## LIMITED WARRANTY

### WHAT TO DO IF YOU HAVE A DEFECTIVE DISK

## TABLE OF CONTENTS

# INTRODUCTION

*CONFLICT: MIDDLE EAST* is a game for one or two players. Players assume the roles of overall military commanders of Israel or the coalition of Arab states allied against Israel during the 1973 war or a hypothetical war occurring in the early 1990's. Each game turn represents 12 hours of action. The military units in the game represent forces ranging in size from divisions to companies. Units and air forces may be examined and manipulated at the level of individual infantry squads, gun tubes or vehicles.

## 1.0 STARTUP

### *1.1 Starting the Game*

Before playing the game, you should make a copy of your game disk. Use the copy for playing the game and store your original disk in a safe place. Also see section 1.5 for information about README files.

#### 1.11 COMMODORE AMIGA

*CONFLICT: MIDDLE EAST* requires at least 1 MB of RAM and one floppy disk drive. The game can also be installed on a hard drive.

#### Hard Drive

1. Insert your original game disk in any floppy disk drive.
2. Click on the **Conflict** disk icon to open a window for the disk.
3. Drag the **ConflictDrawer** icon from the window into any drawer on your hard drive.

The game is now installed in that drawer. To play, open the **ConflictDrawer** and click on the SSI icon labeled **ConflictGame.**

#### To run the game from the CLI:

1. **CD** to the **ConflictDrawer** directory.
2. Type **stack 10000** and press [Enter].
3. Type **ConflictGame** and press [Enter] to begin the game.

If you don't have a hard drive, there are two ways to start Conflict.

#### Amiga 500, or 2000 or higher

1. Insert your copy of the game disk into drive df0.
2. Turn your Amiga on to start the game.

#### Amiga 1000

1. Boot normally using your Kickstart and/or Workbench disks.
2. When the Workbench screen comes on, insert your game disk into any disk drive.
3. Click on the **Conflict** disk icon to open a window for the disk.
4. Click on the **ConflictDrawer** in the window to open another window.
5. Click on the SSI icon labeled **ConflictGame** to start the game.

#### 1.12 IBM PC XT/AT

Conflict is not intended to be used in cooperation with TSR (Terminate and Stay Resident or *memory resident*) programs. This does not mean that it definitely won't work with such programs, but there may be problems with them.

Before you play the game, you must install it on your computer. The following sets of instructions describe the installation procedure for several types of systems.

#### Hard Drive

1. Insert your original game disk in drive A, type A: and press [Enter]. (You may substitute any floppy drive for A:).
2. Type INSTALL, press [Enter] and follow the prompts.

#### To run the program:

1. Boot your system normally.
2. Type CD CONFLICT and press [Enter].
3. Type CONFLICT and press [Enter].

#### 720K or 1.44M Floppy Drive

1. Prepare a blank, formatted disk and label it *Game/Scenario Disk.*
2. Insert your original game disk in drive A, type A: and press [Enter]. (You may substitute any floppy drive for A:).
3. Type INSTALL, press [Enter] and follow the prompts.

#### To run the program:

1. Boot your system normally.
2. Insert your Game/Scenario Disk in drive A, type A: and press [Enter]. (You may substitute any floppy drive for A:).
3. Type CD CONFLICT and press [Enter].
4. Type CONFLICT and press [Enter].

#### Dual 360K Floppy Drives

1. Prepare two blank, formatted floppy disks: Label the first *Game Disk* and the second *Scenario Disk.*
2. Insert your original game disk in drive A, type A: and press [Enter]. (You may substitute any floppy drive for A:).
3. Insert your blank game disk in drive B.
4. Type INSTALL, press [Enter] and follow the prompts.

#### To run the program:

1. Boot your system normally.
2. Insert your Game Disk in drive A, type A: and press [Enter]. (You may substitute any floppy drive for A:).
3. Type CONFLICT and press [Enter].

#### Single 5.25" Floppy Drive

1. Prepare two blank, formatted floppy disks: Label the first *Game Disk* and the second *Scenario Disk.*
2. Insert your original game disk in drive A, type A: and press [Enter].
3. Type INSTALL1, press [Enter] and follow the prompts.

*Insert your original disk when prompted for A: and your copy when prompted for B:.*

#### To run the program:

1. Boot your system normally.
2. Insert your Game Disk in drive A, type A: and press [Enter].
3. Type CONFLICT and press [Enter].

If you wish to use a mouse, you must initialize the mouse driver on your system before running the program.

#### 1.13 DOCUMENTATION CHECK

After you select a scenario or saved game, the program will ask you to do a documentation check before it will allow you to continue the game. This check will take the form of a question about some section of the rules.

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**Example:**

Please type the first word of section 1.13.

The proper response would be AFTER [Enter]

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### *1.2 Talking to the Computer*

#### 1.21 COMMODORE AMIGA

Select such options as the Strategic Report or Air Operations by using the mouse to move the cursor to the menu bar at the top of the screen, clicking the right mouse button over the desired section and pulling it down. Release the button when the desired option is highlighted.

Generally, pressing the right mouse button will exit back to the Main Map screen.

Select command buttons or individual hexes by using the mouse to place the cursor over the desired item and clicking the left mouse button. Once an action has been selected, it will immediately be performed by the program (if a simple action), or you will be prompted to provide additional information or selections.

All active control buttons have the same appearance — they are light gray with blue text or red arrows. Select control buttons by moving the cursor over the button with the mouse and pressing the left mouse button.

The keyboard is used only during the documentation check, assigning names to military units, or specifying saved game file names.

*CONFLICT: MIDDLE EAST* is fully compatible with multi-tasking systems. The depth arrangement, menu and screen bar gadgets operate in the standard Amiga fashion. The Workbench behind the game screen is fully usable.

### 1.22 IBM PC XT/AT

You may control the program with either a mouse or the keyboard.

#### 1.221 USING THE MOUSE

If you have a mouse installed on your computer and you have run the mouse installation program included with your mouse before running *CONFLICT: MIDDLE EAST*, then you can control most game functions using the mouse.

If you are not sure whether the mouse installation program has been run, just try running Conflict and seeing if the mouse works. The mouse installation is usually done for you when you turn your computer on. If the mouse does not work, refer to the manual that came with your mouse for installation instructions.

Select such options as the Strategic Report or Air Operations by using the mouse to move the cursor to the menu bar at the top of the screen, clicking the left mouse button over the desired section and pulling it down. Release the button when the desired option is highlighted.

Select command buttons or individual hexes by using the mouse to place the cursor over the desired item and clicking the left mouse button. Once an action has been selected, it will immediately be performed by the program (if a simple action), or you will be prompted to provide additional information or selections.

All active control buttons have the same appearance — In EGA or VGA, they are light gray with yellow and blue text or red arrows. In CGA, they are black boxes with white text and surrounded with a white frame. A control button is selected by moving the cursor over the button with the mouse and pressing the left mouse button.

You may of course still use the keyboard to issue orders, even if the mouse is in use.

#### 1.222 USING THE KEYBOARD

Most game functions may be controlled by use of the numeric keypad and [Enter] or [Escape] keys.

The Main Map screen features two control modes: **Menu Mode** and **Scroll Mode.** In Menu Mode, you may access reports, allocate aircraft, and alter various game functions. In Scroll Mode, you may move a cursor around the map and select unit and terrain information or manipulate the contents of individual hexes on the map. The 5 or [Escape] keys may be

used to toggle between Menu and Scroll modes. When in Menu Mode, menu items are selected by moving the highlight over the desired menu item using the Menu keys (2,4,6,8) and pressing [Enter]. In Scroll Mode, map hex selections are made by using the Scroll keys (1,2,3,7,8,9) to move the map cursor and then pressing the [Enter] key. Either the numeric keypad or top row of numbers may be used to input numbers to the program. Don't press [Num Lock] — this is set within the program.

All active control buttons will have the appearance noted in section 1.221. Control buttons may be selected by pressing the key corresponding to the highlighted letter or number near the left side of the control button.

#### 1.223 ESCAPE

The right mouse button or [Escape] key may used to exit from any screen or function within the game. There is also an Exit Button or prompt for such functions.

## 1.3 The Map

The map shows the Middle East from Cairo in the west to Damascus in the east, and from the Golan Heights in the north to the tip of the Gulf of Suez in the south. Military units (when detected) will be displayed on the map as standard NATO military symbols (see appendix A). The map is overlaid with a hexagonal grid. Cells within the grid are called **hexes,** and hex scale is 10 kilometers. The Main Map screen shows an area fourteen hexes wide and eight high (about 6% of total map area). Scrolling is accomplished by selecting any of the six Scroll buttons at the right of the screen. Holding down the mouse button or highlighted

number key for a Scroll button will repeat the scroll in the selected direction. The other three control buttons perform the following functions:

**Units** button toggles the display of unit icons. This allows you to remove the unit icons from the map to allow unobstructed viewing of terrain. Pressing the key again returns the units to the map.

**Possn** button toggles the display of hex possession and fixed SAM site information. When the hex possession display feature is enabled, the program will show which side controls each hex by placing a small colored rectangle in the lower left corner of the hex. Israeli hexes will have a light blue (CGA: white) indicator, and Arab hexes will have a red (CGA: black) indicator. Fixed SAM sites (Arab only) will be indicated by the overlay of the word 'SAM' on each hex containing such a site.

**Ovrvw** button displays the Strategic Overview Map. The unit and possession selections described above also affect this display. The map for the entire game will be displayed at a greatly reduced scale. To exit, select a location on the overview display. Either click on a map point with the mouse, or (IBM only) press [Enter] to select an area. On the IBM, you may scroll the selector box within the overview using the standard game scroll controls. Once an area has been selected from the Overview screen, the Main Map screen will be redrawn, centered on the area selected.

You may also select any hex on the Main Map screen for additional information on units and terrain. This is

accomplished by clicking on the hex with the mouse, or (IBM only) pressing [Enter] to select the hex under the map cursor. You will be given as much information on the hex as is available to you. Full information is always available on friendly hexes. Information on enemy hexes varies from very complete to non-existent, depending on the intelligence level you choose when you start the game (sections 2.1 and 2.112) and the intelligence gathering rules (section 6.3).

Once a friendly hex has been selected: If you click or press [Enter] a second time on it, additional options will become available. You may opt to begin moving one of the units in the hex, or you may examine the hex in greater detail. See section 3.4.

## 1.4 Saving a Game

At the beginning of each turn, you can save the game in progress. **A formatted disk, hard disk, or RAMdisk is required.** On the Amiga, you can initialize a disk at any time by using the depth arrangement gadgets to go to the Workbench and selecting the Disk/Initialize menu option. Use the Workbench depth arrangement gadget to return to the program.

If you are playing the game from a hard drive on the Amiga, games will automatically be saved into the SavedGame drawer on your hard drive. You need only follow the prompts in order to save the game. Saved games may be restarted from the saved point whenever the game is booted.

## 1.5 The README File

Your game disk may include a README file. If so, then there have been important changes or additions to these rules. Please examine any README file on your game disk before beginning play.

# 2.0 PLAYING THE GAME

Each game of *CONFLICT: MIDDLE EAST* continues until the victory or termination conditions for the selected scenario are met (see section 8.0). The actual 1973 war, for example, lasted about 36 *turns.*

Each game turn consists of the following major phases:
- Orders Phase
- Air Phase
- Ground Combat Phase
- General Resolutions Phase

In the **Orders Phase,** each player can examine the situation, move units, make attacks, and issue operational orders for air forces. Next, during the **Air Phase,** air superiority is determined and both players are given the opportunity to manage airstrikes that can get through enemy defenses. After air operations are done, the **Ground Combat Phase** occurs. Finally, in the **General Resolutions Phase,** the program performs mobilization/replacement and supply functions, and checks for end of game conditions.

Before beginning a game of *CONFLICT: MIDDLE EAST,* carefully read sections 3.41 (movement) and 5.0 (combat). These two sections explain the basics of how to play.

## 2.1 Pre Game Selections

Before starting a game of *CONFLICT: MIDDLE EAST*, you will be asked if you wish to load a previously saved game or start a new one. If you wish to load a saved game, the program will display a selector box and prompts. Simply select a saved game file as indicated to begin play.

If you have not loaded a saved game, you will be presented with the following menu:

### SCENARIO SELECTIONS

**Scenario:** 1973, 1990's

**Season:** Summer, Autumn, Winter, Spring

**Arab Competence:** Pushover, Moderate, Challenging, Hairy, Hideous, Random

### GAME CONTROL OPTIONS

**Play Mode:** Arab Solitaire, Israeli Solitaire, Two Player

**Air Campaign:** Player Control, Program Control

**Intelligence:** Limited, Complete

**Begin the Game:** Select this option to begin playing the game using the selections shown above.

### 2.11 EFFECTS OF MENU SELECTIONS

### 2.111 SCENARIO SELECTIONS

**Scenario:** This controls whether you play the 1973 or 1990's scenario. Scenarios are described in sections 8.1 and 8.2.

**Season:** This controls the time of year in which the scenario will be set, and affects weather. The historical setting for the 1973 scenario is Autumn. See section 6.4 for the effects of seasons on weather.

**Arab Competence:** This controls many aspects of the quality of Arab forces. Readiness recovery rates, strength modifiers, and (when under computer control) the general quality of play are all modified by this selection. The historical level of Arab competence would be Challenging.

### 2.112 GAME CONTROL OPTIONS

**Play Mode:** This specifies which (if any) of the ground forces in the game are computer controlled. Either player, but not both can be computer controlled. In **Arab Solitaire,** a human player controls Arab coalition forces against an Israeli computer player. In **Israeli Solitaire,** a human player controls Israeli forces against an Arab computer player. In **Two Player,** human players control both sides.

**Air Campaign:** This specifies whether the air forces in the game will be controlled by the computer (for both players) or by the players themselves. Computer controlled forces will tend to act somewhat historically (and conservatively).

**Intelligence:** This specifies how much information the two players have about each other's forces. Generally speaking, in the historical 1973 war neither side really had the slightest idea of where uncommitted enemy forces were or what they were doing. This problem was particularly acute for the Arab commanders. The historical setting for this selection would be Limited Intelligence. See section 6.3 for details on intelligence gathering.

The computer player always operates in a limited intelligence mode, so setting this selection to Complete intelligence will give a human player a considerable advantage against the computer.

## 2.2 Turn Sequence

Each game turn proceeds in the following order:
• Game Save Opportunity (section 1.4)
• Arab Orders Phase (section 3.0)
• Israeli Orders Phase (section 3.0)
• Air Phase (section 4.0)
• Ground Combat Phase (section 5.0)
• General Resolutions Phase (section 6.0)

# 3.0 ORDERS PHASE

All units may be moved and/or given assault orders. Air forces are given their operational orders. Players may examine the map and strategic situation in detail.

## 3.1 Info Menu

The Info menu accesses the following game functions:
• Strategic Report (section 3.11)
• Weather Report (section 3.12)
• Supply Net Map (section 3.13)
• Game Info (section 3.14)

### 3.11 STRATEGIC REPORT

The Strategic Report presents a display of the overall strategic situation. Territory, supply stockpiles and equipment inventories held by both players are listed, and recent news reports are displayed.

Estimated critical equipment inventory figures will be exact if the Complete Intelligence option is in effect. Otherwise, the displayed figures for enemy equipment can be off by as much as 40%. Critical equipment categories are: Tanks, Artillery, Fighters, Bombers, and SAM's.

Assigned and Current figures are given for each type of equipment. The Assigned figure represents all equipment placed under the player's command since the start of the game. The Current figures include all equipment currently available to the player. The difference between the two figures represents total combat losses. Current figures are updated as losses are taken. Both figures are updated as reinforcements are received.

In the 1973 scenario, Jordanian equipment is included in the Arab totals.

### 3.12 WEATHER REPORT

Current conditions and a condensed summary of their effects on air operations, unit readiness in combat operations, and effectiveness of chemical weapons (if in use) will be displayed.

Weather forecasts are also available. A 12 hour (next turn) forecast is 90% accurate. The 24 hour (turn after next) forecast is 80% accurate, and the 36 hour forecast is 70% accurate.

### 3.13 SUPPLY NET MAP

This calculates and displays current Israeli and Arab supply nets. A theater level map (the same scale as the Strategic Overview Map) showing the current supplied and unsupplied areas will be displayed.

### 3.14 GAME INFO

This calls up a brief display of the game credits, copyright and version number.

## 3.2 Orders Menu

The Orders menu gives you access to the following game functions:
• Air Operations (section 3.21)
• End Player Turn (section 3.22)

### 3.21 AIR OPERATIONS

Selecting Air Operations gives you access to the Air Orders screen. At screen left is the Air Orders Box. At screen right is the Aircraft Description box.

In the top part of the Air Orders box are buttons for each available type of aircraft. The active aircraft type is indicated with a *light* on its button. In the bottom part of the box are buttons to allocate aircraft to individual types of missions. Select the appropriate buttons to assign the active aircraft to missions or select the All Rest button to assign all aircraft of the selected type to rest for the turn. Resting aircraft recover readiness much more rapidly than aircraft assigned combat missions. You can get estimations of the number of air strike packets, and approximate air to air, close air support and interdiction strength your allocations will generate by selecting the Mission Estimates button at the bottom left of the screen. Return to the Main Map screen with the Exit to Map button.

The Aircraft Description on the right shows a drawing of the most numerous or distinctive aircraft in the selected type. Below the drawing is a list of characteristics for that type (these are an average if multiple or distinctive aircraft models are lumped together). Characteristics are: Air Superiority, Strike/Interdiction, Close Air Support, Avionics Capability, and Aircraft Survivability. Additionally, Force Readiness and Total Aircraft are shown for the active type.

Air superiority, Strike/Interdiction, and Close Air Support figures indicate the aircraft type's capability to perform these types of missions. Avionics Capability shows the aircraft type's ability to perform missions under less than ideal conditions. Survivability measures the ability of the aircraft type to resist losses while on a mission. Force Readiness indicates what percentage of the force is combat-ready. Total Aircraft is total number of aircraft in the selected category (ready and unready).

At the top of the Air Operations screen is a flight conditions indicator. Aircraft effectiveness for each condition is as follows:

| | |
|---|---|
| Very Good | 100% |
| Good | 20% * Avionics |
| Poor | 15% * Avionics |
| Very Poor | 10% * Avionics |

This is essentially a force multiplier.

> **Example:**
>
> 100 F-4 aircraft (avionics=3) operating under poor flight conditions will function with the effectiveness of 45 F-4 aircraft operating under very good flight conditions.

Survivability is not affected by flight conditions. Note that many aircraft (especially in 1973) are almost useless except under very good flight conditions.

Flight conditions are based on weather and time of day as follows:

| | |
|---|---|
| Fair Weather/AM | Very Good |
| Fair Weather/PM | |
| Cloudy Weather/AM | Good |
| Cloudy Weather/PM | |
| Storms/AM | Poor |
| Storms/PM | Very Poor |

Whenever any part of a force is flown (assigned a mission other than rest) that force will have its readiness decreased by 10% * (fraction of force flown). Near losses in air combat and strikes on airbases may also decrease force readiness. Aircraft recover readiness at the end of a turn as described in section 6.23.

### 3.22 END PLAYER TURN

Use this option to end your turn and go to the other player or to following game phases.

## 3.3 General Menu

The General menu allows access to a number of functions:

**Quit Game** ends the game and returns to DOS (IBM compatibles) or the Workbench (Amiga) in a controlled manner.

**Erase Screen** (IBM Compatibles) clears the main screen in case you need to talk to your opponent near the computer when playing a two (human) player game. On the Amiga you can do something similar with the depth control gadgets on the Menu bar.

**Beeps** (IBM and compatibles only) toggles the system buzzer. Many game functions use the buzzer to gain your attention. If you find the noise bothersome, turn it off.

**Movement Centering** forces the program to center the map on a unit when it is selected for movement. Ordinarily, the map only centers on moving units if they are near the edge of the displayed area.

**End Game** ends the game with a count of current victory levels. The General Resolutions Phase and certain menu selections are disabled, and the game is placed in a limited two player mode for ease of inspection of the computer player's situation in a solitaire game.

**File Manager** (Amiga only) gives you control over saved games from within the program.

**Set Speed** alters the time delays in the Combat and General Resolutions phases. Adjust the display speed to a comfortable level.

**New Game** allows you to re-start a saved game or begin a new one without having to exit the program.

## 3.4 Map Selections

While many game functions are accessed through menus, the heart of the game is unit movement and (especially for the Israeli player) unit management. You get at these functions by directly selecting a hex on the map.

If you select an empty hex, you will be informed of the terrain type in the hex.

If you select a hex containing known enemy units, you will get some information on those units. In many cases this information will only be unit type, in others, you will be given unit names. The extent of information is dependent on the intelligence level selected at the start of the game and the rules described in section 6.3.

If you select a hex containing at least one friendly unit, you will get the names of friendly units in the hex and each unit's current combined artillery and maneuver lethality, survivability, and remaining movement allowance. If

you select the hex a second time, you will get the following options:
• Move Unit (section 3.41)
• Full Hex Report (section 3.42)
• Exit (section 3.43)

If you want to move the first unit listed, select the hex a third time. For example, if you are using a mouse, click on the hex three times to begin moving the first unit.

### 3.41 UNIT MOVEMENT

If you select the Move Unit button for one of the units in the hex, you will be able to move that unit. Simply select any hex adjacent to the unit, and it will move into the new hex (subject to the following rules).

### 3.411 GENERAL UNIT MOVEMENT RULES

Each unit begins each turn with a fixed movement allowance (generally 12 Movement Points). This represents the ability of the unit to move across the map. Different types of terrain have different entry costs, and, in some cases, there are additional costs to enter a hex. All entry costs are cumulative. In order to enter a hex, a unit must have sufficient remaining Movement Points to pay the entry cost for the hex the unit wishes to enter. As units are moved, their remaining Movement Points are displayed (along with the unit's current lethality and survivability) in the Unit Information Box at the bottom of the screen.

Units may continue to be moved as long as they still have remaining Movement Points. You need not complete all of a unit's movement in a single operation (for exceptions, see sections 3.4126 and 3.4129). As long as a unit has some remaining Movement

Points, you may return to it and continue its movement, even after exiting from movement and returning back to the map.

For each Movement Point expended during unit movement, the readiness of the moving unit declines by 1%.

If a unit moves next to an enemy controlled hex during movement, that hex will be spotted to level 1 (See section 6.3 for intelligence gathering rules).

During movement, you can center the displayed map area on the moving unit by selecting the Center Unit button at the bottom right of the screen.

If you make a mistake and move a unit to the wrong hex, you can usually take back the move by selecting the Move Back button at the bottom right of the screen. Move Back will not work if: 1) the unit has not yet moved, or 2) the hex entered was adjacent to enemy owned territory.

If you move an Israeli fort unit, it will be converted into a light infantry unit. The icon and name will change to show its new status. The forts along the Suez Canal (1973 only) are manned by the 16th Reserve (Jerusalem) Brigade, and those along the border with Syria are manned by the Golani Brigade.

### 3.412 SPECIAL CASES OF UNIT MOVEMENT

There are several special cases of movement:
• Road Movement (section 3.4121)
• Disengagement (section 3.4122)
• Assault Deployment (section 3.4123)

- Cross Canal Movement (section 3.4124)
- Cross River Movement (section 3.4125)
- Amphibious Movement (section 3.4126)
- Congestion (section 3.4127)
- Enemy Controlled Hexes (section 3.4128)
- Airmobile Movement (section 3.4129)

### 3.4121 ROAD MOVEMENT

Regardless of other terrain in a hex, if a unit enters a hex along a road, movement costs will be lower than if the same kind of terrain were entered normally. In order to be considered to have entered along a road, a unit must exit its old hex and enter the new one through hex sides with roads running through them.

### 3.4122 DISENGAGEMENT (MOVING AWAY FROM THE ENEMY)

In order to leave a hex adjacent to an enemy unit, an additional cost of 4 Movement Points must be paid by the moving unit.

### 3.4123 ASSAULT DEPLOYMENT (ATTACKING THE ENEMY)

When you try to move one of your units into a hex containing enemy units, one of three things will happen:

1. If your unit has 5 or fewer Movement Points left in its movement allowance, the move will not be allowed.

2. If the enemy units are very weak and your unit has enough movement allowance to enter the hex if there were no enemy unit present, there is a 33% chance that your unit will overrun the enemy hex. The enemy units will be destroyed and your unit will advance into the hex.

3. Otherwise, the movement for your unit will end in your unit's current hex, one Movement Point will be subtracted from its movement allowance, and an assault order will be plotted. Your unit will assault and attempt to take the hex from enemy forces during the Ground Combat Phase (section 5.0). The assault order may be cancelled at any time by selecting the unit again for movement. Any unused Movement Points will still be available for use by the unit. As long as the unit has an assault order, any selection of the hex the unit occupies will show an arrow from your unit into the hex to be assaulted, as well as a directional indicator in the unit information box

> **Example:**
>
> If the movement allowance of your unit is given as 10SW, the program is telling you that your unit has 10 Movement Points remaining for the turn, and it will assault the hex to its southwest.

### 3.4124 CROSS CANAL MOVEMENT

The Suez Canal is a formidable obstacle. Both sides will have considerable difficulty moving units into and across the canal. Either player may freely enter bridged canal hexes; however, each player contends with different constraints on movement into unbridged canal hexes:

- The Arab player may only move commando units or the Egyptian Amphibious Mechanized Brigade into unbridged canal hexes. Units may also enter by airmobile movement (see section 3.4129). Other units may not enter or plot attacks into unbridged canal hexes under any circumstances.

- The Israeli player may move any one unit or plot one attack into an unbridged canal hex. He may do this once in any given turn. Additionally, the Israeli may move units into canal hexes by airmobile movement. If a unit remains in an unbridged canal hex from the last turn, no additional Israeli units may enter or plot attacks into unbridged canal hexes in the current turn.

If either player has units in unbridged canal hexes at the end of the turn, there is a chance that a bridge will be constructed in that hex. See section 6.5.

### 3.4125 CROSS RIVER MOVEMENT

The only unit allowed to enter unbridged river hexes is the Egyptian Amphibian Mechanized Brigade. Except for airmobile movement, no other units may enter unbridged river hexes under any circumstances. All other units may only enter bridged river hexes. A bridged river hex is any river hex in which the river is crossed by a road.

### 3.4126 AMPHIBIOUS MOVEMENT

The Egyptian Amphibious Mechanized Brigade may enter a lake/sea hex, but must immediately exit to a hex of any other terrain type. The program will not allow you to leave the unit in a lake/sea hex. This special movement costs 6 Movement Points to enter the lake and 6 more Movement Points to enter the next hex. The final hex of the move must be a hex that the Brigade can normally enter. Except by airmobile movement no other unit may ever enter a lake/sea hex.

### 3.4127 CONGESTION (TRAFFIC JAMS)

Traffic jams result when different units try to use the same transport routes through an area. In game terms, this means that entering a hex which already contains a friendly unit costs an extra 1 Movement Point above the normal cost of the terrain.

Additionally, except for purposes of moving through a hex during airmobile movement, a maximum of two units may occupy a hex at any given time. This is called unit **stacking.**

### 3.4128 ENEMY CONTROLLED HEXES (MOVING INTO ENEMY TERRITORY)

Even under the best of conditions, units will proceed with caution when entering enemy territory. In game terms this is reflected by an extra movement cost above the normal cost of the terrain in the controlled hex.

Most units pay 1 point extra to move into enemy controlled hexes. Units with airmobile capability pay a minimum of 5 points to enter enemy controlled hexes by normal movement. This extra cost is because airmobile units on the ground are assumed to be without motor transport.

### 3.4129 AIRMOBILE MOVEMENT

Although little use was made of airmobile movement in 1973, a very limited capability to insert units deep behind enemy lines by helicopter did exist. In the 1990's scenario, this capability is better developed, but there are still limits to the range and load capacity of transport helicopters. To reflect this each side in the game has the ability to move one airborne unit per turn using airmobile movement. Only units with

the airborne symbol and possessing a full 12 Movement Points may be moved by air. If you have not moved any unit by air on any given turn, you will be asked if you wish to move by air whenever you select an eligible unit. Airmobile movement is similar to normal movement with the following exceptions:

• Each hex costs only 1 point to enter, regardless of terrain type.

• Each hex adjacent to an enemy unit with non-artillery lethality of 30 or greater costs an additional 1 point to enter. There is a 2% chance that the unit will be intercepted and movement will halt in this hex with the following effects: The unit will lose 25% to 75% of its equipment, and the player's airmobile movement capability is **permanently** lost (too many choppers have been lost to allow further airmobile operations). If the unit is not intercepted, it will suffer 1% to 5% losses from anti-aircraft fire.

• Enemy occupied hexes may not be entered.

• Normal terrain and stacking limitations do not apply. You may enter hexes using airmobile movement which could not otherwise be entered; however, if movement ends in such a hex, the airborne unit is destroyed.

### 3.413 MOVEMENT COSTS

| TERRAIN | COST (MOVEMENT POINTS) |
|---|---|
| Open | 3 |
| Urban | 2 |
| Sand | 4 |
| Marsh | 4 |
| Delta | 4 |
| Rough | 4 |
| Sea/Lake | 6 (section 3.4126) |

| TERRAIN | COST (MOVEMENT POINTS) |
|---|---|
| River(unbridged) | 4 (section 3.4125) |
| River(bridged) | 4 |
| Suez Canal(unbridged) | 6 (section 3.4124) |
| Suez Canal(bridged) | 4 (section 3.4121) |
| Delta/Road | 1 (section 3.4121) |
| Marsh/Road | 1 (section 3.4121) |
| Rough/Road | 2 (section 3.4121) |
| River/Road | 2 (section 3.4121) |

| SPECIAL | COST(MOVEMENT POINTS) |
|---|---|
| PM turn(per hex) | +1 |
| Disengagement | +4 (section 3.4122) |
| Assault Deployment | +6 ( section 3.4123) |
| Congestion | +1 (section 3.4127) |
| Enemy Controlled Hexes | +1 (section 3.4128) |

### 3.42 FULL HEX REPORT

The full hex report is only available for hexes with friendly units and gives information on the physical characteristics of the hex, and detailed organization of any military units in the hex. The combat effects of the hex terrain are listed at the top of the screen. Units are described in terms of assigned equipment. Equipment with lethalities greater than 10 is considered *artillery* for game purposes. Artillery contributes to the artillery lethality of a unit. Other equipment contributes to the maneuver lethality of a unit. Both types of equipment contribute to the unit's survivability. A unit's total strengths are a function of the sum of the strengths of all equipment assigned to the unit. See appendix F for details and examples.

Several options are available on this screen:

**Always Available:** (section 3.421)
  +Hex
  -Hex
  Exit to Map

**Sometimes Available:**
  Transfer Equipment (section 3.422)
  Disband Unit   (section 3.423)
  Create Unit    (section 3.424)
  Rename Unit   (section 3.425)

### 3.421 OPTIONS ALWAYS AVAILABLE IN THE FULL HEX REPORT

**+Hex** button examines the next friendly occupied hex. If you exit from the Full Hex Report after selecting a new hex, the map will re-center on the new hex. The next hex is selected by looking for the hex with the next highest x,y coordinates (compared with the coordinates of the current hex).

**-Hex** button is similar to the + Hex button, but operates in the other x,y direction.

**Exit to Map** button returns you to the Main Map screen. You can also do this by pressing [Escape] (IBM only) or clicking the right mouse button.

### 3.422 UNIT TO UNIT EQUIPMENT TRANSFERS

Only the Israeli player may transfer equipment from one unit to another. Transfers may only occur if there are two units in the hex, or you create a new unit (see section 3.424).

By selecting the Transfer button next to any category of equipment in one of the units, you can transfer individual squads or pieces of equipment to another unit. The Transfer buttons will only appear if transfers are possible. Each unit may have a maximum of 8 different types of equipment and a maximum of 255 items per type. If you transfer fort squads out of a fort unit, they will become regular infantry squads.

**Important:** When equipment is transferred, there is a small chance that the readiness of the receiving unit will decrease. This reflects the tendency of units to have at least some difficulty assimilating new equipment and personnel, as well as the likelihood that transferred troops will not be the best

available to the *losing* commander. Each transferred item of equipment has a 1/3 chance of lowering the readiness of the receiving unit by 1%.

Airborne and artillery units are limited in the types of equipment they may receive. Airborne units can only receive infantry squads and 81mm mortars. Artillery units can only receive artillery (equipment with lethality of 11 or greater).

When equipment is transferred, the receiving unit will have its movement allowance limited to that of the losing unit.

### 3.423 DISBANDING UNITS

There may be times when units are too small to be useful, and merely clutter the landscape. (Remember, you can have only two units in any hex.) Also, due to memory limitations, there is a maximum number of units available in the game. If you want to create a unit elsewhere, you may need to *free up* a unit for creation. If this happens, you can get rid of any unit by disbanding it. **Important:** If you disband a unit, it is gone forever.

### 3.424 CREATING UNITS

Only the Israeli player may create new units. A maximum of 112 units (including any still due to appear as reinforcements) are available to the Israeli player. If you already have all units in use, you will have to disband another unit to create a new one.

Creating a unit only reserves memory and provides the skeleton of: name, location, and icon type. In order to flesh out the new unit, you will have to

transfer equipment (see section 3.422) from some other unit into your new unit. If you leave the hex or exit the Full Hex Report without putting equipment into the new unit, the new unit will automatically disband.

### 3.425 RENAMING UNITS

The Israeli player only may rename his units by selecting the Rename button that points to each displayed unit.

### 3.43 EXIT

This allows you to go on with the game. You may also exit by pressing [Escape] (IBM only) or clicking the right mouse button.

# 4.0 AIR PHASE

Air superiority and other missions will be resolved each turn after both players have an opportunity to move units and issue orders.

Air combat resolution starts with air superiority determination and then proceeds to strike and close air support resolution.

## 4.1 Air Superiority

Aircraft assigned to air superiority missions attempt to locate and destroy enemy aircraft. Each side adds up the air superiority strength of all friendly aircraft assigned air superiority missions and friendly SAM strength to get an effective anti-air strength. See Appendix F for details.

Aircraft assigned to non-rest missions are attrited as follows:

1. Air superiority aircraft are fired upon by the enemy anti-air and missile strength.

2. Strike aircraft are fired upon by the enemy anti-air strength.

3. Close air support and interdiction aircraft are fired upon by the enemy anti-air and twice the enemy missile strength.

   All of the above occurs before strike and close air support missions are resolved.

After attrition, the anti-air strength for each player is calculated again in the same fashion as before. This new effective anti-air strength will be applied to strike missions as they are resolved.

Before strike missions are resolved, a report of air mission strengths and pre-strike attrition is given. Losses listed in this report are approximate.

## 4.2 Air Strikes, Interdiction and Close Air Support Determination

As for air superiority, other mission strengths are based on number of aircraft assigned, capabilities for mission type, weather, and force readiness. See Appendix F for details.

**Close Air Support:** These missions directly support friendly ground forces during the Ground Combat Phase. Final close air support strength is added directly to all combats.

**Interdiction:** These missions attempt to interfere with enemy resupply efforts. These types of missions include strafing supply convoys and bombing bridges.

**Strike:** These missions are formed into packets that can be directed against enemy SAMs, aircraft, or specific units. Individual strike packets are composed entirely of aircraft of one type and will

consist of enough aircraft to give the strike an artillery equivalent lethality of about 45 (1973) or 60 (1990's). Any aircraft left over after all full strength strikes have been formed will be formed into a smaller *runt* strike.

After strike packets are formed, strikes will be resolved by the players. Three types of strike targets are allowed:

- **Airbases** missions are directed against a randomly chosen type of enemy aircraft. Aircraft listed as hit by a strike are not necessarily destroyed, although the force readiness will reflect damage inflicted by the strike.

- **SAM** missions destroy enemy SAM sites. From one to six SAMs may be destroyed by a strike.

- **Troops** missions are targets at specific hexes. Players may select apparently empty hexes in the hope of finding previously undetected enemy forces in the target hex. Whether or not a target is found, the strike will be expended on the hex.

## 4.3 Aircraft Attrition

Each time an aircraft is subject to attrition (fired upon) the following occurs:

1. There is a (total firing force)/12500 chance that the aircraft will have to check against its survivability. If an aircraft has to check against its survivability, it has a (survivability)/6 chance of surviving. If the aircraft survives a survivability check, it must survive another in order to avoid being damaged. If an aircraft is damaged, the readiness of the aircraft type is decreased by 100%/(total number of aircraft in force).

2. After each strike, estimated strike results are given. These reports will often be exaggerated. In the case of strikes against enemy troops, an explosion graphic in the target hex will give another indication of target damage, with from one (light damage) to three (heavy damage) explosions in the target hex.

# 5.0 GROUND COMBAT PHASE

All assault orders issued during the players' orders phases are executed in random order with one side moving all of its forces before the other side's forces are moved.

If an assault is plotted against a hex which has become vacant since the order was issued, the assaulting units will occupy the hex in a normal (non-combat) move. If an assault is plotted against a hex which still contains an enemy unit, then combat will occur. Defending units will receive terrain and (possibly) prepared position strength modifiers. Within each hex, first artillery and then maneuver combat will take place, and players will be notified of the results before combat moves on to the next hex.

## 5.1 Ground Combat Unit Strength Modifiers

The lethalities and survivabilities of units are based upon the sum of equipment lethalities and survivabilities for all assigned equipment. Additionally, unit strengths are multiplied by readiness% to find the final strengths for the units.

Unit maximum survivability is 450. Base unit maximum lethality is 150 (Israeli) or 450 (Arab). These base

lethalities are multiplied by a competence factor (sections 5.11 and 5.12) to arrive at the displayed lethality. The lethality and survivability values displayed for units are the effective values, with competence modifiers already factored in.

Defensive positions, terrain, and chemical weapons may also affect unit strengths.

### 5.11 ARAB COMPETENCE STRENGTH MODIFIERS AND COMMAND CONTROL

Arab units of different nationalities will not cooperate fully on attacks. Each nationality involved in the attack will launch a separate assault. Artillery will only support units of the same nationality.

Arab units will have their lethalities and survivabilities modified as follows:

| LEVEL | MODIFIER |
|---|---|
| Pushover | 0.8 |
| Moderate | 0.9 |
| Challenging | 1.0 |
| Hairy | 1.1 |
| Hideous | 1.2 |

### 5.12 ISRAELI COMPETENCE STRENGTH MODIFIERS

Israeli units have their lethalities multiplied by three, giving an effective maximum lethality of 450 (same as the Arabs).

### 5.13 PREPARED DEFENSIVE POSITIONS

If the defending units began the turn with a readiness of at least 75 and did not expend any of their Movement Points during the turn, the combat is treated as an assault upon a prepared position and the defending unit will receive a defensive advantage.

Lethalities of units defending prepared positions will be multiplied by 1.65. Survivabilities of units defending prepared positions will be multiplied by 2.5.

### 5.14 TERRAIN EFFECTS ON EQUIPMENT COMBAT STRENGTHS

The defending units will receive modifiers to survivability from some types of terrain. Different types of equipment are subject to different terrain modifiers. Equipment with survivabilities of two or less is considered *soft,* and will generally benefit more from terrain modifiers. Since total unit survivability is a function of the sum of all equipment survivabilities, this means that units composed primarily of soft equipment will usually benefit more from good defensive terrain than units composed primarily of *hard* equipment (anything with a survivability of three or more).

Units attacking from river/bridge terrain have their strengths lowered.

### 5.141 TERRAIN EFFECTS ON EQUIPMENT SURVIVABILITY

Terrain modifies equipment survivability as follows:

| TERRAIN | SOFT EQUIPMENT | HARD EQUIPMENT |
|---|---|---|
| Open | 1.0 | 1.0 |
| Delta | 2.0 | 1.5 |
| Rough | 2.0 | 1.5 |
| Fortified Rough | 6.0 | 2.0 |
| Marsh | 2.0 | 1.0 |
| Sand | 1.0 | 1.0 |
| Urban | 6.0 | 2.0 |
| River | 1.0 | 1.0 |

Both the Israelis and Syrians have made significant preparations for combat in the rough terrain of the Golan Heights. Fortified rough hexes benefit only the player originally owning them.

Fortified rough hexes which benefit the Israeli player are:

    42, 01
    42, 02
    43, 03
    43, 04
    43, 05
    43, 06
    43, 07

Fortified rough hexes which benefit the Arab player are all rough hexes in Syria east of hex row 45 (including hex 45, 02).

### 5.142 TERRAIN EFFECTS ON EQUIPMENT LETHALITY

The only terrain which affects unit lethality is river/bridge terrain. Units attacking from river/bridge terrain have their maneuver lethality divided by four.

### 5.15 CHEMICAL WEAPONS

At higher Arab Competence levels, Arab forces are assumed to be using chemical weapons. The Israeli player will be notified of this. Chemical weapons modify the lethality of Arab artillery as well as the loss of readiness incurred by all units involved in combat if chemicals are in use.

Weather alters the effects of chemical weapons as follows:

| WEATHER | ARTILLERY MOD | ADDITIONAL READINESS LOSS |
|---|---|---|
| Fair/Hot | 1.1 | 4 |
| Fair/Mild | 1.2 | 2 |
| Fair/Cool | 1.2 | 2 |
| Cloudy/Hot | 1.2 | 4 |
| Cloudy/Mild | 1.3 | 2 |
| Cloudy/Cool | 1.3 | 2 |
| Storms | 1.0 | No effect |

## 5.2 Artillery Combat

All artillery lethalities (for equipment with lethality greater than 10) will be summed for all units involved in combat for the hex. Any friendly artillery units (identified by the artillery icon) within 3 hexes which have not specifically plotted assaults of their own will also contribute one half of their artillery lethalities to the combat. Finally, any close air support assigned by both players is added to the friendly artillery lethality sums.

The artillery lethality sums are compared to the sums of survivabilities for all units involved in the combat to generate a loss ratio for each side. This is the percentage of equipment which must check against survivability in order to survive the combat. The loss ratio is also subtracted from the readiness of each unit involved in the combat.

Friendly artillery firing from hexes not directly involved in the combat will suffer only half of the loss ratios inflicted on units directly involved in the combat.

## 5.3 Maneuver Combat

After artillery combat, maneuver combat takes place. All non-artillery equipment lethalities will be summed for all units involved in the combat. The maneuver lethality sums are compared to the sums of survivabilities for all units involved in the combat to generate a loss ratio for each side. This is the percentage of equipment which must check against survivability in order to survive the combat. The loss ratios are also subtracted from the readiness of each unit involved in the combat.

## 5.4 Equipment Losses

If a piece of equipment has to check against its survivability, it has a (survivability/18) chance to survive the combat. This survival chance is not modified in any way, so soft equipment tends to be fragile in combat.

**Israeli units:** If a unit loses all of its equipment and squads in combat it is destroyed and removed from the map. If any equipment remains assigned to the unit, the unit will remain on the map. In 1973 there were several instances of miniscule Israeli forces holding up major Syrian advances.

**Arab units:** If a unit's survivability is reduced to less than 1 during combat, the unit will be destroyed.

## 5.5 Retreats and Advances

After maneuver combat, defending units are checked to see if they will retreat. The chance for retreat is equal to the defender loss ratio incurred during maneuver combat. Exception: Units defending cities are only half as likely to retreat. Retreats (if necessary) will be into random available hexes to the north, south, or toward the capitol of the country in which they began the game. Units can only retreat into friendly controlled hexes containing fewer than two units.

If a unit can't retreat for any reason, the unit will remain in the hex, but will be subjected to a second round of equipment survival checks using the maneuver combat defender loss ratio (usually nasty).

If the hex is vacated by defending units, one attacking unit (randomly determined) may advance into the hex. The chance for this to occur is equal to the readiness% of the attacking unit after all combat in the hex is completed.

## 6.0 GENERAL RESOLUTIONS PHASE

After the combat phase, the program will perform the following bookkeeping operations:
• Reinforcements (section 6.1)
• Resupply Operations (section 6.2)
• Intelligence Gathering (section 6.3)
• Weather Determination and Effects (section 6.4)
• Bridge Building (section 6.5)
• Jordanian Belligerency Check (1973 only, section 6.6)
• End Of Game Check (section 6.7)

## 6.1 Reinforcements

Each turn, units may be scheduled to appear at some location on the map. Aircraft will appear directly in the appropriate forces. Ground units will appear in the hexes listed for them in the order of appearance (see appendices C and D) if those hexes are friendly (not controlled by the other player), and there is room for them in the hex (only two units may stack in a given hex).

If units cannot appear due to stacking restrictions (you don't leave room for them on the turn they are scheduled to appear) then they will appear on the next available turn in the scheduled appearance hex.

If units cannot appear due to enemy control of the appearance hex there are two possibilities: If the hex is on a map edge, the units' appearance is delayed until the hex is restored to friendly control. If the hex is not on a map edge, all units scheduled to appear on that hex for the remainder of the game are destroyed and will never appear.

## 6.2 Resupply Operations

During resupply operations, air forces are re-readied and the supply status of each hex on the map is calculated.

Units in supplied hexes will be checked and readiness may be increased if less than 100%. The chance for successful resupply is: (friendly stockpile level) * (100-enemy interdiction strength)%. Each time a unit is resupplied there is 1% chance that the friendly stockpile will decrease by one.

**Exception: Bridges are particularly susceptible to air interdiction.** Due to the fact that all Egyptian supplies for units operating in the Sinai had to come over the Suez Canal bridges, the resupply chance for Egyptian units east of the Suez Canal(inclusive) is: (Arab stockpile level) * (100-2*Israeli interdiction strength+the number of bridge hexes on the canal)%.

> **Example:**
>
> If Israeli interdiction strength is 23, there are 9 bridges over the canal, and the current Arab supply stockpile is 95 then the chance for resupply of Arab units operating in the Sinai is 95 * (100-2*23+9)%= 59.85%. For Arab units operating in Africa or on the Syrian/Jordanian supply net, the resupply chance would be 73.15%.

Units are individually checked for resupply. Units not successfully resupplied (for any reason) suffer a 5% decrease in readiness. The friendly stockpile level can be directly affected by enemy interdiction aircraft (see section 4.2) and may be viewed in the Strategic Report (see section 3.11).

After unit resupply:
• Supplied units with a readiness of 75% or greater will be given a movement allowance of 12 for the following turn.
• Supplied units with a readiness of 51% to 74%, and unsupplied units with a readiness of 51-95% will be given a movement allowance of 10 for the following turn.
• Units with a readiness of 50% or less will be given a movement allowance of 0 for the following turn.

In 1973, both sides received significant shipments from outside sources. There is a 1/4 chance each turn for each player that the player's stockpile level will increase by 1%.

In the 1990's there is evidence that the world has less tolerance for gratuitous Middle Eastern bloodletting, so it is assumed that no major outside re-supply efforts are made and stockpile levels will never increase during the course of a game.

### 6.21 SUPPLY AND SUPPLY SOURCE HEXES

A supplied hex is any hex which can trace a line of hexes of any length to any friendly supply source. The following hexes will act as supply sources if friendly to the indicated player:

| | |
|---|---|
| Tel Aviv | Israeli |
| Cairo | Arab |
| Damascus | Arab |
| Amman | Arab (if Jordan has entered the war) |
| 45, 16 | Arab (if Jordan has entered the war) |
| 49, 05 | Arab |
| 00, 34 | Arab |
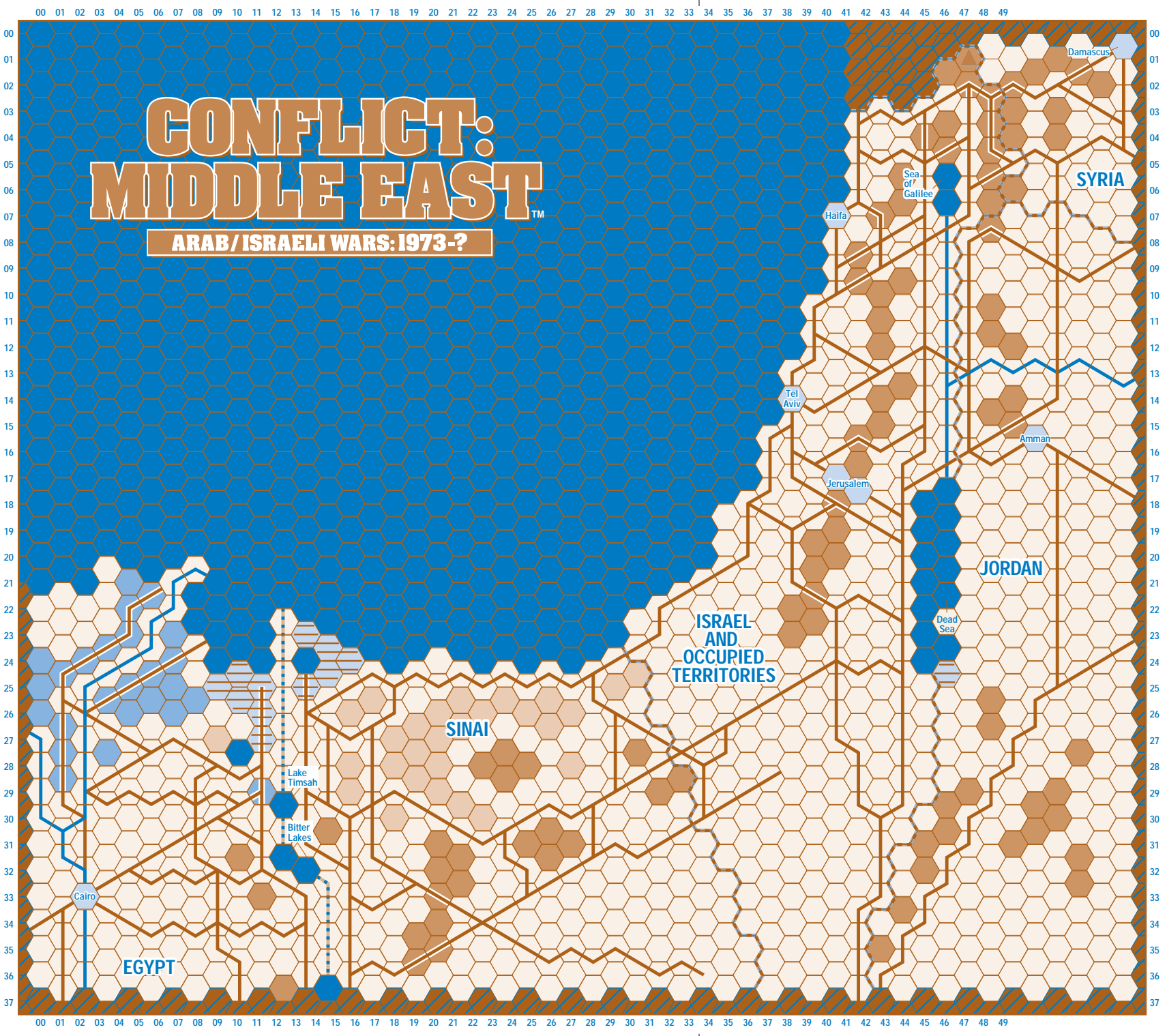
# CONFLICT: MIDDLE EAST™

## ARAB/ISRAELI WARS: 1973-?

**KEY**

- 10 km
- Open
- Marsh
- Sand
- Rough
- Sea/Lake
- River
- Canal
- Road
- Delta
- Urban
- Mt. Hermon
- Out of Play

SYRIA

Damascus

Sea of Galilee

Haifa

Tel Aviv

Amman

Jerusalem

JORDAN

Dead Sea

ISRAEL AND OCCUPIED TERRITORIES

SINAI

Lake Timsah

Bitter Lakes

Cairo

EGYPT

STRATEGIC SIMULATIONS, INC.

## 6.22 RESUPPLY RATES FOR UNITS

Supplied Arab units recover readiness at the following rates:

| | |
|---|---|
| Urban hex | Arab Base Recover Rate * 3 |
| On a road hex | Arab Base Recover Rate * 2 |
| Off road | Arab Base Recover Rate |

| ARAB COMPETENCE | BASE RECOVER RATE |
|---|---|
| Pushover | 3% |
| Moderate | 4% |
| Challenging | 5% |
| Hairy | 6% |
| Hideous | 7% |

Supplied Israeli units recover readiness at the following rate:

| | |
|---|---|
| Urban hex | 27% |
| On a road hex | 18% |
| Off road | 9% |

## 6.23 RE-READY RATES FOR AIR FORCES

The re-ready rate for an air force is the percentage increase in readiness which will be applied to a category of aircraft at the end of a turn. Since readiness may be decreased by flight operations and airstrikes on friendly airbases, the actual amount of rest a force gets depends upon the number of aircraft flown during a turn and the number of enemy airstrikes on friendly airbases.

### 6.231 ISRAELI AIR FORCE RE-READY

Israel is a small country, so losing territory means losing secure air bases. For this reason, Israeli re-ready rates for air forces are based on the amount of Israeli controlled territory:

| FRIENDLY HEXES | RE-READY RATE |
|---|---|
| 700+ | 15% |
| 600-699 | 12% |
| 500-599 | 9% |
| 400-499. | 6% |
| 300-399 | 3% |
| 299- | 0 |

Friendly urban hexes count as 100 hexes for purposes of determining re-ready rates.

### 6.232 ARAB AIR FORCE RE-READY

The Arab re-ready rate is fixed as follows:

| ARAB COMPETENCE | RATE |
|---|---|
| Pushover | 6% |
| Moderate | 7% |
| Challenging | 8% |
| Hairy | 9% |
| Hideous | 10% |

# 6.3 Intelligence Gathering

Each hex on the map is checked for change of possession. Each unit on the map will possess a patrol radius of one hex distance in every direction if the unit is in a supplied hex or has a readiness of 75 or greater and the unit has a maneuver lethality of 30 or greater.

Any hex within the patrol radius of one player's unit and not within the patrol radius of the other player's units will automatically become friendly to the patrolling unit.

**Exception:** Urban hexes or hexes containing Arab fixed SAM sites will not change ownership unless entered by enemy units.

Players always have complete information on friendly hexes.

If playing with the Complete Intelligence option (see section 2.112) all hexes are always spotted to level 2. When playing with Limited Intelligence, each enemy hex on the map is spotted to the following levels:

Level 0: No information is available for the hex. If enemy units are in the hex, you won't know about them.

Level 1: Unit type information is available for the hex.

Level 2: Unit type and name information is available for the hex.

Enemy hexes adjacent to friendly units will be spotted to level 2.

Enemy hexes within six hexes of Mt. Hermon will be spotted to level 1 on AM turns if Mt. Hermon is under friendly control.

Enemy artillery which fired during the combat phase is spotted to level 1.

Aerial Recce will spot some hexes not covered by the cases above. If a hex is spotted by aerial recce, it will be spotted to level 1.

The chance for a hex to be spotted by aerial recce is: (which player)/( 6 + 6{if PM turn} - 3{if road hex} ) where **which player** is:

- 0 for Arabs: 1973
- 1 for Israelis: 1973
- 2 for Israelis: 1990's
- 3 for Arabs: 1990's.

If by chance a hex is twice spotted to level 1 (by different methods) the spotting level of the hex is raised to level 2.

# 6.4 Weather Determination and Effects

Weather conditions are updated each turn. Forecasts are also updated to project weather three turns in advance. Weather is dependent upon the season:

| SEASON | AM COOL/MILD/HOT | PM COOL/MILD/HOT | AM/PM FAIR/CLOUDY/STORMS |
|---|---|---|---|
| Winter | 25%/75%/00% | 75%/25%/00% | 65%/25%/10% |
| Spring | 00%/90%/10% | 10%/80%/10% | 85%/10%/05% |
| Summer | 00%/10%/90% | 00%/70%/30% | 95%/05%/00% |
| Autumn | 00%/70%/30% | 10%/80%/10% | 80%/15%/05% |

Weather has significant effects on chemical weapons (see section 5.15) and air operations (see section 3.21). A summary of weather effects is available to players through the Weather Report selection (see section 3.12).

# 6.5 Bridge Building

Each unbridged Suez Canal hex which contains any unit other than an Israeli fort unit may become a bridged canal hex. The chance of this happening is dependent on the amount of enemy artillery within range (three hexes) of the hex to be bridged. This chance for successful bridge construction is (1-(enemy artillery lethality)/300)*100%.

> **Example:**
>
> The Israelis have a unit in hex 11,31 (the canal hex between Lake Timsah and The Bitter Lakes) and Arab artillery units with combined artillery lethalities of 1650 are within three hexes. The chance for a bridge to be built in this hex on any given turn is 45%.

Israeli units will not build bridges before turn 6.

Additional bridge construction occurs on the first turn of the 1990's scenario (see section 8.2).

## 6.6 Jordanian Belligerency Check (1973 Only)

If Jordan is neutral, then the following units may cross the Jordanian border into Syria:

• Jrdn 1/1 Arm Bde 33% per turn until entered, beginning with turn 12

• Jrdn 2/1 Mech Bde 33% per turn until entered, beginning with turn 30.

Jordanian units will only enter if the hex immediately north of their pre-entry deployment is Arab controlled.

On any turn in which all three of the following conditions are met, there is a 33% chance that Jordan will fully enter the war:

1. It is turn eight or later.

2. Total Israeli lethality in ground units in central Israel is less than (400+Jordanian enthusiasm factor). Central Israel is defined to be the rectangular area of map south and east of hex 30, 07 and north and west of hex 41, 37 (see map of Central Israel Region).

3. All hexes east of hex row 44 (inclusive) are Arab controlled.

Jordan enthusiasm is modified by Arab Competence Level as follows:

| ARAB COMPETENCE LEVEL | JORDANIAN ENTHUSIASM FACTOR |
|---|---|
| Pushover | 100 |
| Moderate | 200 |
| Challenging | 300 |
| Hairy | 400 |
| Hideous | 500 |

Note that the inclusion of an enthusiasm factor means that Jordanian participation in the war is more likely at higher Arab competence levels.

## Central Israel
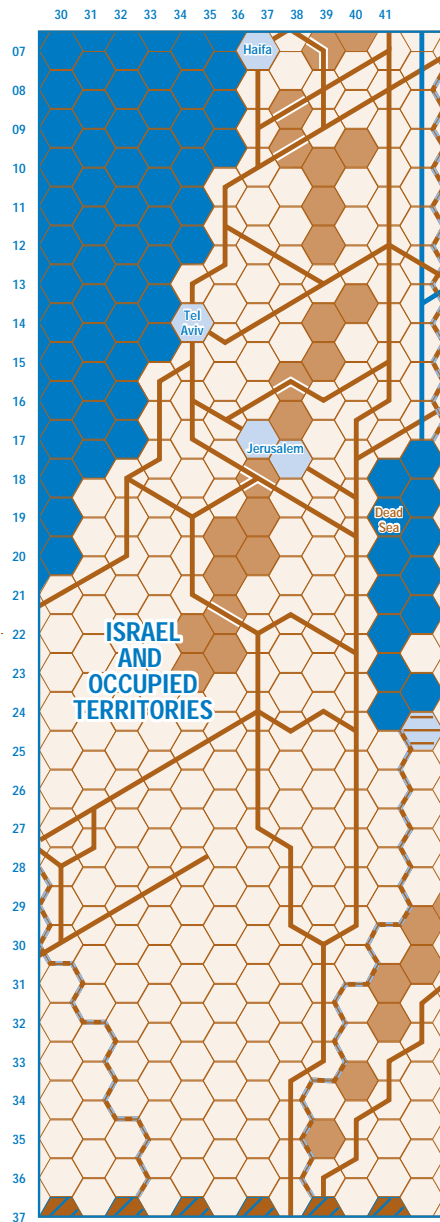


If Jordan enters the war, all Jordanian units may be freely moved by the Arab player and Jordan becomes Arab terri-

tory for all purposes (including victory levels). Also, the Jordanian air force is added to Arab air strength (20 F-104, 32 Hunter).

## 6.7 End of Game Check

The following rules govern ending scenarios:

• Beginning with turn 34 (1973) or 14 (1990's), there is a 25% chance that the war will conclude at the end of each turn.

• On any turn, the game ends if the Arab player controls Tel Aviv, or if the Israeli controls both Damascus and Cairo.

• On any turn, there is a 25% chance that the game will end if the Israeli player occupies Damascus or Cairo.

• If the war has not ended previously, it will end on turn 48.

When the program has determined that the game is over, you have the option to continue playing. Play will continue normally, except the victory conditions will no longer be strictly valid. In other words, if you continue after the normal end of game, you will have to determine whether you won or lost.

## 7.0 SOLITAIRE AND TWO-PLAYER PLAY

In two player mode, the game will pause, clear the map, and display a dialog box before beginning the next player's phase. This gives a break for players to exchange places at the computer without either player seeing extra information about enemy forces.

When a saved game is resumed, it will continue with all play selections as they were made when the game was

begun. Solitaire games will be restarted in solitaire mode and two player games will be restarted in two player mode.

## 8.0 SCENARIOS AND VICTORY CONDITIONS

Victory is determined by terrain held as follows:

• Urban hexes and Mt. Hermon are worth 100 points.

• Golan Heights hexes are worth 5 points each.

• All other hexes held are worth one point each.

The Golan Heights includes all hexes originally occupied by the Israelis east of hex row 42 (inclusive) and Mount Hermon (see map of Golan Heights ). Raw points are converted into victory levels which are displayed in the text box below the Main Map screen.

Victory levels are calculated as follows: For each 100 points difference between starting victory points and current victory points, one level of victory is awarded. If the display in the main map text box shows I-x, the Israeli is winning with a victory level of x. If the display shows A-x, the Arab player is winning with a victory level of x. In the 1990's scenario, the Israeli victory level is pinned at zero until 350 victory points have been lost by the Arabs. If the victory level is zero (fewer than 50 hexes have changed hands) the game will end in a draw.

In addition to victory points awarded for controlling territory, there may be a special victory points award if the Israelis enter an Arab capitol. The worldwide political costs of military

# Golan Heights
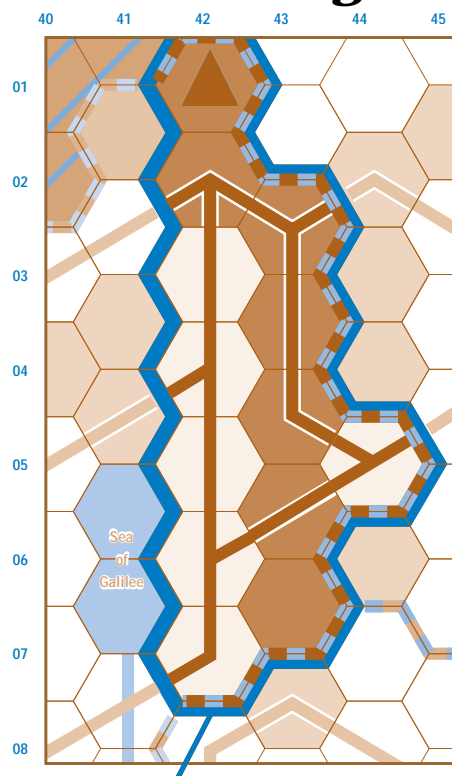


**Golan Heights Victory Point Area**

operations in large urban areas are unpredictable. In 1973 the Soviets made ominous noises when the Israelis approached Damascus. In the 1990's, the presence of an aggressive world press would almost certainly reveal the unpleasant side of urban combat and occupation. The Israelis are especially vulnerable to such political pressure. To reflect this when the Israelis first enter Damascus and/or Cairo:

- There is a 50% chance that all goes smoothly and normal victory points are awarded for the newly taken urban hex.

- There is a 25% chance that world opinion will turn against the Israelis, and the Arabs will be awarded 100 points, negating the points awarded for taking the urban hex.

- There is a 25% chance that U.S. public opinion will turn against the Israelis, and the Arabs will be awarded 200 points.

The latter two victory awards are permanent, and remain in effect even if the Israelis later withdraw from the hex. They can only be awarded once per game per city.

Victory in the game is awarded according to the player with the greatest victory level at the end of the game. You must at least hold on to the territory you started with in order to avoid defeat.

## 8.1 1973 Scenario

At 1400 hrs, October 6th, 1973, the unsettled condition that passes for peace in the Middle East was shattered by the sound of Arab artillery fire in the Golan Heights and along the length of the Suez Canal. The war lasted until October 24th. Claims of victory were made by both sides after the war. While the victory claims were all debatable, one thing was clear: The Israelis were no longer considered supermen. If things had gone a bit differently in the Golan, Israel might have been destroyed.

**U.S. and Soviet Shipments:** The United States and Soviet Union both shipped large amounts of military supplies to their allies during the war. Except for items such as ammunition, most of these shipments were not successfully integrated into the forces of either side until after the fighting had actually ended. In the game, the Israelis will field four tank battalions (901, 902, 903, and 904 Arm Bn) and the Syrians will field one tank brigade (100 Tank Bde) built up from shipments received late in the war. In addition, both players will receive a few aircraft. See Appendix C for details.

**ATGM's:** The Israelis were quite surprised by the effectiveness of Arab anti-tank guided missiles, and it took some time for them to develop tactics to manage them. To reflect this, Arab ATGM lethality strengths are multiplied by 3 at the beginning of the game. In each combat in which they are used defensively, there is a 10% chance that the strength modifier will drop (until it reaches 1).

**SAM's:** It took the Israeli Air Force a few days to develop proper tactics for avoiding losses to Arabs SAM's at the beginning of the 1973 war. Also, Arab fixed SAM sites were more generous with their missiles early in the war than they were later. To reflect this, the effective strength of Arab fixed SAM sites is increased for the first few turns of the game. The base strength of Arab fixed SAM sites is dependant on the Arab Competence Level and game turn as follows:

| Arab Competence Level | Fixed SAM Strength Multiplier |
|---|---|
| Pushover | 1.3 |
| Moderate | 1.6 |
| Challenging | 1.9 |
| Hairy | 2.2 |
| Hideous | 2.5 |

The multiplier drops by .01 for each turn after the first until it reaches 1.0. The multiplier will not drop below 1.0. For example, if Arab Competence is set to Challenging, and it is game turn 4, the fixed SAM strength multiplier would be 1.6.

**The Suez Canal:** At the start of the scenario, no bridges cross the Suez canal. Players must build these bridges, or experience a very boring campaign in the south. See section 6.5.

**Game Length:** See section 6.7. Probable game length is about 36 turns.

**Victory:** Victory will be awarded to the player who manages to take at least 50 victory points worth of hexes away from the other player over the course of the war. In addition to the standard point awards, the Israeli player will be awarded 40 points each for meeting any of the following conditions:

1. At least one hex west of the Suez Canal is Israeli controlled.
2. At least one hex adjacent to Cairo is Israeli controlled.
3. At least one hex adjacent to Damascus is Israeli controlled.

## 8.2 1990's Scenario

As of this writing, prospects for a new round in the Arab-Israeli conflict seem (thankfully) to be limited. Syria alone is not a significant military threat to Israel. But one of the things that Israeli military and political leaders lose sleep over is the possibility of a radical change in the government of Egypt. If Egypt were to become radically hostile to Israel, war would almost certainly revisit the Middle East. This scenario assumes such a change in the Egyptian government, with hostilities following before too much of the Egyptians' new western equipment can be affected by any embargo on technical support. The Israelis begin the game partly mobilized and preparing to launch a preemptive campaign to retake the Sinai. The Arab forces are fully mobilized, with major reinforcements on the way to the area

from Libya, and smaller contingents arriving from other Arab countries.

**Political Background:** The following assumptions are made:

• Syria launches the initial attack, pre-empting the Israelis by about 24 hours.

• Despite heated rhetoric to the contrary, the Egyptian revolutionary leadership does not want, and is not prepared for war. The Syrian attack surprises Egypt more than it does Israel but internal political pressure and apparently aggressive Israeli intentions force Egyptian participation.

• Iraq is too involved in other affairs to send troops.

• Jordan remains firmly neutral. (Jordan is the only major Middle Eastern nation which has not cheerfully participated in the massive regional arms race since 1973.)

• The Persian Gulf states are politically restrained from providing more than financial support.

• Attitude changes in the world community as a whole since 1973 will result in increased early pressure to end hostilities and a lack of willingness to re-supply either side with military equipment during hostilities.

**Arab Volunteer Brigades:** These units in the Arab forces are formed of poorly trained, hastily organized revolutionary militia. Given their low strengths, they are of limited use.

**Attack Brigades:** Both sides have helicopter gunships concentrated for use in supporting ground forces. For game purposes these are designated as attack brigades and function exactly as

high survivability artillery units in combat. These units are identified by artillery icons on the map.

**The Suez Canal:** At the start of the scenario, no bridges cross the Suez Canal. Since the canal is firmly in Egyptian control at the start of this scenario, the Egyptian army will automatically build 10 bridges across the canal at the end of turn 1 (on all canal hexes south of hex row 25 inclusive). The players don't have to do anything for this to happen. Canal hexes which remain unbridged after the first turn may be bridged as described in section 6.5.

**Game length:** See section 6.7. Probable game length is about 16 turns.

**Victory:** Since the Israeli victory level is pinned at 0 until 350 victory points worth of (initially Arab) hexes have fallen into Israeli hands, the Israeli player is forced to at least retake the Sinai and advance a few hexes into Syria. The Arab player will win if he can increase Arab holdings by at least 50 victory points over the course of the game.

# 9.0 PLAYER NOTES

**General:** Keep your forces on roads whenever possible. The supply rules in this game reward the player who avoids straying from roads unless necessary. This is particularly critical for artillery, which will weaken rapidly if not receiving the road supply rate. Concentrate your forces before attacks. Make sure that you have plenty of artillery within three hexes of your critical attacks and defenses. Finally: **Take and hold Mt. Hermon.**

**The Israelis:** Use your ability to transfer equipment to build up monster divisional formations. This is the best way

to concentrate your forces for the attack. At the beginning of the game, your air force should make plenty of airstrikes on Arab SAM sites in order to limit losses on subsequent missions. If you ignore the Arab SAM's, your bomber force will slowly but surely be attritted to uselessness. Commit your bombers to close air support if you anticipate a large number of combats during the ground combat phase, otherwise put your aircraft into troop strike or interdiction missions.

**The Arabs:** Get the Egyptian army across the Suez Canal quickly! If the Egyptian army is still in Africa when the main body of the Israelis arrives in the western Sinai, the Arab player is doomed. Don't expect an Arab brigade to be equal to an Israeli brigade. Attack vigorously in the opening turns of the game, but watch the results of your attacks. If the Israeli ever gains the initiative (and he probably will at some point), you will never regain it. Don't try. If you sense that you have reached your *high water mark,* stay put and make the Israeli attack for the rest of the game. Remember that different nationalities will not fully cooperate in attacks. If you decide to use the Jordanians (1973), Iraqis (1973) or Libyans (1990's) in attacks, it is better to concentrate them in one area than to spread them out.

**1973:** The Arabs must be as aggressive as possible in the early stages of the game. If you manage to cross the Suez in good order, your advance through the Sinai will be irresistible for the first few turns. Just remember that when the Israelis stiffen, you should not push too hard. Your supply lines over the Suez bridges are too fragile to support a heavy demand if the Israeli air force makes serious attempts at interdiction.

In the Golan, you should crush the initial Israeli garrison. If the Israeli is slow to bring up reinforcements, continue your offensive and head for Haifa.

The Israeli should be on the lookout for all of the above. Use your initial Sinai forces to screen the Egyptian advance. Don't attack until you are ready.

**1990's:** This is a tough game for the Arab player. Be prepared for a re-play of the crushing Israeli victory of 1967. The Israeli player should be as aggressive as possible, especially in the Sinai. Conversely, except for the first few turns in the Golan, the Arab should be very cautious, launching attacks only when reasonably sure of inflicting serious losses on the Israelis.

The situation in the Golan heights is similar to that of 1973, with an increased concentration of hardware. Since the Israelis are partially mobilized at the start of hostilities, the Golan will not be quite as evenly matched as in 1973. Losses will be quite high, but rapidly building Israeli military superiority should easily reverse initial Syrian advances. With a bit of luck, the Israeli may be able to enter Damascus by game's end. The Syrian should use his initial superiority to crush two or three Israeli brigades and take additional rough terrain which may be defensively useful when the Israeli offensive develops.

In the Sinai, the Egyptian presence at the beginning of the game is limited to a small screening force. The bulk of the Egyptian army is waiting in Africa. With assured local superiority, the Israeli should be able to rapidly advance deep into the Sinai. The Israeli player should initially run west with little regard for flank security.

Follow on forces can mop up behind your lead elements. The Egyptian player should use his screening units to slow the Israeli advance while the army advances to defensive positions in central Sinai. The screening units will be destroyed, but they can buy a couple of turns.

## 10.0 DESIGNER'S NOTES

It is not possible to design a game covering an historical event which accurately reflects all aspects of the event. Readers of history will know more than the original participants. Israeli players of this game will most likely not repeat the bloody, fruitless attacks on Egyptian forces crossing the Suez canal the first day of the war. (If they do, they'll probably only do it once.) Arab commanders will have knowledge which will allow them to exploit their initial successes in ways the original commanders would have considered foolhardy. At lower levels of play the Arab computer player will limit itself to *historical* strategic decisions, but human players will not be so limited. Some wargame designers try to get around this kind of thing by placing onerous command and control restrictions on players. I have always disliked this approach. When I play a wargame I want to be placed in the position of the original commander without being forced to actually be the original commander.

It is possible to design a game which more or less accurately reflects the physical and political realities of an historical event. The orders of battle and performance characteristics of personnel and equipment are generally well known. In this case, considerable documentation on the situation is available. There is some disagreement on specific details, but the general outline is solid. Wherever possible, I have tried to adhere to the original unit designations for the 1973 scenario. The Israeli *forces* are actually unassigned battalion or two battalion task forces hastily mobilized and sent to the front. In many cases they are the *round out* formations for understrength active formations which begin the game elsewhere on the map. The unit designations for the 1990's scenario are completely imaginary; however, thanks to references such as the **IISS Military Balance** annuals, the orders of battle are reasonably complete and correct. The only cases of truly questionable organization are in the Egyptian army, which is in the process of reorganization. I have assumed that currently scheduled orders for equipment will be shipped on time, and that some of the Soviet equipment supplied to the Egyptians will be retired by the time of the 1990's scenario.

The word which best describes my opinion on the Arab-Israeli situation is *ambivalence.* Nobody in that part of the world wears a white hat. Game design considerations were influenced only by past military performance and estimates of current equipment capabilities.

In past conflicts the Israelis have managed to perform very well compared to the Arab forces they have faced. There is no reason to assume that this situation has changed, so there are significant strength modifiers for Israeli forces in both scenarios. I have yet to see an explanation for this that doesn't strike me as uncomfortably trite and smug. If the Arabs ever work through their problem (whatever it is), the Israelis may find themselves in real trouble.

# APPENDICES

## Appendix A: Unit Icons

All units in the game are represented by one of the following symbols.
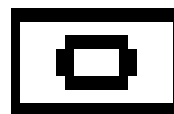
**Armor**
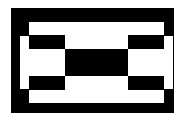
**Infantry
Mechanized
Amph. Mechanized**
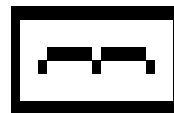
**Airborne
Airmobile
Para**
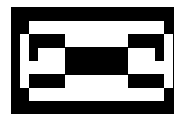
**Commando**

**Fort**

**Artillery
Attack**

These symbols are based on NATO standard military symbols.

## Appendix B: Equipment Descriptions

### TANKS

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| T-10 | 5 | 7 | Arab: 1973 only |
| T-34 | 3 | 6 | Arab: 1973 only |
| SU-100 | 5 | 6 | Arab: 1973 only |
| JSU-152 | 5 | 6 | Arab: 1973 only |
| T-54/55 | 5 | 7 | Arab |
| T-62 | 6 | 7 | Arab |
| T-72 | 9 | 9 | Arab: 1990's only |
| PT-76 | 2 | 4 | Arab |
| Sherman | 3 | 5 | Israeli: 1973 only |
| Super Sherman | 6 | 5 | Israeli: 1973 only |
| T-1967 | 7 | 7 | Israeli: 1973 only |
| Centurian | 7 | 8 | Israeli: Jordanian |
| M-48/60 | 7 | 8 | |
| M-60A3 | 9 | 9 | |
| Merkava-I/II | 9 | 9 | Israeli: 1990's only |
| Merkava-III | 10 | 10 | Israeli: 1990's only |

### RECCE VEHICLES

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| AML-90 | 3 | 4 | Arab |
| Saladin | 2 | 4 | Arab |

### INFANTRY

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| Fort Squad | 3 | 10 | Israeli |
| Infantry Squad | 2 | 2 | |
| Commando Squad | 3 | 2 | Arab |
| Volunteer Squad | 1 | 1 | Arab: 1990's only |

### APC OR MICV WITH SQUAD

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| M-3 | 3 | 2 | Israeli: 1973 only |
| M-113 | 3 | 3 | |
| BTR-50/60 | 3 | 3 | Arab |
| BMP | 4 | 4 | Arab |
| Saracen | 3 | 3 | Arab |
| Walid | 3 | 3 | Arab: 1990's only |
| Fahd | 3 | 3 | Arab: 1990's only |
| BMR-600P | 3 | 3 | Arab: 1990's only |

Recoilless Rifles

| Weapon Name | Lethality | Survivability | Notes |
|---|---|---|---|
| 82mm RR | 1 | 2 | |
| 106mm RR | 1 | 2 | |
| 107mm RR | 1 | 2 | Arab |

## ANTI TANK SYSTEMS

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| 85mm AT Gun | 1 | 2 | Arab |
| 100mm AT Gun | 2 | 2 | Arab |
| M-3/90 AT Gun | 2 | 3 | Israeli: 1973 only |
| Dragon ATGM | 1 | 1 | 1990's only |
| SS-11 ATGM | 2 | 1 | Israeli: 1973 only |
| Milan ATGM | 2 | 1 | 1990's only |
| TOW ATGM | 3 | 1 | |
| Swingfire ATGM | 3 | 1 | |
| Sagger ATGM | 2 | 1 | Arab |
| Spigot ATGM | 2 | 1 | Arab: 1990's only |
| BRDM/ATGM | 2 | 3 | Arab |
| M-113/ATGM | 3 | 4 | |

## MORTARS (ARTILLERY)

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| 81mm Mortar | 12 | 2 | |
| 82mm Mortar | 11 | 2 | Arab |
| 120mm Mortar | 11 | 2 | |
| 120mm SP Mortar | 11 | 3 | |
| 160mm Mortar | 13 | 2 | Arab |
| 240mm Mortar | 15 | 2 | Arab |

## GUNS (ARTILLERY)

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| 25 Pounder Gun | 11 | 2 | Jordanian |
| 122mm Gun | 12 | 2 | |
| 130mm Gun | 14 | 2 | Arab |
| 152mm Gun | 14 | 2 | Arab |
| 155mm Gun | 14 | 2 | |
| 180mm Gun | 12 | 2 | Arab |
| T-34/122 SP Gun | 11 | 5 | Arab: 1973 only |
| 105mm SP Gun | 11 | 5 | Israeli |
| 155mm SP Gun | 15 | 5 | |
| 175mm SP Gun | 13 | 4 | |
| M-110 SP Gun | 13 | 4 | |
| 2S1 SP Gun | 11 | 5 | Arab: 1990's only |
| 2S3 SP Gun | 13 | 5 | Arab: 1990's only |

## MULTIPLE ROCKET LAUNCHERS (ARTILLERY)

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| BM-21 MRL | 17 | 2 | Arab |
| BM-22 MRL | 19 | 3 | Arab (BM-27) |
| BM-24 MRL | 16 | 2 | |

## HELICOPTER GUNSHIPS (TREATED AS ARTILLERY)

| WEAPON NAME | LETHALITY | SURVIVABILITY | NOTES |
|---|---|---|---|
| AH-1 | 12 | 8 | Israeli: 1990's only |
| Gazelle | 11 | 8 | Arab: 1990's only |
| Mi-24/25 | 12 | 8 | Arab: 1990's only |

# Appendix C: 1973 Orders of Battle/Appearance

## AIR FORCES

### Arab Forces

| AIRCRAFT | INITIAL # | AIR SUPERIORITY | STRIKE/INTERDICTION | CLOSE AIR SUPPORT | AVIONICS | SURVIVABILITY | TYPE |
|---|---|---|---|---|---|---|---|
| MiG-17 | 195 | 1 | 1 | 1 | 1 | 1 | (fighter) |
| MiG-21, Mirage III | 490 | 2 | 1 | 1 | 2 | 2 | (fighter) |
| Hunter | 0 | 1 | 2 | 2 | 1 | 1 | (bomber) |
| Su-7 | 130 | 0 | 2 | 1 | 1 | 1 | (bomber) |
| Tu-16 | 25 | 0 | 4 | 0 | 2 | 0 | (bomber) |

### Arab Reinforcements

| TURN | AIRCRAFT | NOTES |
|---|---|---|
| 6 | 15 MiG-21 | Algerian |
| 8 | 15 Su-7 | Algerian |
| 10 | 15 MiG-17 | Algerian |
| 11 | 15 Hunter | Iraqi |
| 18+ | 5 MiG-21 | Soviet replacements |

### Israeli Forces

| AIRCRAFT | INITIAL # | AIR SUPERIORITY | STRIKE/INTERDICTION | CLOSE AIR SUPPORT | AVIONICS | SURVIVABILITY | TYPE |
|---|---|---|---|---|---|---|---|
| Super Mystere | 18 | 1 | 2 | 2 | 1 | 2 | (bomber) |
| Mirage III/Kfir | 79 | 2 | 1 | 1 | 2 | 3 | (fighter) |
| F-4 | 121 | 3 | 3 | 3 | 3 | 4 | (fighter) |
| A-4 | 162 | 1 | 2 | 2 | 1 | 2 | (bomber) |

### Israeli Replacements

| TURN | AIRCRAFT | NOTES |
|---|---|---|
| 16+ | 3 A-4 | American replacements: even turns only |
| 17+ | 2 F-4 | American replacements: odd turns only |

## INITIAL ARAB GROUND FORCES

### In Syria:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Syrn 4/1 Arm Bde | 47, 6 | 0 | 48 | 67 |
| Syrn 91/1 Arm Bde | 46, 5 | 0 | 58 | 68 |
| Syrn 2/1 Mech Bde | 46, 4 | 26 | 45 | 56 |
| Syrn 20/3 Arm Bde | 47, 2 | 0 | 58 | 68 |
| Syrn 65/3 Arm Bde | 46, 1 | 0 | 48 | 67 |
| Syrn 15/3 Mech Bde | 48, 2 | 26 | 45 | 56 |
| Syrn 112/5 Inf Bde | 45, 6 | 26 | 27 | 38 |
| Syrn 61/5 Inf Bde | 44, 6 | 26 | 37 | 45 |
| Syrn 132/5 Mech Bde | 45, 6 | 26 | 48 | 56 |
| Syrn 68/7 Inf Bde | 44, 2 | 26 | 27 | 38 |
| Syrn 121/7 Mech Bde | 43, 2 | 26 | 48 | 56 |
| Syrn 52/9 Inf Bde | 44, 3 | 26 | 30 | 45 |
| Syrn 53/9 Inf Bde | 44, 3 | 26 | 27 | 38 |
| Syrn 43/9 Inf Bde | 44, 4 | 26 | 37 | 45 |
| Syrn 47 Arm Bde | 44, 4 | 0 | 48 | 67 |
| Syrn 78 Arm Bde | 43, 2 | 0 | 48 | 67 |
| Syrn 51 Arm Bde | 45, 5 | 0 | 48 | 67 |
| Syrn 70 Arm Bde | 49, 1 | 0 | 58 | 68 |
| Syrn 141 Arm Bde | 45, 3 | 0 | 58 | 68 |
| Syrn 81 Arm Bde | 49, 1 | 0 | 58 | 68 |
| Syrn 62 Mech Bde | 45, 5 | 26 | 52 | 62 |
| Syrn 30 Inf Bde | 46, 3 | 26 | 35 | 52 |
| Syrn 90 Inf Bde | 46, 3 | 26 | 35 | 52 |
| Syrn 82 Abn Rgt | 43, 1 | 26 | 27 | 22 |
| Syrn 1 Cdo Bde | 48, 1 | 19 | 27 | 21 |
| Syrn 2 Cdo Bde | 49, 2 | 13 | 18 | 14 |
| Syrn 64/1 Arty Rgt | 47, 5 | 130 | 3 | 22 |
| Syrn 13/3 Arty Rgt | 47, 1 | 130 | 3 | 22 |
| Syrn 50/5 Arty Rgt | 44, 6 | 130 | 3 | 22 |
| Syrn 70/7 Arty Rgt | 44, 1 | 130 | 3 | 22 |
| Syrn 89/9 Arty Rgt | 45, 4 | 130 | 3 | 22 |
| Syrn 63 Arty Rgt | 45, 2 | 43 | 3 | 10 |
| Syrn 64 Arty Rgt | 45, 2 | 75 | 3 | 14 |
| Syrn 66 Arty Rgt | 46, 6 | 75 | 3 | 14 |
| Syrn Cmp Arty Rgt | 45, 4 | 39 | 0 | 18 |
| 1 Moroccan Inf Bde | 43, 1 | 26 | 18 | 24 |

### In Egypt:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Egypt 1 Cdo Bde | 10, 26 | 26 | 35 | 31 |
| Egypt 2 Cdo Bde | 10, 28 | 26 | 41 | 44 |
| Egypt 3 Cdo Bde | 10, 28 | 26 | 35 | 31 |
| Egypt 4 Cdo Bde | 10, 31 | 26 | 41 | 44 |
| Egypt 5 Cdo Bde | 12, 34 | 26 | 35 | 31 |
| Egypt 6 Cdo Bde | 12, 34 | 26 | 35 | 31 |
| Egypt 1 AM Bde | 9, 34 | 26 | 33 | 28 |
| Egypt 2 AM Bde | 6, 28 | 26 | 33 | 28 |
| Egypt 150 Abn Bde | 8, 34 | 26 | 33 | 28 |
| Egypt 182 Abn Bde | 6, 29 | 26 | 33 | 28 |
| Egypt 1/6 Mech Bde | 7, 35 | 26 | 43 | 58 |
| Egypt 2/6 Mech Bde | 6, 34 | 26 | 43 | 58 |
| Egypt 3/6 Mech Bde | 5, 35 | 26 | 43 | 58 |
| Egypt 1/3 Mech Bde | 6, 31 | 26 | 43 | 58 |
| Egypt 2/3 Mech Bde | 5, 32 | 26 | 43 | 58 |
| Egypt 23 Arm Bde | 2, 33 | 0 | 48 | 67 |

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Egypt 1/2 Arm Bde | 9, 30 | 0 | 48 | 67 |
| Egypt 2/2 Inf Bde | 9, 30 | 26 | 36 | 50 |
| Egypt 3/2 Inf Bde | 10, 29 | 26 | 27 | 31 |
| Egypt 4/2 Inf Bde | 10, 29 | 26 | 27 | 31 |
| Egypt 1/16 Arm Bde | 9, 31 | 0 | 48 | 67 |
| Egypt 2/16 Inf Bde | 10, 31 | 26 | 27 | 31 |
| Egypt 3/16 Inf Bde | 10, 30 | 26 | 27 | 31 |
| Egypt 4/16 Inf Bde | 10, 30 | 26 | 42 | 50 |
| Egypt 1/18 Arm Bde | 10, 25 | 0 | 48 | 67 |
| Egypt 2/18 Inf Bde | 10, 27 | 26 | 32 | 38 |
| Egypt 3/18 Inf Bde | 10, 27 | 26 | 32 | 38 |
| Egypt 4/18 Inf Bde | 10, 26 | 26 | 27 | 31 |
| Egypt 1/23 Mech Bde | 8, 28 | 26 | 50 | 61 |
| Egypt 2/23 Mech Bde | 8, 28 | 26 | 50 | 61 |
| Egypt 1/21 Arm Bde | 8, 30 | 0 | 48 | 67 |
| Egypt 2/21 Mech Bde | 8, 30 | 26 | 50 | 61 |
| Egypt 115 Mech Bde | 9, 27 | 26 | 50 | 61 |
| Egypt 15 Arm Bde | 6, 27 | 0 | 48 | 67 |
| Egypt 2 Inf Bde | 9, 26 | 26 | 42 | 50 |
| Egypt 1/7 Arm Bde | 11, 34 | 0 | 48 | 67 |
| Egypt 2/7 Inf Bde | 11, 34 | 26 | 36 | 50 |
| Egypt 3/7 Inf Bde | 12, 33 | 26 | 32 | 37 |
| Egypt 4/7 Inf Bde | 12, 33 | 26 | 27 | 31 |
| Egypt 1/19 Arm Bde | 12, 36 | 0 | 48 | 67 |
| Egypt 2/19 Inf Bde | 12, 36 | 26 | 42 | 50 |
| Egypt 3/19 Inf Bde | 12, 35 | 26 | 32 | 37 |
| Egypt 4/19 Inf Bde | 12, 35 | 26 | 27 | 31 |
| Egypt 1/4 Arm Bde | 10, 32 | 0 | 48 | 67 |
| Egypt 2/4 Mech Bde | 10, 32 | 26 | 50 | 61 |
| Egypt 116 Mech Bde | 8, 32 | 26 | 50 | 61 |
| Egypt Amph Mech Bde | 11, 33 | 19 | 35 | 39 |
| Egypt 25 Arm Bde | 9, 26 | 0 | 48 | 67 |
| Egypt 1/2A Arty Bde | 9, 37 | 43 | 3 | 10 |
| Egypt 2/2A Arty Bde | 9, 32 | 75 | 3 | 14 |
| Egypt 3 Arty Rgt | 4, 32 | 130 | 3 | 22 |
| Egypt 6 Arty Rgt | 4, 34 | 130 | 3 | 22 |
| Egypt 2 Arty Rgt | 9, 29 | 130 | 3 | 22 |
| Egypt 16 Arty Rgt | 9, 31 | 130 | 3 | 22 |
| Egypt 18 Arty Rgt | 10, 25 | 130 | 3 | 22 |
| Egypt 23 Arty Rgt | 7, 28 | 130 | 3 | 22 |
| Egypt 21 Arty Rgt | 7, 31 | 130 | 3 | 22 |
| Egypt 7 Arty Rgt | 11, 33 | 130 | 3 | 22 |
| Egypt 19 Arty Rgt | 11, 35 | 130 | 3 | 22 |
| Egypt 4 Arty Rgt | 9, 33 | 130 | 3 | 22 |
| Egypt 1/1A Arty Bde | 3, 33 | 43 | 3 | 10 |
| Egypt 2/1A Arty Bde | 3, 34 | 75 | 3 | 14 |
| Egypt 1/3A Arty Bde | 11, 36 | 43 | 3 | 10 |
| Egypt 2/3A Arty Bde | 11, 35 | 75 | 3 | 14 |
| Libyan Arm Bde | 2, 29 | 0 | 48 | 67 |
| Kuwaiti Inf Bn | 1, 34 | 7 | 5 | 6 |
| 1 PLA Inf Bde | 3, 35 | 13 | 14 | 26 |
| 2 PLA Inf Bde | 3, 32 | 13 | 10 | 14 |

### In Jordan:

(Jordanian units are neutral at start of scenario)

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Jrdn 1/1 Arm Bde | 46, 7 | 0 | 64 | 71 |
| Jrdn 2/1 Mech Bde | 49, 9 | 21 | 51 | 60 |
| Jrdn 1 Mech Bde | 45, 16 | 21 | 51 | 60 |
| Jrdn 1 Arty Rgt | 45, 9 | 28 | 0 | 6 |

## ARAB GROUND FORCES REINFORCEMENTS

### In Syria:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 6* | | | | |
| Iraqi 1/3 Arm Bde | 49, 5 | 0 | 48 | 67 |
| *Turn 7* | | | | |
| Iraqi 2/3 Arm Bde | 49, 5 | 0 | 48 | 67 |
| *Turn 8* | | | | |
| Iraqi 3/3 Mech Bde | 49, 5 | 26 | 45 | 56 |
| *Turn 9* | | | | |
| Iraqi 3 Arty Rgt | 49, 5 | 130 | 3 | 22 |
| *Turn 10* | | | | |
| Iraqi 1/6 Arm Bde | 49, 5 | 0 | 48 | 67 |
| *Turn 18* | | | | |
| Syrn 100 Arm Bde | 49, 2 | 0 | 58 | 67 |

### In Egypt:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 5* | | | | |
| 2 Moroccan Inf Bde | 0, 27 | 26 | 18 | 24 |
| *Turn 24* | | | | |
| Tunisian Inf Bn | 0, 27 | 7 | 5 | 6 |
| *Turn 47* | | | | |
| Algerian Arm Bde | 0, 27 | 0 | 47 | 66 |

### In Jordan:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 2* | | | | |
| Jrdn 1/2 Arm Bde | 42, 16 | 0 | 64 | 71 |
| Jrdn 2 Arty Rgt | 44, 15 | 28 | 0 | 6 |
| *Turn 3* | | | | |
| Jrdn 2/2 Mech Bde | 42, 16 | 21 | 51 | 60 |
| *Turn 4* | | | | |
| Jrdn 1/3 Mech Bde | 42, 12 | 21 | 51 | 60 |
| Jrdn 3 Arty Rgt | 43, 12 | 28 | 0 | 6 |
| *Turn 5* | | | | |
| Jrdn 2/3 Mech Bde | 42, 13 | 21 | 51 | 60 |
| *Turn 6* | | | | |
| Saudi Inf Bde | 46, 25 | 14 | 18 | 22 |
| Jrdn 1/4 Inf Bde | 42, 17 | 21 | 16 | 22 |
| Jrdn 4 Arty Rgt | 44, 15 | 26 | 0 | 6 |
| *Turn 7* | | | | |
| Jrdn 2/4 Inf Bde | 42, 17 | 21 | 16 | 22 |
| *Turn 8* | | | | |
| Jrdn 1/5 Inf Bde | 42, 8 | 21 | 16 | 22 |
| Jrdn 5 Arty Rgt | 43, 12 | 26 | 0 | 6 |
| *Turn 9* | | | | |
| Jrdn 2/5 Inf Bde | 43, 8 | 21 | 16 | 22 |
| Jrdn 6 Arty Rgt | 45, 16 | 19 | 0 | 9 |

## Initial Israeli Ground Forces

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Isrli 1 Golan | 42, 1 | 7 | 7 | 8 |
| Isrli 2 Golan | 42, 2 | 10 | 10 | 12 |
| Isrli 3 Golan | 43, 3 | 30 | 10 | 13 |
| Isrli 4 Golan | 43, 4 | 34 | 14 | 18 |
| Isrli 5 Golan | 43, 5 | 34 | 10 | 14 |
| Isrli 6 Golan | 44, 5 | 10 | 10 | 12 |
| Isrli 7 Golan | 43, 6 | 10 | 10 | 12 |
| Isrli 8 Golan | 43, 7 | 10 | 10 | 12 |
| Isrli 1 Bar Lev | 12, 23 | 7 | 5 | 6 |
| Isrli 2 Bar Lev | 11, 26 | 10 | 7 | 8 |
| Isrli 3 Bar Lev | 11, 27 | 10 | 7 | 8 |
| Isrli 4 Bar Lev | 11, 29 | 10 | 7 | 8 |
| Isrli 5 Bar Lev | 11, 31 | 10 | 7 | 8 |
| Isrli 6 Bar Lev | 13, 33 | 10 | 7 | 8 |
| Isrli 7 Bar Lev | 13, 35 | 10 | 7 | 8 |
| Isrli 8 Bar Lev | 13, 36 | 10 | 7 | 8 |
| Isrli 1/188 Arm Bn | 43, 3 | 0 | 69 | 26 |
| Isrli 2/188 Arm Bn | 43, 5 | 0 | 69 | 26 |
| Isrli 1/14 Arm Co | 13, 26 | 0 | 23 | 8 |
| Isrli 2/14 Arm Co | 12, 26 | 0 | 23 | 8 |
| Isrli 3/14 Arm Co | 12, 27 | 0 | 23 | 8 |
| Isrli 4/14 Arm Co | 12, 28 | 0 | 23 | 8 |
| Isrli 5/14 Arm Co | 12, 29 | 0 | 23 | 8 |
| Isrli 6/14 Arm Co | 12, 31 | 0 | 23 | 8 |
| Isrli 7/14 Arm Co | 14, 33 | 0 | 23 | 8 |
| Isrli 8/14 Arm Co | 14, 34 | 0 | 23 | 8 |
| Isrli 9/14 Arm Co | 14, 36 | 0 | 23 | 8 |
| Isrli 17 Arm Bde | 14, 27 | 70 | 221 | 89 |
| Isrli 401 Arm Bde | 19, 35 | 70 | 221 | 89 |
| Isrli 460 Arm Bde | 19, 31 | 70 | 221 | 89 |
| Isrli 204 Mech Bde | 25, 25 | 124 | 133 | 39 |
| Isrli 99 Para Bde | 30, 30 | 64 | 86 | 32 |
| Isrli 7 Arm Bde | 42, 3 | 70 | 221 | 89 |
| Isrli 679 Arm Bde | 40, 7 | 70 | 82 | 36 |
| Isrli District Bde | 39, 5 | 81 | 32 | 17 |
| Isrli 4 Mech Bde | 37, 7 | 59 | 46 | 21 |
| Isrli 9 Mech Bde | 40, 7 | 124 | 162 | 55 |
| Isrli 205 Arm Bde | 38, 13 | 70 | 82 | 36 |
| Isrli 70 Mech Bde | 38, 13 | 124 | 46 | 19 |
| Isrli 217 Arm Bde | 29, 22 | 70 | 152 | 63 |
| Isrli 600 Arm Bde | 29, 22 | 70 | 152 | 63 |
| Isrli Cmp Para Bde | 34, 14 | 64 | 86 | 32 |
| Isrli 14 Arty Bn | 13, 27 | 108 | 0 | 12 |
| Isrli 15 Arty Bn | 15, 34 | 79 | 0 | 12 |
| Isrli 16 Arty Bn | 25, 25 | 93 | 0 | 9 |
| Isrli 17 Arty Bn | 42, 3 | 79 | 0 | 12 |
| Isrli 18 Arty Bn | 41, 4 | 108 | 0 | 12 |

## Israeli Ground Forces Reinforcements

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 1* | | | | |
| Isrli 101 Inf Bde | 37, 7 | 124 | 91 | 39 |
| Isrli 109 Mech Bde | 34, 15 | 124 | 133 | 53 |
| Isrli Force Aleph | 35, 17 | 21 | 28 | 10 |
| Isrli 19 Arty Bn | 34, 15 | 93 | 0 | 9 |
| Isrli 20 Arty Bn | 35, 17 | 108 | 0 | 12 |

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 2* | | | | |
| Isrli 107 Mech Bde | 29, 22 | 124 | 133 | 39 |
| Isrli 103 Inf Bde | 34, 15 | 124 | 91 | 39 |
| Isrli 105 Inf Bde | 35, 17 | 124 | 104 | 45 |
| Isrli Force Beth | 37, 7 | 0 | 138 | 52 |
| Isrli Force Gimel | 35, 17 | 43 | 86 | 21 |
| Isrli 21 Arty Bn | 29, 22 | 79 | 0 | 12 |
| Isrli 22 Arty Bn | 34, 15 | 108 | 0 | 12 |
| *Turn 3* | | | | |
| Isrli 108 Mech Bde | 29, 22 | 124 | 133 | 39 |
| Isrli 110 Mech Bde | 34, 15 | 124 | 133 | 39 |
| Isrli 111 Mech Bde | 36, 23 | 124 | 133 | 39 |
| Isrli 106 Inf Bde | 37, 7 | 124 | 91 | 39 |
| Isrli 23 Arty Bn | 29, 22 | 79 | 0 | 12 |
| Isrli 24 Arty Bn | 34, 15 | 108 | 0 | 12 |
| Isrli 25 Arty Bn | 37, 7 | 79 | 0 | 12 |
| Isrli 26 Arty Bn | 35, 17 | 108 | 0 | 12 |
| *Turn 4* | | | | |
| Isrli 102 Inf Bde | 37, 7 | 124 | 91 | 39 |
| Isrli 104 Inf Bde | 34, 15 | 124 | 91 | 39 |
| Isrli Force Daleth | 35, 17 | 21 | 28 | 10 |
| Isrli Force He | 29, 22 | 43 | 86 | 21 |
| Isrli 27 Arty Bn | 37, 7 | 79 | 0 | 12 |
| Isrli 28 Arty Bn | 34, 15 | 108 | 0 | 12 |
| Isrli 29 Arty Bn | 29, 22 | 115 | 0 | 4 |
| Isrli 30 Arty Bn | 35, 17 | 115 | 0 | 4 |
| *Turn 5* | | | | |
| Isrli Force Vav | 29, 22 | 10 | 152 | 57 |
| Isrli Force Zayin | 36, 23 | 21 | 28 | 10 |
| Isrli Force Cheth | 37, 7 | 10 | 132 | 36 |
| Isrli Force Teth | 34, 15 | 10 | 152 | 57 |
| Isrli 31 Arty Bn | 37, 7 | 79 | 0 | 12 |
| *Turn 6* | | | | |
| Isrli Force Yod | 35, 17 | 21 | 28 | 10 |
| Isrli Force Kaph | 36, 23 | 10 | 152 | 57 |
| Isrli Force Lamed | 34, 15 | 10 | 152 | 57 |
| Isrli Force Mem | 37, 7 | 21 | 28 | 10 |
| *Turn 7* | | | | |
| Isrli Force Nun | 37, 7 | 10 | 132 | 36 |
| Isrli Force Samekh | 34, 15 | 0 | 128 | 42 |
| Isrli Force Ayin | 35, 17 | 10 | 152 | 57 |
| Isrli Force Pe | 29, 22 | 0 | 138 | 52 |
| *Turn 8* | | | | |
| Isrli Force Sadi | 37, 7 | 10 | 152 | 57 |
| Isrli Force Koph | 34, 15 | 0 | 138 | 49 |
| Isrli Force Resh | 29, 22 | 0 | 138 | 46 |
| *Turn 19* | | | | |
| Isrli 901 Arm Bn | 34, 15 | 0 | 74 | 27 |
| *Turn 27* | | | | |
| Isrli 902 Arm Bn | 34, 15 | 0 | 74 | 27 |
| *Turn 31* | | | | |
| Isrli 903 Arm Bn | 34, 15 | 0 | 80 | 27 |
| *Turn 35* | | | | |
| Isrli 904 Arm Bn | 34, 15 | 0 | 80 | 27 |

## Appendix D: 1990's Orders of Battle/Appearance

### AIR FORCES

#### Arab Forces

| AIRCRAFT | INITIAL # | AIR SUPERIORITY | STRIKE/INTERDICTION | CLOSE AIR SUPPORT | AVIONICS | SURVIVABILITY | TYPE |
|---|---|---|---|---|---|---|---|
| MiG-17 | 195 | 1 | 1 | 1 | 1 | 1 | (fighter) |
| Mirage 2000 | 16 | 4 | 2 | 1 | 3 | 3 | (fighter) |
| F-16, Mirage F1 | 99 | 4 | 3 | 3 | 3 | 3 | (fighter) |
| MiG-21, J-6, J-7 | 395 | 2 | 1 | 1 | 2 | 2 | (fighter) |
| Alpha, Mirage V | 95 | 1 | 2 | 2 | 2 | 2 | (bomber) |
| MiG-23 | 203 | 3 | 1 | 1 | 2 | 3 | (fighter) |
| F-4 | 33 | 3 | 3 | 3 | 3 | 3 | (fighter) |
| Su-20 | 75 | 2 | 3 | 2 | 2 | 2 | (bomber) |
| MiG-29 | 30 | 5 | 1 | 1 | 4 | 3 | (fighter) |
| MiG-25 | 83 | 3 | 0 | 0 | 4 | 3 | (fighter) |
| Su-24 | 38 | 1 | 4 | 3 | 3 | 2 | (bomber) |

#### Arab Reinforcements

| TURN | AIRCRAFT | NOTES |
|---|---|---|
| 1 | 15 Su-20 | Libyan |
| 2 | 15 MiG-21 | Algerian |
| 3 | 15 MiG-23 | Libyan |
| 5 | 15 Su-20 | Libyan |
| 7 | 15 MiG-21 | Algerian |
| 9 | 15 Su-20 | Libyan |

#### Israeli Forces

| AIRCRAFT | INITIAL # | AIR SUPERIORITY | STRIKE/INTERDICTION | CLOSE AIR SUPPORT | AVIONICS | SURVIVABILITY | TYPE |
|---|---|---|---|---|---|---|---|
| MiG-17 | 195 | 1 | 1 | 1 | 1 | 1 | (fighter) |
| F-15 | 47 | 5 | 3 | 2 | 5 | 4 | (fighter) |
| F-16 | 139 | 4 | 3 | 3 | 3 | 4 | (fighter) |
| F-4 | 112 | 3 | 3 | 3 | 3 | 4 | (fighter) |
| A-4 | 121 | 1 | 2 | 2 | 1 | 2 | (bomber) |
| Kfir C | 95 | 4 | 2 | 2 | 3 | 4 | (fighter) |

### ISRAELI REPLACEMENTS

Each turn, the Israeli air forces will receive from 1 to 3 aircraft of a randomly determined type. This represents aircraft from stores and limited American shipments of replacements.

## INITIAL ARAB GROUND FORCES

### In Syria:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Syrn 1 Arm Div | 49, 1 | 76 | 294 | 325 |
| Syrn 2 Arm Div | 45, 3 | 76 | 294 | 325 |
| Syrn 3 Arm Div | 43, 2 | 76 | 264 | 305 |
| Syrn 4 Arm Div | 44, 2 | 76 | 294 | 325 |
| Syrn 5 Arm Div | 44, 3 | 76 | 294 | 325 |
| Syrn 6 Mech Div | 43, 2 | 148 | 278 | 315 |
| Syrn 7 Mech Div | 44, 2 | 148 | 218 | 275 |
| Syrn 8 Mech Div | 44, 3 | 148 | 218 | 275 |
| Syrn 11 Mech Bde | 44, 4 | 26 | 47 | 58 |
| Syrn 12 Mech Bde | 45, 5 | 26 | 47 | 58 |
| Syrn 13 Mech Bde | 45, 6 | 26 | 47 | 58 |
| Syrn 14 Mech Bde | 45, 7 | 26 | 47 | 58 |
| Syrn 15 Mech Bde | 49, 2 | 26 | 47 | 58 |
| Syrn 16 Mech Bde | 48, 1 | 26 | 47 | 58 |
| Syrn 21 Inf Bde | 44, 4 | 26 | 33 | 33 |
| Syrn 22 Inf Bde | 45, 5 | 26 | 33 | 33 |
| Syrn 23 Inf Bde | 45, 6 | 26 | 33 | 33 |
| Syrn 24 Inf Bde | 45, 7 | 26 | 33 | 33 |
| Syrn 25 Inf Bde | 43, 1 | 26 | 33 | 33 |
| Syrn 1 Cmp Cdo Bde | 43, 1 | 19 | 29 | 22 |
| Syrn 2 Cmp Cdo Bde | 47, 1 | 13 | 29 | 21 |
| Syrn 3 Cmp Cdo Bde | 48, 2 | 13 | 29 | 21 |
| Syrn 4 Cmp Cdo Bde | 48, 2 | 13 | 29 | 21 |
| Syrn 31 Arty Bde | 44, 1 | 142 | 3 | 25 |
| Syrn 32 Arty Bde | 45, 4 | 142 | 3 | 25 |
| Syrn 33 Arty Bde | 46, 4 | 142 | 3 | 25 |
| Syrn 34 Arty Bde | 46, 6 | 142 | 3 | 25 |
| Syrn 35 Arty Bde | 45, 3 | 142 | 3 | 25 |
| Syrn 51 Hy Arty Bde | 44, 1 | 144 | 3 | 25 |
| Syrn 52 Hy Arty Bde | 45, 4 | 135 | 3 | 23 |
| Syrn 53 Hy Arty Bde | 45, 2 | 163 | 3 | 27 |
| Syrn 54 Hy Arty Bde | 46, 6 | 163 | 3 | 27 |
| Syrn 55 Hy Arty Bde | 46, 5 | 100 | 3 | 18 |
| Syrn 56 Hy Arty Bde | 45, 2 | 100 | 3 | 18 |
| Syrn Cmp Arty Bde | 49, 1 | 200 | 0 | 56 |
| Syrn 1 Atk Bde | 46, 3 | 60 | 0 | 40 |
| Syrn 2 Atk Bde | 46, 3 | 55 | 0 | 40 |

### In Egypt:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Egypt 1 Cdo Bde | 19, 28 | 26 | 29 | 25 |
| Egypt 2 Cdo Bde | 22, 30 | 26 | 29 | 25 |
| Egypt 1 AM Bde | 5, 34 | 26 | 29 | 25 |
| Egypt 2 AM Bde | 5, 34 | 26 | 29 | 25 |
| Egypt 150 Abn Bde | 8, 26 | 26 | 29 | 25 |
| Egypt 1/1 Arm Bde | 10, 28 | 0 | 58 | 67 |
| Egypt 2/1 Arm Bde | 10, 28 | 0 | 58 | 67 |
| Egypt 3/1 Mech Bde | 9, 29 | 26 | 47 | 58 |
| Egypt 1/2 Arm Bde | 10, 29 | 0 | 58 | 67 |
| Egypt 2/2 Arm Bde | 10, 29 | 0 | 58 | 67 |
| Egypt 3/2 Mech Bde | 9, 30 | 26 | 47 | 58 |

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Egypt 1/3 Arm Bde | 10, 31 | 0 | 58 | 67 |
| Egypt 2/3 Arm Bde | 10, 31 | 0 | 58 | 67 |
| Egypt 3/3 Mech Bde | 9, 32 | 26 | 48 | 55 |
| Egypt 1/4 Arm Bde | 12, 33 | 0 | 86 | 86 |
| Egypt 2/4 Arm Bde | 12, 33 | 0 | 86 | 86 |
| Egypt 3/4 Mech Bde | 11, 34 | 26 | 48 | 55 |
| Egypt 1/5 Arm Bde | 10, 26 | 0 | 86 | 86 |
| Egypt 2/5 Mech Bde | 10, 26 | 26 | 59 | 59 |
| Egypt 3/5 Mech Bde | 9, 26 | 26 | 45 | 55 |
| Egypt 1/6 Arm Bde | 10, 27 | 0 | 67 | 76 |
| Egypt 2/6 Mech Bde | 10, 27 | 26 | 45 | 55 |
| Egypt 3/6 Mech Bde | 9, 27 | 26 | 45 | 55 |
| Egypt 1/7 Arm Bde | 12, 34 | 0 | 67 | 76 |
| Egypt 2/7 Mech Bde | 12, 34 | 26 | 45 | 55 |
| Egypt 3/7 Mech Bde | 11, 35 | 26 | 45 | 55 |
| Egypt 1/8 Arm Bde | 12, 35 | 0 | 67 | 76 |
| Egypt 2/8 Mech Bde | 12, 35 | 26 | 45 | 55 |
| Egypt 3/8 Mech Bde | 11, 36 | 26 | 45 | 55 |
| Egypt 1/9 Arm Bde | 7, 28 | 0 | 86 | 86 |
| Egypt 2/9 Mech Bde | 7, 28 | 26 | 45 | 55 |
| Egypt 3/9 Mech Bde | 6, 27 | 26 | 45 | 55 |
| Egypt 1/10 Arm Bde | 7, 31 | 0 | 86 | 86 |
| Egypt 2/10 Mech Bde | 7, 31 | 26 | 45 | 55 |
| Egypt 3/10 Mech Bde | 6, 31 | 26 | 48 | 55 |
| Egypt 1/11 Mech Bde | 9, 35 | 26 | 48 | 55 |
| Egypt 2/11 Inf Bde | 9, 35 | 26 | 35 | 32 |
| Egypt 3/11 Inf Bde | 8, 34 | 26 | 35 | 32 |
| Egypt 1/12 Mech Bde | 3, 33 | 26 | 48 | 55 |
| Egypt 2/12 Inf Bde | 3, 34 | 26 | 35 | 32 |
| Egypt 3/12 Inf Bde | 2, 32 | 26 | 35 | 32 |
| Egypt RG Arm Bde | 2, 33 | 0 | 86 | 86 |
| Egypt 21 Arm Bde | 8, 30 | 0 | 86 | 86 |
| Egypt 31 Mech Bde | 16, 25 | 26 | 48 | 55 |
| Egypt 32 Mech Bde | 15, 30 | 26 | 48 | 55 |
| Egypt 33 Mech Bde | 20, 34 | 26 | 48 | 55 |
| Egypt 41 Inf Bde | 6, 26 | 26 | 35 | 32 |
| Egypt 42 Inf Bde | 3, 28 | 26 | 35 | 32 |
| Egypt 43 Inf Bde | 3, 31 | 26 | 35 | 32 |
| Egypt 44 Inf Bde | 4, 35 | 26 | 35 | 32 |
| Egypt 1 SP Arty Bde | 9, 29 | 169 | 0 | 43 |
| Egypt 2 SP Arty Bde | 9, 30 | 169 | 0 | 43 |
| Egypt 3 Arty Bde | 9, 32 | 86 | 0 | 14 |
| Egypt 4 Arty Bde | 11, 34 | 86 | 0 | 14 |
| Egypt 5 Arty Bde | 9, 26 | 86 | 0 | 14 |
| Egypt 6 Arty Bde | 9, 27 | 86 | 0 | 14 |
| Egypt 7 Arty Bde | 11, 35 | 86 | 0 | 14 |
| Egypt 8 Arty Bde | 11, 36 | 86 | 0 | 14 |
| Egypt 9 Arty Bde | 6, 27 | 86 | 0 | 14 |
| Egypt 10 Arty Bde | 6, 31 | 86 | 0 | 14 |
| Egypt 61 Hy Arty Bde | 5, 28 | 100 | 0 | 14 |
| Egypt 62 Hy Arty Bde | 6, 34 | 100 | 0 | 14 |
| Egypt 63 Hy Arty Bde | 8, 32 | 100 | 0 | 14 |
| Egypt 64 Hy Arty Bde | 8, 32 | 100 | 0 | 14 |
| Egypt 65 Hy Arty Bde | 8, 28 | 100 | 0 | 14 |
| Egypt 66 Hy Arty Bde | 10, 34 | 100 | 0 | 14 |
| Egypt 67 Hy Mrtr Bde | 8, 28 | 80 | 0 | 12 |
| Egypt 68 Hy Mrtr Bde | 10, 34 | 80 | 0 | 12 |
| Egypt 1 Atk Bde | 8, 29 | 39 | 0 | 28 |
| Egypt 2 Atk Bde | 10, 35 | 39 | 0 | 28 |

## ARAB GROUND FORCES REINFORCEMENTS

### In Syria:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| **Turn 2** | | | | |
| Palestinian Bde | 49, 1 | 19 | 29 | 37 |
| **Turn 5** | | | | |
| Syrn 1 Vol Inf Bde | 49, 1 | 19 | 11 | 13 |
| **Turn 9** | | | | |
| Syrn 2 Vol Inf Bde | 49, 1 | 19 | 11 | 13 |
| **Turn 13** | | | | |
| Syrn 3 Vol Inf Bde | 49, 1 | 19 | 11 | 13 |
| **Turn 15** | | | | |
| Syrn 4 Vol Inf Bde | 49, 1 | 19 | 11 | 13 |

### In Egypt:

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| **Turn 3** | | | | |
| Egypt 1 Vol Inf Bde | 11, 23 | 19 | 11 | 13 |
| Egypt 2 Vol Inf Bde | 10, 30 | 19 | 11 | 13 |
| Egypt 3 Vol Inf Bde | 12, 36 | 19 | 11 | 13 |
| Egypt 4 Vol Inf Bde | 2, 33 | 19 | 11 | 13 |
| Libyan 1/2 Arm Bde | 0, 34 | 0 | 58 | 67 |
| **Turn 4** | | | | |
| Libyan 2/2 Mech Bde | 0, 34 | 26 | 51 | 59 |
| **Turn 5** | | | | |
| Libyan 3/2 Mech Bde | 0, 34 | 26 | 51 | 59 |
| **Turn 6** | | | | |
| Libyan Cmp Arty Bde | 0, 34 | 123 | 0 | 40 |
| Sudanese Bde | 1, 37 | 26 | 45 | 52 |
| **Turn 7** | | | | |
| Libyan Cmp Mech Bde | 0, 34 | 26 | 40 | 51 |
| **Turn 8** | | | | |
| Algerian 1 Arm Bde | 0, 34 | 6 | 70 | 81 |
| **Turn 9** | | | | |
| Egypt 5 Vol Inf Bde | 2, 33 | 19 | 11 | 13 |
| **Turn 10** | | | | |
| Moroccan 1 Inf Bde | 0, 34 | 26 | 30 | 33 |
| **Turn 11** | | | | |
| Egypt 6 Vol Inf Bde | 2, 33 | 19 | 11 | 13 |
| **Turn 13** | | | | |
| Egypt 7 Vol Inf Bde | 2, 33 | 19 | 11 | 13 |

## INITIAL ISRAELI GROUND FORCES

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Isrli 1 Golan | 42, 1 | 3 | 8 | 25 |
| Isrli 2 Golan | 42, 2 | 10 | 24 | 25 |
| Isrli 3 Golan | 43, 3 | 30 | 24 | 26 |
| Isrli 4 Golan | 43, 4 | 30 | 24 | 26 |
| Isrli 5 Golan | 43, 5 | 30 | 24 | 26 |
| Isrli 6 Golan | 44, 5 | 10 | 24 | 25 |
| Isrli 7 Golan | 43, 6 | 10 | 24 | 25 |
| Isrli 8 Golan | 43, 7 | 10 | 24 | 25 |
| Isrli 11 Arm Bde | 43, 3 | 70 | 221 | 89 |
| Isrli 12 Arm Bde | 43, 5 | 70 | 221 | 89 |
| Isrli 13 Arm Bde | 36, 23 | 70 | 221 | 89 |
| Isrli 21 Arm Bde | 27, 24 | 70 | 280 | 99 |

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| Isrli 22 Arm Bde | 29, 28 | 70 | 280 | 99 |
| Isrli 23 Arm Bde | 42, 3 | 70 | 280 | 99 |
| Isrli 24 Arm Bde | 35, 17 | 70 | 280 | 99 |
| Isrli 25 Arm Bde | 37, 7 | 70 | 280 | 99 |
| Isrli 26 Arm Bde | 30, 30 | 70 | 280 | 99 |
| Isrli 35 Arm Bde | 40, 5 | 70 | 310 | 109 |
| Isrli 36 Arm Bde | 36, 17 | 70 | 310 | 109 |
| Isrli 37 Arm Bde | 28, 26 | 70 | 280 | 99 |
| Isrli 51 Para Bde | 30, 27 | 64 | 86 | 32 |
| Isrli 52 Para Bde | 36, 23 | 64 | 86 | 32 |
| Isrli 61 Mech Bde | 43, 4 | 124 | 184 | 67 |
| Isrli 62 Mech Bde | 43, 6 | 124 | 184 | 67 |
| Isrli 63 Mech Bde | 27, 24 | 124 | 184 | 67 |
| Isrli 64 Mech Bde | 37, 7 | 124 | 184 | 67 |
| Isrli 65 Mech Bde | 34, 13 | 124 | 184 | 67 |
| Isrli 66 Mech Bde | 42, 4 | 124 | 184 | 67 |
| Isrli 81 Inf Bde | 28, 23 | 124 | 184 | 63 |
| Isrli 82 Inf Bde | 38, 13 | 124 | 184 | 63 |
| Isrli 83 Inf Bde | 42, 7 | 124 | 184 | 63 |
| Isrli 101 Arty Bn | 41, 4 | 46 | 0 | 4 |
| Isrli 102 Arty Bn | 41, 5 | 46 | 0 | 4 |
| Isrli 103 Arty Bn | 30, 27 | 46 | 0 | 4 |
| Isrli 104 Arty Bn | 36, 7 | 93 | 0 | 9 |
| Isrli 105 Arty Bn | 34, 14 | 93 | 0 | 9 |
| Isrli 109 Arty Bde | 41, 4 | 324 | 0 | 36 |
| Isrli 110 Arty Bde | 41, 5 | 324 | 0 | 36 |
| Isrli 111 Arty Bde | 28, 23 | 324 | 0 | 36 |
| Isrli 112 Arty Bde | 36, 7 | 324 | 0 | 36 |
| Isrli 113 Arty Bde | 34, 14 | 324 | 0 | 36 |
| Isrli 1 Atk Bde | 40, 4 | 172 | 0 | 38 |

## ISRAELI GROUND FORCES REINFORCEMENTS

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| **Turn 1** | | | | |
| Isrli 27 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 38 Arm Bde | 34, 15 | 70 | 280 | 99 |
| Isrli 67 Mech Bde | 35, 17 | 124 | 184 | 67 |
| Isrli 84 Inf Bde | 36, 23 | 124 | 184 | 63 |
| Isrli 106 Arty Bn | 34, 15 | 93 | 0 | 9 |
| Isrli 107 Arty Bn | 36, 23 | 93 | 0 | 9 |
| Isrli 114 Arty Bde | 29, 22 | 324 | 0 | 36 |
| Isrli 115 Arty Bde | 35, 17 | 324 | 0 | 36 |
| Isrli 116 Arty Bde | 37, 7 | 324 | 0 | 36 |
| **Turn 2** | | | | |
| Isrli 85 Inf Bde | 35, 17 | 124 | 184 | 63 |
| Isrli 68 Mech Bde | 34, 15 | 124 | 184 | 67 |
| Isrli 69 Mech Bde | 37, 7 | 124 | 184 | 67 |
| Isrli 39 Arm Bde | 34, 15 | 70 | 280 | 99 |
| Isrli 14 Arm Bde | 37, 7 | 70 | 221 | 89 |
| Isrli 28 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 29 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 30 Arm Bde | 36, 23 | 70 | 280 | 99 |
| Isrli 108 Arty Bn | 38, 18 | 93 | 0 | 9 |
| Isrli 117 Arty Bde | 35, 17 | 324 | 0 | 36 |

| UNIT | HEX | ARTILLERY LETHALITY | MANEUVER LETHALITY | SURVIVAL |
|---|---|---|---|---|
| *Turn 3* | | | | |
| Isrli 15 Arm Bde | 37, 7 | 70 | 221 | 89 |
| Isrli 16 Arm Bde | 37, 7 | 70 | 221 | 89 |
| Isrli 31 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 53 Para Bde | 29, 22 | 64 | 86 | 32 |
| Isrli 54 Para Bde | 34, 15 | 64 | 86 | 32 |
| Isrli 70 Mech Bde | 36, 23 | 124 | 184 | 67 |
| Isrli 86 Inf Bde | 35, 17 | 124 | 184 | 63 |
| Isrli 118 Arty Bde | 34, 15 | 324 | 0 | 36 |
| Isrli 119 Arty Bde | 35, 17 | 324 | 0 | 36 |
| *Turn 4* | | | | |
| Isrli 71 Mech Bde | 35, 17 | 124 | 184 | 67 |
| Isrli 72 Mech Bde | 37, 7 | 124 | 184 | 67 |
| Isrli 17 Arm Bde | 37, 7 | 70 | 221 | 89 |
| Isrli 32 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 34 Arm Bde | 35, 17 | 70 | 280 | 99 |
| Isrli 40 Arm Bde | 34, 15 | 70 | 280 | 99 |
| Isrli 41 Arm Bde | 34, 15 | 70 | 280 | 99 |
| Isrli 120 Arty Bde | 29, 22 | 324 | 0 | 36 |
| Isrli 125 Arty Bde | 36, 23 | 302 | 0 | 14 |
| *Turn 5* | | | | |
| Isrli 18 Arm Bde | 34, 15 | 70 | 221 | 89 |
| Isrli 19 Arm Bde | 34, 15 | 70 | 221 | 89 |
| Isrli 33 Arm Bde | 29, 22 | 70 | 280 | 99 |
| Isrli 87 Inf Bde | 29, 22 | 124 | 184 | 63 |
| Isrli 88 Inf Bde | 35, 17 | 124 | 184 | 63 |
| Isrli 89 Inf Bde | 37, 7 | 124 | 184 | 63 |
| Isrli 90 Inf Bde | 36, 23 | 124 | 184 | 63 |
| Isrli 126 Arty Bde | 35, 17 | 302 | 0 | 14 |
| Isrli 127 Arty Bde | 37, 7 | 302 | 0 | 14 |
| *Turn 6* | | | | |
| Isrli 20 Arm Bde | 34, 15 | 70 | 221 | 89 |
| Isrli Force Aleph | 29, 22 | 0 | 138 | 52 |
| Isrli Force Beth | 37, 7 | 0 | 138 | 52 |
| Isrli Force Gimel | 36, 23 | 0 | 138 | 52 |
| Isrli Force Teth | 35, 17 | 10 | 16 | 6 |
| Isrli Force Yod | 37, 7 | 10 | 16 | 6 |
| Isrli 128 Arty Bde | 29, 22 | 302 | 0 | 14 |
| Isrli 131 Arty Bde | 34, 15 | 302 | 0 | 14 |
| Isrli 133 Arty Bde | 35, 17 | 259 | 0 | 14 |
| *Turn 7* | | | | |
| Isrli Force Daleth | 29, 22 | 0 | 138 | 52 |
| Isrli Force He | 34, 15 | 0 | 138 | 52 |
| Isrli Force Vav | 35, 17 | 0 | 138 | 52 |
| Isrli Force Zayin | 37, 7 | 0 | 138 | 52 |
| Isrli Force Cheth | 36, 23 | 0 | 138 | 46 |
| Isrli Force Kaph | 29, 22 | 10 | 16 | 6 |
| Isrli Force Lamed | 34, 15 | 10 | 16 | 6 |
| *Turn 8* | | | | |
| Isrli Force Mem | 36, 23 | 0 | 138 | 46 |

## *Appendix E: Abbreviations used in CONFLICT: MIDDLE EAST*

| | |
|---|---|
| Abn | Airborne |
| AM | Airmobile |
| Amph | Amphibious |
| Arm | Armored |
| Arty | Artillery |
| AT | Anti tank |
| ATGM | Anti tank guided missile |
| Atk | Attack |
| Bde | Brigade |
| Bn | Battalion |
| Cmp | Composite |
| Cdo | Commando |
| Co | Company |
| Div | Division |
| Egypt | Egyptian |
| Hy | Heavy |
| Inf | Infantry |
| Isrli | Israeli |
| Jrdn | Jordanian |
| mm | Millimeter |
| Mech | Mechanized |
| MRL | Multiple rocket launcher |
| Mrtr | Mortar |
| Para | Paratroop |
| PLA | Palestine Liberation Army |
| RG | Republican Guard |
| Rgt | Regiment |
| RR | Recoilless rifle |
| SAM | Surface to air missile |
| SP | Self propelled |
| SPA | Self propelled artillery |
| Syrn | Syrian |
| Vol | Volunteer |

## *Appendix F: Formulae*

This section is provided for those who wish to know exactly how some of the more common calculations in the game are performed.

### *AIR STRENGTHS*

**Air Superiority:** The anti-air strength for each each type of aircraft is (the number of aircraft assigned) * (air superiority value) * (aircraft effectiveness as determined by weather and avionics values) * (force readiness).

The values for all aircraft are added together and divided by 10 to calculate total base anti-air values. Israeli base anti-air strength is multiplied by four. Arab base anti-air strength is multiplied by two if Arab Competence is set to Hairy or Hideous.

Each side adds the total number of SAM's in the friendly SAM pool (representing mobile SAM launchers) to the total of all SAM's in fixed sites. To simulate friendly fire effects, 1/5 of the enemy strength is added to friendly strength. This yields an effective missile strength.

**Other Mission Types:** The following section shows how to calculate total air strength assigned to a type of mission, or the number of strike packets that will fly.

The base mission strength for each type of aircraft is (number of aircraft assigned) * (capability value for mission type) * (force effectiveness determined by weather and avionics) * (readiness)

The base strengths for each type of aircraft are then added together to form the total base strength for the mission.

Total close air support strength for each player is (total base strength)/20. Israeli base strength is then doubled. This value is added to the strength of friendly artillery for all battles during the turn. See section 5.2 for details.

Total interdiction strength for each player is (total base strength)/20. Israeli strength is then doubled. There is a chance every turn (interdiction strength%) that a major supply convoy will be hit and reduce enemy stockpile level by 1%. Interdiction also interferes with resupply to combat units. This is especially true for Arab units operating in the Sinai. See section 6.2.

The number of strike packets available is: (45 or 60)/(base strike strength).

Example: In the 1973 scenario, a full strength strike consisting of 100% ready Israeli F-4 aircraft under very good flight conditions requires 7 aircraft.

Damage and attrition for strike missions is calculated as follows:

• **Airbases:** Before target damage is determined, the attacking aircraft will be fired upon by the original enemy anti-air strength. One enemy aircraft type will be randomly selected. The readiness of the type

attacked will be decreased by (strike lethality * 30)/(total number of aircraft in target force). Each point of lethality in the strike has a 10% chance of destroying an enemy aircraft of the selected target type. Aircraft listed as hit by the strike are not necessarily destroyed, although the force readiness for that type of aircraft will reflect damage inflicted by the strike.

- **SAMs** Before target damage is determined, the attacking aircraft will be fired upon by 1.5 * the original enemy effective missile strength as defined in section 4.1. For each lethality point in the strike, each fixed SAM site has a 1/40 chance of losing one launcher. From one to six mobile (SAM pool) launchers will be destroyed by the strike.

- **Troops** Before target damage is determined, the attacking aircraft will be fired upon by SAM's in the defender's SAM pool, as well as by any enemy SAM sites within 5 hexes of the strike's target hex. Enemy forces (if any) in the target hex will be subjected to the equivalent of an artillery attack (as in ground combat) with the lethality of the strike.

## UNIT STRENGTHS

**Unit Survivability:** Unit readiness * sum of equipment survivabilities.

**Unit Artillery Lethality:** Unit readiness * sum of artillery equipment lethalities.

**Unit Maneuver Lethality:** Unit readiness * sum of non-artillery equipment lethalities.

Any equipment with lethalities of 11 or more is considered artillery. All other equipment is non-artillery.

> ### Example:
>
> Syrian 62 Mechanized Brigade (1973) at 100% readiness in open terrain.

| EQUIPMENT | NUMBER | LETHALITY | SURVIVABILITY |
|---|---|---|---|
| T-62 | 31 | 6 | 7 (non-artillery) |
| BMP | 81 | 4 | 4 (non-artillery) |
| 85mm AT Gun | 18 | 1 | 2 (non-artillery) |
| 82mm Mortar | 18 | 11 | 2 (artillery) |
| 120mm Mortar | 6 | 11 | 2 (artillery) |

Survivability: 31*7+81*4+18*2+18*2+6*2 = 625
Artillery Lethality: 18*11+6*11 = 264
Maneuver Lethality: 31*6+81*4+18*1 = 528

If readiness were 85% then these figures would be:
Survivability    531
Artillery Lethality    224
Maneuver Lethality    448

Terrain can modify the lethality or survivability of each piece of equipment assigned to a unit. In this case, if the unit were defending *rough* terrain then the survivabilities of the AT Guns and mortars would be multiplied by 3, and the survivabilities of the T-62's and BMP's would be multiplied by 1.5. This would give (at 100% readiness) an effective survivability of 1063. If the unit meets the criteria for being in prepared defensive positions (see section 5.13) then its survivability would be 2657.

Whatever the condition of the unit, the program always displays the raw (not terrain modified) strengths of a unit.

For display purposes, all of these figures are divided by ten (remainders lost), but the program keeps track of unit strength using the original figures. This unit would be displayed in the game as having:
- Survivability          62
- Artillery Lethality    26
- Maneuver Lethality     52

In addition to all of the above, there is a special modifier for artillery unit strength. If an artillery unit is not adjacent to any enemy unit, then the artillery unit's survivability is multiplied by two.

## OVERRUNS

When you attempt to enter an enemy hex, there is a 33% chance that your unit will overrun the defending units and take the hex immediately if the following conditions both apply:

  (attacking artillery lethality + attacking maneuver lethality) > (10 * defending survivability)

  and

  (defending artillery lethality + defending maneuver lethality) < (attacking survivability/10)

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## QUESTIONS OR PROBLEMS?

Our main business number is (408) 737-6800. If you encounter disk or system related problems you can call our Technical Support Staff at (408) 737-6850 between 11 a.m. and 5 p.m., Pacific Time, Monday through Friday, holidays excluded. NO GAME PLAYING HINTS WILL BE GIVEN THROUGH THIS NUMBER. If you need hints, please write to us at Hints, Strategic Simulations, Inc., 675 Almanor Avenue, Suite 201, Sunnyvale, CA 94086 (include a stamped self-addressed envelope for reply).