WHEN SUPERPOWERS COLLIDE
Germany 1985

STRATELUX

THIS PRODUCT WILL NOT SAVE TO CASSETTE

CBM 64

1.0 PLAYING THE FIRST GAME

C-64 Insert the game disk. Type **LOAD "*"**, 8,1 and press **RETURN**. When **READY** appears on the screen, type **RUN** and then press **RETURN**.

You'll be presented with the selection of game options, with the chosen options highlighted:
This is to be a **SOLITAIRE** game, with the **RUSSIANS** played by the computer, at a difficulty level of 1, most difficult. (The other options will be explained later on.)

For your first game, press 4 so that all units will be **EXPOSED** to view. Press 3 twice to set the difficulty level at 3, the simplest. Now press the **SPACE** bar. When the computer asks if you want **RANDOMIZED** terrain (explained later), press the **SPACE** bar once more.

Connect cassette player as per user manual and rewind cassette on label side. Turn on the computer and press **SHIFT** and **RUN/STOP** keys together. Press **PLAY** on the cassette player and the program will load automatically.

When the menu appears press the **STOP** key on the cassette player. Select your option. When the screen goes blank, press **PLAY** on the cassette player.

1.1 THE MAP

You are now looking at one portion of the battlefield. To see the entire battlefield, look at the "Advance to Contact" side of the map card in the box. Each hex represents one square mile.

The terrain chart on the map card explains each terrain symbol. ROADS appear on the computer screen this way:

Each line represents the side of a road hex. (The hex itself is not shown on the screen.)

The NUMBER visible on the screen is the number of the MAP SECTOR (1 to 9, A, B, C) which corresponds with the number on the SCENARIO MAP CARD.

1.2 MOVING THE CURSOR

The blinking square in the center of the screen is the CURSOR. To move it down to the right to see more of the map, press the 3 key.
To move the cursor in different directions, use the COMMAND KEYS:
Practice using the COMMAND KEYS to move the cursor around the map. Notice that the TERN line beneath the map identifies the type of terrain where the cursor rests. If you try to move the cursor off the map, you'll hear a WARNING SIGNAL.
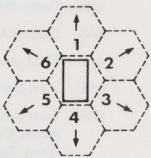
2.4 NIGHT MOVEMENT

Movement at night is the same as in daytime, with these exceptions:
- Air Cavalry movement is reduced by half
- Visibility is reduced, making movement near enemy units easier.

2.5 AIR CAVALRY

Air cavalry units can cross any kind of terrain, at a rate of one hex per movement point. However:
- they cannot move onto a Soviet-occupied town, village or airfield.
- their range is cut in half during night turns.

2.6 UNITS IN TRANSPORT MODE

- move one hex per movement point. However:
- they can travel only on roads or open terrain hexes.
- they are penalized two movement points for each sighting enemy unit.
- they are penalized one movement point if the enemy has air superiority. (See 6.0)

2.7 UNITS IN DEFENSE MODE

- cannot move at all

2.8 RIVERS

- can be crossed by units in RIVER mode, on roads or existing bridges, by Air Cavalry, or by BRIDGING. (See 2.9)
- The major river that flows through the battlefield in the INVASION SCENARIO can only be crossed at existing bridges, through BRIDGING by Engineers, or by Air Cavalry.

2.9 BRIDGING

Most rivers can be bridged by placing an ENGINEER unit in RIVER mode in a hex adjacent to the river. Units in any mode except TRANSPORT can then move across the ENGINEER unit.
To bridge the large river in the INVASION scenario, move an ENGINEER unit directly onto a river hex.

2.10 TERRAIN

The movement costs of different kinds of terrain are detailed in the TERRAIN EFFECTS TABLE in the APPENDIX.

2.11 SPECIAL MOVEMENT KEYS

These keys can be used when a unit is in its MOVEMENT PHASE.
ESCAPE (**C-64:** F1) Exit the movement phase. If the unit has not yet moved, you will be able to return to it later.

NATO FORCES

TANK BATTALION	
ARMORED INFANTRY BATTALION (APC)	
SELF-PROPELLED ARTILLERY BATTALION (SPG)	
RECONNAISSANCE BATTALION	
S	STACK SYMBOL
E	ENGINEER BATTALION
AIR CAVALRY UNIT	

SOVIET UNITS

TANK BATTALION	
MECHANIZED INFANTRY BATTALION (BMP)	
ARTILLERY BATTALION	
KATYUSHA ROCKET LAUNCHER BATTALION	
S	STACK SYMBOL
E	ENGINEER BATTALION
AIRBORNE INFANTRY BATTALION	

1.3 UNIT IDENTIFICATION

As you explore the map, you'll see the positions of both NATO and Soviet units:

1.4 MOVING UNITS

Press ESCAPE (**C-64:** press F1). The cursor will move to the nearest NATO unit, and that unit will begin to blink (and change color on color monitors). This first unit is in its MOVEMENT PHASE. Move the unit the same way you move the cursor, using the COMMAND KEYS.

If you try to make a move not permitted (tanks in TRANSPORT MODE into a forest, for instance) the computer will sound a WARNING, and will not permit the move.

1.5 THE SOVIET MOVE

The computer will now move each of the Soviet units. When it's finished, the cursor will begin to blink. The first turn is over. Press ESCAPE (**C-64:** press F1) to move your first unit again.

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0   Center unit on screen
C   CHANGE MODE (See 3.0)
L   Look at each of the other unmoved units in that division. (You must first press ESCAPE (**C-64:** F1)) (See also c/L.)
M   Go to the second unit in a stack and enter its MOVEMENT PHASE
O   Issue an ORDER (See 4.0)
P   **APPLE ONLY** Display entire map
Q   Leave that unit where it is, without combat. The unit will be considered MOVED.
S   Enter SCROLL MODE. Once in this mode:
- I scrolls up the screen
- M scrolls down the screen
- J scrolls left
- K scrolls right
- SPACE BAR returns to MOVEMENT PHASE

Press CONTROL to use the following keys (c/key):
c/A   Look at the AIR POWER DISPLAY (see 6.1)
c/C   Continue attacking an adjacent enemy unit without moving (see 7.8)
c/H   Hide or remove a unit (see 10.0)
c/L   Same as L, except you may look at all of your unmoved units, regardless of division.

3.0 MODES

A unit can be in one of eight possible modes, or deployments, which affect its mobility and combat effectiveness.
To change the mode of a unit when it is in its movement phase, type C. You will see the MODE DISPLAY, with the present mode highlighted.

DEFN
Defense. The unit is dug in. Units can only go into this mode at the beginning of their movement phase, and cannot move until the next turn.

SUPRT
Support. The unit will aid friendly units within three hexes in combat with enemy units. (See 7.4)

NORMAL
The standard deployment of any unit.

TRANS
Transport. Deployed for rapid movement, but vulnerable to attack. Can only move on roads or clear terrain hexes.

6.3 AIR SUPERIORITY

To compete for air superiority in future turns, allocate your spare points. In effect, you're assigning aircraft to hunt enemy aircraft instead of supporting your ground troops.
- Spare points allocated by the NATO Player in turn 3, for instance, will be compared against the points allocated by the Soviet player to decide who will have air superiority during the Soviet part of turn 4 and the NATO part of turn 5. These points will be available again, with some random fluctuation, in the next turn.

To allocate spare points for future superiority:
- type A
- type any number up to the available number of spare points shown.

To exit from the AIR POWER phase:
- type c/X

7.0 COMBAT

Combat takes place automatically when a unit moves adjacent to an enemy unit. If a unit moves adjacent to two or more enemy units, they will be attacked one by one. All adjacent enemy units will be attacked before the friendly unit suffers losses.
If COMBAT PAUSE (c/P) is on, the game will pause after each battle. Press the SPACE BAR to continue.

7.1 THE COMBAT DISPLAY

The combat display shows:
UNIT   The type of unit attacked
STRN   The relative strength of the defender (HEAVY, MEDIUM, LIGHT)
RSLT   The result, or shift number, from 0 to 8. The higher the number, the greater the damage to the defender. (To see how this number is calculated, see the COMBAT TABLES in the APPENDIX.)

7.2 ARTILLERY DAMAGE

The damage suffered by a unit from artillery fire depends upon its strength, efficiency, mode, and terrain.
The first two barrages can reduce both the strength and efficiency of a unit. Further barrages will only reduce its efficiency.
Artillery damage will be increased if the firing unit has not moved or changed mode during this turn. (To see exactly how artillery damage is calculated, see ARTILLERY PROCEDURE in the APPENDIX.)

7.3 AIR STRIKE DAMAGE

Air Strike damage is calculated the same way as artillery damage.

7.4 SUPPORTING UNITS
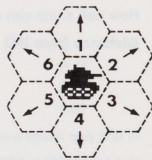
When you have moved the unit as far as it can go (its movement allowance is displayed as MVL), or if you encounter an enemy unit, the movement phase for that unit will end automatically and the cursor will move to the next unit and switch to the MOVEMENT PHASE. If you want to stop sooner, or don't want to move the unit at all, press Q (QUIT MOVEMENT).

When you've moved all your units, the cursor will begin to blink. Press CONTROL/E (c/E), and then press E to end your half of the turn.

1.5 THE SOVIET MOVE

The computer will now move each of the Soviet units. When it's finished, the cursor will begin to blink. The first turn is over. Press ESCAPE (**C-64:** press F1) to move your first unit again.

RIVER
Allows the unit to cross a river.

ATTCK
Attack. Enhanced combat ability, but also increased vulnerability to losses.

FIRE
Units with heavy weapons (Any unit with a RNG over zero) may fire at any enemy within range.

REOR
Reorganize. The unit is refitting, regaining strength and efficiency. (See 9.0)

3.1 CHANGING MODE

It's possible to change modes at any time during the movement phase of a unit, but the change will cost movement points.
CHNG COST (CHANGE COST) is the number of movement points it will cost to change modes. It is determined by the type of unit, the efficiency of the unit, and the number of units that can sight the unit.
The number after each mode type tells how many movement points will be left after changing to that mode.
OP after DEFENSE MODE means it is possible to change to that mode, but it will not be possible to move afterwards.
****** after a mode shows that unit cannot change to that mode, either because it doesn't have enough movement points or because that mode is not permitted for that type of unit.
To change modes, type the number of the mode you wish, and then press the SPACE BAR to return to the MOVEMENT PHASE.

3.2 SPECIAL MODE RULES

DEFENSE MODE is only possible at the beginning of a movement phase. Once in that mode, the unit cannot move.
HEADQUARTERS units cannot change to DEFENSE, SUPPORT, FIRE or ATTACK. Some types of units cannot change to certain modes; artillery cannot be in attack mode, for instance. The modes permitted to each type of unit are shown in the TYPE MODE TABLE in the APPENDIX.

4.0 THE ORDER PHASE

When a unit is in its movement phase, you can also issue a variety of orders. Type O for ORDER, and you will be offered these choices:

STRATEGIC MOVEMENT
For rapid movement, type the number of the map sector toward which you want the unit to proceed: (1–9 or A, B, C). The unit will proceed by itself along the nearest available road, until it uses its movement allowance or encounters an obstacle or an enemy unit.

D (DELAY)
Disrupt the enemy's choice of activity during his turn. Units must be in either FIRE or NORM mode. Delayed units in the FIRE mode will open fire on enemy units that come into range during their movement phase. Delayed units in NORM mode may attack enemy units. The chance of their attacking increases depending upon the number of other friendly units with DELAY orders.

Units that support friendly units attacking enemy units, or friendly units being attacked by enemy units, if they are:
- in SUPPORT MODE
- if they are non-artillery units, within 3 hexes of the attacking unit
- if they are artillery units, within RANGE minus 1 hexes of the attacking unit
- unmoved
- if supporting an attack, not adjacent to any enemy units
- if supporting a defense, not adjacent to friendly units

HEADQUARTERS will support attacking or defending units:
- if they are within nine hexes of the attacking or defending unit (with a bonus if they are within 4 hexes).
- if supporting an attack, not adjacent to any enemy units
- if supporting a defense, not adjacent to any friendly units

7.5 COMBAT RESOLUTION

The outcome of combat depends upon:
- the efficiency, strength, mode and types of the units engaged
- the amount of artillery fire suffered by the defender
- the terrain of the defender
- the number of supporting units on each side
- the distance to the headquarters of each side
- the number of enemy units sighting the attacker
- the number of friendly units sighting the defender
(For a detailed description of combat resolution, see COMBAT PROCEDURE in the APPENDIX.)

7.6 RETREATING UNITS

After combat, a unit may be forced to retreat.
- Retreating units will switch automatically to NORMAL mode (or, if artillery, to FIRE mode).
- Retreating units must obey normal movement restrictions.
- Retreating units cannot start combat.
- A retreating unit which does not retreat the required number of hexes will suffer additional losses, and may even be eliminated.
- If a unit cannot retreat at least one hex, it will enter DEFENSE MODE.
- A unit can retreat only once during a player-turn. If it is required to retreat again, it will take losses instead.
- During the next turn, a retreated unit will have only half its normal movement allowance (Exception: Air Cavalry units will have full movement).

2.0 MOVEMENT

2.1 THE MOVEMENT DISPLAY

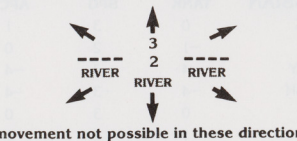When a unit is in its movement phase, this information is displayed at the bottom of the screen:

TERN	The type of terrain the unit is on
TYPE	The type of unit
MODE	The mode of that unit (See 3.0)
TURN	Game turn (highlighted if night)
SM:MN:NC	If highlighted, indicates the presence of smoke, mines or nuclear contamination (See 5.4, 11.0)
EF	Combat effectiveness
DV	The number of the unit's division
HQ	The distance from division headquarters. If the distance is greater than nine hexes, the display shows "—". Units that are headquarters show "*".
MVL	Movement points remaining
STN	Strength of the unit
RAN	Range in hexes of any artillery the unit might have

To the right of the MOVEMENT DISPLAY is a pattern like this:
3 is the number of enemy units that have sighted the unit; 2 is the number of enemy units that are in sight.
Adjacent enemy units are shown by a blinking highlighted line (**C-64:** shown by a yellow line).

2.2 STACKING

No more than two friendly units may occupy a hex.

2.3 SIGHTING BY ENEMY UNITS

If a unit is visible to enemy units, its movement ability (as well as its combat ability and its ability to change modes) will be reduced. When a unit is spotted by an enemy unit, the speaker will sound. Units in clear terrain can be spotted up to five hexes away. Visibility at night is reduced to two hexes.
Each sighting enemy unit (SEU) costs the unit trying to move one movement point. (For sighting distance in different terrain, see the TERRAIN EFFECTS TABLE in the APPENDIX.)

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press c/F for artillery or c/S for smoke shells

press c/X to return to movement phase.

The target must be within range and sighted by a friendly unit. If not, the c/F or the c/S will be highlighted, the reason will appear, and the fire will not be permitted.

5.4 SPECIAL ARTILLERY RULES

- Any NATO unit can direct fire on an enemy target. Soviet units can only sight for units in their own divisions.
- SMOKE shells block sighting by enemy units, and slow movement.
- The effectiveness of artillery fire is considerably less if the unit firing has moved in the same turn.
- Once a unit has fired its artillery, it cannot move again in that turn.

6.0 AIR POWER

The side which has air superiority over the battlefield during a turn will be able to call in tactical air strikes in support of its units during that turn.
The computer will decide which side has air superiority each turn, based on:
- the scenario
- which side had air superiority during previous turns
- the number of spare air power points allocated toward air superiority by each side during previous turns

If neither side has air superiority, neither side will be able to call in an air strike.

6.1 THE AIR POWER DISPLAY

Type c/A. The resulting air power display:
- highlights the side which has air superiority during that turn
- tells how many tactical air strikes are available to the side with air superiority
- tells how many SPARE POINTS may be allocated toward future air superiority

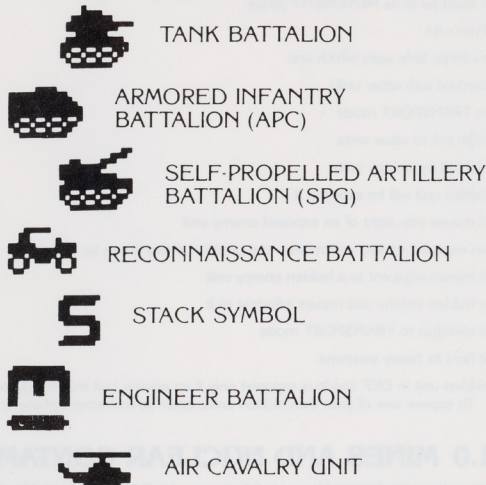### 6.2 CALLING IN AN AIR STRIKE

To call in a tactical air strike:
- type c/A to find out if your side has air superiority, and how many strikes are available
- select the friendly unit you want to call in an air strike, and enter its MOVEMENT PHASE
- type O for ORDER
- type S for SUPPORT

The air strike will hit enemy units within 3 hexes of the friendly unit calling the strike. You will hear a special sound to distinguish this from ordinary artillery fire. The effect will be that of heavy artillery fire.
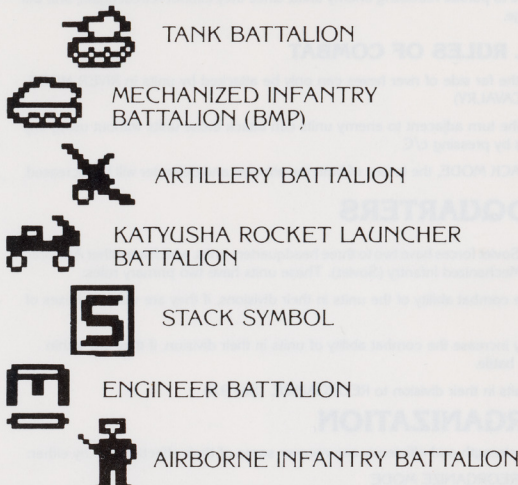If more than one enemy unit is within range of the unit calling the strike, the computer will choose the target.

X (EXIT)
Leave the map. Only good if the unit is on the edge of the map. A unit that exits has a 25 percent chance of returning as a reinforcement 1, 2 or 3 turns later. Otherwise, it is eliminated.

V (VILLAGE)
Move to the nearest village unoccupied by the enemy, and capture as many other villages as it can reach within its movement allowance.

F (FIRE)
Fire at the best target of opportunity within range. (The computer will pick the target.) (See 5.0)

R (RUN AND REORGANIZE)
Withdraw from enemy sight if possible, and switch to REORGANIZE mode. (See 9.0)

S (SUPPORT)
Call in any available supporting artillery fire or airstrikes on enemy targets within 3 hexes.

M (MOVE AND FIRE)
Advance and fire at the nearest enemy unit.

N (MOVE AND ATTACK)
Advance and attack the nearest enemy unit.
If carrying out the order is impossible for any reason, the computer will return automatically to the MOVEMENT PHASE.

5.0 ARTILLERY

NATO divisions have battalions of self-propelled guns (SPG), and Soviet divisions have battalions of traditional artillery and Katyusha rocket launchers. In addition, battalions that show a RNG over zero have their own heavy weapons and rockets. Any unit can fire its artillery three ways:

5.1 OPPORTUNITY FIRE

Fire at an enemy target of opportunity, if any are sighted by a friendly unit and within range. The computer will choose the target. Press O (ORDER) and F (FIRE).

5.2 SUPPORT FIRE

Provide supporting fire for friendly units in combat. The firing unit must not have moved, and must be within range of the combat. The units in combat will call for this fire during their ORDERS phase by typing S for SUPPORT fire.

5.3 DIRECTED FIRE

Fire at a specified target.
- Press C and put the unit into the FIRE MODE
- type c/F
- move the cursor to the desired target

7.7 CONTINUED ATTACK

A unit that has attacked once may move and attack or fire again, if it still has remaining movement points. It is often wise to pursue retreating enemy units, since they cannot retreat again, and will suffer further damage.

7.8 SPECIAL RULES OF COMBAT

• Enemy units on the far side of river hexes can only be attacked by units in RIVER MODE. (Exception: AIR CAVALRY)
• Units that begin the turn adjacent to enemy units can attack those units without using any movement points by pressing c/C
• If a unit is in ATTACK MODE, the losses of both the attacker and defender will be increased.

8.0 HEADQUARTERS

Both NATO and the Soviet forces have two to three headquarters units, which are either Armored Infantry (NATO) or Mechanized Infantry (Soviet). These units have two primary roles:
• They increase the combat ability of the units in their divisions, if they are within 9 hexes of the battle.
• They substantially increase the combat ability of units in their division, if they are within four hexes of the battle.
• They can help units in their division to REORGANIZE. (See 9.0)

9.0 REORGANIZATION

Units that have lost strength and efficiency can recover some of their effectiveness by either:
• switching to the REORGANIZE MODE.
• typing O and give the order to RUN AND REORGANIZE. A unit cannot reorganize if it begins the turn adjacent to an enemy unit.

How well a unit can reorganize depends upon its distance from its headquarters:

Distance from HQ	Increase strength and efficiency
0-4	3
5-9	2
10+	1

A unit can reach a maximum of 12 strength points and 7 efficiency points.

C-64 SPECIAL RULE: In games played on the C-64, Engineer and Reconnaissance units are allowed to reorganize.

10.0 HIDDEN UNITS

If you selected the HIDDEN option when you set up the game, enemy units not sighted by your own units will not appear on the map. Your own hidden units will appear during your turn as blinking hexes.

You can also hide units during a game, even if you chose the EXPOSED option when you began.

To hide a unit:
• It must be in its MOVEMENT phase
• Type c/H

You cannot hide units which are:
• stacked with other units
• in TRANSPORT mode
• adjacent to other units
• sighted by enemy units

A hidden unit will be exposed if:
• it moves into sight of an exposed enemy unit
• an exposed enemy unit moves to a position where it can be sighted
• it moves adjacent to a hidden enemy unit
• a hidden enemy unit moves adjacent to it
• it switches to TRANSPORT mode
• it fires its heavy weapons

A hidden unit in DEF mode is exposed only if an enemy unit moves adjacent to it.
To expose one of your own hidden units, enter its movement phase and type c/H.

11.0 MINES AND NUCLEAR CONTAMINATION

These options are designed for use in future scenarios that will be created for this game, and have no effect in these present scenarios.

12.0 REINFORCEMENTS

Reinforcements will arrive at the times shown on the REINFORCEMENT SCHEDULE card. Units shown in parentheses will arrive if the REINFORCED DIVISION option for their side was chosen at the start of the game. Units which exited the map may also return with these reinforcements.
If a reinforcement unit can't arrive at its specified location because of the presence of an enemy unit, it will arrive a few hexes away instead.

13.0 VICTORY CONDITIONS

The game will continue for 21, 22 or 23 turns (at the option of the computer). At the end, the computer will declare a winner.
The winner is the side which controls the most towns, villages and airfields. A village is controlled by moving into it once; it is not necessary to remain.
NATO control is shown by a small cross in the center of the town, village or airfield; Soviet control by a small square.

To find out the number of towns, villages and airfields controlled by both sides, press c/V when the cursor is flashing.

14.0 SPECIAL KEYS

These keys can only be used when the CURSOR is flashing. To cancel them, just hit the key twice.

ESCAPE (C-64: F1) AUTO-MOVE on/off. Find the nearest unmoved unit and enter its movement phase.

B During night turns, terrain is shown in white. B causes night terrain to be shown in daytime colors.

E EXAMINE a unit. The screen will describe characteristics of friendly units under the cursor.

F Clear the text from the bottom of the page.

M Enter/exit the MOVEMENT PHASE for the unit under the cursor. (If the unit has already moved, this command will be disregarded.)

T Show the map without units and smoke.

D All units in the same division will be highlighted, (change color on a color screen) and the headquarters will blink.

H Show map with hexes.

S Turn SCROLL on/off. Once in SCROLL, you can use these commands:

1-6 or A-C	Display the selected map sector
J	Scroll screen left
K	Scroll screen right
I	Scroll screen up
M	Scroll screen down
S	Pause scrolling
SPACE	Exit SCROLL

← Speed up the automatic computer movement (C-64: F5)
← Slow down the automatic computer movement (C-64: F7)
0 Center the screen on the cursor
c/A Enter AIR POWER phase (see 6.0)
c/B Enter SAVE GAME option (see 15.4)
c/E END your portion of the turn (C-64: F1)
c/S Turn the SOUND EFFECTS off/on
c/P Turn the COMBAT PAUSE on/off. If COMBAT PAUSE is on during a solitaire game, the computer movement will pause to show the results of each engagement. To continue, press the SPACE bar.

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c/V Display the number of towns, villages and airfields controlled by each side
SPACE BAR Return to the previous phase.
• If the unit is in the CHANGE MODE PHASE or the ORDERS PHASE, it will return to the MOVEMENT PHASE. If it is in the SCROLLING PHASE it will return to the flashing cursor.

15.0 THE GAME OPTIONS

Type the number of the option you wish to change. Options in effect are highlighted.

TWO PLAYER OR SOLITAIRE
Play against another player, or against the computer. It is possible to change from a two-player to a solitaire game during the game by using the SAVE GAME option. (See 15.4)

SIDE
If you have chosen the SOLITAIRE option, the highlighted side (NATO or RUSSIA) will be played by the computer.

LEVEL
If you are playing the SOLITAIRE game, this command sets the level of skill of the computer. Level 1 is the most difficult; Level 3 the easiest. Level 1 enemy units will have a higher combat efficiency. Type 3 until the desired level is given.

HIDDEN or EXPOSED
If the EXPOSED Option is chosen, all units will be visible. If the HIDDEN option is chosen, units not sighted by enemy units will be HIDDEN until they move, fight, are spotted, or are deliberately exposed. (See 10.0)

RESTART
Use this option to restart a game you have saved on another disk. Follow the directions on the screen. (See 15.4)

DEMONSTRATION
Watch a sample game, with the computer playing both sides. To end the game and return to the OPTIONS display, press the SPACE BAR.
C-64 SPECIAL RULE: To end a demonstration game on the C-64, switch off the computer, and start it again to begin a new game.

REINFORCED DIVISIONS
The side or sides (NATO or RUSSIAN) highlighted on the menu will receive additional reinforcements during the scenarios. The additional units are shown in parentheses on the REINFORCEMENT SCHEDULE card.

15.1 THE SCENARIOS

ADVANCE TO CONTACT
Heavy NATO and SOVIET forces arrive from each side of the map, and receive substantial reinforcements throughout the scenario.
• NATO player moves first.
• NEITHER SIDE has air superiority for the first two turns.

INVASION
The map features a major river, with a large town in the center. Soviet airborne troops land on the map, and are reinforced later with armor, mechanized infantry, and artillery.
The Soviet player may select the drop zones for his airborne troops by moving the cursor to the desired areas and pressing RETURN.
If the landing zones are too close together, or too close to the edge of the board, some airborne troops may be lost. If a unit is lost, a warning will sound.
• NATO player moves first.
• Soviet player has air superiority for first two turns.

15.2 RANDOMIZED TERRAIN
If you chose this option, some of the map terrain will be rearranged. TOWNS, RIVERS, ROADS, and SWAMPS will remain where they are.

15.3 AUTOMATIC MOVEMENT
When you type c/E to end your turn, you will have the option of automatic movement; the computer will finish your turn for you by moving any unmoved units.

15.4 SAVING THE GAME
If you wish to save an uncompleted game:
• Type c/B
• Have a second disk ready. If the disk has not been used before to save a game, INITIALIZE the disk by following the instructions on the screen.
• Assign the game a name, and save it by following the instructions on the screen.
At this time, you can also change the game from a TWO-PLAYER game to a SOLITAIRE game or vice-versa, and choose the side for the computer to play when you re-start the game.
You can save up to sixteen games on a disk. If you want to erase an existing game, move the arrow to the name of that game and overwrite it.

15.5 RESTARTING A GAME
Select the RESTART game option from the game options, and follow the directions on the screen. Insert the disk on which the game is saved, and move the arrow to the name of the game you wish to restart.
If the name of the game is highlighted, it means the game you want to load doesn't match the game you have in the computer; for instance, you might be trying to load a disk of "Germany 1985" games when you have an "RDF 1985" game in the computer. If this happens, change to the correct scenario disk. When you're ready (and the name of the game is not highlighted) press c/R. The game will load into the computer. Take out the saved game disk, put in the game disk, and press the SPACE BAR to resume play.

15.6 UPDATING THE GAME
If your "Germany 1985" disk is version 2.0 or later (the number is shown in the opening display) or you own the Commodore 64 version, you already have the updated version.
If you do not have the updated version, you may purchase it from SSI for $10.00. Please include $2.00 for shipping and handling. California residents please add 6½% sales tax.

16.0 BASIC TACTICS
At all times keep in mind the many options that are available, such as exiting units from the board, and delayed and hidden units so the enemy can be kept off guard. Smoke can be used to aid attacks by keeping the SEU down and may also allow a weak unit to be withdrawn from a dangerous position.
Note the length of the game, and do not rush into an offensive that will quickly wear forces down, but rather build up attacks with clear objectives in mind. Keep divisions together and protect your headquarters, so that mutual support and swift reorganization can be achieved.

17.0 DESIGNER'S NOTES
GERMANY '85 is an extension of the Southern Command game system. The scenarios represent roughly equal forces, where NATO units attempt to hold and frustrate the Soviet advance.
The difficulty units have in operating in close contact with the enemy is used to represent the firepower any unit is able to exert over a large area in modern combat.
The fluid nature of the engagements and the supportive ability of other divisional units are important elements in any modern battle, but, at the same time, the game was designed to be simple to operate without losing the essential nature of that combat.

18.0 ACKNOWLEDGEMENTS
I would like to thank Geoff Tapper, Lan Trout, Paul Michowicz and John Gleason for the encouragement and assistance they provided in the design of this game.
My thanks also to Neil Bennett, without whose assistance this game may never have been written.
I would like to dedicate this game to my new son, Rowan.

APPENDIX

TERRAIN EFFECTS TABLE

TERRAIN	MP's	SIGHTING DISTANCE	COMBAT BONUS
OPEN	2	5	0
L. ROUGH	3	3	1
ROUGH	4	2	3
FOREST	4	2	2
SWAMP	5	3	1
VILLAGE	3	3	2
TOWN	4	2	3
SAND	3	3	1
RIVER	4	5	0

Airfields and numbered hexes are treated as open hexes for movement and combat purposes.
Movement in TRANS mode costs 1 MP per hex.
AIRCV units pay 1 MP per hex in any terrain.
In addition it costs:
+2 MP's to enter a smoked hex.
+1 MP for each SEU (+2 MP if the unit is in TRANS mode).
+1 MP if the unit is in TRANS mode and the opponent has air superiority.

TYPE MODE TABLE

'—' indicates the mode is legal and '★' indicates it is not legal.

NATO

	DEFN	SUPPRT	NORM	TRANS	RIVER	ATTACK	REOR	FIRE
TANK	—	—	—	—	—	—	—	—
SPG	★	—	★	—	—	★	★	—
APC	—	—	—	—	—	—	—	—
AIRCV	★	—	★	—	★	★	★	—
RECON	★	★	—	—	—	★	★	★
ENG	★	★	—	—	—	★	★	★

RUSSIAN

	DEFN	SUPPRT	NORM	TRANS	RIVER	ATTACK	REOR	FIRE
TANK	—	—	—	—	—	—	—	—
BMP	—	—	—	—	—	—	—	—
ARTLY	★	—	★	—	—	★	★	—
KATSH	★	—	★	—	—	★	★	—
INF	—	—	—	—	—	—	—	—
ENG	★	★	—	—	★	★	★	★

HQ units may not enter DEFN, SUPPT or FIRE mode.

COMBAT TABLES

TERRAIN SHIFT TABLE

OPEN	0		
L. ROUGH	1	VILLAGE	2
ROUGH	3	TOWN	3
FOREST	2	SAND	1
SWAMP	1	RIVER	0

(airfields and numbered hexes are treated as OPEN)

TYPE VS TYPE TABLE

NATO

	TANK	BMP	ARTLY	KATSH	INF	ENG
TANK	0	3	3	3	1	1
SPG	−3	−3	2	−3	−3	−3
APC	−1	−0	2	2	1	−1
AIRCV	−4	−3	−5	−5	−5	−5
RECON	−4	−3	−2	−2	−4	−5
ENG	1	3	4	4	1	1

RUSSIAN

	TANK	SPG	APC	AIRCV	RECON	ENG
TANK	0	3	3	4	5	−1
BMP	−1	2	0	3	4	−1
ARTLY	−4	−3	−4	−2	−2	−5
KATSH	−4	−3	−5	−5	−5	−5
INF	0	3	0	3	3	−1
ENG	1	4	1	5	4	0

MODE SHIFT TABLE

	RETREAT	ATTACK	DEFENSE	ARTILLERY
DEFN	0	0	8	0
SUPPRT	3	3	4	3
NORM	2	5	5	2
TRANS	4	2	2	4
RIVER	3	3	2	3
ATTCK	3	8	2	3
REOR	5	0	0	5
FIRE	3	3	3	3

ARTILLERY EXAMPLE
A 12 strength point artillery unit in FIRE mode fires on a RECON unit in NORM mode.
The value is calculated as:
+2 ARTILLERY MODE SHIFT (for NORM mode)
−2 AS RECON IS IN VILLAGE
+3 STRENGTH/4 (as firing unit has not moved)
= 3 points

Therefore the RECON unit suffers a 1 strength point loss (3/2).

CREDITS
Game Design and Programming
Roger Keating
Customized Disk Operating System
Keating Computer Services P/C

COMBAT DAMAGE TABLE

SHIFT 0 1 2 3 4 5 6 7 8
DEFENDER:
STRN ★ ★ ★ 1 2 3 4 5 6 (+1 if in ATTCK mode)
EFF ★ ★ ★ 1 1 1 2 2 2
(★ indicates no loss, even if in ATTCK mode)
ATTACKER:
STRN 5 4 4 3 3 2 2 1 1 (+2 if in ATTCK mode)
EFF 2 2 2 1 1 1 0 0 0
(the attacker suffers a movement loss equal to (9—shift))

COMBAT PROCEDURE

Combat is calculated in three parts: the attack factor, the defense factors (which are then implemented), and the attack losses.

The Attack Factor
Points are allocated for various elements. All divisions are truncated so that 8/3 = 2. The attack factor is:

ATTACK MODE SHIFT
+ STRENGTH/4
+ EFFICIENCY/2
− THE NUMBER OF SEU
+ 4 IF THE HQ IS WITHIN 0-4 HEXES OF THE ATTACKER or
+ 2 IF THE HQ IS WITHIN 5-9 HEXES OF THE ATTACKER (as long as the HQ has no enemy units adjacent)
+ 3 FOR EACH NON-ARTILLERY SUPPORT UNIT (which must be within 3 hexes of the attacking unit, unmoved, and have no enemy units adjacent)
+ 2 FOR EACH ARTILLERY SUPPORT UNIT (which must be within RANGE-1 of the attacking unit, unmoved and have no adjacent units)
This value is then used for all combats.

The Defense Factor
For each defending unit a defense factor calculated as:
DEFEND MODE SHIFT
− TYPE VS TYPE TABLE
+ STRENGTH/4

+ EFFICIENCY/2
− THE NUMBER OF SIGHTING FRIENDLY UNITS
+ 4 IF THE HQ IS WITHIN 0-4 HEXES OF THE DEFENDER or
+ 2 IF THE HQ IS WITHIN 5-9 HEXES OF THE DEFENDER (as long as the HQ unit has no friendly units adjacent)
+ VALUE FROM THE TERRAIN TABLE
+ 3 FOR EACH NON-ARTILLERY SUPPORT UNIT (which must be within 3 hexes of the defending unit and have no friendly units adjacent)
+ 2 FOR EACH ARTILLERY SUPPORT UNIT (which must be within RANGE − 1 of the defending unit and have no friendly units adjacent)
− 4 IF ONE BARRAGE HAS HIT THE UNIT BEFORE COMBAT or
− 8 IF TWO OR MORE BARRAGES HAVE HIT THE UNIT BEFORE COMBAT or
− 12 IF THE UNIT HAS RETREATED DURING THAT PLAYER-TURN

After each defense factor has been calculated a combat shift is calculated and the COMBAT SHIFT TABLE consulted for DEFENSE damage.
The shift is equal to:
(ATTACK FACTOR − DEFENSE FACTOR + 4) / 2

Once damage has been implemented by consulting the COMBAT DAMAGE TABLE a retreat value is calculated as:
THE COMBAT SHIFT (between 0 & 8)
+ RETREAT MODE SHIFT
+ A RANDOM NUMBER (between 0 & 3)
− 8

If the number is positive then the unit must retreat that number of hexes + 1. This is carried out immediately and the results displayed.
If the unit fails, for any reason, to complete its retreat it will suffer one additional point loss from its strength and efficiency (and may be eliminated). If the unit cannot retreat at least one hex then the unit will enter defense mode.
After all defending units have been dealt with the attacking losses are calculated.

COMBAT LOSSES
The average shifts of all attacks carried out during that combat are averaged and the COMBAT DAMAGE TABLE consulted and the results implemented, and if any MP's remain the attacking unit may move and/or conduct combat again.

COMBAT EXAMPLE
A TANK unit in ATTCK mode has combat with a BMP unit in NORM mode. The combat is calculated as:

The attack factor:
8 ATTACK MODE SHIFT (for ATTCK mode)
+4 STRENGTH (18/4)
+2 EFFICIENCY (5/2)
−3 THE NUMBER OF SIGHTING ENEMY UNITS
+2 AS THE HQ UNIT IS 7 HEXES AWAY
+3 FOR 1 NON-ARTILLERY SUPPORT UNIT
= 16 FOR THE ATTACK FACTOR

5 DEFENSE MODE SHIFT (for NORM mode)
−1 TYPE VS TYPE (TANK vs BMP)
+3 STRENGTH (12/4)
+3 EFFICIENCY (6/2)
−2 NUMBER OF SIGHTING FRIENDLY UNITS
+0 AS HQ UNIT ELIMINATED
+2 FOR BEING IN VILLAGE
+5 FOR 1 NON-ARTILLERY AND 1 ARTILLERY SUPPORT UNIT
−4 FOR BARRAGE HIT
= 11 FOR THE DEFENSE VALUE
SHIFT IS (16 − 11 + 4) /2 = +4

Therefore the BMP suffers 2 strength and 1 efficiency point loss and the TANK suffers 5 strength and 1 efficiency point loss. (Two are added because the TANK is in attack mode.)
The defender's retreat is calculated as:
4 (combat shift) + 2 (retreat mode shift for NORM mode) + random number (between 0 & 3) − 8
so that a retreat will take place if the random number is 3, i.e. a 25% chance of retreating 2 hexes.

ARTILLERY PROCEDURE
Artillery losses are calculated as:
ARTILLERY MODE SHIFT (of attacked unit)
− TERRAIN BONUS

(and if the unit has not moved or changed mode, +STRENGTH/4 of the firing unit)
This value is then divided by 2 and implemented as a strength point loss on the unit concerned. If the value is greater than 2, then the unit also loses 1 efficiency point.
IMPORTANT: If a unit has zero efficiency it will take strength point losses instead of efficiency losses.

EXCEPTIONS:
A unit that has retreated, or has been hit by two barrages of artillery that player-turn, will only suffer the loss of 1 efficiency point irrespective of the value of the artillery strike or the vulnerability of the target.
TANK, BMP, INF and APC units in DEFN, SUPPRT, NORM or FIRE mode will automatically lose: 1 strength and 1 efficiency point if the firing unit has not moved and 1 efficiency point if the firing unit has moved or changed mode.

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