D DAY

FOR 48K
SPECTRUM

D-DAY

Contents

(1) INTRODUCTION

D-DAY is a simulation of tactical combat in the Second World War. It is a two player game in which one player takes the role of the Allies (British and American forces) and the other takes the role of the Germans.

Each player is allocated a certain number of units which they have to manipulate in order to achieve their aim. These units are capable of movement around the map, firing at other units and going into close combat with other units.

Each piece has four capability values. These are for Attack, Defence, Movement and Range. These will be defined further on in the rule book, but these limit the amount that a piece can do in a turn.

(2) LOADING INSTRUCTIONS

D-DAY comes with four separate battle scenarios (see section 6 and the maps at the back of this booklet), and the scenario you choose must be loaded separately from the main game. All the scenarios are on side 1 of the tape and the game program is on side 2.

To load, type: LOAD " "
then press: ENTER

This is explained in chapter 20 of the ZX Spectrum basic programming manual. Rewind tape to the beginning of side 1, and start cassette player.

After a short interval a message will appear at the top of the screen:

STOP THE TAPE AND PRESS A KEY

After pressing a key, the game menu will appear. Select the game that you wish to play by pressing the appropriate key.

Start the cassette player.

Some parts of the data will not be loaded into the computer.
e.g. when the 'breaking out' scenario is loading, the screen will display the following, before the usual loading sequence is begun:

Program: deploy 1
Bytes: 1
Bytes: 1

It may be advisable to fast forward the tape slightly to speed things up. If you have a cassette player with a counter it is a good idea to note where each relevant section begins for this purpose.

When a message appears at the bottom of the screen:

STOP THE TAPE, AND PRESS A KEY

do as it says, then turn to section 3 of this manual.

When the deployment of both players' forces has ended, another message will appear at the bottom of the screen:

REWIND TAPE TO OTHER SIDE

turn to side 'B' and rewind tape to beginning, then start tape.

Side 'B' can be left to play all the way through, but there is a section that displays a flashing message:

CREDITS: STOP TAPE & PRESS A KEY

after 10 seconds this will disappear if the keyboard is left alone. The rest of the game will then load.

If a key is pressed, a series of credits will pan across the screen. If a key is pressed while the credits are moving, they will pan faster. When the credits have finished a flashing message will appear:

PRESS A KEY AND START THE TAPE

Once a key has been pressed the rest of the game will load.

If any parts of side 'B' fail to load, do not worry. As before, if the scenario 'Breaking Out' is loading, for example, then:

Program: 1

will not be loaded, because this is for 'The Landing' scenario.

When D-Day has loaded fully, in the left hand window the map will appear, and in the right hand window will be instructions to continue.
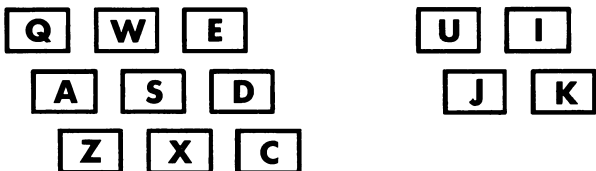
(3) D-DAY SCREEN FORMAT
The screen layout of D-DAY consists of three separate windows.

The close up map is shown here	The overall map and all messages are printed here
Unit information is printed in this window	

(4) MOVING THE CURSOR
The cursor moves in eight directions. When in movement phase only the horizontal and vertical directions are used.

Q	W	E		U	I
A	S	D		J	K
Z	X	C			

So that (D) moves the cursor one square right, (A) moves the cursor one square left etc. Pressing CAPS-SHIFT whilst moving the cursor will move it three squares in that direction (for faster movement). Using (U), (I), (J), (K) and (S) will place the cursor in the top left, top right, bottom left, bottom right and centre of the map respectively.

(5) UNIT DISTRIBUTION
Deployment One: The Landing
Allied Units:
  1 Sherman
  4 M4-76's
  3 M4-75's
  2 Cromwells
  5 Ships carrying Shermans
15 Infantry
  3 Bridge Layers
  2 Special Infantry

German Units:
  4 Lynx's
  6 PzKw-V's
  5 Bridge Layers
30 Infantry
  3 Ships
  3 Howitzers
  2 Trucks
  7 Armoured Cars

Deployment Two: Breaking Out
Allied Units:
  6 Shermans
  4 M4-76's
  3 M4-75's
  2 Cromwells
  5 Ships
15 Infantry
  3 Bridge Layers
  2 Special Infantry

German Units:
  4 Lynx's
  6 Pzkw-V's
  5 Bridge Layers
30 Infantry
  3 Ships
  3 Howitzers
  2 Trucks
  7 Armoured Cars

Deployment Three: To Arnhem
Allied Units:
10 Shermans
  5 M4-76's
  5 Achilles'
15 Infantry
  5 Special Infantry
  3 Trucks
  5 Howitzers
  2 Bridge Layers

German Units:
15 Panthers
10 Lynx's
  5 Infantry
  5 Armoured Cars
  3 Trucks
  4 Bridge Layers
  3 Mortars

Deployment Four: Arnhem Invasion
Allied Units:
10 Shermans
  5 M4-76's
15 Infantry

10 Special Infantry
 2 Howitzers
 3 Trucks
 5 Paratroops

German Units:
 5 PzKw-V's
10 Infantry
10 Special Infantry
10 SS Divisions
 8 Howitzers
 3 Mortars
 4 Trucks

(6) DEPLOYMENT OF UNITS

When a deployment scenario has been loaded, a message will appear at the bottom of the screen:

STOP THE TAPE, AND PRESS A KEY

When a key is pressed another message will appear, this time in the right hand window:

'A'uto
Deployment?

If the 'A' key is pressed the computer will start deploying the units automatically (in random positions). If any other key is pressed the players have to deploy their forces manually.

While in computer deployment, if the 'H' key is pressed, the player can manually deploy. Also, when in manual deployment, if the 'G' key is pressed the computer will continue deploying the forces.

Manual deployment

To move the map see section 4. In the right hand window is a list of units with the number of, and symbol for, each type. An arrow points at the unit that is to be deployed. This arrow can be moved up and down by holding CAPS SHIFT key down with '7' to move up and '6' to move down. By pressing the '0' key this will deploy the unit that the arrow is pointing at.

Error messages in manual deployment

ERROR: Trying to deploy on the wrong terrain: another unit, marsh, land craft on water, sea craft on land.

NO MORE UNITS: There are no more units of that type left to deploy.

****

Once deployment of the allied player has finished the German player has to deploy his forces. After both sides have deployed their forces, both left and right windows will clear and a message will appear at the bottom of the screen:

REWIND TAPE TO OTHER SIDE

Refer to section 2 to load the main program.

A) The Landing

The Allied player can deploy units on and around the beach. The Allied ships are carrying some of the Allied tanks. These can be unloaded onto the land in movement phase.

The German player can deploy units at the bottom of the map.

B) Breaking Point
The Allied player can deploy units above and in the main river.

The German player can deploy units below and in the main river.

C) To Arnhem
The Allied player can deploy units at the top left hand side of the map.

The German player can deploy units at the bottom right hand side of the map.

D) Arnhem Invasion
The Allied player can deploy units at the left hand side of the map.

The German player can deploy units on and around the Arnhem bridge.

(7) WINNING THE GAME
Each of the scenarios has different winning conditions, the conditions which the Allied or German player must reach in order to defeat their opponent and to win the game. The conditions for winning each scenario are listed here.

The Landing
For either side to win they must destroy two-thirds of the enemy forces.

Breaking Out
The winning conditions for this scenario are the same as for the Landing scenario. However if the Allied player does not reach the winning conditions within 46 game hours then the German player is proclaimed the victor.

To Arnhem
The winning conditions for this scenario are the same as for the Landing scenario.

Arnhem Invasion
To win this scenario the Allied player must occupy the Arnhem Bridge by having a piece on each of the six squares which make up the bridge. Either side can win by destroying two-thirds of the enemy force.

(8) INFORMATION ABOUT UNITS
At any stage of the game you may press the (P) key to obtain information on the unit that is currently within the cursor arrows on the map window.

The information that is displayed is as follows:

Name:	The name of the unit is displayed if it is one of your units.
Range	This number shows the distance, in squares, that a unit can fire.
Movement:	This shows how many movement points a unit may expend in a round. See section 7 for terrain effects chart.
Terrain:	This displays the type of ground that the unit occupies.
Side:	This shows which player the unit belongs to.

Attack: This is a number between 1 and 9 and is a measure of the attacking capability of this unit. Thus a unit with an attack of 8 is better at attacking than a unit with an attack of 3.

Defence: This is a number between 1 and 9 and is a measure of the defending capability of this unit. Thus a unit with a defence of 5 is better at defending than a unit with a defence of 2.

Note: Retrieving information about an enemy piece will only reveal terrain and side.

A wreck will give the name as WRECK and will reveal the terrain and side.

In general, Attack and Defence values determine the outcome of close combat (see section 11).

(9) THE OVERALL MAP OF PLAYERS' POSITIONS

During the game, each player can call up a map of the positions of all of his own units, whenever the message window is displaying the messages:

PLACE CURSOR ON FIRING UNIT or
PLACE CURSOR ON UNIT TO BE MOVED

If the player presses M at this point, the right hand window will display a map of the whole battle area; the map shows rivers, roads, and the player's units, which appear as dots. The map does not display enemy units, and does not tell the player what type of units his own are; but the player can scroll around the map using the cursor keys, and get information about unit types by using the P command (see section 8). His position on the overall map is indicated by the flashing box, which shows the position of the close-up map window. Units on roads and rivers do not show up on the overall map, so bear in mind where they are.

(10) DOING BATTLE

In order to win a scenario for D-DAY you must destroy the enemy forces. This section covers the rules for destroying other units. Three of the capability values, namely Attack, Defence and Range, are connected with destroying units. These are explained in Section 8.

There are four states that a piece can be in. These are:

1) Undamaged: the unit's capability levels are at its best and the unit may still move and fire.
2) Damaged: the unit's capability levels have been lowered due to combat, but the unit may still move and fire.
3) Wreck: the unit may no longer move or fire but is not removed from the playing area, and so other units may not move onto the square that this unit occupies.
4) Destroyed: the unit has been so severely damaged that it is removed from the playing area, and other units may move onto the square which it previously occupied.

As the unit engages in combat it is likely to go through these stages, and so the more combat it is involved in the more likely it is to be destroyed.

The three ways a unit may go into combat are explained below.

A) Normal Fire

This is where one unit may fire at another unit directly. There are certain limitations with this. These are:

1) None of the following terrain must block the firing line between the firing unit and the target.

    A) Town.

    B) Trees.

    C) Hedges.

2) The distance between the firing unit and the target may not exceed the range (see section 8) of the firing unit.

3) The attacking unit has been dispersed in the previous round (see damage to units at the end of this chapter.)

4) The attacking unit may not be a wreck and thus unable to fire at all.

In order to execute the firing of a unit you must wait until the game reaches the firing phase. At this point the player must answer the question -ARE ANY UNITS GOING TO FIRE?- by typing 'Y'. If the player answers with a 'N' they will enter movement phase (see section 11).

The prompt -PLACE CURSOR ON FIRING UNIT AND PRESS 'O'- will then appear. The player must then move the cursor (see section 4) so that the two arrows point to the unit that you wish to fire. Pressing 'O' will confirm this piece as the attacking unit.

Next the prompt -PLACE CURSOR ON TARGET UNIT AND PRESS 'O' will appear. The player must then follow a similar procedure as above but for the target unit.

Once both the attacking and defending units have been chosen, subject to the above conditions, the attacking unit will fire at the target unit. The attack and defence strengths will then be compared and the damage sustained will be displayed. (see the end of this section for descriptions of the damage that can be sustained.)

B) Indirect Fire

There is one exception to the rule of not being able to fire if the attacking unit's view of the target is obscured. If the attacking unit is a Howitzer or a Mortar it is able to use indirect fire.

Indirect fire works the same way as normal fire but there is a chance of the fire scattering and hitting another unit, or missing completely and hitting an empty square.

Once the computer has determined that a Howitzer or Mortar cannot see the target the prompt -DO YOU WISH TO USE 'EYES'?- will appear. Answering 'N' to this question will keep the player in the fire phase and he or she will be able to fire with another unit.

Answering 'Y' will allow that player to nominate another unit to act as the attacking unit's 'eyes'. The only requirement is that the 'eyes' unit must be able to see the target unit. To nominate the eyes unit the player must move the cursor (see section 4) so that the arrows are pointing to the unit that is to be used as eyes and the player must press 'O'. The attacking unit will now fire and if the target is hit the damage will be done normally.

Note: If at any time during firing you wish to abort the firing of a unit you must press -SPACE- and to escape from the firing phase totally you may press SYMBOL SHIFT AND 0 together.

C) Close Combat
See section 11E.

D) Damage Sustained by a Unit
The damage which the target unit may be one of the four things.

1) Unit Undamaged:	the fire has hit the target but the damage is not enough to affect the target unit in any way.
2) Unit Dispersed:	the fire has hit the target but that again has not affected the target, other than splitting the unit. This unit may not then move for the rest of this round or the next round.
3) Unit Damaged:	The unit has been hit and damaged. The capability levels of this unit are reduced and subsequently the unit is much easier to destroy.
4) Unit Destroyed:	The unit has been totally incapacitated and is made into a wreck which is unable to move or fire. If the target is an infantry unit it is removed from the playing area.

(11) MOVEMENT
A) Terrain Effects
Each unit has a certain amount of movement points that may be used each round. The chart below shows how many movement points each type of terrain uses.

Type of Terrain   Movement points expended

ROAD 1
TOWN 1
WATER .... 1 (ships only)
GRASS 2
TREES 3
HEDGE 3
BEACH 3

Note: There are two types of terrain that units may not enter.
1) MARSH
2) WATER (land units. Ships can move on water only).
The Graphics representing the terrain types are shown on the back of this booklet.

B) Moving Units
After FIRE PHASE you have the option of moving those units that did not fire. A prompt will be printed in the message window -ANY MOVEMENT (Y/N)?- typing 'N' to this will end your turn.

Typing 'Y' enters MOVEMENT PHASE; the words PLACE CURSOR OVER UNIT TO BE MOVED AND PRESS 'O'- will appear in the message window.

You may now call up the overall map (see section 9) by pressing 'M'.

Choose a Unit that you wish to move by placing the cursor over it.

You cannot move -
1) Units that have fired.
2) Units dispersed in the last round.
3) Wrecked units.
4) Enemy units.

Pressing 'O' will print information about the unit in the unit information box. Pressing any key will clear this – MOVES LEFT xx – will be printed in the message window. Use cursor keys to move the unit (A,D,X & W only). When the unit has used all its movement points the computer will beep and the message window will clear (-PLACE CURSOR OVER UNIT TO BE MOVED AND PRESS 'O'- will appear again).

If you wish to end the unit's movement early just press 'SPACE' (if you do not wish to move the unit you have chosen then pressing 'SPACE' before you move the unit will allow you to move it again later.)

C) Ship Movement

To move a ship select the unit in the normal way. Ships may move on water squares and NOTHING else. Ships may travel under bridges at the cost of four movement points. To move under a bridge try to push the ship onto the side of the bridge, but the square of water directly opposit MUST not contain other units etc. If it is empty the ship will then appear in that square.

D) Loading and Unloading Ships & Trucks

1) Ships

The most powerful feature of ships is the ability to load another unit on your side onto them and then cross rivers (if used correctly they can swing battles in your favour!).

To load a unit on to a ship, select the ship that is to carry the unit and move it to the square next to land. Select the unit that is to be loaded and try to move it on to the ship. The computer will beep to tell you the unit is loaded on the ship. The ship cannot move this round.

To unload a unit from a ship: first select the ship with the unit on, and try to push the ship onto land. The words – THIS UNIT IS LOADED WITH ANOTHER UNIT DO YOU WISH TO UNLOAD IT (Y-N)? – will be printed in the message window. Typing 'N' will allow the ship to carry on moving. Whilst typing 'Y' prints in the message window – USE CURSOR KEYS TO UNLOAD UNIT – pressing a cursor key e.g. 'A' will unload the unit to the left (you may unload the unit in 8 directions).

NOTE: The unloaded unit may now move.

2)Loading and Unloading Trucks

Trucks are capable of loading Howitzers, Mortars and Infantry.

To load a unit onto a truck. Select the truck that is to carry the chosen unit in the normal way. Then try to move the truck onto the unit; the computer will then beep, and the truck will move onto the unit. The truck is now loaded.

To unload a truck select the truck in the normal way. The computer will then ask if you wish to unload the unit it is carrying. Typing 'N' will allow the truck to move normally. Whilst typing 'Y' will print – USE CURSOR KEYS TO UNLOAD UNIT – in the message window.
Typing for example 'A' will unload the unit on the square to the left of the truck.

NOTE: When unloading a unit you must unload it on a legal square i.e. not marsh.

When a ship or truck is loaded the ship or truck will take on some of the capabilities of the loaded unit. These will be reset when the unit is unloaded.

E) Close Combat
If during the movement phase a player tries to move a unit onto a square occupied by an enemy unit then the units move into close combat. The attack strength of the friendly unit and the defence strength of the enemy unit are displayed and these are lowered until one reaches 0. At this point the unit that has lost is destroyed (see damage above). The winning unit will retain its modified attack or defence strength but may still function normally.

(12) End of Round and Saving Games

The end of round occurs after each movement phase. Information is stated as follows:

```
1: | German or Allied turn
2: |      —— Date ——
3: |      —— Time ——
4: |   Allied units left: ——
5: |  German units left: ——
6: |      Press ENTER
7: |                        S
```

1: This tells the players which side is to go next.

2: The date is printed up in the form: day of month, month, year.

3: The time of day is printed here as a 12 hour clock.

4: This denotes the amount of units the Allies have.

5: This denotes the amount of units the Germans have.

6: if <ENTER> is pressed then the game continues. A message asking the present player will appear, it will ask that player if they would like to concede. They must press the 'N' key if they wish to continue the game. If the 'Y' key is pressed then another message checking your action will appear, once the 'Y' key is pressed for the second time the other player is proclaimed the winner.

7: If the 'S' key is pressed then the present game will be saved so that it can be reloaded and the battle continued at some other time. To load a saved game, once the computer has been turned on type:

LOAD " " CODE 16384, 49151

then press <ENTER>

Start the tape that the save game is on. It will then load and the battle may continue.

(13) SUMMARY OF KEYS
In Deployments
CAPS SHIFT & 7 ...... Move cursor in the right hand window up.

CAPS SHIFT & 6 ..... Move cursor in the right hand window down.

D-DAY cursor keys,
found in section 4.   Move the cursor in the map window.

O .... Deploy unit.

G .... Switch to automatic deployment.

H .... Switch to manual deployment.

While Playing the Game
P .... Piece information, explained in section 8.

D-DAY cursor keys,
found in section 4.   Move the cursor in the map window.

SYMBOL SHIFT & O . Move onto next section.

SPACE .... Ceasing movement or firing of a particular unit.

Other key presses are explained in the right hand window while game is in progress.

Notes:

THE LAND

ING M. D.D.C.
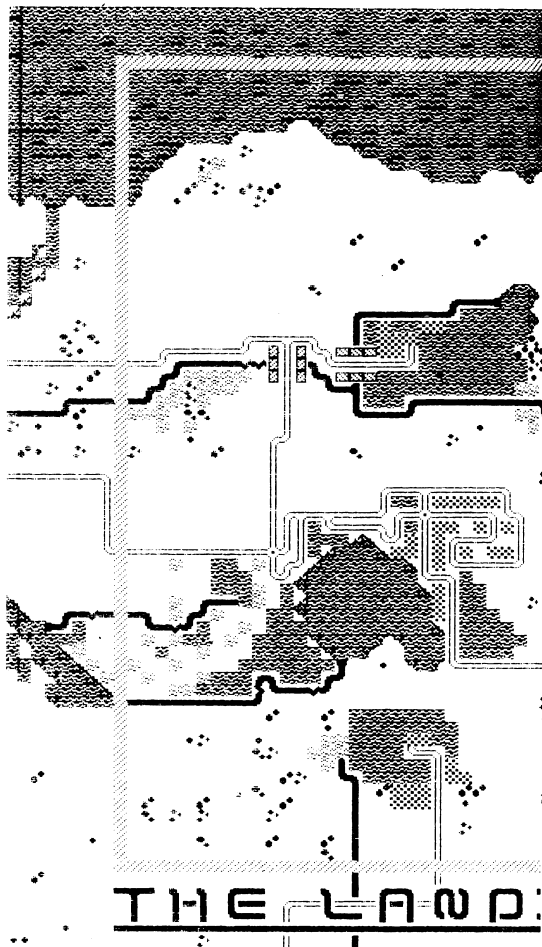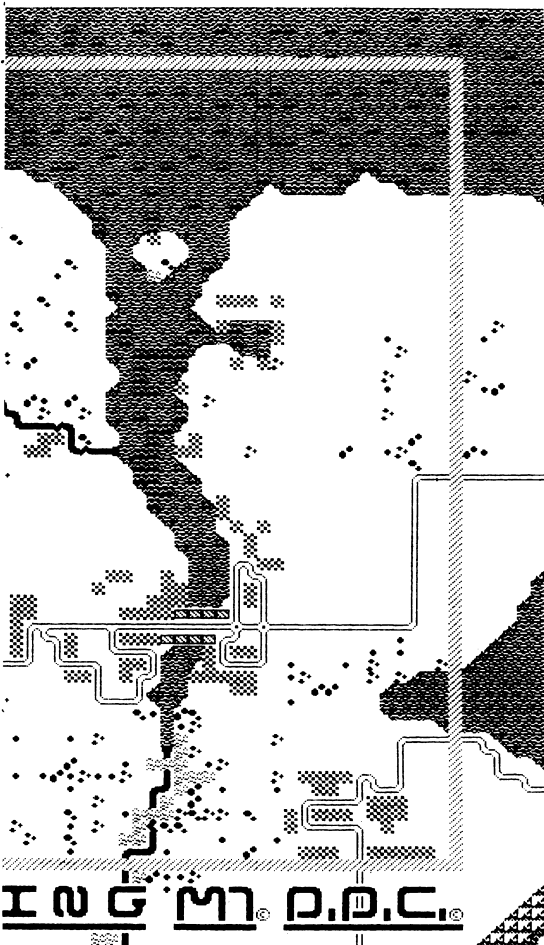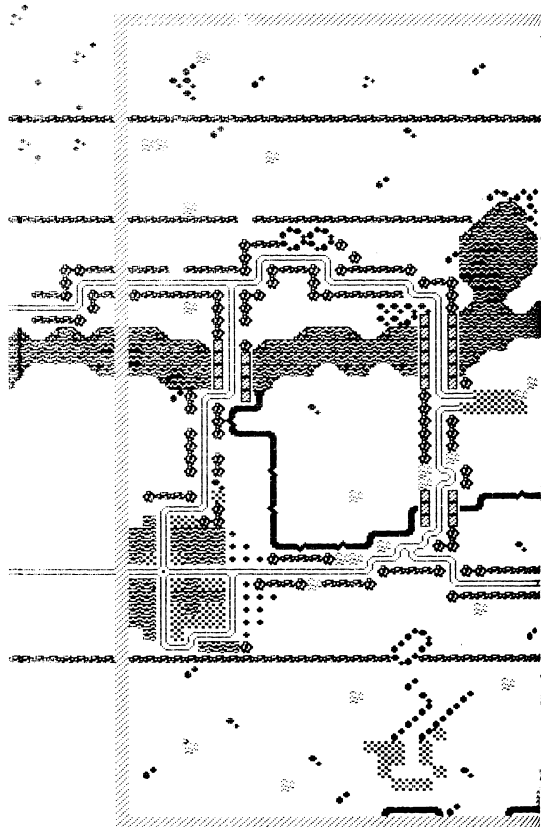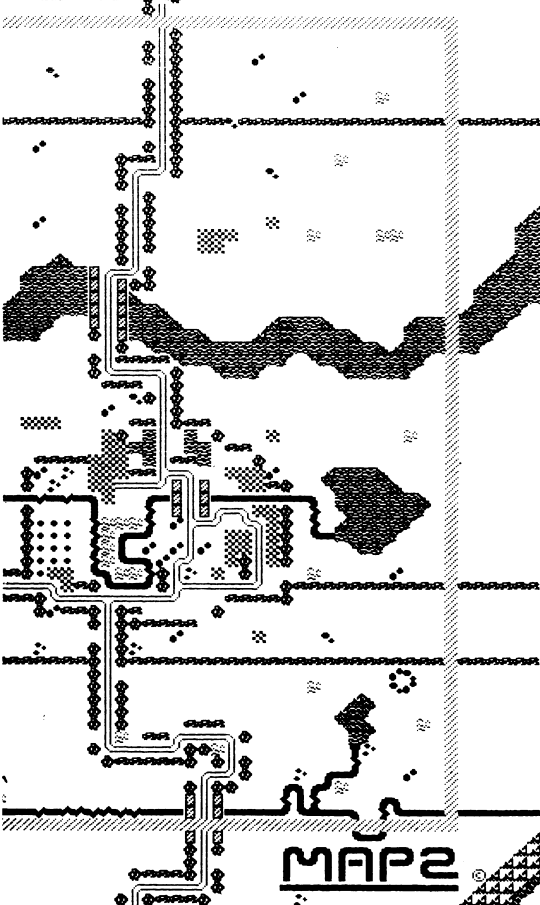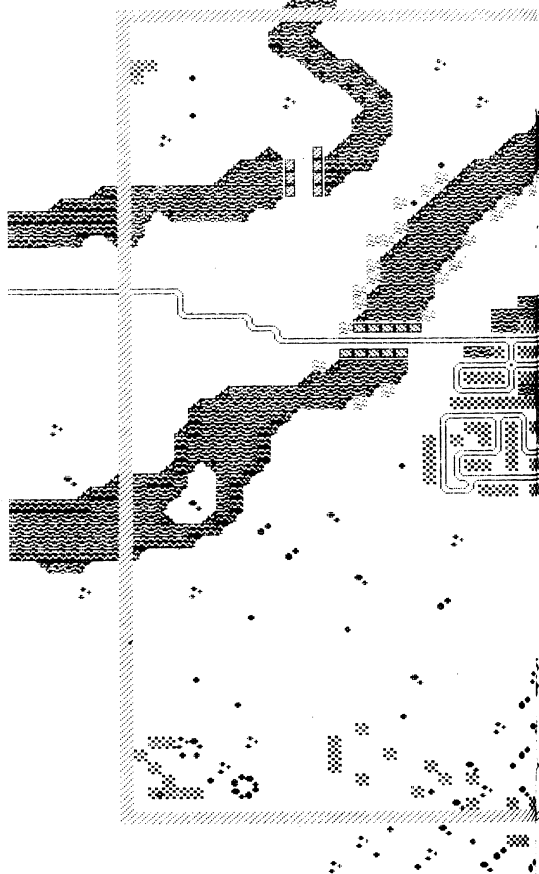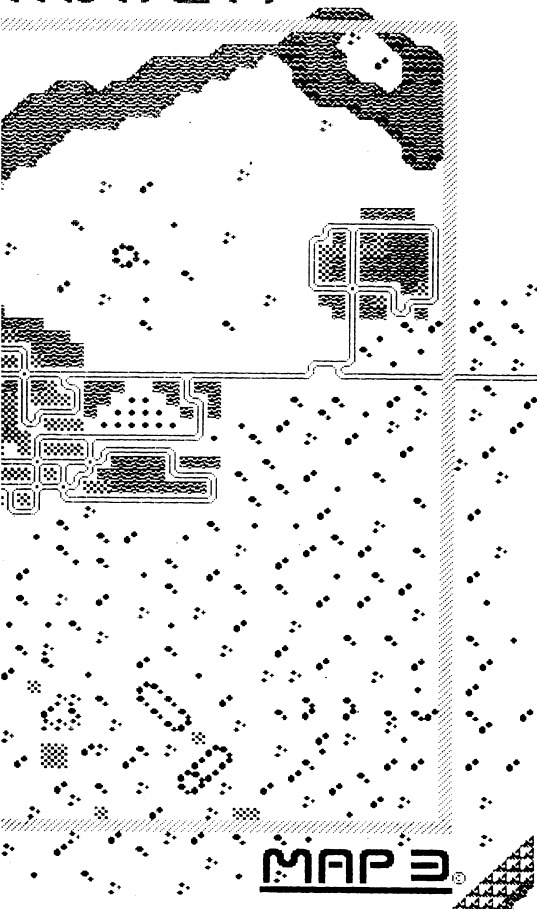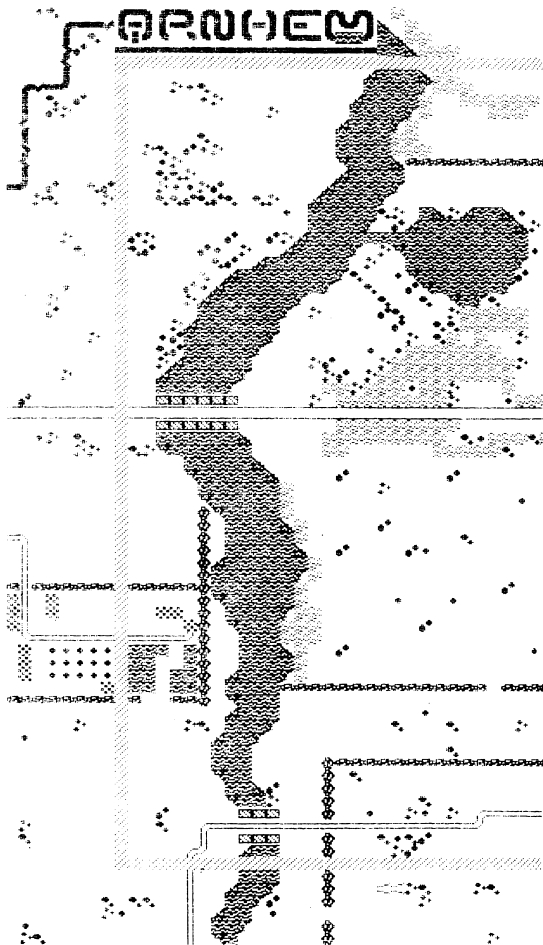
P.D.C.

MAP4

(15)CREDITS

D-DAY was written and programmed by the Dagenham Design Cell.
Cover artwork by Brian Sweet.
Production artwork by Brian Cumming.
Co-ordination by Angus Ryall.

GAMES WORKSHOP

The New Force in Software

NOTE TO PROGRAMMERS

If you think you could write a better game or adventure than this one, we'd be very interested to hear from you. Send a sample of your work on a cassette to Angus Ryall at the address on the back of the booklet.
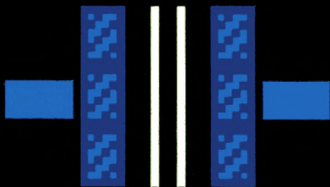
TERRAIN TYPES

TREES

GRASS

ROUGH

ROAD

SEA or LAKE

RIVER

BUILDINGS

MARSH

BRIDGE

SAND

HEDGE