phase for Jun II '41 (see Rule 31.F & 31.G). This will start the normal game sequence of phases.
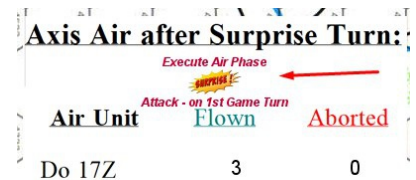
Game end: The Game is over and victory is evaluated after the end of the Soviet's December II, 1944 game turn.

Game Scale: Each Hex is 16 miles across; One complete game turn (when the Axis and Soviet both completed all their respective phases is one turn) = ½ month; counters represent Companies (I), Battalions (II), Regiments (III), Brigades (X), Divisions (XX), and Soviet reorganized Divisions, the Soviets called Corps (XXX).

Game Mechanics:

– The first thing to do when you start a new game or load a saved game is to Left-Click on the Main map toolbar button Game Turn, "⟳ Game Turn", to bring up the Game Turn window, " Game Turn [×] / 1941 Jul. II --> Soviet's Movement Phase [+] ". The game's automated functions are completely dependent on the Game Turn being advanced through each phase, using it to determine when to do replacements, construction, removing moved tabs and lines, Patrol Zones, and many, many other things.

– *Always remember to hold down the* Alt *key when* Left-Clicking *on a unit to* Select *it on the Map. This will cause a* Red Circle to flash *on the unit(s) selected on the opponent's map showing your opponent where you are performing your next combat (or movement or any other activity).*

– Everything that any game unit can be instructed to do can be seen by Right-Clicking on the game unit to bring up the unit's menu listing all the options available to that game unit or a sub-menu to the listed option.

– All game units that are able to move can be Left-Clicked with the mouse button held down then dragged to whatever location you wish within their movement limitations. *Some of the most heated arguments (and hurt feelings) I've seen in this game (other than die rolls) have to do with a game unit's movement – where did it come from and how did it get where it is at! The following rule is intended to substantially reduce or eliminate these arguments.* Since each game unit leaves a "movement trail" when you move it, each side will know where each game unit started and how it got to where it is currently located. This shows the other player(s) how your game unit moved through the hexes on the map – its path. You need to move the game unit in a straight line along the flat side of the hexes, thus leaving an unambiguous trail, in each direction the game unit moves. You can release the moving unit before a change of direction then Select it again and move it in a new direction. This will show the change in direction showing the hex where the game unit's direction changed as well as what terrain was moved over. This movement trail will also be important to resolve questions of movement costs and possible zones of control effects during the Movement Phase. Rule: "Clear Movement Trail" – <u>The "movement trail" lines left by moving the game unit **is** the game unit's movement in the movement/air/exploitation phases through whatever terrain it covers - **NO EXCEPTIONS**. If you do not make a **clear** movement trail, your opponent **will** decide what hexes your unit moved through using any hexes the opponent chooses that the movement trail touched or passed through including moving the game unit back if it doesn't have the movement points to reach the player's final intended hex location – *even if the original moving player doesn't think the path the opponent selected makes any sense!! This is the cost of not having a path that is clear!*</u> When moving, make your moving unit's paths clear! If you make a mistake, in the upper left corner of the game window is an "Undo" icon/button " ↩ " - press this to "Undo" your last action taken. You can go back and "Undo" a number of actions, but you cannot redo an action after you "Undo" that action - there is **no** "Redo" icon/button to redo the "Undo" just made. So be careful with your moves and pressing the Undo button. I allow moving the Air units at the same time as moving the ground units. If you do this, when the Air phase is reached all the Air Units will be evident if they entered a Patrol Zone on the way to their target hex. Also, if you use the Global option of *"Each stack of Attacking Air units can be randomly attacked by Patrolling Fighter."*, as described below under "<u>Menu (Toolbar) Buttons on top of Game Main Map Window</u>", you'll find this is a highly satisfying way to resolve the Patrol Attack section of the Air phase.

– **Eliminated game units** will remain on the map (with the appropriate eliminated indicator on an Air unit, "[2 8 3 / DB-3B / 13 24] > [2 8 3 / DB-3B / KIA]") until you Select and press Crtl-E for a ground unit to be eliminated or, for an Air unit, (Rem - <u>Rem</u>nant) *Alt-Crtl-R,* (EET - <u>E</u>liminated over <u>E</u>nemy <u>T</u>erritory) *Alt-Crtl-E,* (EFT - <u>E</u>liminated over <u>F</u>riendly <u>T</u>erritory) *Alt-Crtl-F.* The ground game unit will be placed into the

appropriate Axis or Soviet Eliminated Box, " Axis   Soviet ", if replaceable, but an Air unit in the Eliminated Friendly Box (EFT), Eliminated Enemy Box (EET), or Remnant Box (Rem) depending on the eliminated situation you choose according to their situation (as explained later) on the Axis Air or Soviet Air chart located in Charts on the Main map toolbar.

Ground Units – All ground units eliminated, no matter what their state of isolated or non-isolated, are eliminated by Right-Clicking on the ground unit(s) to be eliminated and Left-Clicking on Eliminated (or by Selecting Unit then pressing Ctrl-E). The game will perform the correct action for the eliminated ground unit(s) as described below:

        Isolated Ground Unit: A ground unit marked as Isolated <u>will not</u> generate Special Replacement Points (SRPs), (See rule 34.B.3, page 27) and they will be placed into the Eliminated Box if it is a replaceable unit. If the ground unit has a cadre, it will substituted in place for the eliminated unit.

        Non-isolated ground unit: A non-Isolated ground unit <u>will</u> generate Special Replacement Points (SRPs), (See rule 34.B.3, page 27.) They will be placed into the Eliminated Box if it is a replaceable unit. If the ground unit has a cadre, it will replace the eliminated unit in place (its current location on the map).

Air Units – Due to the fact that Air Units are never in a state of Out of Supply or Isolated (only the Airbase is) but only vary where they go when eliminated as determined by the current "Front Line" or how it was eliminated, the player will need to choose which eliminated box each Air Unit should go as described below:

        Eliminated over Friendly Territory: If an eliminated air unit was considered in Friendly territory, which is within 2 hexes of a hex controlled by the air units' player, you will need to Right-Click on the Air unit, then Left-Click on EFT (or by pressing Alt-Ctrl-F). (See rule 26.C. & D.1, page 19)

        Eliminated over Enemy Territory: If an eliminated Air unit was not considered in Friendly territory, meaning when it was more than 2 hexes away from a hex controlled by the Air units' player, it is automatically considered in Enemy territory.   You will need to Right-Click on the Air unit, then Left-Click on EET (or by pressing Alt-Ctrl-E). (See rule 26.C. & D.2, page 19)

        Destroyed on the Ground: If the eliminated Air unit was destroyed on the ground for any reason, i.e., by enemy Air unit tactical bombing the Air unit on an airbase or the airbase being occupied by an enemy ground unit and the Air unit not escaping, it is placed in the Remnants Box. You will need to Right-Click on the Air unit, then Left-Click on Rem (or by pressing Alt-Ctrl-R). (See rule 26.D.3, page 19)

– Keyboard combinations:

    The following is a description of important Keyboard combination uses (shortcuts) that can be used in the game, instead of using a game unit's Right-Click Menu. <u>Most Keyboard shortcuts require that you Select one (or more) Game unit before pressing the Keys (Right-Click or Left-Click on Game unit to Select it)</u>. (In attacking or defending when using Keyboard combinations, usually more than one Game unit may need to be selected to have the action performed on/with them.) The Key combinations listed here are given for a PC type computer. However, any type computer (Mac, Unix, etc.) can run this game and interact with any other type computer, but you'll need to convert the keyboard combinations' Alt, Ctrl, Shift to your computer's equivalent if you're not using a PC type computer. As you read the list of Keyboard combinations, it may seem like a lot of different Keyboard combinations, but after playing, it will not be as complicated as it may appear at first, plus there is always the game unit's right-click menu with all the options that are available to the unit. Also, a list of Keyboard combinations that are most commonly used together in each of the game phases are giving below under "**How to play this game as given by Phases**".

– Selecting / Unselecting a Game unit or Game units:

Most Keyboard combinations require that you Select one (1) or more Unit/Game unit in the game before pressing the Keyboard combination to make the Keyboard combination work properly.

Select one unit by Left-Clicking or *Right-Clicking - on a single Game unit to Select it.*

Select groups of units by Left-Click and hold left mouse button down, then drag across the map to select a group of Game units on the map - continue to drag the box around the game units you wish to select. If you missed Game units and/or selected too many Game units, then do this:

Hold the Shift key while Left-Clicking on a Game unit to add the Game unit to the selection.

Hold the *Ctrl* key while *Left-Click*ing on a Game unit to remove the Game unit from the selected game units.

To expand a stack of units, double Left-Click on the stack. To flatten the stack, double Left-Click on the expanded stack.

– Game unit Movement with mouse:

Left-Click - on a Game unit, then drag, while holding down the *Left mouse* button, to any location desired that is allowed by the rules and within movement range of the Unit(s) selected.

– Mouse Over unit view:

If you hold the mouse stationary over any hex on the map, it will display all the units in the hex, plus across the top, above the mouse pointer, report:

"Units:", the total number of ground units that count towards stacking;

"Div:", the number of Division size units (including artillery divisions);

"Art:", the number of Artillery units (including artillery divisions); and,

"Air:" (in a light blue background), the number of Air units.
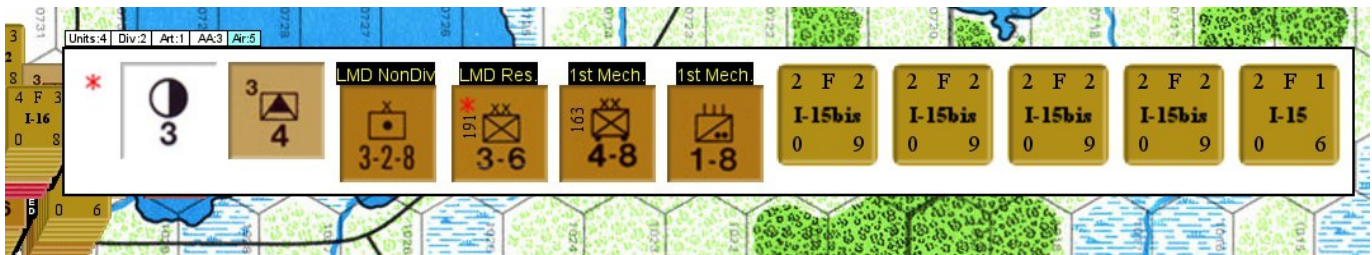
Even though a battalion (or smaller) is 0.5 RE (Regimental Equivalents) for transport purposes, it is still 1 unit in size for stacking purposes!)
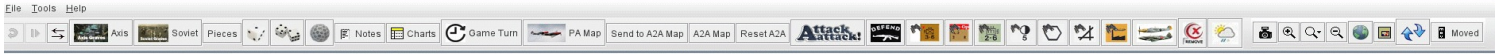
The Main Map Toolbar is loosely organized in the order you will need each button going from left to right through the game turn sequence.
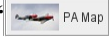
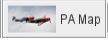**Game Options:** can be found and changed in **File** – Preferences – SE Options –
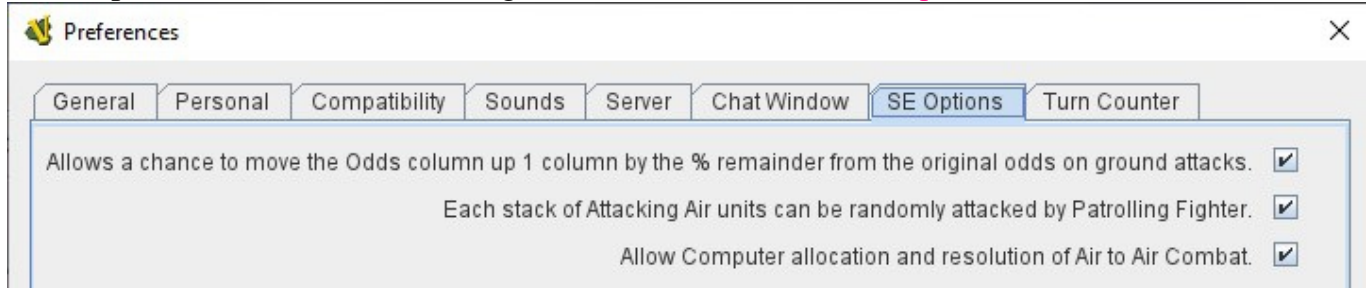
These options are explained in the sections in the area of **How to play this game as given by Phases** where they apply. However, here's a brief description of their functions. (Personally, I encourage you to leave them all on. It makes for a considerably faster and a more fun game when playing.)

Allows a chance to move the odds column up 1 column. – this option, when checked, will allow the game to raise the odds column by 1 column for any attack where the remaining amount of attack factors to defense factors, expressed as a percentage, is attempted to be rolled by a percentage die roll. If the percentage die roll is within the percentage chance, the odds column will raise up to the next higher column. *For example, attacking with 21, defending with 8 is 2.625 odds, a 2:1 attack – the probability of moving up to 3:1 odds is 62%. This creates a more realistic (and faster) game play as the attacker will throw everything into the attack hoping for a column increase chance (as an infield commander would) and not nitpicking every point to get as close to, but not past, the amount needed for the odds column.*

Each stack of Attacking Air units can be randomly attacked by Patrolling Fighters. The Air Phase is a very interactive phase in this game and the board game rules are not conducive to computer play. I've designed a way around this problem while getting the same end results with a touch more realism I think. With this option checked, the non-phasing player's fighters will have a Patrol Zone around them during the air phase until they execute a Patrol Attack. When the phasing player has finished their air unit movement (thus leaving their movement trails), the non-phasing player will be able to see each air unit that passes through any fighter unit's Patrol Zone – ½ the movement range, rounded down, for Axis (and Soviet Guard Fighters starting on Oct I '42 turn); 2 hexes for Soviet non-Guards Fighter Units (and for Guard Fighters before the Oct I '42 turn). The Guard Patrol Zones ranges will be automatically adjusted by the game on the Oct I '42 game turn to ½ their range. The non-phasing player chooses a single (mission) hex (containing phasing player's air units that moved) by Left-Clicking on it – this will highlight these air unit's movement trails. Before sending the phasing player's Air Units to the PA Map, "[PA Map]", the non-phasing player may add as many fighters whose Patrol Zone were passed through by any phasing air unit going to the chosen map mission hex. To send the fighter, Right-Click on the fighter unit and Left-Click on the Perform Patrol Attack (or press Ctrl-P). On the PA
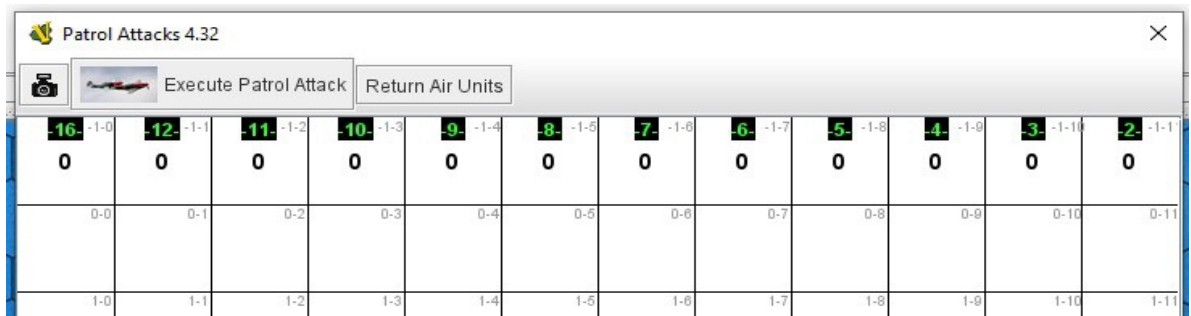
Map, the fighter unit's attack factor will add 1 to the column with the same value as the fighter unit's attack factor and the fighter unit's Patrol Zone will be removed from that fighter so the fighter unit cannot patrol attack again this phase. After sending all the non-phasing fighter units that will Patrol Attack the phasing player's Air Units flying to this mission hex, send the phasing Air Units to the PA Map by Right-Click on the hex stack containing the Air Units, then press Ctrl-P or select Perform Patrol Attack. *(It is necessary to first choose the non-phasing patrol attacking air units before sending the phasing air units to the PA Map because as soon as the phasing air units are sent to the PA Map, their movement trails will disappear. If you accidently do this,* Left-Click *the* Undo Move *icon, "* ✎ *", to return the air units from the PA Map to the Main map.)* After sending all the fighters units the non-phasing player can or wants to send, then the non-phasing player will need to Select the current mission hex being Patrol attacked, Right-Click on the hex patrolled attacked and Left-Click on Perform Patrol Attack (or press Ctrl-P). The mission units in the hex will be sent to the PA Map, " ✈ PA Map ", (which will have been automatically opened when the Air Phase was reached as the game turn advanced from the Movement phase to the Air Phase). If the PA Map is not visible, Left-Click on the PA Map button, " ✈ PA Map ", to open it on the main map toolbar. Left-Click on Execute Patrol Attack button on the PA Map menu bar after sending the Mission units with the Escort Air units to the PA Map. Each phasing player's air unit that is turned back by the patrol attack will be surrounded by a light blue border, " 🟦 ". The non-phasing player will then need to Left-Click on Return Air Units on the PA Map menu bar to return the phasing player's units back to the map hex where they were originally located on in the Main map. The non-phasing player can continue this procedure until all phasing air mission hexes have been either patrol attacked or the non-phasing player is finished patrol attacking. *(Even though the non-phasing player will know what and where every phasing mission air units will go before allocating and resolving Patrol Attacks, the non-phasing player cannot decide what air unit to Patrol Attack (unless there is only one in the hex) because the Patrol Attack will be randomly allocated against the available phasing air units in the target hex. A successfully Patrol Attacked air unit [and therefore marked as returned] will still be an available target to be Patrol Attacked with other remaining Patrol Attacking fighters against that same hex.)*

    Allow Computer allocation and resolution of Air to Air Combat. The non-phasing player, after finishing all patrol attacks the Patrol Zones will remain on for the Fighter units that did not patrol attack to help identify the locations of those remaining fighters. All fighter Air units may then fly as intercepting fighter air units (including those that just Patrol Attacked), as an interceptor mission, against any phasing player's Air mission units that are in range – ½ the Fighter's range rounded down *(Patrol Zones ranges are not applicable at this point)*. After non-phasing player has flown all the desired fighter interceptors to all the Mission-Escort hexes, the non-phasing player will need to Left-Click an Interceptor-Mission-Escort stack and Left-Click on the Main Tool Bar the Send to A2A Map – this will need to be done to each Interceptor-Mission-Escort stack on the map *(up to 20 at a time)*. Once they are all sent to the Air to Air Map, open the Air to Air Map, by Left-Clicking on A2A Map if not opened already. On the Air to Air Map, Left-Click on Fight ALL Air to Air combats (may take a few minutes to resolve them all). After the Air to Air combat is resolved, Left-Click on Return All Units on the A2A Map toolbar. All the air units will be returned to the

main map hex location where they were before moving to the Air to Air Map (including the ground units that were in that hex). The Air to Air Map can perform 20 air to air combats at a time. If there are more than 20 Air to Air battles to perform then, after resolution of the first 20 and the return of those air units, Left-Click on Reset A2A on the Main Map toolbar, and perform the same sequence for the next set of 20 air missions. If any air unit has a light blue border from the previous patrol attack, even though selected and moved to the Air to Air Map, it will not participate in or be affected by the Air to Air combat resolution. When both player's air and mission units are returned, each player will need to eliminate KIA Air units, abort, and return all affected air and mission units – this process is described in **Air Phase:** 3. Resolve air combat (Rule 21) below. However, KIAed, Aborted, and Returned Air units will not affect nor be affected by any following combats or missions they may be in.

Here are the percentages breakdown of an intercepting fighter unit against the mission force and escort force:

1. When number of interceptors are equal to or less than the number of escorts – 80% chance that the interceptor unit will attack escort and 20% chance the interceptor unit will bypass escort and attack mission force.

2. For each interceptor greater than the number of escorts – add 10% for each additional interceptor greater than the number of escorts to the chance to bypass the escorts, to a maximum of 70% chance to bypass the escorts. I.e., if 2 interceptors greater than the escorts, then the chance to bypass the escorts for each interceptor would be 40% (starting chance at 20% plus 2 extra interceptors over escorts 2 x 10% is: 20% base + 10% extra + 10% extra = 40% chance to bypass escorts).

3. Each interceptor and escort will attack once only. Mission forces will return fire only if attacked by an interceptor and only one time. The Air to Air resolution chat window will look like this below. As can be seen, the Ju87B is attacked twice but returns fire only once per the rule each air unit may only fire once:


Undo Move: " ↩ " Allows you to undo your last move or action. It will undo one previous action performed (move, Fire, Rotation, etc.) for each press of the Undo Button.

Move through Log File and Server Control: " ⇆ " Only used in PBEM (Play By Email) games and Setting up your initial connection at start of an online game. (See Help ➜ User's Guide ➜ Game Play)
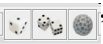
Ctrl-S: Will bring up or close Server Control window on right side of Chat window, if no game unit is selected.

Dead Units:"[image] Axis [image] Soviet" This opens up a window that shows ground units that have been eliminated in the course of the game for either Axis or Soviet and are available for replacement through RPs.

Game Pieces:"[Pieces]" All the game Units for all armies and markers, are accessible through this button. Left-Click on the tab of your choice and the Left-Click on the type of units desired, then Left-Click on the game unit wanted for reinforcements and drag to the Main Map.
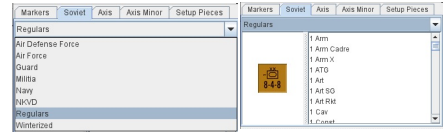
> You will see some units have an asterix after or before their combat factor and movement range. Depending on where the asterix is located tells you what is special about this unit:

UB Inf X 2-6 – this is an Infantry Brigade with 2 combat factor and 6 movement unsupported – *the UB in front of its name means Unit Breakdown. It is a breakdown component for divisional unit breakdowns that are allowed in the game;*

UB Inf X 2-6* or UB Inf X 2-6 Sup – this is the same unit that is supported;

UB Inf X 2-6 * – [a space (" ") between the 6 and asterix] this is the same unit but allows you to flip (C-F) the unit to either its supported or unsupported side once on the map;

Inf XX *3-6 – this is a Soviet Infantry Division with 3 combat factor and 6 movement that can be upgraded to a 4-6 Infantry Division on and after Aug I '41 (For no cost, 4 units can be upgraded per turn). The unit will look like this on the map, "[image] 3-6".

Dice Types:"[image][image][image]" Left-Clicking on these produce random 1d6 , "[image]", (1 die of 6 sides) roll; 2d6 , "[image]", (2 dice of 6 sides) roll; 1d100 , "[image]", (1 die of 100 sides) roll – percentage die. Normally the game rolls the correct die set needed to determine result in Combat, and other game functions. There will be times you will need to "roll" the dice yourself. For instance, when you check for AA (antiaircraft) fire, check for Tactical or Strategic bombing hits (and when you want to see random numbers appear in the Chat Window causing your opponent to wonder what you are doing). The roll will be displayed as "***1d6 Die = ?? *** <name>"; where ?? is the random roll between 1-6, or 2-12 or 0-99; and, name is the name of the person (entered at sign-in) that clicked the die button. You can also use the keyboard to roll the dice:

Ctrl-F1: Rolls **1d6** Die (1d6 - 1 die, 6 sided), "[image]".

Ctrl-F2: Rolls **2d6** Dice (2d6 - 2 dice, 6 sided), "[image]".

Ctrl-F3: Rolls **1d100** Die (1d100 - 1 dice, 100 sided), "[image]", - percentage die.

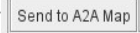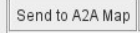**Notes:**"[Notes]" This is where you can enter the information for your next Seaborne Invasion and/or Airborne Assault. After Left-Clicking on Notes, Left-Click on Delayed, then enter all the information required for doing an Airdrop (Airborne Assault), like the next location of the starting units, the hex location of the planned Airdrop, the turn the Airdrop will be done on, et cetera. When the turn arrives, under the Delayed tab, Left-Click on the Check box to the right on the Note under Revealed to allow the other player to see and verify the Airborne operation details.
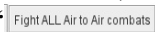
Charts:"[Charts]" All the game charts for CRT (Combat Results Table), Air Units, Air Loss placement Charts, ground unit breakdown chart, Game Turn (you can put replaceable units that only become available after a period of time on the Game Turn Track), Weather, and their modifiers, Setup OB (Order of Battle), Reinforcements, Available Soviet Guard Air unit upgrades, etc.
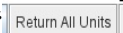
Game Turn:"" Clicking on Game Turn will bring up a small Game Turn window. This window has the Game Turn with the current game phase displayed in it including a minus " [−] " on the left side and a plus " [+] " on the right side. Pressing the plus will move the game to the next game phase; pressing the minus will move the game one phase prior to the current phase. *(Be careful about moving the game turn phase back phases. There are a number of game functions that the program makes happen between phases and moving back a phase or two could really mess-up your game.)* If the game appears frozen after pressing the "white" plus (+) icon you'll be able to see if the game

is still working (i.e., still doing it's calculations, placements, etc.) because the plus icon " ⊞ " becomes light blue in color " ⊞ " during its calculations. This is true of all the Main map buttons. Ctrl-T: Moves game turn phase to next phase; if last phase of game turn, then to next game turn, 1ˢᵗ phase, next player.

PA Map: " PA Map " If you have not disabled the <u>optional feature</u> for Patrol Attack resolution to be handled by the computer, then this map will automatically become visible at the start of the Air phase of each player. It can also be opened or closed by Left-Clicking on the PA Map button.

Send to Air to Air Map: " Send to A2A Map " If you have not disabled the <u>optional feature</u> for Air to Air Attack resolution to be handled by the computer, then after patrol attacks are finished and the non-phasing player has flown the interceptor air units, Left-Click to each hex with a stack of phasing and non-phasing player's air units, selecting all units (ground and air) in the hex (just Left-Click on the chosen map hex), then Left-Click on " Send to A2A Map " button. The stack (all ground and air units) will be moved to the A2A Map, to see the units on the Air to Air Map, Left-Click on this button, " A2A Map ", press again to close the map. Even though all ground units are also sent to the A2A Map, you will not see them until the Return All Units button is pressed on the A2A Map toolbar when they will return to the ground hex they came from along with all the Air units.

A2A Map: " A2A Map " This will bring up the A2A Map where Air to Air combat is resolved. After you have sent each stack (up to 20 stacks at a time) to the A2A Map, you'll need to Left-Click on the Fight All Air to Air Combat button, " Fight ALL Air to Air combats ", located on the A2A Map. This will determine, in each stack, all the No affects, returns, aborts and KIAs on each Air unit. After all the Air to Air combats are resolved (could take a few minutes), Left-Click on the Return All Units, " Return All Units ".

Reset A2A: " Reset A2A " If there are more than 20 air to air combats during an air phase, Left-Click on Reset A2A located on the Toolbar button (after Left-Clicking on Return All Units, " Return All Units ", has been pressed on the A2A Map toolbar and having returned the previous set of 20) to clear all the variables for the next set of up to 20 air to air combats.

Attack: " Attack Attack! " Left-Click this button to calculate the attack factors of all Selected attacking ground and Selected attacking (supporting) air units. The game will adjust the attack factors for the effects of the number of turns ground units are unsupplied, the addition of and the limitations on tactical air factors. However, Terrain hexes and hexside effects will require the results in the calculated attack factor's window to be manually adjusted to take these terrain features into account for the defender's hex, hexsides attacked across, and when Assault & Combat Engineers attack cities, etc..

Defend: " DEFEND " Left-Click this button on the hex of the defending unit(s) to calculate the defense factors of all Selected defending ground and Selected defending (supporting) air units. The game will adjust the individual unit's defense factors for the affects of turns unsupplied and the limitation to the addition of and limitations to defensive tactical air factors. It will then request the summed total of die roll adjustments (modifiers) for this combat. It will calculate the combat ratio, roll a 1d6 die for combat resolution and will adjust the die roll, as adjusted by the total modifiers, then display the combat results in the Chat window as well as state the location of the defending hex. Each owning player will need to implement the combat results on their player's units as desired as long as the required losses and retreats are accounted for. (See next page.)

* Attacker is Attacking with 13
* Defender is Defending with 3.0
* Final Odds showing 4.33
*** 1d100 = 75 ***
*Final adjusted Die Roll is 6 + "-2" = 4
*Battle Location: 1B/1309 Attack / Defense = 13 / 3.0 ==> (6 + "-2") Die Roll: 4; (33 to move up 1 column: 75 Rolled) -> Odds: 4:1 => Results: DR

The battle location, attacker and defender's factors, odds of the attack, die roll modifier, optional odds column shift, and results are displayed in the chat window. (This takes 25 seconds for the game to calculate the results of any attack - no matter how simple or complicated!)

As can be seen above the combat results in the chat window shows in green the battle location on the Main map, the final Die Roll, and the final Odds Column. In red is the combat results. The black text are the details on how the numbers in green were determined.

Find on Map: "**"** – Left-Click to Highlighted their location on main map.

"", Highlight/Unhighlight all *3-6 Infantry Unit locations on the main map (see Rule 34.D & 34.E.2). Starting on August I, 1941 turn, 4 of these units my be converted to 4-6 Infantry Units each turn by Right-Click on the *3-6 Infantry Unit and select Convert to 4-6 Inf (or press Ctrl-C).

"", Highlight/Unhighlight all Non-Op (Aborted - NonOperational) air unit locations on the main map (see Rule 23).

"", Highlight/Unhighlight Engineer units locations on the main map (see Rule 14.A). These are construction engineers, RR engineers, Combat engineers, Punitive unit (are engineers).

"",Highlight/Unhighlight all Resource units locations on the main map (see Rule 12.F), including those Resource units loaded on Trucks.

"", Highlight/Unhighlight all Fort counter locations on the main map (see Rule 31.A.5), including the ones under construction.

"", Highlight/Unhighlight all Airbase counter locations on the main map (see Rule 17), including the ones under construction.

"", Highlight/Unhighlight all Soviet Factory locations on the main map (see Rule 31.D; also 20.F.1.b & 34.B.2).

Total All Countries' Air Units (Air Groups): "", Left-Click button for game to add up each country's air units on the main map and display those totals on the Nation's Active Air Group window, located in the Baltic Sea (left side of main map, but can be dragged to a different location, if so desired). This is a convenient way to check if the on map air units agree with the air groups allowed amounts on the Axis and Soviet's Air charts under the Charts button on the Main map toolbar and will adjust the Air Charts if they don't. With a Left-Click on the Air Groups button on the Main map toolbar, "", the game will count all on map Air Groups and update the Nation's Active Air Groups window as well as change the chit indicators on the respective Axis and Soviet's Air Charts reflecting increases or decrease in Group Allowances and Active Air Groups (*Active*). A *GA* (Group Allowance) change for the respective nation can be adjusted by a Left-Click on the Nation's *GA* number under the GA column with a light blue background.
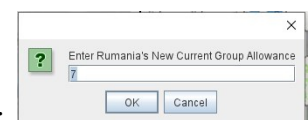
Doing so will bring up a window allowing you to enter the new Group Allowance for that Nation. *This is a very helpful Icon. Pressing this will not only update the <u>Nation's Active Air Groups</u> Map but will adjust the settings on the Axis Air Map located in the Charts Button on the Main Map, as described above, to reflect the current amounts, as shown on the <u>Nation's Active Air Groups Map</u>.*

Remove:"![icon]" Clicking the Icon opens a menu where you can remove all the top labels on all the Axis units or remove all the top labels on all the Soviet units. These labels are primarily used for setup purposes and are not needed thereafter but are historically accurate if you wanted to keep your Army Groups together (or wondered where they wondered off too during the game).

Weather:"![icon]" This will report in the chat window the current weather in each of the weather zones on the Main Map and report the Game turn this weather applies too.

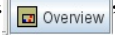**Jim Turn Updated from 1942 Nov. I --> Soviet's Exploitation Phase to 1942 Nov. II --> Axis's Initial Phase**
*** Game Turn: Nov. II 1942 -- Weather in Zone A: Snow --- Zone B: Frost --- Zone C: Mud --- Zone D: Clear --- Zone G: Clear**

This information is also available by clicking on Charts then Turn-Weather tab. However, using this button is a quick way to check the weather or have it "handy" while making your move.

Map Image:"![Map Image icon]" Takes a picture of the entire game map, not just what is currently showing on the screen when you take it. You will be able to see the entire map with all the on map game units.

Map Zoom: "![icon]", Left-Clicking the "+" button gives a closer up view of the map, Left-Clicking the "-" button bring you view further out to see more map. Instead of preset zooming in or out, you can Left-Click the middle magnifying glass lets you select what level of zoom you want to use.

Hide Units:"![Hide Units icon]" This will hide all Game counters from the map showing only the game map that is underneath all the Game counters. This will give you a clear view of the underlying terrain (this will also hide any destroyed markers on fortresses – you see the "raw" map).

Overview:"![Overview icon]" This will bring up a smaller window showing the entire game map with all visible Units on it. It helps to get a bigger perspective on the battle and you can Left-Click on the Overview map which will reorient the main map to the location where you Left-Clicked on the Overview map.
Ctrl Shift-O: Opens/Closes Overview Map in upper left corner of game map.

Show Marker Units: "![icon]", Left-Clicking "![icon]" will move or rotate various Markers to the top of a stack. The list of rotation is for all Ground units, then all Resources, all Forts, all Airbases, all Factories, all markers of all types (forts, airbases, resources points, rail breaks, and so forth), then back to the Ground Units on top in the hexes located across the whole Main Map. Left-Clicking it again will again rotate through the Marker(s) in the hex(es) they are in. This makes it easy to see where all the markers are on the main map in relation to each other and other game units like Forts, Airfields, Rail Cut markers, etc..

Clear Move:"![Clear icon]" Removes the thin red "moved" line from all units on the game map. There is no need to use this button as the game will remove these move lines itself during the game at end of the correct phases. However, after your initial setup you may wish to clear the move lines to start with an uncluttered screen for your first movement phase, even though the game will clear these when you advance the game turn to the movement phase.

How to play this game as given by Game Phases
(after reading the original board game's rules, proceed below)

Setup:

Important! – *The first thing to do when you start a new game or load a saved game is to* Left-Click *on the* Main map toolbar *button Game Turn,* " Game Turn ", *to bring up the Game Turn window,* "❖ Game Turn [−] 1941 Jul. II --> Soviet's Movement Phase [+] ". *The game's automated functions are completely dependent on using the Game Turn window. The game uses it to determine when to do replacements, conditional reinforcements, construction, turns out of supply, removing moved tabs and lines, Patrol Zones, and many, many other things.* ALWAYS *use the Game Turn button to advance the game turn.*

All the initial ground and air units that start on the map have been setup in a stack 2 hexes behind their northern most setup hex. The reserves for an area like Army Group North be setup 2-3 hexes behind the northern most starting army stack for Army Group North and have a top label designation, i.e., "AGN Res". For the Soviets, they will have Non-Divisional units as well. These will be stacked 1-2 hexes behind the Reserve stack and designated "LMD N-D", which means Leningrad Military District, Non-Divisional units. There are some exceptions such as in Kiev's military district where the reserves are to be placed around specific locations. In this case, the reserves will be stacked on or near that location.
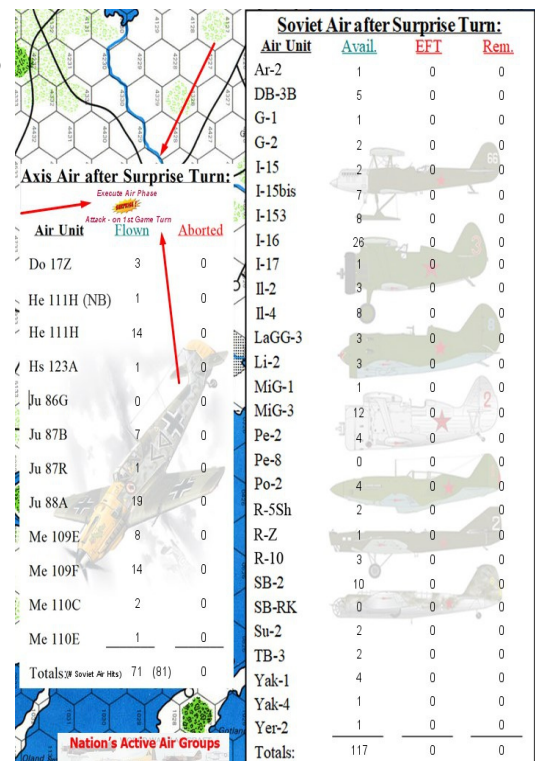
Surprise Turn resolution *(first turn of game only - Rule 31.F.):*
– The Air phase of the Surprise attack has been made very easy to resolve. On the main map, far left side, each player will see the Axis Air after Surprise Turn and the Soviet Air after Surprise Turn windows. After both players have setup all their ground units, the Axis player will need to press the "Execute Air Phase Attack on 1st Game Turn" button, " ". After pressing this button, small windows will open - one at a time - starting at the bottom of the Chart, for each air unit the Axis player has that can attack in the Surprise Turn. The Axis player can press Enter (return) to use all the air units of that type in the Surprise Turn or can enter a lesser amount to participate in the Surprise Air Attack Turn. (The air units not used in the Surprise Air Attack will be available on the Jun II, '41 turn for operations on the Main map.) The air units the Axis player entered for the Surprise Air Attack will be used by the game for the German Special (Surprise) Air phase and will be used in the calculations for German and Soviet air losses. At the bottom of the Axis Air after Surprise Turn window you will see a number in parenthesis. This number is the number of Soviet Air units that will be "hit" by the Surprise Air attack. This number will be adjusted to a lower amount after 10% (rounded down) of the German Air units used in the Surprise Air Attack are aborted.

After the Attack, the Rem'ed, Non-Op, Eliminated in Friendly Territory (EFT) air units will be identified on each player's respective Surprise Attack windows, (those shown above and to the right on the Main map). The air units the Axis player did not use in the Surprise Attack should be deployed on the Main map airbases for Jun. II '41 turn Air phase. All the air units used in the Surprise Attack by the Germans and the total of the not destroyed Soviet air units should remain in the "Available" box on the Axis Air Chart tab and the Soviet Air Chart tab until their respective resolution of the Jun. II '41 Air Return Step in the Air Phase. During their respective Air Phase - Air Return Step, place on the map all the

Axis Air after Surprise Turn:

Air Unit	Flown	Aborted
Do 17Z	3	0
He 111H (NB)	1	0
He 111H	14	0
Hs 123A	1	0
Ju 86G	0	0
Ju 87B	7	0
Ju 87R	1	0
Ju 88A	19	0
Me 109E	8	0
Me 109F	14	0
Me 110C	2	0
Me 110E	1	0
Totals:(# Soviet Air Hits)	71 (81)	0

Soviet Air after Surprise Turn:

Air Unit	Avail.	EFT	Rem.
Ar-2	1	0	0
DB-3B	5	0	0
G-1	1	0	0
G-2	2	0	0
I-15	2	0	0
I-15bis	7	0	0
I-153	8	0	0
I-16	26	0	0
I-17	1	0	0
Il-2	3	0	0
Il-4	0	0	0
LaGG-3	3	0	0
Li-2	3	0	0
MiG-1	1	0	0
MiG-3	12	0	2
Pe-2	4	0	0
Pe-8	0	0	0
Po-2	4	0	0
R-5Sh	2	0	0
R-Z	1	0	0
R-10	3	0	0
SB-2	10	0	0
SB-RK	0	0	0
Su-2	2	0	0
TB-3	2	0	0
Yak-1	4	0	0
Yak-4	1	0	0
Yer-2	1	0	0
Totals:	117	0	0

Air Units that participated in the Surprise Turn air attack. Before ending the Jun. II '41 turn's Air Phase, Air Return Step, remove the German air units from the Available Air Units box and place on the main map in Germany or Rumania and mark the Non-Op (aborted - nonoperational) air units by Right-Clicking on the air unit, then Left-Clicking on Op / Non-Op (or press Ctrl-F). The Soviet air units will need to be distributed to the EFT (Eliminated in Friendly Territory box, the Remnant box or deployed on friendly airbases during the Soviet Jun. II '41 turn's Air Phase, Air Return Step. The group allowance will automatically be adjusted by the game according to Rule 31.F. After this is completed at the end of the Jun. II '41 turn, the windows Axis Air after Surprise Turn and the Soviet Air after Surprise Turn can be permanently closed by Right-Clicking on the window and Left-Click on Delete (or press Ctrl-X) as they will no longer be needed. Remember to Left-Click on the Total Countries' Air Groups button (see below) to update the Active Air units count that are on the map and the Group Allowance count as well, "".

Phases, Axis/Soviet –

Start of next Game Turn

– Advance Game Turn phase, if not advanced already, to the current Game Turn's **Initial Phase:**.

1. Determine weather (29.B). (weather will be clear in all zones from Jun II through Aug. II of each year.)

       (During the Axis Initial Phase of each game turn the game will automatically roll and check the Weather Table adjusting the Weather Conditions Display showing the current weather and the Turn Record Chart showing the current game turn. So, the manual adjustments is not necessary.)

       Open *Charts*, Left-Click on Turn & Weather tab. The game will roll a 1d6 die, "" and cross reference the die results with the weather table. If weather changes in any Weather Zone, the game will adjust the blue X, "", to uncover the current weather on each respective weather zone that has changed.

Initial Phase:

[The computer will automatically place 1 resource point at Ploesti and 2 resource points at Baku as adjusted by delays from enemy capture (31.I.) and/or strategic bombing hits (20.F.1.e.).]

1. a) Land late-returning air units (20.F.2.d. and e.).

       Select the returning air units and move to an airbase within its range.

b) Transport supply to ports (28.D. and 28.E.).

       Select any Ship unit that will transport supply and move to the port to place the supply. If Soviet ship transports to a non-port hex, all ground units tracing supply to it will be in Special Supply. You show the ground units that are in Special Supply by Right Clicking on the ground unit to bring up its menu. Click on the Special Supply (or Alt-Ctrl-Shft-U). This will cause a Special Supply indicator on the left-bottom side of the game unit. *When the Special Supply ends (after 1 game turn), the game will automatically remove the Special Supply status.* Special Supply does not stop or reduce turns out of supply. Although the ground unit will function as if in full supply while operating on Special Supply and does not roll for elimination due to lack of supply during this time, its time out of supply will still continue to count until the ground unit is put into full supply or eliminated with an out of supply die roll by the Unit's owing player (see Rule 12).

c) Check Axis garrisons (33).

       (On the Main map toolbar, you can press the Hide Unit button to more easily find the locations that
           may require a garrison – cities in particular.)

2. Check the isolation (31) and supply (12) status of all units.

       (When a unit is isolated or unsupplied and you select the unit, the isolated and unsupplied labels, along the edge of the unit, will move behind the unit to enable clear reading of the face of the unit. As soon as the unit is not selected, the isolated and unsupplied labels will move back to the front.)

If a unit is isolated, Select the unit and Right Click to bring up the Menu, then Select Isolated on/off (or Alt-I), "   ". This is important when a unit is eliminated so the game knows how to treat the unit when eliminated. If the unit becomes un-isolated, Right Click on the affected ground unit and Select Isolated on/off again (or Alt-I) to remove the Isolated indicator.

If a unit is out of supply, Select the unit and Right Click to bring up the Menu, then Select Unsupplied (or Ctrl-U). This is important to know when a unit is checked for elimination for lack of supply. The game will keep count how many turns a unit has been out of supply, shown on the bottom of the unit, "   ", so you know how many turns the unit has been unsupplied and when to rolling for unit elimination. The count at the bottom will show a "+" next to the number of turns out of supply if this is the 2nd player's phase for the turns out of supply. I.e., A unit becomes out of supply on Soviet's Initial phase turn 2 (Jul I '41) showing "Unsupplied 1" *(On 1st turn out of supply a ground unit's Attack strength is ½ and a Combat/Motorized unit's movement is also ½).* If still out of supply on Axis' Initial phase, turn 3 (Jul II '41), then the out of supply unit would show "Unsupplied 1+". On the Soviet's Initial phase turn 3 it would show "Unsupplied 2" if still unsupplied, on Axis' turn 4, then the out of supply unit would show "Unsupplied 2+" etc.. *(On the 2nd turn, or later, out of supply a ground unit's Attack, Defense, and Movement values are ½ – in addition, a Combat/Motorized unit's AA strength is ½ and it has no AECA, AECD or ATEC capabilities as well – Rule 12.D)*

If the unit becomes re-supplied, Right Click on the ground unit and Left-Click Supplied (or Alt-S) to remove the unsupplied indicator and reset the unit to no ("0") turns out of supply.

3. a) Soviet Transfer of factories and the capital (31.D. and E.).

To transfer the capital, "   ", Select the capital and press Ctrl-R or Right Click and select Use Railroad. If you have enough railroad available then drag it along the path of its move according to Rules 31.D and 31.E.. If you don't have enough available Railroad, then you will be given an alert you lack available Railroad to move the capital.

To transfer a factory, "   ", Select the factory by Right Clicking on it and select Move Factory? The factory will be marked ready to move, "   ". In the next Soviet Initial phase, the factory can be moved if there is enough available Railroad (30 REs). Since all moved factories go to the Urals, on the Charts tab of the Main map toolbar, select the Soviet tab and move the factory to Urals. After moving the factory, Select the factory, if not already selected, and press Ctrl-R to deduct 30 from available Railroad. If you don't have enough available Railroad available, press the Undo Move Icon to return the factory to its previous location. Otherwise, follow the instructions for placing the factory 7 turns ahead of the present game turn when the factory will become operational again. When it again becomes operational, press Move Factory? again to remove the Factory Moving label, restarting the factory's production again and move it from the current Game Turn box to the Urals box.

b) Receive reinforcements (34.A), replacements (34.B). and lend-lease (35); do conversions (34.D), withdrawals (34.C), and disbanding (34.E.4).

(The game will automatically increase Soviet RR Capacity on the turns the Soviets receive Allied Lend-Lease Forces - Rail Capacity increase.)

To receive reinforcements, open the Pieces tab, " Pieces ", along the top of the game window on the toolbar. Select the appropriate country, the "type" of unit tab, then Select the reinforcing unit and drag it to the map location of its appearance. (If the unit has an identifying unit designation, you can press Ctrl-Z and enter that unit's designation – not required, but it is available for historical buffs like me.) *Only conditional reinforcements will automatically be placed when the conditions are met except for the Axis conditional reinforcements on the bottom-right of the Axis Order of Battle Booklet, page 2 - the Axis conditional reinforcements on page 3 will be automatically placed*

(without consideration of supply status. So the Axis player will need to make sure a supply line was in place for 4 continuos turns.)

To receive replacements, *(The game will automatically add replacement points for each Axis country's replacement pools, Soviet Foreign RPs shown on the "Special Infantry Replacements & Others" window, add infantry RPs to the correct cities, and add Artillery and Armor to factories.)* You use them by Left-Clicking on the currently available number of replacement points (it will have a light blue background), this will open a small window where you will enter the new total amount of replacement points remaining after deducting from the total available the used amounts or adding any amount added from disbanded units. To convert the SRPs (Special Replacement Points for each country) to RPs (Replacement Points), simply Left-Click on the current accumulated SRPs Factors (it will have a light red background) of the respective country and it will be automatically be calculated and added to that country's available RPs (Replacement Points) with the fractional portion available for use in future SRPs conversions.

To use replacements, go to the "Special Infantry Replacements & Others" window and Left-Click on the RPs value for the respective country and respective type of Replacement Points (it will have a light blue background). Subtract the used amount from the available points to rebuild a cadre or replace the eliminated unit(s) you want. You subtract by Left-Clicking on the currently available amount of replacement points

		Special Infantry Replacements & Others					
	SRPs	RPs	ARM	ART	NAVAL	RR Cap	Avail
Soviet	(0) / 5	0 RPs	0	0	0	90	45
German	(0) / 4	0 RPs	0		0	30	30
Finnish	(0) / 4	0 RPs				10	10
Rumanian	(0) / 5	0 RPs		Rumanian 0 RPs			
Hungarian	(0) / 5	0 RPs		Austrian 0 RPs			
Slovakian	(0) / 5	0 RPs		Czechoslovak 0 RPs			
Italian	(0) / 5	0 RPs		German 0 RPs			
Foreign	(0) / 5	0 RPs		Polish 0 RPs			

for the country, this will open a small window to enter the remaining replacement points still available after subtracting the used points from the prior total available. To find the available replacements, Left-Click on the Soviet/Axis Elimination map, drag the replaced unit to the location the unit is to go according to the replacement rule 34.B. The Soviets may only use 10 RPs per available Military District (page 16 of Soviet Order of Battle Booklet).

Soviet Replacement Cities, each city has an accumulated Infantry Replacement Points (IRP) that start accumulating on and after Aug. I '41. To use these Infantry points, go to each replacement city's hex (if it is a multihexed city, go to its Full City hex of the multihexed city) and Right-Click on the red asterix, "✳", and a menu will show the available Infantry RPs (IRPs) that can be used from that city (if there are more than one city that accumulates IRPs in that military district (see page 16 of the Soviet Setup/Reinforce tab under Main menu toolbar "Charts"), you can use the total of all those city's IRP that are not isolated. If you don't use them all, you'll need to decide how much of and which city you'll leave the remaining IRPs). To use the IRPs, Left-Click on Use Infantry RPs. A small window will appear where you will enter the enter the unused IRPs. If none remain, enter zero " 0". Left-Click and drag the replaced Unit from the Soviet Eliminated Map to the correct location on the map according to the rule 34.B.

To receive lend-lease, place the received unit(s), as available, according to Rule 35 and according to "3.b) To receive reinforcements" above.

Do conversions, by Selecting the unit to be converted, according to the requirements in rule 34.D., open the Right-Click unit's menu, then Left-Click on Delete (or press Ctrl-X) to correctly remove unit from play. The removed unit is not replaceable and permanently removed from play. Place the new unit in the same location as the replaced unit.

Note: *3-6 Infantry conversions, Starting Aug. I '41 the Soviets can convert four (4) *3-6 Infantry units to 4-6 Infantry units each turn. To perform the conversions, Right-Click on the unit to be converted, Left-Click on Convert to 4-6 Inf (or press Ctrl-C). The *3-6 Infantry unit will be removed and converted to the 4-6 Infantry unit. For easy location of available *3-6 Infantry units, on the Main map Toolbar Left-Click on *3-6 Infantry highlight button, "🔲", and all *3-6 Infantry unit's hexes on the Main map will be highlighted in red, "🔲", – to remove highlight, Left-Click on *3-6

Infantry highlight button, "", again. If the replacing 4-6 Infantry unit is eliminated, it will be placed into the Soviet Eliminated area as a *3-6 Infantry unit *(to prevent unrealistic game play, the *4-6 Infantry units are not shown with the red asterix when they are on the map).*

To withdraw unit(s), To remove withdrawn units from the map according to the rule 34.C, Select on the withdrawn unit by Right-Click the affected unit then Left-Click on Delete (or press Ctrl-X) to correctly remove the withdrawn unit.

To disband unit(s), (only applies to Soviets) Select the affected unit(s), remove them from the map according to the rule 34.E.4. To remove the disbanded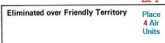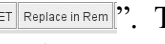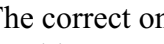 unit, Right-Click the affected unit and Left-Click on Delete (or press Ctrl-X) to correctly remove the disbanded unit. Add the cost of replacing the unit to the RPs available as described above in "To receive replacements". The disbanded unit is permanently removed and not replaceable during the game.

c) Do air replacement system activities (26 and 27).

(Before performing the air replacement system activities, Left-Click on,"", Total All Countries' Air Units (Air Groups): to refresh the counts & counters on each player's Air Charts.) The process is fully described in Rules 26 and 27. The only thing you'll need to do is to drag either 3, 4 or 5 Air unit to the small area that says Place X Air Units, "". After doing so, Left-Click on the Map toolbar that says, "". The correct on to press is in red letters above the Place X Air Units button. In this illustration, you would press Replace in EFT Button. What would happen is the 4 Air units in the small box would be processed by the game and 2 would be sent to the Available Air units box and 2 would be sent to the Remnants box - these will be randomly chosen by the game. The same is true for the other 2 Buttons in accordance to the game rule 27. When using the Replace in EFT or Replace in EET buttons, the game will automatically reduce the correct Nation's GA (Group Allowance) by 1 each time you use the process. You will only need to add GA when the reinforcement charts indicate you have received (or lost) additional Group Allowances (GA) *[see **Total All Countries' Air Units (Air Groups):** above on how to add or subtract GA points]*. Also, to remove a culled air unit, Right-Click on the culled air unit and Left-Click on Delete (or press Ctrl-X). To randomly find which Air unit you need to cull, assign a range of numerical values for each Air unit in the box you are culling and use the percentage die to determine which one(s) was culled[1].

d) Repair naval units (28.F.).

To repair a hit on a navel unit, Right-Click on the naval unit and Left-Click on Repair 1 Hit on Ship (or press Alt-R). *To add a hit, Right-Click on the naval unit and Left-Click on Add 1 Hit to Ship (or press Ctrl-H).*

4. a) Repair air units (23).

To repair a inoperative air unit after a underlined successful repair roll (a roll of 1 is always successful no matter what the modifiers), and remove the red NonOp, "", across the top of the air unit, Right-Click on the air unit and Left-Click on Op / Non-Op (or press Ctrl-F).

_____

[1] Example: 30 Air units are in the Rem box, divide 100/30 Air units equals 3.333 drop the fraction and use 3 per Air unit; the 1st Air unit will be 1, 2 or 3 to be culled, the 2nd Air unit will be 4, 5, or 6, etc. If you roll any number over 90, (3 numbers assigned to each Air unit * 30 Air units=90) reroll the Decimal Die or Percentage Die. If you rolled a 47, the 14th Air unit would be culled (47/3=15.666 -1), minus 1 because Air unit 1, 2, and 3 would be a Zero before the decimal point. *I put this in the footnote to show you the math on how it is done - hopefully you never have 30 Air units lost between any of your game turns.*

b) Construct forts & airbases: forts, " ○ ", and permanent airfields, " 𝓐 " Soviet owned or " 𝓐 ", Axis owned (14.A.1.) – an asterix in the upper left corner will indicate ownership, red, "*", for Soviet (and neutral countries) and gray, "*", for Axis. *(To change initial ownership of an airfield, Right-Click on the airfield, and select Captured or press Alt-Ctrl-Minus. This will bring up a window that will asked who captured it. '0' means the Axis captured it; '1', means Soviet captured it and results in the ownership asterix color to gray " 𝓐 " if now Axis owns it or red " 𝓐 " if the Soviets now owns it.)* When you construct an airbase or fort, mark the constructing unit(s) as moved (Ctrl-M) or if the construction used ½ of the constructing unit's movement with Quick Construction (14.1.b., & c.), Right-Click on the constructing ground unit (Construction Engineer, Combat Engineer, Construction Engineer, or Punitive unit) that constructed the Fort or Permanent Airbase and Left-Click on ½ Movement. The unit's movement on the unit's counter will temporarily reflect ½ of its original movement distance as the currently available movement. Its original movement will be restored on its unit's counter at the beginning of the Exploitation phase.

To construct a fort, " ○ ", you must spend 1 resource point, " ? ", within current supply range of the constructing unit, then Right-Click on the constructing ground unit (Construction Engineer, Combat Engineer, Construction Engineer, or Punitive unit) that will construct the fort and Left-Click on Place Fort (or press Alt-F). A small window will open and ask how many phases are needed to construct the fort, there are 2 phases per game turn. Refer to the construction rule 14.A.1 through 14.A.1.d to determine how many game turns will be needed for construction, then double the number to convert the game turns into phases (1 game turn for clear or rough terrain, 2 for all others - double these numbers for poor weather – any weather other than Clear). A fort counter will be placed where the constructing unit is located, with the number of remaining game turns (not phases) before completion. The remaining number of turns is located in the center of the fort being constructed, " ② ". The game will automatically reduce the remaining game turns by 1 after each 2 initial phases (1 German + 1 Soviet Initial Phase or vice versa depending when the construction was started) that have passed after construction began.

To construct an permanent airfield, " 𝓐 ", you must spend 1 resource point, " ? ", within supply range of the constructing engineer unit then Right-Click on that ground unit (Construction Engineer, Combat Engineer, Construction Engineer, or Punitive unit) that is construct the permanent airfield and Left-Click on Place Perm. AF (or press Alt-P). A small window will open and ask how many phases are needed to construct the airfield, there are 2 phases per game turn. Refer to the construction rule 14.A.1 through 14.A.1.d to determine how many game turns will be needed for construction, depending on location and weather, then double the number to convert the game turns into phases. An airfield counter will be placed where the constructing unit is located with the number of remaining game turns before completed. This game turn number is located in the top-left quarter of the airfield being constructed, " 𝓐 ". The game will automatically reduce the remaining game turns by 1 after each 2 initial phases (1 German + 1 Soviet initial phase or vice versa) that have passed after construction began. When a permanent Airfield is captured, Right-Click on the Airfield, and select Captured or press Alt-Ctrl-Minus. Select '0' if the Axis captured it or '1' if the Soviets captured it. This will change the ownership asterix color to gray " 𝓐 " if Axis now own it or red " 𝓐 " if the Soviets now own it. If the Airfield is still under construction when captured, then eliminated it, Right-Click on the Airfield, and select Delete or press Ctrl-X.

To build an temporary airfield, (a temporary airfield does not have to be built in the Initial phase and can be built during the Movement phase using 4 movement points.) Right-Click on the ground unit (Construction Engineer, Combat Engineer, Construction Engineer, or Punitive unit) that will construct the temporary airfield must spend 4 movement points and Left-Click on Place Temp. AF (or press Alt-T), " ⚡ ". The temporary airfield will be placed immediately in the location of the constructing unit – there is no resource point spent to construct a temporary airfield. Later, at the

end of any phase, if no unit capable of constructing the temporary airfield is in the same hex with the temporary airfield, the temporary airfield is removed from the map and any Air units located on that airfield are placed in the Rem Box on the respective side's Air Chart if they don't escape with the escaped flying to an airbase within range.

<u>To build a Railroad over a Road</u>, Right-Click on the Construction unit to bring up its menu. Left-Click on "Place Road to RR marker" and a Road to RR marker will be placed under the Construction unit. You will need to expend 1 Resource point to build the Railroad in the hex. Use the same process as building a Fort in clear terrain (see *Advanced Rule 38.C.2. Upgrading* for limitations applying to this construction.)

5. Plan airborne operations (25.D.).

To plan an airborne operation, Left-Click Notes, then Left-Click Delayed. Type in the landing hex, the units landing there, plus where they are starting from, and the turn they will air drop. On the turn and time of the airborne operation, you reveal the planned operation by Left-Clicking on the Reveal check box in the upper right area of the airborne operation in Note.

– Advance Game Turn phase to the Game Turn's **Movement Phase:**.

(One of the more challenging things I found in this game is to remember where I was attacking and which units were to participate in that attack! I have provided an aid for those who want help with this. Right-Click on the top ground unit attacking and select "Place Soviet/Axis Attack Direction Arrow". (You can also find it in Main map toolbar, Pieces, Markers, the Axis Attack Direction, "▶", & Soviet Attack Direction, "◀". These are rotatable to point to the hex being attacked and should be placed on top of the units attacking – if attacking with a 2 hex range artillery, the Attack Direction Arrow can point to the artillery's hex vertices to point at the hex 2 hexes away) If the same hex has units attacking in 2 or more different directions, place 1 Attack Direction marker on top of each group of units attacking in the direction they are attacking. Place any non-attacking units above the Attack Direction Arrows. The game will remove Attack Direction Arrows after its unit's attack is calculated and has placed an "Attacked" blue border around them, "".

Movement Phase:

[At the beginning of a Player's Movement Phase, the game will reset all Air belonging to that Player to its normal setting (F, B, A, T, etc.). I.e., it will change a extended range Fighter Air unit, "x.F" back to its normal setting Fighter, "F". This will save you a lot of time searching for them.]

– If you briefly hold the mouse curser over a stack on the main map, it will display: the total number of ground units, the number of Divisions, the Number of Artillery, and the number of AA factors available in that hex, and in a light blue background, the number of Air Units, if any, in the hex.

Conditional Reinforcements – The game searches for Soviet Conditional Reinforcements, but only the Axis Conditional Reinforcements that are on in the cities of Baku through Yerevan on page 3 of the Axis Order of Battle Booklet – those on page 2 must be manually determined and placed. It will automatically place all Soviet units that are triggered by the Axis after the Axis movement in the Movement and/or Exploitation phases. This search causes a medium time delay in advancing from the Axis Movement to Air phase and the Axis Exploitation to Soviet Initial phases as the games searches each Axis unit's location to see if the triggering condition has been triggered by the movement of each Axis unit on the map (except Finnish units). You'll need to manually check for the Axis Order of Battle, page 2, conditional reinforcements because a number of those conditions are not a "searchable" condition that are known by the game program.

1 . Break down units (15).

To get to the break down units, Left-Click Charts button on the main menu, then Left-Click on the Axis or Soviet tab. On this sheet you will see all the break down units available. Read rule 15 to properly use these ground units. To exchange the full division with the appropriate break down units, refer to the Axis or Soviet Unit Breakdowns, remove the correct break down units and place the divisional's "broken down" units in their place. You will Left-Click and hold than drag the units to the division's location and Left-Click and hold and drag the division to the break down area. The break down units can be supported or unsupported when placed on the map. To change from supported to unsupported or vice versa, open the Right-Click unit's menu, then Left-Click on Flip (or press Ctrl-F) to change whether the unit is supported, "⊞ 3·8", or unsupported, "⊞ 3·8". If you choose the supported ground units, you do not receive the HQ unit; if you choose the unsupported ground units, you also receive the HQ unit.

2. a) Move ground units, including administrative, road, and rail movement (6 and 7) – *The Soviets have limitations on certain combat/motorized divisional sized units (see Rule 31.C).*

All game units that are able to move can be Left-Clicked and held then dragged to whatever location you wish within their movement limitations. *(Note: Some of the most heated arguments I've seen in this game [other than cursing at die rolls] have to do with a game unit's movement – where did it come from and how did it get where it is at. The following rule is intended to substantially reduce or eliminate these arguments.)* Since each game unit leaves a "movement trail" (red line) when you move it, each side will know where the game unit started and how it got to where it is currently located. This shows the other player(s) how your game unit moved through the hexes on the map – its path. You need to move the game unit in a straight line along the hex row, column, and/or diagonal, thus leaving an unambiguous trail, in all the directions the game unit moves. You can release the game unit after moving in one direction, then Select it again and move it in a new direction when you want to change directions showing the hex where the game unit's direction changed. This movement trail will also be important to resolve questions of movement costs and possible zones of control effects during the Movement Phase, Air Phase (Patrol Zones passed through) or Exploitation Phase. The "movement trail" lines left by moving the game unit **is** the game unit's movement in the movement/air/exploitation phases through whatever terrain it covers - no exceptions. If you do not make a clear movement trail (as shown in example window on right), your opponent **will** decide what hexes your unit moved through using any hexes the opponent wants that the movement trail touched or passed through and move it back if it doesn't have the movement points to reach the original player's intended hex location – *even if the original moving player doesn't think the path the opponent selected makes any sense!! This is the cost of not having a path that is clear! When moving, make your game unit's paths clear!* If you make a mistake, in the upper left corner of the game window is an "Undo" icon/button "⟲" - press this to "Undo" your last action taken. You can go back and "Undo" a number of actions, but you cannot redo an action after you "Undo" that action - there is **no** "Redo" icon/button to redo the "Undo" just made. So be careful or you might have to remake a lot of moves!

b) Execute overruns (13), including resolution of overrun AA (AntiAircraft fire, rule 38.B.1.).

Read rule 13 and 38.B.1, if AA is present, then move ground units according to Movement Phase, 2.A above's description. *If you hold your mouse curser over the hex with the overrunning units, it will display the total AA available from all units in the hex. You'll need to subtract the AA of any*

unit in the hex that is not participating in the AA fire, if any. You can fire AA at each defending air unit by Left-Clicking on the 2d6 dice button on the main map window (or press F2), then cross reference the dice roll and the total AA being used with the CRT tab located in the Charts Button. I would leave the units performing the overrun in the hex before the overran hex. Select the overrun stack and press Ctrl-E and do a second time if any cadres remain, then move the overrunning stack in and continue movement, if desired.

c) Move and replenish ships, move river flotillas, and conduct naval transport (28).

Read the rules on naval units movement and restrictions, then move the ships units according to Movement Phase, 2.A. above's description, but on river/sea hexes.

d) Demolish rail lines (7.C.), airbases (17.D.), and bridges (39.A.).

Any ground unit with a combat factor greater than zero can demolish (destroy) a rail line or airbase.

Demolish rail lines, by moving the ground unit to the hex with the rail line running through it, spend 2 movement points, Right-Click ground unit to open its menu, then Left-Click on Cut Rail Marker (or press Alt-C). A rail cut marker will be placed in the hex of the ground unit cutting the rail line.

Damage airbase capacity, by moving the ground unit to the hex with the airbase in it, spend 2 movement points for each point of damage to be applied to the airbase, Right-Click airbase to open its menu, then Left-Click Add Hit (or press Alt-=) for each hit. A remaining capacity level will be shown on the airbase, " ". The capacity of the airbase will decrease for each hit added and increased for each hit repaired by an engineer, Left-Click Remove Hit (or press Alt- -[minus]) for each hit removed (repaired). The capacity is the allowed number of air units that may takeoff from the airbase in the air phase for a mission; an unlimited number of air units can land at an airbase. The color of the airbase capacity identifies who owns the airbase: gray wording is Axis owned, " ", red wording is Soviet owned. " ".

Demolish bridges, (optional rule 39.A.) There is currently no process built into the computer game to handle this optional rule. Read the rule 39.A. and do as instructed. To mark a demolished bridge, open the Units tab, open Markers tab, and Select and drag the Bridge Demolished marker to the location of the demolished bridge.

e) Use the construction abilities of engineers (14.A.1.).

(See Rule 14.A.1.b. & 14.A.1.c. for possible quicker repair/construction costs than those shown below.)

Constructing forts and airbases are covered in **Initial Phase:**, 4.b.

To repair damage airbases, for each 2 movement points spent by the appropriate engineer unit in the hex of the airbase repairing the airbase, 1 hit is removed. To remove 1 hit, Right-Click on airbase and Left-Click on Remove Hit (or press Alt-+) – repeat for each additional hit removed.

To repair a cut rail line, spend 4 movement points in the hex of the cut rail line by the appropriate engineer unit in the hex to be repaired, then to remove Right-Click on Cut Rail Line marker, then Left-Click on Delete (or press Ctrl-X).

To damage/repair a port, to damage a port, for each 3 movement points spent in the port hex, Left-Click on Units tab, then Left-Click on Markers, Select Hit-1 or Hit-2 and move to the port hex. Right-Click on Hit-1 and/or Hit-2 marker, then Left-Click Change Label (or press Ctrl-L). Enter "Port" to identify the hit marker's purpose. To repair a port, an engineer must spend 4 movement points for each hit repaired, then Right-Click on the Hit-1 and/or Hit-2 marker and Left-Click on Delete (or press Ctrl-X) to repair the port and remove the   hit marker(s).

f) Regauge rail lines (14.A.4.).

Read rule section 14.A.4. to understand repairing   and regauging rail lines movement costs. To repair a rail line, use the   same process as

described in **_"Movement Phase:_**, 2.e." above. <u>To regauge a rail line</u>, in clear weather, costs 1 movement points, in any other weather, it costs 2 movement points. Once the movement cost is spent, advance the standard rail gauge marker, " ", for Axis or broad rail gauge marker, " ", for Soviet.

g) Fire AA against air units flying harassment (38.B.2.).

  Use the same AA process as "**_Movement Phase:_**, 2.b. Execute Overruns" above, when performing AA fire against air units flying a harassment mission.

3. Assemble broken-down units (15).

  To assemble broken-down units, all of the component parts of the division must be stacked in the same hex, then do the reverse of "**_Movement Phase:_**, 1. Break down units" above.

– Advance Game Turn phase to the Game Turn's **Air Phase:**.

Air Phase:

– *The board game's version of the Air Phase is very interactive, difficult and long, to be run in a computer simulation, especially when players are not within "shouting distance" while performing it. However, it is doable but with a lot of extra time and difficulty to perform it. One of the advantages of the "SE options" above is it allows the non-phasing player to resolve all Patrol Attacks and Air to Air Combat without the phasing player needing to do anything until these are finished and resolved. For those of you who would like to get similar results to the "manual" version of the Air to Air phase but with much less time and difficulty involved to perform it, I've included two game options: 1) to resolve patrol attacks and 2) to resolve air to air combat. Since I've played the game with and without these options, I strongly recommend that you use the options! The game starts with them "on" by default. You can turn them off (by unchecking their box in* File – Preferences – SE Options *tab, but there is actually no need to do so as you don't have to use these Air options even if they are "on" and available. I've included "Patrol attacks" option and "Air to Air combat" option in the descriptions below, assuming you may want to use them.*

1 . Initiate missions (20), move air units (18), and resolve patrol attacks (19).

  Read SE Rule 20 to understand types of mission air units can initiate. After deciding which air mission a group of air units will perform, move the air units (according to SE Rule 18) to their mission hex. You move the air unit(s) by Left Clicking on the air unit(s) and drag them to their mission location. [Remember the "**_Movement Phase:_**, 2.a)." "clear path" requirements above.] The same "clear path" is necessary for air units as well and the same consequences applies if you don't make a clear path. *(This would only applies to Patrol Zones passed through by the Air unit if the Option for Patrol Attacks is enabled.)*

  <u>Send Fighter Unit on a Tactical Bombing Mission:</u> To designate a fighter unit as a mission unit, Right-Click on the fighter unit, " ", you want to use as a Mission Fighter, then Left-Click on Replace with Mission Fighter (or press Alt-H), " ". The fighter will have a new designation across the top showing it is a "m.F." type air Unit . To change it back to a fighter only, repeat the process on the Mission Fighter unit and it will return to the fighter only unit again.

  <u>Send Fighter Unit on an Extended Range Escort Mission:</u> To send on a fighter on an extended range escort mission, Right-Click on the fighter unit, then Left-Click on Replace with Ext. Range Fighter. The fighter unit's Attack and Defense factors will be reduced by 2 but not to less than 1. The fighter unit's range will be doubled.

  <u>Patrol attack (option).</u> As soon as the game turn is advanced to **_Air Phase:_**, all the non-phasing player's fighter air units will show a patrol zone that each of non-phasing fighter units can perform a patrol attack in. <u>The phasing player</u> now will fly all the mission and escort air units to the mission target hexes (and should consider flying around patrol zones if possible). After the phasing player flies all mission and escorts to the hexes of their missions, the <u>non-phasing player</u> then picks <u>one mission hex</u> to resolve patrol attacks and sends any fighters whose movement trails the mission or
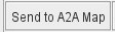
escort air units passed through for that fighter unit's patrol zone (remember the non-phasing player cannot send more fighters to patrol attack from an airfield then the current capacity of the airfield it flies from. To send the fighter to patrol attack the phasing player's air units in the chosen hex Right-Clicks on the fighters to bring up its menu, then Left-Click on Patrol Attack (or press Ctrl-P). The Fighter's patrol attack zone will disappear and one will be added to the count under the column with the same value as the fighter's attack factor, at the upper part of the PA map – the fighter will remain where it was and cannot be selected again for another patrol attack during this phase. After all the patrol attacking fighters have been designated for this particular mission hex, resolve the patrol attack by going to the PA Map and Left-Click on Execute Patrol Attack. Any phasing player's mission force or escorts that are marked with a blue border, "⬛", have been turned back and cannot complete their mission. Left-Click on Return Air Units to send the mission and escort air units back to their original hexes on the main map. The results of each Patrol Attacking fighter will be shown in the Chat window above the map. The non-phasing player selects the next mission hex and repeats this patrol attack sequence for each mission hex until all are patrolled attacked or passed over by the non-phasing player.

Note: On Oct I '42 game turn (game turn number 32) through the end of game, the Soviet Guard Fighter Units' Patrol Zone range will be automatically extended by the game to ½ the Guard fighter's normal movement range (rounded down) from the 2 hexes range it was before the Oct I '42 game turn (Rule 19).

2. Fly interception and scramble missions (18, 20.A, & 20.B).

To fly interception, the non-phasing player now flies, to any mission hex, any fighter(s) desired and within intercept range (½ movement range rounded down) of those mission hexes. To fly the fighters, Left-Click on a fighter and drag it to the mission hex within ½ interceptor's range.

3. Resolve air combat (21).

Air to Air Combat resolution (option). The non-phasing player Left-Clicks on each mission hex that contain phasing and non-phasing player air units flown there this air phase. Left-Click on the Main map toolbar "Send to A2A Map", "⬛". All units, air and ground, will disappear from the hex. However, only air units of both sides that do not have a blue border (i.e., those not returned by a patrol attack) will appear on the Air to Air map, the rest will be temporarily held off the map. Continue adding air mission hexes until all (up to 20) air missions hexes with both phasing and non-phasing air unit in the hex have been added. The number of air missions added to Air to Air map can be check by Left-Clicking on Air to Air Map, "⬛", tab on the main map window. When finished adding air missions, resolve air to air combat by going to Air to Air Map, "⬛", if not visible, and Left-Clicking on Fight ALL Air to Air Combats – it may take a few minutes to finish all of these air to air battles depending on the speed of your computer. After air to air combat resolution, all air and ground units need to be return to their original locations on the main map – this is done by Left-Clicking on Return All Units on the Air to Air map toolbar. After all air to air mission combat has been resolved, each player will need to go to each mission hex and Right-Click on each KIA air unit, "⬛", then Left-Click on EET (Eliminated over Enemy Territory) or EFT (Eliminated over Friendly Territory), return all Non-Op, "⬛", and blue bordered, "⬛", return air units to a friendly airbase. This will remove "map clutter" during the next 2 phases: 4. Fire AA and 5. Resolve most missions.. If you want to wait until after all air combat is over before returning the Air units, just send the KIAed Air units to the proper Air eliminated box and take care of the rest after the Air phase is over.

The Air to Air map can hold up to 20 air mission hexes for air to air combat resolution. If the non-phasing player has more than 20, than the non-phasing player will need to resolve (fight) the air to air of the first 20 by *Left-Clicking* on *Fight ALL Air to Air Combats*, clear the Air to Air map by

Left-Clicking on Return All Units, then Left-Click on Reset A2A. After this is done, the non-phasing player can repeat the above Air to Air Combat resolution procedure for the next set of up to 20 air to air mission resolutions.

4. Fire AA (22).
Read rule 22 on procedure for AA fire. To perform AA attack on air units, roll 2d6 dice, Left-Click the 2d6 picture, "🎲", (or press F2) move the mouse curser over the hex where the AA fire originates. A small window will appear showing the total amount of AA factors in the hex. If there are not allowed, nonparticipating or out of supply units in the AA fire, remove/adjust their factors from the total AA factors. Use this modified amount on the AA table that you can open by Left-Clicking on Charts, then Left-Clicking on CRT. The AA chart is in the middle right on the CRT chart. Cross reference the dice roll (2d6) and adding or subtracting the AA adjusting factors - roll dice again for each air unit fired upon.

5. Resolve most missions (20), including airborne operations (25).
Read rule 20 and/or rule 25 to find steps for mission resolution. *(The computer game does not resolve any Strategic bombing missions. So you will need to adjust the Strategic bombing strengths on extended range missions and resolve on your own because there is not enough counter space to show fractional Strategic bombing values which the computer games does not use (along with fractional Tactical bombing values which the computer game does use in tactical ground combat support.)*

1. Strategic bombing of Rail Marshalling Yards (20.F.1.d.). If a hit is achieved on a rail marshalling yard, Right-Click on the Airbase in the Soviet Major city that was hit. Select "Add 1 Marshalling Yard Hit". This will reduce the Available Railroad REs (Regimental Equivalents) and not Railroad Capacity REs on the next Soviet turn. If a partial city hex, the hit will make this option no longer available during this air phase in this major partial city hex. If a major full city hex, the 2nd hit will make this option no longer available during this air phase for this major full city hex.

6. Return phasing air units to base (18).
Phasing player returns all air units that are not flying defensive support mission back to a friendly airbase within movement range shown on the Air Unit. *(Remember that Airbase capacity is for initiating [flying from the airbase] missions not for landing Air units.)*

7. Return non-phasing air units to base (18).
Non-phasing player returns all air units back to a friendly airbase within movement range shown on the Air Unit. *(Remember that Airbase capacity is for initiating missions not for landing Air units.)*

– Advance Game Turn phase to the Game Turn's **Combat Phase:**.
Combat Phase:
1 . At the beginning of the German combat phase *only*, the Soviet player announces which hexes his ships are supporting with gunfire (28.B.2.). (If you are using Attack Direction Arrows, have the Soviet declare before you place the Attack Direction Arrow. There is only a limited number of places this will effect.)
Read rule 28.B.2.. and use the Status markers, "⑤", to indicate which hex(es) and how many ship factors are defending those Soviet hex(es). These Status markers are located in Pieces, Markers, Status 1 through Status 5. Since Naval Fire Support is half of the number shown on the ships counter, for factional amounts Select the Status marker and press Ctrl-L, then enter the fractional number. I.e., if a printed 5 is supporting, use a 2 Status marker and enter 2.5 for the support value (or use a 5 Status marker and enter 2.5 as the support value, "⑤") – as long as everyone agrees on the method, either will work. The "Defend" tab on the Main map Toolbar for Combat resolution does not add defending Naval supporting fire. So, this will needed to be added by the player when

the amount computed by the game is shown and adjustments to it are allowed. And remember, the amount of Naval supporting fire cannot be more then the <u>printed</u> attack or defending ground value.

2. Resolve combat (Rule 9 and many other rules).

Combat resolution (option): There is a combat option to allow the combat odds column to increase to the next column higher based upon the percentage of extra combat factors over the needed amount for the current combat column to move up to the next combat column. I.e., if attacker has 11 combat factors and defender has 3, the odds are 3.66 to 1. This would be resolved on the 3:1 table unless this option is checked, in which case a percentage die roll would change the odds column to 4:1 on a roll of 66 or less. If the roll on the percentage die (1d100) was 66 or less, the combat resolution would be on the 4:1 table instead of the 3:1 combat table – adding a bit more "unknown" to the combat resolution process.

Combat resolution process:

– Move all attacking player's ground support air units for this attack from the target hex to one of the hex(es) of attacking ground units by Left-Clicking on mission air units and dragging them to that hex or select the individual mission Air units performing ground support along with the ground units.

– The computer game will adjust the attack factors according the individual attacking and defending unit's supply status but does not modify the attacking or defense strength due to terrain hex or hexsides – the player will need to calculate the attack strength manually to account for halving or quartering of attack strength from certain terrain effects (most of the time this will not be required). <u>Check the terrain</u> in the defending hex and hexsides between the hex(es) of the attacking ground units and defending hex for combat factor adjustments and positive and/or negative die roll modifications from terrain, AECA/AECD/ATEC ratios plus any other modifiers. *(Map terrain can be seen by Left-Clicking on Hide Units button on main map toolbar, " 🌐 ". Left-Click again to un-Hide units.)*

– Select all attacking ground and mission air units by Left-Clicking on the attacking ground and air units, then Left-Click on Attack-Attack, " **Attack!** ", on main map toolbar. This will bring up a small window asking the attacker to verify or adjust the attack factors the computer has calculated. If there are no changes needed, press ENTER, otherwise enter the correct attacker's factors and press ENTER. This is a list of conditions that may require the attacking player to adjust the attack factors different from what the game computes (see Terrain Effects Chart for the affect):

      1. Attacking a Full or Partial hex City,
      2. Attacking a Fortress hex,
      3. Attacking a Forest, Mountain, or Swamp hex,
      4. Railroad or Siege Artillery attacking a Fortress, Full or Partial hex city has its combat factor doubled (14.B.1 & 2.),
      5. Assault Engineer is same as Combat Engineer plus it has x2 unit's Attack Factor when attacking a Fortress, Full or Partial hex city (14.A.3.),
      6. Attacking across a River, Major River or Canal hexside,
      7. Attacking Naval gun support (28.B.2.), provides ½ the Naval supporting Gun factor,
      8. Unsupported attacking units, has ½ of attack factor,
      9. More artillery RE than non-artillery RE attacking from a hex into defender's hex (14.B.),
      10. Weather Conditions other than Clear.

– Left-Click on the defending hex to select all the defending ground and air units then on the main window's toolbar Left-Click on Defend, " **DEFEND** ". A small window will appear asking if the defense factors is correct, if correct press ENTER, otherwise enter the correct defense factors then press ENTER. This is a list of conditions that may require the defending player to adjust the defense factors different from what the game computed (see Terrain Effects Chart for the affect):

1. Defending Naval gun support, uses ½ the supporting Naval Gun Factor,
2. Unsupported defending units, has ½ defense factor,
3. More artillery RE than non-artillery RE defending in a defender's hex (14.B.),
4. Assault Engineer defending a Fortress, Full or Partial hex city (x2 unit's Defense Factor).

(The computer will open a 2nd small window and ask for the summed total of all adjustments to the die roll, enter zero (0) if none, if what is in the window is correct, press ENTER, otherwise enter the correct die roll modification to the die roll (use minus for negative value) and press ENTER.
– The computer will display in the chat window the results of the attack. These results must be immediately implemented on the defending and/or attacking ground units before moving to the next combat and losses are always determined by the factors printed on the ground unit(s) attack factor or defense factor, not a value adjusted for any reason – remember Air/Naval units are not affected by nor are their factors added in considering any ground combat loss calculations.
– After implementing ground losses and/or retreats, perform the next ground combat starting the process at Combat resolution process: above and continuing the same with each combat until all ground attacks are executed (concluded). *(At this point it takes 25 seconds for the game to calculate and resolve each combat on my computer.)*

– Advance Game Turn phase to the Game Turn's **Exploitation Phase:**.
Exploitation Phase:
Note: Only combat/motorized may perform activities in this phase.
> *– The Soviets have limitations on certain division (xx) sized combat/motorized unit movement (see Rule 31.C).*
> *– All movement paths will be removed at the beginning of the Exploitation Phase.*

1. Break down units (15).

To get to the break down units, Left-Click Charts button on the main menu, then Left-Click on the Axis or Soviet tab. On this sheet you will see all the break down units available. Read rule 15 to properly use these ground units. To exchange the full division with the appropriate break down units, refer to the left side of the chart and remove the correct break down units and place the division broken down in their place. You will Left-Click and hold than drag the units to the division's location and Left-Click and hold and drag the division to the break down area. The break down units can be supported or unsupported when placed on the map. To change from supported to unsupported or vice versa, open the Right-Click unit's menu, then Left-Click on Flip (or press Ctrl-F) to change whether the unit is supported or unsupported. If the units are supported, you do not receive the HQ unit, if the units are unsupported, you receive the HQ unit.

2. a) Move units, including road movement (6 and 7.B).

All combat/motorized game units that are able to move can be Left-Clicked and hold then dragged to whatever location you wish within movement limitations. To know which ground units are combat/motorized Left-Click on Charts, then Left-Click on Unit ID. At the top of the chart you will see all the designations of combat/motorized units. *I'll repeat this statement: Some of the most heated arguments and injured feelings I've seen in this game (other than die rolls) have to do with a game unit's movement – where did it come from and how did it get where it is at. The following rule is intended to substantially reduce or eliminate these arguments.* Since each game unit leaves a "movement trail" when you move it, each side will know where the game unit started and how it got to where it is currently located. This shows the other player(s) how your game unit moved through the hexes on the map – its path. You need to move the game unit in a straight line along the hexes, thus leaving an unambiguous trail, in each direction the game unit moves. You can release the game unit then Select it again and move it in a new direction when you want to change directions showing the hex where the game unit direction changed. This movement trail will also be important to resolve questions of movement costs and possible zones of control effects

during the Movement Phase. The "movement trail" lines left by moving the game unit **is** the game unit's movement in the movement/air/exploitation phases through whatever terrain it covers - no exceptions. If you do not make a clear movement trail, your opponent ***will*** decide what hexes your unit moved through using any hexes the opponent wants that the movement trail touched or passed through and move it back if it doesn't have the movement points to reach the original player's intended hex location – *even if the originally moving player doesn't think the path the opponent selected makes any sense!! This is the cost of not having a path that is clear!* When moving, make your game unit's paths clear! If you make a mistake, in the upper left corner of the game window is an "Undo" icon/button " ⚙ " - press this to "Undo" your last action taken. You can go back and "Undo" a number of actions, but you cannot redo an action after you "Undo" that action - there is **no** "Redo" icon/button to redo the "Undo" just made. So be careful.

b) Execute overruns (13), including the optional resolution of overrun AA (38.B.1).

Read rule 13 and 38.B.1, if AA is present, then the moving combat/motorized ground units may fire AA according to Movement Phase, 2.A above's description. If you hold your mouse curser over the hex with the overrunning units, it will display the total AA available from all units in the hex. You can fire AA at each defending air unit by Left-Clicking on the 2 dice button on the main map window (or press F2), then cross reference the dice roll and the total AA being used on the CRT chart tab located in the Charts Button.

c) Demolish rail lines (7.C), airbases (17.D). and bridges (39.A).

Any combat/motorized ground unit with a combat factor greater than zero can destroy a rail line or put hits on an airbase.

Demolish rail lines, by moving the ground unit to the hex with the rail line running through it, expend the 2 movement points to cut the rail line and Right-Click combat/motorized ground unit to open its menu, then Left-Click Cut Rail Marker (or press Alt-C). A rail cut marker will be placed in the hex of the combat/motorized ground unit cutting the rail line.

Demolish airbases, by moving the combat/motorized ground unit to the hex with the airbase in it, spend the 2 required movement points, Right-Click airbase to open its menu, then Left-Click Add Hit (or press Alt-=[Equals]). A hit will be added to the airbase's level of damage each time this is done and the remaining useable airbase capacity will be shown on top of the airbase.

Demolish bridges, (optional rule), " ⚔ " , There is no process built into the computer game to handle this optional rule. Read the rule 39.A. and do as instructed. To mark a demolished bridge, open the Units tab, open Markers tab, and Select and drag the Bridge Demolished marker to the location of the demolished bridge.

d) Fire AA against air units flying harassment (38.B.2.).

Read rule 22 and 38.B.2. on procedure for AA fire against air units flying a harassment mission. To perform AA attack on air units, roll 2d6 dice, " 🎲 ", Left-Click the 2 six-sided dice picture, move the mouse curser over the hex where the AA fire originates. A small window will appear showing the total amount of AA factors in the hex. If there are nonparticipating units in the AA fire, remove their factors from the total AA factors. Use this modified amount on the AA table that you can open by Left-Clicking on Charts, then Left-Clicking on CRT. The AA chart is in the middle right on the CRT chart. Cross reference the dice roll and the AA adjusted factors - roll dice again for each air unit fired upon.

3. Assemble broken-down units (15).

To assemble broken-down units, all of the component parts of the division must be stacked in the same hex, then do the reverse of "***Exploitation Phase:***", 1. Break down units" above.

Advance Game Turn phase to the Initial Phase for the Soviet's Turn phases and repeat sequence above:

At End of the Soviet Player Turn:

1. Scuttle river flotillas (28.E.).

        To scuttle, Right-Click on flotilla, then Left-Click on Eliminated (or press Ctrl-E). The flotilla will be placed into the Eliminated window. To open the Eliminated window Left-Click on Soviet on main map toolbar, "![Soviet]".

When Appropriate: *– Note: The following may occur in the movement, air, combat, and/or exploitation phases.*

1. a) Resolve air unit escape when airbases are captured (17.B.).

        Read rule 17.B.. Roll 1d6 die by Left-Clicking on 1d6 die, "![die]", on main map window or press F1 for each operative air unit attempting to escape. On a roll of 1, 2, or 3, the air unit escapes and flies to a friendly airbase up to 3 times the air unit's movement rate and becomes nonoperational (inoperative), "![unit]" to "![Non-Op unit]" – Select Air unit and press Ctrl-F. On a roll of 4, 5, or 6, the air unit does not escape and is eliminated. To eliminate the air unit Right-Click on the air unit, the Left-Click on Rem (or press Alt-Ctrl-R) – this will place the eliminated air unit in the Remnant Box on the Air Chart.

b) Resolve ship escape when ports are captured (28.B.4.).

        Read rule 28.B.4.. Roll 1d6 die by Left-Clicking on 1 die, "![die]", on main map window or press F1 for each ship unit attempting to escape. On a roll of 1, 2, 3, or 4, the ship escapes and is considered at sea at the port hex. On a roll of 5, or 6, the ship does not escape and is eliminated. To eliminate the ship Right-Click on the ship unit, the Left-Click on Eliminated (or press Ctrl-E) – this will place the eliminated ship unit in the eliminated Soviet window if replaceable.

c) Abandon 0-capacity airfields (17.D.).

        To abandon an airbase that has been reduced to zero capacity, Right-Click on airbase, then Left-Click on Delete (or press Ctrl-X). Any active Air unit on the now removed airbase rolls for escaped and if not successful is put in the Remnant Air Box along with all Non-Op air units there.

d) Destroy resource points (39.B. – Optional Rule).

        During a player's turn, that player can destroy any resource points the player owns. To destroy, Right-Click on Resource point(s) to be destroyed, then Left-Click on Delete (or press Ctrl-X).

e) Load or unload Resource points onto or from a Truck unit.

        A Truck, not used for supply purposes in the Initial phase, may carry Resource points. ![truck]

        <u>To load Resource points</u>, Right-Click on Truck, then Left-Click on Add Resource Points. Enter the new amount carried by adding together the currently carried Resource points with the added Resource points. The Truck cannot carry more than 30 Resource points. Unlike other ground units, a Truck's movement is not reduced while carrying Resource points.

        <u>To Remove Resource points</u>, Right-Click on Truck, the Left-Click on Remove RPs. Enter the number of Resource points you wish to remove from the Truck. The removed Resource points will be placed below the Truck and deducted from the amount the Truck is carrying. *(Note: The first time using Remove Resource points, the game may generate an error in the chat window, but everything will work as it should. Ignore the error - I believe it may be a vassal engine anomaly [or buggy programming ☹].)*
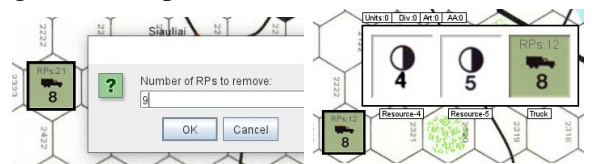
e) Capture resource points (39.B. – Optional Rule).

        When a one player captures the other player's resource points, ½ of those points, rounded down, are captured and the remainder are eliminated.