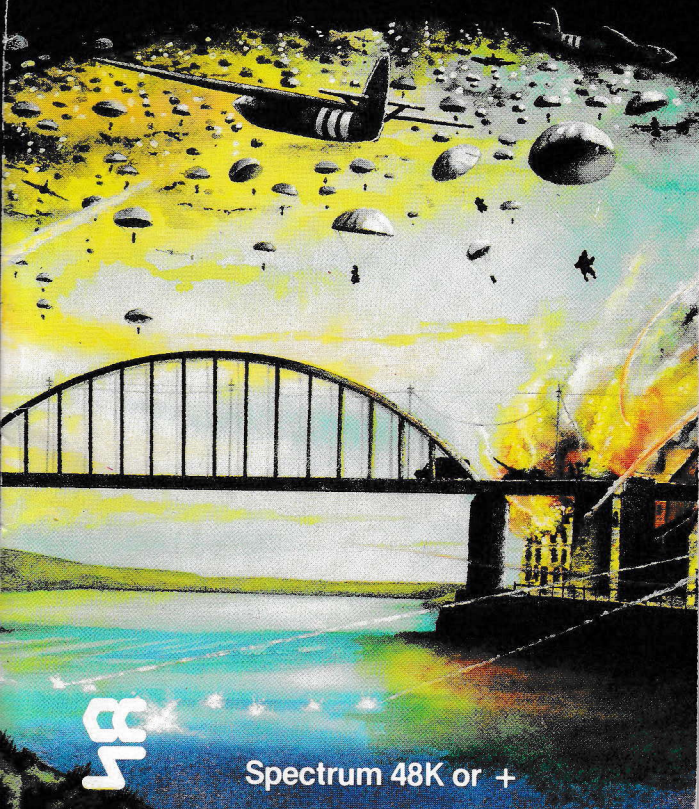


ARNHEM

The 'Market Garden' Operation



Spectrum 48K or +

ARNHEM

SPECTRUM 48K or +
CASES

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1. LOADING INSTRUCTIONS

The procedure for loading a program into your Spectrum is given in your manual. Please follow these steps for loading the program.

1. Connect the ear socket of the computer to the ear socket of your tape recorder.
2. Set the volume control as per Sinclair manual.
3. Adjust the tone control to maximum.
4. Type LOAD " ".
5. Start the tape recorder. The program will RUN automatically once loaded.

2. SETTING

Arnhem is a one, two or three player tactical wargame, depicting Operation "Market Garden". Three Allied Airborne Divisions have been dropped behind enemy lines to secure vital river crossings. The Paratroops must hold out until relieved by the British XXX corps.

If two player option is selected one player controls the Allied Forces and the other controls the opposing German units. If three people are playing then proceed as for a two player game but with separate players controlling the British and American Forces.

If the one player option is selected then the computer will control the German Forces and the human player the Allied Forces.

3. THE MAIN MENU

When the program has loaded the main menu will be presented. This has three options: Begin the game; Load a partially completed game from tape, or save the current game on tape. To choose an option press the requisite number key.

At the end of each turn of the game you are given the option to return to this menu, to save the current state of play, or load in a partially played scenario. When you have finished loading or saving you may continue with the game by selecting option 1.

When you begin a new game you must choose which scenario you wish to play. You will then be given the following options:- to have a one or two player game — to play in colour, or black and white.

4. THE SCENARIOS

When you first start the game you are asked to pick a scenario. There are five scenarios depicting different parts of the battle.

The scenarios are:-

1. Advance to Eindhoven. This is an introductory scenario that can be played in under one hour and lasts for 7 turns and to win the Allied player must clear the entire centre road of German units. If he fails to do this then the German player wins.

2. Operation Garden. This covers the advance of the British XXX corps to Grave and lasts for 10 turns. The victory conditions are the same as above.
3. Operation Market. This covers the activities of the British 1st Airborne Division and the American 82nd and lasts for 26 turns. To win the Allies must clear the road to a point beyond the bridge at Arnhem. The Germans win if they block the road before or at the bridge at Nijmegen. Otherwise the game is a draw.
4. The Bridge Too Far. This covers the British and Polish forces at Arnhem and lasts for 15 turns. The Allies win if they clear the road to and over the bridge, otherwise victory is decided by how many Allied units survive north (ie right) of Arnhem.
5. Market Garden. This covers the whole battle and lasts for 26 turns. The victory conditions are the same as for Operation Market. This scenario requires eight to ten hours to play.

5. THE DISPLAY

The area in the top left of the screen shows the map on which the game is played. (The total battle area is reproduced in the pull out map). The window in the top right gives the date, the time of day and the player whose turn it is and the present phase of the game. The border is also set to the colour of the player whose turn it is. The blue area on the right tells the player what options he has. The area at the foot of the screen gives the identification of the unit being ordered, its type and which division, corps, or army it belongs to.

6. GAME STRUCTURE

Each game consists of a series of turns (the number depending on the scenario), with three turns per day (morning, afternoon and night) Victory is assessed at the end of this period. At the end of each turn you are given the option to return to the main menu to save the game.

Each turn is subdivided into three phases, 1st mechanical phase, non mechanical phase and 2nd mechanical phase. The procedure for each is identical. The players take it in turns to move their units within each phase. The Allies always go first.

During the two mechanical phases motorised units may move and conduct combat. During the non mechanical phase other units may move and enter combat.

German forces are not allowed to move or attack during the first turn of the game.

See sections 9 and 13 for a description of unit types.

7. DEPICTION OF UNITS

The playing pieces are referred to as units and each represent a specific military formation.

The symbols for each type of unit are shown in section 9 Movement. Units are displayed with the unidentified unit symbol, unless they are adjacent to an enemy unit, or have not moved since being so.

British units are yellow (unless playing in black and white), American units are blue and German units are black. Allied units face right and are shown as solid.

8. ORDERING UNITS

At the beginning of each phase the player whose turn it is, gives orders to all of his units which may be moved during that phase. When all of the players units have been ordered, they move and then conduct combat.

The program prompts for a unit to be given orders by putting a flashing square at the units position and by printing its identification at the bottom of the screen. The player should then give his orders and if necessary press ENTER to go on to the next unit.

Order options vary according to unit type and position and are shown in the area on the right of the screen. The various orders allowed are shown below.

R Report gives a report on the unit's status. This does not count as an order. The unit may still be ordered after the report has been viewed. See below for more details of the information that is presented.

D Dig in instructs the unit to take up a defensive position so reducing the effect of attacks upon it. Being dug in does not effect a unit's own offensive capability. The dug in state is automatically cancelled whenever the unit moves. Digging in takes the whole phase and the program proceeds to the next unit upon the issue of such an order.

B Bombard This is only allowed for artillery units. The player must position the cursor over the square he wishes to bombard and then press ENTER to go on to the next unit. Bombarding inflicts some damage on attacked units and also increases the effect of subsequent attacks upon the same unit(s) during the remainder of the turn. The maximum range for bombardment is 6 squares for airlanding artillery, 8 for self propelled artillery and 12 for others. The program does not allow the cursor to be moved out of range.

5-8 (Cursor keys for Spectrum +) Allows a unit to be moved to a specific square and is selected by pressing an arrow key (which will also move the cursor). Move the cursor to the desired square and press ENTER. The unit will attempt to follow the path of the cursor to the chosen square. A unit may be moved up to four squares with this order but difficult terrain squares may count as more than one (see below).

When a unit has been ordered to go as far as it can (four squares in clear terrain), the program proceeds to the next unit and ENTER need not be pressed. The program also goes on to the next unit when the current unit is ordered into an enemy occupied square. The unit will attack the enemy in that square in preference to others.

Pressing 'SPACE' counts as moving one square and causes the unit to do nothing for a while. This may be used to allow another unit to pass in front of the current one.

The move order may not be combined with any other except "change size".

- C Change size** This alters the size of unit from 4 squares to one, or vice versa. When a unit occupies only one square it is said to be condensed. This allows a unit to move along roads and over bridges. Condensed units may not attack and any damage inflicted on it causes double effect. This order counts as moving one square and may be combined with other movement.

When changing from four squares to one, the one is always that one which was at the top left of the four. When changing back the other way, the same convention is followed. However, if there is no room for the unit to expand in this manner, then it will, if possible, expand with the one square in some other position relative to the four.

T Travel This order is only allowed to units that are on a road and not adjacent to enemy units. The order allows the unit to move along roads at the rate of ten squares per phase. When the T order has been given, the player should move the cursor to any other square that is on a road and press ENTER. The unit will then move along the road until it arrives. If necessary the unit will continue with the order for more than one turn, although the player may countermand it before the unit arrives. The unit will stop if an enemy unit blocks the way and change back to 4 square size, as it will do when it arrives at its destination. Otherwise all travelling is carried out with the unit in one square size. A unit may not attack immediately after a travel order.

Ø Cancels the move, travel and bombard orders.

If the message, "Unit already has orders", appears, then pressing 'ENTER' will result in the unit continuing with its last set of orders. This occurs when a unit has been ordered to travel to a location that takes more than one turn to reach.

If you press "S" at this point, then the program will skip over all the units that already have orders until it gets to one that does not. All the units that are skipped over (including the current one), will continue with their orders.

9. MOVEMENT

If a unit does not move as ordered then this is due to attempting to have too many units in one square. Up to two units on the same side are allowed in one square. However two units of brigade size are not allowed in the same square, nor are two units that are both of one square size. No unit may share a square with an enemy unit.

Movement also ceases when a unit moves adjacent to an enemy unit, but after combat has taken place, the unit may advance one more square. A unit may also do this if ordered into a square occupied by an enemy unit which retreats after combat.

If a unit suffers heavily in combat then it will retreat one square. During its next movement phase it will not be allowed to move in the direction from which it has retreated.

Below is a table giving the number of squares of movement that the various units may travel over the terrain. Note that only Parachute and Glider units may cross major rivers other than by bridge.

UNIT TYPE

TERRAIN

Stream

Hill

Wood

Marsh

Mechanised Units

Tanks

X

2

2

4

Self-propelled Artillery ³

X

2

2

4



Tank destroyer

X

2

2

4



Motorised Infantry

3

2

1

2

Motorised Artillery ¹²

X

2

2

4

Non-Mechanised UnitsFlak ¹²

X

2

2

4

Artillery ¹²

X

2

2

4

Airlanding Artillery ⁶

X

2

2

4

Anti-Tank ¹²

3

1

1

2



Infantry

3

1

1

2



Parachute

3

1

1

2



Glider

3

1

1

2



Recce

4

2

2

4

X = not possible

10. COMBAT

Combat occurs in each phase after movement. Attacking units never suffer any damage when they attack. Each unit may only attack once during a turn so that if a unit attacks during the first mechanical phase, it may not attack during the second. Whether or not a unit has attacked in the current turn is indicated when a report is given.

Combat happens automatically and requires no action by the players to initiate it.

Each unit attacks some or all of the enemy units that are adjacent to it. The units that are attacked are flashed in red and yellow and sound is made for a period corresponding to the most damage inflicted on any of the attacked units. If a unit is flashed more than once, then it must have been attacked by more than one unit.

The effectiveness of an attack is determined by the strength, effective strength and attack modifier of the attacking unit. It also depends on the unit type of both the defender (ie attacked unit) and the attacker and the terrain occupied by the defender. If two units are defending in the same square, then the effect of the attack is split between them (unless bombarded by artillery), in proportions determined by the defending units' vulnerability to the attacker. e.g. If an anti-tank

unit is in the same square as an infantry unit, then it will defend it against tanks and the infantry will protect the anti tank unit against other infantry.

11. REINFORCEMENT

Reinforcements arrive automatically at the beginning of a phase. Units that arrive by parachute must be positioned by the player. This is done by moving the cursor to the square where you wish to drop the unit and pressing ENTER. Units may only be dropped onto clear terrain. A unit will suffer losses during the drop if it lands adjacent to an enemy unit.

The right hand window turns red when a unit is arriving by air.

12. REPORTS

When a report is given the following information is provided:-

STR	is strength and is a measure of how strong the unit is and of how much damage it can take. Battalion size units have a strength of around 50 and brigade sized units one of around 100. Strength is lost as a unit accumulates damage.
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- EFF** is effectiveness. This is the percentage of a units strength that will be used when it attacks. Effectiveness is reduced during the turn by enemy action. Strength is only reduced at the end of a turn by an amount which depends on the unit's effectiveness. This is then reset to 100%.
- MOR** is morale. This is a measure of how much damage a unit can take before being forced to retreat. A unit is forced to retreat when the total of its morale and effectiveness is less than 100%.
- ATT MOD** is attack modifier. This is a measure of a units quality and is multiplied by a units strength when calculating how much damage it causes during attack.
- UNIT SIZE** This is how much room a unit takes up (see movement). A unit may be of either brigade, or battalion size. These do not necessarily tally with the unit's identification, although normally they do.

The report also notifies the player if the unit has already attacked during that turn.

13. UNIT TYPES

Below is a brief resume of the pros and cons of each unit type.

Mechanised units

Tanks are powerful in attack but may only cross rivers by bridges.

Motorised infantry act like other infantry.

Motorised artillery units may bombard.

Self-propelled artillery units have a shorter range than other types but are less vulnerable in normal combat.

Tank destroyers are effective against tanks but otherwise vulnerable to attack.

Non-Mechanical units

Infantry units are the standard type having no particular advantages or disadvantages.

Anti-tank units are effective against tanks but vulnerable to infantry.

Parachute units are the same as infantry but may cross major rivers.

Flak units are generally weak.

Glider units are the same as infantry and may cross major rivers.

Artillery units may bombard but are vulnerable in normal combat.

Airlanding artillery units are the same as other artillery units but have a shorter range.

Recce units are the only type of unit that may move in all three phases.

Infantry units (infantry including motorised infantry, glider and parachute units) are more effective in difficult terrain, particularly marshes and cities.

Artillery is quite effective against tanks in normal combat but less so when bombarding. Artillery units are also much less effective when bombarding units in the marshes.

TERRAIN SYMBOLS



HILLS (MAGENTA)



WOODS (RED)



MARSH/POLDER (CYAN)



TOWN (BLACK)



CITY (MAGENTA)



MAJOR RIVER (BLUE)



MINOR RIVER/CANAL (BLUE)



ROAD (BLACK)



This tactical wargame simulates the historical 'Market Garden' operation in 1944. Montgomery's plan was to smash the Nazi occupation of Holland thereby opening the door to Berlin and ending the war. Three Allied Airborne Divisions were dropped behind enemy lines to capture vital bridges for the advancing Allied Forces.

Experience the bitter conflict. Can the Allies succeed or is the bridge at Arnhem a bridge too far?

Historically accurate with 5 compelling scenarios.

1, 2 or 3 player game.



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