Battalion Combat Series:
Valley of Tears

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Introduction

Valley of Tears is a *Battalion Combat Series* (*BCS*) game covering the Yom Kippur War (October 1973) between the Israeli Defense Force (IDF) and a coalition of Arab nations led by Egypt and Syria. The game covers both the war's fronts: the Sinai Peninsula along the Suez Canal and the Golan Heights in northern Israel/Syria. Our intent is to offer you the ability to simulate the entire war at a level of detail not yet seen.

Scale

- Both maps are 1 mile per hex.
- Full strength Israeli Air Units represent 12 aircraft each while Arab Air Units are 24 aircraft each.

Counter Colors and Ownership

Israeli Player. The Israeli Player controls all Israeli (Blue) units.

Arab Player. The Arab Player controls all Egyptian (Orange-Tan), Syrian (Brown), Jordanian (Green), Iraqi (Olive), Moroccan (Light Green), Palestinian Liberation Army (Green), and minor Arab Allied nations—Algerian, Kuwaiti, Libyan, Saudi, and Tunisian—(Yellow-Green). Unless the rules specify otherwise, all units under the Arab Player's control are referred to as "Arab."

Iraqi pilots flying under the Egyptian Air Force's organization and control are shown in Egyptian counter colors but with the Iraqi Air Force insignia in the upper-left hand corner of the counter.

1.0 Common Special Rules

1.1 Weather & Special Map Symbols

1.1a <u>Weather</u>. Except for one brief rain shower in the Golan Heights, the weather was consistently clear on both Fronts for the war's duration. There is no Weather Roll or applicable effects. **Trafficability is always Good.** Visibility is always 4 hexes.

1.1b <u>The SAM Boundary</u>. A SAM Boundary is a dashed green line dividing each map into *Inside* and *Outside* zones. The *Inside* zone is to the west on the Sinai maps and east on the Golan map (the area when extended contains the capital of each). All hexes within each zone are either *Inside* or *Outside* and the hexes containing the Boundary are *Inside*. Use the **Target/Defender's Hex** in all cases.

The effects of the Boundary are:

- Inside the Boundary, Israeli Close Air Support (CAS) missions have greater chances of losses.
- The location of the Target hex being Inside or Outside determines the number of Barrage rolls made by each Air Strike. (1.8e & 5.1)
- Outside the Boundary, Egyptian units cannot use Sagger Support and have their ARs reduced by 1. (3.2d)

1.1c <u>Defensive Zones (DZs)</u>. These boundaries are critical locations for minor defensive features and were Objectives on the Israeli planning maps. While terrain enclosed by the DZ is handled normally, DZs themselves are for historical information only and have no game effect.

1.1d <u>The Suez Canal</u>. Dashed-Blue Suez Canal hexsides block all these actions/effects **UNLESS** the hexside contains an **emplaced** bridge (NOT the Israeli ferry unit):

- EZOCs.
- Attacks. Assists are always OK.
- Engagements.
- Attacks by Fire.
- Spotting.

Handle solid blue Water Barrier hexsides normally and do not apply the above to them (even if they look to be "along" the canal).

1.1e <u>Irrigation Hexes</u>. These are a series of small waterways (actual irrigation ditches). This is the "Chinese Farm" (vic B26.10). All hexes containing any portion of an Irrigation symbol are Irrigation hexes.

1.1f <u>Airfields</u>. These are for historical interest and have no effect on play (*yes, even for the Air War*).
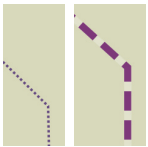
1.1g <u>The Purple Line</u>. The Purple Line is the boundary between Syria and Israel in the Golan Heights (the 1967 ceasefire line). While the game shows it as a hard single boundary in heavy purple, the actual boundary includes a UN patrolled DMZ for most of its length (marked on the map with a thin dotted purple line (left), for historical interest only). **Only** the heavy Purple Line matters. Hexes **containing** the Purple Line are Israeli.
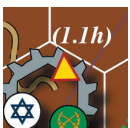
1.1h <u>Mt. Hermon OP</u>. The Observation Point atop Mt. Hermon (G50.24) provided strategic observations for the entire Golan plain and accrue several special abilities to units occupying the hex. The other locations which have "OP" in their names do not confer any of these abilities and are for historical interest only.

A Unit (of any sort) occupying the Mt. Hermon OP hex can act as a Spotter for CAS Air Strikes (not Artillery Barrages) anywhere on the Golan Map during any Formation's Activation and always has **an unblocked LOS** to every hex.

1.2 Series Rules Matters

1.2a <u>Repls</u>. Each Player obtains his Repls normally by rolling on the *Replacements Table* and uses them according to *BCS* 2.2. Roll once per side per Front in play. Repls can only be used on their own Front. The only Air Unit Repls are those in 1.5b.

1.2b <u>Buddies</u>. (*BCS* Glossary)
Israelis. **All** Israeli Formations are Buddies with one another.

Arabs. Egyptian Tank/Mechanized Formations are Buddies with Egyptian Infantry Formations (including Commandos) and vice versa. The 130 Amph Bde (3.1c) is a Buddy with any other Egyptian Formation and vice versa. **Otherwise,** Egyptian Tank, Mechanized, and Infantry Formations are **not** Buddies **with one another**. No other Arab nationality's Formations are Buddies with any other Formation.

1.2c <u>Recon Unit Types</u>. "Rec" unit designations do not confer Recon capability. **Only** units eligible according to *BCS* 1.1f are Recon capable.

1.2d <u>Support</u>.
Israelis. Israelis don't do Support. Ever.

Arabs. Only Arab units with Support printed on their counter on one side or the other can ever be in Support. The (few) Arab units with both concentrated and Support counter sides have a small "S" in the upper right of the concentrated side as a reminder. Sagger Support units **never** need **Support Establishment Safe Paths** at all (i.e., they can advance across the Suez Canal **and** stay in Support). Sagger Support can only be used under certain conditions, see 3.2d.

> **Play Note:** *The ramifications of no Support Establishment Path for the Egyptian Saggers are important. Infantry crossing the Canal **before** the bridges are up **can** do so with their Defensive Sagger Support, but they will **not** be able to access other non-Sagger Support. Also, Dropped Saggers with no Support Establishment Path can always return to Support anyway.*

1.2e <u>Supply & Isolation</u>. Map edge Supply Sources are marked by side.

Israelis. Israeli units **never** suffer Isolation.

Arabs. Arab units suffer Isolation normally. **Exception:** Arab Commandos. (3.4)

1.2f <u>Daily SNAFU DRMs</u>. Each side on each Front has its own Daily SNAFU DRM on the *Turn Record Track*. Use the value with the Egyptian Flag for the Sinai Arabs and the Syrian Army Flag for the Golan Arabs. The Israelis use the ones under the Israeli Flag. If there are DRMs listed, use the left for the Sinai and the right for the Golan. Successful Dominique Air Strikes (1.8d) affect Arab SNAFU DRMs on the affected Front.

If the Golan has an Arab SNAFU of -1 from the Turn Record Track, and a -2 Dominique Air Strike applies, the Arabs in the Golan will use a -3 SNAFU DRM in addition to any others applicable.

1.2g <u>Engagement Table Cap</u>. The **maximum** allowed DRM (from all sources) on the *Engagement Table* is **±3**. Any greater differential is wasted.

> **Developer Note:** *This was needed because of the possibly extreme differentials occurring here. They "broke the bank" and made it so that the Engagement Table shifted to extremes where one side might be incapable of sustaining a loss or bad result. Real life doesn't work that way.*
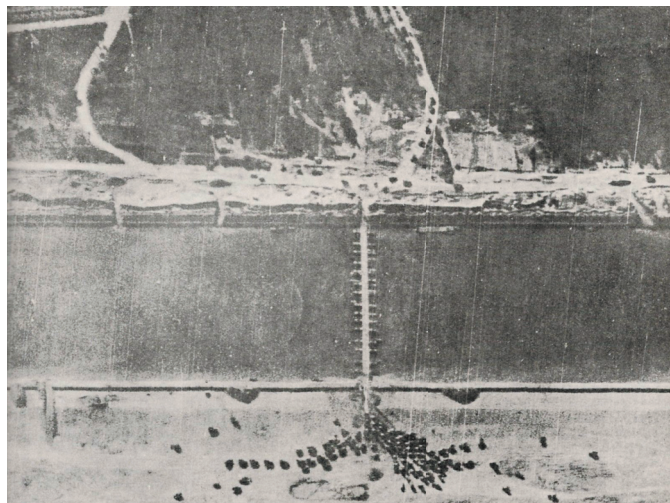
Egyptian Pontoon Bridge.

1.2h <u>Orders</u>. If the optional orders rule *BCS* 2.4 is in play: Conduct the Orders Phase **after** the Air Phase.

1.2i <u>Bridge Access Roads</u>. Emplaced bridges **and** the Israeli ferry generate "bridge access roads" which connect the roads on either side, if any. There are no printed symbols for these; they automatically exist once the bridge/ferry is operational.

1.2j <u>Bridge Access Roads and Ferries for MSR Use.</u> Both bridge access roads and ferries can be used as a connection for Secondary or Primary Roads needed for the MSR Trace from the Combat Trains to the Supply Source. Bridge access roads are not Tracks and **never** apply the Tracks SNAFU DRM.

1.2k <u>Sequence of Play</u>. Use the standard v2.0 *BCS* Sequence of Play (*BCS* 2.0) as amended below to contain the Air Phase (1.6) and the optional Simplified Air Rules (5.1) if used. If the XT Activation rule is in play (2.3), do not apply Activation Smoothing (*BCS* 2.5n).

a) Reinforcement.
Both players:
- Roll for new Air Points. (If 5.1 is used.)
- Roll for and apply new Replacement Points.
- Place Reinforcements as listed on The *Order of Arrival Charts* (*OOAs*).

b) Assignments.
Both players can:
- Assign or un-assign Arty Points.
- Assign or un-assign Independent Units.
- Units enter or exit Support.

c) Air Phase.
Both players (ignore if 5.1 is used):
- Task available Air Units.
- Mission Execution.
- Air Phase End.

d) Orders. [Optional]
Both players record on a piece of paper each Formation's Order status.

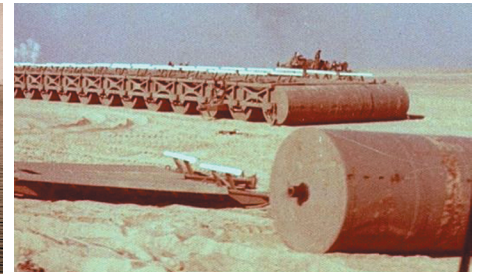**e) First Player Determination.**
Independently determine the first player on each Front (1.3) with the normal dice rolls. The greater roll wins and **must** go first on **that** Front. Re-roll any ties.
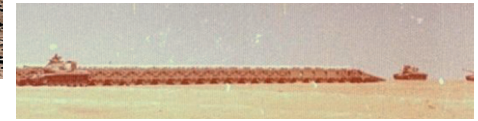
f) Activations.
Alternate Formation Activations normally **within** each Front. Play each Front to completion before starting on the other Front. (1.3) When **both**

Israeli Roller Bridge.

Fronts have been completed, the turn's Activations are complete. Other than maintaining the right order of Activations (based on the First Player determination), players are free to conduct their Activations on the currently active Front as desired.

g) Game-Turn End.
Flip or orient all HQs to their Unused sides. Remove any unused Air Points. Reset Dominique & RAM Result Tracks. Determine if any Sudden Death Victory Conditions have been met. If the Syrian Player's VP Turn Total is greater than the current High Syrian VP total, replace it with this turn's total. Advance the Turn marker and begin a new turn.

1.3 Two Front War

There are two Fronts: One is on the Golan Map which shows the entire Golan Heights; the other is all of Maps A, B, and C showing the Sinai along the Suez Canal. Both Fronts are relatively independent. Neither side can switch Formations, Independent Units or Arty Points from one Front to the other.

Play each Front to completion before starting any Activations on the other Front. Do not flip back and forth. Select the more interesting Front first. If you cannot agree on this, roll one die: 1-3 Golan, 4-6 Sinai.

While Arab Air Units are always confined to their Home Fronts, the Israelis split their Air Units historically between them using 2.2. **Optional Exception:** 5.3.

Each *Player Display* has boxes representing the game's three *Home Nations: Israel, Egypt,* and *Syria.* Each Front also has an *Air Display* to track the results of its Air missions.

When using the optional Activation Smoothing rule *BCS* 2.5n, apply the rule for each Front independently (after the order of Front play is determined). Ignore potential XT Activations in the smoothing determinations. (2.3)

Israeli bridges. See 1.4c, at right.

Israeli Roller Bridge and being towed below.

1.4 Amphibious Units & Bridges
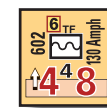
1.4a <u>Amphibious Units</u>. Units with "Amphibious" unit symbols cross Water Obstacles using special (bracketed) *Terrain Effects Chart* costs. They cannot **END** Movement (or Retreat) in an all-Sea/Lake hex. While Amphib units can Attack (or Assist) **from** an all-Sea/Lake hex, destroy them if they do not Advance After Combat. Safe Paths to Amphibious units use Amphibious MA. (3.1c)

1.4b <u>Egyptian Bridges.</u> Mark Egyptian Suez Canal bridges built on 7 and 8 Oct 73 with "Bridge Not Open" markers at start. On the turn listed on the map, flip the markers over and the bridges are immediately usable. Suez Canal bridges cannot be damaged, destroyed or moved. The Israelis cannot interfere with their building. The needed 'bridge access road' exists the instant the bridge opens. These bridges can be used by **either** player. See 4.1a regarding their "control."

1.4c <u>Israeli Bridges and Ferries.</u> Israeli bridges (for simplicity, "bridge" includes both the bridge and ferry units) must be moved to the canal. The Israeli Player can emplace a bridge on any dashed **Suez Canal hexside**. Emplaced bridges **negate** the Canal MP cost and install bridge access roads the same way as the Egyptian bridges. Ferries use the *Terrain Effects Chart* ferry costs but **also have** bridge access roads.

Bridges only take losses from Barrages and/or Attacks by Fire. Being emplaced or not makes no difference. Unlike an Egyptian bridge, Israeli bridges are eliminated when their last step is destroyed. Bridges **cannot** use Repls.

Once the bridge enters the desired hex, flip it to its Emplaced side and it instantly begins to function. Make sure the arrow indicator defines only one specific hexside.

Emplaced bridges cannot move or their hexside changed (they cannot return to Unemplaced)—they remain as a map-printed bridge for both sides.

Two Israeli bridges (605 and 630) must be **towed** by an **Armor unit** into position. The third (634) can move under its own power. Assign the bridges normally to Israeli Formations to use that Formation's Armor units for towing.

Moving bridges **cannot** enter any EZOC. There is no effect for an Arab unit moving adjacent to them.

When moving by towing:

- The towing unit must start and end the Activation stacked with the bridge.
- The towing unit and bridge move using Tac MA and the number of MPs on the bridge counter in parentheses.
- A towing unit can only tow one bridge per Activation.
- Towing units cannot conduct Attacks by Fire, Shock Attacks, initiate Engagements, or be Assists.
- Towing units can be targeted by enemy Engagements.
- If the towing unit Retreats or is destroyed, abandon the bridge in the hex where this occurs.
- That (or another) unit can resume towing provided *it* starts an initial Activation stacked with the bridge.

Design Note: *The Israeli bridges and ferries are unique pieces of engineering and require special rules to handle them. There is more about the Bridging Units in the Designer's Notes. Some will wonder if the ferry was able to carry tanks; be at ease: it can and did carry them.*

1.5 Air Warfare

BCS "flying artillery" has been expanded to simulate this war's complex aircraft, missile, and radar systems. Unlike other *BCS* games, you do *more* than roll to get Air Points. Air Units function *every* turn doing one of several missions to wrest control of the air or generate *BCS* Air Points for you to use.

Air Units are assigned ('Tasked') missions on each side's *Player Display* and moved as their status changes. Air Units **begin** *and* **end** each Air Phase in their *Home Nation Box*. Air Units can generate Air Points used normally on the map, but the Air Units themselves are confined to the *Displays* and never enter the map.

Some may wish to skip the more involved **Valley of Tears** *Air System. If desired, skip sections 1.5 through 1.9 and 2.2, and use the optional Simplified Air Rules in 5.1.*

1.5a Air Units. Each Air Unit represents a specific Squadron (which the Arab nations called "Brigades") and a specific aircraft type. Air Units are shown as either Full or Reduced Strengths by the number of aircraft icons on the counter (two = Full Strength; one = Reduced Strength) as well as a white box which also indicates Full Strength. Two-sided counters have Full on one side and Reduced on the other. Indicate loss by flipping the Air Unit if Full or sending it to the Dead Pile if Reduced.

Other counter symbols indicate the Air Unit's possible missions.

1.5b Air Repls. Only the Israelis have Air Repls, a few at start and others which arrive as Reinforcements. Keep available Air Repls in the *Israeli Player Display's Workshop Box*. Handle Air Repls the same as ground Repls **except** each can **only** apply to a **specific** aircraft type. Two Repls are needed to revive a Full Air Unit from the Dead Pile (or the player can use only one Repl to bring a Dead Air Unit back as a Reduced Air Unit or build a living Reduced Air Unit to Full).

1.6 The Air Phase

Execute the **complete** Air Phase for each Front separately and in either order. Once a Front is decided upon, finish it before starting the other. Do not roll for First Activation until both Fronts are Finished.

Tasking. Both Players Task their available Air Units by moving them to their *Player Display's Mission Boxes,* using 1.7. The *Player Displays* are **secret** only for this Segment.

Mission Resolution. Resolve Tasked missions using 1.8 following the number order on the *Player Displays*. Be sure to apply any RAM results (1.8d) before Arab CAS Air Units roll for Abort/Loss.

Air Phase End. Remaining Air Units return to their *Home Nations*.

1.6a Turn End Phase. Add these Segments to the Turn End Phase:
- Remove all unused Air Points.
- Reset Dominique & RAM Result Tracks.

1.7 Tasking

You can Task each of your Air Units as desired each turn, provided it has the needed Capability icon and the Loss/Abort Rolls have not yet been conducted (Tasking cannot be changed after its Loss/Abort Rolls have begun).

'Task' all, some, or none of your Air Units by placing them in your *Player Display's Mission Boxes*. Each *Mission Box* displays the Air Unit capability icon(s) it requires—Air Units **without** the correct icon cannot be Tasked with that Mission. You cannot violate the Air Unit's Frontal assignments. An Air Unit can only be Tasked one mission per turn. Past Taskings, Idleness, and multi-role Capabilities **do not** affect future Taskings or allow multiple Taskings per Turn.

Each Air Unit being Tasked must either be a Full Air Unit or a pair of Reduced Air units. (1.7b) Arrange the Tasked Air Units in a line for Loss/Abort roll resolution in that Mission Box (alone or in pairs based on the previous sentence). This arrangement can be left to right and/or top to bottom as desired, provided the system used is consistent and each Air Unit "slot" in the arrangement is either a Full Air Unit or a pair of Reduced ones.

A Tasked Air Unit **must** execute the selected mission and only that mission.

Any Air Units remaining in the *Home Nation* are "Idle." Idle Air Units are not exposed to enemy action other than possible RAM mission results. (1.8d)

1.7a Missions. These are the types of missions available. Missions **must** be resolved in this order:

Israeli:
- **Air Superiority (A/S).**
- **Suppression of Enemy Air Defense (SEAD).**
- **Deep Strikes**.
- **Close Air Support (CAS).**

Arab:
- **Air Superiority (A/S).**
- **Close Air Support (CAS).**

Deep Strikes — ID — Air Sup — CAS — SEAD — Type — 69-a — F-4 E

Multiple Capability Air Unit.
It can use any of its abilities each turn, but only one at a time.

ID — CAS — SEAD — Type — 102-a — A-4 H

ID — Air Sup — Type — 25+26 — MiG-21 F-13

Full Strength.
Two Icons.

ID — Air Sup — Type — 101-a — Mirage IIICJ

Single Capability Air Unit.
This Mirage can only do Air Sup.

ID — CAS — Type — 105-a — Sa'ar

ID — Air Sup — Type — 27 — MiG-21 MF

Reduced Strength.
One Icon.

Air Units and the Symbols on them.

These missions are:
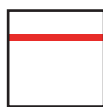
Air Superiority (A/S). A/S represents an attempt to control a Front's air space allowing you to use it freely, while the enemy cannot. The associated *Air Table* column determines the Loss/Abort Rolls (1.8a) used that turn. (1.8b)

SEAD Missions. SEAD missions temporarily reduce the effectiveness of SAM defenses, reducing the Loss rate they apply to CAS. (1.8c)

Deep Strikes. Deep Strikes attack either enemy Air Bases or rear area infrastructure via **RAM** or **Dominique** missions, respectively. (1.8d)

Close Air Support (CAS). Air Units assigned to CAS convert to regular *BCS* Air Points (with some additional effects) to Barrage ground targets. (1.8e)

1.7b Full Air Units and Reduced Pairs. All Taskings **must** be made by either Full Air Units (showing two aircraft icons each) or pairs of Reduced Air Units (one aircraft icon each). Handle each Tasking separately. If any unpaired Reduced Air Units remain when Taskings are completed, they **must** remain idle in the Home Country for that Turn. Reduced Air Unit pairs need not be the same aircraft type; they only require the ability to conduct the same Tasking.

If a pair of two Reduced Air Units takes a Loss, the owning player chooses which to take the Loss while the other Aborts. If this same pair takes an Abort result, both Reduced Air Units Abort.

1.8 Mission Specific Rules and Resolution

1.8a Loss/Abort Rolls. Loss/Abort Rolls are read off the *Sinai* and *Golan Air Displays* based on the *Air Table*'s A/S Level column and the mission. Determine each Front's A/S Level first, see 1.8b steps 1 and 2.

Using the column above, the *Air Table* uses the format of "d#" for each type of Mission, which represents the Air Unit's position in the Mission Box arranged as per 1.7. The Air Units in the correct location(s) must roll for Abort/Loss. So, if the value is d2 and there are 6x Air Units, you'd roll for Air Units #2, #4, and #6. Numbers #1, #3, and #5 will not roll at all. Again, each "Air Unit" in this process can be either a Full Air Unit or a pair of Reduced Air Units as they were arrayed in 1.7.

Repeat until there are fewer Air Units than the d# remaining (referred to as a 'partial'). Regardless of the number of partial Air Units (the only caveat is that the number of Air Units is smaller than the d#), roll only **once** for the **last** one.

If 8 Air Units obtain a d3, Air Units #3 and #6 roll normally, but then the remaining two Air Units are handled as a partial. So, Air Unit #8 also makes a Loss/Abort Roll.

Roll one die on the Loss/Abort Roll Table for each d# 'slot' requiring a check. Inflict a Step Loss on a roll of 1 and an Abort on rolls of 1-3 (a roll of 1 includes **both** a Step Loss and an Abort). Aborts have no effect except that the Air Unit does not complete the mission and is available for use again the next Turn. If the checking "Air Unit" is actually a pair of Reduced Air Units and both a Step Loss and an Abort is required, the owning player selects the Air Unit to take the loss and the other merely aborts.

If there are too few Air Units to do the d# at all, treat the whole bunch as a partial and merely roll for the last one.

1.8b Air Superiority (A/S). Each Turn, determine the A/S column to use on the *Air Table* independently for each Front. The A/S column determines the Loss/Abort Rolls used by Mission Type, the number of Barrage rolls per Air Point outside the SAM Boundary, and the availability of Airlift. (1.8a, 1.8e, and 2.4) For each Front, do the following:

Step 1: Roll two dice (even if one or both sides did not Task any A/S) against the values at the top of the Table. Apply any column shift from the Advantage Box (on the sheet's upper left, count the number of Full Air Unit units—and pairs of Reduced ones—Tasked by each side). Place the A/S marker in the resulting box. The columns are restricted to those shown. Each Turn starts the Track from scratch—the A/S column is **unaffected** by previous Turns.

Step 2: Make all needed **Loss/Abort Rolls** (1.8a) for the Air Units Tasked to A/S (on both sides) using the final column.

A/S Air Units make their Loss/Abort Rolls **after** they determine this turn's A/S Level. Losses from the current turn **do not** affect the column used this turn.

1.8c SEAD (Israelis Only). SEAD missions (and destroyed SAM Control hexes, 1.9) can reduce the Loss/Abort Rolls that apply to CAS missions (only) by degrading Arab SAM capabilities. Each successful SEAD Air Unit (1.7b applies) **increases** the CAS d# by one. Mark the resulting effect on the SEAD Track on the *Israeli Player Display* for the affected Front.

For example, if the *Air Table* calls for a CAS Loss/Abort Roll of d2 and SEAD contains two successful (remaining) Air Units (for a modifier of +2), the Loss/Abort Roll becomes d4, instead of d2.

> **Design Note:** *Despite great effort, the Israelis were unable to destroy enough SAM batteries to appreciably weaken the Arab Air Defenses. At most, they only temporarily reduced their performance. The only way to effectively destroy SAMs was with ground forces.*

1.8d Deep Strikes (Israelis Only). Deep Strikes attempt to reduce Arab effectiveness. They come in two types: RAM strikes against Arab Air Bases and Dominique strikes against Arab infrastructure. Each Deep Strike Air Unit must be Tasked specifically to either RAM or Dominique. Each Mission Type conducts its Loss/Abort Rolls separately. The number of surviving Air Units are "successful."

No more than **three** Air Units can be successful **per Deep Strike Task per Front each Turn.** Successful Air Units **beyond** three are wasted and have no effect. Use the *Air Display's* Tracks to record the number of successful Air Units and their effects.

RAM Missions can "sideline" Arab Air Units for several turns or possibly destroy them on the runway.

Each successful **RAM Mission** sidelines **one** Arab Air Unit. Before making the CAS Loss/Abort Rolls, the Arab player freely **chooses** the Arab Air Units equal to the number of successful RAM Missions. All Arab Air Units (Full **or** Reduced, there is no requirement to pair up Reduced ones) count as **one**; the player is free to select only Reduced Air Units. The selections can be from any Tasking or mix of Taskings.

Roll one die for each selected Air Unit on the Front's *Air Display* **Sideline Period Table**. On a 1, there is no effect. On a 2 through 5, the Air Unit returns as a Reinforcement the number of turns equal to that roll. On a 6, the Air Unit is destroyed (both steps if Full).

Dominique Missions award SNAFU DRMs which last the entire turn for that Front.

1.8e Close Air Support (CAS). CAS Air Units generate *BCS* Air Points each turn, used normally per the series rules (with the modifications below). Do not place the actual Air Units on the map, but instead use the normal series Air Point counters to track their availability on each Front and (for the Israelis) separate Air Point availability with respect to the SAM Boundary. Place the actual Air Units used to generate Air Points back into the "Home Nation" Box.

- **'Inside'** Air Points which can be used either inside (or outside) the SAM Boundary.
- **'Outside'** Air Points which can only be used *outside* the SAM Boundary. They **do not** make Loss/Abort Rolls at all.

The SAM Boundary does not affect Arab Air units.

After Tasking, Israeli Inside CAS Air Units and all Arab CAS Air Units make their Loss/Abort Rolls. Convert all remaining Air Units to Air Points **(two Air Points per Full Air Unit or pair of Reduced ones)**. Place these Air Points in a convenient location on the map for the coming Turn (identify Israeli Air Points belonging to each side of the SAM Boundary).

Exception: While Israeli Air Points dedicated to "Outside the SAM Boundary" **cannot** be used "Inside," those dedicated "Inside the SAM Boundary" **can** be used "Outside," but the resulting Loss/Abort Rolls make this less efficient!

These changes to the Series rule handling of Air Points apply to both the normal **and** Simplified Air Rules (5.1):
- Air Points **never require** an OBJ Zone.
- Arab Air Points require a normal Spotter, while **Israeli** Air Points **only** need a Spotter if the Target is in a Mountain hex. (1.1h)
- The Air Point Suppression **Shock Attack DRM** on the *Combat Table* is +2 not +1. The Suppression DRM for regular Attacks or from Artillery are unchanged.
- Each Air Point used as a Destruction Barrage may make **multiple** rolls on the *Barrage Table*, according to:

Outside the SAM Boundary:
The number of rolls per Air Strike is on the current *Air Table's* A/S Level column.

Inside the SAM Boundary:
All Air Strikes make **TWO rolls**.

1.9 SAMs and Tanks

Place a SAM Control Destroyed marker on any Arab SAM Control hex the instant it is occupied by an Israeli AV unit. Such a SAM Control hex remains destroyed, even if the Arabs later retake it. Place a SAM Control Destroyed marker on the *Israeli Player Display's Destroyed SAM Control Box* to track the count of such hexes.

Add one to the Israeli Inside CAS Loss/Abort Roll (d#) for **each** Arab SAM Control destroyed, e.g., if the Loss/Abort Roll is d2 and two SAM Controls have been destroyed, execute the Loss/Abort as if the d# was d4 instead.
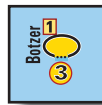
SAM Control hexes have a distinctive symbol, such as that in Golan hex G38.10.

Israeli Sho't Armor.

2.0 Israeli Special Rules

2.1 Specialized Units

2.1a <u>Static Units</u>. Israeli Static Units cannot be assigned to a Formation or use PD. While Static units, **including** those in the Fort hexes, have no ZOCs (*BCS* 1.1h); they can be Hard units.

2.1b <u>Zvika</u>. Zvika is marked with a Green Dot to remind you of these special rules.

- Zvika can be assigned to any Formation even on Turn 1— as an exception to *BCS* 1.0g. Unless killed, he can only be reassigned during the normal Assignment Phase.
- When he is destroyed, send him to any Israeli HQ. He can then Activate **again** when that Formation Activates (even on that same turn).
- If lucky, Zivka can Activate **multiple times in one turn** as the result of being "killed."
- For XT Activations, Zvika is in **addition** to the Four Units that can Activate as per 2.3 if his Division is used.
- Remove him permanently from play in the Reinforcement Phase of 8 Oct 73.

2.2 Frontal Split of the Airforce *Do not apply this rule if 5.1 is being used.*

Each Israeli Air Unit type is restricted as to which Front they can be assigned but are freely Tasked to Missions based on their capabilities.

Determine each Turn's emphasis by the *F-4 & A-4 Split Chart* on the *Israeli Player Display,* which may require a die roll depending on the date and situation. The result will emphasize either the Sinai or Golan Fronts and it determines the numbers of Air Units dedicated to each Front.

> **Design Note:** *This rule exists to avoid the ahistorical yet standard player decision-making whereby the* entire *Israeli Air Force is concentrated on one Front as needed each turn, but the other on the next depending on the shortest of short-term trends.*

For all Splits, you can only use Full Air Units or pairs of Reduced Air Units to fill the required slots (as in 1.7).

If there are not enough Air Units to fill out the requirements, reduce **each** Front's quota equally as needed. Do not reduce the Free Air Unit quota, but it can be increased by up to one Air Unit (never more than that)—so while 10-7-1 (18 total) can be reduced to 9-6-1 (16) or 8-5-1 (14), if 15 Full Air Units are available you can use 8-5-2.

Optional: Rather than rolling on the Split Chart, the Israelis pick the Front to emphasize on and after 7 Oct 73, **unless** superseded by Israelis west of the Suez Canal or Triggering the Homeland (4.1c).

2.3 Extreme Tempo (XT)

The Israeli Player can use "XT" on Turns 1, 2, and 3 (6, 7, 8 Oct). In a nutshell, XT allows Israeli Formations which have already completed their Turn's normal Activations to conduct additional (small) 'Second' Activations, following these requirements:
- The Israeli Formation **must** have a Complete MSR **and** be marked Done.
- All Israeli Formations in the Golan have finished their Activations this Turn.
- The Syrian Player must have Activation(s) remaining.
- XTs **only** occur in the Golan.

XT Activations:
- Potential XT Activations must make a successful "Second Activation" roll first. If the Second Activation roll fails, the XT Activation does not occur, and play goes back to the Arab Player. The Israeli player can try again in his next Activation.
- Make no SNAFU Roll; a Partial SNAFU is assumed but XTs **cannot** place an OBJ marker.
- Can be done more than once (even with the same units), given the requirements above, but only

once per Israeli Activation.

- Four (4) chosen Units of that Division in CR can Activate. No other Formation units can do so, including the Divisional HQ (its Arty Points **will not** be available).
- For 36 Div XT Activations, it can Activate either the 4 Units above OR Activate 3 Units **and** return **one** of its 1-Step Armor units from the Dead Pile. This Armor unit returns w/i 1 of the 36 Div HQ with either side up and **cannot** function in any way during that Activation.
- Zvika is in **addition** to these unit limits (if properly assigned above). (2.1b)
- Never roll for Fatigue and cannot be used for Recovery.

2.4 Airlifts

Airlifts are a means for some Israeli units to move rapidly. Airlift can only be done within a Front—never to the other Front or to Israel.

Unit Requirements:
- HQ, Airborne, or Commando units only.
- Each unit is Leg MA on **both** sides.
- No MSR needed.
- Not currently Activated or Done for this Turn.

Limitations:
- Limited by the scenario's available Airlift Points. Track these on the *Israeli Player Display*. The total at start is all you get for the entire scenario. Each Airlift Point moves one unit of any Step Size.
- Conduct Israeli Airlifts during any Israeli Activation (except the Activation of those units being Airlifted!)
- The current *Air Table* column must allow
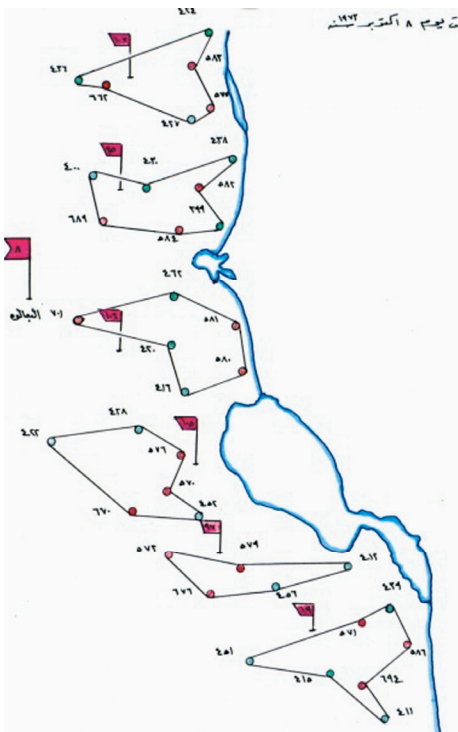
Airlifts, see that Front's *Air Display*.

Destination Hexes & Post Airlift:
- The hex cannot be within 10 hexes of any operational Arab SAM Control hex.
- The hex cannot contain any enemy unit or EZOC.
- The hex cannot be an Arab controlled VP Hex.
- Units cannot Activate after arrival.
- Airlifted units arrive on their Move-side and Airlifted HQs arrive as Done.

3.0 Arab Special Rules
3.1 Special Units
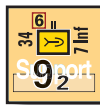
3.1a Anti-Tank Guided Missiles.
ATGM units **cannot** conduct Attacks by Fire **unless** the unit is a Move-side BMP. (3.1b)

3.1b BMPs.
Some Arab Mechanized Infantry units are mounted in early model BMPs, rather than other more poorly armed and armored IFV types. BMPs armed with ATGMs are identified with a Red Oval in their Unit Symbol.

Unlike other ATGM units, BMPs on the side showing their AV **can** make Attacks by Fire.

> **Design Note:** *BMPs executing Attacks by Fire are not doing so with their ATGMs, but rather with their 73mm turret gun. The early BMPs (BMP-1s) tested in the October War came up short in numerous ways with the usual teething problems of any complex war machine. The lessons learned were incorporated into the vehicle's next variant (the BMP-2) and debuted in 1980.*

3.1c The Egyptian 130th Amphibious Brigade.
In addition to 1.4a, this Formation can trace its MSR from the HQ to the Combat Trains **across or through** Water Obstacles. Doing so applies the Track SNAFU modifier. The Combat Trains, themselves, must be in a normal Legal hex. The 130 Amphib Brigade is a Buddy with all other Egyptian Formations and vice versa. (1.2b)

3.1d 0-AV Units.
0-AV units are mounted in Light AV carriers (BTR-50/60s). The following **only** apply when the unit's 0-AV is showing.

- In addition to *BCS* 5.2c part I (restricting their *Fires* while allowing them to be *Targeted*), Light AV units **cannot** manage to **INFLICT** Step Losses on any Hard AV which *Targets* them on the *Engagement Table* even with **really** bad dice (snake eyes).
- 0-AV units may use only **ONE** Fire Event per Activation, not two.
- 0-AV units are rebuilt using **non-AV** Repls and cannot be rebuilt with AV Repls.

> **Design Note:** *BTRs must reduce the effectiveness of Israeli 50 cal MGs to safely make Attacks by Fire. Effectively, their first Fire Event is used suppressing "Support" that tanks would ignore.*

Egyptian SAM Battalion Deployments.

Abandoned Arab Tanks.

3.2 Egyptian Plans & Defenses

These rules apply only to Egyptians and **never** to any Syrian or any Arab Allied units.

3.2a Egyptian Planning. The Egyptian Army planned a campaign that featured a short advance east of the Canal to "defeat" the Israelis by withstanding their attacks and remaining standing. The plan worked.

The Syrians desperately needed support to draw more Israeli attention away from their beaten army. To do so, the Egyptians launched a major offensive doing something they never intended: cross the SAM Boundary and slug it out with Israeli armor. The results were catastrophic.

Egyptian units outside the Sinai SAM Boundary subtract one from their AR (-1). **Exception:** Commando Units (3.4) do not apply this effect.

3.2b The Turn 2 PD Entry Exception. As noted in 3.2d below, Egyptian Infantry Divisions must be in Prepared Defense to use their Saggers. The phasing involved requires an exception regarding **entering** Prepared Defense.

On 7 Oct (only), Infantry Divisions with their HQ east of the Suez Canal can enter PD as the **last** action of their Initial Activation (rather than **before** it, as is normally the case). Do so **after** conducting that Activation fully and without any of the normal PD restrictions that apply.

Design Note: *The point above is that the Egyptians, following their plan, will put the bridges up and as rapidly as possible install a dense mutually supporting set of defenses to maximize the effectiveness of their Sagger AT Missiles. The normal sequence of events on 7 Oct means that their HQ must move across the canal (as the bridges are just then available) but be unable to enter PD until 8 Oct. The sequencing makes for an artificial 24-hour period of vulnerability and this rule precludes it.*

3.2c RPG Defenses. Non-AV Egyptian units apply a bonus +1 DRM from their newly fielded RPGs. This is the surprising effect of RPGs on the battlefield—if anything, the Israelis were more prepared for the Sagger threat than the RPG one.

- **Only** Egyptian units **showing an Assault Arrow** (including Dual) obtain the RPG DRM.
- There is no way to 'Drop' RPGs; they are not Support. The DRM is always there.
- The RPG +1 DRM applies to any defense against a Regular or a Shock Attack.
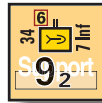
3.2d Support ATGMs. New to the battlefield in great numbers, Saggers in Support apply the following:

Dropped Saggers return **instantly** (and are no longer Dropped) when the **unit which dropped them**:
- Runs out of Fire Events.
- Moves on to any regular Combat as Attacker or Assist. OR
- Another unit begins to function.

Also:
- Saggers are unaffected by terrain prohibited to Tac MA. (*BCS* 1.5i part i) Effectively, the Saggers are moving as Leg MA.
- Sagger Support Re-establishment does not require **any** Safe Path. (1.2d an **exception** to *BCS* 1.9c).
- Sagger Support only exists for units in **Prepared Defense AND Inside the SAM Boundary** (in addition to the normal Support requirements). Otherwise, completely **ignore** the Sagger Support and the Saggers do not count for anything.

Non-Support ATGM units do not apply the above.

3.3 Strategic Reserves

The scenario may identify Arab Formations as starting in each *Home Nation's* Strategic Reserve. These are also listed on the Arab *Player Display*.

3.3a Trigger. The Israeli Player triggers the Front's Strategic Reserve availability by crossing *east of the Purple Line* in the Golan or *west of the Suez Canal* in the Sinai. Each Front triggers independently. The crossing involved requires the actual movement of any Israeli unit to the Arab side of the appropriate line. Once triggered, it remains in effect and added changes have no effect.

3.3b Reinforcements. Starting the turn after the trigger and each turn's Reinforcement Phase thereafter (if desired), the Arab Player can bring on any number of that Front's Strategic Reserve Groups in the listed order. They **cannot** jump the queue. Egyptian Groups arrive at Entry Areas F or G, **except** Group 4 which arrives at the 3 Mech HQ. Syrian Groups all arrive at Entry Area O. Send Air Unit Groups to the Arab *Player Display*.

3.3c VP Penalty. *Each* Strategic Reserve Group (no matter its contents) released to the map **gives the Israeli Player 1 VP.** One Formation (the Egyptian 3 Mech Division) arrives in two separate groups and gives the Israelis 2 VPs total if both enter play. After entry, the 3 Mech Division acts as any single normal Formation.

3.4 Commandos

The Arabs have a handful of Commando units capable of raid missions. They enter via the Order of Arrival with several arrival hexes to choose from. They enter only on that Turn and **cannot** use Airlifts. (2.4) Place Commandos **AFTER** all Israeli Reinforcements.

3.4a Arab 0-MA Commandos. These units (with 4-AR or 3-AR) arrive on both Fronts. The OOA provides a choice of landing hexes. Each must arrive that turn. You can distribute them among the listed hexes as desired. If the listed hex has a VP in it, **no** OBJ is needed to "land" there (an exception to *BCS* 3.3a). The chosen hex cannot contain an enemy unit or EZOC.

Commando units with a 0 MA:
- Are on their Deployed-side. Exception to *BCS* 1.1c.
- Cannot be Assigned to a Formation.
- Never Activate.
- Are **not** Static units but are destroyed if they Retreat.
- Never suffer Isolation.
- Have normal ZOCs.

3.4b 1/82 Para Co. This Syrian unit enters the map the same as the 0-MA Commandos in 3.4a, but with the following difference: It becomes a normal unit of the Syrian Cdo Grp and must Activate with it (normally) once in normal CR.

4.0 Victory
4.1 Victory Conditions

4.1a Victory Point Hexes. Israeli VP hexes are marked with Stars of David; Arab VP hexes are marked with Egyptian Eagles or Syrian Laurels. Some are marked as both. **Each VP hex gives 1 VP when under friendly control.** Control of enemy VP hexes does not award any VPs but denies them to the enemy.

"Control" is awarded to the side which occupies (or is last to occupy) that hex with a friendly Unit, provided the unit is:
- In Command Radius.
- Assigned or Intrinsic Units of an Active Formation with a Complete MSR.
- **Exception:** Arab Commando units (3.4) ignore these requirements.

On 6 Oct 73, all Sinai VP hexes east of the Suez Canal and Golan VP hexes west of the Purple Line are Israeli controlled.

There is no special concept of "control" of bridges. Control of a bridge only matters when counting for Victory, and the only thing that matters is which side was the last to cross the bridge.

Remember: Don't forget *BCS* 3.3d, Objective Marker Placement (exception 3.4a). Once under control, the feature remains in friendly control until the enemy wrests control for themselves.

4.1b Counting VPs.

- The Israelis (on each Front separately) count VPs **at the end of the game**.
- The Egyptians (Sinai Front) count VPs **at the end of the game**.
- The Syrians (Golan Front) count VPs **each turn** to determine the game's **best turn**. There is no "end of game" number for them. Count them at the end of each complete game turn.

So, if the Syrians control 7 VPs at the end of turn 3, but none at the end of play—they have 7 VPs. If the Israelis in the Golan had 8 VPs on turn 4, but none at the end of play, the Israelis have no VPs for the Golan. The Syrians win the Golan, 7 to 0. If, at the same time, the Israelis end up winning the Sinai, the game total is a split between the Fronts, so the complete game is a draw. A side must win **both** Fronts to win the war.

4.1c Arab VPs. Total the VP Hexes held by each Front. Do so each turn in the **Golan** to find the turn with the highest total but do so only at the end of play for the **Sinai**. Make sure the *Other Arab VPs* are totaled at the same time to create the grand total number of Arab VPs for each Front.

On the contrary, the Syrian score is the highest value for any single turn for VP hexes **plus** the game end total for Triggering the Homeland or Israeli Air Units Destroyed. The Egyptian score is only the total calculated at the end of play.

Other Arab VPs:

In addition to the list below, the Arab player can obtain the following:

1 VP (Sinai only) for each Arab **Infantry Division HQ** (do not apply for any Brigade, Armor, or Mech HQ) east of the Suez Canal **with a Complete MSR**. Use markers to track these HQs and their MSR status on the Arab Player Display.

1 VP (Golan only) for **Triggering the Homeland**. This occurs if the Syrians **occupy** (not control) one or more of Entry Areas I (44.35 only), J (26.35), and K (19.35) with units currently in CR. No MSR is required. **Even if a Suez Crossing is in effect, apply the Golan Emphasis (2.2 or 5.1) for the rest of the game.**

1 VP per Israeli Air Unit in the Dead Pile. These VPs are unavailable when using the Simplified Air Rules.

4.1d Israeli VPs. At the end of play, compute the Israeli score for each Front using the below.

Other Israeli VPs:

In addition to the list below, the Israeli player can obtain (only) the following:

1 VP for each Arab Strategic Reserve Group entering play as listed on the *Arab Player Display* for that Front.

Arab VP Hexes.

Sinai:
Tamir (A25.09)
Baluza (A38.16)
Ma'adim Road (A29.03)
Amir "Chinese Farm" (B25.13)
Televizia (B28.16)
Havraga (B29.29)
Hamutal (B30.21)
Hamadia (B31.15)
Tasa (B42.19)
Polish Camp (Ofra) (C41.29)
Ras Sudar Road (C44.00)
Qarat Moura (Poligon) (C46.13)
Wadi Mabuk (C56.09)
Mitla Pass (C61.15)
Giddi Pass (C61.27)

Golan:
El 'Al (10.27)
Arik Bridge (18.35)
Jukhader (21.21)
Tel Fares (23.20)
Tel Zabach (25.28)
Hushniya (26.23)
Bnot Yaakov Bridge (27.35)
Nafah (30.27)
Pkak Bridge (30.33)
Mt. Yosifon (Tel Abu Yusuf) (31.24)
Wasit (37.28)
El Rom (40.25)
Banias (46.30)
Fort 102 (50.24)
Hermon trail (50.25)

Israeli VP Hexes.

Sinai:
El Qantara (A20.06)
Port Said (A21.35)
Port Fuad (A22.33)
Ismailia (B17.22)
Fayid (B18.03)
Sarafeum (B20.14)
Purkan (B20.21)
Hizayon (B22.26)
Deversoir (B22.09)
Amir "Chinese Farm" (B25.13)
Hamutal (B30.21)
Km 101 (C12.21)
Geneifa Camp (C29.28)
Suez City (C36.12)

Golan:
Jassem (25.09)
Al-Hara (31.12)
Kafr Shams (35.06)
Kanaker (48.07)
Maschara (37.15)
Kafr Nasej (38.10)
Khan Arnabeh Fort (41.18)
Tel Merai (43.08)
Tel Shams (46.12)
Sa'sa (49.11)
Fort 102 (50.24)
Hermon trail (50.25)
Mazraat Beit Jann (51.17)
Khan al-Sheikh (56.05)
Katana (61.08)
Damascus Road (62.02)

4.1e Sudden Death Victory. If Sudden Death occurs, ignore the normal Victory Conditions, and the game ends **instantly** with a win to the side which scored it.

A Sudden Death Victory occurs if any of the following occur:

1. The Israelis capture and were the last to cross at least **three** Egyptian bridges **and** the following units cross the Canal to the west on or before **9 Oct 73**. The units required are at least **6x** Armor units **and** a Divisional HQ (the units must all come from the same division). The Armor units can be of any type and remaining size.

2. The Israelis exit the Golan via Entry Area O on or before **12 Oct 73** with the same unit requirements above.

3. The Egyptians exit **two** Armor or Mechanized Divs (each with its HQ and at least 8 Units) off Sinai Entry Areas A, B, or C on or before **14 Oct 73**.

4. The Syrians exit **two** Armor Divs (each with its HQ and at least 8 Units) off Golan Entry Areas J or K on or before **8 Oct 73**.

Formations required **must** be in CR and have a **complete MSR** at the moment they exit the map. If more than one Formation is listed, the number needed can be completed in a later turn. (Sudden Death does not occur until the full requirement is met.)

4.2 Ending the Game

The game ends in one of two ways: short scenarios which end at the time noted in their set ups using the needed parts of 4.1, or longer scenarios which end based on the dice roll for Ceasefire. Either player can accept or reject this Ceasefire—if rejected, there will be a **second** ceasefire which must be obeyed.

4.2a Ceasefires. Starting on 20 Oct, roll two dice against the current turn's Ceasefire value on the *Turn Record Track* in the Reinforcement Phase. If the roll is equal to or greater than the turn's value, a Ceasefire might occur. Play continues that turn, normally, until the Game-turn End Phase. In that Phase, either side can choose to violate the Ceasefire. If neither side violates the Ceasefire, the game ends. If the Ceasefire is violated, play continues, but uses 4.2b.

4.2b Violating Ceasefires. If either side violates the Ceasefire, the game continues normally (including rolling for Ceasefire again) until a *second* Ceasefire occurs. Neither side can "violate" a **second** Ceasefire—the game ends automatically at the end of **that** turn.

Play Note: In scenarios 6.1, 6.2, 6.3, and 6.8 the game's duration is not fixed. If there is no Sudden Death Victory, the game's end by Ceasefire cannot happen before 20 Oct. By the TRC's Ceasefire dice rolls, the scenario will end sometime between the 20th and the 27th. In the unlikely event the game extends even further, use the information on the 27th for any turns beyond it.

5.0 Optional Rules

5.1 Simplified Air Rules

If you wish to skip the more elaborate Air System (1.5 - 1.9 and 2.2), use these rules instead. Each turn, make **three** two-dice rolls (one roll each for the Israelis, Egyptians, and Syrians) on the *Air Points Available Table*. The result is the number of Air Points available for each nation.

Roll once to determine the Israeli Frontal "emphasis" (using the small table at the bottom of the *Air Points Available Table*) even when playing scenarios showing a single Front. The Israeli Air Points Available result gives two values separated by a slash. The Emphasis Roll determines which Front gets which value. In a single Front scenario, you get only the Air Points allocated to the Front you are playing.

The resulting Air Points are normal *BCS* Air Points available for that side (but apply the special capabilities listed in 1.8e and repeated below, modified to fit correctly with rule 5.1):

- Air Points **never require** an OBJ Zone.
- Arab Air Points require a normal Spotter, while **Israeli** Air Points **only** need a Spotter if the Target is in a Mountain hex. (1.1h)
- The Air Point Suppression **Shock Attack DRM** on the *Combat Table* is +2 not +1. The Suppression DRM for regular Attacks or from Artillery are unchanged.
- Each Air Point used as a Destruction Barrage may make **multiple** rolls on the *Barrage Table*, depending on the below:

Outside the SAM Boundary: Use the number Air Strike rolls listed on the *Air Display* for an assumed Israeli A/S level 2 (Israeli 3 and Arab 1).

Inside the SAM Boundary: All Air Strikes make **TWO rolls**.

ALL the other main Air Rules **do not** apply when using 5.1, **including** 1.1b (SAM Boundary) and 1.5b (Air Repls). **Exception:** The SAM Boundary's location determines the number of Barrage Rolls available per Air Point above.

When using this system, do not award VPs for destroyed Israeli Air Units, nor are there any effects from Deep Strike missions.

5.2 Splitting the Israelis

This rule allows both players to enjoy using a more effective and active Israeli Army. It is played with 2.2. If an entering Formation has Entry Areas on either Front, roll one die for it:

1-3 Sinai (Entry Areas A-D)
4-6 Golan (Entry Areas I-L)

One player plays the Egyptians **and** the Golan Israelis, while the other plays the Syrians **and** the Sinai Israelis. For Victory, total up each side by Front and award the VPs according to that same scheme.

5.3 Free Frontal Air Allocations

Ignore 2.2 and allow the Israeli player to freely divide his Air Force between the two Fronts. He can go all the way to the extreme of ignoring one Front in favor of the other, and switching his Air Units from one Front to the other every turn if he wants—or anything in-between.

Do not use 5.1 when 5.3 is in play.

Have fun!

New Series Rules

5.2c <u>Light AV vs. Tanks.</u> Light AV units **cannot** inflict Step Losses on Hard Targets via the *Engagement Table* even with really bad dice. (Repeat of VoT 3.1d)

5.2g [Optional] <u>Realistic Engagement Target Selection.</u> To avoid some unusual combinations of AV strengths and ranges, use the following for both plain Engagements and Stopping Engagements. This is more involved than the standard rules.

Important: When using this rule, do not apply the Targeting Restrictions in 4.4b part i and 5.2b part ii. Use the below instead.

If a Real AV unit (**A**) wishes to Engage, the Active Player **must** select the **Strongest** Inactive AV unit (**B**) with a range reaching **A**. Active Player chooses in ties.

The Inactive unit (**B**) may be Real or Support and need not be in **A**'s range.
If **B** is Support, the Inactive player can choose (when the fire is announced) to either Engage normally or 'self-drop.' Self-dropped Support always remains dropped for the remainder of the Activation. The announced fire does not occur, **A**'s Fire Event is not used, and the Stop (if any) is Waived.

Design Note: Using **B**'s range "reaching **A**" is not a typo. One assumes that no matter what firing the Active unit wants to do, **A** will be forced to Engage longer-ranged enemy units nearby—not some easier target. The Support clause exists to allow a Target's Support to remain hidden rather than risking Engaging—but doing so precludes the ability to return to providing Support in that same Activation.

Below, actual Israeli planning map.

6.0 Scenarios
6.1 The Yom Kippur War: Two Front Campaign

This is the full campaign, two-front war.

First Turn: 6 Oct 73
Last Turn: see 4.2
First Player on Sinai and Golan: Arab

Israeli Set Up:
Israeli Player Display:
 Israel: 4x F-4E, 3x Mirage IIICJ, 5x Nesher,
  2x A-4E, 4x A-4H,
  2x Sa'ar (One Reduced)
 Workshop Box: 2x F-4E, 4x A-4E/H
 Airlift Points: 6

Golan Front:
Independents:
 50.24: 102 Fort Plt
 48.25: 103 Fort Plt
 46.24: 104 Fort Plt
 44.23: 105 Fort Plt
 39.21: 107 Fort Plt
 34.21: 109 Fort Plt
 31.21: 110 Fort Plt
 27.21: 111 Fort Plt
 22.18: 114 Fort Plt
 20.19: 115 Fort Plt
 18.20: 116 Fort Plt

36 Div:
 32.27: HQ (Fresh)
 36.22: A/53 C Arm Co
 38.24: B/53 C Arm Co
 26.23: C/53 Arm Co, G/74 Arm Co
 21.21: F/74 Arm Co
 44.26: H/74 C Arm Co
 37.28: 71/7 C Arm Bn, 75/7 Mech Bn
 31.27: 77/7 C Arm Bn, Tiger C Arm Co
 30.26: 82/188 Arm Bn
 28.31: Combat Trains

Formation Activation Markers in Play:
36 Div

Sinai Front:
Independents:
 A31.28: Budapest Fort
 A21.29: Orkal Fort
 A21.23: Lahtzanit Fort
 A21.19: Drora Fort
 A21.13: Ktuba Fort
 A21.06: Milano Fort
 A21.03: Mifreket Fort
 B22.26: Hizayon Fort
 B20.21: Purkan Fort
 B23.10: Matzmed Fort
 B26.08: Lakekan Fort
 C33.34: Botzer Fort
 C38.26: Lituf Fort

C38.17: Mafzeah Fort
C38.11: Nisan Fort
C37.10: Masrek Fort

252 Div:
 C62.27: HQ (Fat-0), Combat Trains,
  46/401 M Arm Bn,
  195/401 M Arm Bn
 B42.19: 424 Shkd Arm Cav Bn (-)
  (Assigned to 252 Div)
 B26.23: G/184 M Arm Co
 B29.29: H/184 M Arm Co
 B28.16: J/184 Mech Inf Co
 C45.08: A/52 M Arm Co
 C45.17: B/52 M Arm Co
 C44.28: C/52 M Arm Co

275 Ter Bde:
 A38.16: HQ (Fat-0, 1 Arty Point),
  68 Inf Bn (-)
 A40.14: 9 M Arm Bn (-)
 A35.15: M/9 Arm Co
 A28.09: A/424 Arm Cav Co
 A45.17: Combat Trains

Formation Activation Markers in Play:
252 Div, 275 Ter Bde

Arab Set Up:
Arab Player Display:
 Egypt: 6x MiG-21 (A/S, Three Reduced),
  1x MiG-21 (A/S and CAS),
  1x MiG-17 (A/S, Reduced),
  2x MiG-17 (CAS, One Reduced),
  2x Su-7 (One Reduced)

Unreleased Strategic Reserve:
  Group 1: 182 Para Bde (HQ (Fresh),
 38 ATGM Bn, 81, 85, 89 Abn Bn, Combat Trains),
 3 Mech Div (HQ (Fresh), 229/23, 254/23, 255/23
 Arm Bn, 267/23 Mech Bn, Combat Trains)
  Group 2: 139 Cdo Grp (HQ (Fresh),
 39 ATGM Bn, 133, 223 Cdo Bn, 139 Cdo Trains),
 35 Tk Bde (HQ (Fresh), 283, 284, 285 Arm Bn,
 270 Mech Bn, Combat Trains)
  Group 3: 170 Para Bde (HQ (Fresh),
 645 ATGM Bn, 75, 77, 79 Abn Bn, Combat Trains),
 27 Nasr Tk Bde (HQ (Fresh), 10, 11, 12 Arm Bn,
 290 Mech Bn, Combat Trains)
  Group 4: 3 Mech Div (3 Arm Cav Bn,
 30 ATGM Bn, 217/10, 227/114 Arm Bn, 30/10,
 31/10, 32/10, 340/114, 341/114, 342/114 Mech
 Bn)

 Syria: 5x MiG-21,
  3x MiG-17 (One Reduced),
  1x Su-20 (Reduced)

Unreleased Strategic Reserve:
  Group 1: 62 Syrian Inf Bde (HQ (Fat-0),
 IV Arm Bn, 420, 424, 622 Inf Bn, Combat Trains)
  Group 2: 90 Syrian Inf Bde (HQ (Fat-
 0), 491 Arm Bn, 493, 495, 496 Inf Bn, Combat
 Trains)
  Group 3: Assad Syrian Tk Bde (HQ
 (Fresh), II, III Arm Bn, IV Mech Bn, Combat
 Trains)

Golan Front:
Syrian unless otherwise noted.
Cdo Grp:
 56.20: HQ (Fresh)
 56.19: 87 Rec Cdo Bn
 52.23: 82 Abn Bn (-)
 55.23: 83 Cdo Bn
 54.15: 133 Cdo Bn
 55.13: Combat Trains

7 Inf Div:
 44.14: HQ (Fresh), Tank Arm Bn (+)
  (Support)
 42.13: AT ATGM Bn
 48.22: 183 Cdo Bn
 41.14: I/78 Arm Bn
 43.15: II/78 Arm Bn
 45.14: III/78 Arm Bn
 43.14: IV/78 Mech Inf Bn
 37.10: 174/121 Mech Inf Bn
 38.08: 178/121 Mech Inf Bn
 39.10: 179/121 Mech Inf Bn
 38.09: IV/121 Arm Bn
 42.19: 151/68 Inf Bn
 44.19: 241/68 Inf Bn
 45.21: 282/68 Inf Bn
 38.18: 333/85 Inf Bn
 40.18: 334/85 Inf Bn
 41.18: 337/85 Inf Bn
 48.20: 6 Moroccan Arm Bn
 47.21: 12 Moroccan Inf Rgt
 49.11: Combat Trains

9 Inf Div:
 31.12: HQ (Fresh), Tank Arm Bn (+)
  (Support)
 31.08: AT ATGM Bn
 30.18: 412 Palestinian Cdo Bn
 34.06: 211/43 Arm Bn
 33.06: 212/43 Arm Bn
 33.05: III/43 Arm Bn
 34.05: IV/43 Mech Inf Bn
 26.07: 451/51 Arm Bn
 27.07: 452/51 Arm Bn
 27.06: 453/51 Arm Bn
 28.05: 454/51 Mech Inf Bn
 26.16: 187/33 Inf Bn
 27.17: 243/33 Inf Bn
 28.17: III/33 Inf Bn
 31.18: 114/52 Inf Bn
 33.19: 159/52 Inf Bn
 35.18: 222/52 Inf Bn
 32.01: Combat Trains

5 Inf Div:
- **17.10:** HQ (Fresh), Tank Arm Bn (+) (Support), 203/12 Arm Bn
- **13.06:** AT ATGM Bn
- **18.16:** 413 Palestinian Cdo Bn
- **16.08:** 355/12 Arm Bn
- **19.09:** 356/12 Arm Bn
- **21.09:** 346/12 Mech Inf Bn
- **12.05:** 152/47 Arm Bn, 154/47 Arm Bn
- **12.04:** 499/47 Arm Bn, 393/47 Mech Inf Bn
- **13.13:** 287/132 Arm Bn
- **12.12:** 199/132 Mech Bn
- **13.14:** 262/132 Mech Bn
- **14.12:** 328/132 Mech Bn
- **16.17:** 74/61 Inf Bn
- **16.16:** 320/61 Inf Bn
- **17.17:** 323/61 Inf Bn
- **19.16:** 171/112 Inf Bn
- **20.15:** 271/112 Inf Bn
- **21.16:** 287/112 Inf Bn
- **12.02:** Combat Trains

Formation Activation Markers in Play:
Cdo Grp, 5 Inf Div, 7 Inf Div, 9 Inf Div

Sinai Front:

Egyptian unless otherwise noted.

Unassigned Independents:
- **B17.04:** 329/AJ Palestinian Static Bn
- **B18.03:** 339/AJ Palestinian Static Bn
- **B19.03:** 349/AJ Palestinian Static Bn
- **C21.34:** 359/AJ Palestinian Static Bn
- **C25.33:** 5/Ymk Arab Static Bn
- **C36.12:** Militia Static Bn

Pt Said Inf Cmd:
- **A21.35:** HQ (Fat-0), Tank Arm Bn (+) (Support)
- **A20.26:** 135/30 Inf Bn
- **A20.19:** 136/30 Inf Bn
- **A20.23:** 137/30 Inf Bn
- **A26.31:** 533/135 Inf Bn
- **A20.29:** 534/135 Inf Bn
- **A22.33:** 535/135 Inf Bn
- **A20.22:** 203 Cdo Bn
- **A19.35:** Combat Trains

18 Inf Div:
- **A18.05:** HQ (Fresh), 36 ATGM Bn, 634 AT Bn, Tank Arm Bn (+) (All in Support), 219 Arm Bn, 536/136 Mech Inf Bn
- **A17.06:** 118 Arm Cav Bn, 1 ATGM Rgt (Assigned to 18 Inf)
- **A17.05:** 102 ISU Arm Bn, 537/136 Mech Inf Bn
- **A19.06:** 538/136 Mech Inf Bn
- **A20.03:** 256 Cdo Bn
- **A20.07:** 145/90 Inf Bn
- **A20.08:** 147/90 Inf Bn
- **A20.12:** 150/90 Inf Bn
- **A20.04:** 530/134 Inf Bn
- **A20.05:** 531/134 Inf Bn
- **A20.06:** 532/134 Inf Bn
- **A13.03:** Combat Trains

15 Tk Bde:
- **A4.02:** HQ (Fresh), 244 Arm Bn, 245 Arm Bn
- **A3.02:** 246 Arm Bn, 265 Mech Inf Bn
- **B1.33:** Combat Trains

2 Inf Div:
- **B18.27:** HQ (Fresh), 33 ATGM Bn, 364 AT Bn, Tank Arm Bn (+) (All in Support), 239 Arm Bn, 360/117 Mech Inf Bn
- **B17.28:** 102 Arm Cav Bn
- **B19.27:** 221 SU Arm Bn, 361/117 Mech Inf Bn
- **B19.28:** 362/117 Mech Inf Bn
- **B21.27:** 13 Cdo Bn
- **B20.24:** 10/4 Inf Bn
- **B21.25:** 11/4 Inf Bn
- **B21.26:** 12/4 Inf Bn
- **B21.28:** 507/120 Inf Bn
- **B21.29:** 508/120 Inf Bn
- **B22.29:** 509/120 Inf Bn
- **B13.28:** Combat Trains

24 Tk Bde:
- **B16.28:** HQ (Fresh), 248 Arm Bn, 252 Arm Bn
- **B16.29:** 253 Arm Bn, 268 Mech Inf Bn
- **B13.31:** Combat Trains

16 Inf Div:
- **B19.14:** HQ (Fresh), 35 ATGM Bn, 646 AT Bn, Tank Arm Bn (+) (All in Support), 216 Arm Bn, 7/3 Mech Inf Bn
- **B18.13:** 26 Arm Cav Bn
- **B20.13:** 296 T100 Arm Bn, 8/3 Mech Inf Bn
- **B20.14:** 9/3 Mech Inf Bn
- **B21.17:** 73 Cdo Bn
- **B22.11:** 16/16 Inf Bn
- **B22.12:** 17/16 Inf Bn
- **B22.13:** 18/16 Inf Bn
- **B21.14:** 334/112 Inf Bn
- **B21.15:** 335/112 Inf Bn
- **B21.16:** 336/112 Inf Bn
- **B17.10:** Combat Trains

21 Tk Div:
- **B16.14:** HQ (Fresh), 200/14 Arm Bn, 201/14 Arm Bn
- **B16.15:** 203/14 Arm Bn, 260/14 Mech Inf Bn
- **B15.19:** Combat Trains

130 Amph Bde:
- **C33.30:** HQ (Fresh), 602 Amphibious TF
- **C34.29:** 603 Amphibious TF
- **C29.29:** Combat Trains

25 Tk Bde:
- **C27.24:** HQ (Fresh), 275 Arm Bn, 276 Arm Bn
- **C26.24:** 277 Arm Bn, 269 Mech Inf Bn
- **C22.25:** Combat Trains

7 Inf Div:
- **C34.22:** HQ (Fresh), 34 ATGM Bn, 640 AT Bn, Tank Arm Bn (+) (All in Support), 226 Arm Bn, 34/11 Mech Inf Bn
- **C35.21:** 119 Arm Cav Bn, 292 SU Arm Bn
- **C35.22:** 295 T100 Arm Bn, 35/11 Mech Inf Bn
- **C35.23:** 36/11 Mech Inf Bn
- **C37.26:** 33 Cdo Bn
- **C37.23:** 24/8 Inf Bn
- **C37.24:** 25/8 Inf Bn
- **C37.25:** 26/8 Inf Bn
- **C37.20:** 37/12 Inf Bn
- **C37.21:** 38/12 Inf Bn
- **C37.22:** 39/12 Inf Bn
- **C30.24:** Combat Trains

19 Inf Div:
- **C36.15:** HQ (Fresh), 37 ATGM Bn, 641 AT Bn, Tank Arm Bn (+) (All in Support), 212 Arm Bn, 5/2 Mech Inf Bn
- **C35.15:** 19 Arm Cav Bn, 3 ATGM Rgt (Assigned to 19 Inf)
- **C35.16:** 6/2 Mech Inf Bn
- **C36.17:** 47 ISU Arm Bn, 22/2 Mech Inf Bn
- **C37.19:** 43 Cdo Bn
- **C38.12:** 63 Cdo Bn
- **C37.16:** 4/5 Inf Bn
- **C37.17:** 14/5 Inf Bn
- **C37.18:** 15/5 Inf Bn
- **C38.13:** 2/7 Inf Bn
- **C38.14:** 19/7 Inf Bn
- **C38.15:** 21/7 Inf Bn
- **C34.12:** Combat Trains

6 Mech Div:
- **C33.15:** HQ (Fresh), 225/22 Arm Bn, 250/22 Arm Bn
- **C32.15:** 251/22 Arm Bn, 266/22 Mech Inf Bn
- **C28.17:** Combat Trains

Formation Activation Markers in Play:
130 Amph Bde, 21 Tk Div, 15 Tk Bde, 24 Tk Bde, 25 Tk Bde, 6 Mech Div, 2 Inf Div, 7 Inf Div, 16 Inf Div, 18 Inf Div, 19 Inf Div, Pt Said Cmd

6.2 On the Banks of the Suez: Sinai Front Campaign (Large)

This covers just the Sinai Front of the Yom Kippur War. The Egyptians were determined to retake the Sinai and planned for a methodical approach with a large anti-tank cordon. This would force the Israelis to dislodge them from their bridgehead where it was hoped that an advantageous position would put Egypt in good terms during negotiations following a UN ceasefire they knew would come.

Playing Area: Maps A, B, and C
First Turn: 6 Oct 73
Last Turn: see 4.2
First Player: Arab
Victory Conditions: Use the Sinai-related game victory conditions (4.1).

Israeli Set Up:
Setup as Scenario 6.1 for the Sinai Front.

Israeli Player Display:
    Israel: 4x F-4E,
            4x Nesher,
            2x A-4E,
            4x A-4H,
            2x Sa'ar (One Reduced)
    Workshop Box: 1x F-4E, 3x A-4E/H
    Airlift Points: 3

Israeli Reinforcements:
Do not use the Israeli Order of Arrival. Use the below instead:

7 Oct 73
    Israel:
        4x F-4E, 2x A-4E, 2x A-4N

    Any Israeli Entry Hex:
        1/Bishof and 2/Bishof Static Cos

    275 Ter Bde HQ:
        Lapidot M Arm TF *(Assigned to 275 Ter)*, **162 Div** (198/460 M Arm Bn)

    B42.19 (Tasa):
        143 Div (79/14, 196/14 M Arm Bn)

    A: 162 Div (HQ (Fresh),
        19/460 M Arm Bn, 113/217,
        126/217, 142/217, 429/500,
        430/500, 433/500 C Arm Bn, 86/460,
        189 Rec Mech Bn, Combat Trains)

    B: 143 Div (HQ (Fresh),
        87 M Arm Cav Bn,
        257/421, 599/421, 407/600, 409/600,
        410/600 M Arm Bn, Combat Trains)

    D: 35 Para Bde (HQ (Fresh),
        890 Para Bn, Combat Trains)

8 Oct 73
    Remove:
        252 Div (G/184, H/184 M Arm Co, J/184 Mech Co)

    Add: 2x Arty Points

    143 Div HQ:
        143 Div (184/14, 264/421 M Arm Bn)

    252 Div HQ:
        252 Div (104/164, 106/164, 183/164 C Arm Bn)

    A: Nammer TF (HQ (Fat-1),
        279 Rec C Arm Bn, 226/11 S Arm Bn,
        54/11, 128/11, 141/204 Mech Bn,
        Combat Trains)

    C: 440 Div (HQ (Fresh),
        129/875 S Arm Bn, 89/875,
        121/875 Mech Bn, Combat Trains)

    D: 440 Div (A/225 T Arm Bn (-),
        202 Abn Bn (-), 450 Abn Bn)

9 Oct 73
    Nammer TF HQ:
        Nammer TF (Vilner Inf TF)

    B: 274 Arm Bde (HQ (Fresh), 25, 227,
        228 T Arm Bn, Combat Trains)

10 Oct 73
    Any HQ: 564 Abn Bn

    143 Div HQ: 143 Div (582 Shun Abn Bn)

    162 Div HQ: 162 Div (Wnr/217 Abn Co)

    B: 247 Para Bde (HQ (Fresh), 416,
        565 Abn Bn, Combat Trains)

11 Oct 73
    Any HQ: 630 Bridge Bn, 634 Ferry Bn

13 Oct 73
    B35.16 (Yukon): 605 Bridge Bn

    162 Div HQ: 162 Div (100/460 M Arm Bn)

15 Oct 73
    Add: 2x Arty Points

    143 Div HQ: 143 Div (Shmulik Abn TF)

    440 Div HQ: 440 Div (182 S Arm Bn, 9400 Inf Bn)

17 Oct 73
    Add: 1x Arty Point

    440 Div HQ: 440 Div (52 M Arm Bn)

18 Oct 73
    Any HQ: 88 DvL Amphib Rec Bn

    162 Div HQ: 162 Div (271 Mech Eng Bn)

20 Oct 73
    Any HQ: 50 Abn Bn

    35 Abn HQ: 35 Para Bde (48, 469 Abn Bn)

    Nammer TF HQ:
        Nammer TF (268 S Arm Bn)

    A, B, or C (Use only one):
        Sela TF (HQ (Fresh), 105/5, 171/5,
        172/5, 173/5 Inf Bn, Combat Trains),
        484 Harv Arm Cav Bn and
        Yaron Abn TF *(Both Assigned to Sela)*

21 Oct 73
    Workshop Box: 1x F-4E and 1x A-4E/H Repls

22 Oct 73
    Workshop Box: 1x F-4E and 1x A-4E/H Repls

    Any HQ: Hisdai Abn TF

    252 Div HQ: 252 Div (96/179 C Arm Bn [2])

23 Oct 73
    Workshop Box: 1x F-4E and 1x A-4E/H Repls

    440 Div HQ: 440 Div (B/225 Arm Bn (-))

Arab Set Up:
Use the setup as Scenario 6.1 for those units that set up on the Sinai Front and Egyptian side of the Arab Player Display.

Arab Reinforcements:
Use the Arab Order of Arrival for units arriving on the Sinai Front and Egyptian side of the Arab Player Display.

6.3 Syrians at the Border: Golan Front Campaign (Medium)

This covers just the Golan Front of the Yom Kippur War. Unlike the Egyptians, the Syrians had planned to attack aggressively and reach the Jordan River. The Syrians knew time was against them as Israeli reinforcements would arrive and equalize the number of forces, so making an all-out effort to reach their objectives quickly was to be their key to success.

Playing Area: Golan Map
First Turn: 6 Oct 73
Last Turn: see 4.2
First Player: Arab

Victory Conditions: Use the Golan-related game victory conditions (4.1).

Israeli Set Up:
Use the setup from Scenario 6.1 for the Golan

.**Israeli Player Display:**
    Israel: 3x Mirage IIICJ,
                 1x Nesher,
                 2x A-4E,
                 4x A-4H
    Workshop Box: 1x F-4E, 1x A-4E/H
    Airlift Points: 3

Israeli Reinforcements:
Do not use the Israeli Order of Arrival. Use the below instead:

6 Oct 73
    Any HQ: Zvika C Arm TF (2.1b)

7 Oct 73
    Israel: 8x F-4E, 2x A-4E, 2x A-4N

    Add: 8x Arty Points

    I: **36 Div|** (12/1, 51/1 Inf Bn,
         17/1 Inf Bn (-))

    J: **210 Div|** (57/679, 93/679,
         289/679 C Arm Bn)

    K: **210 Div** (HQ (Fresh), 134 Rec, 39/4,
         96/179, 266/179, 278/179 C Arm Bn,
         95/4, 377/9 S Arm Bn, Combat Trains)

8 Oct 73
    Remove: Zvika Arm TF

    Add: 1x Arty Point

    L: **146 Div** (HQ (Fresh), 288 Rec, 94/205,
         61/205, 125/205 C Arm Bn,
         181 S Arm Bn, 58/670,
         83/670 Mech Bn, Combat Trains)

9 Oct 73
    Remove: 36 Div (82/188 C Arm Bn)

    36 Div HQ: 36 Div (Ben-Hanan C Arm TF)

10 Oct 73
    36 Div HQ: 36 Div (269 Mktl Cdo Co,
         Katz C Arm TF)

    210 Div HQ: 210 Div (42/4, 127/4, 11/9,
         91/9 Mech Bn)

    J: **317 Para Bde** (HQ (Fresh), 471,
         567 Abn Bn, Combat Trains)

12 Oct 73
    210 Div HQ: 210 Div (Nati C Arm TF)

14 Oct 73
    Remove: 2x Arty Points

16 Oct 73
    Remove: 1x Arty Point

17 Oct 73
    36 Div HQ: 36 Div| (13/1 Inf Bn)

20 Oct 73
    Remove: 210 Div (96/179 C Arm Bn)

21 Oct 73
    Workshop Box: 1x F-4E and 1x A-4E/H Repls

22 Oct 73
    Workshop Box: 1x F-4E and 1x A-4E/H Repls

23 Oct 73
    Workshop Box: 1x F-4E and 2x A-4E/H Repls

Arab Set Up:
Use the setup as Scenario 6.1 for the Golan and Syrian side of the Arab Player Display.

Arab Reinforcements:
Use the Arab Order of Arrival for units arriving in the Golan and Syrian side of the Arab Player Display.

6.4 Duel for the Golan (Small)

This scenario covers just the opening days of the war along the Golan Front. The focus is on the Syrian offensive to reach the Jordan River and the Israeli response to recapture the Golan Heights. This became a desperate knife fight for both sides.

Playing Area: Golan Map
First Turn: 6 Oct 73
Last Turn: 9 Oct 73
Turn Length: 4
First Player: Arab

Victory Conditions: Use the Golan-related game victory conditions (4.1). If Sudden Death (4.1e) is not achieved, then determine the winner by a modified Normal Victory Determination at the end of the scenario:
    Syrian Victory: If the Arabs control 5 or more VPs at the end of the game.
    Draw: If the Arabs control 3 or 4 VPs at the end of the game.
    Israeli Victory: If the Arabs control 2 or less VPs at the end of the game.

Israeli Set Up:
Use the setup from Scenario 6.1 for the Golan.

Israeli Player Display:
    Israel: 3x Mirage IIICJ,
                 1x Nesher,
                 2x A-4E,
                 4x A-4H
    Workshop Box: 1x F-4E, 1x A-4E/H
    Airlift Points: 0

Israeli Reinforcements:
Do not use the Israeli Order of Arrival. Use the below instead:

6 Oct 73
    Any HQ: Zvika C Arm TF (2.1b)

7 Oct 73
    Israel: 8x F-4E, 2x A-4E, 2x A-4N

    Add: 8x Arty Points

    I: **36 Div|** (12/1, 51/1 Inf Bn,
         17/1 Inf Bn (-))

    J: **210 Div|** (57/679, 93/679,
         289/679 C Arm Bn)

    K: **210 Div** (HQ (Fresh), 134 Rec, 39/4,
         96/179, 266/179, 278/179 C Arm Bn,
         95/4, 377/9 S Arm Bn, Combat Trains)

8 Oct 73
Remove: Zvika Arm TF

Add: 1x Arty Point

L: **146 Div** (HQ (Fresh), 288 Rec, 94/205, 61/205, 125/205 C Arm Bn, 181 S Arm Bn, 58/670, 83/670 Mech Bn, Combat Trains)

9 Oct 73
Remove: 36 Div (82/188 C Arm Bn)

36 Div HQ: 36 Div (Ben-Hanan C Arm TF)

Arab Set Up:
Use the setup as Scenario 6.1 for the Golan and Syrian side of the Arab Player Display.

Arab Reinforcements:
Use the Arab Order of Arrival for those units arriving in the Golan and Syrian side of the Arab Player Display.

6.5 Iraqi Intervention
(Medium)

The Israelis conducted a counteroffensive into Syria after stopping the threat in the Golan Heights. With forces moving towards Damascus, a new enemy appeared that would divert the Israeli's attention: the Iraqis had arrived. Followed later by a Jordanian contingent, the Arabs were joining forces again to defeat their common enemy.

Playing Area: Golan Map
First Turn: 12 Oct 73
Last Turn: 16 Oct 73
Turn Length: 5
First Player: Arab

Victory Conditions: Use the Golan-related game victory conditions (4.1). The Syrians highest single turn total of VPs is 5. No Syrian Strategic Reserve Groups have been released.

Israeli Set Up:

Israeli Player Display:
Israel: 8x F-4E (Two Reduced),
3x Mirage IIICJ, 1x Nesher,
4x A-4E, 4x A-4H (Two Reduced),
2x A-4N (One Reduced)
Workshop Box: 1x F-4E
Airlift Points: 3

36 Div:
43.21: HQ (Fat-2, 4 Arty Points)
47.26: 269 Mtkl Cdo Co
49.19: 12/1 Inf Bn
48.25: 17/1 Inf Bn (-) [2]
48.26: 51/1 Inf Bn [4]
50.19: Tiger C Arm Co
45.17: Ben-Hanan C Arm TF
51.17: Katz C Arm Bn [2]
50.17: 77/7 C Arm Bn [2]
46.16: 75/7 Mech Bn [3]
47.18: H/74 Arm Co
39.22: Combat Trains
Dead Pile: 71/7 C Arm Bn, A/53, B/53, C/53, F/74, G/74 C Arm Co

210 Div:
39.21: HQ (Fat-1, 3 Arty Points)
40.15: Nati C Arm TF
41.18: 134 Rec C Arm Bn [2]
31.22: 127/4 Mech Bn
31.21: 39/4 C Arm Bn [1]
27.21: 95/4 S Arm Bn [3]
28.21: 42/4 Mech Bn
42.13: 377/9 S Arm Bn [3]
39.20: 11/9 Mech Bn
40.18: 96/179 C Arm Bn [1]
42.14: 278/179 C Arm Bn [1], 91/9 Mech Bn
41.15: 93/679 C Arm Bn [1]
39.16: 289/679 C Arm Bn [1]
37.28: Combat Trains
Dead Pile: 266/179, 57/679 C Arm Bn

317 Para Bde:
36.22: HQ (Fresh), 471 Abn Bn
35.23: 567 Abn Bn
32.25: Combat Trains

146 Div:
21.21: HQ (Fat-2, 2 Arty Points)
23.18: 288 Rec C Arm Bn [3]
26.20: 61/205 C Arm Bn [2]
20.20: 94/205 C Arm Bn [1]
22.18: 125/205 C Arm Bn [1]
18.20: 181 S Arm Bn [2], 83/670 Mech Bn
17.21: 58/670 Mech Bn
16.22: Combat Trains

Formation Activation Markers in Play:
36 Div, 146 Div, 210 Div, 317 Para Bde

Israeli Reinforcements: *Do not use the Israeli Order of Arrival. Use the below instead:*

14 Oct 73
Remove: 2x Arty Points

16 Oct 73
Remove: 1x Arty Point

Arab Set Up:

Arab Player Display:
Syria: 5x MiG-21 (Three Reduced),
3x MiG-17 (Three Reduced),
1x Iraqi MiG-21,
1x Iraqi MiG-17 (Reduced),
2x Iraqi Su-7 (Both Reduced),
(1x Su-20 has been eliminated)

Unreleased Strategic Reserve:
Group 1: 62 Syrian Inf Bde (HQ (Fat-0), IV Arm Bn, 420, 424, 622 Inf Bn, Combat Trains)
Group 2: 90 Syrian Inf Bde (HQ (Fat-0), 491 Arm Bn, 493, 495, 496 Inf Bn, Combat Trains)
Group 3: Assad Syrian Tk Bde (HQ (Fresh), II, III Arm Bn, IV Mech Bn, Combat Trains)

Golan Front: *Syrian unless otherwise noted.*
1 Tk Div: Destroyed.

3 Tk Div (-):
61.03: HQ (Fat-0), 273/21 Arm Bn (Support)
59.04: AT ATGM Bn
60.08: 354/65 Arm Bn, IV/65 Mech Bn
60.11: 363/65 Arm Bn
58.06: 365/65 Arm Bn
55.03: 112/21 Mech Bn
56.05: 161/21 Mech Bn
58.03: 246/21 Mech Bn
62.02: Combat Trains

Cdo Grp:
53.24: HQ (Fat-2), 122 Cdo Bn
50.26: 87 Rec Cdo Bn [2]
50.24: 1/82 Abn Co, 82 Abn Bn (-) [2]
50.23: 83 Cdo Bn
50.25: 133 Cdo Bn
55.13: Combat Trains

7 Inf Div:
51.10: HQ (Fat-3),
Tank Arm Bn (+) [2] (Support)
53.16: 183 Cdo Bn [1]
46.13: 174/121 Mech Inf Bn [2], 549 ATGM Rgt
46.12: 178/121 Mech Inf Bn [2], 65 ATGM Rgt
47.13: 179/121 Mech Inf Bn [2]
51.14: 151/68 Inf Bn [3]
49.11: 241/68 Inf Bn [3]
52.15: 282/68 Inf Bn [3], AT ATGM Bn
43.08: 333/85 Inf Bn [3]
41.08: 334/85 Inf Bn [3]
44.10: 337/85 Inf Bn [3]
51.19: 12 Moroccan Inf Rgt [3]
55.07: Combat Trains
Dead Pile: I/Assad, I/78, II/78, III/78, 172/81, 259/81, 283/81, IV/121 Arm Bn, 6 Moroccan Arm Bn, IV/78, 214/81 Mech Inf Bn

9 Inf Div:
  30.13: HQ (Fat-3),
    Tank Arm Bn (+) [2] (Support),
    412 Palestinian Cdo Bn [1]
  38.10: 211/43 Arm Bn [1]
  37.13: IV/43 Mech Inf Bn [2]
  25.18: 187/33 Inf Bn [4], AT ATGM Bn [1]
  26.19: 243/33 Inf Bn [4]
  27.19: III/33 Inf Bn [4]
  33.19: 114/52 Inf Bn [3]
  36.18: 159/52 Inf Bn [3]
  37.15: 222/52 Inf Bn [3]
  28.04: Combat Trains
  Dead Pile: 212/43, III/43, 451/51, 452/51,
    453/51 Arm Bn, 454/51 Mech Inf Bn

5 Inf Div:
  18.12: HQ (Fat-3),
    Tank Arm Bn (+) [2] (Support),
    413 Palestinian Cdo Bn [1]
  15.18: 74/61 Inf Bn [4]
  16.19: 320/61 Inf Bn [4]
  18.18: 323/61 Inf Bn [4], AT ATGM Bn [1]
  20.15: 171/112 Inf Bn [4]
  21.17: 271/112 Inf Bn [4]
  23.16: 287/112 Inf Bn [4]
  12.02: Combat Trains
  Dead Pile: 203/12, 355/12, 356/12, 152/47,
    154/47, 499/47, 287/132 Arm Bn,
    346/12, 393/47, 199/132, 262/132,
    328/132 Mech Bn

Formation Activation Markers in Play:
Cdo Grp, 3 Tk Div (-), 5 Inf Div, 7 Inf Div,
9 Inf Div

Arab Reinforcements: *Do not use the Arab Order of Arrival. Use the below instead:*

12 Oct 73
  N: **3 Iraqi Arm Div** (HQ (Fat-0),
    Mut/12, Qtb/12 Arm Bn,
    1/6, 2/8 Mech Bn, Combat Trains)

13 Oct 73
  M: **3 Jordanian Arm Div** (HQ (Fat-0),
    2/40, 4/40 Arm TF, 1/40 Mech TF,
    Combat Trains)

15 Oct 73
  Add: *4x Arty Points*

  3 Iraqi Div HQ: 3 Iraqi Arm Div (Khd/6,
    Mkd/6, Ymk/6, Qad/12, 3/8 Arm Bn,
    1/8, 3/8, 3/12 Mech Bn)

16 Oct 73
  3 Iraqi Div HQ: 3 Iraqi Arm Div (1/20,
    2/20, 3/20 Inf Bn)

  M: **KAA Arab Mech Bde** (HQ (Fresh),
    1 Arm Cav Bn, 4 Abn Bn,
    Combat Trains)

6.6 Aryeh Dov (Small)

Israeli Command had sought to counterattack the Egyptian crossing with heavy airstrikes and a blitzkrieg type armor attack to cause the type of panic seen in the Six Day War in 1967. If the victory conditions seem tough, these were the historical expected objectives by Gonen, Southern Command Commander, to the division commanders Adan and Sharon. The objectives continued to change through the day to add to the confusion. The Egyptians stood their ground, and the result was an embarrassing defeat for the Israelis and a deeper respect for the enemy.

Playing Area: Map B
First Turn: 8 Oct 73
Last Turn: 9 Oct 73
Turn Length: 2
First Player: Israeli
Additional Supply Sources: B28.35, B43.35, B53.01 (Israelis)

Victory Conditions: The Israelis win if they occupy at least two of the following three forts: Hizayon (B22.26), Purkan (B20.21), and Matzmed (B23.10), as well as have at least **3x** Armor units (of any size and remaining number of steps) and a Divisional HQ (all from one Division) west of the canal, with a Complete MSR by the end of the game.

Israeli Set Up: *Units not listed are not used in the scenario.*

Israeli Player Display:
  Israel: 8x F-4E, 4x Nesher, 4x A-4E,
    4x A-4H (Two Reduced), 2x A-4N,
    2x Sa'ar (Two Reduced)
  Airlift Points: 0

Independents:
  B22.26: Hizayon Fort
  B20.21: Purkan Fort
  B23.10: Matzmed Fort
  B26.08: Lakekan Fort

143 Div:
  B36.20: HQ (Fresh, 1x Arty Point)
  B35.16: 87 M Arm Cav Bn
  B26.23: 79/14 M Arm Bn [1]
  B31.13: 184/14 M Arm Bn [2]
  B26.26: 196/14 M Arm Bn [1]
  B37.28: 264/421 M Arm Bn
  B43.27: 257/421 M Arm Bn
  B29.29: 599/421 M Arm Bn
  B44.17: 407/600 Arm Bn
  B47.14: 409/600 Arm Bn
  B43.18: 410/600 Arm Bn
  B50.17: Combat Trains

162 Div: (*126 C Arm Bn is not in play*)
  B32.29: HQ (Fresh)
  B28.35: 113/217 C Arm Bn,
    142/217 C Arm Bn, 19/460 M Arm Bn [2],
    198/460 C Arm Bn [2], 86/460 Mech Bn,
    189 Rec Mech Bn(-))
  B43.35: 429/500 C Arm Bn,
    430/500 C Arm Bn, 433/500 C Arm Bn
  B43.31: Combat Trains

Formation Activation Markers in Play:
143 Div, 162 Div

Israeli Reinforcements: *None.*

Arab Set Up: *All units are Egyptian.*
Arab Player Display:
  Egypt: 6x MiG-21 (A/S, Four Reduced),
    1x MiG-21 (A/S and CAS),
    1x MiG-17 (A/S, Reduced),
    2x MiG-17 (CAS, Two Reduced),
    2x Su-7 (One Reduced),
    1x Hunter

2 Inf Div:
  B22.24: HQ (Fat-0, PD),
    33 ATGM Bn, 364 AT Bn,
    Tank Arm Bn (+) (All Three in Support),
    102 Arm Cav Bn
  B22.25: 239 Arm Bn
  B21.22: 221 SU Arm Bn
  B23.24: 360/117 Mech Inf Bn
  B23.25: 361/117 Mech Inf Bn
  B23.26: 362/117 Mech Inf Bn
  B21.21: 13 Cdo Bn
  B22.21: 10/4 Inf Bn
  B23.22: 11/4 Inf Bn
  B23.23: 12/4 Inf Bn
  B23.27: 507/120 Inf Bn
  B23.28: 508/120 Inf Bn
  B23.29: 509/120 Inf Bn
  B13.28: Combat Trains

24 Tk Bde:
  B22.23: HQ (Fat-0), 248 Arm Bn,
    252 Arm Bn
  B22.22: 253 Arm Bn, 268 Mech Inf Bn
  B13.31: Combat Trains

16 Inf Div:
  B24.13: HQ (Fat-0, PD),
    35 ATGM Bn, 646 AT Bn,
    Tank Arm Bn (+) (All Three in Support),
    216 Arm Bn
  B24.12: 26 Arm Cav Bn
  B23.11: 296 T100 Arm Bn
  B25.13: 7/3 Mech Inf Bn
  B25.14: 8/3 Mech Inf Bn
  B25.15: 9/3 Mech Inf Bn
  B22.17: 73 Cdo Bn
  B24.10: 16/16 Inf Bn
  B25.11: 17/16 Inf Bn
  B25.12: 18/16 Inf Bn

B25.16: 334/112 Inf Bn
B24.16: 335/112 Inf Bn
B23.17: 336/112 Inf Bn
B17.10: Combat Trains

21 Tk Div:
B23.15: HQ (Fat-0), 200/14 Arm Bn,
201/14 Arm Bn
B23.14: 203/14 Arm Bn,
260/14 Mech Inf Bn
B15.19: Combat Trains

Formation Activation Markers in Play:
21 Tk Div, 24 Tk Bde, 2 Inf Div, 16 Inf Div

Arab Reinforcements: *None.*

6.7 Operation Stouthearted Men
(Medium)

After discovering the seam between the Egyptian Second and Third Armies, the desired counterattack to cross the Suez Canal was launched a day after the failed Egyptian Armored Offensive. The fighting would revolve around the Chinese Farm, so-named after misidentifying Japanese characters on irrigation equipment after the Israelis had occupied the Sinai in 1967. The battle was intense, with stubborn resistance by the Egyptians while the Israelis tried pushing them away to establish and hold a bridgehead west of the Suez Canal.

Playing Area: Map B south of XX.21 inclusive
First Turn: 15 Oct 73
Last Turn: 19 Oct 73
Turn Length: 5
First Player: Israeli
Additional Supply Sources:
B42.21, B41.01, B53.01 (Israelis)
B20.01, B22.21, B31.01 (Arabs)

Victory Conditions: Use the Sinai-related game victory conditions for counting victory points (4.1). No Egyptian Strategic Reserve Groups have been released. The Israeli player must have at least **3x** Armor units (of any size and remaining number of steps) and a Divisional HQ (all from one Division) west of the canal, with a Complete MSR.

Israeli Set Up: *Units not listed are not used in the scenario.*

Israeli Player Display:
Israel: 8x F-4E (Three Reduced),
4x Nesher, 4x A-4E,
4x A-4H (Three Reduced),
2x A-4N (One Reduced),
2x Sa'ar (Two Reduced)
Airlift Points Available: 2

143 Div:
B36.16: HQ (Fat-0, 2 Arty Points)
B33.10: 87 M Arm Cav Bn,
79/14 M Arm Bn [2]
B33.11: 184/14 M Arm Bn [2],
407/600 M Arm Bn
B33.12: Shmulik Abn TF, (424 Shkd Arm Cav Bn (-) (Assigned to 143 Div))
B32.12: 582 Shun Abn Bn
B33.16: 264/421 M Arm Bn, 634 Ferry Bn (Assigned to 143 Div)
B35.16: 257/421 M Arm Bn, 605 Bridge Bn (Assigned to 143 Div)
B34.15: 599/421 M Arm Bn [2], 630 Bridge Bn (Assigned to 143 Div)
B30.14: 409/600 Arm Bn
B30.15: 410/600 Arm Bn [2]
B41.18: Combat Trains

162 Div:
B42.19: HQ (Fat-1, 1 Arty Point)
B46.14: 189 Rec Mech Bn (-), Lapidot M Arm TF (Assigned to 162 Div)
B48.11: 113/217 C Arm Bn [2],
126/217 C Arm Bn [2]
B49.12: 142/217 C Arm Bn,
Wnr/217 Abn Co
B48.12: 19/460 M Arm Bn [2]
B48.13: 100/460 M Arm Bn
B47.14: 198/460 C Arm Bn [2],
86/460 Mech Bn
B30.21: 429/500 C Arm Bn
B41.20: 430/500 C Arm Bn [2]
B42.20: 433/500 C Arm Bn [2]
B47.19: Combat Trains

247 Para Bde:
B32.14: HQ (Fresh), 565 Abn Bn
B32.15: 416 Abn Bn
B41.17: Combat Trains

Formation Activation Markers in Play:
143 Div, 162 Div, 247 Para Bde

Israeli Reinforcements: *Do not use the Israeli Order of Arrival. Use the below instead:*

17 Oct 73
Enter via Airlift:
35 Para Bde (HQ (Fat-0), 890 Abn Bn)
Any eligible hex:
35 Para Bde (Combat Trains)

18 Oct 73
At 143 Div HQ: 88 DvL Amphib Rec Bn

At 162 Div HQ:
162 Div (271 Mech Eng Bn)

B41.01: 252 Div (HQ (Fat-0) 106/164 [2], 183/164 [2] C Arm Bn, 46/401 [2], 95/401 [2] M Arm Bn, Combat Trains)

Arab Set Up: *Egyptian unless otherwise noted. Units not listed are not used in the scenario.*

Arab Player Display:
Egypt: 4x MiG-21 (A/S, One Reduced),
1x MiG-21 (A/S and CAS),
1x MiG-17 (A/S, Reduced),
2x MiG-17 (CAS, Two Reduced),
2x Su-7 (Two Reduced),
1x Hunter, 1x Mirage 5,
1x Arab MiG-21 (Reduced),
1x Arab MiG-17 (Reduced),
1x Arab Su-7 (Reduced)

Unreleased Strategic Reserve:
Group 1: 182 Para Bde (HQ (Fresh), 38 ATGM Bn, 81, 85, 89 Abn Bn, Combat Trains), **3 Mech Div** (HQ (Fresh), 229/23, 254/23, 255/23 Arm Bn, 267/23 Mech Bn, Combat Trains)
Group 2: 139 Cdo Grp (HQ (Fresh), 39 ATGM Bn, 133, 223 Cdo Bn, Combat Trains), **35 Tk Bde** (HQ (Fresh), 283, 284, 285 Arm Bn, 270 Mech Bn, Combat Trains)
Group 3: 170 Para Bde (HQ (Fresh), 645 ATGM Bn, 75, 77, 79 Abn Bn, Combat Trains), **27 Nasr Tk Bde** (HQ (Fresh), 10, 11, 12 Arm Bn, 290 Mech Bn, Combat Trains)
Group 4: 3 Mech Div (3 Arm Cav Bn, 30 ATGM Bn, 217/10, 227/114 Arm Bn, 30/10, 31/10, 32/10, 340/114, 341/114, 342/114 Mech Bn)

Unassigned Independents:
B17.04: 329/AJ Palestinian Static Bn
B18.03: 339/AJ Palestinian Static Bn
B19.03: 349/AJ Palestinian Static Bn

16 Inf Div:
B24.16: HQ (Fat-1, PD),
35 ATGM Bn, 646 AT Bn,
Tank Arm Bn (+) [6] (All Three in Support),
216 Arm Bn
B23.14: 26 Arm Cav Bn
B24.17: 296 T100 Arm Bn
B28.16: 7/3 Mech Inf Bn
B26.16: 8/3 Mech Inf Bn
B25.15: 9/3 Mech Inf Bn
B27.19: 73 Cdo Bn
B27.12: 16/16 Inf Bn
B25.13: 17/16 Inf Bn
B25.11: 18/16 Inf Bn
B30.17: 334/112 Inf Bn [5]
B28.20: 335/112 Inf Bn [5]
B29.19: 336/112 Inf Bn [5]
B17.10: Combat Trains

21 Tk Div:
B21.18: HQ (Fat-2), 9 Arm Cav Bn
B21.19: 654 ATGM Bn
B21.20: 204/1 Arm Bn [2],
205/1 Arm Bn [2]
B21.21: 206/1 Arm Bn [2],
259/1 Mech Bn [4]
B25.21: 200/14 Arm Bn [1]

B25.20: 201/14 Arm Bn [1]
B24.20: 203/14 Arm Bn [1],
    260/14 Mech Inf Bn [3]
B22.17: 243/18 Arm Bn, 52/18 Mech Bn
B23.18: 53/18 Mech Bn
B23.17: 70/18 Mech Bn
B21.14: Combat Trains

23 Mech Div (-):
B12.20: HQ (Fresh, HQ is Done),
    350/116 Mech Bn
B15.20: 231/116 Arm Bn
B11.19: 351/116 Mech Bn
B8.16: 352/116 Mech Bn
B1.20: Combat Trains

Formation Activation Markers in Play:
21 Tk Div, 23 Mech Div (-), 16 Inf Div

Arab Reinforcements:

17 Oct 73
B31.01: 25 Tk Bde (HQ (Fat-2), 275,
276 [2], 277 [2] Arm Bn, 269 Mech Bn,
Combat Trains)

18 Oct 73
Egypt: 1x MiG-21 (Reduced),
    1x Su-20 (Reduced),
    1x L-29 (Reduced)

B20.01: 4 Tk Div (HQ (Fat-1), 207/2,
208/2, 209/2 Arm Bn, 261/2 Mech Bn,
Combat Trains)

B22.21: 24 Tk Bde (HQ (Fat-2),
248 [2], 252 [2], 253 [2] Arm Bn,
268 Mech Bn [4], Combat Trains)

6.8 Africa (Large)

Following the successful crossing of the Suez, the Israelis sought to breakout from their tenuous bridgehead and take the war into the African side of Egypt. The aim was to surround and cut off the Third Army. The Egyptians had to call on their General HQ reserves to stop the Israelis. Through confusion and denial, the response was muddled until it was almost too late. The race was on before the UN ceasefire.

Playing Area: Maps B and C
First Turn: 20 Oct 73
Last Turn: see 4.2
First Player: Israeli
Additional Supply Sources: B28.35, B43.35 (Israelis)

Victory Conditions: Use the Sinai-related game victory conditions for counting victory points (4.1). The Egyptians start with 1 VP (which cannot be lost) in addition to all the controlled VPs in the playing area.

Israeli Set Up:

Units not listed are not used in the scenario.

Israeli Player Display:
Israel: 8x F-4E (Three Reduced),
    4x Nesher,
    4x A-4E (One Reduced),
    4x A-4H (Three Reduced),
    2x A-4N (One Reduced),
    2x Sa'ar (Two Reduced)
Airlift Points Available: 1

SAM Control Destroyed Markers:
B9.15, B16.04 (2 for the SEAD Track)

Unassigned Independents:
C62.27: 1/Bishof Static Co
C62.14: 2/Bishof Static Co

Nammer TF:
B28.35: HQ (Fat-1), Combat Trains
B29.32: 226/11 S Arm Bn [3]
B28.34: Vilner Inf TF, 54/11 Mech Bn
B29.29: 128/11 Mech Bn

274 Arm Bde:
B34.20: HQ (Fat-1, 1 Arty Asset)
B31.25: 25 T Arm Bn [2]
B30.21: 227 T Arm Bn
B30.15: 228 T Arm Bn
B42.19: Combat Trains

143 Div:
B23.10: HQ (Fat-1, 2 Arty Assets)
B18.11: 582 Shun Abn Bn [5]
B16.11: Shmulik Abn TF [5]
B19.14: 79/14 M Arm Bn [2]
B26.08: 184/14 M Arm Bn [1]
B13.14: 264/421 M Arm Bn [2],
    599/421 M Arm Bn [1]
B25.13: 409/600 M Arm Bn [2]
B24.12: 410/600 M Arm Bn [2]
B16.13: 88 DvL Amphib Rec Bn [2]
    (Assigned to 143 Div)
B17.14: 424 Shkd Cav Bn (-) [3]
    (Assigned to 143 Div)
B22.11: 634 Ferry Bn [1]
    (Assigned to 143 Div, Emplaced)
B22.10: 605 Bridge Bn
    (Assigned to 143 Div, Emplaced)
B22.09: 630 Bridge Bn
    (Assigned to 143 Div, Emplaced)
B35.16: Combat Trains
Dead Pile: 87 M Arm Cav Bn,
    257/421 M Arm Bn,
    407/600 M Arm Bn

35 Para Bde:
B22.13: HQ (Fat-1), 890 Abn Bn (-) [3]
B21.14: 48 Abn Bn, 469 Abn Bn
B25.11: Combat Trains

247 Para Bde:
B22.12: HQ (Fat-2), 416 Abn Bn [4],
    565 Abn Bn [4]
B25.10: Combat Trains

252 Div:
B16.09: HQ (Fat-0)
B9.09: 183/164 C Arm Bn [2]
B9.08: 106/164 C Arm Bn [2]
B11.10: 46/401 M Arm Bn [2]
B11.11: 195/401 M Arm Bn [2]
B24.10: Combat Trains
Dead Pile: 104/164 C Arm Bn

162 Div:
B11.04: HQ (Fat-0, 2 Arty Assets),
    271 Mech Eng Bn,
    50 Abn Bn (Assigned to 162 Div)
C13.34: 126/217 C Arm Bn [1]
C14.34: 113/217 C Arm Bn [2]
C12.33: 142/217 C Arm Bn [2],
    Wnr/217 Abn Co
B17.06: 86/460 Mech Bn,
    Lapidot M Arm TF (Assigned to 162 Div)
C9.33: 19/460 M Arm Bn [1],
    189 Rec Mech Bn (-)
C8.33: 100/460 M Arm Bn
C8.32: 198/460 C Arm Bn [2]
C10.32: 430/500 C Arm Bn [2]
C9.32: 433/500 C Arm Bn [2]
B17.10: 429/500 C Arm Bn [2],
    Combat Trains

440 Div:
C45.17: HQ (Fat-0), 9400 Inf Bn
C47.11: 450 Abn Bn
C43.06: A/225 Arm Bn (-), 202 Abn Bn (-)
C47.08: 182 S Arm Bn
C47.16: 52 M Arm Bn [2]
C45.29: 129/875 S Arm Bn [3]
C44.28: 89/875 Mech Bn
C44.25: 121/875 Mech Bn
C56.16: Combat Trains

Formation Activation Markers in Play:
143 Div, 162 Div, 252 Div, 440 Div, Nammer TF, 274 Arm Bde, 35 Para Bde, 247 Para Bde

Israeli Reinforcements: *Do not use the Israeli Order of Arrival. Use the below instead:*

20 Oct 73
A, B, or C (Use only one):
Sela TF (Sela TF HQ (Fresh), 105/5, 171/5, 172/5, 173/5 Inf Bn Sela TF Combat Trains), 484 Harv Arm Cav Bn *(Assigned to Sela TF)*, Yaron Abn TF *(Assigned to Sela TF)*

21 Oct 73
Workshop Box: 1x F-4E and 1x A-4E/H Repls

22 Oct 73
Workshop Box: 1x F-4E and 2x A-4E/H Repls

Any HQ: Hisdai Abn TF

252 Div HQ: 252 Div (96/179 C Arm Bn [2])

23 Oct 73
Workshop Box: 1x F-4E and 2x A-4E/H Repls

Any HQ: 564 Abn Bn

440 Div HQ: 440 Div (B/225 Arm TF)

Arab Set Up: *Egyptian unless otherwise noted. Units not listed are not used in the scenario.*

Arab Player Display:
Egypt: 4x MiG-21 (A/S, Three Reduced),
1x MiG-21 (A/S and CAS, Reduced),
1x MiG-17 (CAS, Reduced),
1x Su-7 (Reduced),
1x Su-20 (Reduced),
1x L-29 (Reduced),
1x Hunter,
1x Mirage 5,
1x Arab MiG-21 (Reduced),
1x Arab MiG-17 (Reduced),
1x Arab Su-7 (Reduced)

Unreleased Strategic Reserve:
Group 3: **170 Para Bde** (HQ (Fresh), 645 ATGM Bn, 75, 77, 79 Abn Bn, Combat Trains), **27 Nasr Tk Bde** (HQ (Fresh), 10, 11, 12 Arm Bn, 290 Mech Bn, Combat Trains)
Group 4: **3 Mech Div** (3 Arm Cav Bn, 30 ATGM Bn, 217/10, 227/114 Arm Bn, 30/10, 31/10, 32/10, 340/114, 341/114, 342/114 Mech Bn)

25 Tk Bde: Destroyed.

Unassigned Independents:
B17.04: 329/AJ Palestinian Static Bn
B18.03: 339/AJ Palestinian Static Bn
B19.03: 349/AJ Palestinian Static Bn
C21.34: 359/AJ Palestinian Static Bn
C25.33: 5/Ymk Arab Static Bn
C36.12: Militia Static Bn

2 Inf Div:
B25.27: HQ (Fat-2, PD),
33 ATGM Bn [5], 364 AT Bn,
Tank Arm Bn (+) [6] (All Three in Support),
102 Arm Cav Bn
B26.26: 239 Arm Bn [2]
B23.34: 221 SU Arm Bn
B28.27: 360/117 Mech Inf Bn [4]
B27.29: 361/117 Mech Inf Bn [4]
B25.30: 362/117 Mech Inf Bn [4]
B26.23: 13 Cdo Bn [2]
B27.22: 10/4 Inf Bn [5]
B28.23: 11/4 Inf Bn [5]

B28.25: 12/4 Inf Bn [5]
B26.31: 507/120 Inf Bn [5]
B27.33: 508/120 Inf Bn [5]
B26.34: 509/120 Inf Bn [5]
B13.28: Combat Trains

24 Tk Bde:
B23.23: HQ (Fat-4), 252 Arm Bn [1]
B22.22: 248 Arm Bn [1]
B24.22: 253 Arm Bn [1]
B22.23: 268 Mech Inf Bn [2]
B21.26: Combat Trains

16 Inf Div:
B24.17: HQ (Fat-4, PD), 35 ATGM Bn,
646 AT Bn,
Tank Arm Bn [2] (All Three in Support)
B28.16: 7/3 Mech Inf Bn [3]
B26.15: 8/3 Mech Inf Bn [3]
B25.17: 9/3 Mech Inf Bn [3]
B24.14: 16/16 Inf Bn [1], 26 Arm Cav Bn [1]
B25.15: 17/16 Inf Bn [1]
B23.15: 18/16 Inf Bn [1], 216 Arm Bn [1]
B22.15: 73 Cdo Bn [1], 296 T100 Arm Bn [1]
B30.17: 334/112 Inf Bn [3]
B28.20: 335/112 Inf Bn [3]
B29.19: 336/112 Inf Bn [3]
B17.22: 16 Inf Combat Trains, 21 Tk Combat Trains

21 Tk Div:
B23.20: 21 Tk HQ (Fat-4),
243/18 Arm Bn [1] (Support),
9 Arm Cav Bn [2]
B22.16: 654 ATGM Bn [1]
B22.20: 204/1 Arm Bn [1]
B21.20: 205/1 Arm Bn [1]
B22.21: 206/1 Arm Bn [1]
B21.21: 259/1 Mech Bn [2]
B25.21: 200/14 Arm Bn [1]
B25.20: 201/14 Arm Bn [1]
B24.20: 203/14 Arm Bn [1],
260/14 Mech Inf Bn [2]
B22.18: 52/18 Mech Bn [2]
B23.18: 53/18 Mech Bn [2]
B24.18: 70/18 Mech Bn [2]
See 16 Inf Div above: Combat Trains

182 Para Bde:
B20.17: HQ (Fat-2),
38 ATGM Bn [1] (Support)
B19.17: 81 Abn Bn [4]
B20.16: 85 Abn Bn [4]
B21.17: 89 Abn Bn [4]
B16.21: Combat Trains

139 Cdo Grp:
B18.19: HQ (Fat-2),
39 ATGM Bn [1] (Support)
B17.19: 133 Cdo Bn [2]
B18.18: 223 Cdo Bn [2]
B13.23: Combat Trains

23 Mech Div (-):
B6.20: HQ (Fat-3),
249/118 Arm Bn (Support),
32 ATGM Bn,
500/118 Mech Bn
B9.21: 23 Arm Cav Bn
B3.14: 350/116 Mech Bn [2]
B3.16: 351/116 Mech Bn [2],
231/116 Arm Bn[1]
B4.17: 352/116 Mech Bn [2]
B12.21: 501/118 Mech Bn
B14.20: 502/118 Mech Bn
B5.24: Combat Trains

3 Mech Div:
B1.11: HQ (Fat-2)
B2.12: 255/23 Arm Bn [1]
B2.11: 267/23 Mech Bn [3]
B1.11: Combat Trains
Dead Pile: 229/23 Arm Bn,
254/23 Arm Bn

35 Tk Bde:
B1.09: HQ (Fat-2)
B3.06: 283 Arm Bn
B3.08: 284 Arm Bn, 270 Mech Bn
B3.10: 285 Arm Bn
B1.09: Combat Trains

4 Tk Div (-):
C4.28: HQ (Fat-2), 8 Arm Cav Bn,
653 ATGM Bn,
211/6 Arm Bn (Support)
B6.02: 208/2 Arm Bn [1]
C6.34: 209/2 Arm Bn [1],
261/2 Mech Bn [3]
C10.30: 256/6 Mech Bn
C11.31: 257/6 Mech Bn
C12.30: 258/6 Mech Bn
C1.29: Combat Trains
Dead Pile: 207/2 Arm Bn

130 Amph Bde:
C33.34: HQ (Fat-3), 603 Amphibious TF [3]
C31.32: 602 Amphibious TF [2]
C31.31: Combat Trains

3 Tk Bde:
C32.24: HQ (Fat-1), 241 Arm Bn [1]
C33.25: 240 Arm Bn [1]
C33.24: 242 Arm Bn [1]
C34.23: 262 Mech Bn [2]
C35.22: Combat Trains (Ghost)

6 Mech Div:
C30.16: HQ (Fat-1), 27 Arm Cav Bn,
247/113 Arm Bn (Support)
C24.19: 31 ATGM Bn [1]
C38.11: 225/22 Arm Bn [2],
250/22 Arm Bn [2]
C39.12: 251/22 Arm Bn [2],
266/22 Mech Inf Bn [4]
C20.21: 337/113 Mech Bn [4]

C23.22: 338/113 Mech Bn [4]
C37.21: 1/1 Mech Bn [2]
C37.22: 238/1 Arm Bn [1], 3/1 Mech Bn [2]
C37.23: 20/1 Mech Bn [2]
C30.10: Combat Trains (Ghost)
Dead Pile: 339/113 Mech Bn

7 Inf Div:
C38.24: HQ (Fat-3, PD),
   34 ATGM Bn, 640 AT Bn,
   Tank Arm Bn (+) (All Three in Support),
   119 Arm Cav Bn
C39.28: 226 Arm Bn [2]
C41.25: 295 T100 Arm Bn
C42.22: 292 SU Arm Bn
C42.28: 34/11 Mech Inf Bn [5]
C41.27: 35/11 Mech Inf Bn [5]
C42.25: 36/11 Mech Inf Bn [5]
C42.29: 33 Cdo Bn [2]
C38.31: 24/8 Inf Bn [5]
C40.31: 25/8 Inf Bn [5]
C41.30: 26/8 Inf Bn [5]
C43.21: 37/12 Inf Bn [5]
C43.22: 38/12 Inf Bn [5]
C42.23: 39/12 Inf Bn [5]
C30.24: Combat Trains

19 Inf Div:
C41.14: HQ (Fat-3, PD),
   37 ATGM Bn, 641 AT Bn,
   Tank Arm Bn (+) (All Three in Support),
   19 Arm Cav Bn
C42.17: 212 Arm Bn [2]
C40.08: 47 ISU Arm Bn
C45.12: 5/2 Mech Inf Bn [5]
C46.13: 6/2 Mech Inf Bn [5]
C45.15: 22/2 Mech Inf Bn [5]
C41.10: 43 Cdo Bn [2]
C37.10: 63 Cdo Bn
C38.17: 163 Cdo Bn
C43.16: 4/5 Inf Bn [5]
C44.18: 14/5 Inf Bn [5]
C45.20: 15/5 Inf Bn [5]
C41.07: 2/7 Inf Bn [5]
C43.07: 19/7 Inf Bn [5]
C45.08: 21/7 Inf Bn [5]
C43.13: 3 ATGM Rgt [2] (Assigned to 19 Inf)
C34.12: Combat Trains

Formation Activation Markers in Play:
130 Amph Bde, 4 Tk Div (-), 21 Tk Div, 3 Tk Bde, 24 Tk Bde, 35 Tk Bde, 3 Mech Div, 6 Mech Div, 23 Mech Div (-), 2 Inf Div, 7 Inf Div, 16 Inf Div, 19 Inf Div, 182 Para Bde, 139 Cdo Grp

Arab Reinforcements:

24 Oct 73
   F or G: 8 Alg Arab Arm Bde (HQ (Fat-0), 2, 4, 10 Arm Bn, 9 Mech Bn, Combat Trains)

25 Oct 73
   F or G: 3 Lib Arab Mech Bde (HQ (Fat-0), I, II, III Mech Bn, IV Arm Bn, Combat Trains)

26 Oct 73
   F or G: 2 Moroccan Mot Bde (HQ (Fat-0), II Arm Co, I Inf Rgt, Combat Trains)

Glossary

AJ	Ain-Jalut
Alg	Algerian
Amph	Amphibious
Arm	Armor
A/S	Air Superiority
Assad	Rifaat al-Assad (Hafez al-Assad's brother)
AT	Anti-Tank
AT-1	"Snapper" ATGM(3M6 Schmel)
AT-3	"Sagger" ATGM (9M14 Malyutka)
Bde	Brigade
BMP	"Boyevaya Moshina Piehoty" Infantry Fighting Vehicle
Bn	Battalion
BRDM	"Boyevaya Razvedyvatelnaya Dozornaya Mashina" or Combat Recon Patrol Vehicle
CAS	Close Air Support
C	Centurion Tank (Sho't Kal or Sho't Meteor)
Cav	Cavalry (or Recon)
Cdo	Commando
Cmd	Command
Co	Company
Div	Division
DvL	Dov Lavan ("Polar Bear")
Grp	Group
Harv	Haruv ("Carob")
IAF	Israeli Air Force
IDF	Israeli Defense Force
Inf	Infantry
IFV	Infantry Fighting Vehicle
ISU	Soviet ISU-152
Jahra	Al-Jahra
KAA	King Adbulaziz
Kdf	Khudhaifa
Khd	Khalid
KhW	Khalid ibn al-Walid
Lajat	Extensive lava flow fields in Syria
Lib	Libyan
M	M48 (Magach-3) or M60A1 Tank (Magach-6)
Ma'at	Al ma'atsam
Mech	Mechanized Infantry
Mhb	Muhalib
Mil	Militia
Mkd	Mikdad
Mtkl	Sayeret Matkal
Mot	Motorized
Mut	Al Mu'tasim
Mtn	Mountain
Myt	Mythanna
Nasr	Nasser
Para	Parachute
Plt	Platoon
Qad	Qadisiyah
Qtb	Qutaiba
Rec/Recon	Reconnaissance
Rfd	Rafidain
RPG	"Ruchnoy Protivotankoviy Granatomyot" Rocket Propelled Grenade
S	Upgraded Sherman Tank (M-50 and M-51)
SEAD	Suppression of Enemy Air Defense Missions
SAM	Surface to Air Missile
SF	Special Forces
Shkd	Shaked ("Almond")
Shr	Sharhabil
Shun	Shunari
SU	Soviet SU-100
T	Tiran (upgraded captured T-54/55)
T100	Modified T-34 with 100mm gun
Ter	Territorial
TF	Task Force
Tk	Tank
Trq	Tariq
Tun	Tunisian
VCs	Victory Conditions
VPs	Victory Points
Wnr	Weiner
Ymk	Yarmuk

Designer Notes
by Carl Fung

The Journey

The Arab-Israeli Conflicts (the Yom Kippur War, in particular) have long fascinated me. Rather than studying for college midterms, I read Trevor Dupuy's **Elusive Victory** in the school library. This segued into wargames with *SCS's* **Yom Kippur** and **Heights of Courage**, **The Arab-Israeli Wars**, **Crisis: Sinai 1973**, **Across Suez, Elusive Victory**, **Sinai, Suez '73**, and the original vivid and subsequent editions of **Bar-Lev**.

Valley of Tears has a long origin story. In 2003, I first started designing an *OCS* game covering the Arab-Israeli Wars from 1948 to 1973, similar to SPI's **Sinai** when *BCS* was only a twinkle in Dean's eye. The *OCS* design moved along slowly with a rough map and initial Order of Battle but made no real progress. I was concerned over the short number of turns for the 1956 and 1967 wars (only 2-3 turns each), and the start and stop operations of the 1948 war. The Yom Kippur War lasted 19 days and was more balanced, making it the only viable situation to depict using the *OCS*. The design languished until 2007 when Dean created his initial *BCS* drafts and proposed that I convert it to *BCS*. Because of the granular map and unit scales, I was immediately sold on the idea. Converting the game to *BCS* wasn't difficult but had factors going against it. *BCS* was still in its infancy, and as early playtesters can attest, was constantly evolving every week. The series rules finally started to settle in as **Last Blitzkrieg** was designed, and I created the foundation for the Yom Kippur War design.

Fast forward to now and I offer for your consideration… **Valley of Tears**.

Research Breakthroughs

Around the time that Dean asked me to convert the design from *OCS* to *BCS*, numerous breakthroughs occurred in the available research materials. The Yom Kippur War, let alone any Arab-Israeli conflict, was notoriously difficult to find detailed information. Material was limited to a handful of sources available in English and oft repeated in other books. Numerous Yom Kippur War games were built using titles such as Dupuy's

Elusive Victory, Hammel's **Duel for the Golan**, and Herzog's **War of Atonement**, which were the standards by virtue of being the few available containing a level of detail. This is particularly true for the Order of Battle compiled by the combatants being coy regarding the participating organizations even long after the war.

The first book that opened the door was Abraham Rabinovich's seminal **The Yom Kippur War: The Epic Encounter That Transformed the Middle East** published in 2004. The detailed accounts from the participants and uncovered material retold the story from all levels and provided a fresh look at the war. I read the book cover to cover roughly half a dozen times to pick up on nitty-gritty details for researching my design.

In 2007, a relatively complete Israeli Order of Battle was published on the website **War Online** in Russian. This was a boon—the myriad of confusing unit numbers or units named after commanders were unpacked in this article. It wasn't complete, but the gaps were filled from separate recent sources. Following this were book releases, originally in Hebrew and now translated to English. **Inside Israel's Northern Command** by Dani Asher, originally published in English as **Syrians at the Border** in 2014, was a detailed account of the Golan fighting based on official sources, surpassing Hammel's account that was pieced together from veterans' accounts and contained some inaccuracies.

Arab information is always more difficult to find, limited not by a lack of translations, but a genuine lack of source material. Asher helped with his **The Egyptian Strategy for the Yom Kippur War**, published in 2009. Based on captured documents during the war, it detailed Egypt's plans in startling detail including individual divisional crossing orders. It laid out details on their commando force organization and anti-tank capability and deployment. These were cited in the past, but not at the level of detail that Asher's book portrayed them. This was followed in 2013 by the website **Group 73 Historians**. A tribute site for Egyptians who fought in the war, it featured articles with experiences from veterans of the war and other analysis that helped piece together that side of the canal.

The Syrians proved the hardest with no official history of the war and scant sources in English. This changed when Pesach Malovany and I exchanged emails starting in 2018 that finally helped fill out the Syrian Order of Battle through his expertise.

Another recent development was obtaining the actual IDF maps used in the war. Physical copies were available to veterans for years. My friend in Jerusalem got me images of the map in sections, hi-resolution scans that only recently were made available. Non-IDF topographical maps were initially used, but specific important details like the locations and names of strategic

defensive zones and important military access roads were only available on the IDF maps. This allowed for a more accurate depiction of the road network and terrain fought over.

With the culmination of all these recent sources, there is a much fuller picture of the Yom Kippur War. While I can say that the design was 20 years in the making, it's only been in the last few years that it all came together. It's an indication that our knowledge of history is always evolving over time with the discovery of new information. I am confident at this moment that I exhausted nearly every single shred of research material available on the war. Ask me again in ten years and I might change my tune, but I am confident this is currently the best information available on the Yom Kippur War.

Modernity without the Complexity

Moving *BCS* past WWII connotes changes in the rules to handle things like missiles, jets, and helicopters. As much as advancements are different than how their predecessors fought, the *style* of warfare didn't necessarily change. Equipment improvements merely made things deadlier. Anti-tank Guided Missiles were more deadly Armor Values with only minimal rules handling weapons like the Sagger.

Helicopters played a limited role in the Yom Kippur War, as the Israelis employed them conservatively. The Arabs' use of helicopters was riskier because of their inability to establish air superiority yet wanting to deliver commando raids behind Israeli lines. Helicopters can be depicted by "pick up and drop off" rules and the vulnerability of their commando passengers.

Surface-to-Air missile interactions with enemy planes is normally worked into the *BCS's* Air Point roll. But because of missiles' vulnerability to ground units factored prominently in the IAF's ability to support their forces, greater interplay was needed. Since both sides ran small air forces, their full commitment in a two front war can be shown using player-chosen force allocations. The dedicated Air Warfare rules were not designed to encumber you with complex rules but still allow you to run an air campaign **within** the constraints of higher commands-which do not allow (for various real-life reasons) "over concentration" of the available air forces.

Other post-WWII advancements are less obvious. Main Battle Tanks increased in both lethality and protection over WWII tanks (still used in large numbers in 1973), but this just meant increased Armor Values. Rocket Propelled Grenades that made any infantryman a tank-killing instrument already existed in WWII with the Bazooka and Panzerfaust. These are not explicitly shown in *BCS* but factored into each unit's Action Rating as its ability against enemy armor. The RPG-7's penetration performance

scaled with the contemporary tanks of its era much like its WWII counterparts (at least with the Panzerfaust). While much has been made of the density of RPG-7s in Arab hands, the number available wasn't greater than in WWII. Egyptian infantry divisions contained 450x RPG-7s, while WWII US infantry divisions contained 557 Bazookas and German companies might be allocated up to 36 Panzerfausts. Because of their surprising effectiveness against aggressive tank-centric Israeli tactics, the Egyptians were given a +1 DRM when defending.

Other matters do not need explicit modeling. Electronic Warfare didn't feature prominently, and radar is subsumed into the SAM rules. Improved munitions aren't as prevalent as they were by the 1990's Gulf War. Instead, the war featured high explosive artillery barrages and jets dropped dumb bombs (the relatively few anti-radiation missiles available didn't need separate handling from the SEAD rules).

I prefer such effects fall in line with the standard *BCS* rules. It reduces unneeded complexity without needing to force explicit rules just because "they weren't in WWII."

The Yom Kippur War— As It Was, Not As We Assumed

I poured my heart and soul into **Valley of Tears** and I hope it shows. It is the culmination of over 20 years of (non-continuous) research and design. I'm very proud of the product. I really wanted to showcase the war in detail taking advantage of all the new material available. Doing the game at battalion-scale and a 1 mile-per-hex scale allows this.

Anyone familiar with me knows my Order of Battle obsessions. Portraying all the armies down to battalion level with all Israeli, over 95% of Egyptian, and 80% of Syrian battalions identified shows these armies as they were. The nameless men in photographs and their desperate actions belong to explicit units. Knowing who, what, and where these units were is important in bringing the history alive.

I usually use a "myth busting" approach: disproving familiar themes that didn't happen the way many believe. However, myth busting is too presumptuous. Rather, it's reshaping thinking regarding certain themes and events applied in game systems and ideas. For example, Egyptian commandos generated hype after landing behind Israeli lines to ambush Israeli tanks and wreak havoc. The heliborne raids were scaled back because of the limited number of helicopters available. The IAF damaged and destroyed a great number of helicopters carrying the commandos en route. Of the survivors, only **one** raid successfully executed an ambush and most of the force was killed or captured. This one

success was at Romani (A45.17), leading to the myth of successful commando raids everywhere in the Sinai.

In the popular mind, the supremacy of the Sagger missile is one of the war's indelible takeaways. Data after the war in Cordesman and Wagner's *The Lessons of Modern War, Volume I,* noted only **8-25%** of the Israeli tanks were lost from missile projectiles (including both ATGMs and RPGs). However, don't doubt the Sagger's (and RPG's) **impact** on the battlefield, but not as outright tank killers. A cordon of ATGMs with good range (out to 3,000 meters) was enough to keep the Israeli tanks off balance and force them to run the gamut of missiles firing at them, but most Israeli tanks made it through. What the Egyptians did was to create a wall of Anti-tank fire at different ranges and capabilities.

Each infantry division contained:
32x B-10 82mm Recoilless Rifles
48x B-11 107mm Recoilless Rifles
36x D-44 85mm Towed Dual Purpose Gun
36x BS-3 100mm Towed Dual Purpose Gun
124x T-34/54/55 Main Battle Tanks
18-30x T-34/100, SU-100, or ISU-122
Self-propelled Assault Guns attached
from Army level
450x RPG-7s
72x Man Portable Saggers
32-36x BMP-mounted Saggers

The combination of **all** these anti-tank weapons is what stopped the Israeli counterattack on 8 October. While the IDF did overcome the shock of the early losses, they did not universally learn how to deal with the Saggers. Some training was provided to replacements and reinforcements of pre-war tactics to counter ATGMs, but Israeli tanks continued to be dogged by the thick Egyptian AT defenses (such as at the Battle for Chinese Farm) at great cost until the end of the war.

On the opposite end of the spectrum, there's the belief in the dominance in all ways by the IDF over its enemies. This modern-day David vs. Goliath story of the small scrappy army defeating the big slow enemy persists. The Israeli army was not a mass of elite soldiers with superior equipment. After the Six-Day War, Israel tremendously built up its tank force, basing its tactics on the tank's mobility, firepower, and protection. This over-concentration on armor meant that mech—which was supposed to follow the tanks—fell behind in training and equipment. This quality disparity is seen in Action Ratings differential between armor (majority 4's) and mech (usually 3's) units. While partially offset by the better trained and motivated para units (AR 5's), it still highlights the IDF's quality imbalance.

This reliance on armor caused many battalions to fight while depleted. A small

battalion of 36 tanks at full strength on paper, breakdowns and losses allowed it to field only one or two dozen tanks on a good day—less at other times. Combined with a lack of infantry protection, sustained combat whittled down tanks quickly and was only partly offset by the quick turnaround in tank repair and organizing impromptu tank crews among survivors and replacements.

The Victory Conditions proved challenging. **VoT** is the first *BCS* game to determine a war's outcome rather than that of an individual battle. So, the dynamics involved are different. While Egypt and Syria's strategic goals were to regain the territories lost in the Six Day War, each combatant approached them in a different way. Sadat looked at them long-term: Gain a beachhead across the Suez Canal and force the Israelis to negotiate the control of the Sinai Peninsula. Assad preferred to take the Golan back by force. The victory conditions were simulated emphasizing the different approaches on each front.

The Golan Heights is shallow with difficult terrain for tanks. This meant the Syrians wanted and needed to take as many victory hexes as possible quickly, as maintaining a long presence until the ceasefire is difficult. On the other hand, the Sinai is expansive and largely covered with sand dunes, making it difficult for tanks. Egypt's "bite-and-hold" approach of taking and holding intermediate victory hexes fits well with their historic strategy.

Israel is fighting two separate enemies and must defeat both to win the war. To do this, the Israelis must conduct their own offensives. This was not done to occupy territory but rather to shift political pressure back onto the Arabs following their surprise attack. Different combinations of victory conditions were worked out, but the simple expedient of using the maximum Syrian VPs on any one turn vs. the end of game Egyptian VPs simulated the historic goals well.

I intended more involved ceasefire rules because of the political cat-and-mouse pursuits of Sadat, Meir, Kissinger, and others. Sadat sought a ceasefire with strong Egyptian presence in the Sinai that eventually required the full return of the Sinai. Israel did not accept the Egyptian goals; they only sought an early ceasefire to stop or slow the loss rates.

The tide turned when Israel crossed the Suez Canal to negate the Egyptian gains, and then sought a stronger negotiating hand by cutting off the Egyptian Third Army. With Israeli forces west of the canal, Sadat softened his stance. He now sought a cessation of hostilities along current lines and conclude a comprehensive peace deal later; this became the historical result and concluded with the 1978 Camp David Accords.

The complex political strategies involved between the US, Soviet Union, Israel, Egypt, and Syria made it overly complex to simulate—let alone allow a whole political side-game. Instead, I

went with the ceasefire table as seen in **Heights of Courage** and **Yom Kippur.** The die roll works well and keeps the politics behind the scenes. I started the ceasefire possibility when Kissinger landed in Moscow on 20 October 1973, to negotiate with the Soviets over their allied participants. Early ceasefires never took hold because of the disparity of acceptable conditions between Egypt and Israel.

Sudden Death conditions were included so that each side's historic gambles seeking an aggressive and decisive win existed.

o   Syria's ambitious goal was to cross the Jordan River bridges into Israel proper.
o   Egypt originally planned for the mountain passes at Giddi and Mitla. Egypt was again prompted to pursue this aggressive goal to relieve pressure on the Syrian front.
o   Israel's pre-war counterattack plan in the Sinai (Aryeh Dov) envisioned an aggressive armor attack that had worked well in the past. Because of conflicting orders and stubborn Egyptian defenses, the plan failed horribly.
o   Israel's Golan goal was to reach Damascus and force Assad to the negotiating table immediately.

In each case, the possibility of achieving these ambitious war-winning objectives may seem remote but were still attempted to one extent or another. Sudden death is a dangling carrot.

It must be emphasized that the game's victory is a military victory. It can be argued that Egypt won a political victory after 1973—resecuring the Sinai but switching support from the Soviet Union to the United States, while securing Egypt a long-lasting peace with Israel. Yet these actions are beyond the game's scope. Militarily, Israel won a pyrrhic victory. To show this difficulty, the winner must win **both** fronts to win the war. From a historical point of view, Israel edged out Egypt in Victory Points, but needed to violate the ceasefire and cut off the Egyptian Third Army's infantry divisions to do this. It really was a close-run thing.

Fiddly Bits
Where are the Israeli mobilization rules?

As hectic as the Israeli mobilization appeared following the reserve call up, the reservists made their way to the front in relatively good order, with some examples of individuals and small units pilfering equipment from other units' warehouses and taking anything not bolted down. From the *BCS* formation perspective, most units reached the front within 24 hours after the call up. As such, any fallout from the erratic mobilization that occurred is reflected in unit assignment by Formations in Order of Arrival.

Why can't the Israelis designate which front their reinforcements arrive?

With few exceptions, the planners predesignated where units went if hostilities broke out and pre-positioned stocks close to those fronts.

Why can't units be transferred between fronts after arrival?

Many—if not all—games portraying both fronts of the Yom Kippur War include the ability for Israeli units to transfer between fronts. This is to show Israel's central position and flexibility to meet threats on either front. Actual history says otherwise. Much like the reinforcements arriving at predesignated fronts, almost all units and formations remained on one front for the war's duration. Transferring units was something that the IDF simply did not do much of during the war and never exploited it to the extent players would if allowed that freedom.

Only one brigade (the 179th with only a single depleted battalion) and three artillery battalions (the 55th, 899th Artillery, and 270th Multiple Rocket Lau ncher Battalions) were transferred from the Golan to the Sinai. The three independent artillery battalions were sent south around the time Israel was crossing the canal and the 179th Bde was transferred at the end of the war just before the ceasefire. No units were transferred from the Sinai to the Golan for several reasons.

While the initial concern over the Golan Front subsided after a few days, forces remained there until the ceasefire to keep Syrian and Arab allied reinforcements at bay. Additionally, transfers were logistically difficult because of the limited numbers of Israeli tank transporters to transfer large numbers of tanks. It was not wise for tanks to traverse the length of Israel and the Sinai Peninsula on their own tracks. Tank transporters were vital for hauling the large quantities of damaged and destroyed tanks to repair depots. Lastly, concerns over the American-made Patton tanks' suspension system prevented their use in the Golan terrain. Only when the war was winding down was the 179th Bde transferred (which consisted of only the 96th Arm Bn with only 25 tanks). On 6 November after the fighting ended, the 146th Division (its artillery was sent earlier) was transferred to the Sinai to help enforce the ceasefire. This was only possible after the cessation of active fighting freed up logistics enough to transport most of an entire division.

All this led to my decision to not include transfer abilities in the final draft specific rules. This helped clean the rules up for something that the playtesters never chose to use. With the historical justification and the Order of Arrival handling the limited historical transfers, it made sense to exclude it.

Why can't Israeli Air Units be freely assigned per front by default?

Playtesting showed that the Israeli Player applied his **entire** weight against one front (the Golan usually) and ignore the other. Because of the Arab Air Forces' limitations, the ignored front only accrued small advantages—and all in additional CAS Air Points. Neither front could be completely ignored. To prevent this "min-maxing" effect, air unit allocations were based on historical sorties—and a modest amount of concentration. The dedicated Air Superiority Mirages and Neshers were evenly split between both fronts. The Sa'ars were almost exclusively allocated to the Sinai. The available variability came from the multi-role F-4E and A-4s. Following historical sorties and missions through the war, percentages were calculated and then smoothed out to follow the historical allocation trend.

How can the Israelis be buddies with each other?

The IDF was very flexible and adept at operating with neighboring formations and cross-attaching units. The IDF had almost a familial camaraderie without cross-unit rivalry, with all believing that the fate of Israel hung in the balance. Israeli formations operated smoothly even in a seemingly mixed manner.

Why can't the Israelis go into Support?

As much as the IDF was flexible in operating between its neighboring formations, it still suffered from limited combined arms. As the army was so tank-oriented, training between the tanks and infantry suffered. Tanks did not split up to support large infantry forces, and the few actual combined arms units are in the form of Dual units which were ad hoc task forces or armored cavalry recon battalions.

Why are Israeli units assigned to different formations?

In the rush to mobilize and send some units to the front piecemeal, combined with Israel's flexibility of command, many battalions were detached and reassigned to different brigades or divisions for long or short periods. To capture the war's actual deployment, the formations reflect how they were fielded as opposed to their on-paper organization. All the reasons for the reassignments cannot be easily reproduced, nor is there any desire for players to keep track of such seemingly random changes. So, baking units into Formations was the best, cleanest, and historically accurate way of depicting them. The Order of Battle section does list these cross-assignments in detail.

Why do Israeli M, C, and T tanks give ranges of 2 on both sides?

Typically, while BCS ranges greater than one hex are normally reduced on the AV's move side to show a degraded ability to target the enemy while moving, the Israeli M48/M60, Centurion, and Tiran tanks use the same range on both counter-sides. This was because of a combination of training and improved gun sights on modern Israeli tanks, but it was also needed to allow the Israeli tanks to fight well on their move sides rather than creep forward slowly while deployed to obtain the increased AV and range.

Why are there no recon capabilities for the Israeli units identified as "Rec"?

Israeli divisional armored recon battalions were organized either as three tank-mech companies or one tank and two mech companies, along with a jeep company. All but one battalion were equipped with Centurions, with the other (87th) using M60s. Mech infantry was mounted in M113s. Therefore, they were powerful units, not unlike American Armored Cavalry Squadrons of the time. They served directly under brigades and used as armor units, not as recon. In the case of the 189th Bn, it detached its tanks and operated as mech infantry.

The only exception was the 87th Armored Recon Bn assigned to the 14th Armor Bde of Sharon's division. The 87th discovered the seam between the Egyptian 2nd and 3rd Armies and later led the brigade in Operation Stouthearted Men and deserves the cavalry slash.

Where are the Israeli ATGMs?

While a reported 123x BGM-71 TOW missiles were flown to Israel as part of Operation Nickel Grass, the first time they were fired in combat was within hours of the second ceasefire taking effect. Only a handful of IDF personnel trained using the TOW the summer before the Yom Kippur War, but actual missiles didn't arrive in Israel until the US airlift. Limited knowledge and the manuals arriving with the missiles themselves allowed no time to prepare the fighting units to learn to use them.

Where are the effects of Operation Nickel Grass?

The direct game impact of the equipment airlifted from the US are the Phantom and Skyhawk replacements that arrive in the Workshop Box via the Order of Arrival. Forty Phantoms were shipped, all former USAF, with 19 assigned to squadrons and all but two of them flown in combat. For Skyhawks, 46 A-4E and H variants were sent, of which 30 of them were used

in combat. The percentage of Skyhawks used in combat is higher than the Phantoms because of the losses sustained by the former. The number of aircraft used in combat is reflected in the number of replacements arriving in the Workshop Box.

Likewise, the better SNAFU DRM starting on 15 Oct 73 was because of Operation Nickel Grass—which shipped Sidewinder air-to-air missiles, Shrike surface-to-air missiles, M109 and M107 howitzers (36 and 7, respectively) and artillery shells, as well as an assortment of other weapons and equipment that helped sustain Israel's fighting ability.

While there's a famous photo of an M60 rolling off a C-5 Galaxy, only four tanks were delivered via airlift before the ceasefire, and another 25 M60 and M48s arriving via airlift later. Most tanks, some 200 in total, were sent via ship and arrived in the months **following** the ceasefire. So, there is no increase in AV Repls because of Nickel Grass.

Then why is there no Soviet resupply of the Arabs?

The Soviet Union began airlifting supplies to Egypt and Syria starting on 9 Oct 73. Like Operation Nickel Grass, most supplies were sent via sealift and arrived after the war. The Arab armies suffered greater losses and had less efficient logistics systems, so the equivalent aid to the Arab armies was less effective than those available to Israel.

Why are there no anti-tank ditch or canal crossing rules?

Despite the losses taken attempting to cross the anti-tank ditch in the Golan, the Syrians still managed to cross it in force. They will lose AV steps at the Anti-Tank Ditch hexside because of the STOP MP cost if there is an Israeli armor unit within range. What is not needed are complicated bridge-laying rules as these were done in each attacking column. Likewise, in the Sinai, the complex canal crossing by the Egyptian Army was a feat of planning and execution. The crossing was largely unopposed except from the Bar-Lev forts directly on the Egyptian divisional boundaries. The pure leg infantry brigades crossed via assault boats while the mech, armor, and other vehicles waited for the bridge completions. Cumbersome rubber boat or pontoon bridge rules were not needed at this turn scale. Because of the Egyptian contingency plans for bridge repair and dummy bridge locations, and the unlikely destruction of bridges by air power or artillery, there are no bridge demolition rules.

Then why do the Israelis need bridge crossing rules?

The Israeli canal crossing operation was the opposite of the Egyptians. Instead of being set piece, the Israeli crossing was done on the run under strong opposition. The Israeli bridges and ferries were unique and reflected the aggressive Israeli assault style. The Roller Bridge and Unifloats that required towing to the canal versus the self-propelled Gilowa needed explicit representation.

Why are almost all Arab Air units only able to conduct single missions?

Simply because they can only conduct single role missions. While jets like the MiG-21 (and a few others) could carry air-to-air missiles as well as bombs, Soviet doctrine and training which the Arabs followed did not allow for pilots to train in multi-mission roles.

Where are the Egyptian Scud Missiles?

The Egyptians kept their Scud-equipped unit at bay following the unwritten détente for both sides of striking civilian areas. On 22 Oct, three Scuds were launched against the Israeli bridgehead at Deversoir (B22.09) and el-Arish in eastern Sinai, their first use in wartime. This was done out of desperation with the looming first ceasefire, and its effects were minimal. According to reports, the Soviets controlled the missiles and were responsible for the launch. They were not worth inclusion because they were too limited.

Why are there no Israeli SAMs or Arab mobile SA-6s?

The early game design included Israeli HAWK battery units and the two Egyptian mobile SA-6 brigades (112th and 116th). They required too much in the way of rules for too little effect and were removed from the final design. A historical usefulness perspective, or lack thereof, also justified their non-inclusion. Israeli SAM protection paled in comparison to that of the Arabs and only downed twelve Arab aircraft on both fronts (equivalent of only one total air step). Likewise, the Egyptian mobile SA-6s remained on the western bank of the canal, fearful of the exposure to Israeli aircraft. The effectiveness was further reduced by calibration issues of those that did cross the canal. This meant that even the full deployment of both brigades didn't extend the SAM boundary.

The SA-6 proved deadly to Israeli aircraft. This was because of its self-propelled nature and its being a newer SAM system; no electronic counter measure (ECM) was able to jam its radar.

Yet representing them as game units did not make sense. The Egyptians retained the SA-6s west of the Suez Canal and subsume them into the SAM Boundary. The Syrians, despite having fewer SAMs, fielded much higher percentages of SA-6s, putting their SAM defense on par with the Egyptians.

For those interested, the units and locations of the Israeli HAWK batteries in place on or near the playing area: A/136 at Abu Samara (near Baluza in northern Sinai), B/139 in the Giddi Pass, C/139 near Ras Sudar along the southern map edge, and A/138 in Birya west of the Golan Heights.

Where are all the individual Egyptian SAM locations?

Laying out all the individual Egyptian SAM battery locations (yes, I know the map locations) made the map too busy (whether handled by physical counters or printed on the map). Even grouping the batteries into brigades created "hunt and destroy" play with entire battalions while the actual raids were conducted by small parties made up of platoons and companies. Combat units nullifying entire SAM brigades in one swoop during one-day turns worked and represented the degradation of the Air Defense network well.

Why do most Arab Mech Infantry show higher Action Ratings when mounted?

BCS players will note that motorized infantry is usually -1 AR on their Move-sides. WWII mech (and PG) infantry (all using halftracks) list the same AR on **both** sides. After WWII, this remains the case for Israelis (equipped with M113s and Halftracks), Jordanian mech infantry (M113s), as well as some Egyptians and Syrians (in BMPs). The remaining Arab "Mechanized" Infantry were equipped with BTRs and their limited training and fighting style never warranted this valuable capability.

BTR mech fell into two categories:

o First were those in Egyptian infantry divisions did most of their fighting when Deployed: in Prepared Defenses in the bridgehead across the Suez. These units are -1 AR on their Move-side to show their lower effectiveness in mobile actions, and their preference to fight Deployed set-piece battles.

o The others were those found in all the other Arab Formations (tank and mech Formations from all Arab countries except Jordan, and all non-Egyptian infantry Formations). Such units tended to remain buttoned up in their BTRs. For them, deploying at all was deemed a form of failure, so they are -1 AR on their Deployed-side. These units adopted the USSR's Mech Infantry Fighting Vehicle concepts coming with the wholesale adoption of BMPs, but did so too early and with a vehicle unable to support the new doctrine.

Where is all the Arab artillery?

Egyptian and Syrian artillery outnumbered Israeli artillery by over a 3:1 margin. Yet when comparing the game's Arty Points, the ratio is much lower than that. Despite the numerical advantage, Arab artillery was largely ineffective during the war. The opening barrage kicking off the war was impressive but failed to inflict heavy casualties on the fortifications. There is not much mention of large-scale or effective barrages following that. So, Arab artillery was half as effective as the equivalent Israeli artillery. While it's said that the Israelis relied heavily on their air force for artillery, their artillery arm was plentiful but contained numerous mortars limiting their indirect fire range.

The Egyptian and Syrian Armies higher echelon artillery which normally is shown as independent Arty Points were tightly controlled and permanently assigned to the infantry divisions. To show this inflexibility and prevent any gaminess on the Arab player's part, most of the higher echelon artillery is baked into the formations' Artillery Points as they were historically assigned.

Where are the airmobile transport helicopters?

Since units can be picked up and dropped off in any hex desired, no physical counters were needed. Outside of a few Special Forces raids outside the game's scope, the Israelis were more conservative in their use of helicopter transport, only ferrying parachute units within the protection of their air defenses and air force. The Arabs were more daring as they sought to deliver commando forces to ambush arriving reinforcements and paid a heavy price in their helicopter force. These are incorporated in the rules without the need for explicit helicopter units.

Why are there no Israeli commando missions?

The Arab commando heliborne raids were designed to ambush and disrupt as much of Israel's reinforcing tank forces. These were direct actions against Israeli ground forces and should be shown.

On the other hand, Israel's Special Forces, the Sayeret Matkal, were initially sidelined in the war. It eventually performed small raids and other missions on both fronts. One such raid was Operation Pontiac, which landed a group of Sayeret Matkal and artillerymen along with two 105mm Howitzers on Gebel Ataka to shell the Egyptian 3rd Army HQ and the communication hub at Km 101 (C12.21).

Another action involving the Sayeret Matkal was assisting the Golani Bde to recapture Mount Hermon in Operation Dessert. As this action was conventional, the detachment is shown as a unit that arrives as a reinforcement to the 1st Golani Bde.

Why are there limited locations available for the heliborne Arab Commandos?

The locations are based on actual and historical alternate landing sites. Originally, the design allowed the Arab player to choose when and where to place his heliborne forces but playtesters were hesitant to commit them into play. Including the commandos in the Order of Arrival added some variability as they execute daring suicide missions to take out Israeli armor. Only a select few heliborne forces were landed (usually commandos) except for a company from the Syrian 82nd Para Bn. This was because of the few helicopters and their vulnerability limiting airmobile landings.

Order of Battle: Israel

To understand the Israeli Defense Force (IDF) of 1973, one needs to look at its history from its formation in 1948. At its core were the brigades, twelve formed during the War for Independence from various paramilitary forces (Haganah and Palmach being the main two). These brigades became the backbone for the IDF through its various wars to today. Additional brigades were added or split from these original twelve and some were renumbered to deceive enemy intelligence. The original twelve brigades were numbered sequentially but following the War of Independence, the numbering system seemed haphazard. This applied to various levels of their units, from battalions (originally numbered sequentially based on which brigade they belonged to like the 11th, 12th, 13th, etc.) to brigades and divisions. Some designations did not change, like the 1st and 7th Bdes, with strong tradition and no need to hide their identities. Others were renumbered frequently, from single to double and even four-digit designations. To complicate this, books published following the war purposely or unknowingly obfuscate unit designations by dropping numbers (for example in Chaim Herzog's **War of Atonement**, he identifies the 670th Mech Bde as the 70th Bde). This renumbering and coyness to list official unit designations caused identification of IDF forces throughout its wars to be near impossible. Other times, units were referred to by their commander's nickname or first name. Only within the last fifteen years has enough information become available (at least in English) of the true composition and unit histories of the IDF.

The IDF's growth from an infantry army into an armored one started with the 7th Armor Bde. Before the Suez Crisis of 1956, it cloned the 7th Armor to form the 27th and 37th Armor Bdes. Its initial venture into mech warfare was shaky, although it achieved its objectives coordinating

with the British and French. From there to 1967, its taste for armor and mech warfare grew rapidly. From three armor brigades in 1956, the primary IDF attack forces grew into five armor and four mech brigades in 1967. Its infantry forces consisted of a likewise expanding airborne force of three brigades, and the rest filled out by three infantry and six territorial brigades. This trend continued after the Yom Kippur War, even with the myth of the death of the tank from the supposedly heavy losses from Saggers. By the time Israel entered Lebanon in 1982, it expanded from 14 armor brigades in 1973 to 35. The reliance on tanks was to expend metal instead of flesh, and to use the tanks' mobility and firepower to quickly defeat its enemy given the central location of Israel surrounded by adversaries. The emphasis on tanks included intense training and the Armor Corps became a sought-after branch of the IDF. This came at the cost of mech taking a backseat in numbers, equipment, and training in the Yom Kippur War.

The IDF's stunning victory in the Six Day War led to hubris among both the generals and troops. The expectation was that speed and aggression using tanks against the Arab armies led to a quick victory. The enemy was underestimated and plans not adjusted to account for it. The outnumbered IDF still fought aggressively, but it did not break the Arabs' spirit like 1967. This led to heavy losses among IDF forces. Even with a good position at the negotiating table following the ceasefire, the Yom Kippur War caused great pain to the small nation—few in Israel did not know of someone killed in the war. The generals blamed one another for shortcomings and the population was left scarred with the number of killed and wounded.

The Israeli military's performance in the Yom Kippur War was mixed. In the individual battles between tank on tank or aircraft on aircraft, the IDF won most of the time. This was a testament to their training and bravery, but faulty aggressive doctrine and muddled pre-war intelligence along with stubborn generalship led to a near disaster early in the war. The IDF's doctrine was to win wars quickly, and in prior wars the Arabs lent themselves to allow for this, but now with an aggressive and resilient enemy conducting a successful surprise offensive, Israel fought a longer attritional war. Even with the tide of war turning, Israel paid for success with losses among its irreplaceable personnel.

Divisions:

Israeli divisions in some Yom Kippur War games were depicted as ad hoc administrative HQs, not unlike Corps-style commands that contained a varying number of brigades and independent units, using the translated word of *Ugdah* to describe it as such. This was true in their usage in the 1956 Sinai Crisis and 1967 Six-Day War, but by 1973 the IDF developed more

formalized and standard division commands. The structure was not dissimilar to contemporary NATO divisions, with a centralized HQ, dedicated divisional assets, and nominally three maneuver modular brigades. Brigade structures in both the IDF and NATO were semi-independent, relying on the division for supply, artillery, and other support needs.

The Israeli divisions usually contained an armored recon battalion, a mech engineering battalion, an artillery brigade, and other typical division level assets (signal, logistics, and medical battalions). The strong artillery brigade contained five battalions. The standard arrangement was three battalions of 155mm self-propelled howitzers, and mortar battalions (one of 120mm and one of 160mm). Each division used variations which included the obsolete 105mm M7 Priest or having more mortar than artillery battalions.

On paper, each division contained two armor and one mech brigades. The following lists the peacetime structure for the divisions preceding the Yom Kippur War:

36th Div:
179th, 679th Arm Bdes, 9th Mech Bde
143rd Div:
421st, 600th Arm Bdes, 875th Mech Bde
146th Div:
205th, 217th Arm Bdes, 670th Mech Bde
162nd Div:
7th, 460th Arm Bdes, 11th Mech Bde
210th Div:
164th, 188th Arm Bdes, 4th Mech Bde
252nd Div:
14th, 401st Arm Bdes, 204th Mech Bde

Factors immediately preceding war and ensuing mobilization changed things. The last-minute redeployment of the 7th Armor Bde from the Sinai to the Golan made it fall under the 36th Division's command. The poaching of the 164th Armor Bde's equipment by other units caused the brigade to be shifted from the Golan to the Sinai. Other such mobilization problems and last-minute decisions caused Sharon's and Adan's Divisions to each have three armor and no mech brigades. This effectively gave them nine armor battalions per division. Para brigades and other independent units were attached or reassigned as the mission dictated, but the divisions remained quite tank-heavy.

Three provisional divisions were created and used in the Sinai. The 440th Division covered the southern flank of the Sinai Front and moved to cover Egypt's 3rd Army when the 252nd Division crossed into Africa. Nammer (Leopard) Force was formed based on the staff of the 275th Ter Bde and covered the northern flank along the Suez Canal. Lastly, Sela (Rock) Force was formed late in the war with an ambitious plan to take Port Fuad (A22.33). The plans fell through, and on the last day of the war Sela Force crossed the canal to

help seal off Suez City (C36.12). Unlike the 440th, which became a real division (and a number versus a name), the Nammer and Sela were disbanded after the war.

The actual structure of the divisions varied slightly through the war, but usually looked like this:

36th Div (Rafael "Raful" Eitan):
7th, 188th Arm Bdes, 1st Inf Bde; 679th Arm Bde and 317th Para Bde (briefly)

143rd Div (Ariel "Arik" Sharon):
14th, 421st, 600th Arm Bdes, 247th Para Bde; 35th Para Bde (later in the war)

146th Div (Moshe "Musa" Peled):
205th Arm Bde, 670th Mech Bde; 4th and 9th Mech Bdes (for some time)

162nd Div (Avraham "Bren" Adan):
217th, 460th, 500th Arm Bdes; 274th Arm Bde and 35th Para Bde (both briefly)

210th Div (Dan Laner):
179th, 679th Arm Bdes, 4th Mech Bde, 9th Mech Bde; 205th Arm and 317th Para Bdes (briefly)

252nd Div (Avraham "Albert" Mandler then Magen):
164th, 401st Arm Bdes, 875th Mech Bde; 179th Arm Bde (at the end of the war)

440th Div (Menachem "Mandy" Meron):
35th Para Bde, Ayalon Force; 274th Arm Bde and 875th Mech Bde (both later in the war)

Nammer Force (Kalman Magen then Yitzhak Sassoon):
11th, 204th Mech Bdes; 274th Arm Bde (for a time)

Sela Force (Emanuel "Mano" Shaked):
5th Inf Bde, and parts of 9100th Inf Bde

A note that the 146th Division in Dupuy's **Elusive Victory** is listed twice, once in the Golan and again in the Sinai. This is, in fact, the same division. After the ceasefire, Peled's Division was transferred from the Golan to the Sinai. It did not participate in the Sinai fighting. The second 146th Division listed in the book is the Nammer Force as it lists Sassoon as the commander but seems to mix Peled's transfer to the Sinai following the ceasefire with the war-time provisional division.

As the IDF was based around brigades, the original formations in **Valley of Tears** contained both brigade and division formations with hierarchical activation rules. This was clunky and was changed to use divisional formations with baked in brigade units like other *BCS* games. This streamlined the activations and rules while still allowing the mixed assignments between brigades within divisions. The formations' constituent brigades and their units were those that fought exclusively or enough with that division to portray its actions historically. While the 4th Mech Bde spent much of its time with the 146th Division, it was initially assigned to the 210th. Since the 146th could deploy on either Front—while the 4th Mech Bde only goes to the Golan—it made sense to put the 4th under the 210th Division.

Brigades which functioned more independently or were frequently reassigned, such as the Para Bdes, the 274th Arm and 275th Ter Bdes were kept as individual formations.

Brigades:

While brigades remain central to the IDF's organization, the shift to established divisional commands following the Six-Day War allowed logistical and command emphasis at the higher level. They continued to be independent in the sense of being the main maneuver formation with inherent recon companies and limited artillery support (mortars). The recon companies were jeep mounted but of limited utility in a tank-dominated environment and not explicitly shown (sorry to fans of the jeep company in *SCS* **Yom Kippur**). With the increased reliance on tanks, the armor brigades were organized with three armor battalions (each with three tank companies), whereas in earlier wars they each contained two armor battalions and one mech battalion. This created the dilemma of tank-only brigades, which has been criticized greatly for lack of infantry support. The armor battalions on paper contained inherent mech companies, but these were reservist and mobilized later than the tanks, typically by 10 October. Even then, not all armor battalions got infantry support, leading to expedient detachments of infantry (or whole para battalions) assigned directly to the armor brigades. Israeli armor is pure AV. Only those with *significant* infantry components warranted any Dual Unit status.

Mech infantry belonged to the Armor Corps, not the infantry. The emphasis on tanks meant that mech training lagged, and this was evident in the continued use of the obsolete WWII-era halftracks as the main mech transportation. The M113 (called the Zelda in the IDF) was in service, but with too few to go around. The mech brigades retained their 1:2 ratio of armor and mech, plus an inherent heavy mortar battalion with 120mm towed mortars (armor brigades were not so equipped). Armor battalions in the mech brigades used the old (up-gunned) M-50 and M-51 Shermans in four companies instead of only three. The exception was the 204th Mech Bde which used Magachs instead of Shermans but was quickly reassigned to an armor brigade.

The Para Brigades were the elite of the infantry branch. With mech in the Armor Corps, the Infantry Corps was lean as it consisted of three parachute, three infantry, and scattered independent forces including "NAHAL" (forces from a paramilitary program) and the infantry schools. The "elite" Paratroopers were roughly 50% of the Infantry Corps but still were highly trained and a desired path for those coming from the Infantry Corps (e.g. Ariel Sharon). The infantry brigades were leg infantry but in modern armies transported by trucks, or in the IDF's case, surplus halftracks or captured BTR-152s. The parachute and infantry brigades were organized along similar lines, with three to four infantry battalions (each with four infantry and a support company), heavy mortars, and company-sized assets.

The last infantry-type brigade were the territorial brigades. These were administrative HQs without permanent sub-units, each assigned the defense of a region. Their actual units were regular and mobilized reserves attached from brigades for rotational defensive duties (like along the Purple Line and Bar-Lev forts).

1st "Golani" Infantry Bde (Amir Drori)—A brigade that fought in all of Israel's wars. Like its geographical name implies, the Golani Bde was assigned to the Northern Command. The Golani was the only active infantry brigade in the IDF at the start of the war. It was issued halftracks upon deployment in the Golan. Its 17th Inf Bn with two companies was sent to defend Sharm el Sheikh before the war and is less than full. Its 13th Inf Bn was manning the Purple Line forts and later reassembled to form the basis of the Kastel Task Force to defend Tel Shams (46.12). A detachment of the 269th Sayeret Matkal was assigned to assist the Golani Bde in retaking Mount Hermon.

4th "Kiryati" Mechanized Bde (Yaakov "Pfeffer/Pepper" Hadar)—One of the original twelve IDF brigades, it remained leg infantry until 1972 and then converted into a reserve mech formation. It fought in the 1948, 1956, and 1967 wars. Its 39th Arm Bn was the 188th Armor Bde's

third reserve unit but was assigned to the 4th Mech Bde and served with them through the war. For a time, the 61st Arm Bn (205th Armor Bde) and the 288th Armored Recon Bn (146th Div) served in the 4th. With the mech initially held back, this effectively made it an armor brigade.

5th "Givati" Infantry Bde (Yehuda "Eshenfeld" Golan)—A reserve brigade initially mobilized in the Jordan Valley under Central Command; the 5th was then sent to the Sinai as part of Sela Force. Along the way, it was assigned the 105th Inf Bn near Eilat. The 5th was in process of converting to mech but with trucks as transportation—a rarity in the mech heavy IDF.

7th Armor Bde (Avigdor "Yanush" Ben-Gal)—The 7th was not the first **armor** brigade the IDF formed (that distinction goes to the 8th Arm Bde) but was a motorized/mech brigade in the 1948 war. The 7th is the longest continuously serving armor brigade in the IDF. An active brigade with an excellent reputation, the 7th fought in all of Israel's wars. Before the Yom Kippur War, the 7th trained in the Sinai to tow the complex Roller Bridge but transferred to the Golan just days before the war started. The intrinsic battalions of the 7th were the 77th and 82nd Arm, as well as the 75th Mech. The 71st Arm Bn from the Tank School was assigned to the 7th shortly before the war began. The 82nd Arm Bn was detached and assigned to the 188th Armor Bde. In its place, the 74th Arm Bn (with two 53rd Arm Bn companies assigned) joined the 7th as it moved into the Golan's northern sector. "Tiger" Zamir's company was detached from the 82nd Armor Bn and assigned to Avigdor Kahalani's 77th Arm Bn. While not as famous as Zvika, this unit's claim to fame is that in all its hard-fought battles, it **never** lost a single crewman or tank. The 75th Mech Bn was unusual in several ways: didn't fit the standard three companies per armor battalion (it only had two—one from an NCO school and the other a recon company) and was only recently formed. A tank company detached from the 77th Arm Bn was assigned to the battalion, allowing it to operate as a dual unit. Following the destruction of the 188th Armor Bde, the remnants under Yossi Ben-Hanan were assigned to the brigade. Lastly, an ad hoc task force under Amos Katz joined the brigade after the war started.

9th "Oded" Mechanized Bde (Mordechai "Motke" Ben-Porat)—The 9th Bde was the last of the 1948 Haganah Bdes. Infantry until after the Six Day War, it converted into a mech brigade and assigned the 278th Arm Bn from the 179th Armor Bde. This battalion was sent to defend the southern route towards El'Al (10.27) alone before the 9th Bde arrived and it fell under its command. Like the 4th Bde, its mech was initially held back west of the Jordan River and joined the rest of the brigade a few days into the war.

11th "Yiftach" Mechanized Bde (Aharon "Fedale" Peled)—The 11th Bde followed a similar path as the 9th, formed during the War of Independence and converted to a mech brigade following the Six Day War. The 11th Bde was mobilized in 1973 as a reserve formation for Adan's division. It was sent to the Sinai to help defend the northern sector under Nammer Force and assigned Adan's divisional recon battalion, the 279th.

14th Armor Bde (Amnon Reshef)—A regular brigade formed in 1958 and was at the forefront during the entire Yom Kippur War. It was the lone Sinai frontline brigade on 6 Oct and led the counterattack across the canal weeks later. The brigade's composition was a hodgepodge of units. Its 9th Armor Bn was assigned to the 275th Ter Bde (and subsequently destroyed). The 52nd Armor Bn was assigned to the 401st Armor Bde because of its southern location and in return the 14th received the 79th Armor Bn from the 401st. The 196th Armor Bn came from the 460th Armor Bde. The 143rd Division's 87th Armored Recon Bn was assigned to the brigade. In addition, to reinforce the brigade for Operation Stouthearted Men, the 407th Arm Bn from the 600th Bde, 582nd Para, and Shmulik Force were added. The 582nd "Shunari" Bn (nicknamed after its commander) was a recon and anti-tank battalion from the 317th Para Bde (but operated as infantry). Its anti-tank component consisted of a 106mm recoilless rifle company mounted on jeeps. Shmulik Force (the commander's nickname) was comprised of a company each from the 202nd and 890th Para Bns, as well as Zamir Force which consisted of 60-70 men of the Infantry Officer's Course originally from the Golani Bde. The 14th Bde was augmented for Stouthearted Men with the independent 424th "Shaked" Bn and later the 88th Amphibious Bn. Its only remaining original unit was the 184th Arm Bn. The 184th was unique in having two tank companies and a mech company and later had a three armor companies after the first bloody days.

35th Para Bde (Uzi Ya'iri)—The original parachute formation of the IDF formed in 1955 as the 202nd Para Bde. It fought in the Sinai War and in 1967 was renumbered to the 35th Para Bde. By 1973 as a regular formation, it found its 50th Para Bn dispersed manning the southern portion of the Purple Line. The other two battalions, the 202nd and 890th Bns started off defending the southern sector in the Sinai. The 202nd remained under Ayalon Force of the 440th Div, while the 35th Bde—with only the 890th Bn—was airlifted to help clear the Tirtur Road (B28.13) during Operation Stouthearted Men. Later in the war, the 48th Para Bn (63rd Ter Bde) and the 469th Para Bn (317th Para Bde) were attached.

164th "Harel" Armor Bde (Avraham Baram)—Created as the 10th Bde from the Palmach, it fought as infantry in the 1948 and 1956 wars. By the Six Day War, it had become a mech brigade

and was reorganized as a reserve armor brigade in 1973, with its base directly east of the Sea of Galilee and slated for the Golan. As its tanks were taken by other units, the 164th was sent south to be re-equipped and then sent to the Sinai—making it one of the last armor brigades to be deployed.

179th Armor Bde (Ran Sarig)—The 179th Bde was formed in 1955 as the 37th Armor Bde and fought in the Sinai War and Six Day War. Renamed the 179th, it acted as the Golan's rapid deployment reserve brigade and was the first mobilized to respond to the Syrian attack. The 179th sent its units piecemeal to the Golan starting with the 266th Armor Bn because of the Syrian breakthroughs. The 278th Bn was sent along the southern road and fought with 9th Bde. This left the 96th Arm Bn as the only intrinsic battalion but was joined by the 36th Division's 134th Armored Recon Bn. The 179th was the only brigade (with only 96th Bn at that) transferred between fronts before the ceasefire, arriving in the Sinai and assigned to the 252nd Division.

188th "Barak" Armor Bde (Yitzhak Ben-Shoham)—The brigade's roots began in 1948 as a separate force split off from the 2nd "Carmeli" Bde in Haifa. By the 1956 Suez Crisis, while it had been reorganized as the 18th Bde, it did not take part in the fighting. By the Six Day War, it was renumbered 45th and converted into a mech brigade to fight against the Jordanians and Syrians. By 1973 it was again renumbered, this time to 188th and was tasked with defending the Golan Heights until the 7th Bde was transferred north. As mentioned in the 7th Bde's entry, it swapped its 74th Armor Bn for the 82nd Armor Bn. The 53rd Armor Bn commanded two companies of the 74th. Despite being a regular army formation, it had a reserve unit with the 39th Arm Bn, but after its mobilization, it fought exclusively with the 4th Mech Bde. The brigade suffered tremendous losses and following the death of its commander, it was disbanded with its survivors pooled and assigned to the 7th Bde. It was reorganized following the war and is still active today.

204th Mechanized Bde (Zvi "Rami" Ram)—Formed in 1952 as the first reserve armor brigade, it was originally numbered the 27th. It fought in the Sinai War and then in the Six Day War as the 60th Armor Bde. Following those wars, it was converted into a mech brigade. Unlike other mech units, it used M48 tanks rather than Shermans. Possibly because of this, the 19th Arm and 86th Mech Battalions were assigned to the 460th Armor Bde (162nd Division) for the duration of the war. In their place, a task force based on the 904th NAHAL Bn (named for its commander Vilner) operated with the brigade. Later in the war, the 268th Armored Bn from the 670th Bde was also attached.

205th Armor Bde (Yossi Peled)—Formed in 1961 as the first reserve armor brigade to be equipped with Centurions, it fought in 1967 as the 200th Armor Bde. On mobilization in 1973, the brigade's base was in Central Command and made its way north. The 61st Arm Bn made its way north first via tank transporters and fought alongside the 4th Bde. The rest of the brigade made its way north on its own tracks, made more difficult being equipped with slow and short-ranged Sho't Meteors. It was also assigned the 146th Division's 288th Armored Recon Bn.

217th Armor Bde (Nathan "Natke" Nir)—Established in 1962 as a reserve brigade, it fought alongside the 200th Bde in the Six Day War in the same division as the 520th Armor Bde. Renumbered as the 217th before the Yom Kippur War, it was originally assigned to Central Command but sent to the Sinai under Adan's 162nd Division. During the war, a company of Paratroopers detached from the 247th Para Bde under Ben Zion "Benzi" Weiner was assigned to the brigade as infantry support.

247th Para Bde (Daniel "Danny" Matt)—Formed in 1966 as the reserve 55th Parachute Bde, it participated in the fight for Jerusalem in the Six Day War. Following mobilization in 1973, it was initially held in General Staff reserve until it was sent to the Southern Command and held in reserve. It was then tasked to be the first formation to cross the Suez Canal under Sharon's division. It (less the 564th Bn) was mounted in halftracks and buses and following the creation of a path to the canal, crossed over in rafts to establish a beachhead until reinforced by tanks. Under the colorful Danny Matt, the brigade was highly sought over by higher commands.

274th Armor Bde (Yoel "Gorodish" Gonen)—A unique brigade consisting of upgraded T-54 and T-55s captured in 1967. It contained four armor battalions instead of three and an Amphibious Bn. Its 225th Arm Bn along with the 88th Amphibious Bn were detached and located at Sharm el Sheikh while the rest of it was located near Ashkelon along the Mediterranean Sea. The two units fought under different formations while the remainder in the Sinai went into reserve. Following the Israeli crossing, it played an important role being the only armor brigade east of the canal against the Egyptian bridgeheads.

275th Ter Bde (Pinchas "Alush" Noy)—Responsible for commanding the Bar-Lev line, its subordinate units came from several formations and was specially mobilized to man the Bar-Lev forts on a rotating basis. The remainder of it was stationed near the HQ at Baluza (A38.16). In addition, a detached company of the Southern Command's 424th Recon Bn was under its

command. Its brigade staff was used to create the divisional Nammer Force to control mobilizing reserves in the northern Sinai.

317th Parachute Bde (Haim Nadel)—Established after the Sinai War as a reserve para brigade, it fought as the 80th Para Bde in 1967 (under Danny Matt). It participated in the critical battle at Abu Agheila in the Six Day War. In 1973, it mobilized with four battalions, two were sent to the Sinai (582nd Recon to 14th Bde and the 469th to the 35th Para Bde). The remaining battalions fought in the Golan, helping capture Tel Shams (46.12) and then participating in Operation Dessert which landed the Paratroopers on the Syrian side of Mount Hermon to re-capture the Israeli Hermon outpost.

401st Armor Bde (Dan Shomron)—The 401st was formed in 1968 as a regular brigade. In 1973 it was positioned in deep reserve in the Sinai around Bir Thamada. It advanced to the canal on 6 Oct where it took command of the 52nd Arm Bn. In exchange, it detached its 79th Arm Bn to the 14th Bde. It crossed the Canal with the 252nd Division and continued the exploitation of Israel's bridgehead.

421st Armor Bde (Haim Erez)—The 421st was the youngest IDF brigade in the war and was only formed in 1972. It fought a series of tense battles at Hamutal (B29.21) before being assigned to tow and escort the bridging equipment to the canal during Operation Stouthearted Men. It was also the first armor brigade to cross to the "African" side of the canal and helped eliminate SAM positions.

460th Armor Bde (Gabriel "Gabi" Amir)—This unique brigade was formed from the Armor School's instructors and cadets. As such, it was equipped with different tanks among its units to train its personnel with the IDF's tank inventory. Its composition during the war varied like the 14th Bde. Its 71st Bn was assigned to the 7th Bde in the Golan. It detached its 196th Bn to the 14th Bde. This left it only the four companies of the 198th Arm Bn until it was supplemented by the 19th Armor and 86th Mech Bns (from the 204th Mech Bde), an armored recon battalion (sans tanks) from the 252nd Division, an engineer battalion fighting as infantry (162nd Division), and the ad hoc 100th Armor Bn under future Prime Minister Ehud Barak. Barak, who returned during his studies at Stanford University, gathered other returning reservists and formed the 100th of two companies of 28x M48 tanks (and according to Adan, an additional ten Centurions) and one company of mech. At other times, various other battalions were temporarily assigned to the 460th. One source mentions an "Arik Force" consisting of two "motorized" infantry companies, but I've been unable to find *any* information concerning its participation in the war so they are not included.

500th Armor Bde (Aryeh Keren)—Created in 1972 in the National Land Training Center (Camp Tze'elim) nicknamed "Facility 500," the 500th adapted the center's number as its designation. Like other brigades in Adan's 162nd Division, it suffered heavy losses in the failed 8 Oct counterattack, but later contributed to the destruction of the Egyptian 25th Tank Bde.

600th Armor Bde (Tuvia Raviv)—Formed in 1971 and was unique in that it was the only armor brigade to be equipped with M60A1s. It fought in Sharon's division and detached its 407th Arm Bn to the 14th Bde for Operation Stouthearted Men, where it incurred heavy losses which caused it to be disbanded soon thereafter. The remainder of the 600th conducted a feint from Hamadia (B30.15) and then crossed over the canal to expand the bridgehead towards Ismailia.

670th Mechanized Bde (Gideon Gordon)—Formed after the Six Day War in 1968 as a reserve under Central Command and sent to the Golan. It detached its 268th Arm Bn to keep an eye on the Jordanian border. An ad hoc force was temporarily raised to compensate for its lack of tanks, but it was replaced when the independent 181st Arm Bn was assigned to the 670th. Independent armor battalions existed in the Northern (181st) and Central Commands (182nd) since the Six Day War and continued to operate Shermans.

679th Armor Bde (Ori Orr)—Established in December 1970 in northern Israel as a reserve, it was equipped with the older Centurions with Meteor engines. This did not stop them from playing an instrumental role in stemming the Syrian tide toward Nafah (30.27) and the later counteroffensive towards Damascus. Nati Force was formed from reservists returning from overseas, consisting of three tank companies and a mech company, with two tank companies assigned to the 679th and the third under the 179th.

875th Mechanized Bde (Aryeh "Biro" Dayan)—Formed in 1948 as the 8th Bde, the original IDF armor brigade. Following the War of Independence, it was disbanded and reformed as an infantry brigade but did not participate in the 1956 war. By the Six Day War, it was converted to a mech brigade and had the distinction of being the only brigade to fight on both fronts. In 1973, it was sent to the southern Sinai where it helped defend against the 14 Oct Egyptian offensive.

Ayalon Force (Aryeh Ayalon)—This ad hoc command helped hold the Sinai's southern flank. It was pieced together using the 52nd Arm Bn (14th Bde), 225th Arm Bn (274th Bde), 202nd Para Bn (35th Bde), 9400th Bn (9100th Bde), 450th Para Bn (from the Airborne School), and Central Command's independent 182nd Armor Bn. The 225th Arm Bn (four companies) was initially at Sharm el Sheikh and was sent in two separate parts to the front. Sources cite a "Granit Force" (Israel "Greenker" Granit) but this was only a temporary task force existing for five days while the 252nd Division shifted north to start the canal crossing. Granit Force served alongside Ayalon Force and was assigned units from the latter (202nd Para and 52nd Armor Bns) as well as parts (or all) of the 875th Mech Bde and a battalion from the 164th Armor.

Brigades not shown:

16th Infantry Bde (Zeev Ofer)—Originally the 6th Jerusalem Bde, it consisted of reservists who traditionally defended the area around its namesake. It was an unusually large brigade, with 4 infantry and 4 security battalions, 120mm mortar & 90mm AT battalions, and recon and engineer companies. One of its battalions, the 68th, was manning the Bar-Lev line on 6 Oct 73.

63rd Territorial (Parachute) Bde (Amos Madroni)—If fully mobilized, it was to be a para brigade, but this never occurred. Instead, it operated in the Jordan Valley under Central Command consisting of the 484th "Haruv" Recon and 48th Para Bns, both sent to the Sinai.

72nd "Negev" Territorial Bde (Tuvia "Tibi" Shapira)—The original 12th Bde in the War of Independence, it was stationed at the southern tip of the Sinai in Sharm el Sheikh. It commanded two companies of the 17th Infantry Bn from the Golani Bde.

99th Territorial Bde (Uri Baidetz)—Split off from the 72nd Ter Bde, the 99th defended the Eilat region with its important seaport and Red Sea access.

612th "Carmeli" Territorial Bde (Ezekiel "River" Ravid)—Created as the 2nd Carmeli Bde in 1948, it defended the northern Jordan Valley to the Sea of Galilee in the Yom Kippur War.

820th "Alexandroni" Territorial Bde (Zvi "Barzani" Bar)—Originally the 3rd Bde, it commanded units occupying the Purple Line forts (13th Inf Bn and 50th Para Bn) as well as their artillery. Its role quickly changed as mobilized tank reserves arrived in the Golan. Following the attack into Syria, the 820th held the southern end of the Golan with token forces.

9100th Infantry Bde (Shmuel Pressburger)—An ad hoc brigade formed during the war from an amalgam of odds and ends. Initially assigned to defend the Jordanian border, it was sent with the newly formed Sela Force to the Sinai. The 9100th's exact components are not yet known, but Yaron's parachute task force and the 9400th Inf Bn (under Ayalon Force) belonged to the 9100th. Since these units were attached to other formations, it is unlikely that the 9100th ever operated as a fully functioning formation in the Sinai.

Ad Hoc & Detached Units:

Zvika Force (Zvi "Zvika" Greengold)—Zvika's exploits are well known, but it is still an amazing testament to what a few tanks under a determined leader can do. On seeing IAF patrols flying near his Kibbutz in Western Galilee, Zvika made his way by himself to the command center at Nafah (30.27) where he was put in charge of **two** repaired Sho't Kal tanks and ordered to defend the Petroleum Road (a.k.a. Tapline Road). When his tank was damaged, he took command of the other and continued his defense, leading both the Syrians and higher Israeli commanders to believe a more sizable force was involved. Through the day, his force ranged from a single tank to slightly over a dozen. As tanks were shot out from under him, he would jump to another tank and continue fighting until exhaustion overwhelmed him. He returned a few days later, spending the rest of the war helping rebuild the shattered 188th Armor Bde.

Lapidot Force (Jacob Lapidot)—This was a two-tank company force split off from the 196th Arm Bn and sent to the northern sector of the Sinai under the newly formed Nammer Force. It was assigned to various commands.

88th "Dov Lavan" Amphibious Bn (Yosef "Yossi" Yudovich)—This curious unit was formed in 1969 able to conduct amphibious raids. The only amphibious vehicles available were captured PT-76 light tanks and BTR-50 armored personnel carriers. The usage of the Soviet-built vehicles was by necessity rather than an attempt to deceive the enemy like Skorzeny's commandos in the Battle of the Bulge. At the start of the war, the 88th was under the 274th Armor Bde, putting Tirans and all the captured armored vehicles under a single command. During the war, the 88th was detached from the 274th defending the approaches to Sharm el Sheikh before being assigned to Sharon's division to help clear both sides of the canal for the Israeli bridges. Some older books and games reference a "Ha Sinai" unit, assumed to be the 88th and/or the 424th Shaked Bn (see below). From my research, I've never come across a "Ha Sinai" unit but can definitively trace the two units it supposedly represented.

Hisdai Force (Yaakov Hisdai)—This is an ad hoc airborne unit that arrived late in the war. Sources vary if it was a company or battalion-sized unit, and its exact origin and composition. It supported Adan's attack into Suez City.

Yaron Force (Uri Yaron)—Another ad hoc para unit created during the war as part of the 9100th Bde. It arrived with Sela Force and then crossed the canal and assisted Magen's division before the ceasefire.

50th Para Bn (Yoram "Yaya" Yair)—Part of the 35th Para Bde occupying the southern sector of the Purple Line when the war began. Following the counterattack into Syria, the 50th was reassembled and sent to the Sinai where it was eventually assigned to Adan's division.

564th Para Bn (Yossi Yaffe)—Inherently part

of the 247th Para Bde, the 564th was detached when the 247th arrived in the Sinai and assigned to various divisions from Nammer, Sela, 143rd, then the 162nd.

Bishof Force (Haim Benjamin)—This was an improvised force composed of Officer School Candidates. It was positioned at the Mitla and Giddi Passes to block the vital passageways into the heart of the Sinai.

Command Patrol Units:

Each Israeli Command formed "patrol battalions" in the mid-50s and 60s to patrol Israel's peacetime borders. They were well-trained and elite, lightly armed, and highly mobile, fitting their intended role. In addition to the game's two patrol battalions, the Northern Command's 483rd "Egoz" Recon Bn and the Druze 300th Inf Bn patrolled the Lebanese border.

424th "Shaked" Recon Bn (Moshe Spector)—The 424th Recon Bn was the Southern Command's large (six company) Patrol unit. Half of these companies make up the game unit, while one company was attached to the 275th Ter Bde, and the remainder was scattered throughout the Sinai.

484th "Haruv" Recon Bn (Haim "Ivan" Oren)—This unit was initially under Central Command but was transferred to the Sinai with Sela Force and eventually assigned to Adan's division to help relieve trapped Israeli Paratroopers in Suez City.

Bridging Units:

605th Bridge Bn—A regular engineer battalion responsible for the prefabricated Roller Bridge (sometimes called the "Galilee Bridge") as well as trained in the Unifloat (see below). The Roller Bridge was a unique piece of engineering. It was conceived in 1972 with the idea of launching a mobile assault bridge across the Suez Canal without having to wait for engineers to assemble along the vulnerable banks of the canal. The bridge consisted of sections attached together with big roller wheels underneath, harnessed to tanks to tow it into the Canal. It was a cumbersome and unwieldy piece of equipment and took three days to assemble, requiring tanks along the side to tow and some in front to prevent the bridge from rolling away on a down slope. Instead of being used as an assault bridge, it faced numerous hurdles and wound up supplementing the other bridges and ferries operating there already. The original formation trained to tow the bridge—the 7th Armor Bde—was sent to the Golan right before the war, causing Erez's 421st Bde to get a crash course in towing the bridge. It broke numerous times along the way but once across the canal allowed the rapid transfer of units west of the canal. By luck the Roller Bridge sections were in a facility near their designated crossing point.

630th Bridge Bn—A reserve unit that operated two companies of Unifloats. The

Unifloats were sectional pontoons that joined together as a bridge. They could also be used as makeshift ferries to carry tanks, but this was not done during the war. Twenty Unifloats from two locations were gathered and carried atop tanks and transported to the canal. They were less unwieldy than the Roller Bridge, but it took time to assemble them into a bridge.

634th Ferry Bn—Another reserve engineer unit responsible for drivable ferries. The Gilowas (also called "Gillois" after the designer or Crocodile) were purchased from the West German army in poor repair. Three Gilowas attached together could carry one tank. Sixteen of them were transferred from the Sea of Galilee, where they were training, to the Sinai. Their advantage was the ability to drive to the water themselves and being able to transport tanks and other equipment relatively quickly. Their disadvantage was their unreliability and vulnerability if their floats were punctured. Numerous Gilowas were sunk during the war but served their purpose until more reliable bridges were operational.

The Purple & Bar-Lev Lines:

Construction of the Bar-Lev Line began during the War of Attrition (1967-1970). It consisted of two lines of fortifications, Maoz (Hebrew for castle gatehouse) along the canal and Taoz along a second line of defense along the Artillery Road. The Maoz were always meant to be manned full-time on a rotational basis. The Taoz were never intended to be manned on a regular basis but were instead used as staging areas for armor and artillery assigned to defend the canal. Supposedly in times of heightened tensions, they were to be manned by reservists, but this did not happen before the Yom Kippur War. So, there are no garrison units for these Taoz forts. Also of note are locations like Traklin (A43.20) along the Mediterranean Sea and Egrofit (C40.02) along the Gulf of Suez. These were not fortifications but rather observation posts manned by a handful of personnel.

The Purple Line was likewise constructed as a series of spaced-out forts along the DMZ. The main fortifications ran from the Israeli-occupied Mount Hermon all the way to the mouth of the Rokad Stream, numbered from 102 to 116. There were other numbered locations, but these were observation posts and not outright fortifications, numbered from 100 and 101 in the mountains in the north, 108 in between the main line of forts, and 117 at the southern end of the line. Tel Saki (15.22) was not a numbered position but did serve as an observation post. Unlike the Bar-Lev Line, the Purple Line was manned by active soldiers, but forts 106, 112, and 113 were unmanned.

Both the Purple Line and Bar-Lev Defenses were paradoxes. The fort locations were well-constructed and protected strongpoints but were spaced far away from each other and did not offer

mutual support. The intent was to supplement these static positions with Israel's trump card, tanks. Yet against determined and overwhelming numbers, the individual fort locations became mini-island defenses. Each location theoretically held around 20 men, but between transfers and augmentations, the garrisons ranged from as few as 10 in Lakekan (B26.08) up to the 71 in Budapest (A31.28) along the Bar-Lev line. Orkal (A21.29) was unique as it was the northernmost fort made up of a cluster of three forts guarded by 64 men. So, while they were defensive lines in name, their locations were meant as tripwires and for observation.

At the start of the Yom Kippur War along the Bar-Lev line, the 68th Inf Bn of the 16th Jerusalem Bde occupied the thirteen northern forts and the 904th NAHAL Bn manned the southern three forts, all under the 275th Ter Bde. In the Purple Line, the 13th Inf Bn of the Golani Bde (AR 4) manned the northern half while the 50th Para Bn of the 35th Para Bde (AR 5) was stationed in the southern forts, nominally under the 820th Ter Bde.

Mobilization: First Come, First Served

The mobilization of the IDF on 6 October appeared chaotic as reservists used any means to reach their bases to draw equipment and organize into their units before making their way to the front, including stories of enterprising soldiers pilfering weapons, jeeps, and even tanks from other units. Some units headed off to the Sinai or Golan partially while the remainder joined them later. Otherwise, the mobilization was pretty smooth, assisted by the war starting on Yom Kippur when the streets were empty, allowing easy transit across the nation.

One complication to the mobilization occurred before 6 October. The 7th Armor Bde was transferred from the Sinai to the Golan right before Yom Kippur when tensions started to rise. Its personnel were flown to the Golan without their tanks, left at its Negev Desert base in southern Israel. To replace the Centurions left behind, the 77th Arm Bn took tanks from the 39th Arm Bn near the Golan. The 71st Arm Bn, attached to the 7th Bde from the Armor School, likewise flew north without its tanks, and took tanks from the Reserve 179th Armor Bde based out of Tiberias along the western shore on the Sea of Galilee. This robbing Peter to pay Paul caused a cascade effect among the units whose tanks were taken by the 7th Armor Bde.

To replace the 7th Armor Bde in the Sinai, the 460th Armor Bde from the Armor School was sent as a backup formation. The 198th Arm Bn used the 77th Arm Bn's tanks left behind. The 179th Armor Bde, first to respond to the Golan, found many of its tanks gone. The brigade's full strength 266th Arm Bn was sent alone to the Golan Heights. The rest of the 179th Bde then took the 164th Armor Bde's tanks as they shared

the same base. Likewise, the 39th Arm Bn, the reserve component of the 188th Armor Bde already fighting in the Golan, took 164th Bde tanks before making its way north. When the 164th Armor Bde arrived to mobilize, it found the stock of tanks empty. Originally slated to fight in the Golan but now tank-less, the 164th Bde made its way south using tanks from the 7th Armor Bde and Armor School, both in the Negev (Beersheba and Tze'elim, respectively) with additional spares in Eilat. It arrived in southern Israel and was committed to the Sinai Front on 8 October, a day later than other armor brigades because of the search for more tanks. Somewhere along the way, the 421st Armor Bde found only 22 tanks in its warehouses in the Negev and likewise took tanks from the nearby Armor School.

What's in a Number?

It's already described how the IDF was flexible in attaching and detaching units from their parent formation. Even referring to units by their commander's name for established units as well as ad hoc ones shows a level of laxness with strict military protocols.

Yet this was not the end of it. Through the tough fighting, some units were written off, but their designation was reused by a successor. On 9 Oct, the 79th Arm Bn was severely depleted following failed counterattacks from days earlier in the Sinai. The surviving tanks were placed under the 196th Arm Bn's command and the 196th was renamed the 79th to preserve the battalion's heritage. On the same day, Lapidot Force, split off from the 196th at the start of the war, was renamed the 196th. On the Golan Front, the 71st Arm Bn was severely depleted, and its commander killed in action. When Katz Force was organized under the 7th Armor Bde's command, it was renamed to the 71st.

Game-wise, these changes are extraneous and such conditions of renamed units will likely not occur during play. And to maintain sanity, I will not wish to enforce unit renumbering on you. For my purposes, Lapidot is Lapidot and Katz and the 71st Arm Bn are separate forces. As for the 79th and 196th, for scenarios like Operation Stouthearted Men, I kept the 79th instead of keeping alive the 196th as the 79th.

Air Force:

From a modest start in 1948 based on Czech S-199s (WWII Bf-109 copies) and British Spitfires, the IAF grew to a modern and formidable force by 1973. Its highest point was in 1967 when it conducted Operation Moked (Focus) which surprised and destroyed much of the Arab Air Forces, laying the foundation for a quick victory in the Six Day War. The IAF started transitioning from French-based airframes to American in the late 1960s. The Air Force was regarded as one of the best trained and capable in the world, yet only their Phantoms were truly multi-role.

While all Israeli aircraft were available at the start of the war on 6 October, intelligence missteps and debate whether a pre-emptive strike was necessary caused the IAF to be caught flat-footed when the Arabs attacked at 2pm. Roughly half of the available F-4s and A-4s arrive as reinforcements on 7 Oct, representing the IAF's shortcomings on the first day of the war.

F-4E Phantom II ("Kurnass" or Sledgehammer)—The venerable fighter-bomber was first delivered to the IAF in 1969 in time for the War of Attrition, where they proved their mettle in both air-to-air as well as ground strike capabilities. Two of the F-4 squadrons were new (the 69th was reactivated and the 201st was created) while the other two operated Mirages (119th) and Ouragans (107th) beforehand. The Phantom operated in a heavy fighter-bomber role with the emphasis on deep strike and SEAD missions given its robust airframe. It was a jack-of-all-trades aircraft and arguably master of all.

Mirage IIICJ ("Shahak") and Nesher (Vulture)—By the time the Yom Kippur War began, the Mirage III was becoming an obsolete airframe. It was still capable in the right hands, as demonstrated by IAF pilots. The Nesher was based on the Mirage 5 and produced by Israel because of the French arms embargo. Together, the Shahak and Neshers equipped four squadrons and almost exclusively used in air-to-air roles (interception, air defense, escort, etc.). While Mirage IIIs were used in ground support in the Six Day War, their aging airframes and limited bombload capacity caused the IAF to limit their roles. The four squadrons contained fewer aircraft per squadron than the Phantom and Skyhawk ones (around 14 operational vs. 24 in the latter) and composed only 19% of combat aircraft in the IAF, but flew 30% of the total number of sorties and racked up impressive numbers of air-to-air kills. Two squadrons flew the Nesher exclusively, with the 144th Squadron being formed in 1972. The 101st ("First Fighter Squadron") contained a mix of Mirage III and Neshers but difficult to determine the number of each.

A-4E/H/N Skyhawk ("Ayit"—Eagle)—The Skyhawks started replacing the various French fighter-bombers (Ouragans, Mystères, and Vautours) in the late-1960s. While enough aircraft were delivered to equip up to seven squadrons by 1973, only five were used in war zone missions. Of the remaining two, one was a training squadron, and another was recently activated (the 140th Squadron), sending its aircraft and pilots to the other operational squadrons. The Skyhawk Squadrons comprised the light attack role which primarily consisted of ground support as well as SEAD missions. The A-4H variant was based on the A-4E with a 30mm DEFA cannon instead of a 20mm one, but otherwise similar in capability and roles. On the other hand, the A-4N was a significant upgrade with a more powerful engine, improved avionics, and modified cockpit and

canopy. This allowed the A-4N "Skyhawk II" to fly deep strike missions like the F-4E Phantoms in addition to its ground support missions.

Sa'ar (Storm)—The Sa'ar was an upgraded SMB.2; referencing them as Super Mystères is technically incorrect as they were upgraded with the A-4E/H engine and improved avionics. Still, their lifespan was nearing the end (the last Sa'ar airframe was produced in 1959), and soon after the 1973 War the remaining Sa'ars were sold to Honduras. Like the Mirages and Nesher Squadrons, the 105th Sa'ar Squadron used fewer than the standard 24 aircraft because of their older airframes and their single mission: close air support.

Other Aircraft—The IAF operated additional squadrons like five fixed-wing transport squadrons (Noratlas, C-130s, Boeings, some light Dornier and Cessna, and even some old DC-3s) as well as another five helicopter transport squadrons (heavies with Super Frelons and CH-53s, mediums with the ubiquitous UH-1, and the light squadron with Kiowas and Alouette IIs). They also operated a UAV squadron. These "other" squadrons are not represented by counters and are subsumed into the abstracted airlift rules.

Order of Battle: Egypt

The modern Egyptian Army began with the Revolution of 1952 with the military overthrow of King Farouk. The army was heavily influenced by the British military, having been occupied by the British Empire from the late-19th Century. The transition from British organization and equipment to Soviet began in 1955 with a major arms deal between the Egyptians and the Soviets. Yet the Egyptian Army in the Sinai Crisis was still a hybrid of British-styled formations, with a blend of British (25pdr Howitzers, Archers, and Meteor jets) and Soviet (T-34/85s, SU-100s, and BTR-152s). By the Six Day War it was fully transitioned to Soviet equipment but did not adapt Soviet doctrine. The transition to Soviet doctrine and organization did not occur until after the disastrous Six Day War. With their military forces in shambles, the army was rebuilt from the remnants of its units. It was not rebuilt from scratch but for the most part existing units were reorganized, given fresh personnel, and reequipped. This influence existed even with the tepid relations with the Soviet Union when Anwar Sadat came into office. Even with the supposed expulsion of Soviet advisors (new research shows Soviet presence remained in Egypt during the war), the transition of the Egyptian army was completed, and this is clearly visible in the Soviet-style SAM and integrated air defense network. Within the army, the organization followed the Soviet pattern with its own personal wrinkles.

The tank divisions were styled after Soviet tank divisions, but instead of being organized with three tank regiments and one mech

(motorized rifle) regiment, they contained two tank brigades and one mech brigade. Other components included an artillery brigade and recon, self-propelled ATGM, engineer, and anti-aircraft battalions. The differences with the Soviet divisional assets were a much smaller and less capable recon battalion (one company of BRDM scout cars and another of jeeps), significantly reduced divisional AA (each Soviet division carried SA-6s), and the inclusion of an ATGM battalion. The latter consisted of older AT-1 Snapper missiles, not the AT-3 Sagger, and appeared to be ones mounted on BRDMs.

Mech divisions were the flipside of tank divisions, akin to the Soviet motorized rifle divisions with two mech and one tank brigade and the same divisional assets.

Plain infantry divisions had no direct Soviet army equivalent anymore (leg infantry not Motorized Rifle or Airborne). They were made up of two infantry brigades and one mech brigade. Divisional units included an artillery brigade, an anti-tank battalion (towed 100mm), ATGM battalion, independent tank, engineer, and anti-aircraft battalions. During the war, the divisions were augmented heavily with at least one commando battalion along with army-level tank destroyer or assault gun units. Newly received BMPs—originally assigned to tank and mech divisions—were instead assigned to the division's mech brigades to augment their available Saggers. In addition, due to the lack of intrinsic tanks, a brigade from a tank or mech division was attached to the divisions. In some cases, these tank brigades reverted to their original division when it crossed east over the canal.

The brigades in these divisions contained similar components, with the ratio of arms dependent on their types. Tank, mech, and infantry brigades each contained six battalions: three of the primary unit type (e.g. mech infantry for mech brigades), one of the secondary (tanks for mech and infantry brigades, and mech for tank brigades), plus an anti-aircraft and field artillery battalion. Infantry brigades had a company of ATGMs and anti-tank guns (85mm) to provide adequate lower-level anti-tank defenses. The mech brigades in infantry divisions behaved like dismounted infantry with inherent APC transportation rather than fully offensive mech brigades.

Independent brigades existed in tank, infantry, and parachute forms, with organizations of the same types as those found in divisions. Paratroopers were elite and had their own branch. Para brigades contained three para battalions as well as their own Sagger ATGMs and mortars for support. While these were identified as "parachute" and had jump qualified personnel, the venerable and limited air transportation gave little opportunity to conduct actual paradrops. Para brigades also re-identified as air assault brigades with new designations during the war,

causing some double counting of these brigades in some books and games.

Like paratroops, commandos occupied a special pecking order position. The Egyptians maintained numerous commando battalions by the Six Day War, but they operated independently. By the Yom Kippur War, commandos were organized into six groups of four commando battalions each. Each group also had Sagger ATGM and BM-21 (multiple rocket launcher) units available for support. Each commando battalion contained three small (70 man) companies plus a support company well equipped with RPGs. Two commando groups supported each army, two were assigned to the Red Sea command (south of play), and two more were held under GHQ.

The unique 130th Amphibious Brigade was built partly from two commando battalions from the 128th Cdo Grp. Loosely modeled following Soviet naval infantry, the 130th was organized into two combined-arms task forces equipped with PT-76s and BTR-50s (like the Israeli 88th Polar Bear Bn). Each task force consisted of three amphibious mech companies, a light-tank company, and a small company of Saggers mounted on BRDM-2s. The 130th lacked artillery with only six medium and heavy mortars for the whole brigade.

Egyptian brigade and battalion designations follow a pattern. Before the war infantry and mech brigades numbered 1-99 are regular army, and those numbered 100 and above are reserves. Once the war began, reservists were activated into the regular army (so some divisions mixed single- and double-digit unit numbers alongside triple-digit ones). Infantry and mech brigades were sequentially numbered but did jump around as regulars deactivated and reserve ones mobilized. Armor, being a separate branch, used its own sequential numbering scheme starting with the 1st to 3rd but then quickly skipped around with the 14th (which existed in 1967) and starting again with the 22nd, 23rd, and 24th (created after 1967). Independent tank brigades ending in 5 such as the 15th, 25th, 35th, and the 45th were formed or forming by 1973. Battalion designations were numbered from 1 on up and grouped sequentially in threes within each brigade (e.g., the 7th, 8th, 9th Bns in the 3rd Bde). Battalions might be transferred in and out making groupings like the 1st, 3rd, 20th Bns in the 1st Bde, for example. Tank battalions were likewise sequential but started from 200. These numbers spread between tank and supporting infantry and mech brigades. Mech battalions within tank brigades were also, curiously, numbered in the 200s. Commando battalions were numbered by tens ending in 3—using designations running from 13 to 233—except for the 256th Cdo Bn. I never figured out why it was unique.

On paper, the Egyptian Military was impressive. It approached retaking the Sinai

carefully, under the guidance of the Chief of Staff Saad el Shazly. It took away Israel's advantage (tanks) as well as accounted for their own advantages (prepared defenses like at Abu Agheila in 1956) to produce a sound plan. Yet once the plan started to unravel, bad habits started coming to the fore again. Following pleas to relieve pressure on the Syrian front, an ill-planned armored attack was conducted on 14 Oct. Shazly did not intend for the tank and mech forces to cross, but to stay in reserve west of the canal. After much infighting, piecemeal forces were sent across the canal, causing the disparate armored thrusts to be easily defeated. This was exacerbated following the successful crossing of the canal by the Israelis. Denial and fog of war led to more piecemeal response to stop the breach. By then it was too late, and the Israelis sent three divisions across the canal, cutting off the 3rd Army.

The Egyptians, as well as the rest of the Arab militaries, provided scant unit histories (there is little in Arabic, let alone English). As such, descriptions of Arab formations are less detailed than the Israelis.

Army:

4th Tank Division (Abdul Aziz Kabil) (including 3rd Tank Bde)—Formed sometime in the 1950s, this was Egypt's premier armor division. In the Sinai Crisis, it consisted of two small, combined arms brigades but did not see any fighting. In 1967, it was positioned in reserve and conducted an ineffective counterattack which decimated the division in a day. Rebuilt after the war, it served in the 3rd Army as reserve. It only committed its 3rd Tank Bde across the canal during the failed 14 Oct offensive. This left the remainder of the division on the west bank of the canal to confront the Israelis after they crossed.

21st Tank Division (Ibrahim Al-Orabi)—Built sometime after the Six Day War based on independent Tank Bdes, it served under the 2nd Army. Unlike the 4th Division, the division moved east of the canal to join the 14th Tank Bde that crossed in the initial assault. As such, it was the only divisional-sized thrust on 14 Oct but still lost heavily. While licking its wounds, it confronted the Israeli attack towards Chinese Farm. The division, along with the 16th Inf Division, both bled white but took numerous Israeli tanks with them.

3rd Mechanized Division (Mohamed Farhat Necati)—The division fought in all the wars against Israel (1956, 1967, and 1973). After 1967, it converted from leg infantry to mech. Held in deep reserve under GHQ, only a portion of the division participated in the war when the 23rd Tank Bde was initially sent to block the Israeli bridgehead west of the canal. The rest of the division was not committed but was available if there was a further penetration towards Cairo.

6th Mechanized Division (Mohamed Abul-Fath Muharram)—Formed after the 1956 Suez

Crisis, the 6th was misidentified as "mech" in the Six Day War but was a leg infantry division. After 1967, it was converted to mech. As part of the 3rd Army, it was tasked following the initial crossing to penetrate directly south towards Ras Sudar with its 22nd Tank and 1st Mech Bdes. This mission failed. Its last brigade remained in reserve west of the canal until joining its parent division.

23rd Mechanized Division (Ahmed Aboud Al-Zor) (including 24th Tank Bde)—Formed after the Six Day War, its 24th Tank Bde was detached to support the 2nd Inf Division. Assigned to the 2nd Army, its two mech brigades remained in reserve until moving forward to assist the large counterattack on 14 Oct. This didn't pan out and the division remained on the west bank of the canal and tried to hem in the growing Israeli bridgehead.

2nd Inf Division (Hassan Abu Saada)—One of the original divisions of the modern Egyptian Army, the 2nd was stationed along the Suez Canal in 1956, and in 1973 captured and defended the Ismailia area's bridgehead.

7th Inf Division (Ahmed Badawi)—The 7th fought against Israel's 7th Armor Bde along the northern route from Rafah to el-Arish in 1967. Rebuilt for Operation Badr, it held the 3rd Army's northern flank in 1973.

16th Inf Division (Abd Rabb al-Nabi Hafez then Anwar Hob Al-Rumman)—Formed after 1967, the 16th faced the brunt of the Israeli canal crossing in the battles around Chinese Farm. I speculate that the division used T-54/T-55s in its infantry brigade's tank battalions, while others used T-34/85s.

18th Inf Division (Fouad Aziz Ghali)—At the northern end of the 2nd Army, the 18th was responsible for taking the Bar-Lev forts from Ktuba to Mifreket.

19th Inf Division (Youssef Afifi)—On the right flank, the 19th captured the Israeli Bar-Lev fort of Masrek (named by the Egyptians after the adjacent Port Tewfik) on 9 Oct and televised the Israeli commander saluting and formally surrendering his men.

Port Said Command (Omar Khaled)—An independent command responsible for the city and the surrounding area with two independent brigades. Commandos tasked with taking the northernmost Israeli forts failed to take Fort Budapest in two attempts, the only contested Bar-Lev fort that never fell.

130th Amphibious Bde (Mahmoud Shuaib)—The 130th was to conduct a raid across the Little Bitter Lake on 6 Oct, but its light armor was no match for Israeli tanks, so it retreated to the canal perimeter for the remainder of the war. While organized into just two battalions, research showed that the tanks came from the 280th Light Tank Bn which attached a light tank company to each amphibious mech battalion.

Independent Tank Bdes (15th, 25th, 35th, 27th Nasser)—The 15th and 25th were equipped with the latest of Soviet tanks, the T-62. These brigades were elite and assigned to each army. In the field, they performed relatively poorly. The 25th Tank Bde first attacked on 14 Oct and then counterattacked 17 Oct to stop the Israeli crossings. The 35th Tank Bde with its T-34/85s was committed to this attempt as well. The 27th Nasser Tank Bde was referred to as 'Presidential Guard' and effectively Sadat's Praetorians. (Some sources list the 27th as a mech brigade but it was certainly armor.)

Commando Groups (127th, 129th, 132nd, 136th, 139th, 145th)—The 127th Cdo Grp was assigned to the 3rd Army and the 129th Cdo Grp with the 2nd Army. The 132nd and 136th Cdo Grps were in the Red Sea Command and not shown, while the 139th and 145th Cdo Grps were in reserve for GHQ. Only the 139th Cdo Grp fought as a unified command but only with two of its battalions. Its 103rd Cdo Bn reinforced the Port Said Command and its 183rd Cdo Bn performed the heliborne raids deep into the Sinai. Likewise, the 143rd Cdo Bn (145th Cdo Grp) landed off the game's edge (so only one company is included). The 83rd and 153rd Cdo Bns (136th Cdo Grp) also conducted heliborne raids way south of the play area and surrendered when their supplies ran out.

Para Bdes (128th, 170th, 182nd)—Only the 182nd and 170th saw action in the war as they were sent to stop the Israeli canal crossing. The 182nd was the first GHQ reserve to be released and the 170th followed much later. At the time the para brigades were being renumbered and redesignated. The 182nd Para became the 150th Air Assault Bde, and the 170th Para became the 140th Air Assault Bde. The third brigade, the 128th (160th Air Assault), never saw action.

Army-level Assets—An equal number of independent units were allotted to the Army commands to support their forces. The 1st ATGM Regiment ("Fauj" also described as a "group") with the 648th, 649th, and 650th Battalions and the 3rd ATGM Regiment with the 651st, 652nd, and 653rd Battalions supported the 2nd and 3rd Armies, respectively. According to Dani Asher, they used Sagger mounted BRDM-2s and older AT-1 Snappers which I speculate were mounted on the GAZ-69 light trucks. There were also battalions of WWII-era SU-100 tank destroyers, ISU-152 assault gun/tank destroyers, and T-34s mounting 100mm dual-purpose cannons. These were variously assigned to the infantry divisions and were baked into the formations rather than being shown as independents.

Suez City Militia—Formed from residents of the city that remained after much of the city was abandoned following the Six Day War. Armed with RPGs, the Militia put up a ferocious defense and destroyed numerous tanks and APCs.

Units not shown:

Red Sea Command—This command was located south of the game map and was not called upon to participate in the fighting. Under its command were the following formations: 128th Para Bde (a.k.a. 160th Air Assault), 132nd Cdo Grp, 136th Cdo Grp (formerly 128th), 119th Inf Bde, 212th Inf Bde, 279th Tank Bn, and the 1st Border Guard Regiment stationed south of Ataqa (C29.06) along the coast.

Air Force:

Like the Army, the Egyptian Air Force transitioned from British-dominated equipment to Soviet ones over the course of the 1950s to 1970s. In the Suez Crisis, they flew a mix of Soviet and British aircraft between the MiG-15s, MiG-17s, and iL-28s among the Meteors, Vampires, and handfuls of Sea Furies and Spitfires. By the Six Day War, the Air Force was exclusively flying Soviet and Czech aircraft. The heavy losses among aircraft required new acquisitions. As the Egyptian Air Force used Soviet air doctrine and training, most of its air units were only single-mission capable, and with a few exceptions either air-to-air or ground support. Soviet doctrine established fighter and fighter-bomber squadrons of 12 aircraft each.

MiG-21 "Fishbed"—The predominant aircraft used in the Egyptian Air Force equipped 14 squadrons, with all but one organized into Air Brigades and the remaining as a training unit. Three of the air brigades were dedicated air-to-air formations with 3 squadrons apiece, one was a reconnaissance brigade with 2 MiG-21 squadrons (MiG-21RF, MiG-21FL, and a squadron of Su-7BMKR), and another was a fighter-bomber brigade with 2 squadrons fulfilling a dual role. The recon brigade performed its standard function, then pressed into a combat role later in the war as losses mounted among the MiG-21s.

MiG-17F "Fresco"—These older fighters were re-tasked as fighter-bombers, with only some still dedicated to their original role. Not counting training squadrons, the Egyptians fielded 4 MiG-17F squadrons: one of them in the 111th Fighter Bde and the remaining three in a fighter-bomber brigade.

Su-7/Su-20 "Fitter"—There were 3 Su-7BMK squadrons in one fighter-bomber brigade less the recon squadron noted above, and another trainer squadron. The sole Su-20 Fitter-C squadron was an independent fighter-bomber unit and only committed after the Israelis

crossed the canal. It also covered Combat Air Patrol missions due to high MiG-21 losses.

Hunter—The large No. 66 Squadron was flown by Iraqis under Egyptian Air Force command. It was composed of two Iraqi Air Force squadrons, No. 6 and No. 11, sent over in the spring of 1973 and reportedly highly successful at close air support.

Mirage 5D—These jets were reported as being Libyan and flown by Libyan pilots for Egypt, but they were donated to Egypt in spring 1973 to form the No. 69 Squadron, and Egyptian pilots trained and flew them during the war. The squadron was not deployed until the 4th day of the war and unlike the Israelis, who flew their Mirages solely as air superiority fighters, the Egyptians used theirs primarily as ground attack aircraft but did fly combat air patrol missions to compensate for MiG-21 losses.

L-29 "Maya"—Two squadrons used in attack and fighter-bomber role (there's some nuance between the two) using the Czech aircraft. These were not used as trainers as designed. These squadrons were thrust into service to stop the Israeli penetration west of the canal. As the payload of this light attack aircraft was much less than bigger contemporaries, the two squadrons of 24 aircraft are represented as a Reduced Strength air unit.

Other—Aside from the training squadrons mentioned each with MiG-21s, MiG-17s, and Su-7s, the Egyptians also had a fighter-bomber training unit with MiG-15s and MiG-21s, two transportation brigades containing 5 squadrons of iL-14s, An-2, and An-12BPs, and three helicopter brigades. These helicopter brigades were instrumental in ferrying commandos across the Suez (where they were decimated). They contained 6 squadrons of Mi-8 "Hips" and 3 squadrons of Mi-6 "Hooks." Following the Israeli Suez crossing, surviving Hips were used as impromptu attack aircraft dropping barrel bombs.

The Egyptians also had a tactical bomber squadron of obsolete iL-28s (not used in combat) and three squadrons of Tu-16s in the 403rd Bomber Bde (used sparingly). The Egyptians did launch a limited deep strike mission on the war's opening day using AS-5 Kelt cruise missiles against the Israeli mainland. It did not inflict any damage and its reported purpose was to warn Israel against conducting strikes against each other's civilian populations. No further deep strikes were conducted as the Tu-16s were too vulnerable and the iL-28s were too obsolete to be effective. Egypt also had a limited ability to provide escorts. In addition, the Kelts were only operable from the Tu-16K-11-16s variant equipping only one squadron. As Arab Air Forces did not field long range bombers, they were relegated to air-to-air and close air support.

Air Defenses:

The Egyptians beefed up their air defenses following the disaster of the Six Day War. What resulted was a dense network of SAMs operating under its own branch in the Egyptian Military. It was made up of four air defense divisions and the Red Sea Command, with 24 air defense brigades containing a whopping total of 148 SAM battalions (74x SA-2, 64x SA-3, and 10x SA-6). The most important division was the 8th situated along the Suez Canal and augmented to seven static air defense brigades (95, 97, 98, 105, 106, 107, and 109), containing 48 battalions equipped with SA-2 long range and SA-3 medium range missiles along with two mobile air defense brigades (112 and 116), with all 10 self-propelled SA-6s supporting both field armies. The 8th Air Defense Division was the immediate threat over the battlefield. Overall, the Egyptian Air Defense network did not collapse, but suffered losses through the Israeli offensive after the canal crossing and the encirclement of the 3rd Army.

Order of Battle: Syria

Syria's modern history has been tumultuous and affected its military accordingly. Internal strife with numerous military coups precluded the long-term training needed to produce a professional army until Assad firmly held power. Following a 1954 coup and into the Suez Crisis of 1956, the Syrian Army still only consisted of one armor brigade and one infantry brigade. By the time of the Six Day War, the army was organized curiously. Instead of divisions, there were three brigade groups controlling independent brigades. The Syrian Army was using a hodgepodge of equipment, like modern T-54s, some AMX-13s, but predominantly WWII-era T-34s, SU-100s, and even Panzer IVs and StuG IIIs! With the defeat in 1967, the Soviet influence was complete, sealed with the 1970 coup that placed Hafez Assad into power. The brigade groups were disbanded and in their place were Soviet-type divisions starting in 1968.

Syrian tank divisions, much like their Egyptian counterparts, contained two tank brigades and one mech brigade. At the divisional level, it differed slightly. As far as I was able to discern, the divisions had no recon battalion. The scattered PT-76s and BRDMs seen strewn about in the Golan seemed to be recon elements from the individual brigades—not divisional recon assets. This creates limitations on Syrian formations conducting deep missions. The tank divisions also had an AA regiment and a Sagger mounted BRDM battalion. These wheeled Sagger units proved less effective than the Egyptian man portable Saggers with significantly fewer stories about the Golan effectiveness of ATGMs against Israeli tanks.

Instead of separate mech and infantry divisions, the Syrian Army used heavily mechanized infantry divisions, not unlike Soviet

motorized rifle divisions. They consisted of a tank brigade with T-55s and BTR-50s, a mechanized brigade in BTR-60s, and two infantry brigades mounted in BTR-152s. The infantry has a truck-based movement allowance because the chassis of the BTR-152 was based on the ZIS-151 truck and lacked cross-country capability like half- or fully tracked APCs. Syrian infantry divisions were heavily mech, relying on the tank and mech brigades as their primary attackers, with the infantry hampered by the poor terrain handling of the BTR-152.

To buttress these divisions, two independent tank brigades were assigned, organized the same way as the divisional tank brigades (six battalions each of three tank, one mech, one artillery, and one AA). The last division also received a Moroccan brigade-sized expeditionary force and a detachment from the 3rd Tank Division.

Army:

1st Tank Division (Tawfiq Jehani)—Formed in 1969, it was fully equipped with T-62s and BMPs in its tank brigades. It was elite among its peer divisions. Following initial breakthroughs in the south of the Purple Line, the division was poised to sweep north by Nafah (30.27) and outflank the 7th Armor Bde when it was stopped in part by the 679th Armor Bde. It fought in a pocket around Hushniya (26.23) before being forced to retreat across the Purple Line with much of its forces destroyed. Older sources identified its brigades as the 4th Tank Bde and 2nd Mech Bde (along with the 91st Tank Bde), but the true identities are the 76th and 58th respectively—designations used when it fought Israel again in Lebanon in 1982.

3rd Tank Division (Mustafa Sharba)—Created in 1971, it was to follow up the penetration by the 7th Inf Division which did not occur. Instead, it detached its 81st Tank Bde to the 7th Inf Division while the remainder of the division waited for renewed attacks, culminating in the Battle in the Valley of Tears. As the war switched from Syria attacking to Israel counterattacking towards Damascus, the 3rd Division went on defense until the ceasefire. Older sources put the 20th Tank and 15th Mech Bdes with the division, but the true designations were the 81st and 21st, respectively.

5th Inf Division (Ali Aslan)—The first division formed under the redesign of the Syrian army in 1968, it fought in the border war with Jordan in 1970 (Black September). It was stationed on the southern end of the attack into the Golan Heights in 1973 and achieved the most success among the infantry divisions. The independent 47th Tank Bde was attached, giving it two tank brigades. In all sources, the 12th Tank Bde is listed as the 46th, but there are no records of a 46th in original Syrian sources. It

was upgraded during the War of Attrition from a tank regiment to the 12th Bde. IDF official history maps made after the war list the brigade as 46th, and this error has propagated ever since. In Orders of Battle analyzing the Syrian Army in its current Civil War, the author notes the same 12th Tank Bde still under its 5th Division (now a mech division). The Syrian Ministry of Defense's official history website lists it as the 12th.

7th Inf Division (Omar Abrash then Said Berakdor)—Formed in 1968, the division was stationed to breakthrough north of Quneitra (36.22). Its commander was a graduate of the US Command and General Staff College at Fort Leavenworth but was killed in the early days of fighting. The division failed to penetrate the area around the Valley of Tears over successive days and was attached a tank brigade from the 3rd Tank Division as well as a battalion from Rifaat al-Assad's tank brigade equipped with T-62s. Despite heavy losses, the division fell back and slowed down the Israeli advance into Syria.

9th Inf Division (Hassan Turkmani)—The division was established in 1970. It was missing a mech brigade creating speculation that the independent 62nd Bde was slated for attachment, but I've not been able to prove this was the case. Otherwise, the 43rd Tank Bde (not mech as older sources state) was inherent with the division with the independent 51st Tank Bde attached.

Independent Bdes (62nd, 90th)—The 62nd and 90th Bdes were sent from other parts of Syria when the Israelis penetrated Syria. Numerous sources list the 62nd as mech, but it was plain infantry in 1973. By the time of the 1982 War in Lebanon, it was converted into mech, likely explaining the error. Sources also called out a 30th "Infantry Bde" and 141st "Tank Bde," but the formations with these numbers are an air force brigade and artillery regiment, respectively. Likewise, various sources (such as Razoux) cite an 88th Tank Bde (or Bn), but "88" was originally the 51st Tank Bde, clearing up that confusion.

Assad Force (Rifaat al-Assad)—This special unit was under Hafez Assad's brother, Rifaat, and meant to be an elite and loyal force for protecting the Assad government from internal and external threats. The brigade has been named different things in different sources. One is Republican Guard, but this entity did not come into being until 1976. Eric Hammel in his Duel for the Golan identifies two brigades of the Assad Guard—the 70th and 81st, but these are incorrect as the 70th was an artillery regiment and the 81st belonged to the 3rd Tank Division. Defense companies did exist, formed in 1971 under Rifaat al-Assad, but these were paramilitary company-sized forces, while this brigade was more formally organized as a tank brigade. One battalion was detached

and fought in the Valley of Tears alongside the 81st Tank Bde (hence the confusion of the latter being part of Assad's force). The rest of the brigade deployed to defend Damascus itself.

Commando Group (Ali Haidar)—The commandos were part of the Syrian Army structure, unlike Assad's forces which reported directly to the regime. It consisted of one para battalion, three commando battalions, and one recon battalion. It was tasked to take the important radar outpost on the Israeli side of Mount Hermon. The 82nd Para Bn was the elite of the Syrian Army and its first company air assaulted blocking Israeli outpost entry points while the rest of the battalion arrived on foot. The last two commando battalions were: the 183rd (attached to the 7th Inf Div) and the 99th (off map along the Lebanese coast).

Air Force:

The Syrian Air Force was not as large or diversified in their aircraft inventory as their contemporaries in the south. The Air Force didn't really come into being until the 1960s following a coup, with a handful of obsolete aircraft. Soviet aircraft purchased in that decade were used sparingly in the Six Day War and skirmishes that followed. Increasing in numbers by the Yom Kippur War, the Syrian Air Force was bigger and more modern but still limited.

MiG-21 "Fishbed"—Used in its primary role as fighter-interceptor in 10 combat and 1 training squadrons. The fighter squadrons were organized into at least two air brigades with different variants and numbers of MiG-21s for each squadron (instead of the typical 12).

MiG-17F "Fresco"—Used as fighter-bombers like fellow Soviet-based air forces at the time. MiG-17Fs were organized as one air brigade of 5 squadrons.

Su-20 "Fitter"—While Syria did obtain Su-7s before the war, there's no accounting of their presence in any active combat squadron, despite one squadron being outfitted with 15x Su-20s. Since the Su-20s could be armed with air-to-air missiles for combat air patrol, they might be classed as "multi-role" but were not used as such in the war.

Other—Filling in the rest were the typical helicopters (one air brigade with three Mi-7 squadrons), transport (one squadron with iL-14 and An-12s), and trainers (a mix of Canadian Chipmunks, L-29s, MiG-15s, and MiG-21s, as well as Mi-2 and Mi-4 helicopters in their Air Force Academy).

Air Defenses:

The Syrian Air Defenses were much smaller than the Egyptians, but because of the Golan's smaller footprint, both Fronts fielded almost the same density of SAMs. Unlike the Egyptians which relied heavily on SA-2s and SA-3s, half of the SAMs

used by the Syrians were SA-6s, with three SAM brigades of them and three brigades of the first two types. Concentrated by the Golan Heights were 25 of 36 operational SAM battalions under the command of two groups (split into three for game purposes) headquartered at Sa'sa (49.11) and Sheikh Maskin (13.03). While the SA-6s were mobile, they were deployed almost like static batteries, displacing locally to avoid SEAD strikes.

Virtually nothing has been written comparing Syrian SAMs to the Egyptian SAMs, but the Israelis took the threat seriously with Operation Doogman 5 (Model 5) on 7 Oct that completely shifted gears from the morning Operation Tagar against Egyptian targets. The Israelis lost a number of aircraft in Doogman against the Syrian SAMs—their first bloody nose (among many) dealing with the combined Arab SAM networks.

Order of Battle: Iraq

The Iraqi Army began under British rule after the Ottoman Empire's fall. Their military was influenced by the British, continuing even when the primary importer of arms became the Soviet Union. Iraq sent expeditionary forces to neighboring countries in all the Arab-Israeli Wars: 1948, 1956, 1967, and 1973, seeing action in only the bookend wars.

In 1973, two Iraqi armor divisions were sent to Syria. They were organized similarly to Egyptian and Syrian tank divisions with two armor and one mech brigades, each with 3:1 or 1:3 ratios of tank to infantry battalions, respectively. Interestingly, there were no real divisional assets; the Iraqis arrived piecemeal with a limited ability to counterattack with full formations.

The interesting thing to note was that the armor battalions in the armor brigades were named after famous personalities and battles in Arab history. Other battalions were only numbered.

Army:

3rd Armor Division (Mohammed Fathi)—The 3rd Division was one of the four original divisions stemming back from before WWII. Sometime after the War of Independence, it was converted from infantry to an armor division, sent to Jordan in 1967, and then to Syria in 1973. An advanced detachment was sent first from the 12th Armor Bde (one of the foremost units in the Iraqi Army). This detachment consisted of two of the 12th's tank battalions and two mech battalions. The rest of the division arrived later. Following its failed counterattacks on the Israeli salient, it was attached to other reinforcing Iraqi brigades.

6th Tank Division (?)—Formed in 1959 and converted into an armor divison by the time it was committed to Syria in 1973. It arrived too late to join the fighting.

Independent Brigades (20ᵗʰ Inf, 5ᵗʰ Mountain, and Special Forces Brigades)—The 20ᵗʰ Inf Bde was detached from the 5ᵗʰ Inf Division and slated to convert to mech but arrived in Syria via trucks instead, and attached to the 3ʳᵈ Armor Division. The 5ᵗʰ Mountain Bde was from the 4ᵗʰ Inf Division and on arrival, it was placed under the Syrian 3ʳᵈ Tank Division and fought on the Syrian side of Mount Hermon. The Special Forces brigade contained three commando battalions and a para battalion—the elite of the Iraqi army. It was meant to conduct ambushes and raids against Israeli forces. On arrival, it was assigned to the Iraqi 3ʳᵈ Division.

Air Force:

Beyond sending their ground attack Hunters to Egypt, the Iraqis sent the bulk of their remaining combat squadrons to assist Syria. Like Egypt and Syria, their air force was composed primarily of Soviet aircraft in their combat units, and mixed Western and Soviet/Warsaw Pact aircraft in support and training units.

MiG-21 "Fishbed"—Two squadrons of MiG-21s were sent to Syria, with a third remaining in Iraq. The No. 9 Squadron was deployed to Syria on 7 October and the No. 11 Squadron on 12 October. For game purposes, they arrive on the same date to represent them as a full "squadron."

MiG-17F "Fresco"—The No. 7 Squadron was the sole MiG-17 unit in the Iraqi Air Force. Its usual primary mission was close air support but ended up flying combat air patrol missions over Syria.

Su-7 "Fitter"—No. 1 Squadron was deployed to Damascus on 8 October and the No. 5 Squadron to Bley on the same day. No. 8 Squadron arrived the following day to Dmeyr.

Order of Battle: Minor Arab Forces

Jordan:

Jordan maintained a strong military tradition stemming from the Transjordanian Arab Legion under John Glubb from the beginning of WWII to 1956. It dismissed British officers in the Arabization of the Jordanian Army and began expanding the army, but remained heavily under British influence in doctrine, organization, and equipment. During the army's expansion, the quality of its units started to separate between the well-respected armor (40ᵗʰ and 60ᵗʰ) and some of its infantry brigades. By the Six Day War, it consisted of two armor, one mech, and nine infantry brigades without divisional commands. Following the war, divisions were created, and the surviving brigades were assigned to them. Their

armor forces doubled in size with the 92ⁿᵈ and 99ᵗʰ Bdes. One their armor divisions was sent piecemeal to Syria in 1973.

Jordanian 3rd Armor Division (Alawi Jarrad)—Formed around 1970, the division consisted of only two armor brigades with no combat support (engineers, artillery, etc.) at the division level. Instead, the brigades contained an artillery regiment and engineer regiment (using the British equivalent of a battalion). The armor brigades contained two battalions armed with 105mm Centurions and one mech battalion using M113s. The 40ᵗʰ Armor Bde was considered "elite," but its performance was not stellar. This was attributed to muddled inter-Arab coordination, its commander's mediocre performance, and half-hearted tactics. It did organize its forces into tank-infantry task forces, but its combined-arms performance was poor. While each brigade had artillery which should total two Arty Points, the HQ counter has only one as it arrived late and was ineffective.

Palestinian Liberation Army:

The Palestinian Liberation Army (PLA) is the military arm of the Palestine Liberation Organization but not directly controlled by the latter. Its units were sponsored, armed, and commanded by Arab nations, with the organization formalized instead of being a paramilitary force. By 1973, four PLA brigades were operational—Ain Jallut located in Egypt, al-Hittin and al-Qadisiyah in Syria, with the Yarmuk or Zaid bin Haritha either in Syria or Jordan (sources are uncertain). The al-Hittin brigade was trained as commandos and assigned two battalions to Syrian divisions. The other battalion was inserted as a raider behind enemy lines in the first two days of the war. The Khalid ibn al-Walid battalion (probably independent) also airlifted behind enemy lines on 9 Oct. The two battalion al-Qadisiyah brigade was stationed deeper in Syria and wasn't committed to the main fighting.

Morocco:

The Royal Moroccan Army was created in 1956 after the French departure. Its Expeditionary Force was sent to Syria. Moroccan structure consisted of a regiment (Fauj) made up of five infantry companies. The tank battalion was formed after the Expeditionary Force arrived using Syrian stocks. The Moroccans were attached to the Syrian 7ᵗʰ Inf Division.

Another Moroccan force—described as a "motorized brigade"—arrived in Egypt after the war. Its composition has proven impossible to determine, but as the number of personnel was the same in the force sent to each front, I assumed it was based on an infantry regiment. A company

of Moroccan AMX-13s was cited as being sent to Egypt during the war and was included.

Smaller Allies:

Other nations sent forces to Syria or Egypt from before the war to after the ceasefire. They ranged in size, type, and quality and these forces, in general, did not engage the Israelis.

Saudi Arabia—The King Abdulaziz Brigade was part of the Saudi Arabian National Guard, a separate branch of the military than the regular army. It was small, consisting of a mixed Panhard AML-90 Armored Car and Panhard M3 APC, Para, and 105mm artillery "regiments" (battalions). The Armored Cars engaged Israeli tanks in the salient battles.

Kuwait—A battalion from the Yarmuk Brigade was sent to Egypt before the war to help defend a section of the west bank of the canal alongside the PLA Ain-Jallut Brigade. An ad hoc command named al-Jahra was sent to the Golan, made up of a tank battalion armed with the limited production Vickers MBT tank, a mech battalion equipped with Saracen APCs, and a company from the 25ᵗʰ Cdo Bde. As the designations were unknown, I decided to designate them after the British vehicles used.

Algeria—The Algerian People's National Army sent a tank brigade consisting of three tank battalions (T-54/55s) and a mech battalion. Their air force sent a contingent of combat aircraft. It is interesting that their MiG-21 and MiG-17 flipped roles as fighter-bombers and fighters. The MiG-17 squadron was quite large with 23 aircraft, but because its capabilities were less than either F-4s or MiG-21s, it is shown reduced.

Libya—While the Libyans have been listed in many sources as a tank brigade, they were a mech brigade. While its exact composition is unknown, it used T-55s and a mix of APCs including M113s, BMP-1s, OT-62s, and/or BTR-40s.

Tunisia—An infantry battalion was sent to help defend Port Said. There were complaints over the quality of the troops, hence their low action rating.

Sudanese—The Sudanese government sent a composite brigade which arrived after the ceasefire. It consisted of paratroopers, infantry, and military police along with a tank company. As it did not fight in the war and scant information exists on it as well as when it exactly arrived, I decided to omit them from the Order of Battle.

Uganda—Not to be outdone, Idi Amin promised 2000 volunteers from his army for Syria and Egypt. This led to many desertions. As its arrival to Egypt was unknown and it certainly did not participate in the fighting, the units have been omitted. Amin and the Israelis crossed paths again in Entebbe in 1976.

North Korea—When I first heard of North Korean MiG-21s in Egypt during the Yom Kippur War, I thought it was like the reports of Soviet pilots flying in Egyptian fighters. Soviet pilots

were flying MiG-21s in Egypt, yet only during the War of Attrition culminating with Operation Rimon 20 on 30 Jul 1970. They were withdrawn following Sadat's order to expel Soviets from Egypt in 1972. For the North Koreans, they did operate a squadron of MiG-21s out of Bir Arida in southern Egypt. There are unconfirmed reports of a brief engagement involving North Koreans over Port Said, but because the action had no direct impact (likely just patrolling a sector off map), the unit was not included. The first recorded engagement between North Koreans and Israelis occurred on 6 Dec 73. The engagement was between Phantoms and North Korean MiG-21s along with Moroccan F-5s.

Cuba—There are references to a Cuban tank brigade being sent to Syria after the ceasefire and skirmishing with Israelis until they finally departed in 1975. One report said they departed Cuba in November 1973, certainly making them too late to participate. The Cuban Defense Ministry website notes a tank regiment was formed and sent to Syria, attached to the Syrian 47th Tank Bde. Another source notes that some tanks were crewed by both Cubans and Syrians. It seems this was not a standalone formation but rather a collection of trained tank crewmen assigned as needed (i.e., AV Replacements).

Armor in 1973

As *BCS* steps into post-WWII warfare, it shows a leap in armor's lethality, which is an evolutionary outcome of WWII developments. The 1940s medium tank morphed into the Main Battle Tank (MBT), which offered increased firepower and better armor protection without sacrificing mobility, the trifecta of tank characteristics. Light Tanks still existed but were allotted specialized roles (like the amphibious PT-76). Heavy Tank development continued after the war—like the T-10—but development and production were severely curtailed and eventually phased out in favor of the MBT.

The most powerful tanks in the 1973 war were the Israeli Sho't Kals (upgraded British Centurion), Sho't Meteors (Centurions with their original gas engine), Magach 3 (American M48), Magach 6 (American M60), and Tiran-4/5 (captured—and upgraded—T-54's or 55's, respectively). All were armed with the excellent British-designed 105mm rifled L7 gun. These were the frontline tanks found in all armor brigades. The Israelis did not like the original Centurion (Sho't Meteor) as it was underpowered and slow. The IDF implemented a program to upgrade all their Centurions to the Sho't Kal standard, but two brigades were still armed with the original Centurions when the war broke out.

Mech infantry brigades used upgraded Shermans (except the 204th Mech Bde). The M-51 was an upgraded Sherman with a French 105mm gun (derived from those used by AMX-30 MBT

with a shorter barrel), and the M-50 mounted a high velocity 75mm gun (the same one used on the AMX-13). These tanks were never called Super Shermans. That moniker was used for the M4A1 76mm with HVSS (no modifications from WWII) and was designated as the M1 Super Sherman.

The tanks used in each division are interesting. Sharon's division only used the Magach, Adan's division used Sho't Kals (the Armor School's 460th Bde used both Centurions and Pattons), and Mandler's division operated both types of tanks. In the Golan, all tanks in the armor brigades were Centurions as the suspension system of the American M48 and M60 was not deemed suitable for the Golan's rocky terrain. Yet WWII-era Shermans fought in the Golan. The Golan also fielded the Meteor engine-equipped Centurions, likely because of their short range and engine service life with respect to their proximity to bases in Israel.

The predominance of one tank type per division eased the supply and repair chain. The Israelis did an excellent job repairing damaged tanks. Of 1063 Israeli tanks damaged in the war, 407 of them were complete losses (365 in the Sinai and 42 in the Golan) and among them 243 remained in enemy-controlled territory. 820 or more damaged tanks were recovered and repaired within 24 hours, and 164 of them were deemed irreparable (plus the 243 in enemy hands totals the 407 complete losses). This means that the Israelis repaired 656 tanks during the war—frequently within 24 hours—and manning them with surviving crew members and replacements, returned them to the fighting.

Playing second fiddle to the Israeli MBTs were the infantry's APCs—predominantly American halftracks. All halftrack models used by the American Army in WWII were used—M2, M3, M5, and M9, but universally designated M3. As these vehicles were nearing the end of their lifespan, their reliability was wanting, thus shown as a slow 14 MA rather than the 16 MA of their WWII counterparts. This slows the halftracks and shows their inability to keep up with the modern MBTs. There were modern M113s but not enough to go around. Only the 75th Mech Bn and divisional recon units contained enough M113s to warrant a 16 MA and hard yellow on their move side.

Israel made extensive use of captured Arab equipment as seen with the Tirans and PT-76s. This extended to transportation as well, where several hundred BTR-152s were used by the IDF. Likewise, captured BTR-50s were used alongside the PT-76s for their amphibious capability.

For the Arabs, the only tank on par with the Israeli MBTs was the T-62. There were only enough to equip two independent Egyptian brigades and a Syrian tank division as well as a Syrian tank brigade. The rest of the Egyptian, Syrian, Iraqi, Algerian, Moroccan, and Libyan units used the ubiquitous T-54s and T-55s. The

T-62 was mainly an updated T-54/55, as the three share nearly identical armor thickness profiles. The former is distinguished by its smoothbore 115mm, which gives it the +1 AV advantage over its predecessor. The T-54 and T-55 are effectively the same tank with identical AV and MA values. While the T-54/55 suffers from being less effective than T-62s, they make up for it in numbers.

Unlike the upgraded Sherman finding new life after WWII, the T-34/85 soldiered on in Egyptian infantry formations directly supporting their infantry brigade, though woefully obsolete against modern tanks. The Egyptians modified two battalions worth of T-34s with the T-54/55's 100mm gun as a self-propelled anti-tank platform. The Syrians likewise modified some to mount a 122mm howitzer used as indirect artillery. Also from WWII were the Egyptian ISU-152s, and the Egyptian and Syrian SU-100s.

Rounding out the Arab tanks was the PT-76 but they were not used in major recon units as expected. Rather they were found in small numbers in recon and amphibious units. The Jordanians bucked the trend of using Soviet tanks, choosing the Centurion because of Jordan's long British connection. The Centurions mounted the 105mm gun like the Israelis but did not upgrade their engines (like the Sho't Meteor). The Kuwaitis likewise used British tanks with the curious (export only) Vickers MBT. The Moroccan AMX-13s arriving in Egypt are interesting in that they were ex-Israeli when the IDF was selling off obsolete stocks. The Saudis did not send any tanks to Syria but instead sent French Armored Cars, armed with 90mm in the form of the AML-90.

BMPs and Saggers were a challenge to model. While at first glance they would be considered Stand Off AVs, their use—or in some cases, misuse—didn't warrant such a universal status. The Egyptian use of Leg based Saggers warranted Stand Off ability. The self-propelled mounts on BRDMs for both Saggers and the older Snappers were less of a long-range threat as they were more difficult to conceal, thus better shown as Limited AV. The BMP-1 proved particularly a challenge, being the first full-production Infantry Fighting Vehicle: it was neither a full tank, nor "just" an APC. Different rules were tested with how Israeli armor did against them, before finally settling on them being Red AV, but with an AV reduced by one to show the BMP's limitations as an ATGM platform (the 73mm serving as the missile's rail mount did not have sophisticated firing and aiming systems).

The tank battalions of Arab infantry divisions are all represented as Support-only units. Egyptian infantry divisions (except for the 16th) were equipped with two T-34 tank battalions per infantry brigade as well as one mech brigade equipped with T-54/55s, forming tank support of a 5 Red AV. Those with only T-54/55s give a 7 Red AV, and the Port Said Command which only had T-34/85s is a 4 Red AV.

Most tank battalions have only 3 steps. This is because they were small by NATO standards. Tank companies were based on 10 (Arab) or 11 (Israeli) tanks with three companies per battalion, therefore giving a theoretical strength from 31 to 36 tanks (including HQ vehicles) per battalion. Often, these were under-strength and some Israeli tank battalions had less than 25 runners even before enemy contact. As is common in the IDF, standards varied greatly as some battalions had four companies while the Armor School's 196th Arm Bn had six (!) (two of them split off to form the Lapidot Force).

Aircraft in 1973

Valley of Tears is unique among other *BCS* games in representing aircraft and air units. Yet as cool as seeing iconic aircraft like F-4 Phantoms and MiG-21 Fishbeds, the more granular characteristics of each aircraft are not explicitly shown. Factors such as speed, payload, maneuverability, and pilot training are subsumed into each Air Unit.

Full-strength Israeli air units represent 12 aircraft while Arab air units are twice that number. This implies that the IAF was 'twice' as good as the collective Arab Air Forces. By my analysis, the results support this conclusion.

The Israelis flew some 11,820 sorties during the war. With 311 aircraft starting on 6 Oct 1973, that's an average of 38 sorties per aircraft. The Arabs flew an estimated 10,500 sorties with roughly 624 operational aircraft, for an average of 16.8 sorties per aircraft. The ratio is 2.25:1 in favor of the IAF. It's important to note that while the Israelis used half the aircraft as the Arabs, they flew **more** sorties, a testament to their ground crews' quicker turnaround rates and better mission planning.

The Israelis lost 109 total aircraft, 103 of them fixed wing. The Arab losses were reported as 350 aircraft, a whopping 3.2:1 ratio.

I calculated the total bomb load (by weight) of all the aircraft on average. The Israelis had the capacity to carry 2.5 million pounds of bombs (16,000 lbs. for Phantoms, 8,000 lbs. for A-4, 2,000 lbs. for Sa'ars multiplied by the starting number of usable aircraft) and the Arabs roughly 1 million pounds of bombs, for a 2.5:1 ratio.

So as much as the Arabs outnumbered the Israelis nearly 2:1, these factors of sortie rate, combat losses, and payload capacity counterbalance that. This allows the number of air units used in missions to depict characteristics, quality, and quantity all in one.

The aircraft here are a mix of obsolete second-generation aircraft as well as the leading edge third-generation. While sources vary about the definitions between these generations—such as the MiG-21 either being a late-second or early-third-generation fighter—all these aircraft mostly fall between these two categories.

The state of the art third-generation fighter was the F-4 Phantom—a big, powerful, multirole fighter-bomber. It was already proven in the Vietnam War and the Israelis received theirs in 1969, during the War of Attrition. They served as heavy fighter-bombers able to conduct any game mission. The "little brother" carrying a solid payload was the A-4 Skyhawk, which first arrived in Israel in 1968. The Skyhawks served as light attack aircraft except for the upgraded A-4N variant. The F-4 and A-4s replaced the obsolete Ouragan, Mystère IV, and Vautour second-generation fighters used in the Six Day War and were completely retired before the Yom Kippur War, as the IAF shifted from French to American aircraft. Yet the stalwart Mirage III (being advanced second-generation) remained active and became the IAF's primary air superiority fighter. The newer Nesher, a domestically produced version of the Mirage 5 due to France's arms embargo in 1968, served alongside the Mirages. Lastly was the upgraded Super Mystère in the form of the Sa'ar.

The Mirage 5D was the most advanced Arab fighter but used exclusively by the Egyptians after transferring from the Libyan Air Force. Like many Arab aircraft and pilot training, these Mirages

Specific tank types in VoT and their values

Nationality Vehicle	AV	Range Deployed	Deployed / Move MA	Special Notation	Notes: (AV is Red if not listed)
Israeli:					
Sho't Kal	8	2	4/16	C	-1 AV for companies
Sho't Meteor	8	2	3/12	C	
Magach 3/6	8	2	4/16	M	
Tiran 4/5	8	2	4/16	T	
M-50/M-51	7	1	4/14	S	Shermans
Arab:					
T-62	8	2	4/16		
T-54/T-55	7	2	4/16		
T-34/85	4	1	5/16		
SU-100	5	2	4/16	SU	Move side Limited AV
ISU-152	6	1	3/12	ISU	Breakthrough, Move side Limited AV
T-34/100	6	2	4/16	T100	Limited AV
Centurion	8	2	3/12	C	Mk 5 Centurion, Jordanian
Vickers	7	2	5/16		Mk 1 Vickers, Kuwaiti
AMX-13	5	2	5/16		Moroccan
AML-90	6	2	6/16		Dual, Saudi
BMP-1	8	2	16	Red Oval	MA is Move side
AT-3 Sagger	9	2	-		Stand Off AV
BRDM-2 (Sagger)	9	2	6/16		Limited AV, AT-3 Sagger mounted
BRDM-1 (Snapper)	8	2	6/16		Limited AV, AT-1 Snapper mounted
M1944 (BS-3)	5	1	-		100mm AT Gun
BTR	0	1	6/16		Light AV, various models (50, 60, 152)
Both sides:					
PT-76	4	1	8/16		

were primarily tasked with one role (in this case, as a fighter-bomber) but did in some cases also conduct air superiority missions. The only other Western European aircraft was the British F.Mk 59A /59B Hunters used by the Iraqis on the Sinai front, serving solely as close air support.

Otherwise, Arabs used Soviet made aircraft as well as tanks. The MiG-21 made up the largest number of aircraft and used almost always for air superiority. There were numerous sub-variants of the MiG-21, with the Arabs using F-13, PFS, PFM, RF, and MF variants. The corresponding NATO designations were: Fishbed-C, -F (for both the PFS and PFM), -H, and -J, respectively. While each variant is different, for game purposes "a Fishbed is a Fishbed." MiG-21s were already in Arab service during the Six Day War and replacements were purchased following the heavy losses from Operation Moked. The MiG-21 replaced the obsolete earlier generation MiG-17s (sources place them from first to third-generation) which originally served as air superiority fighters in the 1950s. While used ably by the North Vietnamese against Phantoms, the MiG-17Fs (Fresco-C) were relegated to serve as ground attack aircraft in the Yom Kippur War, except for a minority tasked with air superiority. Along with the MiGs were Sukhoi Su-7BMK (Fitter-A) and Su-20 (Fitter-C). The former was a failed interceptor and readapted as a fighter-bomber. They served this role poorly because of their small payload capacity. The Su-20 was the export variant of the Su-17 with improved avionics and variable-sweep wings—cementing itself as a third-generation fighter along with F-14s, F-111s, and MiG-23s just coming into service—but were too few to create an appreciable difference. The Su-20's improvements allowed it some multirole capability. The Czech L-29 was designed as a trainer/light attack aircraft which the Egyptians used for ground attack. Egyptian training squadrons actually flew "U" variants of MiG-15s, -17s, -21s, and Su-7s. Note that the MiG-19 is not present as they were not purchased in large numbers by the Egyptian and Syrian Air Forces after its teething problems and losses sustained from the Six Day War, with all retired by 1973.

Soviet Aircraft Suffixes

11	*KSR-11 Missile System* (Anti-Radar variant of AS-5 Kelt)
13	*K-13 Missile System* (AA-2 Atoll)
16	*KSR-2 Missile System* (AS-5 Kelt)
B	*Bombardirovshchik* (Bomber)
F	*Forsirovannyy* (Uprated)
K	*Komer Chenyi* (Commercial/Export Variant)
L	*Lokator* (Radar)
M	*Modernizirovannyy* (Modernized)
P	*Perekhvatchik* (Interceptor)
R	*Razuznavatelen* (Reconnaissance)
S	*Sduv Pogranichnovo Sloya* (Boundary Layer Blowing)
U	*Uchebnyy* (Training)

Air Unit Historical Identification

This is a list of all Air Unit organizations. Air Units not listed as reinforcements were available on 6 Oct.

Israel:

Squadron	Flights	Equipment	Notes
69	a, b	F-4E	Reinforcement: 7 Oct
101	a	Mirage IIICJ	
	b	Nesher	
102	a, b	A-4H	
105	a, b	Sa'ar	
107	a, b	F-4E	
109	a, b	A-4H	
110	a, b	A-4E	
113	a, b	Nesher	
115	a, b	A-4N	Reinforcement: 7 Oct
116	a, b	A-4E	Reinforcement: 7 Oct
117	a, b	Mirage IIICJ	
144	a, b	Nesher	
119	a, b	F-4E	
201	a, b	F-4E	Reinforcement: 7 Oct

Egypt:

Brigade	Squadrons	Equipment	Notes
102	25+26	MiG-21F-13	
102	27	MiG-21MF	Reduced Strength
104	42+46	MiG-21MF	
104	44	MiG-21PFS	Reduced Strength
111	45+47	MiG-21PFS	
111	49	MiG-21MF	Reduced Strength
111	72	MiG-17F	A/S, Reduced Strength
123	22	MiG-21RF	Reduced Strength, Reinforcement: 18 Oct
203	56+82	MiG-21MF	A/S and CAS
205	51+52	Su-7BMK	
205	53	Su-7BMK	Reduced Strength
306	61+62	MiG-17F	
306	89	MiG-17F	Reduced Strength
-	6+16	L-29	Reduced Strength, Reinforcement: 18 Oct
-	55	Su-20	Reduced Strength, Reinforcement: 18 Oct
-	66	Hunter	Iraqi crews under Egyptian control. Reinforcement: 8 Oct
-	69	Mirage 5D	Reinforcement: 9 Oct

Syria:

Brigade	Squadrons	Equipment	Notes
7	1+2, 5+15	MiG-17F	
7	18	MiG-17F	Reduced Strength
17	54	Su-20	Reduced Strength
30	8+10, 11+12	MiG-21MF	
-	5+7	MiG-21PFS	
-	9+67	MiG-21PFM	
-	68+77	MiG-21F-13	

Iraq:

Brigade	Squadrons	Equipment	Notes
-	1+5	Su-7BMK	Reinforcement: 8 Oct
-	7	MiG-17F	Reinforcement: 9 Oct, Reduced Strength
-	8	Su-7BMK	Reinforcement: 9 Oct, Reduced Strength
-	9+11	MiG-21PFM	Reinforcement: 7 Oct

Algeria:

Brigade	Squadrons	Equipment	Notes
-	23	MiG-21MF	Reinforcement: 14 Oct, Reduced Strength
-	17	MiG-17F	Reinforcement: 14 Oct, Reduced Strength
-	21	Su-7BMK	Reinforcement: 14 Oct, Reduced Strength

Map Research

The maps were based on the official IDF maps used in the war. The Sinai map was codenamed "Sirius" (סיריוס) and the Golan was codenamed "Refresh" or "Raanan" (רענן). These maps proved invaluable to provide an accurate picture of the battle areas. Most important to me were the locations and naming of all the Defensive Zones in the Sinai and volcanic Tel in the Golan. As noted in 1.1c, the Defensive Zones (variously called "Terrain Features," "Objectives," or "Hills" in books) were critical features that dotted the Sinai Front. The outline of the Defensive Zones showed the general shape of the features which Dean and I kept for historical interest, while the hill terrain was drawn on the map for the actual Terrain Effects. They featured prominently on the Sirius maps and locations like Missouri (B25.15) and Hamutal (B28.20) became hotly contested objectives for both sides. Likewise, Tel (which translates as "Hill") is unique in the Golan as they are extinct volcanoes or formed from them. They ranged in size from small outcrops (e.g., Tel Saki) to large mountains (e.g., Tel Abu Nida). For the smaller Tel, these were depicted as hill terrain as they were small with respect to the hex area, but significant enough to provide the same defensive and line of sight terrain characteristics as Defensive Zones, while still being easy to traverse through. The larger Tel (like Tel Shams or Tel Abu Hanzir) are rough terrain, while the largest (Bental and Avital) are true mountain terrain as they were impassable to vehicles.

The use of the IDF maps also helped confirm the locations of the Syrian strongpoints and the Anti-Tank Ditch. Various sources note built up areas where the Syrians offered stout resistance when the Israelis launched their counteroffensive across the Purple Line, but exactly where was elusive. The trick is that the IDF maps showed in detail Syrian fieldworks, gun emplacements, individual tanks, etc. Yet these pre-war encampments and depots were largely vacated after 6 Oct. Locations used for defense during a withdrawal across the Purple Line and behind minefields were clearly identified on the Refresh map. They made sense as they were strung out along the main "America" route from Quneitra to Damascus. The maps also gave useful information on the Anti-Tank Ditch. Contrary to numerous books and games, the ditch did not run continuously along the DMZ, but rather only between rough terrain areas and ended at the southernmost Fort 116 before intersecting the Rokad stream. It was only dug where tanks could easily cross the DMZ. I will say without hesitation that the maps in **Valley of Tears** are the most accurate depiction of the area fought over in the Yom Kippur War ever made available, all thanks to finding the Sirius and Refresh high-resolution map scans.

The location of the Lajat fields proved difficult, even with the IDF maps. There was no distinct terrain identifying the lava fields among the brown contour lines and tiny circles which I took as rocky terrain (the terrain key is cut off in the scanned maps). I relied on several external maps showing the Lajat areas, and they all overlapped around the same areas around Sa'sa where accounts of the difficult terrain are noted in sources. There are even larger Lajat fields east off the map.

The names used for locations and roads are a mix of translations (e.g. "America") and transliterations (e.g. "Miklaat" Hebrew for "slingshot"). There is a large variation of spellings for transliterated words; for example, Quneitra (36.22 on the Golan map) is spelled Kuneitra, Al Qunaitra, Al Qunaytirah, or Qunaitira in various sources. I wanted each map to be consistent. For the Golan map, I used the spellings used in **Inside Israel's Northern Command**. For the Sinai maps, I used the spelling used in **On the Banks of the Suez**. Doing this allows direct references to the recommended reading for their respective fronts. Where those two books did not include terrain features that appear on the Sirius and Refresh maps, I used my own spelling to the best of my ability. I chose not to use spellings provided in Wikipedia or Google Maps (or the Chrome Browser translation) just in case the modern names were potentially changed since 1973. In addition, some features, like the Defensive Zones, are not listed on the internet.

Super Special Thanks

Cliff Churgin—A wargaming expat tour guide living in Jerusalem, Cliff reached out to me on BoardGameGeek when he found out my wife and I were interested in visiting the Golan Heights in 2014. His friend Renee guided us through Jerusalem for the first few days we were in Israel, including Ammunition Hill which featured prominently in the Six Day War. We met Cliff at the Tayelet Haas Promenade in Jerusalem, near the 1967 DMZ between Israeli and Jordan and the scene of heavy fighting. Cliff immediately quizzed me to explain the origins of the Six Day War to my wife, to whom he cautiously gave me a grade of C-. We ate dinner at his house where I immediately made an impression on his youngest son as Cliff showed him my name on the credits of **The Devil's Cauldron**. A few days later, Cliff and his wonderful wife, Linda, met up with us in Haifa for a day trip to the Golan Heights. I'm indebted to Cliff and Linda for their kindness. As a thank you, I sent Cliff a copy of the recently released *OCS* **Reluctant Enemies**.

Pesach Malovany—Pesach, a retired Colonel in the IDF, is a senior intelligence analyst and author of numerous books and articles. I asked Cliff for help in buying Pesach's book on the Syrian Army in Hebrew. Little did I expect that Cliff would put me in contact with the author himself! Over several months, Pesach and I exchanged research on the Arab Orders of Battle, notoriously difficult to research and still incomplete. Pesach relied on captured IDF material which he shared with me. I shared my research from public sources (some Arab sites that he was unable to access). We discussed differences in our material and speculated on the gaps that still exist in the Order of Battle in the Yom Kippur War. I thought I was out of my league trying to commensurate with a former IDF officer specializing in Arab militaries, but he was impressed enough to note, "As one who has no background in military subjects and especially in military intelligence, I can say that you did quite a good job."

Stu Kohn—A fellow native New Yorker with an insatiable thirst for IDF Order of Battle research, we met on the now-defunct WW1, WW2, and Modern TO&Es Yahoo Group. We collaborated and exchanged information on the IDF and contacted each other whenever a new book on the Yom Kippur War came out. It's nice to work with someone else with the same passion and almost-crazed nature in trying to find obscure information about the difficult to research Israeli Defense Force.

Recommended Reading

Rabinovich, Abraham. *The Yom Kippur War: The Epic Encounter That Transformed the Middle East. Revised and Updated Edition.* 2017.

Rabinovich provides a collection of personal accounts retelling the history, including both military and political matters. Mostly told from the Israeli angle, the personal stories give a human face to the war. This book is highly recommended for a single volume source of the war on the military as well as political coverage. Be sure to get the Revised and Updated Edition which includes updates based on new findings by the author since the original edition was published in 2004.

Adan, Avraham. *On the Banks of the Suez: An Israeli General's Personal Account of the Yom Kippur War.* 1980.

This book is an excellent account from one of Israel's division commanders during the war and one of my personal favorites on the war. This gives a boots-on-the-ground view of the fighting and the personnel and personal losses he endured. As the former Armor Corps commander, his analysis of the IDF's strengths and weaknesses is very earnest.

Asher, Dani. *Inside Israel's Northern Command: The Yom Kippur War on the Syrian Border.* 2016.

Hands down the best source on the Golan Heights front of the war. Detailed and using the latest information available, this book replaces the outdated Asher and Hammel's *Duel for the Golan*.

Bibliography
General (in addition to the Recommended Reading):

Cordesman, Anthony H. and Wagner, Abraham. *The Lessons of Modern War, Volume I: The Arab-Israeli Conflicts, 1973-1989.* 1990.

> The second chapter provides a historical overview as well as charts and analyses on various Yom Kippur War matters. It's a balanced viewpoint and useful from the numbers and statistics perspective.

Ezov, Amiram. *Crossing Suez, 1973: A New Point of View.* 2016.

> A comprehensive look at the crossing operation. Originally written in Hebrew as **Success: 60 Hours in 1973.**

Friends of the Yom Kippur War Center. *The Yom Kippur War Center.* http://kippur-center.org.

> This is a non-profit organization whose goal is to build a memorial and research center in Israel. The website (in Hebrew, the English site is limited) makes available hundreds of original documents. The most useful were high resolution scans of the original IDF maps of the Sinai and Golan used in the war.

IDF Publishing House. *Maarachot.* http://maarachot.idf.il/. (in Hebrew)

> IDF's official bimonthly journal with numerous articles published on the Yom Kippur War following the war. The topics include brief histories of specific actions from both Israeli and Arab perspectives.

Israeli Defense Force. *Atlas of the Yom Kippur War* (in Hebrew)

> The official situation maps for the IDF showing daily positions on both the Golan and Sinai Fronts. These are not the coded maps used by the IDF in the war but a publication made in 1983, the source maps for numerous later books. The full Atlas has only just been made available digitally in 2020.

Military History Stage: Yom Kippur War Section. http://www.mh-stage.com/?cat=4. (in Hebrew)

> Described as "a virtual meeting place for anyone interested in or engaged in military history and with an emphasis on Israel," with dozens of useful articles on the Yom Kippur War.

Razoux, Pierre. *La Guerre Israélo-Arabe d'Octobre 1973: une nouvelle donne militaire au Proche-Orient.* 1999. (in French)

> Razoux is a French historian with a particular specialty in Middle Eastern affairs. His book contains good insight but has been eclipsed by more recent works.

SteelBeasts.com: The Official Fan Site. http://steelbeasts.com.

> Two Threads, "Golan Heights revised" and "Suez Canal 1973 war maps" contain postings by the user "Iarmor" on the respective fronts including original Israeli maps. The narrative is detailed but is uncited.

Category: Yom Kippur War on Hebrew Wikipedia. https://he.wikipedia.org/wiki/הירוגטק: מלחמת_םוי_היכיפורים. (in Hebrew)

> Yes, a Wikipedia site. As much as I will deride Wikipedia for use in research, there is good information available publicly in native languages and not available on the English Wikipedia site. In the case of Israeli and Arab topics on the Yom Kippur War, there is a great deal of information written including some detailed unit histories. To be sure, these are all properly cited (with numerous referencing sources). Sadly, the Wikipedia in Arabic does not offer as much depth as the Hebrew one offers on Yom Kippur War topics.

Arab Armies:

Asher, Dani. *The Egyptian Strategy for the Yom Kippur War: An Analysis.* 2009.

> This book is a revelation and goes deeper into the Egyptian planning and strategy than Shazly's memoirs. There is great information on the hardware and tactics for the bridging, artillery, anti-tank, commando and other special troops available to the Egyptians. The author was in Israeli intelligence and much of the information is from declassified Egyptian documents captured during the war.

Bermudez, Joseph S Jr. "The Egyptian 130th Amphibious Brigade." *The Marine Corps Gazette.* June 1995.

> This article is an in-depth look at the formation and use of the mech amphibious brigade that crossed the Great Bitter Lake by a renowned military analyst.

Defense Intelligence Agency. *Order of Battle Summary—United Arab Republic (Egypt).* AP-220-1-4-67-INT. 1 January 1967.

> While dated in 1967, this US intelligence report proved invaluable in tracing the designations of the Egyptian Army units from 1967 to 1973. The individual battalion designations were corroborated with other sources to confirm their identities.

El-Edroos, Syed Ali. *The Hashemite Arab Army 1908-1979: An Appreciation and Analysis of Military Operations.* 1980.

> A comprehensive history of the Jordanian Army written by a Pakistani general. While detailed, it's dated by only having sources available in the late-1970s.

Group 73 Historians. http://www.group73historians.com. (in Arabic)

> A website dedicated to the October War with articles, analysis, and personal accounts of the war from Arab veterans.

Hammad, Gamal. *Military Battles on the Egyptian Front.* 2002. (in Arabic)

> The official history of the 1973 war for Egypt. A good account of the war from their perspective and worthwhile considering that Syria has no official account of its participation in the war (nor likely ever will).

Malovany, Pesach. *Wars of Modern Babylon: A History of the Iraqi Army from 1921 to 2003.* 2017.

> A comprehensive work on the Iraqi Army in English. While most of the book is devoted to its wars against Iran and the Western Coalitions from the 1980s, a section of Chapter 2 details Iraq's involvement in the Yom Kippur War.

Malovany, Pesach and Berger, Josef. *Syrian Commando Operations on The Golan Heights During the Yom Kippur War.* 2018.

> A unique look at the Syrian heliborne raids in the Golan, describing the action and mapping the flight routes taken. This provides a great insight into non-Mount Hermon commando operations in the Northern front.

Pollack, Kenneth M. *Arabs at War: Military Effectiveness, 1948-1991.* 2002.

> Written on the heels of the first Gulf War, Pollack provides an analysis of major Arab militaries through their conflicts in the latter half of the 20th century. Not as detailed as other sources but does an excellent job of critiquing each nation's strengths and weaknesses.

Pollack, Kenneth M. *Armies of Sand: The Past, Present, and Future of Arab Military Effectiveness.* 2019.

> A follow up to **Arabs at War**, this book examines Arab effectiveness in war through the inter-relation of its culture, adaption of Soviet doctrine, and politics.

Shazly, Saad el. *The Crossing of the Suez. Revised Edition.* 2003.

> This book provides insight from the Egyptian Chief of Staff and one of the few complete Arab sources in English. Shazly provides a lot of material on the preparation of the war but is lacking in its coverage of the war.

Syrian Ministry of Defense. *Army History—October Liberation War.* http://www.mod.gov.sy/index.php?node=554&cat=861#. (in Arabic)

> Syria's official army history of the war through their Ministry of Defense with various articles on the war. Its most useful aspect for research was in identifying individual Syrian battalions.

Touchard, Laurent. *Les armées africaines dans la guerre du Kippour.* (French)

> An excellent summary of African Arab nations that sent forces to assist Egypt and Syria. The author has written a number of books on African military forces.

Israeli Ground Forces:

14th Brigade in the Yom Kippur War. http://www.hativa14.com. (Hebrew)

> Website dedicated to the history of Amnon Reshef's Brigade containing lots of articles, documents, and personal accounts.

The 87th Armored Recon Battalion. http://www.87th.org.il/enhistory.html

> A website dedicated to the battalion that found the army boundary between the Egyptian Armies then led the attack across the canal. Available in English.

421st Armor Brigade. http://www.421.co.il/ (Hebrew)

> Another useful website with details on Erez's Brigade.

600th Brigade. https://www.amuta600.org.il/ (Hebrew)

While not as detailed as the above sites, this dedication website is useful in providing daily activities for all its battalions as well as a nice write up of its wartime actions.

Bar-Joseph, Uri. *The Watchman Fell Asleep: The Surprise of Yom Kippur and its Sources.* 2005.

A detailed look at Israel's pre-war intelligence picture and analysis of its failure to detect the Arab surprise attack.

Dunstan, Simon. *Israeli Fortifications of the October War 1973.* 2008.

A useful summary of the Bar-Lev and Purple Line fortifications.

Granovsky, Oleg. *War Online.* https://web.archive.org/web/20051216021501/http://www.waronline.org:80/IDF/Articles/articles.html. (in Russian)

The History of the IDF section contains various articles on the Yom Kippur War. One of the articles contained a nearly complete Israeli Order of Battle that was like finding the ark of the covenant and the holy grail all in one when I was made aware of it in 2007. Since then, I supplemented the missing information with independent research to fill the gaps.

Israeli Personal Accounts:

Even, Jacob and Maoz, Simcha. *At the Decisive Point in the Sinai: Generalship in the Yom Kippur War.* 2017.

Even's (Sharon's deputy division commander) memoir comes across as a bit self-serving, strongly defending Sharon while throwing other generals like Adan under the bus. Admittedly, I am in the Adan camp, but the critiques offered feel like he's trying to get the last word in.

Kahalani, Avigdor. *The Heights of Courage: A Tank Leader's War on the Golan.* 1975.

The classic memoir that still holds its value today. Kahalani captures the efforts of the 77th "Oz" Bn and the rest of the 7th Armor Brigade well.

Orr, Ori. *These Are My Brothers.* Trans. De Semrik, Contento and Orr, Ori. 2003.

In a similar vein as **The Heights of Courage**, Orr's memoir is told from a brigade commander's point of view.

Reshef, Amnon. *We Will Never Cease!* 2013. (in Hebrew)

The author was the commander of the 14th Armor Brigade and heavily involved in the Sinai Front from the start. His brigade led the drive for the IDF's Suez crossing and suffered greatly at Chinese Farm.

Sakal, Emanuel, Major General, IDF (ret.). *Soldier in the Sinai: A General's Account of the Yom Kippur War.* Trans. Tlamim, Moshe. 2014.

Sakal commanded the 52nd Armor Battalion in the Sinai for the entire war. Unfortunately, he adds a lot of 20/20 hindsight which takes away from his impact.

Air Related:

Aloni, Shlomo. *Ghosts of Atonement: Israeli F-4 Phantom Operations During the Yom Kippur War.* 2015.

Aloni is one of the best authors on the IAF. Ghosts of Atonement is an incredible source and was vital in daily mission tracking by Phantom squadrons, their targets, and their losses.

Aloni, Shlomo. *Israeli A-4 Skyhawk Units in Combat.* 2013.

What **Ghosts of Atonement** was for Phantoms, this book is for the IAF's Skyhawks. While not offering daily mission details for all the Skyhawk squadrons, it contains enough details packed into a 96-page book, making this an excellent source on the venerable light attack aircraft.

Aloni, Shlomo. *Israeli Mirage III and Nesher Aces.* 2012.

A less detailed account of the French-based aircraft in Israeli service than the above, but nonetheless useful. It reinforced information that the Mirages and Neshers were solely used for air-to-air roles in the Yom Kippur War, despite their limited use as fighter-bombers in the Six Day War.

Cooper, Tom and Nicolle, David. *Arab MiGs Volume 5: October 1973 War: Part 1.* 2015.

The two volumes on the Arab Air Forces in the 1973 War are the most detailed accounts that can be offered in English. The first volume provides background and covers the first days of the war.

Cooper, Tom and Nicolle, David. *Arab MiGs Volume 6: October 1973 War: Part 2.* 2015.

The second volume continues to the conclusion of the war and discusses the Iraqi and Algerian Air Forces sent to reinforce the Syrian and Egyptian Armies, respectively.

Cooper, Tom. "Middle East Database." *Air Combat Information Group.* https://web.archive.org/web/20141007053046/http://www.acig.org/artman/publish/cat_index_22.shtml.

Now defunct, the ACIG website was Tom Cooper's online presence and included excellent articles on the Arab-Israeli conflicts in the air.

Cooper, Tom and Emran, Abdallah. *1973: The First Nuclear War: Crucial Air Battles of the October 1973 Arab-Israeli War.* 2019.

A book explaining why the IAF became fixated on attacking Port Said.

Pennings, Marco. "Skyhawks Over Israel." *Scramble Magazine.* May 2014.

An excellent summary of Skyhawks use by Israel that supplements Aloni's book and provides a breakdown in number of Skyhawks available at the start of the war.

Singh, Mandeep. *Air Defense Artillery in Combat,*

1972 to the Present: The Age of Surface-to-Air Missiles. 2020.

Covering multiple conflicts and their use of air defenses starting with the Yom Kippur War, this book provides good coverage of the modern threat to air forces.

Weiss, Ra'anan. *The Israeli Air Force in the Yom Kippur War: Facts and Figures.* 2014.

Weiss's book supplements Aloni's various books and provides nice daily recaps of events in the air. The appendix sections listing the numbers of available and total aircraft were invaluable in determining the actual Israeli strengths, including arriving replacements.

Hot off the Presses:

IDF Ministry of Defense Archives. *The Yom Kippur War, October 6–24, 1973, 50 Years.* https://yomkippurwar.mod.gov.il/. (in Hebrew)

Recently established website by the IDF MOD containing over 20,000 photographs, documents, video, audio, and maps on the war including many recently declassified materials. This was done in advance of the 50th anniversary of the war. This is a treasure trove of information that has never been available to the public before. The only limitation is the ability to navigate and read Hebrew.

Books to retire:

These books were good sources for a long time following the war but became obsolete with more recent books and sources as cited above. This includes such frequently cited popular books such as Dupuy's *Elusive Victory*, Asher and Hammel's *Duel for the Golan*, Herzog's *The War of Atonement*, O'Ballance's *No Victor, No Vanquished*. These still grace my bookshelves today.

Israeli Order of Arrival

Turn	Entry Area	Units
6 Oct 73	Any Golan HQ	Zvika C Arm TF (2.1b)
7 Oct 73	**Israel**	4x F-4E 2x A-4E 2x A-4N
	Any	4x Arty Points
	Any Golan HQ	4x Arty Points
	Any Israeli Sinai Entry Hex	1/Bishof Static Co 2/Bishof Static Co
	275 Ter Bde HQ	Lapidot M Arm TF *(Assigned to 275 Ter)* **162 Div** (198/460 M Arm Bn)
	B42.19 (Tasa)	**143 Div** (79/14, 196/14 M Arm Bn)
	A	**162 Div** (HQ (Fresh), 19/460 M Arm Bn, 113/217, 126/217, 142/217, 429/500, 430/500, 433/500 C Arm Bn, 86/460, 189 Rec Mech Bn, Combat Trains)
	B	**143 Div** (HQ (Fresh), 87 M Arm Cav Bn, 257/421, 599/421, 407/600, 409/600, 410/600 M Arm Bn, Combat Trains)
	D	**35 Para Bde** (HQ (Fresh), 890 Para Bn (-), Combat Trains)
	I	**36 Div** (12/1, 51/1 Inf Bn, 17/1 Inf Bn (-))
	J	**210 Div** (57/679, 93/679, 289/679 C Arm Bn)
	K	**210 Div** (HQ (Fresh), 134 Rec, 39/4, 96/179, 266/179, 278/179 C Arm Bn, 95/4, 377/9 S Arm Bn, Combat Trains)
8 Oct 73	**Remove**	Zvika Arm TF **252 Div** (G/184, H/184 M Arm Co, J/184 Mech Co)
	Any	1x Arty Point
	Sinai	1x Arty Point
	Golan	1x Arty Point
	143 Div HQ	**143 Div** (184/14, 264/421 M Arm Bn)
	252 Div HQ	**252 Div** (104/164, 106/164, 183/164 C Arm Bn)
	A, B, C, or L (all the same entry)	**146 Div** (HQ (Fresh), 288 Rec, 94/205, 61/205, 125/205 C Arm Bn, 181 S Arm Bn, 58/670, 83/670 Mech Bn, Combat Trains)
	A	**Nammer TF** (HQ (Fat-1), 279 Rec C Arm Bn, 226/11 S Arm Bn, 54/11, 128/11, 141/204 Mech Bn, Combat Trains)
	C	**440 Div** (HQ (Fresh), 129/875 S Arm Bn, 89/875, 121/875 Mech Bn, Combat Trains)
	D	**440 Div** (A/225 T Arm Bn (-), 202 Abn Bn (-), 450 Abn Bn)
9 Oct 73	**Remove**	**36 Div** (82/188 C Arm Bn)
	36 Div HQ	**36 Div** (Ben-Hanan C Arm TF)
	Nammer TF HQ	**Nammer TF** (Vilner Inf TF)
	B	**274 Arm Bde** (HQ (Fresh), 25, 227, 228 T Arm Bn, Combat Trains)

10 Oct 73	Any HQ	564 Abn Bn
	36 Div HQ	**36 Div** (269 Mktl Cdo Co, Katz C Arm TF)
	143 Div HQ	**143 Div** (582 Shun Abn Bn)
	162 Div HQ	**162 Div** (Wnr/217 Abn Co)
	210 Div HQ	**210 Div** (42/4, 127/4, 11/9, 91/9 Mech Bn)
	B or J	**247 Para Bde** (HQ (Fresh), 416, 565 Abn Bn, Combat Trains)
	B or J	**317 Para Bde** (HQ (Fresh), 471, 567 Abn Bn, Combat Trains)
11 Oct 73	Any Sinai HQ	630 Bridge Bn, 634 Ferry Bn
12 Oct 73	210 Div HQ	**210 Div** (Nati C Arm TF)
13 Oct 73	B35.16 (Yukon)	605 Bridge Bn
	162 Div HQ	**162 Div** (100/460 M Arm Bn)
14 Oct 73	Remove Golan	2x Arty Points
15 Oct 73	**Sinai**	2x Arty Points
	143 Div HQ	**143 Div** (Shmulik Abn TF)
	440 Div HQ	**440 Div** (182 S Arm Bn, 9400 Inf Bn)
16 Oct 73	Remove Golan	1x Arty Point
17 Oct 73	**Remove**	**252 Div** (A/52, B/52, C/52 M Arm Co)
	Sinai	1x Arty Point
	36 Div HQ	**36 Div** (13/1 Inf Bn)
	440 Div HQ	**440 Div** (52 M Arm Bn)
18 Oct 73	Any Sinai HQ	88 DvL Amphib Rec Bn
	162 Div HQ	**162 Div** (271 Mech Eng Bn)

20 Oct 73

Remove from Golan	**210 Div** (96/179 C Arm Bn) *Retain any losses.*
Any HQ	50 Abn Bn
35 Para Bde HQ	**35 Para Bde** (48, 469 Abn Bn)
Nammer TF HQ	**Nammer TF** (268 S Arm Bn)
A, B, C, or J (all the same entry)	**Sela TF** (HQ (Fresh), 105/5, 171/5, 172/5, 173/5 Inf Bn, Combat Trains) 484 Harv Arm Cav Bn Yaron Abn TF *(**Both** of the above assigned to Sela TF)*

21 Oct 73		
	Workshop Box	1x F-4E Repl, 1x A-4E/H Repl

22 Oct 73

	Workshop Box	1x F-4E Repl, 2x A-4E/H Repls
	Any HQ	Hisdai Abn TF
	252 Div HQ	**252 Div** (96/179 C Arm Bn) *Retain any losses from 20 Oct 73 Removal.*

23 Oct 73		
	Workshop Box	1x F-4E Repl, 2x A-4E/H Repls
	440 Div HQ	**440 Div** (B/225 Arm Bn (-))

Arab Order of Arrival

Units are Egyptian unless otherwise noted in the Formation Title (not each unit).

Turn	Entry Area	Units
6 Oct 73		
	N	1 Syrian Tk Div (HQ (Fresh), AT ATGM Bn, 377/76, 387/76, 397/76, 173/91, 242/91, 272/91, 370/58 Arm Bn, 381/76, 164/91, 360/58, 362/58, 364/58 Mech Bn, Combat Trains)
		65 Syrian ATGM Bn (Assigned to 1 Syrian Tk Div)
	w/i 1 G50.24	Cdo Grp (1/82 Para Co) *(3.4b)*
	w/i 1 G10.27 or G19.33	1/411 PLA Cdo Co *(3.4a)*
7 Oct 73		
	Syria	1x Iraqi MiG-21
	w/i 1 G23.20 or G30.27	2/411 PLA Cdo Co *(3.4a)*
	7 Syrian Inf Div HQ	7 Syrian Inf Div (I/Assad, 172/81, 259/81, 283/81 Arm Bn, 214/81 Mech Bn)
	O	3 Syrian Tk Div (-) (HQ (Fresh), AT ATGM Bn, 354/65, 363/65, 365/65, 273/21 Syrian Arm Bn, 112/21, 161/21, 246/21, IV/65 Mech Bn, Combat Trains)
	w/i 1 A27.13, A45.17, B42.19, B60.16, C41.07, C55.28, C56.09, or C56.16	1/143, 1/183, 2/183, 3/183 Cdo Co *(3.4a)*
	19 Inf Div HQ	19 Inf Div (163 Cdo Bn)
8 Oct 73		
	Egypt	1x Hunter
	Syria	1x Iraqi Su-7
9 Oct 73		
	Egypt	1x Mirage 5
	Syria	1x Iraqi MiG-17 (Reduced)
		1x Iraqi Su-7 (Reduced)
	w/i 1 G23.20, G30.27, G34.24, or G37.26	1/KhW, 2/KhW PLA Cdo Co *(3.4a)*
10 Oct 73		
	Any Golan HQ	549 Syrian ATGM Rgt
	Syrian Cdo Grp HQ	Syrian Cdo Grp (122 Cdo Bn)
	6 Mech Div HQ	6 Mech Div (238/1 Arm Bn, 1/1, 3/1, 20/1 Mech Bn)
	F	3 Tk Bde (HQ (Fresh), 240, 241, 242 Arm Bn, 262 Mech Bn, Combat Trains)
11 Oct 73		
	Pt Said Cmd HQ	Pt Said Inf Cmd (103 Cdo Bn)
12 Oct 73		
	F	4 Tk Div (-) (HQ (Fresh), 8 Arm Cav Bn, 653 ATGM Bn, 207/2, 208/2, 209/2, 211/6 Arm Bn, 261/2, 256/6, 257/6, 258/6 Mech Bn, Combat Trains)
	N	3 Iraqi Arm Div (HQ (Fat-0), Mut/12, Qtb/12 Arm Bn, 1/6, 2/8 Mech Bn, Combat Trains)
13 Oct 73		
	M	3 Jordanian Arm Div (HQ (Fat-0), 2/40, 4/40 Arm TF, 1/40 Mech TF, Combat Trains)

14 Oct 73

Egypt	1x Arab MiG-21 (Reduced) 1x Arab MiG-17 (Reduced) 1x Arab Su-7 (Reduced)	
21 Tk Div HQ	21 Tk Div (9 Arm Cav Bn, 654 ATGM Bn, 204/1, 205/1, 206/1, 243/18 Arm Bn, 259/1, 52/18, 53/18, 70/18 Mech Bn)	
6 Mech Div HQ	6 Mech Div (27 Arm Cav Bn, 31 ATGM Bn, 247/13 Arm Bn, 337/113, 338/113, 339/113 Mech Bn)	
G	23 Mech Div (-) (HQ (Fresh), 23 Arm Cav Bn, 32 ATGM Bn, 231/116, 249/118 Arm Bn, 350/116, 351/116, 352/116, 500/118, 501/118, 502/118 Mech Bn, Combat Trains)	

15 Oct 73

Golan	4x Arty Points
3 Iraqi Div HQ	3 Iraqi Arm Div (Khd/6, Mkd/6, Ymk/6, Qad/12, 3/8 Arm Bn, 1/8, 3/8, 3/12 Mech Bn)

16 Oct 73

3 Iraqi Div HQ	3 Iraqi Arm Div (1/20, 2/20, 3/20 Inf Bn)
M	KAA Arab Mech Bde (HQ (Fresh), 1 Arm Cav Bn, 4 Abn Bn, Combat Trains)

17 Oct 73

3 Iraqi Div HQ	3 Iraqi Arm Div (5/SF Iraqi Abn Bn, 1/SF, 2/SF, 3/SF Cdo Bn)

18 Oct 73

Egypt	1x MiG-21 (Reduced) 1x Su-20 (Reduced) 1x L-29 (Reduced)
A21.35	8 Tun Arab Static Bn

19 Oct 73

N	6 Iraqi Arm Div (HQ (Fat-0), Myt/30, Shr/30, Trq/30 Arm Bn, 5/30 Mech Bn, Combat Trains)

20 Oct 73

6 Iraqi Div HQ	6 Iraqi Arm Div (6/25 Arm Bn, 1/25, 2/25, 3/25 Mech Bn)

21 Oct 73

O	5 Iraqi Mtn Bde (HQ (Fat-0), 1, 2, 3 Mtn Bn, Combat Trains)

22 Oct 73

3 Jordanian HQ	3 Jordanian Arm Div (12/92, 13/92 C Arm Bn, 3/92 Mech Bn)

23 Oct 73

6 Iraqi Div HQ	6 Iraqi Arm Div (Kdf/16, Mhb/16, Rfd/16 Arm Bn, 4/16 Mech Bn)

24 Oct 73

F or G	8 Alg Arab Arm Bde (HQ (Fat-0), 2, 4, 10 Arm Bn, 9 Mech Bn, Combat Trains)

25 Oct 73

F or G	3 Lib Arab Mech Bde (HQ (Fat-0), I, II, III Mech Bn, IV Arm Bn, Combat Trains)

26 Oct 73

F or G	2 Moroccan Mot Bde (HQ (Fat-0), II Arm Co, I Inf Rgt, Combat Trains)

27 Oct 73

O	Jahra Arab Mech Bde (HQ (Fat-0), Vickers Arm Bn, Saracen Inf Bn, 25 Cdo Co, Combat Trains)

Terrain Effects Chart

Terrain	Movement Type			Terrain for Combat/Barrage	Blocking Terrain?	Key Terrain?
	Leg	Tac	Truck			
Open	1	2	2	Open	-	-
Cultivated/ Irrigation	1	2	4	Yes	-	-
Sand Dunes	2	3	4	Open	-	-
Hill	ot	ot	ot	Yes	Yes	-
Rough	2	All	P	Yes	Yes	-
Mountain	All	P	P	Yes	Yes	Yes
Marsh	All	P	P	Yes	-	-
Lajat	2	STOP (6)	P	Yes	Yes	-
Salt Marsh	All	P [3]	P	Yes	-	-
Primary Road (5)	1/2	1/2	1/4	-	-	-
Secondary Road (5)	1/2	1/2	1/2	-	-	-
Track (5)	1/2	1	1	-	-	-
Bridge Access Road	1	1	1	-	-	-
RR	1	1	1	-	-	-
Suez Canal	All (8)	P [+2]	P	Yes (1)	Yes (2)	-
River	+2	P [+2]	P	Yes (1)	-	-
Ferry	+1	+2	+2	-	-	-
Sea/Lake hexes	P	P [3]	P	Yes (1)	-	-
Water Barrier Hexsides	P	P [+2] (4)	P	-	-	-
Wadi	+2	P	P	Yes (1)	-	Yes
Escarpment	+2	P	P	Yes (1)	Yes (3)	-
City	ot	ot	ot	Yes	Yes	Yes
Village	ot	ot	ot	Yes	Yes	-
Point of Interest	ot	ot	ot	-	-	-
Observation Point (1.1h)	ot	ot	ot	-	-	-
SAM Control Site	ot	ot	ot	-	-	-
AT Ditch (5)	+2	STOP (6)	STOP (6)	-	-	-
Fort (7)	ot	ot	ot	Yes	-	Yes

ot	Use other terrain in the hex for this purpose.
STOP	See *BCS* 4.1e (Unit must have 4 MPs remaining to enter.)
[X]	Cost for Amphibious units (1.4a)
-	No Effect.
Open	Open is automatically trumped by 'Yes' Combat Terrain. If it isn't trumped, then the "Hard Red AV in Open" DRM in Combat (a benefit) applies.
Yes	Terrain that applies the effect at the top of the chart.

No unit can Attack, Engage, Attack by Fire, Spot, or apply any ZOC **across** the Suez Canal unless it is through an operating Bridge (*not Ferry*) hexside.

Notes:

(1) Apply *BCS* 4.1 (Movement), 4.5c (LOS), and 5.0a (Combat effects by type). In the case of Escarpment, Terrain for Combat ONLY applies if the Attack is coming FROM the hex **containing** the symbol through its hexside. Others apply as Terrain, only if the attack is allowed via a Bridge.

(2) Suez Canal is Blocking due to the high embankments constructed before the war on each side to block observation.

(3) These do not Block if the Firing or Spotting unit is on top of the feature and adjacent to its hexside. (Remember, you can always 'see' adjacent, regardless of direction here.)

(4) Water Barrier hexsides count as +2 **only** if entering a non-Sea/Lake hex, otherwise they have no effect.

(5) The AT Ditch hexsides do not block roads needed for MSR purposes and the roads do connect. So, moving from one Secondary Road hex to another (with an AT Ditch between them) with a Tac MA unit would cost ½ MA, but require a STOP on entry.

(6) Don't forget that STOP terrain assumes you have the 4 MPs to enter the hex in the first place. (*BCS* 4.1e)

(7) The printed Forts on the map (the gear symbol) can be used by either player (depending on which side occupies the hex). Forts cannot be destroyed by either player. Forts are hex, not hexside, terrain features.

(8) Units that cross the Canal using their Leg MA side cannot flip to a Tac or Truck MA side unless there is an emplaced and friendly controlled Bridge or Ferry within their Formation's Command Radius.