

Campaign

OSPREY
PUBLISHING

The Yom Kippur War 1973 (2)

The Sinai



Simon Dunstan • Illustrated by Kevin Lyles



SIMON DUNSTAN is a long-established author in the field of military history and weapons technology with over 30 books to his name. His particular area of expertise is the tactical and technical employment of Armoured Fighting Vehicles since World War II, notably during the Korean, Vietnam and Arab-Israeli Wars. As an accomplished photographer and film maker, he has produced numerous military history television documentaries for *The History Channel* of New York. He resides in London and is married with one son and two daughters.

KEVIN LYLES is a talented illustrator of 20th century military subjects. He has illustrated several books for Osprey over the years, and has also written titles on the US Army in Vietnam, a subject in which he has a long-standing interest. He lives and works in Hertfordshire, UK.

The Yom Kippur War 1973 (2)

The Sinai



Simon Dunstan • Illustrated by Kevin Lyles

Series editor Lee Johnson • Consultant editor David G Chandler

First published in Great Britain in 2003 by Osprey Publishing, Elms Court, Chapel Way, Botley, Oxford OX2 9LP, United Kingdom.
Email: info@ospreypublishing.com

© 2003 Osprey Publishing Ltd.

All rights reserved. Apart from any fair dealing for the purpose of private study, research, criticism or review, as permitted under the Copyright, Designs and Patents Act, 1988, no part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, electrical, chemical, mechanical, optical, photocopying, recording or otherwise, without the prior written permission of the copyright owner. Enquiries should be addressed to the Publishers.

A CIP catalogue record for this book is available from the British Library

ISBN 1 84176 221 0

Editor: Lee Johnson
Design: The Black Spot
Index by Susan Williams
Maps by The Map Studio
3D bird's-eye views by The Black Spot
Battlescene artwork by Kevin Lyles

Originated by The Electronic Page Company, Cwmbran, UK
Printed in China through World Print Ltd.

03 04 05 06 07 10 9 8 7 6 5 4 3 2 1

For a catalogue of all books published by Osprey Military and Aviation please contact:

Osprey Direct UK, P.O. Box 140, Wellingborough,
Northants, NN8 2FA, UK
E-mail: info@ospreydirect.co.uk

Osprey Direct USA, c/o MBI Publishing, P.O. Box 1,
729 Prospect Ave, Osceola, WI 54020, USA
E-mail: info@ospreydirectusa.com

www.ospreypublishing.com

Dedication

Robin Cross

Acknowledgements

The author would like to thank the following for their kind assistance: Egyptian Defence Attaché – Commodore Mohamed Gaballa; Egyptian Press Office; Oo'na Matter; Zaki Ghazi; Israeli Defence Attaché – Colonel Yizhar Sahar; Sgalit Har-Arie; LtCol David Eshel; Office of the IDF Spokesperson.

Author's note

All photographs are courtesy of the Israel Defense Forces Archives unless otherwise stated. Pictures credited to 'EGIO' are supplied courtesy of the Egyptian Government Information Office.

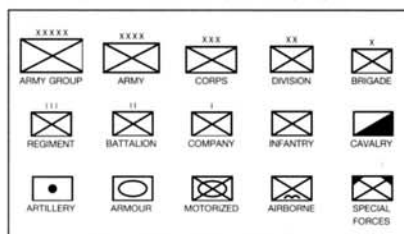
Artist's note

Readers may care to note that the original paintings from which the colour plates in this book were prepared are available for private sale. All reproduction copyright whatsoever is retained by the Publishers. All enquiries should be addressed to:

Kevin Lyles
Hillview
38 Boswick Lane
Dudswell, Berkhamstead
Hertfordshire
HP4 3TE
UK

The Publishers regret that they can enter into no correspondence upon this matter.

KEY TO MILITARY SYMBOLS



CONTENTS

ORIGINS OF THE CAMPAIGN	7
The War of Attrition	
CHRONOLOGY	14
FIRST STEPS TO WAR	16
OPPOSING PLANS	19
The Israeli response	
OPPOSING ARMIES	24
Egyptian forces • Order of Battle: Egyptian army, October 1973	
Israeli forces • Order of Battle: Israeli Southern Command, October 1973	
OPPOSING COMMANDERS	28
Israeli commanders • Egyptian commanders	
THE OCTOBER WAR	35
Operation <i>Badr</i> • <i>Shovach Yonim</i> • The first Israeli counterattack	
The fightback • Operation <i>Gazelle</i> • Endgame	
AFTERMATH	91
BATTLEFIELD TODAY	93
BIBLIOGRAPHY	94
INDEX	95

ISRAEL AND THE OCCUPIED TERRITORIES, OCTOBER 1973



THE ORIGINS OF THE CAMPAIGN

At 1830hrs on 10 June 1967 a United Nations ceasefire brought fighting to an end in the Six Day War. In one of the most remarkable campaigns in the history of modern warfare, the state of Israel defeated its Arab enemies and won the priceless prize of defence in depth. By the end of the war the Israeli army had occupied the whole of the Sinai and the Gaza Strip, and gained control of the West Bank of the River Jordan, driving hostile forces away from the coastal strip, Israel's narrow waistline and the areas surrounding the city of Jerusalem. In the north, the Israelis had occupied the strategically important Golan plateau as far as Quneitra. Before June 1967 Syria had posed a constant threat to northern Galilee. Now Israeli armour and artillery threatened the Syrian capital of Damascus.

The speed and scale of the Israeli victory sent shock waves through the Arab world. Israel's position now seemed secure. She had drawn the teeth of her bitterest enemies, now held defensible frontiers and her demonstration of military prowess had earned respect around the world.

Following the Six Day War, Israel received international criticism for not using her territorial gains to bargain for a lasting peace. Nevertheless, in 1967 Israel had undoubtedly been threatened with outright destruction. In the interests of national security, her military chiefs demanded



A Centurion tank of the Israel Defense Forces churns up the sands of the Sinai Desert as it advances at speed towards the Suez Canal during the Six Day War of 1967. The stunning victory provided Israel with greatly extended borders and allowed defence in depth but the Egyptians vowed to retake their territory and the seeds of the next Arab-Israeli war were sown.



As Chief of Staff of the IDF, General Chaim Bar-Lev inspects Israeli tank crewmen prior to the October War. In the opening days of the war, there was a crisis of command on the Southern Front and General Bar-Lev effectively took control of the conduct of the war against Egypt.

defensible frontiers and retention of the occupied territories. Domestic opinion in Israel would not have allowed the spoils of this spectacular victory to be cast aside so swiftly.

Moreover the Israelis drew no comfort from the Khartoum conference of Arab leaders in August 1967, at which the delegates had declared a policy of 'no recognition, no negotiations, no peace'. The Israelis therefore accepted resolutions of the United Nations (UN) Security Council only with strong reservations about Arab sincerity. The key resolution was No. 242 of November 1967, which required Israeli withdrawal from all territories occupied by armed force, Arab recognition of Israel and 'respect for and acknowledgement of the sovereignty, territorial integrity and political independence of every state in the area and their right to live in peace with secure boundaries free from threats or acts of force'.

The translation of these words into action, however, proved an insurmountable task. Israel would only contemplate withdrawal from parts or all of Sinai and the Golan Heights in exchange for full peace with the Arab world. Egypt, however, wanted all the territories, including the Gaza Strip and the West Bank, restored to Arab sovereignty but without guaranteeing Israel unqualified peace in exchange.

President Nasser concluded that only a military initiative could apply sufficient pressure on Israel – and by extension on the superpowers – to force Israeli withdrawal from the Sinai. In the aftermath of the Six Day War, however, he chose to stay on the defensive while he re-equipped and trained his armed forces before adopting a more aggressive policy.

The Six Day War was barely over when shiploads of Soviet war materiel began to arrive in Egyptian ports to make good the losses suffered in the fighting. To counter Israeli air power the Soviet Union supplied its Egyptian client with an air defence system based on its SA-2, SA-3 and SA-6 surface-to-air guided missiles and associated advanced radars. In



The tank commander and loader of an M48 *Magach* scan the deserted buildings of El Qantara from the top of a firing ramp on the Bar-Lev Line during the War of Attrition. During the first hours of the October War few Israeli tanks reached the banks of the Canal to support the defenders in the Bar-Lev Line and the Egyptian infantry lavishly equipped with 'Sagger' and RPG anti-tank weapons soon knocked out those that did.

addition to thousands of Soviet instructors, Egypt and Syria were to receive some 4,500 tanks, 1,000 aircraft and thousands of artillery pieces, together with light, hand-held missiles for close air defence and infantry anti-tank defence.

The Bar-Lev Line

Nasser now embarked on a form of limited warfare, later dubbed the 'War of Attrition', based on an intermittent, staggered artillery bombardment of IDF (Israel Defense Forces) front-line positions in Sinai and sporadic commando raids across the Suez Canal. By the autumn of 1968 the Egyptians had deployed two armies along the Canal, some 100,000 men supported by hundreds of tanks and guns, all of them well dug-in. For the moment the initiative of where and when to attack lay with the Egyptians.

From a strictly military point of view, it would have suited the Israelis to use a mobile screen to watch the Canal and hold their armour well back in reserve, ready to counterattack any Egyptian incursion. However, the political imperative to prevent the Egyptians from establishing a presence in Sinai, however minor, lent an irresistible weight to arguments in favour of defending the water line.

The result was the transformation of the rudimentary canal-side fortifications into the so-called 'Bar-Lev Line', named after the Israel Defense Forces (IDF) Chief of Staff, General Chaim Bar-Lev. These stretched along the Suez Canal from the Gulf of Suez to the Mediterranean, a distance of some 160km (100 miles).

At the heart of the Bar-Lev Line were some 30 strongpoints (*Maozim*) each screened by a sandbank several metres high and designed to be held by a platoon-strength garrison equipped with small arms, heavy machine

THE BAR-LEV LINE





By October 1973, the Bar-Lev Line was a highly sophisticated defensive fortification with 30 strongpoints or *Maozim* stretching from the Mediterranean coast to the Gulf of Suez with another line of strongholds or *Taozim* further eastwards all inter-connected by an extensive network of roads and tracks. The cost of construction is estimated to be in the region of \$300 million at 1973 prices.

guns and mortars. In quiet times the complement of a strongpoint was customarily half a platoon. Trenches, a sand embankment, barbed wire entanglements and minefields girdled the *Maozim*.

The *Maozim* were sited to cover roads and communications junctions stretching back into the Sinai and to control a stretch of the Canal. If the Egyptians launched an attack, the principal role of the *Maozim* garrisons was to sustain the initial exchange of fire while supplying data on the weight of the enemy incursion and blocking the access roads. On the outbreak of the October War on 6 October 1973, 16 of the *Maozim* were fully manned, two partially manned and the remainder either closed up or held by small daylight observation teams.

Eventually, the Egyptians raised the sand embankments on their side of the Suez Canal to some 39m (130ft) enabling them to overlook the Israeli rampart, fortifications, tank ramps and second line of defence on the Artillery Road. The Israelis countered with earthworks and planned to build 76m (250ft) high observation towers to look deep into the Egyptian rear areas. However, the outbreak of the October War thwarted this ambition.

When the Bar-Lev Line was built, some of the strongpoints had housed underground oil storage tanks. In the event of an Egyptian crossing, the oil was to be pumped into the canal and set ablaze in a sea of flame. However, there were problems with the strong current in the canal and the oil installations fell into disrepair, to be replaced by dummies a fact that was confirmed by Egyptian patrols during the War of Attrition.

Along the first line of sandy hills some 8km (5 miles) behind the Canal strongholds or *Taozim*, were built to hold an infantry company. Behind the ridge, small reserves of tanks were held ready to move forward to firing positions some 500–1,000m behind the Canal to support the *Maozim* and

cover the gaps between them. To the east of the Suez Canal, two roads ran on a north-south axis, the first, known as the 'Artillery Road', some 10 km (6 miles) and the second 30km (20 miles) to the rear. The Artillery Road was lined with emplacements for self-propelled artillery and the first echelon of tanks and halftracks in the Sinai were deployed here ready to move up to the defences along the Canal. Armoured reserves were deployed along the second link, the 'Lateral Road', and east-west roads and tracks linked the two principal north-south arteries. Communications to the Bar-Lev Line were secured by radio networks and underground cables, the integrity of which was to prove vital in October 1973.

Initially conceived as an early-warning mechanism the Bar-Lev Line was completed in 1969, although constant improvements and modifications were subsequently made.

THE WAR OF ATTRITION

The Egyptian response to the construction of the Bar-Lev Line was a sustained campaign of bombardment of the new Israeli positions combined with commando raids across the Canal and a resurgence of guerrilla raids and terrorism within Israel. The bombardment began on the morning of 8 March 1969 when Egyptian artillery opened up along the length of the Canal. Overhead, Egyptian and Israeli jet fighters clashed. On the following day the War of Attrition claimed its first notable casualty when Israeli mortars killed the Egyptian Chief of Staff, General Riad, at a bunker near Ismailia.

The Israelis responded with deep-penetration commando raids into Egypt and an air offensive in which the Israeli Air Force (IAF) struck at the entire Egyptian air defence system from the Bar-Lev Line to deep within Egypt itself. The principal aim of these raids was to pressure Egypt into accepting a cease-fire and simultaneously to force a 'regime change' within Egypt itself.

Thoroughly alarmed, Nasser flew secretly to Moscow in January 1970. He used a threat of resignation to force the Russians to supply the new SA-3 as well as improved SA-2 surface-to-air missiles (SAM), Soviet technicians and combat pilots to the embattled Egyptian Air Force. The Soviet air crews were to wear Egyptian uniforms and their aircraft were to carry Egyptian markings. In March, three MiG-21 squadrons were deployed around Cairo, Aswan and Alexandria. There were now some 7,500 Soviet personnel in Egypt, of whom about 4,000 were missile crewmen, a number that had doubled by the end of June and within another three months had increased to 10,000.

It was now clear that the Israeli policy of deep-penetration bombing had failed. In the summer of 1970 the IAF strove to stem the creeping eastward progress of the Egyptians' SAM umbrella. In the 'electronic war' the IAF used US-supplied electronic countermeasures pods to jam the mutually supporting SAM boxes. The results were mixed – the pods were effective only against the SA-2s, and Israeli aircraft losses were now mounting.

On 7 August 1970 a six-month ceasefire brokered by the United States came into effect. Both sides were not to alter 'the military status quo within zones extending 50km (31 miles) to the east and west of



The protection of soldiers' lives is paramount within the IDF and was one of the primary reasons for the construction of the Bar-Lev Line as a static fortification rather than as a mobile defence screen as advocated by some in the General Staff. It saved many lives in the initial Egyptian assault but the outcome was inevitable against such overwhelming odds. Less than 500 men faced 80,000 and, in the first minute of the war, 10,500 shells hit the Bar-Lev Line at a rate of 175 rounds a second .

Israeli paratroopers conduct a patrol along the Suez Canal in their M38A1 Jeep mounting an M1919 .30-calibre Browning during the War of Attrition in 1970.



the ceasefire line'. Nor was either party to 'introduce or construct any new military installations in these zones'. Nasser had no intention of honouring this provision and the SAM sites continued their eastward progress. Israel reacted by refusing to renew talks sponsored by the UN.

The War of Attrition had sapped Israeli morale. Nevertheless, the IDF held the Bar-Lev Line and brought the Egyptians to the negotiating table. This, however, led to a dangerous complacency within the Israeli High Command about the resolve of the Egyptian armed forces and the strength of the Bar-Lev Line. Israel still saw no need to reach a political agreement with Egypt based on withdrawal from the occupied territories.

In contrast, the Egyptians regarded the War of Attrition as a great success, in spite of the thousands of casualties their army and air force had suffered and the mauling their air defence system had received. They had not buckled and from this they drew considerable confidence, not least in their ability to counter the weapon that had destroyed them in 1967 – the Israeli Air Force.

CHRONOLOGY

1967

- 10 June** Six Day War ends in capture of Sinai Peninsula by IDF and humiliation of Egyptian armed forces.
- 1 July** Battle of Ras el'Ush. Egyptian commandos repulse Israeli attack on Port Fuad.
- 14 July** Egyptians conduct air strikes against Israeli positions.
- 29 August** Arab leaders meet in Khartoum and declare 'Three Nos' – no peace with Israel; no recognition of Israel; no negotiations with Israel.
- 21 October** Israeli destroyer *Eilat* sunk by ship-launched missile.
- September 1968–February 1969** Protracted artillery exchanges along Suez Canal lead to construction of Bar-Lev Line.
- March 1969–August 1970** War of Attrition along the Suez Canal. 367 Israelis KIA and 2,000 WIA from the end of the Six Day War to the end of the War of Attrition. Egyptian casualties were 2,882 soldiers and civilians dead.

1970

- 28 September** President Gamal Nasser dies and is succeeded by Anwar Sadat.

1971

- 4 February** Sadat's major peace initiative to reopen Suez Canal if Israel withdraws east of the strategic Sinai passes.
- 9 February** Israel rejects plan.
- May** Egyptian armed forces begin planning for war.

1972

- 24 October** Sadat informs Army High Council of coming war.

1973

- May** Following major Egyptian manoeuvres along Canal, Israel orders partial mobilisation at great expense to economy.
- 26 September** Yitzhak Rabin, Israel's ambassador to the USA, declares: 'There never was a period in which Israel's security situation seemed as good as now.'
- Saturday, 6 October** At 1400hrs on the Day of Atonement (Yom Kippur 5743) war begins when Egyptian and Syrian forces launch co-ordinated offensives across the Suez Canal and on the Golan Heights.
- Sunday, 7 October** Egyptian forces consolidate their gains on the eastern bank of the Suez Canal.

- Monday, 8 October** Israeli counterattacks against the Egyptian bridgeheads suffer heavy losses to anti-tank guided weapons. By end of day the IDF have lost 180 of the 290 tanks deployed in Sinai at the outset of war.
- Tuesday, 9 October** An Egyptian divisional attack is blocked by *Ugda* Bren and 21st Armoured Division attacks *Ugda* Sharon. Syrians demand more Egyptian attacks to relieve Israeli pressure on Golan Heights.
- Wednesday, 10 October** Israeli armour and aircraft destroy an Egyptian tank brigade that ventures outside the protection of the SAM air defence umbrella. Further Israeli counterattacks are beaten off with severe losses.
- Thursday, 11 October** Against the advice of his generals, President Sadat commits the Egyptian main force armoured divisions and strategic reserves to the east bank of the Canal leaving the west bank seriously weakened. The IDF begins planning an offensive across the Suez Canal.
- Friday, 12 October** President Nixon orders the US Air Force to begin a massive airlift of arms to Israel codenamed 'Operation Nickel Grass'.
- Saturday, 13 October** The Egyptians mount probing attacks along the length of their bridgehead to disrupt Israeli defensive plans. Israel agrees to a ceasefire plan proposed by Secretary of State Henry Kissinger but President Sadat rejects it. Jordan enters the war.
- Sunday, 14 October** Egypt launches a major offensive in the Sinai Desert but suffers heavy losses of 260 tanks to just 20 Israeli in the largest tank battle since Kursk on the Eastern Front in 1943.
- Monday, 15 October** *Ugda* Sharon advances towards Suez Canal at juncture between Egyptian Second and Third Armies. Fierce fighting ensues in the battle of Chinese Farm.
- Tuesday, 16 October** Israeli forces cross the Suez Canal 'into Africa'. The first armoured raids against Egyptian SAM sites on the west bank of the Canal allow the Israeli Air Force to provide effective close air support to the Israeli ground troops.
- Wednesday, 17 October** The IDF clears Egyptian forces around Chinese Farm to allow bridges to be thrown across the Suez Canal. The Organization of Petroleum Exporting Countries implements an oil embargo of selected western powers. The price of oil quadruples.
- Thursday, 18 October** *Ugda* Bren crosses the Canal during the night and expands the bridgehead westwards. *Ugda* Magen follows and the 400-ton prefabricated roller-bridge is positioned across the Suez Canal. Both Israeli divisions advance southwards.
- Friday, 19 October** The advance southwards meets strong Egyptian resistance at the Geneifa Hills. *Ugda* Sharon continues to secure the bridgehead on both banks of the



Golda Meir was the Israeli Prime Minister during the October War; a formidable leader given to ruling through a small, select band of advisers known as her 'kitchen cabinet'. Early on 6 October she took the painful and decisive decision not to mount a pre-emptive strike against Arab war preparations. Israel had to be seen by the world to be the victim of aggression or else the United States would not provide military or political support. Without the latter, Israel faced the awful prospect of the 'fall of the Third Temple' and the last resort of initiating nuclear warfare.

Canal while attempting to advance northwards towards Ismailia through difficult terrain.

Saturday, 20 October The Soviet Union forces President Sadat to accept a ceasefire backed by Soviet ground troops if necessary.

Sunday, 21 October Israeli forces on the west bank of the Suez Canal continue southwards to encircle the Egyptian Third Army. *Ugda* Sharon's offensive northwards falters in face of stiff Egyptian resistance.

Monday, 22 October UN Security Council passes Resolution 338 calling for 'all parties to the present fighting to cease all fighting and terminate all military activity immediately'. First ceasefire comes into effect at 1852hrs that night.

Tuesday, 23 October Ceasefire violations occur and the IDF resumes offensive operations with an unsuccessful assault on Suez City suffering heavy casualties.

Wednesday, 24 October Soviet Union threatens to send troops to support the Arabs. Second ceasefire brings hostilities to a halt with Israeli forces in Egypt some 100km (62 miles) east of Cairo and those in Syria within artillery range of Damascus.

11 November Ceasefire is agreed between Egypt and Israel after negotiations at Kilometre 101.

1974

18 January Israel agrees to withdraw troops from west side of Suez Canal.

31 May Israel and Syria agree disengagement terms.

1975

1 September Israel agrees to withdraw east of the strategic passes in the Sinai.

1977

21 November President Sadat addresses the Knesset with the offer of 'No more war; no more bloodshed.'

1978

18 September Camp David Peace Accord signed by Presidents Jimmy Carter, Anwar Sadat and Prime Minister Menachem Begin.

27 October Begin and Sadat are awarded the Nobel Peace Prize.

8 December Golda Meir dies of leukaemia at age of 80.

1979

26 March Peace treaty between Egypt and Israel signed at the White House. Other Arab states oppose the settlement and Egypt is expelled from the Arab League.

1981

6 October President Sadat assassinated during a military parade commemorating the assault across the Suez Canal in 1973.

1982

25 April Israelis withdraw from Sinai Peninsula.

FIRST STEPS TO WAR

Nasser did not live to launch another war against Israel. His death on 28 September 1970 was followed by a period of uncertainty before Nasser's deputy, the seemingly self-effacing Anwar Sadat, overcame an extreme pro-Soviet faction under Ali Sabri.

Sadat was careful to warn the Soviets in advance that the removal of their chief supporter would in no way affect the Egyptian-Soviet alliance. As collateral, Sadat signed a 15-year treaty of friendship and co-operation. He also bent his efforts towards what he called a 'peace initiative', which he launched in a speech to the Egyptian parliament on 4 February 1971.

Sadat's initiative mirrored a similar proposal presented by the Israeli Defence Minister Moshe Dayan to Prime Minister Golda Meir in September 1970. The key elements in Dayan's plan were the separation of forces on the Canal line, the redeployment of the IDF some 32 km (20 miles) to the east of the Suez Canal, Egyptian use of the waterway and the rebuilding of the towns along the canal as a commitment to non-belligerence.

However, Sadat's initiative and Dayan's proposal both foundered on the rock of Israeli stubbornness. Dayan's aide at the time, Colonel Arie Braun, later reflected that in the early months of 1971 Israel had missed an 'historic opportunity'. By May 1971 Sadat had settled on war as the only option and in June announced that he was 'willing to sacrifice a million Egyptian soldiers' to recover the lost lands.



The principal war leaders of the Egyptian forces confer on 15 October following the disastrous failure of the major Egyptian offensive to relieve the military pressure on their Syrian allies. President Anwar Sadat is in the centre flanked by Chief of Staff Lieutenant General Sa'ad Al Shazly (left) and Minister of War General Ahmed Ismail.

In the months prior to the October War, both the Egyptian and Syrian armies procured large amounts of Soviet weapons including the latest mechanised infantry combat vehicle, the BMP1. This innovative vehicle allowed the embarked infantry squad to fight while travelling under armour. The vehicle was also armed with a 73mm close support weapon and a rail-mounted 'Sagger' anti-tank missile to engage opposing MBTs. The October War was the first occasion that the BMP1 saw combat; in Arab hands it was not an auspicious debut and they were readily destroyed by Israeli tank fire.



Simultaneously, Sadat pressed the Soviet Union for more arms, including 'Scud' missiles as a counterweight to Israel's nuclear arsenal. The Soviets stepped up arms deliveries while at the same time entertaining the deepest misgivings about the outcome of any all-out war launched against Israel, fearing a repetition of the 1967 debacle. Accordingly, they dragged their feet over the more sophisticated weapons requested by Sadat, which in turn did little to improve the prickly relations between the Egyptian military and their sceptical Soviet advisers.

Sadat, who also sought improved relations with the United States, had always been uneasy with the perception of Egypt as an obedient client state of the Soviets. Trouble with the Soviet Union came to a head in May 1972 when the Soviets and Americans issued a joint communiqué during President Richard Nixon's visit to Moscow calling for Arab restraint in the Middle East. Sadat feared that a superpower détente would place the situation in the Middle East in suspended animation, with all it implied for the regaining of the lost lands.

In July 1972 Sadat announced the expulsion of thousands of Soviet military advisers. He hoped that this dramatic move would shock the Soviet Union into supplying the sophisticated weaponry he needed and also give him a free hand to go to war. The Russians' departure would also earn Sadat kudos in Washington. By August some 15,000 Russian personnel had left Egypt. Shortly after the expulsion, several hundred of the Soviet advisers returned and the Russians signalled acquiescence to Sadat's developing war plans. On 24 October 1972 Sadat explained to the Egyptian Supreme War Council of the Armed Forces his aim of securing a lodgement on the Sinai bank of the Suez Canal as a bargaining counter to force Israel to the negotiating table.

Sadat also sought the agreement of his neighbour, Jordan, and his ally, Syria. Egypt and Syria had both lost territory in 1967 but their aims were now different. Egypt had accepted Resolution 242 and was prepared to recognise Israel while Syria was not. Moreover, Sadat's war aims were directed at the recovery of the Arab territory lost in 1967. In contrast Syria, in common with the Palestine Liberation Organisation (PLO), which it harboured, was bent on Israel's destruction.



Heavily laden Egyptian soldiers paddle furiously across the Suez Canal with a weapons trolley precariously perched on the rubber assault boat. 2,240 of these weapons carts were used in the initial assault. They were made in Egypt using the wheels from Italian motor scooters to allow two men to pull 400 pounds of equipment for 3km (2 miles). This greatly helped Egyptian troops get the large numbers of 'Sagger' ATGW across the Canal, over the sand and earth berms of the Bar-Lev Line and deployed to meet the expected Israeli armoured counterattack. This level of attention to detail was typical of the thorough Egyptian planning for Operation *Badr*. (EGIO)

Sadat persuaded Syria's President Hafez al Assad to agree to more limited objectives: the recapture of Arab territory occupied in 1967, a 'just settlement' of the refugee problem and the recognition of a Palestinian entity. The means to achieve these ends were the seizure of the Golan Heights and the eastern bank of the Suez Canal as a demonstration of determination to enlist world sympathy. They would also precipitate an oil embargo sufficiently injurious to the European nations to force their governments to persuade the United States to drag the Israelis to the negotiating table. Sadat calculated that these limited aims posed no threat to Israel's vital interests and would not provoke the Israeli nuclear retaliation that he feared.

Sadat was aware that Jordan had suffered badly in 1967. It lacked an adequate air defence system and King Hussein would risk his throne if he intervened directly in an attack against Israel. Nevertheless, Sadat hoped to secure Hussein's good will, albeit without informing him of the war plans being drawn up in secret by Egypt, Syria and Sadat's Soviet advisers. Sadat and Syria's President Assad, while preserving their secret, also needed the help of other Arab states.

In 1972 Egypt's relations with Jordan were still badly strained – Nasser had deceived Hussein in 1967 – but Sadat secured substantial pledges of financial aid from oil-rich Saudi Arabia and Qatar and promises of troops and aircraft in any future war with Israel from Saudi Arabia, Algeria, Libya, Morocco, Sudan and Iraq. Most of the units pledged to Egypt and Syria were to arrive too late to change the course of the October War, although the Iraqi contingent was to play a significant role in the battle for the Golan Heights. Simultaneously Sadat strove to improve relations with the West, opening communications with Henry Kissinger, the US Secretary of State, and in June 1973 restoring diplomatic relations with France, Britain and West Germany.

OPPOSING PLANS

In the early summer of 1971, the Egyptian military began to lay plans for a simultaneous two-front offensive. Careful analysis of the defeat in 1967 identified two key areas of Egyptian weakness: the ineffectiveness of the Egyptian Air Force when pitted against the IAF (the decisive factor in 1967) and the similar inferiority of the Egyptian armoured corps, both in the quality of its weapons and the training of its personnel. The IAF was thought to be at least ten years ahead of its Egyptian counterpart due in part to the outstanding performance of the McDonnell Douglas F-4 Phantom.

The Egyptians and Syrians believed that part of the solution to this quandary lay in the mobilisation of aircraft and pilots from other Arab and sympathetic countries; an option that became increasingly attractive after the 1972 expulsion of the Soviet advisers. The Egyptians were to assemble an international air brigade that boasted elements from North Korea, Algeria, Libya and Iraq. The last supplied squadrons to both Egypt and Syria.

However, this barely ruffled the strategic surface. Even the evolving two-front plan left Egypt and Syria at a distinct disadvantage in the air. So the Egyptians and Syrians turned to ground anti-aircraft defences to redress the balance in the strategic equation. In the early 1970s Egypt and Syria built up the world's densest system of SAM-2, -3 and -6 missiles to protect their capitals and major cities, to cover the Golan Heights and both banks of the Suez Canal. A combination of the SAM-7 shoulder-fired missile and ZSU-23-4 self-propelled anti-aircraft guns would give their ground forces greater protection in the forward combat zone.

The Egyptians could not hope to match the Israeli expertise in armoured warfare. Rather they hoped to neutralise it by equipping their infantry with light anti-tank weapons ranging from the RPG-7 rocket launcher, through various recoilless rifles and anti-tank guns to the AT-3 'Sagger' wire-guided missile. It was anticipated that this would enable the Egyptian infantry to hold their bridgeheads and inflict heavy damage on the counterattacking Israeli tank forces even before their own armour had been brought across the canal.

Forty new battalions of engineers were formed to tackle the problem of the Canal crossing and amassed the tools with which to cross a defended waterway. The Soviet Union or its allies supplied much of their assault crossing equipment, including PMP pontoon bridges, GSP and PT-S ferries. A junior Egyptian officer has been credited with the idea of breaching the embankment of the Bar-Lev Line by washing the sand away with

In this rare photograph, Egyptian combat engineers use high-pressure fire hoses, purchased from Britain and Germany, to blast away the sand embankments of the Bar-Lev Line. No other method, including explosives, could have achieved the same result quickly enough. This was the idea of a young engineer officer and was crucial to the success of Operation *Badr*. The codename *Badr* commemorated the Prophet Mohammed's victory at the battle of *Badr* in AD 624, the first victory in the long campaign that culminated in AD 630 with his triumphant entry into Mecca. (EGIO)





Egyptian infantry scramble up the sand embankment of the Bar-Lev Line on 6 October at the outset of Operation *Badr*. The incline of between 45 and 60 degrees made the rampart impassable for all vehicles and extremely difficult for a heavily laden soldier to climb. (EGIO)

450 high-pressure hoses acquired from Britain and West Germany. The Egyptian Army practised canal crossings with remarkable rigour; some units rehearsed the operation over 300 times. At El Ballah, south of El Qantara, the Canal divides into two channels, one of which was entirely in Egyptian hands and provided an excellent training area.

The key to the two-front offensive, codenamed Operation *Badr*, was surprise. This would enable the Egyptians to gain and consolidate their limited objectives before the Israelis could react decisively. Under pressure in the Sinai and on the Golan Heights, the IDF would not be able to concentrate first against one enemy and then another as it had in 1967. Timing was of the utmost importance in this simultaneous attack, particularly on the Suez Canal. A steady current, especially strong during the spring tides, flows through the canal from south to north to replace water lost in the Mediterranean by evaporation. The optimum time for an opposed crossing was the period of slack current during the neap tides. Sufficient daylight was also required to move the assault echelons across the Canal against the relatively light opposition from the Bar-Lev garrisons. Moonlight was needed to allow the bridge building in the first half of the night and darkness to hide the subsequent crossing of the armour and vehicles of the assault divisions. In addition a convenient gap had to be found in US satellite coverage of the region. Finally, a sophisticated deception plan was initiated to mislead Israeli military intelligence.

THE ISRAELI RESPONSE

Under the strong leadership of Major General Aharon Yariv, Israeli military intelligence enjoyed an enviable reputation. However, in the spring of 1973 Yariv was replaced by his deputy, Major General Eli Zeira, an officer whose dogmatic approach was to have a significant bearing on the Israeli response to the Arab preparations for war.

Israeli military intelligence had calculated, correctly, that Syria would not make a move without Egypt, and the latter would not be in a position to launch an attack until 1975. This was when the Israelis estimated the Egyptian Air Force would have recovered from the 1967 losses and

acquired an effective medium-range bomber force. However, Sadat could not afford to wait this long – the political pressure on him was too great. The arrival in Egypt in the spring and early summer of 1973 of ‘Scud’ battlefield support missiles provided a substitute for the medium-range bomber force. The ‘Scud’s’ range of 290km (180 miles) allowed it to engage civilian targets in Israel from Egypt.

A series of escalations and scares took place along the Suez Canal between December 1971 and May 1973. Israeli intelligence was thus accustomed to Egyptian concentrations and dispersals and the intelligence community became increasingly complacent as scare succeeded scare. Nevertheless, in May 1973 the Chief of the General Staff, Major General David Elazar, was sufficiently concerned to persuade the Israeli cabinet to order a partial mobilisation. When nothing happened, Elazar lost the confidence of the cabinet and particularly that of Moshe Dayan, the Minister of Defence. Sadat, in their opinion, was indulging in brinkmanship. In fact, Sadat had postponed going to war to wait for the next propitious tides. The date finally chosen for Operation *Badr* was 6 October, which happened to be the date of the Jewish religious festival of *Yom Kippur* or the Day of Atonement. In the spring of 1973 Sadat gave an interview to the journalist Arnaud de Borchgrave of *Newsweek* in which he remarked: ‘Everything in this country is now being mobilised in earnest for the resumption of battle.’ The only person who seems to have appreciated the significance of Sadat’s remarks was Henry Kissinger, soon to become the US Secretary of State.

The Egyptians capitalised on Israeli scepticism about their aims and capabilities. Western journalists were encouraged to file copy detailing



In the euphoria of success, a T-55 of the Egyptian Third Army drives through one of the breaches in the sand ramparts of the Bar-Lev Line. The Egyptian High Command had estimated that 30,000 casualties were likely in the initial assault. In the event, just 208 Egyptian soldiers were killed with 20 tanks and five planes destroyed. Operation *Badr* was a huge success. (EGIO)



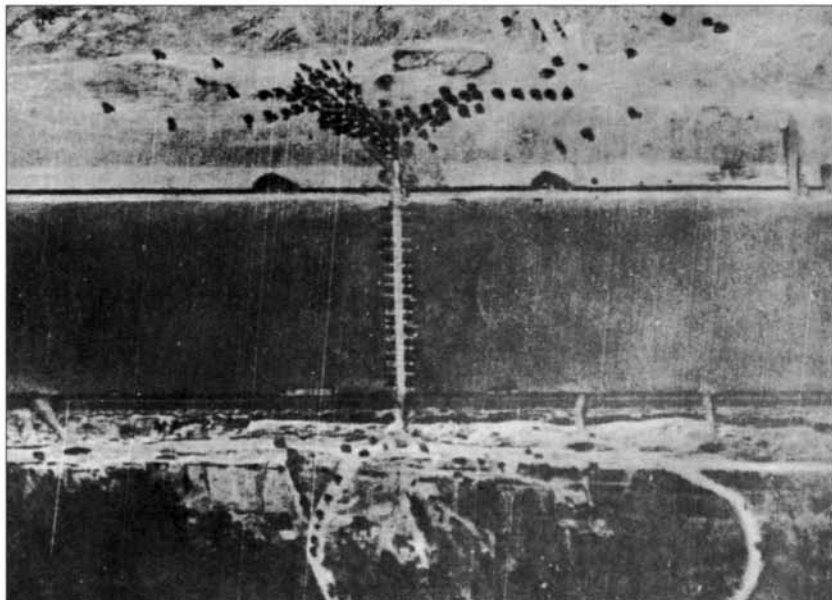
Egyptian troops move through a captured stronghold or *Maozim* of the Bar-Lev Line. At the outset of the October War the Bar-Lev Line was manned by just 468 reservists of the Jerusalem *Etzioni* Brigade deployed in 16 *Maozim* or strongholds and four observation posts. In addition, there were only 52 artillery guns and 290 tanks to defend the whole of the Sinai Peninsula – a total of some 18,000 men with fewer than 8,000 ready to respond to battle immediately. (EGIO)

Arab disunity and the lack of preparedness of the Egyptian armed forces. When, on 25 September 1973, in a secret meeting in Tel Aviv, King Hussein gave a non-specific warning of an imminent Egyptian-Syrian offensive, Israeli intelligence did not give it much credence.

Israeli intelligence was also hamstrung by their view of Sadat as a weak man. Sadat had declared that 1971 would be a 'year of decision'. In November 1972 he had stated that within six months Egypt would be at war. Each passing deadline confirmed the Israeli view of Sadat as little more than a clown. Thus when, on 11 September 1973, Cairo Radio announced that Sadat was discussing with King Hussein 'preparations for the fateful battle with Israel' – a rare example from this period of an Egyptian intelligence blunder – it was drowned out by the 'mood music' of Israeli preconceptions. The CIA had provided a 40-page document detailing Egyptian military plans to the Israelis on 16 April 1972. The intelligence was staring the Israelis in the face but there are none so blind as those who do not wish to see.

Nevertheless, the IDF had devised some plans to counter any Egyptian incursion. Despite the unresolved arguments within the high command as to the exact purpose of the Bar-Lev Line and whether it was to be held at all costs or act just as a trip-wire, the IDF believed that Egyptian preparations for any offensive would allow ample time for their reserves to be mobilised. The 252nd Armoured Division in the Sinai Peninsula had the task of containing the initial attack with the majority of its tanks held well back from the Suez Canal to mount counterattacks as and when directed. Several tank companies were deployed in platoon strength to support the various forward fortifications along the Bar-Lev Line. This was the existing plan codenamed *Shovach Yonim* or 'Operation Dovecote' that was drawn up in August 1970 when Major General Arik Sharon was GOC Southern Command. Sharon prepared

Egyptian trucks and troops cause a serious traffic jam at one of the crossing points over the Suez Canal. During the first ten hours of the conflict, Egyptian combat engineers blasted 60 holes through the sand ramparts; constructed ten continuous bridges and established 50 ferries to allow 500 tanks and mobile missile launchers across the Suez Canal on 6 October. (EGIO)



various crossing points along the length of the Bar-Lev Line to allow a major counterattack within 48 hours of hostilities breaking out.

Selected crossing points were prepared by drastically thinning the sand ramparts of the Bar-Lev Line and creating massive marshalling yards, protected from artillery fire by sand berms. Tracks were prepared leading to the yards to allow heavy bridging equipment to be transported forward for a crossing of the Canal. As a firm believer in the concept of mobile armoured operations, Sharon had little time for the Bar-Lev Line and nobody in the high command persuaded him otherwise. Accordingly he allowed its fortifications to fall into a state of disrepair and only 16 of the 32 frontline strongpoints were manned at the outset of war and then only by 468 reservists supported by 290 tanks, 12 artillery batteries with 52 guns and six anti-aircraft and two Hawk SAM batteries. Sharon's successor as GOC Southern Command, Major General Shmuel Gonen, tried to refurbish some of the defences along the Canal but it was 'too little, too late' against the powerful forces massing across the Canal.

OPPOSING ARMIES

EGYPTIAN FORCES

In 1973, the total strength of the Egyptian armed forces was 1,200,000 troops with 66,000 officers and 1,134,000 NCOs and enlisted men with approximately half that number deployed for the coming offensive. They comprised 19 infantry brigades, eight mechanised brigades, ten armoured brigades, three airborne brigades, one amphibious brigade and 4,000 artillery pieces, 1,700 MBTs and 2,000 other AFVs. The vital air defence contingent comprised 150 SAM batteries and 2,500 AA guns. The Egyptian Air Force fielded 400 combat aircraft, 60 transport planes and 140 helicopters while the international Arab contribution was one MiG-17, one MiG-21 and one SU-7 squadron from Algeria; two Mirage III squadrons from Libya and one Hawker Hunter squadron from Iraq.

In October 1973 five infantry divisions and a number of independent and armoured brigades backed by three mechanised and two armoured divisions were deployed along the Suez Canal. Each infantry division was three brigades strong and supported by a brigade of 120 tanks. The tank brigade consisted of three battalions each with 31 tanks, one battalion with each infantry brigade. Each infantry division also included one battalion of SU-100 self-propelled anti-tank guns and an anti-tank guided weapon battalion equipped with 314 RPG-7s and 48 'Saggers'. Each mechanised division included two mechanised and one armoured brigade, giving the division a total of 160 tanks. Both armoured divisions comprised two armoured brigades and one mechanised brigade, a total of 250 tanks per division. In the Suez Canal zone there were also



Of the 18 strongpoints in the Bar-Lev Line manned by the IDF at the outset of the war, all but two had been evacuated or surrendered by 10 October by orders of Southern Command. The 'Quay' position opposite Port Tewfik surrendered on the 13th and 294 Israelis became POWs. But 'Budapest' on the Mediterranean coast refused to surrender and continued to defy repeated Egyptian attacks. Here, the commander of 'Budapest', Captain Motti Ashkenazi, is embraced after the position was relieved by Israeli troops; Ashkenazi subsequently led the movement demanding an inquiry into the conduct of the war, which became the Agranat Commission.

ORDER OF BATTLE ¹ EGYPTIAN ARMY, OCTOBER 1973

GHQ

General Anwar Sadat, President of Egypt
General Ahmed Ismail Ali, War Minister
Lieutenant General Sa'ad Mohamed Al Hussani Al Shazly,
Chief of Staff
Lieutenant General Mohamed Abd El Ghani Al Gamassy,
Chief of Operations

Second Field Army (Northern Canal Zone) – MajGen Mohamed Sa'ad Ma'amon ²

*2nd Infantry Division – BrigGen Hassan Ali Hassan Abu
Sa'ada*

4th Infantry Brigade
117th Infantry Brigade
120th Infantry Brigade

16th Infantry Division – BrigGen Fouad Aziz Ghali

3rd Infantry Brigade
16th Infantry Brigade
112th Infantry Brigade

18th Infantry Division – BrigGen Abdel Rab Al Nabi Hafez

134th Infantry Brigade
135th Infantry Brigade
136th Infantry Brigade
15th Independent Armoured Brigade (attached)

21st Armoured Division – BrigGen Ibrahim Oraby

1st Armoured Brigade
14th Armoured Brigade
18th Mechanised Brigade

23rd Mechanised Division – BrigGen Ahmed Aboud el Zommer

24th Armoured Brigade
116th Mechanised Brigade
118th Mechanised Brigade

129th Commando Brigade
182nd Parachute Brigade

Third Field Army (Southern Canal Zone) – MajGen Mohamed Abd El Al Mona'am Wasel

4th Armoured Division
3rd Armoured Brigade
25th Independent Armoured Brigade

6th Mechanised Division
22nd Armoured Brigade
113th Mechanised Brigade

7th Infantry Division – BrigGen Ahmed Badawi Said Ahmed
19th Infantry Division – BrigGen Yousf Afifi Mohamed
25th Armoured Brigade (attached)

19th Infantry Division
130th Independent Marine Brigade

GHQ Reserve

3rd Mechanised Division + Special forces + independent
armoured brigades of the Presidential Guard.

Foreign allied contingents operating with the Egyptian forces:

One Algerian armoured brigade
One Libyan armoured brigade
One Moroccan infantry brigade
One Sudanese infantry brigade
One Kuwaiti infantry battalion
One Tunisian infantry battalion

¹ Both the Israeli and the Egyptian orders of battle have been drawn from many sources and they are both largely conjectural as neither the Israel Defense Forces nor the Egyptian armed forces have ever published an official version, and it is doubtful if they ever will.

² Replaced 15 October by MajGen Abd El Munem Halil.

independent tank brigades, two paratroop brigades and approximately 30 battalions of commandos and a marine brigade.

The Egyptian Second Army (18th, 2nd and 16th divisions) was responsible for the northern half of the Canal from Port Said to the northern end of the Great Bitter Lake, through the centre of which ran the dividing line with Third Army (7th and 19th divisions) whose front ran down to, and included, the city of Suez. Each of the assault divisions was reinforced for the crossing by an armoured brigade, drawn in part from the armoured and mechanised divisions.

ISRAELI FORCES

In 1973 the Israeli active army numbered some 75,000 men, of whom one-third were regulars – 11,500 each in the army and air force and 2,000 in the navy. At any time some 50,000 conscripts were undergoing training and a varying number of reservists would be on duty. In the army up to 15 brigades would be operational, although not necessarily

at full strength. On mobilisation, Israel's armed forces grew to 350,000, and over 30 brigades could be deployed, grouped into division-sized task forces (*Ugdas*). In peacetime one *Ugda* was based in Sinai and another on the Golan. The other *Ugdas* were based on training establishments or other cadres and their commanders could be reservists. In the Sinai, an *Ugda* was based around three armoured brigades each of three battalions with a total, at full strength, of 111 tanks per brigade. Infantry and artillery were allotted to the *Ugda* as required for a specific operation or time frame – flexibility being the key rather than a strict order of battle. Few formations were at full strength; for instance the 252nd Armoured Division, the resident unit in the Sinai, had only 290 tanks at the outbreak of war.

The Israeli Army fielded a wide variety of equipment, much of it acquired abroad and modified in Israel. Approximately half its tank fleet were British Centurions. There were also 600 M60s and up-gunned M48s from the United States; some 250 T-54/55s that had been captured in 1967 and 250 Super Shermans, converted from the American stalwart of World War II. Self-propelled 155mm guns, either American M109s or the locally produced *Soltam*, which was mounted on a Sherman chassis, provided the backbone of the artillery arm. The Israelis also fielded captured Soviet artillery and some long-range M107 175mm guns. Armoured personnel carriers were a mixture of World War II half-tracks and modern US M113s supplemented with captured Soviet vehicles.

The IAF possessed about 550 combat aircraft, including 130 F-4 Phantoms, 170 A-4 Skyhawks and older Mirage jets. The Navy possessed five submarines, 21 patrol boats and ten tank landing ships.

The principal commanders on the southern front confer with the Chief of Staff, Lieutenant General David 'Dado' Elazar, on the second day of the war at Khiseiba. General Elazar is seated between Major General Shmuel Gonen (in spectacles), OC Southern Command and Major General Avraham 'Bren' Adan, OC 162nd Reserve Armoured Division. Pointing to the wall map is the commander of 252nd Armoured Division, Major General Albert Mandler. This gallant officer was killed on 13 October by Egyptian artillery fire.



ORDER OF BATTLE ³

ISRAELI SOUTHERN COMMAND,

OCTOBER 1973

Cabinet

Mrs Golda Meir, Prime Minister
General Moshe Dayan, Minister of Defence

Israeli Defense Forces GHQ

LtGen David 'Dado' Elazar, Chief of Staff
MajGen Israel 'Talik' Tal, Deputy Chief of Staff
MajGen Eliezer Ze'ira, Chief of Intelligence

Northern Command

Central Command

Knesset

Legislative Assembly

Southern Command

MajGen Shmuel 'Gorodish'
Gonen ⁴

Ugda Albert (252nd Armoured Division) – MajGen Avraham 'Albert' Mandler ⁵

8th Armoured Brigade – Col Aryeh Dayan
14th Armoured Brigade – Col Amnon Reshef ⁶
401st Armoured Brigade – Col Dan Shomron
460th Armoured Brigade – Col Gavriel Amir ⁷
'Harel' Brigade – Col Avraham Bar-Am
plus Mech Inf & Paratroop support

*Ugda Bren (162nd Reserve Armoured Division) – MajGen Avraham 'Bren' Adan,
GOC Armoured Corps*

217th Reserve Armoured Brigade – Col Natke Nir
460th Armoured Brigade ⁸
500th Reserve Armoured Brigade – Col Aryeh Karen
+ Mech Inf & Paratroop support including
35th Paratroop Brigade – Col Uzi Yairi

Ugda Arik (143rd Reserve Armoured Division) – MajGen (R) Ariel 'Arik' Sharon
14th Armoured Brigade ⁹

600th Reserve Armoured Brigade – Col Tuvia Raviv
'Haim' Brigade – Col Haim Erez
plus Mech Inf & Paratroop units including 247th Reserve Paratroop Brigade – Col Dani
Matt

Ugda Kalman ¹⁰ (146th Reserve Armoured Division) – BrigGen Kalman Magen ¹¹

11th Reserve Armoured Brigade – Col Aharon
'Tzvi' Brigade – Col Tzvi Rom
'Force Gonen' – Col Yoni Gonen
plus Mech Inf & Paratroop support
'Force Granit' – Col Israel Granit ¹²

SHILOMO COMMAND – Southern Sinai District
MajGen (R) Yeshaya 'Shaike' Gavish

- ³ Both the Israeli and the Egyptian orders of battle have been drawn from many sources and they are both largely conjectural as neither the Israel Defense Forces nor the Egyptian armed forces have ever published an official version, and it is doubtful if they ever will.
- ⁴ Superseded from 10 October by LtGen (R) Chaim Bar-Lev as Commander, Canal Front.
- ⁵ KIA 13 October. Replaced by MajGen Kalman Magen and unit renamed *Ugda Kalman*.
- ⁶ To *Ugda Arik*.
- ⁷ To *Ugda Bren*.
- ⁸ Transferred from *Ugda Albert*.
- ⁹ Transferred from *Ugda Albert*.
- ¹⁰ Until 13 October, then *Ugda Sasson*.
- ¹¹ Until 13 October then BrigGen Yitzhak Sasson.
- ¹² Created 18 October after *Ugda Sasson* crossed Suez Canal.
- ¹³ Weapons of 100mm calibre and larger.

Table 1: Force numbers at outset of conflict

	<i>Israel</i>	<i>Arab</i>	<i>Egyptian</i>
Personnel	310,000	505,000	315,000
Tanks	2000	4480	2200
APCs	4000	4300	2400
Artillery	575	2100	1200 ¹³
ATGW	100	1200	900
SAMs	75	1250	850
AA guns	1000	3500	2500
SA-7s	–	3000	2000
Aircraft	360	1000	600

OPPOSING COMMANDERS

ISRAELI COMMANDERS

Israel's political leader at the time of the Yom Kippur War was the formidable **Prime Minister Golda Meir**. Born in Kiev in 1898, her family emigrated to the USA when she was eight. She settled in Palestine in 1921 and became a leading figure in the Labour movement. She was minister of labour from 1949 to 1956 and foreign minister from 1956 to 1966. She became prime minister in 1969. Thereafter she created her own group of close advisers – the famous 'kitchen cabinet' – but her decision was final in most matters. Throughout the October War, she was the firm hand at the helm as those about her faltered and panicked and in the end the state of Israel was saved. But it was not enough to save her and she resigned as prime minister in 1974 following the findings of the Agranat Commission even though it did not find her culpable for failing to appreciate Arab intentions leading up to the war. She died in 1978.

A leading lieutenant in Golda Meir's kitchen cabinet was **General Moshe Dayan** in his role as minister of defence. A founder member of the *Haganah* underground militia, he was imprisoned by the British but subsequently lost an eye fighting in the British Army in 1941. Thereafter he wore his trademark black eye patch and entered the Israeli parliament in 1959. In 1967 he was appointed minister of defence and masterminded the brilliant Israeli success in the Six Day War of 1967 that assured his international reputation as a soldier/statesman.



The defenders of the 'Quay' *Maozim* surrender their position to the Egyptians on 13 October after a siege lasting a week. Of the 42 Israelis trapped in the stronghold, five were killed and 37 wounded – a casualty rate of 100 per cent. (EGIO)

Egyptian troops and armour advance on 7 October to expand their bridgehead eastwards into the Sinai Desert. Operation *Badr* required the five Egyptian infantry divisions to advance some 15km (9 miles) and then dig in so as to remain under the protection of the SAM missile umbrella and avoid retaliation by the Israeli Air Force. (EGIO)



He was again minister of defence between 1969 and 1974. The early Israeli reverses in the opening days of the October War, acutely depressed him and his advice to Golda Meir sometimes bordered on the alarmist and reckless. He too resigned in 1974 following the publication of the Agranat Commission.

Chief of Staff of the IDF was **General David 'Dado' Elazar**. Born in Sarajevo in 1925, he distinguished himself as a member of the *Palmach* during the War of Independence in 1948. He was an infantry brigade commander in the 1956 Sinai campaign, after which he became the commander of the Israeli Armoured Corps from 1957 to 1961. In 1962 he was promoted to Major General and four years later took over Northern Command where he was responsible for the brilliant campaign to capture the Golan Heights during the Six Day War. In 1971 he became the Chief of Staff of the IDF. Hours before the outbreak of the October War, the Israeli cabinet ordered the partial mobilisation of the reserves but Elazar, on his own authority, organised a general call-up; it was a crucial decision that did much to save the state of Israel. After the war, however, the Agranat Commission found him negligent in failing to read Arab intentions. He resigned as Chief of Staff on 2 April 1974 and the Labour government of 30 years fell soon afterwards. He died playing tennis in 1977.

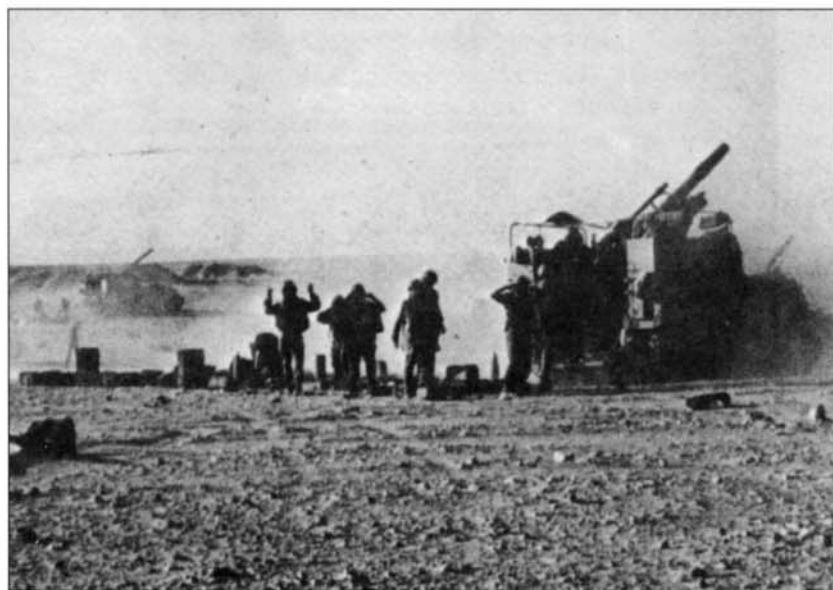
Another victim of the Agranat Commission was the GOC Southern Command, **Major General Shmuel 'Gorodish' Gonen**. He was appointed to the post just months before the war as successor to Major General Arik Sharon, so he had little time to impose his will. His situation was further compromised by the fact that his most experienced divisional commander in the Sinai, Major General Avraham 'Albert' Mandler, was due for replacement as war broke out. His authority was immediately undermined when the more experienced Generals Adan and Sharon were committed to the theatre of operations as the commanders of reserve armoured divisions. Sharon in particular was disinclined to follow Gonen's orders and often bypassed his headquarters to confer with the IDF High Command. It was a recipe for disaster and the highly experienced General

Chaim Bar-Lev, then the minister of trade and industry, was returned to active military duty at Southern Command as the IDF's 'representative of the General Staff' to assist Gonen. In fact he became the overall commander on the southern front. Although personally competent and courageous, Gonen was relieved of his command by the Agranat Commission in 1974 and denied any further military command. Humiliated by the experience, Gonen went into self-imposed exile and ran a diamond business in central Africa. He died in September 1991 and was returned to be buried in Israel.

The dire situation in the Sinai during the opening days of the war was principally salvaged by the superior training of the individual Israeli soldier and the outstanding tactical abilities of the officer corps in general and the divisional commanders in particular – men such as Generals Adan, Mandler and Sharon. All were veterans having fought in the previous Arab-Israeli wars from their days in the *Palmach* as junior officers to their present senior ranks. Tragically, **Major General Avraham 'Albert' Mandler**, a courteous, studious man and a gifted leader, was killed in action on 13 October. He was replaced by **Major General Kalman Magen**, a dynamic tank officer who had been severely wounded during the War of Attrition. In the October War he led his *Ugda*, or division, across the Suez Canal into Egypt.

As the commander of the 162nd Reserve Armoured Division, **Major General Avraham 'Bren' Adan** fought a distinguished war and led his division to the outskirts of Suez City to effect the envelopment of the Egyptian Third Army. As the commander of the Israeli Armoured Corps between 1969 and 1974, he oversaw the doubling in size of the IDF's tank force and the introduction of mechanised infantry. His mastery of mobile armoured operations was a decisive factor in the eventual Israeli victory on the southern front. His final military appointment in the IDF was as defence attaché in Washington DC.

Last but not least was **Major General Ariel 'Arik' Sharon**, the commander of the 143rd Reserve Armoured Division. In June 1973



A battery of M50 self-propelled 155mm howitzers fires in support of Israeli operations in the Sinai Desert. At the time of the October War the Israeli artillery arm was in a state of transition and had only just begun to procure modern self-propelled artillery pieces such as the M109. Most of its self-propelled artillery was still based on the venerable M4A3E8 Sherman chassis with an open-top fighting compartment.

A tank commander scans the horizon for enemy armour as his *Sho't* advances across the desert. *Sho't*, the Hebrew word for whip, is the name given by Israeli tank crews to the upgraded Centurion. The *Sho't* featured a more powerful and reliable Continental diesel engine and many other improvements that made it the outstanding tank of the October War.



Sharon had retired from active service to enter politics. At the time of writing, he is Israel's Prime Minister. In the 1948 War of Independence he commanded an infantry company and in 1953 had founded and led the 101 Special Commando Unit that carried out retaliatory operations against the Arabs. In 1956 he commanded a paratroop brigade and fought in the Sinai. Later he attended the Staff College at Camberley in Britain before serving as an infantry brigade commander and then commander of the IDF's Infantry School. He was appointed commander of the IDF's Northern Command and in 1966 became Director of the Army Training Department. He commanded an armoured division in the 1967 War and in 1969 became GOC of Southern Command. A formidable figure, in every sense of the word, and never one for half measures, Sharon's career had been dogged by controversy. With the outbreak of war in 1973 he swiftly returned to service. As a firm believer that the best form of defence was attack, he was soon bombarding his immediate superior, General Gonen, and the high command with demands to lead an assault across the Suez Canal. There is little doubt that some of his actions during the war amounted to gross insubordination, and in any other army than the IDF he would have been dismissed without question. He had the ear of General Dayan, however, and he escaped serious censure. Despite his overbearing manner, he was a brilliant field commander and leader of men – attributes that cannot be overestimated in times of war. His preparations for a counterattack across the Suez Canal as GOC Southern Command and his hard-charging attitude throughout the war were fundamental to the Israeli victory. He rightly became a hero to the Israeli people in a war that cost them so dearly.



A *Soltam* 160mm self-propelled heavy mortar is prepared for action in the Sinai Desert. Another Israeli self-propelled artillery weapon based on the Sherman M4A3E8 chassis, the breech-loaded heavy mortar is capable of accurate, indirect fire out to a range of 10,000m (10,900yds) with a total of 56 mortar rounds carried on board the vehicle.

EGYPTIAN COMMANDERS

Arrayed against the Israelis was undoubtedly the best army ever fielded by the Egyptians. However, its doctrine was based on Soviet precepts and as such its officers did not have the breadth of experience nor the capacity for individual initiative displayed by their Israeli counterparts. In the set piece battle of the initial offensive they performed admirably. When driven by political imperatives the original concept of a limited bridgehead in the Sinai was abandoned, however, and the maintenance of aim so critical to military success was abandoned with it. From that moment on Egypt's war aims were doomed. After 14 October the Egyptian commanders were denied their ability to command and their troops paid the price despite fighting stubbornly to the end.

Although overshadowed by the charismatic Gamal Nasser, **President Anwar Sadat** skilfully imposed his authority over the Egyptian political and military hierarchy. Many of Nasser's cronies and political appointees in the armed forces were weeded out and more officers were promoted on merit. Having decided on war, Sadat entrusted a select band of approximately 20 officers with the detailed planning for the coming conflict, while he continued to pursue the stalled diplomatic negotiations on the world stage. In March 1973 he assumed the post of Egyptian Prime Minister and military Governor General to consolidate his power before the war began in October. Turning once again to diplomacy in the aftermath of the war, Sadat visited Jerusalem in November 1977. A peace accord was signed with Israel at the US President's Camp David retreat in September 1978 whereby the whole of the Sinai Peninsula was to be returned to Egypt. In the same year, Sadat was awarded the Nobel Peace Prize. It was a triumph by both military and diplomatic means and did much to restore Egyptian self-esteem. But it did little to improve the lot of the Egyptian people and, in a rising tide of Islamic fundamentalism,

Sadat was assassinated in October 1981 during a military review to mark the successful crossing of the Suez Canal at the outset of the October War.

Egyptian Minister of War, and as such Moshe Dayan's counterpart, was **General Ahmed Ismail Ali**. As the army chief of staff in Sinai, he was largely responsible for the disastrous campaign of 1967 when the Israelis comprehensively outfought the Egyptian army and President Gamal Nasser sacked him. However, he had friends in high places close to the president and Ismail was appointed as Chief of Staff in March 1969. In September he was sacked once more following an Israeli commando raid that caused much embarrassment to Nasser – the so-called 'Ten-Hour War' of 9 September when two of the latest T-62 Soviet tanks were captured. Ismail now loathed Nasser and attached himself to Sadat when he became president in 1970. His reward was the post of minister of war in October 1972 at a time when he had been diagnosed with cancer. His illness was to have a significant effect on his performance during the October War when he proved indecisive and plodding. Nevertheless he devised the basic Egyptian strategy of a limited offensive to establish a bridgehead across the Suez Canal after the power of the Israeli Air Force and her armoured corps had been neutralised by defensive missile screens. He succumbed to his illness in December 1974.

Ismail was ably supported by his chief of operations, **Lieutenant General Mohamed Abd El Ghani Al Gamassy**. He was in charge of the detailed planning for Operation *Badr* together with the commanders of the various branches of the armed forces, including Director of Armaments and Organisation **Major General Omar Gohar**; Commander of Air Defence **Major General Mohammed Ali Fahmy**; Air Force Commander **Air Vice Marshal Mohammed Mubarak** (now President of Egypt), and the man given the vital role of building the bridges across the canal, Commander of the Engineers Corps **Major General Aly Mohammed**.

Arguably, Egypt's finest soldier in 1973 was the Chief of Staff of the Egyptian armed forces, **Lieutenant General Sa'ad Al Shazly**. Born in a Nile Delta village in April 1922, Shazly was the founder of Egypt's

The M48 *Magach* was the most numerous tank employed by the IDF on the Sinai front. The M48 was extensively modified by the Israeli Ordnance Corps including up-arming with the 105mm gun and a remodelled commander's cupola. The heroism and self-sacrifice of the three armoured brigades in the first days of the war allowed Israel's reserves to be mobilised. Of the 290 Israeli tanks in the Sinai on 6 October, 150 were put out of action within the first 36 hours, although many were subsequently repaired and returned to the battle.



airborne forces and he was the commander of the first paratroop battalion between 1954 and 1959. During the next two years he was the commander of the Arab contingent of the United Nations forces in the Congo. It was there that he fell out with General Ismail and they cordially loathed each other thereafter. This did nothing to help the Egyptian cause during the October War. Shazly was one of the few officers to gain any credit during the Six Day War when he was able to save most of his troops from the debacle. Thereafter he was appointed commander of the Egyptian Special Forces from 1967 to 1969 and commander of the Red Sea District from 1970 to 1971 when he became Chief of Staff of the Egyptian armed forces in May 1971. During the October War he was the overall commander of the assault crossing of the Suez Canal. He subsequently argued against the major offensive of October 14 and fell foul of Sadat. He quickly realised the danger of the Israeli incursion into Egypt and demanded the recall of the armoured formations on the east bank of the Suez Canal. He was overruled by Sadat and after the war, in December 1973, was sacked. Sidelined, he was given the diplomatic role of ambassador to Britain and then Portugal.

Very little information is available on the Egyptian army's field commanders during the October War. The GOC of Egyptian Second Field Army was **Major General Mohamed Sa'ad Ma'amon** and Third Field Army was commanded by **Major General Abd El Al Mona'am Mohamed Wasel**.

Of constituent units of Second Army, 2nd Infantry Division, which attacked on the axis Ismailia–Tasa, was commanded by **Brigadier General Hassan Ali Hassan Abu Sa'ada**. 18th Infantry Division, commanded by **Brigadier General Abdel Rab Al Nabi Hafez**, attacked from El Qantara towards El Arish. **Brigadier General Fouad Aziz Ghali's** 16th Infantry Division operated on the Deversoir–Tasa axis.

Third Army's 7th Infantry Division, tasked with attacking from Shaloufa towards the strategically important Gidi Pass, was commanded by **Brigadier General Ahmed Badawi Said Ahmed**. Attacking from the city of Suez towards the equally vital Mitla Pass was Egyptian 19th Infantry Division under **Brigadier General Yousf Afifi Mohamed**.

THE OCTOBER WAR

On 13 September 1973 Syrian fighters were scrambled to intercept an Israeli reconnaissance aircraft photographing Soviet shipping approaching the Syrian port of Latakia. In the ensuing battle with IDF top cover, 13 Syrian aircraft were shot down with no Israeli losses. The Syrians' well-advertised plans to meet further aggression provided a convenient cover for their concentration of forces on the Golan Heights. However, by the end of the month this deployment was sufficiently disturbing to prompt Moshe Dayan to order another armoured brigade to the Golan.

On the southern front, the Egyptians concentrated their forces under cover of Exercise *Tahir 73* (Liberation 73), the annual autumn manoeuvres. Reservists were called up towards the end of September with the promise of release by 8 October. Activity along the Suez Canal was kept as normal as possible: Egyptian soldiers continued to fish and to walk along the embankment without helmets; civilians went about their work as usual. Nevertheless, Israeli forces in the Bar-Lev Line noted an increase in activity. Reports came in of artillery moving up to forward positions and troops moving into previously unoccupied SAM positions. Minefields were being cleared and underwater mines blown up or sown in new areas. Earth-moving equipment was much in evidence, as was the



The medical orderlies of an ambulance halftrack search for the wounded on the battlefield following the fierce fighting of 8 October when the Israeli counterattack against the Egyptian bridgehead across the Suez Canal failed. Israeli casualties in the October War were greater than the combined totals of the wars in 1956, 1967 and the War of Attrition.



Armed with 'Gabriel' anti-ship missiles, *Sa'ar* and *Reshef* (right) patrol boats manoeuvre at sea. These Israeli Navy missile boats fought several significant actions against their Egyptian counterparts, notably on the night of 8/9 October when six *Sa'ar* boats intercepted an Egyptian naval force and sank three out of four *Osa* Class boats with 'Gabriel' missiles.

opening of passages to the waterline. But to the Israelis in the Bar-Lev Line there seemed no pattern to this apparently random activity. Israeli intelligence also failed to attach significance to the fact that *Tahir 73* was taking place in *Ramadan*, a time when Muslims avoid strenuous activity during the daylight hours.

On 30 September the situation was discussed by the Israeli High Command, which received a soothing intelligence appraisal from Major General Zeira, who stated that the probability of war was low, a view which won majority approval. At this crucial point in the Egyptian build-up, events in Europe conspired to distract the Israeli leadership further.

On 29 September five Russian Jews were taken hostage by Palestinian gunmen on the Czech-Austrian border, in what became known as the 'Schonau Incident'. As a result the Israeli Prime Minister, Golda Meir, was absent in Europe until 3 October.

On 1 October, purely as a routine precaution, Major General Avraham Mandler's 252nd Armoured Division in Sinai went to the first stage of alert along the Suez Canal. On the same day, after making a thorough analysis of Egyptian activity, a junior officer, Lieutenant Benjamin Tov, on the Southern Command intelligence staff at Beersheba, informed his branch chief, Lieutenant Colonel David Gedaliah, that an Egyptian attack was imminent. His conclusions did not fit the overall Israeli intelligence picture and were ignored. Indeed, Tov was removed from his post but was subsequently reinstated by the Agranat Commission and promoted to the rank of captain.

On the following day, Major General Shmuel Gonen, the recently appointed GOC Southern Command (the entire southern sector of Israeli occupied territory behind the Suez Canal – the Negev and Sinai), made a tour of the Bar-Lev Line, where he ordered a higher state of alert and a review of Operation *Shovach Yonim* (Dovecote). Gonen also issued orders to speed up the assembly of a prefabricated bridge to be used in the event of an Israeli crossing of the Canal – an indication of the unrealistic thinking that pervaded the Israeli High Command in the last days before the October War.

On 3 October Anwar Sadat informed Soviet ambassador Vinogradoff of the imminent offensive. A similar meeting took place in Damascus

conducted by President Assad. Sadat received tacit support with the proviso that Soviet shipping would leave Egyptian and Syrian harbours and civilians would be flown out of Cairo and Damascus. These movements were noted by Israeli intelligence, which warned Major General Elazar of the imminence of war. *Mossad* supported this view, but military intelligence remained certain that the pressures of detente would maintain the status quo in the Middle East. Zeira reasoned that if the Egyptians were indeed preparing themselves for war, the Soviets would have informed the Americans who in turn would pass the information to the Israelis. Nevertheless, Zeira, who was recovering from a brief illness, was beginning to feel uneasy about the developing situation. He received two further warnings via *Mossad* that war was about to erupt. Again Zeira did not act on the intelligence, which he regarded as too vague. Nor did Dayan, to whom the intelligence had also been passed by *Mossad*.

On 5 October Brigadier General Kalman Magen arrived in Sinai to succeed Major General Mandler as commander of the 252nd Armoured Division. Mandler had in his hands an aerial reconnaissance report of a new Egyptian artillery concentration on the Canal and other indications of warlike intent. The two generals decided to postpone the handover, but their request for reinforcements and the implementation of *Shovach Yonim* were refused on the grounds that they would be too provocative. A staff conference of Southern Command, held in mid-afternoon, reviewed all the preparations that had been made and discussed all the relevant plans. A decision was taken to despatch half the staff to visit the Suez front.

On 5 October the Egyptians infiltrated several dozen reconnaissance teams, some dressed as Bedouin, across the Canal. They reported back, 'The Israelis are asleep.' One of these teams and their radio transmitter fell into Israeli hands, but their captors did not know what to make of them.

On the northern front on the night of 5 October, the Syrians also moved their artillery forward, but the significance of this development was not appreciated by Israeli military intelligence. Nevertheless, Elazar placed the active army on the highest state of alert. It remained the



Although the smallest element by far within the IDF, the Israeli Navy performed admirably during the October War and was the only service to escape severe criticism in the findings of the Agranat Commission into the conduct of the war.



A Sho't is re-armed with 105mm ammunition after a tank battle on Thursday 11 October. The prodigious consumption of ammunition during the war became critical for the Israelis after the first week and 105mm tank ammunition was a priority item when Operation Nickel Grass – the aerial re-supply from the United States – began on 13 October.

belief of the Israeli GHQ that the active army was sufficient to absorb the impact of any offensive launched by Egypt and Syria.

Elazar was in a difficult situation. In the first week of October 1973 he was convinced that he was being fully informed by military intelligence and could expect adequate warning to order a general mobilisation of the IDF. On 3 October he had told Israeli journalists, in answer to their questions that in the event of a complete surprise the IDF would be hard pressed to hold the line. After the war, Elazar told the Agranat Commission – established to report on the lessons of the October War – that a great deal of information about the probability of war was withheld from him. There were, he testified, items of information from Friday 5 October that indicated the imminence of war but which had not reached him until the morning of the 6th. Had he received this information, he would have ordered a general mobilisation on Friday morning.

In peacetime Israel maintained a small cadre of regular forces along her borders with a large number of training and reserve units in the interior. The Israelis assumed that they would have at least 48 hours warning of an Arab attack, sufficient to call back their reservists from civilian occupations, fill out their skeleton formations and send them to the front. Mobilisation was a well-rehearsed procedure and all reservists spent several weeks on duty each year.

Israel's Southern Command was about to take the full weight of the Egyptian onslaught. Its commander was General Shmuel Gonen, a soldier with a distinguished record. Gonen was not a glamorous martial figure like the dashing Moshe Dayan, being slight, intensely religious and somewhat pernickety in manner. Like Field Marshal Montgomery he abhorred smoking by his officers. Nevertheless, he was technically competent and did not lack physical courage. He would, however, have his work cut out in the opening 48 hours of Operation *Badr*.

OPERATION BADR

At 0400hrs on the morning of 6 October, the ringing of his bedside telephone woke Major General Zeira. After a brief conversation he rang, in succession, Minister of Defence Moshe Dayan, Chief of Staff Major General David Elazar and his deputy, Major General Israel Tal. He told them that war would break out at around sunset that evening. Israeli intelligence had relayed details of Operation *Badr*, but significantly with the original H-Hour of 1800hrs.

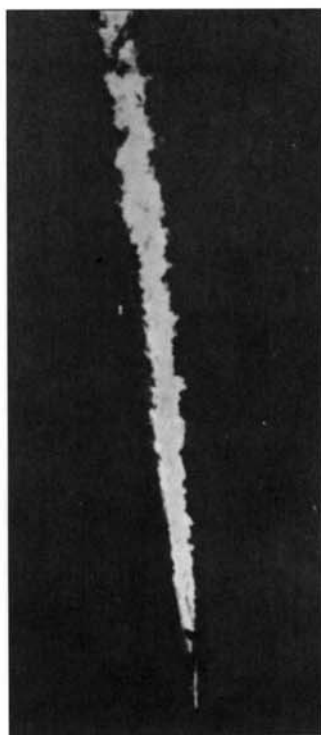
Thirty minutes later the General Staff met and preliminary arrangements were made to prepare for mobilisation, alert Civil Defence and evacuate the exposed settlements on the Golan Heights. Preparations were also made to launch a pre-emptive air strike against Syrian airfields and SAM sites. Shortly after 0700hrs, the commanders of both Northern and Southern Commands arrived at GHQ in Tel Aviv to be told by General Elazar to be ready for war at sunset and to be prepared to launch a major counterattack within 48 hours.

Shortly afterwards the Israeli inner cabinet was in session. Elazar urged full mobilisation but Dayan was willing only to mobilise two divisions. The Cabinet compromised on a mobilisation of 100,000 men. At 1300hrs Elazar, acting on his own initiative, issued a far more widespread mobilisation order. Tal gave orders that to speed the process, companies should be sent to the front as soon as they were ready rather than assemble in brigades and divisions. It was a critical decision particularly in regards to the defence of the Golan Heights.

At this point Prime Minister Golda Meir vetoed any pre-emptive strike against Syria, having been warned by the US ambassador that American diplomatic and material support depended on Israel remaining the victim of aggression. At 1330hrs, only 30 minutes from H-Hour, Cairo Radio interrupted its programme with a spurious news flash that the Israelis had launched a raid on Zafarani on the Red Sea coast. This was followed half an hour later with an announcement that Egyptian troops were crossing the Suez Canal in reprisal. A substantial measure of surprise had been achieved.

At 1200hrs a warning had arrived at Major General Mandler's divisional HQ of an imminent artillery bombardment and instructing all forces to be on the alert. Mandler, who in 1967 had commanded an armoured brigade with distinction on the Golan Heights, was urged by his deputy to activate the *Shovach Yonim* plan and move his tanks forward to the Canal. Mandler issued the order at 1345hrs after talking on the telephone to Gonen. In conclusion Gonen observed that they had better move Mandler's tanks to the front now. Mandler replied with heavy irony, 'Yes, I suppose we had. We are being bombed at the moment.'

The crossing of the Canal had been preceded by an air assault. Some 200 Egyptian aircraft flew low over the Suez Canal and the Gulf of Suez to strike at Hawk surface-to-air missile batteries, airfields, command posts, radar installations and supply bases. Also targeted was the strongpoint known as 'Budapest' on the Mediterranean coast east of Port Fuad. The attackers inflicted some damage but lost nearly 40 aircraft in dogfights and to ground fire. Simultaneously, two Egyptian Tu-16 bombers flew low over the Mediterranean to launch two AS-5 Kelt missiles at Tel Aviv in an attempt to deter the IAF from strategic bombing by sending the message



An Egyptian MiG-21 plunges earthwards after an encounter with Israeli fighters. Despite being flown by Arab, Pakistani, North Korean, Cuban and even Russian pilots, the MiGs and Sukhois of the Egyptian Air Force were consistently outfought suffering 172 aircraft lost in air-to-air combat to five aircraft for the Israelis.



At dawn on 14 October, following a massive air strike and artillery bombardment, 1,000 Egyptian tanks advanced out from under the protection of their SAM umbrella on three major axes. The Israelis were ready and by noon had destroyed 250 tanks and 200 other AFVs for the loss of just 20 of their own tanks. (EGIO)

that its own aircraft could hit civilian centres. One missile fell into the sea and an IAF fighter downed the other. A further 14 Tupolevs attacked targets in the Sinai Desert with Kelt missiles with some success.

Along the Canal front, over 2,000 guns began a bombardment of the Bar-Lev Line. Howitzers and heavy mortars began to pour shells on its forts, minefields and barbed wire entanglements. 'Katyusha' rocket launchers and 'Frog' surface-to-surface missile batteries opened up. Their fire was supplemented by tanks that had climbed on to previously prepared positions atop the sand ramparts on the western bank of the Suez Canal to engage the Israelis with direct fire. During the first minute of Operation *Badr* 10,500 shells fell on the Israeli first line of defence.

Assault Crossing

Every aspect of the crossing operation had been planned in the greatest detail. Ten bridges were to be thrown over the Canal: three in the El Qantara sector; three in the sector Ismailia–Deversoir; and four in the sector Geneifa–Suez. The first Egyptian wave was tasked with seizing and holding the earth and sand ramparts of the Bar-Lev Line. When the second wave arrived on the east bank, the troops of the first wave were to advance another 180m (200yds) and hold their positions. The third and fourth waves, due to arrive an hour after the opening of the assault, would join the first and second waves. The entire force would move forward as soon as the support units joined it. It was the task of the first wave of attacking infantry to advance up to 3km (2 miles), while specially trained infantry units dealt with the strongpoints. It was planned that each bridgehead would expand to a width of 8km (5 miles) and 5.6km (3 ½ miles) deep. With the arrival of tanks and artillery, they would then expand to 16km (10 miles) wide and 8km (5 miles) deep.

Shortly after the bombardment opened, commando units equipped with 'Sagger' wire-guided anti-tank guided weapons (ATGW) and rocket-propelled grenades (RPG), crossed the Canal at a number of points, scaled the ramparts on the eastern bank and headed for the empty Israeli ramps to deny the IDF tanks their pre-planned firing positions. The Soviet-

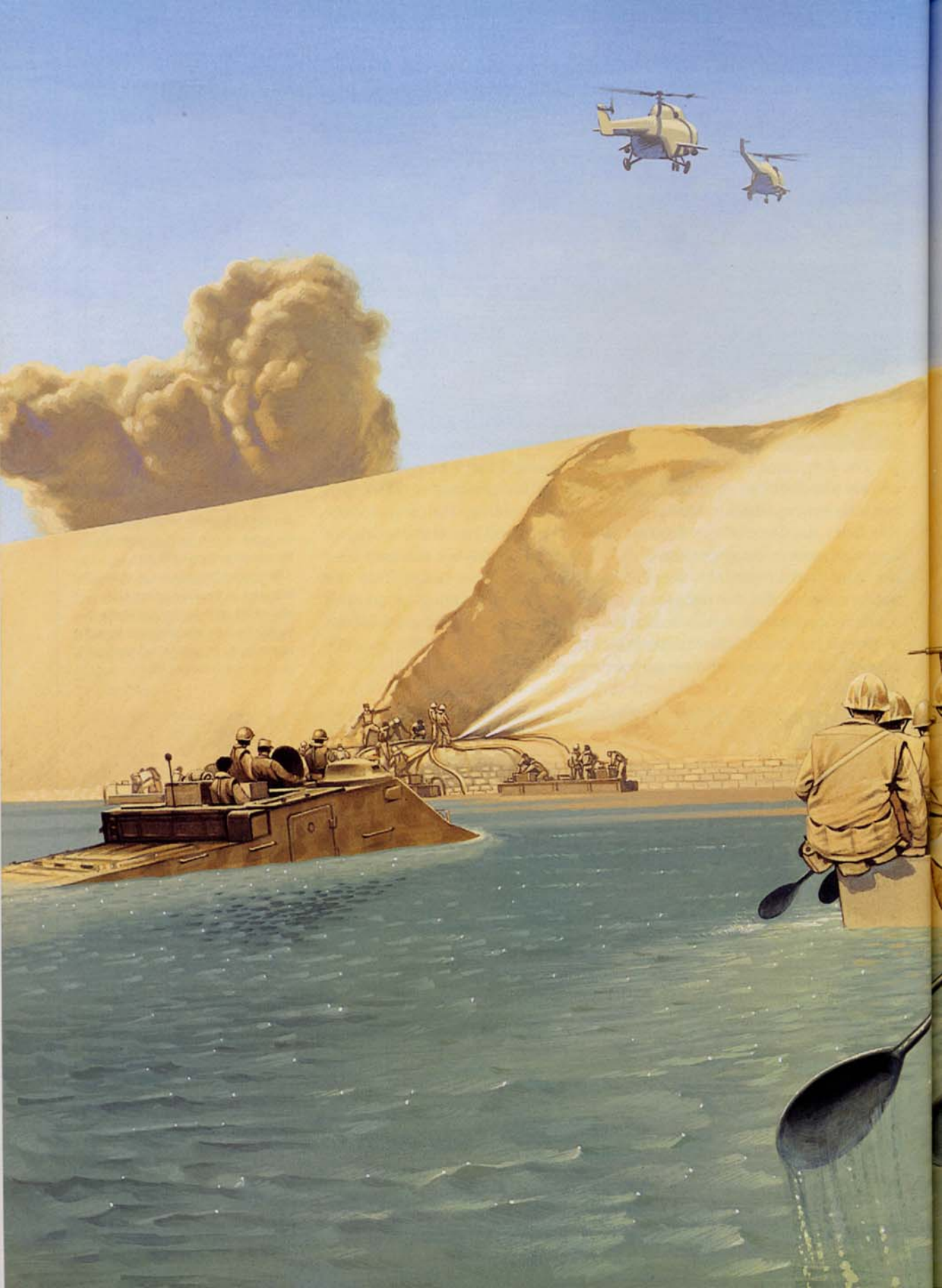
supplied 'Sagger' (the NATO codename for the 9M14M *Malyutka* wire-guided anti-tank missile) could be carried by a single infantryman, was guided to its target by means of a sight and joystick and was capable of penetrating the thickest armour. When used in combination with the close-range RPG-7 unguided rocket-propelled grenade, the 'Sagger' gave the Egyptian infantry a powerful counter to IDF armour whenever the latter attacked without infantry support of their own.

At 1420hrs, as the Egyptian aircraft returned from their bombing sorties, the first wave of 4,000 assault infantry swarmed across the Canal in rubber boats, aiming for the 'dead' areas between the manned forts of the Bar-Lev Line, which were restricted to a field of fire extending to about 1km (0.6 miles) on either side. General Shazly later described the scene: 'The men of Wave One poured over our ramparts and slithered in disciplined lines down to the water's edge. The dinghies were readied, 720 of them, and, as the canisters began to belch clouds of covering smoke, our first assault wave was paddling furiously across the canal, their strokes falling into the rhythm of their chant, "Allahu Akbar ... Allahu Akbar [God is Great]."'

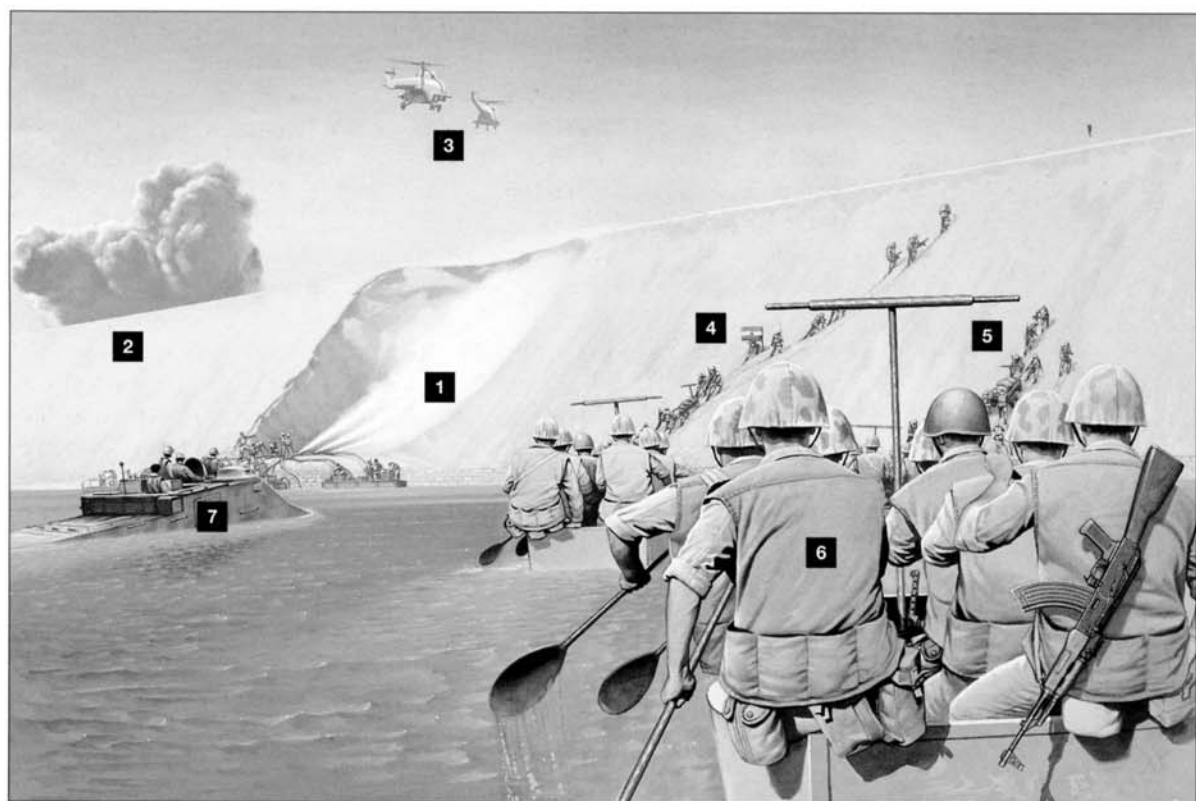
The Egyptians had anticipated that they would incur heavy casualties in this phase of the operation, and the need for personal sacrifice had been hammered home during the months of training. Fierce automatic fire from the forts of the Bar-Lev Line took its toll but the majority of Egyptian assault troops reached the eastern bank only six minutes after the guns had opened up. Flexible assault ladders were dragged up the sand ramparts and the infantry, accompanied by tank-killing squads and artillery observation parties, scaled the ramparts and began to push inland to establish a defensive front 3km (2 miles) from the canal while specially trained units engaged the strongpoints in the Bar-Lev Line itself.

An M48 Magach rocks back on its suspension as it engages Egyptian forces with its 105mm main armament. Superior training, a flexible command structure and better equipment were the key elements in Israel's superiority in armoured warfare during the October War.









EGYPTIAN ASSAULT CROSSING OF THE SUEZ CANAL, 6 OCTOBER 1973 (pages 42–43)

An opposed crossing of a major waterway remains one of the most difficult military operations of all. In October 1973 the sand ramparts of the Bar-Lev Line comprised over 1.5 billion cubic metres of sand and rubble. They were quite impervious to conventional explosives and engineer earth-moving equipment would have taken days to create any passages through them. Several foreign observers believed the ramparts could only be breached by tactical nuclear weapons, but a group of Egyptian engineers thought differently. Having worked on the construction of the Aswan High Dam, they had found that high-pressure water hoses could move large quantities of soil and sand. Large numbers of generator-driven high-pressure pumps were acquired for the 'Cairo Fire Department' from Britain and West Germany. The first trials of this method were conducted in September 1969 with a capacity to shift 500 cubic metres per hour. Once the technique had been refined it was found a gap could be created in three to four hours. It was this method that was used to break through the great sand berms (1) on 6 October, creating the gaps through which the Egyptian troops poured. The bottom of the gap was then levelled by bulldozers and lined with steel matting to allow the passage of tanks and other vehicles. As the engineers breached the ramparts, Egyptian artillery bombarded the Israeli strongpoints along the Bar-Lev Line (2) to prevent the defenders from observing or interfering with the crossing.

At the same time Mi-8 helicopters (3) transported Egyptian *Al Saaqa* Commandos behind Israeli lines to disrupt the movement of reinforcements to the canal. At 1430hrs the first troops landed on the east bank of the Suez Canal (4). In the first wave were 720 assault boats carrying 4,000 men. The gradient of the sand rampart was difficult for soldiers to climb with just their personal weapons and kit, so heavier weapons such as ATGW and AA missiles were carried in four-wheel carts (5) that were designed specifically for Operation *Badr*. Thousands of scooter wheels were purchased from Vespa and Lambretta of Italy and 2,240 carts went to war carrying 336 tons of 'Sagger' ATGW and *Strela* shoulder-launched, anti-aircraft missiles deep into the Sinai to counter the Israeli Air Force and Armoured Corps. Tests demonstrated that the carts could be dragged up the sand berms relatively easily. The assault troops (6) can be seen paddling across the canal to the rhythmic chant of 'Allahu-Akbar' (God is Great). They are equipped with a mixture of 7.62mm AKM assault rifles and the Egyptian-manufactured 9mm Port Said submachine gun. They are also equipped with Soviet helmets and respirators but the rest of the uniform is of local manufacture, apart from the water bottle and its M1941 cover, which is of American origin. The OT-62 TOPAS amphibious armoured transporter (7) acted as a rescue boat during the initial assault and supported the engineers by towing their generators and pumps across the canal. (Kevin Lyles)



In the citizen army of the IDF, women perform a significant number of support roles including communications and intelligence analysis. Here a female soldier collates data at the Refidim administrative headquarters of Southern Command on 14 October 1973, the day of the major Egyptian offensive into the Sinai Desert. Refidim was the principal supply and command complex of the IDF in the Sinai and was a target for Egyptian fighter-bombers in the opening hours of the war.

Six minutes later the second echelon companies of the assault battalions paddled away from the west bank of the Canal, to be followed 12 minutes later by battalion heavy-weapons teams and then, at H+40 minutes, a complete ammunition re-supply. One hour after the initial assault the remaining battalions of the assault brigades pushed off, followed within another hour by the leading elements of the second wave brigades.

By 1500hrs Mandler was in no doubt that the Egyptians were launching a major attack all along the canal front. Within another two hours it was also clear that the crossing of the Canal was a large-scale amphibious operation along its entire length. (Ironically, just such an operation had been the basis of an Israeli staff exercise in 1971.) The Egyptian infantry divisions were now well on the way to establishing a bridgehead up to 7km (4 miles) wide and were also using their high-pressure hoses to blast gaps through the sand ramparts to make vehicle exits for their mechanised and armoured formations. North of the Great Bitter Lake this had worked admirably. However, to the south of the lake, the hoses had reduced the clay-based ramparts to a glutinous slurry, eventually obliging the Egyptian engineers to bring up bulldozers and explosives. By 1615hrs eight infantry waves were across the Canal, ten brigades numbering some 25,000 men, concentrated in five divisional bridgeheads.

In his headquarters, Major General Gonen anxiously tried to assess the situation as reports flowed back along the buried communication lines from the 18 manned fortifications in the Bar-Lev Line, which were garrisoned by 436 men of the Jerusalem Brigade, mostly reservists completing their annual training. Where the troops had manned their firing positions, they were able to beat back the Egyptians, but the latter broke into the fortifications where the defenders had been ordered to take shelter on the assumption that the enemy had launched only an

Half hidden in a hull-down position behind a pile of rocks, an M60 Magach engages enemy armour. It was from positions such as this that Israeli tanks broke up the great Egyptian offensive of 14 October by engaging at long ranges with heavy artillery support to suppress any 'Sagger' teams. In this way the Israelis achieved an astonishing victory, destroying 250 tanks at a loss of just ten to themselves.



10. Many tanks from 14th Armoured Brigade, 252nd Armoured Div. are deployed forward in support of the Jerusalem 68th Infantry Battalion manning the strongpoints along the Bar-Lev Line. Most of the Israeli strongpoints are captured or evacuated during the next 24 hours.

11. In the north 460th Armoured Brigade advances towards the Suez Canal during the late afternoon but is unable to contain the Egyptian offensive. It suffers significant losses to Egyptian tanks and anti-tank missiles on the Canal ramparts and the Egyptian infantry's hand-held anti-tank weapons.

8. Afternoon, 6 October. 135th Infantry Brigade advances from Port Fuad and, supported by airborne landings of Egyptian Marine Commandos, attacks the Israeli strongpoint of 'Budapest'. The strongpoint is isolated but resists all attacks until relieved on 10 October.

6. 1420hrs. The 4,000 men of the Egyptian first wave begin crossing the Canal in 720 rubber boats.

1. 1400hrs. More than 2,000 guns begin a bombardment of the Israeli defences of the Bar-Lev Line. Artillery fire is supplemented by attacks by 240 strike aircraft as well as helicopter commando raids and direct fire from tanks firing from previously prepared positions on the west bank of the Suez Canal. Some 10,500 shells fall on the Israeli first line of defence in the first minute.

XXXX
Second
MA'AMON

2. Shortly after the bombardment begins, special 'Sagger'-equipped Egyptian tank-hunting teams cross the Canal to deny the Israeli tanks access to their pre-planned firing positions.

3. In the El Qantara-Ismailia sector, Egyptian 18th and 2nd Infantry Divisions spearhead the attacks of Egyptian Second Army, supported by 15th Independent Armoured Brigade and 24th Armoured Brigade.

4. Egyptian Second Army's 16th Infantry Division crosses the Canal south of Ismailia, between Lake Timsah and the Great Bitter Lake. It is supported by 12th Armoured Brigade, 21st Armoured Division.

6. 1420hrs. The 4,000 men of the Egyptian first wave begin crossing the Canal in 720 rubber boats.

XXXX
Third
WASEL

EGYPTIAN FORCES

Second Army - MajGen Ma'amon

- 1 18th Infantry Division - BrigGen Hafez
- 2 135th Infantry Brigade
- 3 2nd Infantry Division - BrigGen Sa'ada
- 4 16th Infantry Division - BrigGen Ghali
- 5 21st Armoured Division
- 6 23rd Mechanised Division

Third Army - MajGen Wasel

- 7 7th Infantry Division - BrigGen Ahmed
- 8 19th Infantry Division - BrigGen Mohamed
- 9 4th Armoured Division
- 10 3rd Mechanised Division
- 11 6th Mechanised Division
- 12 130th Independent Marine Brigade
- 13 Egyptian Navy units

9. The Israeli division defending the Sinai is the 252nd Armoured Division with its headquarters at Redfidim, also Israeli communications and administrative HQ for Southern Command.

ISRAELI FORCES

252nd Armoured Division - MajGen Mandler

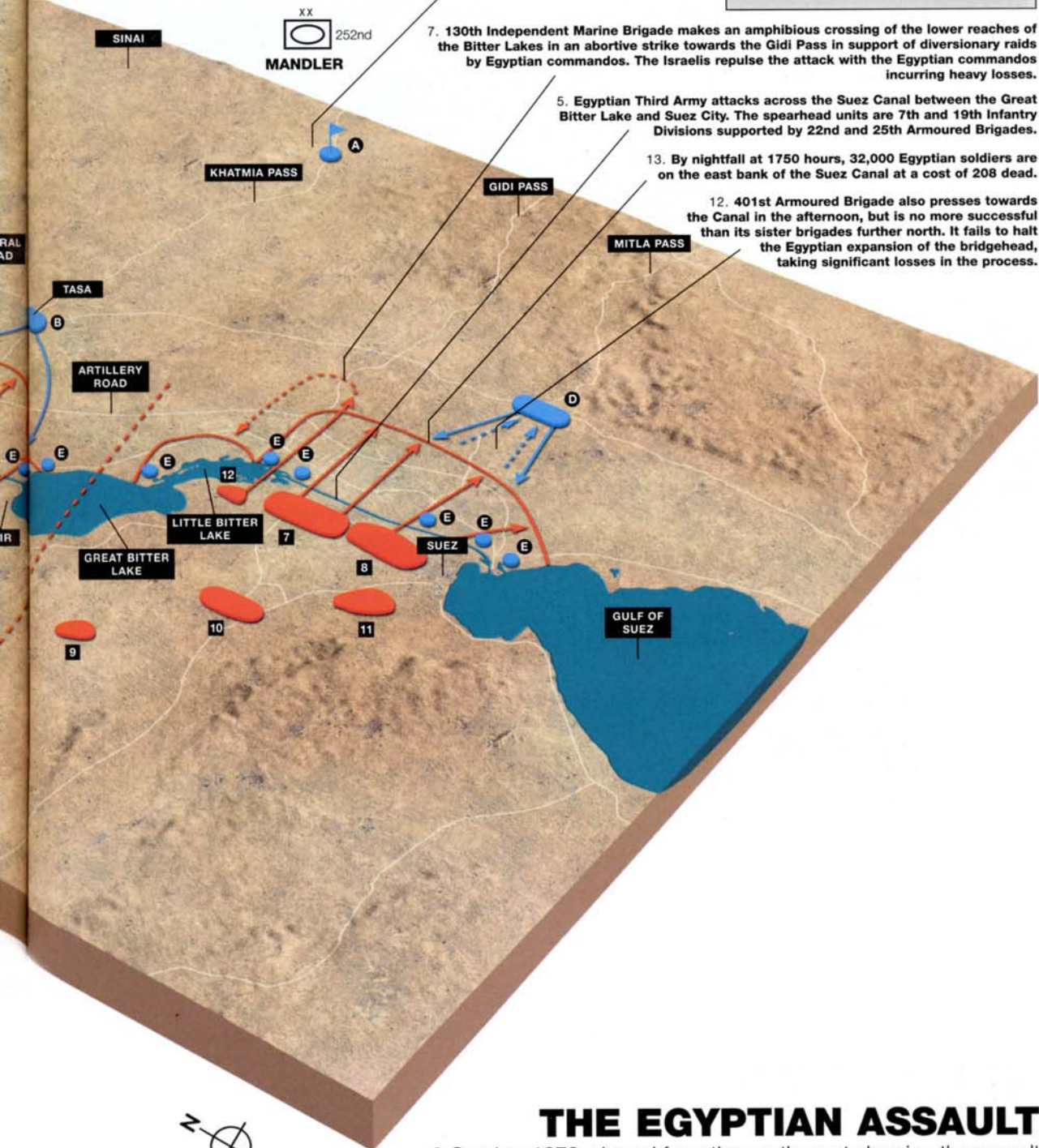
A Divisional HQ

B 14th Armoured Brigade

C 460th Armoured Brigade

D 401st Armoured Brigade

E 68th Infantry Battalion (-), Jerusalem Brigade



7. 130th Independent Marine Brigade makes an amphibious crossing of the lower reaches of the Bitter Lakes in an abortive strike towards the Gidi Pass in support of diversionary raids by Egyptian commandos. The Israelis repulse the attack with the Egyptian commandos incurring heavy losses.

5. Egyptian Third Army attacks across the Suez Canal between the Great Bitter Lake and Suez City. The spearhead units are 7th and 19th Infantry Divisions supported by 22nd and 25th Armoured Brigades.

13. By nightfall at 1750 hours, 32,000 Egyptian soldiers are on the east bank of the Suez Canal at a cost of 208 dead.

12. 401st Armoured Brigade also presses towards the Canal in the afternoon, but is no more successful than its sister brigades further north. It fails to halt the Egyptian expansion of the bridgehead, taking significant losses in the process.

THE EGYPTIAN ASSAULT

6 October 1973, viewed from the south-west showing the assault crossing of the Suez Canal by Egyptian Second and Third Armies.



During the October War the IDF possessed only 570 artillery pieces with a calibre greater than 100mm whereas the Arabs had 2,055. After the heavy tank losses to 'Saggers' and RPGs, artillery was increasingly used to counter the exposed ATGW teams. Here an M109 155mm self-propelled howitzer fires on Egyptian troops.

artillery attack. The Egyptian anti-tank teams, who had occupied the firing ramps, roughly handled the armoured forces rushed up to relieve the strongpoints. However, it should be noted that, in spite of fighting against overwhelming odds, not one of the *Maozim* was abandoned without orders. On the morning of 7 October the order was given for Israeli troops to evacuate the Bar-Lev Line; most did but some fought on.

While the Egyptians were blasting their way through the ramparts of the Bar-Lev Line, the Soviet-supplied amphibious vehicles and bridging equipment were brought up to specially prepared launching sites on the west bank. This equipment included 50-ton motorised rafts, each capable of ferrying four main battle tanks or up to ten trucks with four guns and trailers or 16 jeeps (the 96-ton rafts had twice this capacity); and PMP pontoon bridging trains which could be assembled in less than an hour. The bridges were assembled in prefabricated sections that slotted into each other, making them easy to repair if damaged by artillery or air attack. The Egyptians also brought up dummy bridges to absorb the attention of the IAF.

Within ten hours of the first crossing, the organic battalions of the infantry divisions were moving over the Canal to join their parent formations. They were to be followed within an hour by the divisional artillery and support elements. On the southern front, running from the Great Bitter Lake to the Gulf of Suez, the crossing was made by the Egyptian Third Army, commanded by Major General Wasel. Spearheading the assault were 19th and 7th Infantry Divisions supported by 22nd and 25th Armoured Brigades, the latter moving over the canal on the morning of 7 October. Moving up behind them were 4th Armoured and 6th Mechanised Divisions. In the northern sector, from the Great Bitter Lake to El Cap, where the Canal ran on to Port Said through swampy ground, the assault of Major General Sa'ad Ma'amoun's Second Army was led by three infantry divisions – 16th, 2nd and 18th – supported by 14th, 24th and 15th Armoured Brigades and 21st Armoured and 23rd Mechanised Divisions close behind.

The Canal crossing had gone like clockwork. In the planning stage the Egyptians had calculated that they might sustain up to 30,000 casualties in the initial phase. In fact, their losses amounted to little more than 200 killed. The commander of one of Third Army's two infantry divisions, which ran into determined Israeli resistance, later noted that he suffered 10 per cent casualties in the initial assault, a third of the figure he anticipated. A single Israeli tank had held up his men for 30 minutes before it was overwhelmed. To their amazement it was discovered that the entire tank crew were dead with the exception of one wounded man who had fought on alone. As he was borne away on a stretcher this brave soldier saluted the Egyptian general.

Not all Egyptian operations proceeded so smoothly. One of the subsidiary operations involved an eastward advance by 135th Infantry Brigade 11km (7 miles) along the coast road from Port Fuad to link up with seaborne support to storm the Israeli strongpoint known as 'Budapest', situated on a sandbank on the edge of the Mediterranean. 'Budapest' was manned by 18 men under the command of a reserve officer, Captain Motti Ashkenazi, and was the only position along the Bar-Lev Line to be reinforced by a platoon of tanks, in accordance with standing orders.

On the afternoon of 6 October the Egyptians attacked 'Budapest' with a force that included 16 tanks, 16 APCs, and jeeps mounting recoilless anti-tank guns. In the ensuing clash, eight APCs and seven tanks were set ablaze. After the arrival of an Egyptian Marine Commando unit, 'Budapest' was isolated and an Israeli relief force ambushed and destroyed. Ashkenazi was finally relieved on 10 October by a force personally led by Brigadier General Magen. However, the defenders of 'Budapest' quickly found themselves surrounded once again by Egyptian commandos. After heavy fighting, the Israelis reopened the route to 'Budapest', which held

An Israeli *Katyusha* battery lays down a devastating curtain of fire during a bombardment of Egyptian positions. In the foreground, a battery of M50 155mm howitzers prepares to fire.





Ammunition is the lifeblood of war and it was expended in far higher quantities than anyone had imagined or planned for during the October War. By the end of the great Egyptian offensive of 14 October, the IDF was critically short of 105mm tank ammunition; indeed its planned counteroffensive across the Suez Canal remained in jeopardy for want of ammunition until thousands of rounds were flown to Israel by the US Air Force at the outset of Operation Nickel Grass; one of the largest air re-supply operations in history.

out until the end of the war having withstood everything that the Egyptian armed forces could throw at it. It also earned the distinction of being the only front-line position in the Bar-Lev Line that did not fall to the Egyptians. Captain Ashkenazi subsequently became a leading member of the pressure group protesting the IDF's conduct of the war and a prime mover in the resignation of Minister of Defence Moshe Dayan.

The Egyptian commandos, who had been landed along the entire Sinai front, from Port Fuad in the north to Sharm El-Sheikh at the tip of the Sinai Peninsula, did not enjoy the same success as their army colleagues in the opening phases of Operation *Badr*. An attempt was made to cross the Great Bitter Lake by 130th Marine Brigade, employing PT-76 amphibious tanks. The aim was to bypass Israeli forces and link up with heliborne commando forces in the area of the Mitla and Gidi passes. However 14 of the commandos' helicopters were shot down by the IAF and those units that managed to survive the carnage were surrounded and captured before they could close the passes to the Israeli reinforcements rushing up from the east.

During the night of 6/7 October the Egyptians had pushed about 500 tanks across the Canal and a great quantity of artillery and APCs, much of it in the Second Army sector. In the southern sector little heavy equipment got across. Nevertheless, by late morning on 7 October five infantry divisions had crossed the Canal, each with a brigade of tanks and battalions of SU-100 self-propelled guns and BRDM mobile AT-3 'Sagger' launchers. To the north of the Great Bitter Lake, Egyptian infantry supported by tanks pushed into Sinai.

SHOVACH YONIM

The Israeli High Command was unaware of the operational pause that the Egyptians were to impose after crossing the Canal. They feared that the Egyptians would bring their armoured and mechanised reserve

across the Canal and drive for the vital Gidi and Mitla passes. When they failed to halt the Egyptians at the canal waterline, they resolved to stop them at the line of the Artillery Road (in fact the planned limit of advance in the first phase of Operation *Badr*).

However, on the evening of 6 October the Israelis were still in confusion. Early in the evening General Elazar described the situation as 'reasonable', a view prompted by a helicopter trip to the Gidi and Mitla Passes made by Mandler's deputy, Brigadier General Pino. Elazar optimistically anticipated an Israeli crossing of the Canal the next day, even though the bridging equipment was not yet ready. The fog of war had enveloped the battlefield in the south.

At Mandler's headquarters there was similar confusion. Mandler's armoured forces were moving forward but with no clear picture of the developing battle. In the northern sector the 460th Brigade commanded by Colonel Gaby Amir was moving to block what was anticipated to be the main Egyptian thrust. Colonel Amnon Reshef's 14th Armoured Brigade was moving westward in the centre while in the south Colonel Dan Shomron's brigade was rushed through the Gidi Pass to a position south of the Great Bitter Lake.

Amir divided his force and attempted to reach two fortifications at Mifreket, on El Balah Island, and the stronghold east of El Qantara known as 'Milano'. He ran into fierce resistance and early on the morning of the 7th was ordered by Brigadier General Magen, who had assumed control in the northern sector, to withdraw his force and evacuate the fortification at Mifreket. In fighting his way through to Mifreket, Amir's brigade had been reduced to 20 tanks. Amir's battered force extracted itself to regroup.

In the central sector, Colonel Amnon Reshef, the commander of 14th Armoured Brigade and a strikingly tall figure who sported a luxuriant handlebar moustache, was denied his pre-planned positions on the Canal by Egyptian anti-tank units equipped with RPGs. Their fire was augmented by 'Saggers' and Egyptian tanks on the west bank of the Canal, whose positions overlooked the approaching Israeli armour. On the 16km (10-mile) front Firdan–Ismailia, all but two of Reshef's tanks were knocked out. Throughout the night the two tanks held the crossroads at Firdan against a force of some 50 Egyptian tanks.

In the southern sector, Colonel Dan Shomron, commander of 401st Brigade, had been ordered not to move forward until the afternoon of the 6th, but at 1400hrs had come under attack by Egyptian warplanes. He divided his brigade of approximately 100 tanks, and at 1600hrs sent one battalion through the Mitla Pass, one battalion through the Gidi Pass and a third battalion through the Khatmia pass, in case the Egyptians had blocked the two main routes into the Sinai.

Shomron, who in 1976 was to become the hero of the Entebbe raid, was responsible for a 56km (35-mile) front, stretching from the junction of the Great and Little Bitter Lakes south to Ras Masala, 19km (12 miles) south of Suez. In Shomron's sector the Israelis were facing some 650 tanks of the Egyptian 19th and 7th Infantry Divisions, 6th Mechanised Division and 4th Armoured Division, augmented by 130th Marine Brigade, tasked with the crossing of the Great Bitter Lake and blocking of the Gidi and Mitla passes. Shomron was outnumbered by a factor of over six to one.

Shomron's immediate objective was to link with the Bar-Lev fortifications besieged by the Egyptians. By the evening of 6 October he had achieved this objective. Only at Port Tewfik, on the breakwater opposite Suez and garrisoned by 42 regular army soldiers, was Shomron thwarted. The approaches to the 'Quay' fortification had been mined and were invested by thousands of Egyptian troops supported by tanks and artillery. Nevertheless, Shomron had been unable to obtain Mandler's agreement either to evacuate or reinforce the strongpoints and his losses had been heavy. By 0800 hours on Sunday 7 October, only 23 of his tanks were still 'runners'. Two-thirds of Shomron's losses in the entire October War had been incurred in the first night of action. He was now ordered to break all contacts with the Bar-Lev Line and concentrate on blocking the Egyptian advance.

Aware of his desperate situation – his three artillery batteries faced 75 batteries of Egyptian guns – Shomron concentrated his battered brigade and, husbanding his resources, hit the Egyptians in a long-range fire and movement battle, denying the enemy any chance to bring numbers to bear. It was not until 9 October that the Egyptians were in turn able to launch two mechanised brigades across the Artillery Road towards the Mitla Pass. Again Israeli tactical flexibility carried the day. Shomron counterattacked destroying at least 20 Egyptian tanks and many APCs and forcing the Egyptians to withdraw.

On the morning of 7 October, however, the Israelis had little or nothing to celebrate. Two forts in the Bar-Lev Line obeyed the order to surrender. Five more had been abandoned, some of their garrisons making their way back to the Israeli lines on foot, others riding on the tanks sent to relieve them. Some platoons were ambushed and wiped out by Egyptian infantry as they headed for the Artillery Road. Of the

As the war progressed, the Israelis pressed into service all their tanks held in strategic reserve including the elderly World War II-vintage Shermans. Over the years, these Shermans had been heavily modified and were now armed with an innovative French 105mm gun firing HEAT ammunition. Despite their age, the Shermans proved effective both in the Sinai and on the Golan Heights against the Syrians and Iraqis.





The McDonnell Douglas F-4 Phantom was the Israeli Air Force's primary fighter-bomber during the October War. It was capable of carrying seven tons of external ordnance including air-to-air missiles, bombs and ECM pods. The Phantom was used extensively against the Egyptian bridges across the Suez Canal in the first days of the war, when they suffered severe losses; 33 Israeli Phantoms were downed during the war. As Israel faced the prospect of defeat in the opening days of the October War, a squadron of Phantoms was loaded with 13 20-kiloton nuclear weapons as the final arbiter of the fate of the Third Temple.

252nd Division's tanks, 153 (60 per cent) had been put out of action, many of them left stranded in the Egyptian bridgeheads, their burning hulks festooned with the guide wires of the 'Sagger' missiles that destroyed them. They had inflicted losses on the Egyptians but had not disrupted the planned development of Operation *Badr*.

There was confusion and a loss of morale in the units engaged in the opening phase of fighting. On his arrival at Tasa Base, situated on the Lateral Road 40km (25 miles) east of the Canal, Major General Ariel Sharon, a senior reserve officer soon to be thrown into the thick of the fighting, was dismayed at the apparent bewilderment of Israeli troops: 'Suddenly something was happening to them that had never happened before. These were soldiers who had been brought up on victories ... It was a generation that had never lost. Now they were in a state of shock ... How was it that [the Egyptians] were moving forward and we were defeated?'

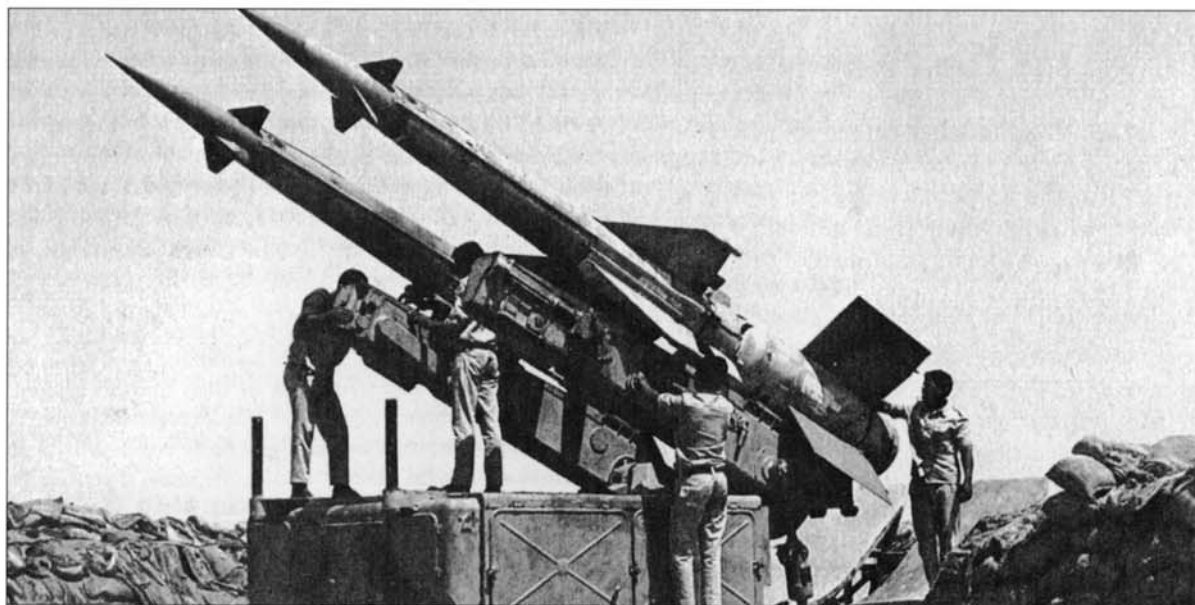
In the late afternoon of 6 October the IAF had flown dozens of ground-support missions against the Egyptian bridgeheads. As darkness fell, it resorted to flares to locate and destroy the bridges. However, the IAF had only a limited ability to mount night operations, and these attacks did little to slow down the Egyptian timetable. Early on the morning of Sunday 7 October, the General Staff decided to disregard the Syrian offensive on the Golan Heights, where the IDF was believed to be holding, and throw the weight of the IAF against the Egyptians. Its Phantom and Mirage squadrons were given the task of destroying the anti-aircraft missile network between the Canal and Cairo, clearing the sky over the Suez Canal for ground-attack missions.

The Israeli jets took off at 0700hrs on the first stage of their mission, flew through the missile screen and hit a number of radar sites and airfields near the Canal and in the Nile Valley. They returned to their bases to refuel and rearm before launching massed attacks on the Egyptian missile umbrella in the Suez Canal zone. At this point they were abruptly switched back to the Golan front by Moshe Dayan, who, bypassing normal channels, told the commander of the IAF, General Benjamin Peled, that 'The Third Temple' (code for Israel) was in the utmost danger as Syrian tanks had broken through on the Golan and were plunging down the slopes towards the Jordan Valley. The IAF had to halt the Syrian armour. Dayan told Peled that the Sinai was mere sand; in the north Israeli homes were now in danger.

To the dismay of his senior staff, Peled turned the IAF back towards the Golan, leaving the Egyptian anti-aircraft network intact and the tank brigades without air support. Dayan compounded the strategic confusion that afternoon by recommending a withdrawal to a defence line on the Gidi and Mitla passes to Golda Meir, only to have the recommendation rejected by General Elazar.

By 0800hrs on 7 October the battle of the Suez Canal crossings had been won. According to General Shazly, Egyptian losses had been five aircraft, 20 tanks and 208 killed. In 18 hours the Egyptians had passed across the Canal 90,000 men, 850 tanks and 11,000 vehicles. Within another four hours, the Egyptian 7th Infantry Division and 25th Armoured Brigade had crossed with all its forces south of the Bitter Lakes.

The Israelis were still off balance and effectively without armour in the tactical zone. Egyptian military intelligence had forecast that the main



blows of the IDF's mobilised reserves would fall within eight hours of the assault. But 18 hours had passed without any sign that the enemy's reserves had been committed. It now appeared that a counter-blow would not fall until 8 or 9 October. Shazly recalled: 'For both sides, Sunday was a race to prepare for that big battle. The very success of our deception operations had handed the enemy some advantages in this race. The principal benefit was that our deployments were fully revealed: the five sectors; the heavily reinforced infantry divisions in each; our tactics at the perimeters; the caution of our steady moves forward; the nature, density and effectiveness of our portable SAM and ATGW. The enemy could plan their counter-attack on fairly full knowledge. Had their reserves been available in the later stages of our initial assault, by contrast, they would have attacked in considerable ignorance of our plans and of what our infantry could achieve.'

The next phase, up to 11 October, was to be devoted entirely to the defensive: consolidating and extending the long, shallow Egyptian bridgehead while inflicting maximum losses as the IDF counterattacked. Simultaneously the Egyptians planned to push down the coast of the Sinai towards Ras Sudur and Sharm El-Sheikh.

THE FIRST ISRAELI COUNTERATTACK

The IDF High Command, dominated by veterans of Israel's Armoured Corps, were disciples of the doctrine of the concentrated armoured punch. This belief had not been dented by the setbacks of the first two days of battle. Rather Elazar and Gonen – now established in his advanced headquarters in Um Kusheiba – believed that the initial piecemeal commitment of armoured formations, in platoons and companies, had led to their being mauled by Egyptian armour, artillery and, in particular, infantry well armed and trained in the anti-tank role. Divisional- and brigade-strength blows delivered by the Israelis would be a different matter.

The 'Goa' SAM-3 was another static anti-aircraft missile system that provided low- to medium-altitude coverage from 106m (350ft) to 4,550m (15,000ft) to supplement the high altitude SAM-2 'Guidelines'. Both missiles had a slant range of approximately 32km (20 miles). By the time of the October War, the Suez Canal, and the Egyptian Air Force airfields defending it, were protected by the densest integrated air defence system in the world, with some 150 SAM-2 and SAM-3 emplacements, most of them manned by Soviet specialists.

Elazar and Gonen persuaded a depressed Dayan to sanction a thrust in the Sinai by two fresh reserve armoured divisions, 162nd and 143rd, mobilised under the command, respectively, of Major General Avraham 'Bren' Adan in the northern sector of Sinai and Major General Ariel Sharon in the south. On the evening of 7 October, at Southern Command headquarters, General Elazar outlined the plan to destroy the Egyptian bridgeheads. The Israelis would roll southwards along the east bank of the Canal, leaving a distance of 3km (2 miles) between the Canal and the IDF right flank to minimise the threat of Egyptian anti-tank fire from their positions on the Canal ramparts. Adan's division was to strike from the area south of El Qantara at Egyptian Second Army while Sharon's division was withheld in the Tasa area. If Adan's attack went according to plan, Sharon would launch an attack southward from the Great Bitter Lake against the Egyptian Third Army. However, if Adan's attack was in danger of failing, Sharon's division would be thrown in to support it. Elazar insisted that Sharon's division would initially act as a reserve to Adan's northern attack and would be activated on his approval alone. When ordering the offensive and subsequently, Elazar emphasised the objective of breaking up the Egyptian bridgeheads on the east bank. Gonen, in contrast, stressed exploiting success by crossing the Suez Canal. He told the IAF to stop the bombing of the Egyptian bridges immediately to the north of the Great Bitter Lake as they were to be used in an Israeli crossing. Neither Elazar nor Gonen were aware of the 'operational pause' built into Operation *Badr*. Their attack was, therefore, in part aimed at blunting Egyptian preparations to race for the Mitla and Gidi passes.

There was another factor that was to compromise Adan's attack – the persisting belief that dash and drive would overcome Egyptian doggedness. Adan's division, brimming with confidence, set off with hardly any artillery support, as its self-propelled pieces and ammunition trains were still crawling across central Sinai. The IAF, torn between competing crises in the north and south, could only provide 62 ground support missions between 0800hrs and 1500hrs on 8 October.

Adan deployed along the main Lateral Road running east from Baluzi. His first brigade, commanded by Colonel Gaby Amir, was to advance southwards between the Suez Canal and the Artillery Road, destroy the enemy in the area, and reach the fortifications opposite Firdan and Ismailia respectively. On his left, and still west of the Artillery Road, Colonel Natke Nir's brigade was to drive south towards the Purkan fortifications opposite Ismailia. Colonel Nir was a remarkable character. He had been gravely wounded in the legs in the Six Day War and subsequently underwent over 20 operations. He had stayed on combat duty through sheer force of willpower, having to be hoisted into his tank, like a medieval knight.

A third brigade, led by Colonel Arie Keren, was to advance south, east of the Artillery Road towards Matzmed, at the northern tip of the Great Bitter Lake, where a limited crossing of the Canal was to be attempted on Egyptian bridges if they could be seized intact. Once Adan had destroyed Egyptian forces east of the Canal, Magen's forces moving down from the north would mop up the survivors.

As they drove south, however, Adan's forces held a course too far east of the Canal, along the Artillery Road, making no contact with the bulk of the forces holding the Egyptian bridgehead. The plan had been to



roll up the narrow Egyptian bridgehead from its northern flank, where the Egyptians were least expecting a concerted Israeli thrust. But now they were moving across the front of the Egyptian bridgehead.

When he turned towards the Canal, Adan's attack developed from east to west. At about 1200hrs Amir's brigade was engaged by hundreds of Egyptian infantry who emerged from sand dunes to fire anti-tank weapons at short range. One Israeli officer recalled: 'In the distance I saw specks dotted on the sand dunes. I couldn't make out what they were. As we got closer, I thought they looked like tree stumps. They were motionless and scattered across the terrain ahead of us. I got on the intercom and asked the tanks ahead what they made of it. One of my tank commanders radioed back, "My God, they're not tree stumps. They're men!" For a moment I couldn't understand. What were men doing out there – quite still – when we were advancing in our tanks toward them? Suddenly all hell broke loose. A barrage of missiles was being fired at us. Many of our tanks were hit. We had never come up against anything like this before.'

Amir's leading battalions withdrew, leaving at least 12 blazing tanks behind. Meanwhile, Gonen's headquarters was labouring under the illusion that everything was going according to plan. At 1100hrs Sharon was ordered to move southwards to the Gidi Pass sector, ready to be unleashed against the Egyptian 3rd Army.

In the early afternoon Adan ordered an attack by Nir's and Amir's brigades towards the Firdan Bridge. They advanced against Egyptian 2nd Infantry Division, which was reinforced by Second Army's anti-tank reserves, without supporting infantry. Nir's brigade got to within 1,000m (1,094 yards) of the canal when it was hit by anti-tank fire that destroyed 18 tanks. When he finally extricated his brigade, Nir had only four tanks with him.

It took Adan and Gonen some time to grasp the extent to which the Israeli plan had collapsed. It was only at about 1200hrs that Adan informed Gonen, 'We have taken a lot of casualties, a great many. Tanks are burning from missiles.' Still the penny did not drop. Forty-five minutes later, Adan was told that he had permission to cross the Suez Canal and establish a bridgehead on the western bank. At about the same time, Elazar approved a request by Gonen to allow Sharon's division to cross the Canal that afternoon and capture Suez City.

From the first day of the October War, the 'El Al' fleet of civilian aircraft brought vital war material from the United States to bolster the hard-pressed IDF. The greatest priority was advanced Electronic Counter Measures (ECM) to combat the formidable SAM-6 anti-aircraft missile system together with precision-guided weapons such as the 'Shrike' anti-radar missile. These items were vital to allow the Israeli Air Force to regain air supremacy.

It did not take long for reality to dawn. At 1400hrs Gonen realised that Adan's attack had failed and, with the Egyptians moving on to the counterattack, he ordered Sharon to return to the central sector. Thus Sharon's division had spent the best part of a day moving south and then north without exercising any influence on the unfolding battle. Had the Israeli attack been launched by two well-supported divisions in the Firdan Bridge sector, it might arguably have punched its way into a position from which it could have rolled up the Egyptian line. A weak frontal attack against a determined defence was doomed to failure.

It was now imperative that the IDF conserve its forces and allow time for the reserve army to deploy with all its supporting arms. Adan's cavalry charges had been launched unsupported and in insufficient numbers – he had at most 100 tanks – and there had been a fatal underestimation of the determination and efficacy of the Egyptian anti-tank defence. In the gloom that had settled on the Israeli High Command, it was impossible to appreciate the effects the fighting of 8 October had on the Egyptians. Captured Egyptians documents later revealed that the Israeli counterattacks, however misconceived, had sapped Egyptian energy and disrupted the planned advance. In the northern sector, some Egyptian units had pushed into Sinai to a depth of 10km (6 miles), reaching the Artillery Road, but south of the Bitter Lakes, the Egyptians had fallen well short of that mark.

However, the mauling of Adan's division on the 8th had opened dangerous fissures in the Israeli High Command. Relations between Sharon and the GOC Southern Command, never particularly cordial, were now strained to breaking point. On the afternoon of 9 October, Sharon launched an attack to retake a second-line fortification that had fallen into Egyptian hands the day before. Gonen ordered Sharon to break off the attack but the latter continued, prompting Gonen to ask Elazar to relieve Sharon of his command.

That day, one of Sharon's brigades, 14th Armoured Brigade commanded by Colonel Amnon Reshef, had penetrated the sector of the so-called 'Chinese Farm'. This was east of the Canal at the northern



The Bell 205 helicopter was used in several clandestine missions against the Egyptian air defence system including electronic warfare; the insertion of commandos behind enemy lines and as spotters for SAM missile launches to warn other Israeli Air Force pilots. At least two helicopters were lost on these hazardous missions.



An Egyptian soldier prepares to fire a 9M14M *Malyutka* wire-guided anti-tank missile, codenamed 'Sagger' in the West. Although the Israelis had encountered the 'Sagger' before in the hands of the Arab armies, they were totally unprepared for their use in such great numbers during the initial battles. In consequence, they suffered severe casualties in men and machines during the first counterattacks. (EGIO)

end of the Great Bitter Lake. It was an abandoned experimental agricultural station that, before 1967, had employed Japanese instructors. It had acquired its inaccurate nickname from the oriental characters the Japanese left on the walls. On 10 October the reconnaissance force was withdrawn, having satisfied itself that the area marked the boundary between Egyptian Second and Third Armies and constituted a weak link in the Egyptian line.

THE FIGHTBACK

On 9 October a subdued General Dayan briefed Israel's senior journalists. He indicated that he was considering an appearance on television to reveal the extent of IDF losses. Such was the air of depression he exuded that it was decided to replace him for the broadcast with General Aharon Yariv, the former Chief of Intelligence. Dayan had been badly shaken by the events of the last few days and was speaking of mobilising high school students and men who had passed the age of reserve duty, and of the possibility that a new defence line might have to be established east of the Gidi and Mitla passes.

The pack was rapidly being reshuffled. General Chaim Bar-Lev, a former Chief of Staff and now the Minister of Trade and Industry, was asked by Elazar effectively to take over Southern Command from General Gonen as the CGS's 'representative'. Gonen was brave, technically competent and had performed with distinction as commander of the 7th Armoured Brigade in 1967. But as GOC Southern Command he had probably been promoted beyond his abilities. Moreover, he had previously commanded a division in Southern Command under Sharon. In 1973 the roles had been reversed and differences in personality had only exacerbated the tensions.

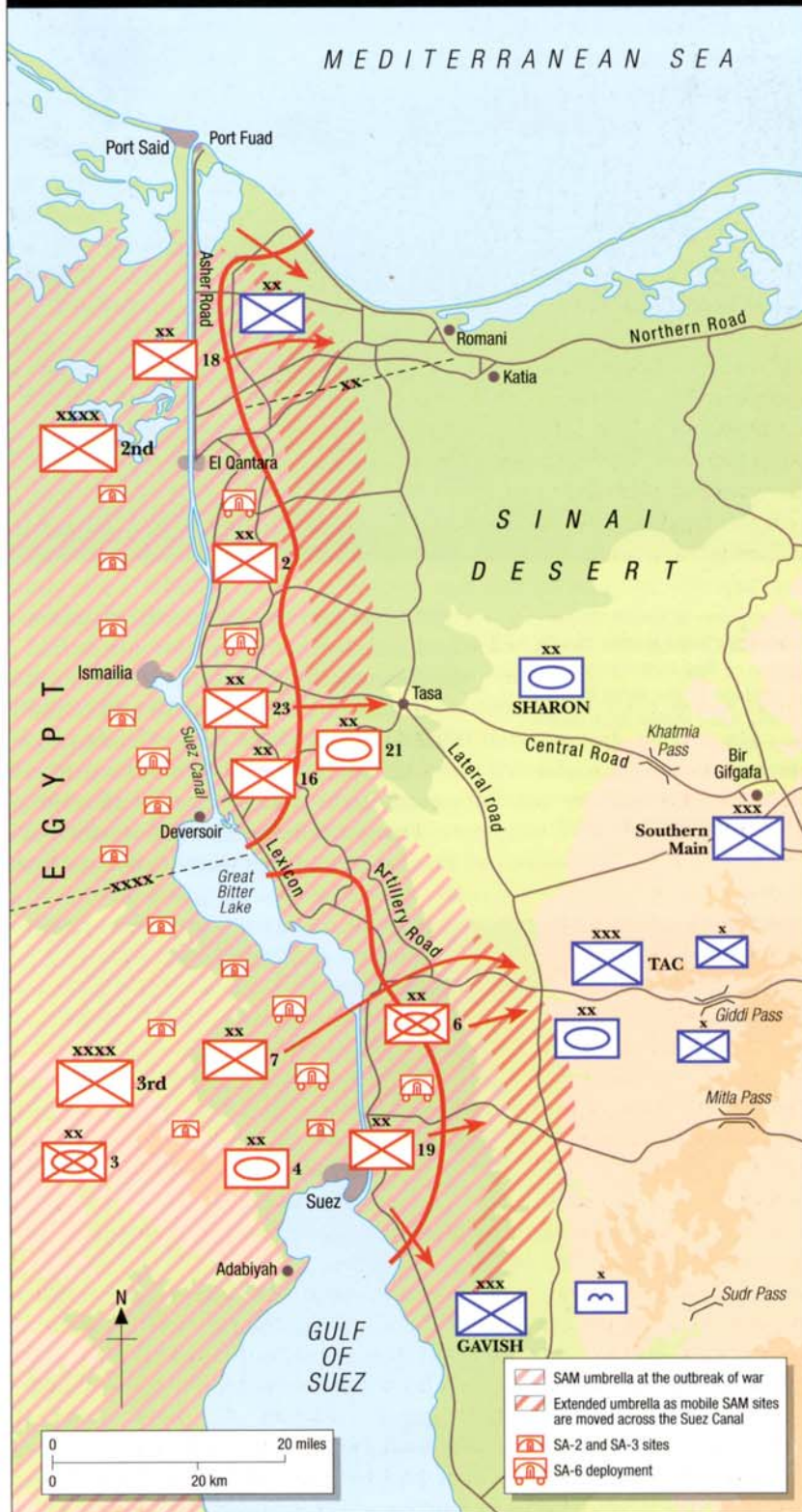
Predictably, the large, rumbustious General Sharon was still making waves and urging for a crossing of the Canal at the earliest opportunity. On 12 October Bar-Lev made the first of several requests that Sharon be relieved of his command. Dayan, who it must be said did not have a good war in 1973, was nevertheless firm in his defence of Sharon, declaring that he did not know anyone who was a better field commander.

Meanwhile, the General Staff had to make hard decisions. It was now clear that the IDF was not strong enough to mount simultaneous



A dramatic photograph shows a surface-to-air missile (SAM) exploding beside an Israeli Air Force Super Mystere during the October War. The plane was badly damaged by fragments and subsequently crashed although the pilot managed to parachute to safety. Of the 102 Israeli aircraft lost during the October War, 41 were downed by SAMs, 31 by anti-aircraft artillery (AAA) and another three by either SAMs or AAA. Only three were definitely shot down by the shoulder-launched SAM-7 'Grail' and four more by either SAM-7 or AAA/small arms fire.

THE EGYPTIAN BRIDGEHEADS AND SAM UMBRELLA, 14 OCTOBER 1973





This column of Israeli 'Super Shermans' rolls across terrain typical of that in the area of operations in the Sinai Desert. Rolling sand dunes kick up the ever-present clouds of dust to parch throats and clog engine filters; the latter had to be cleaned repeatedly to avoid damage to the engines.

offensives on both the northern and southern fronts. Nor, even when it had amassed sufficient strength, could it mount a frontal attack on the Egyptian bridgeheads. An indirect approach would have to be used to overcome the Egyptians. To add to their anxious deliberations, General Peled warned Elazar on 12 October that by the 14th the Israeli Air Force would reach a 'red line' in terms of pilots and serviceable aircraft and would not be able to support another ground offensive.

From 9 October the IDF set about stabilising the front in the south. The Egyptians high-water mark had been reached and they would make no further territorial gains on this front. The successive local attacks they made, sometimes in divisional strength, were contained, and their firepower countered by new tactics. The threat that the 'Sagger'-armed infantry had posed in the opening exchanges was to be overcome by the use of co-ordinated smoke screens and concentrated artillery fire, together with supporting infantry.

Nevertheless, the fighting was fierce. On Wednesday 10 October the Egyptians launched five separate attacks on Adan's division while on the same day Sharon's division came under attack from units of Egyptian 21st Armoured Division. Sharon's skilful manoeuvring enabled him to destroy some 50 tanks.

The outcome of the campaign now hung in the balance. Having stabilised the Sinai front, the Israeli High Command was considering a Canal crossing, an operation fraught with peril if Shazly continued to hold a substantial armoured reserve on the west bank of the Canal. During Operation *Badr*, the commanders of Second and Third Armies had crossed with approximately 1,000 of the tanks allotted to them, leaving an operational reserve of 330 west of the Canal, ready to move against an enemy penetration. There was also a strategic reserve of 250 tanks in Egypt, 120 of which represented the presidential guard, a ceremonial formation that could be used only in the direst emergency.

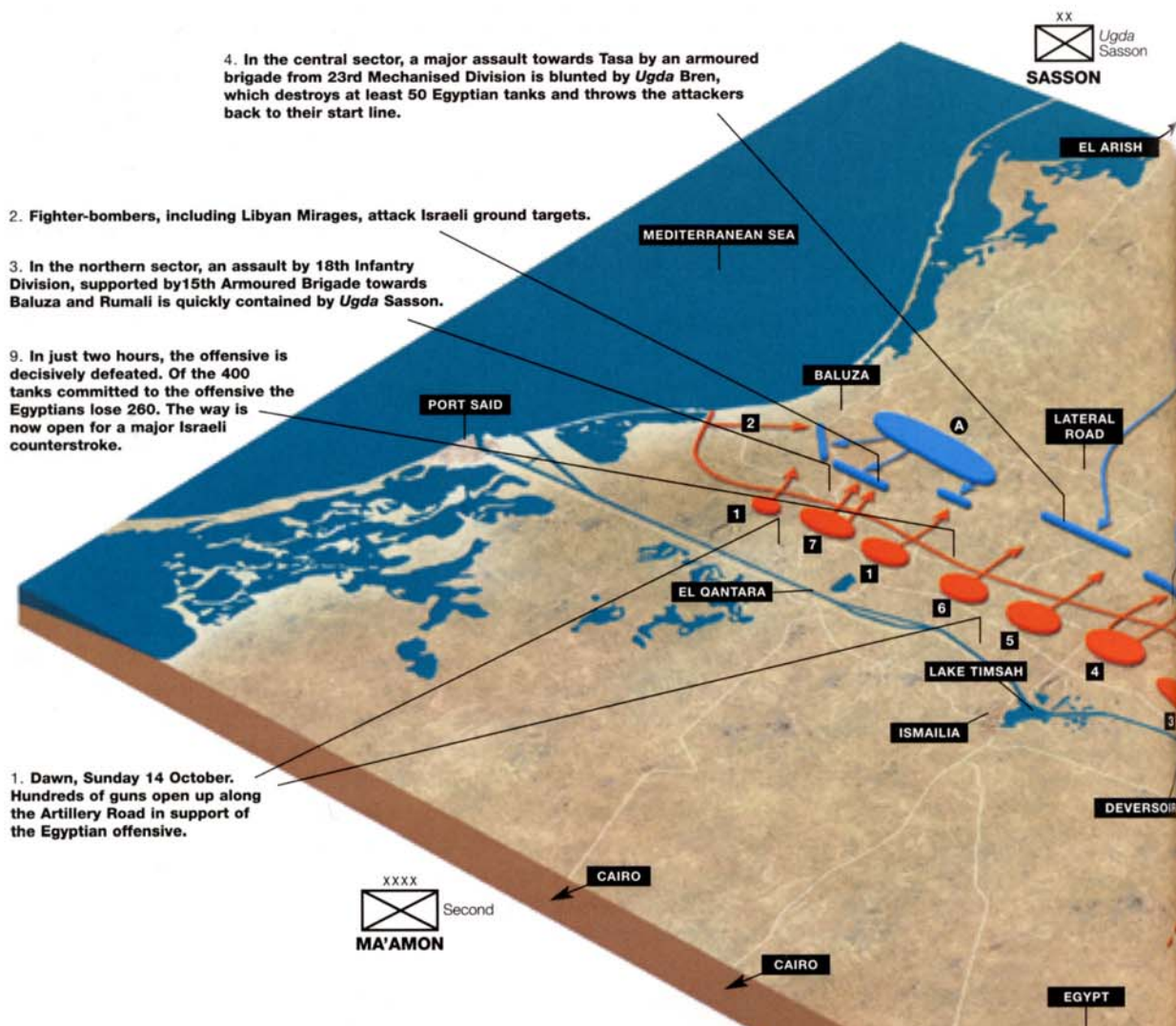
Shazly anticipated a concentrated Israeli effort to penetrate his defensive line and roll it up from the rear. He was also mindful of the successful precedents for this strategy and of the risks he would run if he dissipated his operational reserve. Also nagging at Shazly were the losses he had suffered in a week of fighting. By the night of 13 October the Egyptians had lost 240 tanks. Shazly estimated that in the same period the Israelis had lost some 600 tanks, although the rate of IDF losses was now falling sharply as the Israelis made tactical adjustments. Moreover, the IDF was in a position to replace its armoured losses and deploy a numerically superior force. Shazly was confident that if he remained on the defensive and retained an operational reserve, he could hold firm on the east bank. But he knew that he did not possess the superiority needed for attack. Events were now to conspire to force Shazly to act against his instincts.

From 11 October Shazly came under increasing pressure from General Ismail to drive for the Gidi and Mitla passes. Shazly reminded Ismail of the fate that had befallen 1st Mechanised Brigade when it was caught without air cover, but Ismail was unrelenting. He argued that the pressure on Syria must be reduced. Shazly replied that in Sinai the IDF still fielded eight armoured brigades and that the IAF could cripple the Egyptian ground forces if they 'poked their noses' beyond the SAM umbrella: 'Advance and we destroy our troops without offering any significant relief to our Syrian brothers.'

Matters came to a head during a conference held at 1800hrs on 12 October attended by Shazly and the commanders of Second and Third Armies. Ismail, on the instructions of President Sadat, overruled all objections. He told Shazly that a political decision had been made and he must obey. An attack would be launched from the bridgehead. Ismail's only concession was to postpone the jump-off time to dawn on 14 October. He added that the Egyptian bridgeheads were not to be weakened. Rather, the Egyptian operational reserves were to be committed.

The fighting during the October War was intense, lasting 18 days. Men and machines were consumed at an alarming rate. Units plunged into battle quickly became exhausted as indicated by these crewmen of a self-propelled howitzer as they catch some sleep between fire missions.





EGYPTIAN FORCES

Second Army – MajGen Ma'amon

- 1 18th Infantry Division – BrigGen Hafez
- 2 135th Infantry Brigade
- 3 16th Infantry Division – BrigGen Ghali
- 4 21st Armoured Division
- 5 23rd Mechanised Division
- 6 2nd Infantry Division – BrigGen Sa'ada
- 7 15th Armoured Brigade

Third Army – MajGen Wasef

- 8 7th Infantry Division – BrigGen Ahmed
- 9 19th Infantry Division – BrigGen Mohamed
- 10 4th Armoured Division
- 11 6th Mechanised Division (-)
- 12 One brigade from 6th Mech. Division

THE EGYPTIAN OFFENSIVE

14 October 1973, viewed from the south-west. Under political pressure as a result of Syrian reverses on the Golan Heights, the Egyptians emerge from the protection of their SAM umbrella in an abortive offensive.

5. Egyptian 1st Mechanised Brigade, 21st Armoured Division is repulsed by Col Amnon Reshef's 14th Armoured Brigade of *Ugda Sharon*. Losing 93 tanks it ceases to exist as a fighting unit.

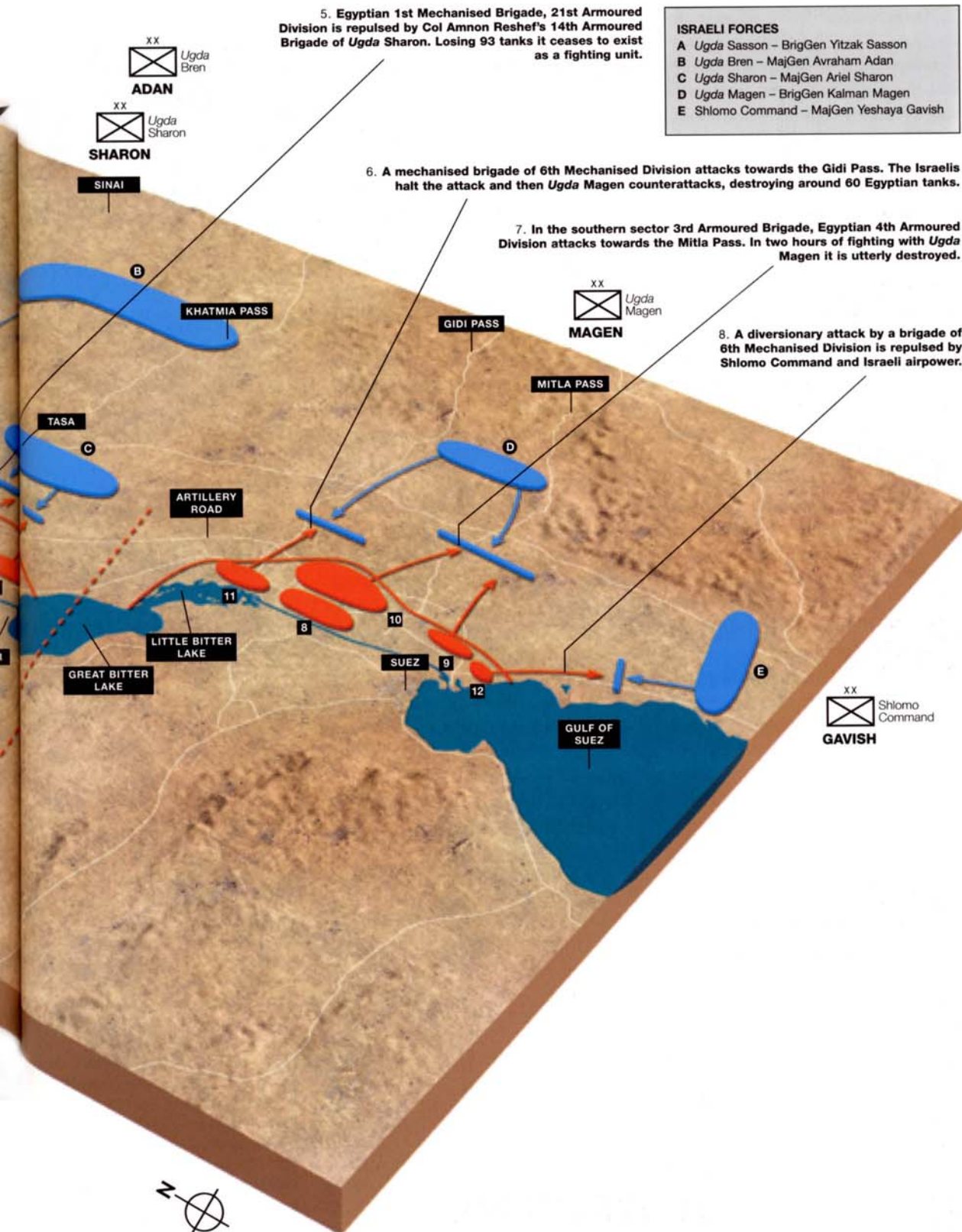
ISRAELI FORCES

- A *Ugda Sasson* – BrigGen Yitzak Sasson
- B *Ugda Bren* – MajGen Avraham Adan
- C *Ugda Sharon* – MajGen Ariel Sharon
- D *Ugda Magen* – BrigGen Kalman Magen
- E Shlomo Command – MajGen Yeshaya Gavish

6. A mechanised brigade of 6th Mechanised Division attacks towards the Gidi Pass. The Israelis halt the attack and then *Ugda Magen* counterattacks, destroying around 60 Egyptian tanks.

7. In the southern sector 3rd Armoured Brigade, Egyptian 4th Armoured Division attacks towards the Mitla Pass. In two hours of fighting with *Ugda Magen* it is utterly destroyed.

8. A diversionary attack by a brigade of 6th Mechanised Division is repulsed by Shlomo Command and Israeli airpower.



In Israel the IDF had also been considering its options: a hazardous crossing of the Canal at a carefully selected Egyptian 'soft spot'; or perhaps, if an Egyptian second-stage offensive did not materialise, a cease-fire, even with Egypt holding its initial territorial gains, as a better option than a war of attrition that Israel could not sustain. These options were being considered at a meeting of the Israeli War Cabinet when military intelligence informed its members that the Egyptian armour on the west bank was on the move. It was crossing the Canal and an attack could be expected on 13 or 14 October. At a stroke the Egyptians had cut the Gordian knot of Israeli decision-making. The IDF and the politicians would wait for the Egyptian move and respond accordingly.

Shazly obeyed his orders with a heavy heart. The reserves, comprising the bulk of 4th and 21st Armoured Divisions, crossed the Suez Canal, leaving an operational reserve on the west bank of a single brigade of tanks from 4th Division. The movement was completed on the night of 13 October. Shazly felt that 'barring a miracle', the Egyptian attack stood not the slightest chance of success: 'The enemy had 900 tanks in his operational zone. We were attacking with 400. We were doing so, against well-prepared positions, in precisely the "penny packets" that had cost the enemy so dear over October 8-9. And we were condemning our tank crews to attack over open terrain dominated by enemy air power.' It should be noted that Israeli estimates of Egyptian armoured strength on 14 October were substantially higher than Shazly's gloomy figure, hovering around 1,000. There is clearly an element of special pleading in Shazly's post-war account of the campaign.

While Shazly agonised, Gonen made his dispositions of Southern Command. Armoured forces were to block the Egyptian thrusts on the Mediterranean coast and in the Gulf of Suez. Thereafter, the IAF, operating beyond the range of the Egyptian missile screen, would break up the attacking forces. If a frontal attack was launched in the centre and south, it was to be blocked by Mandler and Sharon. If the Egyptians threatened the vital supply base at Refidim (Bir Gifgafa), which lay 30km (19 miles) east of the Lateral Road, Adan's division, reinforced by Sharon, was to be held in reserve to execute a counterattack from the flank. One of Adan's brigades was moved to the area of Refidim.

On the morning of 13 October, Elazar flew by helicopter to Sharon's advanced headquarters to review the plans for the anticipated armoured battle and the Canal crossing, which would follow its successful conclusion. Also flying to the meeting by helicopter, General Gonen was talking by radio to Major General Mandler when contact was lost. Mandler had



The McDonnell Douglas Skyhawk was the principal ground-attack aircraft of the Israeli Air Force during the October War. Accordingly, it suffered the highest losses of any aircraft type when pitted against the sophisticated Egyptian and Syrian air defence systems. Of 102 Israeli aircraft lost, 53 were Skyhawks. Coincidentally, this was exactly the same as the number of Israeli pilots killed during the war.

The appalling losses and repeated combat missions of the first days of the war imposed an awful strain on the pilots and aircraft of the Israeli Air force (IAF). Losses mounted to three aircraft for every 200 sorties by 8 October. This rate was unsustainable so the Israeli pilots rapidly devised new tactics to thwart the deadly combination of the mobile 'Gainful' SAM-6 system and its companion ZSU quadruple 23mm self-propelled *Shilka* anti-aircraft gun. Here, an IAF pilot catches a few minutes sleep between missions; by the end of the first week the IAF was reaching breaking point when an influx of new aircraft, weapons and ECM pods turned the tide thanks to Operation Nickel Grass.



been killed by Egyptian artillery fire. Brigadier General Kalman Magen immediately replaced Mandler.

On the night of 13 October the Egyptians preceded their attack by heli-lifting commandos to a point south of Tasa. The aim was to cause chaos in the Israeli rear but the commandos were quickly captured or killed. The main attack went in shortly after first light on the morning of Sunday 14 October when hundreds of guns opened up along the Artillery Road while fighter-bombers, including Libyan Mirages, attacked targets on the ground.

In the northern sector, Egyptian 18th Infantry Division, reinforced by a brigade equipped with T62 tanks, attacked on the axis El Qantara–Rumali. In the central sector, Sharon's division bore the brunt of Egyptian 21st Armoured Division and a brigade from 23rd Mechanised Division driving out of the bridgehead along the central route leading from Ismailia. A thrust to the south by two tank brigades was aimed at the Gidi and Mitla passes. Farther to the south a task force made up of an infantry brigade and a tank brigade advanced towards Ras Sudar along the Gulf of Suez. In all, there were six separate Egyptian attacks: three mounted by General Sa'ad Ma'amoun's Second Army and three by General Abd El Al Mona'am Wasel's Third Army.

The attack precipitated an armoured battle that rivalled in size and savagery the great armoured clash of World War II at Kursk on the Eastern Front in the summer of 1943. Just as in that pivotal battle, the weather was heavy and humid. In the northern sector, Major General Adan's division, which Gonen had quickly ordered into action, threw the Egyptians back to their start line, destroying at least 50 tanks. In the central sector, Sharon meted out similar punishment. The tanks of Colonel Amnon Reshef's 14th Armoured Brigade had been astutely sited on high ground from which they engaged the headlong Egyptian charge at ranges as close as 91m (100 yards). When the firing stopped, Egyptian 1st Mechanised Brigade had lost 93 tanks and had ceased to exist as a fighting unit. This had been achieved at a cost to Reshef of just



An M38 Jeep of an armoured battalion's reconnaissance company leads an Upgraded Centurion across the desert sands towards the Suez Canal. It was just such a Jeep-mounted reconnaissance unit or 'Sayeret' that found the gap between the Egyptian Second and Third Armies that allowed Operation Gazelle to be launched.



Rent asunder by an internal explosion, a *Shofti* lies abandoned in the desert. It is interesting to note that Egyptian figures indicate that 'Sagger' missiles and RPGs caused 70 per cent of Israeli tank losses whereas the Israelis state that these weapons caused less than 20 per cent. The discrepancy is due to the fact that the Egyptians arrived at that figure from the inspection of the wrecks within their own lines whereas the Israelis never recovered many of their tanks that were hit in the initial counterattacks of the war. (EGIO)

three tanks, all of which had been struck by missiles. Not one of Reshef's vehicles had been hit by Egyptian tank fire.

To the south of Sharon, Magen's division contained the Egyptian drive on the Gidi and Mitla passes and then counterattacked, destroying some 60 enemy tanks. A flanking Egyptian movement to penetrate the Mitla Pass from the south was broken up by a combination of paratroops and Magen's tanks. In two hours of fighting, 3rd Armoured Brigade of Egyptian 4th Armoured Division had been utterly destroyed. The Egyptian armour that extricated itself from the debacle came under heavy attack from the IAF. In the northern sector, IDF forces were able to re-establish contact with the 'Budapest' fortification.

The battle was a major turning point in the war. The Israelis estimated that they had knocked out some 260 Egyptian tanks for the loss of no more than 20 of their own. Magen summed up the day's action as a 'fine battle'. For the Egyptians the bright outlook on the morning of 6 October had now given way to the shadow of impending defeat. They had only just become acclimatised to the warm glow of victory. Once more they were out in the cold. General Bar-Lev commented in words that recall Wellington at



Among the most useful equipment captured by the Israelis from the Arabs during the Six Day War was the Soviet *Katyusha* BM23 mobile rocket launcher. These vehicles were used against their erstwhile owners during the October War to compensate for the lack of artillery assets in the IDF.

An M60 *Magach* tows a Unifloat bridging section towards the 'Yard' – the marshalling point for Operation Gazelle. Each section weighed 60 tons and when joined together formed a continuous floating bridge across the Suez Canal for the Israeli assault 'into Africa'.



Waterloo: 'The Egyptians are again acting in their traditional way, and we are resuming our old ways.'

The Egyptians had attempted to move missile infantry forward with their armour, riding in personnel carriers and trucks. This effort to extend the missile screen ended in disaster. It is one thing for well-dug-in infantry to fight armour from well-chosen positions. It is quite another to face well-handled tanks in a fluid battle of movement. Many of the burnt-out hulks that littered the desert were those of personnel carriers and rocket-launching vehicles, destroyed by the Israeli tanks at long ranges. In contrast, Israeli infantry knocked out many Egyptian tanks with American-supplied TOW missiles (although the US has always maintained that no TOW missiles were supplied to Israel before the last days of the war).

Nevertheless, it was on 13 October – the day on which the Israelis had broken the back of the Syrian assault on the Golan – that the US Air Force launched 'Operation Nickel Grass', a major airlift of armaments, ammunition and supplies, which by 14 November had flown in 22,395 tons of equipment to Israel. Political pressure from Jewish Americans, the Arab rejection of Western ceasefire proposals, and apprehension that Israel might still unleash its nuclear armoury had pushed Nickel Grass to the top of the US agenda. The significance of the airlift cannot be underestimated because it offset the Soviet resupply of Egypt and Syria, by air and from freighters in the Mediterranean. Prime Minister Golda Meir later observed: 'For generations to come, all will be told of the miracle of the immense planes from the United States bringing in the material that meant life to our people.' The 'immense planes' were the Lockheed C-141 Star Lifter and the recently introduced Lockheed C-5 Galaxy heavy airlift transport, whose strategic value was crucially demonstrated during Nickel Grass.

In addition to Operation Nickel Grass, the United States supplied 33,000 tons of equipment by sea, mainly tanks, that arrived in mid-November. During the war Israel also received some 40 F-4 Phantoms, 36 A-4 Skyhawks and 12 C-130 transports. The Soviets mounted a parallel airlift to Egypt, commencing on 10 October. During the course of the war



A formation of M60 *Magachs* advances across the desert towards the Suez Canal; these are the M60A1 model and the most modern Main Battle Tank (MBT) in the IDF arsenal during the October War. They did prove to be vulnerable to enemy fire and were extensively modified after the war.

and its immediate aftermath, about 15,000 tons of war materiel were flown to Egypt and Syria, and a sealoift of 63,000 tons, mostly tanks and artillery, reached the Arab states by 30 October. In all, the Egyptians and Syrians received some 1,200 tanks and 300 MiG-21 aircraft from the Soviet Union, a factor that helped to stave off collapse in the latter stages of the conflict.

The setback of 14 October was too much for General Sa'ad Ma'amoun, the commander of Egyptian Second Army. He suffered a heart attack, and was replaced by General Abd El Al Mona'am Wasel. The long-awaited conditions to allow an Israeli counter-thrust had arrived. On 14 October General Elazar gave orders for a crossing of the Suez Canal to be launched on the following night.

OPERATION GAZELLE

On the evening of 14 October General Ismail ordered Second and Third Armies to pull back into their bridgeheads on the east bank. Shazly urged that the remnants of 4th and 21st Armoured Divisions should be withdrawn across the Canal to re-form as a mobile reserve and restore the balance of the Egyptian forces if, as Shazly anticipated, the Israelis crossed the Canal. Ismail rejected this plea, considering that such a withdrawal would have an adverse effect on Egyptian morale. He knew that Sadat was to address the People's Council within 48 hours and would wish to speak from an apparent position of strength.

Both the prerequisites for an Israeli crossing had now been met; the commitment of the Egyptian armour and its defeat in Sinai; and the launching of Operation Nickel Grass. Bar-Lev aimed to surprise the Egyptians by exploiting the gap between the Egyptian Second and Third Armies, which had been detected on 10 October. The operation was to present a fascinating contrast between Egyptian and Israeli methods. Operation *Badr* bore the imprimatur of Egypt's Soviet military advisers: massive preparation and methodical development from a firm base with no precipitate exploitation to challenge Israeli armoured forces in a

battle of manoeuvre. Years of planning and training had been devoted to the operation and each soldier had been drilled down to the last detail. The Israeli crossing, in contrast, was to be a pinpoint attack, beginning with a large-scale commando raid that would then expand into a fully fledged invasion. It was a high-risk operation, planned in haste, and relied on improvisation and local initiative to succeed. The Egyptians crossed in broad daylight after a massive bombardment. The Israelis would cross under cover of darkness and stealth would be the key.

There were three choices for the crossing site, all of which had been prepared before 1973 with bridging material pre-positioned and the canal ramp carefully thinned. The sites were opposite El Qantara, Deversoir and Kubri, the last 16km (10 miles) north of Suez. Bar-Lev chose Deversoir as it was close to the boundary between Egyptian Second and Third Armies and the inviting gap between them; also the Israeli left flank would be protected by the Great Bitter Lake. The area north of the Great Bitter Lake had been the scene of earlier preparations for bridging the Canal undertaken during Sharon's time as GOC Southern Command. A large brick-surfaced marshalling yard some 300m (330yds) square and protected by sand walls, had been built to accommodate the heavy bridging equipment, and roads had been built around it for easy access. Two miles south of the yard was the metalled 'Akavish' road, built by Israeli engineers to link the yard with the forward supply base at Tasa. The secondary 'Tirtur' road, running dead straight from the 'Yard' and parallel to the 'Akavish' road, led to the Matzmed strongpoint, an abandoned link in the Bar-Lev Line.

Since 7 October General Ariel Sharon had been champing at the bit to launch a crossing of the Canal. In his opinion, trenchantly expressed, it was the only way to secure the defeat of Egyptian Second and Third Armies. Now his division was given the task of leading the Canal crossing, codenamed 'Operation Gazelle', with a brigade of paratroops reinforced by tanks. Sharon's intuitive ability to quickly size up a complex operational situation would stand him in good stead in the coming battle.

Sharon's division had three tasks: first, to establish a bridgehead over the Canal at Deversoir; second, to protect the crossing place on the east bank from Egyptian intervention on either flank; and third, to clear the 'Akavish' and 'Tirtur' metalled military roads across the soft sand for the bridging equipment and follow-up troops. Adan's division, minus one brigade held in reserve, was to pass through Sharon's bridgehead and swing south to Suez City, hugging the Canal. Magen's division was to cross later to reinforce Adan's drive. Meanwhile, Sharon was to secure the crossing and protect the rear of the other two divisions on the west bank. The attack was to go in as soon as darkness fell, to enable the bridges to be in place before dawn. Diversionary attacks would be launched to the north and south.

Sharon drew up a complex plan for his four armoured brigades. Colonel Tuvia Raviv's 600th Reserve Armoured Brigade was to launch a frontal, diversionary attack along the Tasa-Ismailia road an hour before dark to pin down Egyptian 16th Infantry Division. Raviv's initial objectives were the 'Hamutal' and 'Machshir' sand hills. Thereafter he was to swing southwest to take 'Televisia'.

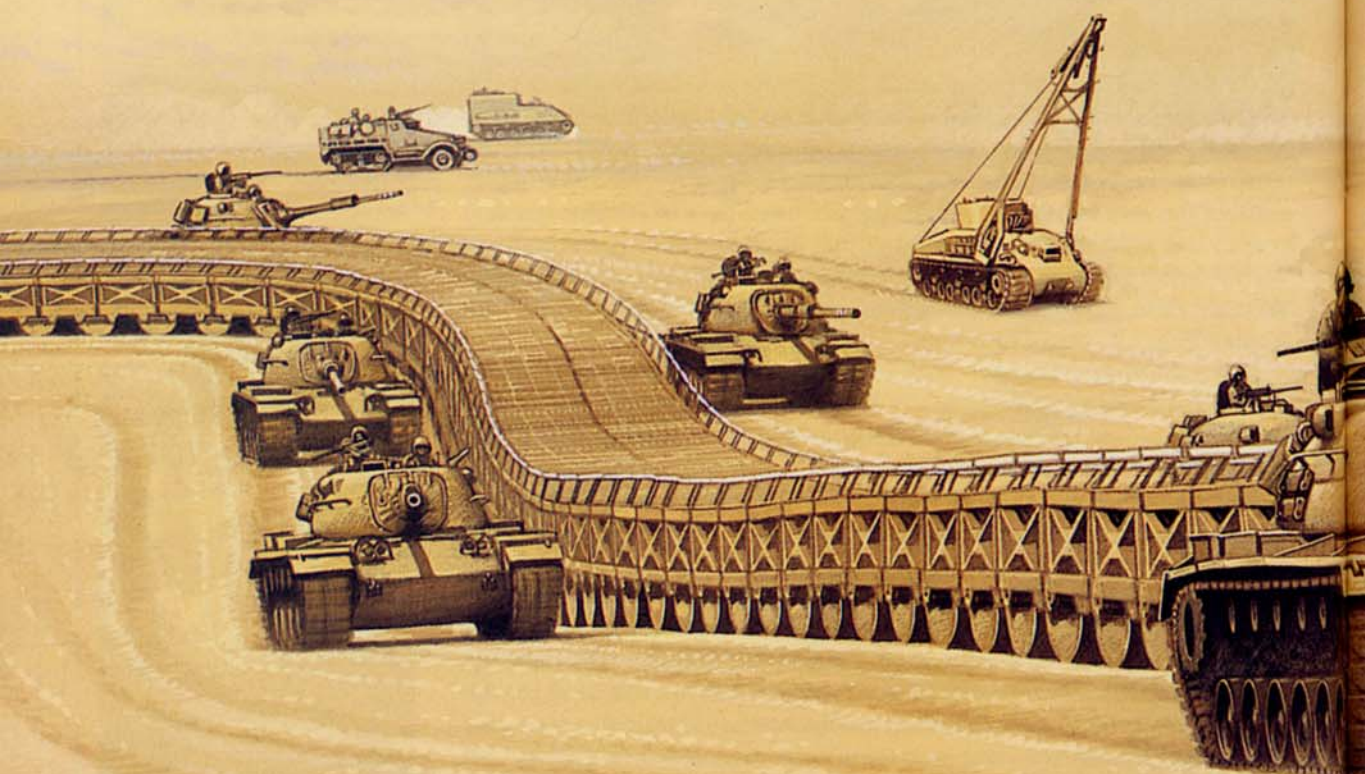
An hour later, Colonel Reshef's reinforced 14th Armoured Brigade was to make a flanking march through the sand dunes to the south of



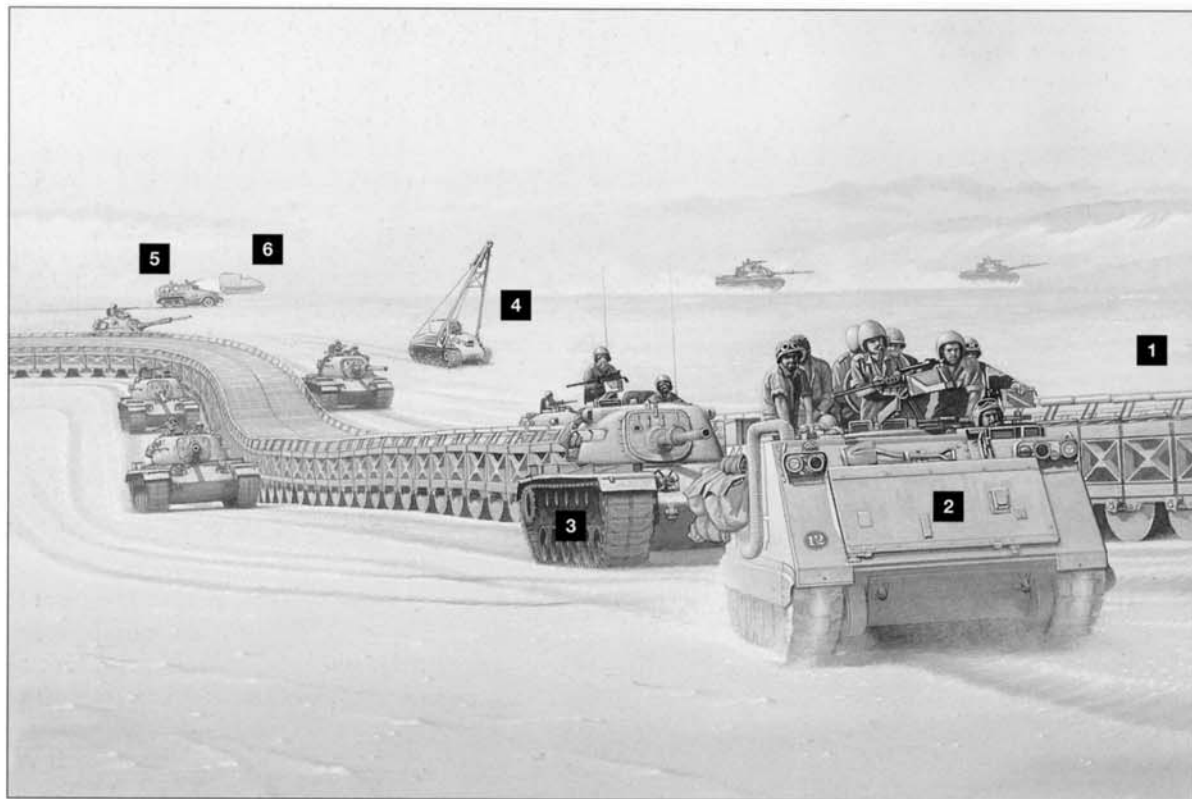
The bearded veteran of 20 years, Colonel Dani Matt was the commander of the 243rd Paratroop Brigade that led the Israeli assault across the Suez Canal on the night of 15/16 October.



This Israeli paratroop officer was reputedly the first to set foot on the west bank of the Suez Canal during Operation Gazelle. The whole success of such an audacious operation was due to the tactical and operational flexibility of the IDF officer corps and its senior NCOs. Despite their early reversals, the Israelis rapidly regained the initiative thanks to the military skills of their citizen army and ultimately gained victory.





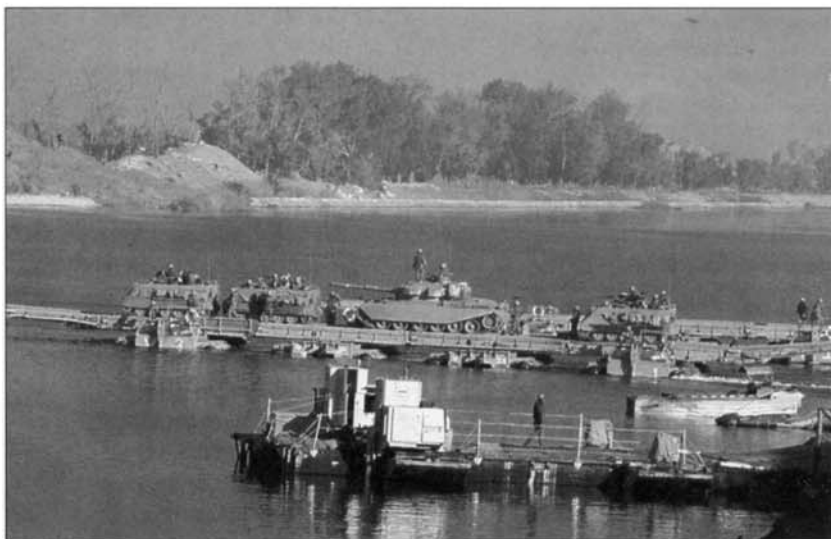


ISRAEL'S MONSTER ROLLER-BRIDGE (pages 70-71)

One of the most curious structures ever to go to war was the articulated roller-bridge designed and constructed by the Israeli Engineering Corps prior to the October War. The original Israeli defence plan, codenamed *Shovach Yonim*, called for Israeli forces to go over onto the offensive as soon as possible and take the battle into enemy territory across the Suez Canal. Crossing sites were chosen and prepared to allow the swift construction of pontoon bridges. These bridges were held in reserve well back from the Canal. Neither of the standard types of bridging equipment was considered completely satisfactory, however. A legendary member of the Israeli Engineering Corps, Colonel David Laskov (who at the age of 70 was the oldest officer in the IDF at the time), found the solution. His design comprised over 100 steel rollers, each two metres (2.2yds) in diameter, capable of floating and reaching the far bank of the Suez Canal as a single entity. It was 180 metres (200yds) long and weighing 400 tons. It took three days to assemble and could only be moved over the flattest of terrain and along well-prepared routes. This monster (1) required 16 tanks to move it, 12 towing and four acting as brakes. It was so huge that it had never been tested operationally before the October War. Special roads called 'Akavish' and 'Tirtur' were constructed to allow Laskov's roller-bridge to reach the

Canal at the chosen crossing point in the Deversoir area. The roller-bridge was fundamental to Israel's counterattack across the canal in the Yom Kippur War, originally codenamed *Abirei Lev*, but renamed Operation Gazelle. This took place in the early hours of 16 October but fierce fighting continued along the 'Tirtur' road and around the 'Chinese Farm', which delayed the arrival of the roller-bridge until the morning of 19 October. Here the roller-bridge is towed from the paved 'Akavish' road across the southern slopes of Hammadia towards 'Tirtur' on the early morning of 16 October. An M113 *Zelda* APC (2) is 'riding shotgun'. By October 1973 the IDF were equipped with 448 of the M113 family but many infantrymen preferred to ride on top of the vehicle rather than inside the cramped interior. On the thin-skinned M113 this also gave additional protection against mines. The bridge was towed by 16 M-48 *Magach* tanks (3), but while negotiating one of the slopes of Hammadia the four braking tanks failed to slow the bridge sufficiently and it ran out of control, causing one of the roller connections to break. It took some hours for repairs to be made with the help of the accompanying M-74 recovery vehicle (4). In the background combat engineers ride in an M-3 halftrack (5) and the taskforce also includes an Ambutank (6), an armoured ambulance converted from an old M-50 self-propelled howitzer. (Kevin Lyles)

A Sho't and three M113 Zeldas cross the Suez Canal on a ferry pontoon comprising French-manufactured Gillois bridging units. Almost 100 Israeli combat engineers were killed in action in the construction of the various bridges across the Canal for Operation Gazelle.



the Egyptian positions blocking the 'Akavish' and 'Tirtur' roads until it hit the Great Bitter Lake. Thereafter it had a threefold task: to secure the 5km (3 mile) sector of the Canal opposite Deversoir, including the 'marshalling yard' with its concealed gap in the sand rampart giving access to the Canal. It was also to seize an Egyptian pontoon bridge to the north. Secondly it was to afford the crossing area both depth and protection by securing Chinese Farm. Thirdly it was to clear the 'Tirtur' and 'Akavish' roads to allow access by bridging and wheeled vehicles. The bridging units had been concentrated 20km (12½ miles) to the east of Deversoir under the command of Sharon's deputy. A pontoon bridge was to be brought up the 'Akavish' road and a prefabricated roller bridge along the 'Tirtur'. The monstrous prefabricated bridge, which was some 180m (200 yards) long and weighing 400 tons, was to be towed by 16 tanks.

Sharon's attached 247th Reserve Paratroop Brigade, commanded by Colonel Dani Matt and reinforced with ten tanks and some engineers, was to follow Reshef and cross at 2300hrs to secure two bridging and two rafting sites. The brigade was then to push on less than a kilometre (0.6 miles) to secure crossings over the Sweetwater Canal, and to deny the Egyptians observation of the main canal bridging areas. Finally, Sharon's third armoured brigade, 421st, commanded by Colonel Haim Erez, was to follow Matt's paratroops to reinforce their bridgehead and to destroy Egyptian SAM sites. The gap created in the Egyptian air umbrella would give the IAF free rein to provide close air support.

Surveying his plans, Sharon could see that both the framework and timetable were wildly optimistic. The 24 hours between the end of the massive armoured battle in the Sinai and the crossing of the Canal scarcely allowed time for the issuing of his detailed orders and the regrouping and concentration of his formations. In effect, it left Sharon with three choices: he could postpone the attack until the night of 16 October; he could clear the crossing places on the east bank on the night of the 15 October and then cross on the night of the 16th; or he could plunge ahead with the crossing on the night of the 15th and simply disregard the timings.

Israeli paratroopers advance 'into Africa' accompanied by an M113 *Zelda* APC after the successful Israeli crossing of the Suez Canal in Operation Gazelle. Israeli paratroopers were commonly employed as assault troops for complex and dangerous missions and few were more daunting or decisive than Operation Gazelle. The Israeli crossing of the Canal was the key to the victory over the Egyptians in the October War.



Characteristically, Sharon chose not to share all his thoughts with Bar-Lev. Had he done so, it is almost certain that the operation would have been postponed for 24 hours. If Sharon had cleared the crossing places and then sat twiddling his thumbs for 24 hours, he would have given the Egyptians valuable time to reinforce the crossing area and render his operation extremely hazardous. Sharon decided to postpone the crossings until midnight and to muddle through.

At 1600hrs on 15 October Sharon despatched Raviv's 600th Reserve Armoured Brigade on its diversionary attack while Reshef's 14th Brigade, and the divisional reconnaissance unit, began its approach march. For some time Reshef advanced undetected. After reaching the 'Lexicon' road, which ran north-south 1km (0.6 miles) east of the Canal, the reconnaissance unit pushed on to take the Bar-Lev strongpoint at 'Matzmed'. Reshef's brigade now divided into battalions before setting about its tasks, which included the capture of another Bar-Lev strongpoint, codenamed 'Missouri'.

As it moved north towards 'Missouri' along the 'Lexicon' road, the Israeli 18th Battalion came under fire from Egyptian infantry holding the 'Tirtur-Lexicon' crossroads. Eleven tanks were knocked by Egyptian 'Saggers', forcing 18th Battalion to divert to 'Missouri' rather than attack the crossroads. The capture of the crossroads had been assigned to a company of 40th Armoured Battalion, who were unaware that the administrative centres of Egyptian 21st Armoured and 16th Infantry Divisions were housed in the nearby Chinese Farm. Badly mauled by the fighting in Sinai on 14 October, 21st Armoured was licking its wounds. A single Israeli company was now advancing into the middle of a huge concentration of tanks, trucks, guns, missiles, radar vehicles and thousands of troops. The Egyptians had also prepared positions in the Farm's irrigation ditches. A hail of fire shredded the Israeli company.

The 2nd Company of 40th Armoured Battalion was faring better as it cleared the 'Akavish' road. Simultaneously, the divisional reconnaissance unit secured the strongpoint at 'Matzmed' and the marshalling yard. Bridging equipment was immediately sent hurrying down the 'Akavish' road, but as the 'Tirtur' road was still unavailable as a secondary route, a huge traffic jam quickly developed. Matt's paratroop brigade was stuck at

the rear of this snarl-up and by the time it reached the marshalling yard at the Canal they were hopelessly behind schedule. As the situation at Chinese Farm deteriorated, Sharon ordered Matt to cross the Canal.

Meanwhile, Reshef's 18th and 7th Battalions pushed north and ran into growing Egyptian resistance. The 7th Battalion was soon down to a third of its strength, and as the Egyptians readied themselves to counter-attack, Reshef ordered a tactical withdrawal to form a line half a mile north of Chinese Farm where fighting continued throughout the night.

40th Infantry Battalion and 'Force Shmulik' (a paratroop unit supported by armour and named after a hero of the fighting on the Golan Heights) had also resumed the fight for Chinese Farm. Here the battle was no less desperate. According to one of the Israelis, 'Although it was night, after 15 minutes you could see everything like daylight'. Caught in interlocking fire from well-sited defensive positions in Chinese Farm's many irrigation ditches, the Israelis suffered heavy casualties and the Egyptians overran part of the force. The battalion commander, all his tanks and many of his men were lost in the fighting. By the morning of 16 October, Reshef's brigade had lost 60 tanks and over 120 men. Reshef was to lose more that morning securing the 'Tirtur-Lexicon' crossroads.

After a failed attempt to take the position from the rear, Reshef changed his tactics. Rather than charge the Egyptian defences head on, he ordered his tanks to keep their distance and stay on the move while still laying down a barrage. In this way the Egyptians were worn down and the crossroads taken. The vital crossroads were now in Reshef's hands but he was still unable to clear Chinese Farm.

At first light on 16 October Reshef had surveyed the scene of the night's fighting from high ground. Below him was a panorama of smouldering tanks, abandoned workshops, missile transporters and field kitchens. Dead littered the ground, with Egyptians and Israelis often lying within a few metres of each other. In the fighting, Sharon's division had lost some 300 men killed and 70 tanks destroyed or disabled, the bulk of the casualties sustained by Reshef's 14th Armoured Brigade. Leaving a battalion to hold the line west of Chinese Farm, Reshef withdrew his brigade south to the shores of the Great Bitter Lake.



A Sho't churns up the sand as it advances across the desert. Despite being manufactured during the 1950s, the Centurion or Sho't was a firm favourite within the Israeli Armoured Corps during the October War because of its rugged reliability and its ability to sustain considerable battle damage and remain operational.

When Sharon inspected the results of the fighting at the 'Tirtur-Lexicon' crossroads, he observed: 'I saw hundreds and hundreds of burned and twisted vehicles ... Here and there Israeli and Egypt tanks had destroyed each other at a distance of a few metres barrel to barrel ... Inside those tanks and next to them lay their dead crews ... No picture could capture the horror of the scene.'

By 0030hrs on 16 October Matt's assault group, riding in halftracks, had entered the marshalling yard where something approaching pandemonium reigned. It was planned that once Matt had crossed the Canal and established a foothold, a battalion led by Lieutenant Colonel Dan would widen the bridgehead to the south while a battalion under Lieutenant Colonel Zvi would extend it northwards. A veteran of 20 years, Colonel Matt was a tall, bearded soldier, wounded many times in action, who had commanded a paratroop brigade under Sharon in the Sinai in 1967.

Progress to the marshalling yard had been agonisingly slow because of the massive traffic jam on the 'Akavish' road. The soft sand on either side of the road, in which wheeled vehicles rapidly became stuck, only made matters worse. Because many of his troop-carrying vehicles were soft-skinned, Matt had also been forced to leave his brigade reconnaissance company and Dan's battalion at the rear of the column. As it moved forward behind a company of tanks, Matt's force came under artillery, missile and heavy machine gun fire from the 'Akavish-Artillery' crossroads some 1,000m (1,094yds) to his north. A force he despatched to secure the crossroads was wiped out. Matt was crawling towards the Canal under intense fire and the schedule was slipping badly.

At 0135hrs the first wave of Israeli troops crossed the Canal in inflatable boats and set foot on the west bank. Brigade advanced headquarters crossed at 0240hrs, and within another three hours Matt's entire brigade, some 750 men, was across and digging in. After engineers tore three large passages in the sand ramparts, tanks began to be rafted across the Canal. Within a short time 27 tanks and seven APCs were on the west bank. There

The ferocity of the fighting during Operation Gazelle is highlighted by these burnt-out wrecks of a T-55 and an M48 Magach, which are at little more than a barrel length apart. Of the 2,000 tanks employed by the IDF in the October War, half were damaged in battle with 400 being totally destroyed and 600 returned to service. Arab tank losses were 2,250 out of a total of 4,480.



had been no Egyptian opposition. The paratroops radioed Sharon with the codeword for success, 'Acapulco'. By 0800hrs Matt's bridgehead stretched 4.8km (3 miles) north from the Great Bitter Lake. As they pushed northwards, his men encountered pockets of surprised Egyptians who were dealt with in short order. The crossings over the Sweetwater Canal were secured, and Colonel Erez pushed westward with 21 tanks to destroy Egyptian SAM batteries.

With a foothold established, Sharon and Adan prepared to move the bulk of their divisions over the Canal. Sharon was convinced that the canal crossing was of far greater importance than the action at Chinese Farm and was eager in his situation report to minimise the losses sustained in the fighting in that sector. However, the Israeli High Command took a different view and was dismayed by even the modified casualty figures submitted by Sharon. Dayan went so far as to question the idea of crossing the Canal. Bar-Lev and Gonen took a position summed up by the latter: 'Had we known that this would happen in advance, we probably would not have initiated the crossing. But now we are across we shall carry it through to the bitter end.'

ENDGAME

In an attempt to staunch its losses, the Israeli High Command ordered that no more tanks or men should cross the Canal until a bridge was in place. Sharon was given orders to clear Chinese Farm and 'Missouri' while Adan kept the 'Akavish' road open. Once again a major disagreement flared up between Southern Command and the explosive Sharon, who insisted that the breakthrough at the Canal should be exploited at all costs. Bypassing Gonen, Sharon appealed directly to Bar-Lev, who denied his request to continue the advance. Bar-Lev considered that it would be reckless in the extreme to launch an attack across the Canal with an unsecured supply route while relying on vulnerable rafts and, in his opinion, Sharon's drive would grind to a halt within 24 hours.

Meanwhile, Adan reported that the Egyptians, transfixed by the bitter fighting at Chinese Farm, had left the 'Akavish' road clear. The pontoon bridging equipment was slowly moved towards the Canal, screened by a battalion of 35th Paratroop Brigade; fresh troops who had been rushed up from the south to take Chinese Farm. The paratroops held on for more than 14 hours less than 91m (100 yards) from the Egyptians. The bridge reached the Canal on the morning of 17 October. But the paratroops had paid a heavy price – 40 were dead and some 80 wounded. The Egyptians still held Chinese Farm.

It remained abundantly clear that the Israeli forces on the east bank were in danger of being encircled. The Egyptian position at Chinese Farm kept the 'Tirtur' road closed and threatened the 'Akavish' road. The responsibility for taking this crucial position was passed to Adan. Gonen fretted that Sharon was still looking for a way to push more armour across the Canal, and even radioed one of the latter's brigade commanders to forbid him to cross the Canal without direct orders from Southern Command.

Egyptian High Command initially brushed off the Israeli presence on the west bank of the Canal as a tiresome nuisance and Sadat airily

BATTLE OF CHINESE FARM, 17 OCTOBER, PHASE 1



dismissed it as a 'television operation'. On the afternoon of 16 October, Ismail and Shazly agreed that concerted action against the Israeli crossing would be taken the next day, but their agreement ended. Shazly urged a major westward shift of Egyptian forces to counter the Israeli thrust. Second Army's reserve, 21st Armoured Division, could not easily be withdrawn and Shazly proposed that Third Army's 4th Armoured Division and 25th Independent Armoured Brigade be used. A counterattack could be launched from the south-west towards the enemy crossing point. Simultaneously, 21st Armoured Division would move down the Canal bank to close the corridor to the Israeli crossing.

Ismail rejected the plan. He did sanction a southward thrust by 21st Division but wanted 25th Brigade to attack north from its existing

BATTLE OF CHINESE FARM, 17 OCTOBER, PHASE 2



positions in the Third Army bridgehead. Simultaneously, an infantry reserve held on the west bank, 116th Brigade, was to attack due east towards the Israeli crossing. Shazly protested that it was reckless in the extreme to order 25th Brigade to advance some 30km (18½ miles) with the Bitter Lakes on its left flank and its right flank open to enemy attack, but Ismail overruled him.

On the morning of 17 October the Egyptians steeled themselves to close the Israeli corridor and cut off all Israeli forces between 'Lexicon' and the Canal. The Israelis guessed Egyptian intentions while the armoured formations were still moving into position. This enabled Adan and Sharon in the north to concentrate three armoured brigades against Egyptian 16th Infantry and 21st Armoured Division while Lieutenant Colonel Amir Jaffe's battalion held the line west of Chinese Farm.



Once across the Suez Canal, the priority for the Israeli ground forces was to seek out and destroy the SAM sites of the Egyptian air defence system. Once this was achieved, the Israeli Air Force was given free rein to attack targets at will. These are old petrol-engined Centurions, many of which were transferred from the Golan Heights after the Syrian invasion had been halted.

The Egyptian forces, already battered in the earlier fighting, stood little or no chance, but it seemed to the Israelis as if the sand dunes swarmed with Egyptian tanks. The Egyptian 16th Infantry Division took heavy casualties before breaking off and withdrawing. The 21st Armoured Division managed to cut the route to Deversoir from the east but then ground to a halt.

Meanwhile, Egyptian 25th Armoured Brigade was driving north along the eastern shore of the Great Bitter Lake. The dust attracted the attention of the IAF, which confirmed about 100 T-62s, numerous APCs, fuel and supply trucks and artillery moving north. Battle was joined at 1200hrs when the tanks of Reshef's 14th Brigade opened fire at long range, knocking out the leading two tanks in the Egyptian column. Major General Adan ordered Colonel Nir to leave one battalion of his 217th Reserve Brigade in the area of 'Akavish-Tirtur' and use the rest of his forces to lay an ambush to the east of 'Lexicon'. He also ordered Colonel Arie Keren to deploy his brigade to the east of 'Botzer' at the southern end of the Great Bitter Lake. To the north one of Reshef's units blocked the road at Lakekan; to the west was the Great Bitter Lake; between the lake and the road there was an Israeli minefield; to the east was Nir's 217th Reserve Brigade; and to the south-east Keren's 500th Reserve Brigade blocked the Egyptian rear.

Nir's brigade was the first to engage the Egyptians, forcing part of 25th Armoured Brigade to leave the road. The Egyptians then blundered into the Israeli minefield near the lake. The survivors headed straight for the sand dunes, where Nir's tanks were waiting for them. Thirty minutes after battle opened, Keren's brigade moved from the Gidi road in a wide flanking movement towards 'Botzer'. His armour opened fire on the Egyptians, now completely boxed in, and picked off tanks and vehicles, strung out along the shoreline, at will. Artillery support from Magen's division, to the south, added to the destruction of 25th Armoured Brigade. A few Egyptian tanks broke away in flight, pursued by Keren's

Israeli M3 halftracks carrying paratroops cross the Sweetwater Canal under the protective eye of a *Sho't* Main Battle Tank, with the Suez Canal in the background. The venerable M3 halftrack remained the most numerous APC within the IDF during the October War and many Israeli soldiers preferred it to the more modern M113 with its small claustrophobic interior.



armour, which itself became entangled in an Israeli minefield near 'Botzer'.

By 1730hrs the battle was over and 85 of 96 Egyptian T-62s had been destroyed. The brigade commander's tank and three others sought refuge in the 'Botzer' fortification. All the Egyptian APCs and vehicles in the supply train were destroyed. The Israelis had lost just four tanks to mines in their pursuit of the fleeing Egyptians.

However, another furious row flared on the morning of 17 October at a conference at Adan's command post attended by Adan, Elazar, Bar-Lev and Sharon. The latter had once again proposed that his division cross to the west bank, while Adan dealt with the east bank. Adan pointed out that he had been fighting for 30 hours to clear Chinese Farm – a task originally allotted to Sharon – and accused Sharon of being a glory hunter. The high command ordered Sharon to clear and widen the corridor on the east bank before crossing the canal. Relations between the IDF's senior fighting generals had hit a new low. General Elazar was, for the moment, able to pour oil on the troubled waters by insisting that 'Sharon will continue with the task of consolidating the bridgehead, and Bren [Adan] will cross westward, according to the plan'. Sharon was unable, however, to subdue the Egyptian position at 'Missouri', nor did he enjoy unqualified success when the high command allowed him to cross the Canal.

At 1600hrs on 17 October, at the height of the armoured battle at Great Bitter Lake, Israelis engineers were laying a pontoon bridge across the Canal under air attack and heavy artillery bombardment. Sharon later described the scene: 'A tremendous Egyptian artillery barrage brought a curtain of shells crashing down on us ... MiG fighters swarmed over the yard ... turning the compound into an inferno. With incredible courage, soldiers were standing outside in this storm of fire directing traffic ... Others worked at ... assembling and launching their rafts ... The chaos was mind-boggling.'

Colonel Matt's headquarters took a direct hit that wounded his deputy. Guns, mortars and *Katyushas* poured tens of thousands of rounds into the crossing areas. 'Frog' surface-to-surface missiles were added to the bombardment. The IAF, patrolling over the bridgehead, shot down large

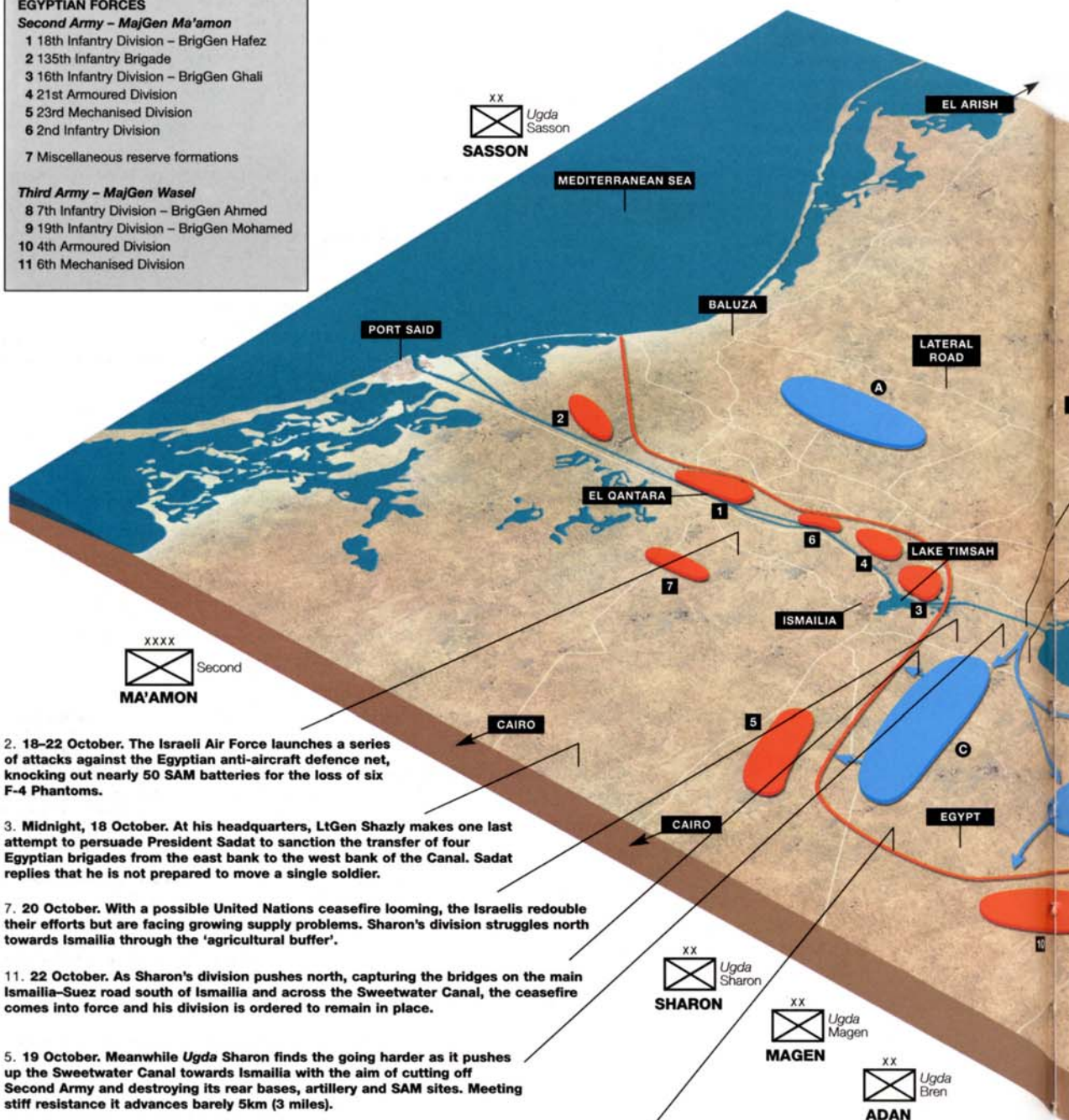
EGYPTIAN FORCES

Second Army – MajGen Ma'amon

- 1 18th Infantry Division – BrigGen Hafez
- 2 135th Infantry Brigade
- 3 16th Infantry Division – BrigGen Ghali
- 4 21st Armoured Division
- 5 23rd Mechanised Division
- 6 2nd Infantry Division
- 7 Miscellaneous reserve formations

Third Army – MajGen Wasel

- 8 7th Infantry Division – BrigGen Ahmed
- 9 19th Infantry Division – BrigGen Mohamed
- 10 4th Armoured Division
- 11 6th Mechanised Division



2. 18–22 October. The Israeli Air Force launches a series of attacks against the Egyptian anti-aircraft defence net, knocking out nearly 50 SAM batteries for the loss of six F-4 Phantoms.

3. Midnight, 18 October. At his headquarters, LtGen Shazly makes one last attempt to persuade President Sadat to sanction the transfer of four Egyptian brigades from the east bank to the west bank of the Canal. Sadat replies that he is not prepared to move a single soldier.

7. 20 October. With a possible United Nations ceasefire looming, the Israelis redouble their efforts but are facing growing supply problems. Sharon's division struggles north towards Ismailia through the 'agricultural buffer'.

11. 22 October. As Sharon's division pushes north, capturing the bridges on the main Ismailia–Suez road south of Ismailia and across the Sweetwater Canal, the ceasefire comes into force and his division is ordered to remain in place.

5. 19 October. Meanwhile *Ugda* Sharon finds the going harder as it pushes up the Sweetwater Canal towards Ismailia with the aim of cutting off Second Army and destroying its rear bases, artillery and SAM sites. Meeting stiff resistance it advances barely 5km (3 miles).

18. 25 October. Two more Security Council resolutions result in a final ceasefire, bringing the October War to an end. Within three days UN observers reach the frontlines.

OPERATION GAZELLE

18–23 October 1973, viewed from the south-west, showing the Israeli crossing of the Suez Canal and the breakout 'into Africa', undermining the positions of Egyptian Second and Third Armies on the east bank of the Canal.

1. Dawn, 18 October. Three Israeli brigades erupt out of the bridgehead on the west bank of the Suez canal, driving north-west, west and south.

4. Dawn, 19 October. *Ugda Bren* and *Ugda Magen* launches their southern sweep, breaking out of the confines of the 'agricultural buffer' into the desert. They race forwards some 35kms (22 miles) by nightfall, smashing through Egyptian positions and overrunning SAM batteries.

12. 1500hrs, 22 October. MajGen Adan's *Ugda Bren* and *Ugda Magen* are informed that the ceasefire will take effect in three hours at 1800hrs. Adan's tanks race south to reach the Suez Canal.

13. 1850hrs. By around this time Adan's lead units reach the southern end of the Small Bitter Lake and the Suez Canal at three points.

6. Night, 19 October. Egyptian Third Army is now transferring units from the east to the west bank of the Suez Canal - in defiance of President Sadat's express orders - in an attempt to stave off encirclement by Israeli troops.

17. 24 October. In the last act of the war, MajGen Adan's *Ugda Bren* attempts to capture Suez City. The Egyptian garrison fights stubbornly and though surrounded by the IDF, Suez City remains in Egyptian hands.

15. 2000hrs, 23 October. By this time two of Adan's brigades reach the crossroads on the north-west approaches to Suez City. They have continued to push south in defiance of the ceasefire and with the express authorisation of the Israeli cabinet. Fierce airbattles take place overhead.

16. Midnight, 23 October. Magen's brigades reached Ras Abadiya on the Gulf.

10. 1200hrs, 21 October. By this time Egyptian Third Army is effectively cut off from its rear headquarters and its main supply bases.

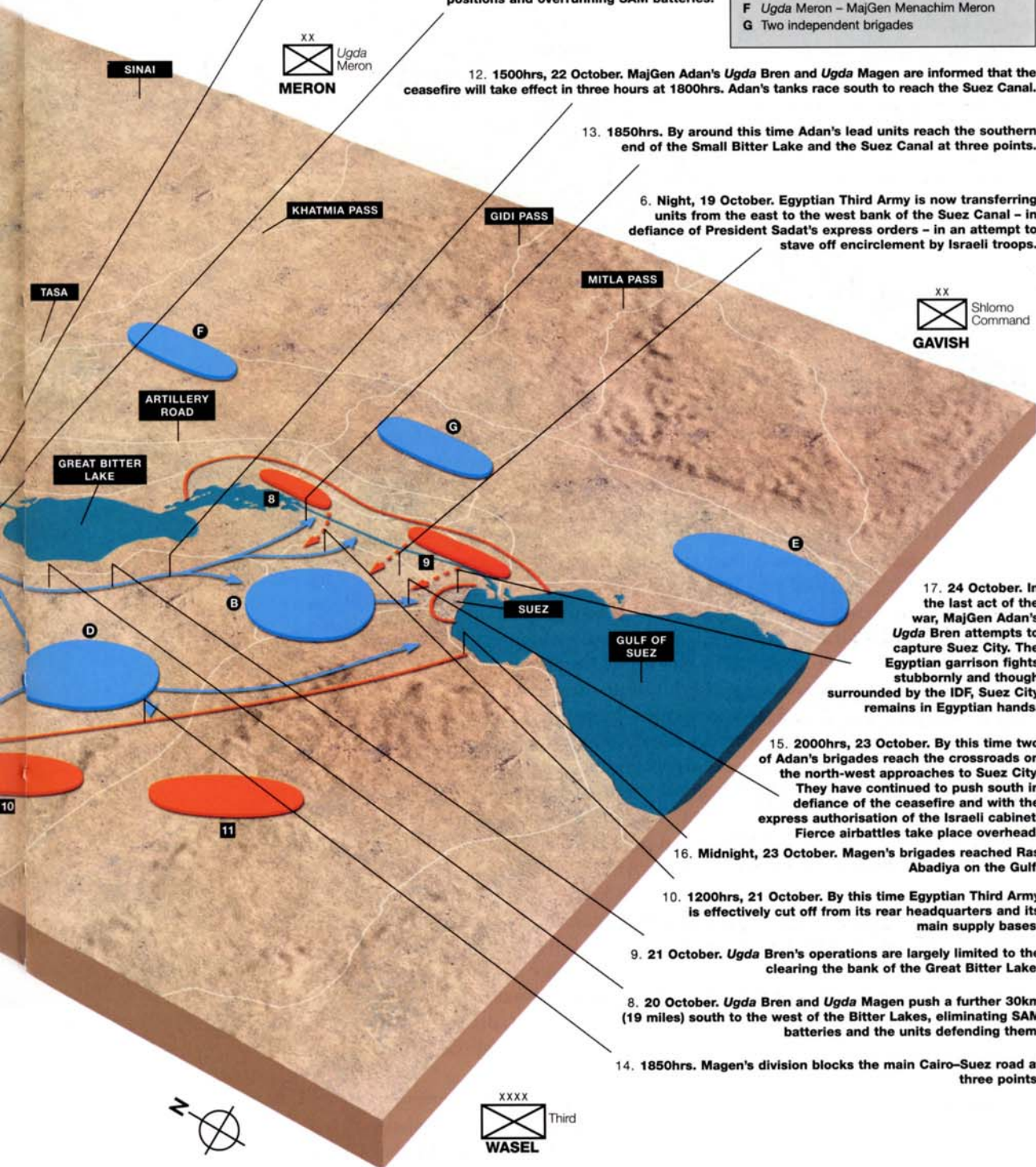
9. 21 October. *Ugda Bren*'s operations are largely limited to the clearing the bank of the Great Bitter Lake.

8. 20 October. *Ugda Bren* and *Ugda Magen* push a further 30km (19 miles) south to the west of the Bitter Lakes, eliminating SAM batteries and the units defending them.

14. 1850hrs. Magen's division blocks the main Cairo-Suez road at three points.

ISRAELI FORCES

- A *Ugda Sasson* - BrigGen Yitzak Sasson
- B *Ugda Bren* - MajGen Avraham Adan
- C *Ugda Sharon* - MajGen Ariel Sharon
- D *Ugda Magen* - BrigGen Kaiman Magen
- E Shlomo Command - MajGen Yeshaya Gavish
- F *Ugda Meron* - MajGen Menachim Meron
- G Two independent brigades



numbers of Egyptian fighter-bombers. The Egyptians resorted to throwing in helicopters on suicide bombing missions in which barrels of napalm were dropped on the crossing.

Matt's paratroops also came under attack from Egyptian commandos. The fighting was frequently hand-to-hand. In one incident an Israeli unit was cut off from the main body and surrounded by Egyptians. A four-hour battle ensued in which one Israeli officer, Captain Asa Kadmoni, fought with conspicuous gallantry, holding off attacks with grenades, a rifle and an anti-tank weapon. He had almost expended all his ammunition when a relieving force rescued him.

Colonel Haim Erez, a Polish Jew and exceptionally tough soldier who had arrived in Palestine in 1943 by way of the Soviet Union and Teheran, had crossed the Canal on the night of 15 October with 20 tanks and seven APCs. His force had headed west, hunting Egyptian SAM bases and destroying an assortment of enemy vehicles on their progress. By 1200hrs on the 16 October Erez was 12km (7½ miles) west of the Canal. The Egyptians had been taken by surprise and for 24 hours Erez enjoyed complete freedom of movement, shooting up SAM sites and armoured columns. On the morning of 17 October, however, he came under attack from the Egyptian 23rd Armoured Brigade and took casualties before the Egyptians were driven off.

The Israeli sectional raft bridge on the Canal was completed late in the afternoon of 17 October, and before dawn on 18 October Adan had two brigades of tanks across. The prefabricated roller-bridge was operational by the early hours of 19 October. Within 24 hours a third pontoon bridge would also be carrying traffic across the Canal. Over 100 of BrigGen Dan Even's engineers had been killed and many hundreds wounded in throwing the bridges across the Canal.

On the east bank Reshef's brigade had reorganised and, under Sharon's orders, attacked Chinese Farm, whose exhausted defenders finally yielded to a fierce assault. The victorious Israelis were confronted with a sobering sight: highly organised infantry and anti-tank defences with great quantities of anti-tank weapons – guns and 'Saggers' – lying abandoned. Reshef forged on, driving north to widen the corridor. That afternoon Moshe Dayan arrived to inspect the battlefield accompanied by Sharon and Reshef. As he gazed on the scene of the bitterest fighting, he was clearly moved. Reshef observed, 'Look at this valley of death,' to which Dayan replied *sotto voce*, 'What you people have done here!'

Between 16 October and dawn on the 18th the Israeli bridgehead on the west bank remained about 1½km (1 mile) deep and some 4.8km (3 miles) from north to south, bounded on the east by the Canal, on the south by the Great Bitter Lake and on the west by the Sweetwater Canal, which channelled water from the Nile Valley eastward to Ismailia and then south as far as Suez City. On either side of the Sweetwater Canal was difficult terrain: cultivated land, criss-crossed by irrigation ditches. It was termed the 'agricultural buffer' by Israeli troops. To the west the desert stretched as far as the eye could see to the Nile Valley.

By the early hours of 18 October, Sharon and Adan had concentrated the bulk of their two divisions in the bridgehead but the Egyptians were racing to establish a new defence line west of the canal. At dawn on 18 October three Israeli brigades erupted out of the bridgehead, driving north-west, west and south. The Egyptians were caught off-balance but

An M48 *Magach* moves out from under its camouflage netting as the IDF redeploys at the conclusion of the October War. The two bands around the 105mm main armament indicate which platoon that the tank belongs to. There were four platoons of three tanks in each company, three companies to a battalion and three battalions in an armoured brigade. A further three tanks in brigade headquarters gave a total of 111 tanks per armoured brigade at full strength.



were still capable of hitting back. Most of the Egyptian units around the bridgehead had re-occupied defensive complexes which before 6 October had served as their second and third lines. As the tanks nosed forward, the IAF launched a concerted attack on 15 Egyptian missile sites between Port Said and Ismailia, destroying six batteries at the heavy cost of six F-4 Phantoms. These losses obliged the IAF to revert to hit-and-run tactics, and in the next four days their aircraft knocked out another 40 SAM batteries at no cost in planes or pilots.

By 19 October the Israeli breakout was turning into a huge strategic envelopment. Adan and Magen were ordered to drive south to isolate Egyptian Third Army while elements of Sharon's division were to push north along the west bank of the Canal towards Ismailia with the aim of cutting off Second Army and destroying its rear bases, artillery and SAM sites.

Egyptian High Command attempted to play down the Israeli success on the Canal. Towards midnight on 19 October Shazly made one last attempt to persuade Sadat to transfer four brigades from the east to the west bank. Sadat replied that he was not prepared to move a single soldier. Shazly was now effectively removed from command and was succeeded by General Gamassy.

President Sadat now agreed to a Soviet offer to broker a ceasefire and immediately informed President Assad of his decision. It was Assad's understanding that Sadat could not make a unilateral decision. The two Arab leaders would sink or swim together. The angry Assad realised, however, that he could not fight on alone.

At dawn on 19 October Adan and Magen launched their southern sweep, breaking out of the confines of the 'agricultural buffer' into the desert. Raising billowing dust clouds, they advanced 35km (22 miles) by nightfall, smashing through Egyptian positions and overrunning SAM batteries. Meanwhile Sharon was finding the going harder as he pushed up the Sweetwater Canal, meeting stiff resistance and advancing barely 5km (3 miles). The Egyptians fought all the harder knowing that the fate of Second Army lay in their hands.







**SHO'T TANKS OF UGDA BREN SAM-HUNTING IN AFRICA,
19 OCTOBER** (pages 86-87)

The Israeli Air Force suffered heavy losses in the opening phases of the October War flying close air support missions to the ground forces. Ultimately these missions were halted due to the highly effective Arab air defences, and the army proved to have insufficient artillery to deal with the 'Sagger' anti-tank teams that were inflicting heavy damage on the first Israeli armoured counterattacks. The Israeli Air Force was seriously compromised until the Surface-to-Air Missile (SAM) threat was dealt with. Little could be done to counter this menace until the ground forces crossed the Suez Canal during Operation Gazelle. As soon as the first tanks had been ferried across the canal they were sent out in twos and threes to find the prepared SAM sites and destroy them. Colonel Haim Erez having crossed the canal on the night of 15 October, led a group of 20 tanks west hunting for SAMs. By midday on 16 October he was 12km (7½ miles) west of the Canal and, having taken the Egyptians by surprise, roamed unchecked for 24 hours. Here a trio of Upgraded Centurions (*Sho't*) (1) of the 217th Reserve Armoured Brigade, commanded by the redoubtable Colonel Natan 'Natke' Nir, attack Missile Base 6214 some 2km west of the Vada'ut Road. The position was strongly defended by the Egyptians with 'Saggers' and

rocket-propelled grenades (RPGs). Three Israeli Tanks were knocked out with three dead and 16 wounded, including the battalion commander. Known as 'Guideline' within NATO and *Dvina* to the Soviets, the SA-2 missile (2) provided the low- to high-altitude coverage of the Egyptian air defence system. The SA-2 is a solid-fuel rocket that uses radio command guidance to reach its target. Guidance was provided by the 'Fan Song' radar detection system (3), which transmitted command signals to the missile. The latter's 129kg (286lb) warhead could be detonated by command or proximity fusing. The missile had a slant range of 45km (28 miles) and a ceiling of 18 km (11 miles). Although taken by surprise, several Egyptian SAM site crews had the presence of mind to at least attempt to fight back, and on more than one occasion the SA-2's launcher was depressed to the horizontal (4) and the missile loosed off at the advancing Israeli tanks. Although no hits were achieved, the experience must have been somewhat unnerving for the Israeli tank crews and these doubtless qualify as the most expensive anti-tank rounds in the history of warfare. With the destruction of the SAM sites by Israeli armoured units, the Israeli Air Force was given free rein at last and subsequently were able to provide highly effective close air support to the ground forces during the encirclement of the Egyptian Third Army. (Kevin Lyles)

A tank commander's view as his vehicle approaches a battery of 160mm self-propelled mortars firing against enemy positions of the Egyptian Third Army on the final day of the war.



On the night of 19 October Henry Kissinger flew to Moscow to negotiate a ceasefire to be imposed by the Soviet Union and the United States. The Israelis redoubled their efforts but were facing growing problems of resupply. The Egyptian Third Army, with an independence born of desperation, was now moving units from the east to the west bank – in defiance of Sadat's express orders – to stave off encirclement by the IDF.

The early morning of 20 October found Sharon struggling north towards Ismailia through the 'agricultural buffer'. In the south Adan and Magen continued their southern drive, 30km (19 miles) to the west of the Bitter Lakes, eliminating SAM sites and the motley collection of units – some of them Kuwaiti and Palestinian – rushed up to defend them. Egyptian resistance was mounting, and on the 21 October Magen's drive was brought to a temporary halt while Adan's operations were largely limited to clearing the bank of the Great Bitter Lake. Nevertheless, by 1200hrs on 21 October the Egyptian Third Army was effectively cut off from its rear headquarters and its main supply bases.

Meanwhile, Kissinger and Leonid Brezhnev, the Soviet Communist Party Secretary, had negotiated ceasefire terms. The joint draft agreed by Kissinger on 21 October, which later became UN Security Council Resolution 338, provided for a ceasefire in place no later than 12 hours after its adoption and called for the parties to initiate negotiations for 'a just and durable peace in the Middle East' on the basis of Security Council Resolution 242. The resolution was adopted by the Council in the early hours (New York time) of 22 October.

On 22 October as Sharon's division pushed north capturing the bridges on the main Ismailia–Suez road and across the Sweetwater Canal, the ceasefire came into force and his division was ordered to remain in place. At 1500hrs Adan and Magen to the south had been informed that the ceasefire would go into force in three hours time at 1800hrs (Egypt–Israel time). Adan now had this brief window in which to reach the Canal. His tanks sped through a landscape thronged with defeated Egyptian troops but they had no time to take them prisoner. By approximately 1850hrs Adan's lead units had reached the southern end of the Little Bitter Lake and the Suez Canal at three points. Meanwhile, Magen's division had blocked the main Cairo–Suez road at three points.



A Sho't withdraws through the outskirts of Suez City after the disastrous attack on the city in the final hours of the war, which cost the Israelis 80 dead and 120 wounded. On the following day, 24 October, the United Nations Security Council imposed a ceasefire and the war was over. The men of the Israeli Armoured Corps paid a heavy price in the October War. A total of 1,450 tank crewmen died in the Sinai campaign with a further 3,143 wounded in action.

The ceasefire left Egyptian and Israeli units intermingled, many thousands of the former still armed. In addition, a number of Egyptian formations had lost touch with headquarters and were as yet unaware of the ceasefire. The situation was ripe for ceasefire violations by both sides. The Israeli cabinet gave the green light to complete the encirclement of Egyptian Third Army, despite the strong pressure it would immediately trigger from the superpowers. Moshe Dayan later claimed that Syria's reluctance to accept the ceasefire and numerous Egyptian violations of the ceasefire provided the Israelis with a pretext.

On 23 October two of Adan's brigades pushed south and reached the crossroads on the north-west approaches to Suez City by 2000hrs, while the sky above erupted with dogfights as the Egyptians threw in the remains of their air force to halt the Israeli advance. Magen's brigades reached Ras Abadiya on the Gulf just before midnight on 23 October. The last act was Adan's attempted capture of Suez City on 24 October, but the Egyptian garrison fought stubbornly and though surrounded by the IDF, Suez City remained in Egyptian hands. By 25 October two more Security Council resolutions, calling for a return to the ceasefire, had brought the October War to an end and within three days UN observers had reached the frontlines.

AFTERMATH

In just under three weeks in October 1973 the Israelis lost 2,687 dead (half of them tank crews), 7,251 wounded and 314 prisoners, most of the latter from the Bar-Lev Line. Egyptian casualties were approximately 12,000 dead, 35,000 wounded and 8,400 prisoners. Egyptian losses in equipment were similarly disproportionate, principally because much damaged Egyptian equipment was not reclaimed but fell into the hands of the IDF that then converted it to Israeli use after 1973. In all, the Egyptians lost about 1,000 tanks and the Israelis some 400. Many more IDF tanks suffered hits in the war but were repaired to fight again.

The IAF lost 107 aircraft during the October War, including five helicopters – almost 25 per cent of its combat strength. In contrast, total Egyptian air losses were 277 aircraft, including 42 helicopters. More than two-thirds of the Egyptian losses were sustained in dogfights. The Egyptians lost some 50 SAM batteries on the west bank of the Canal.

At sea, the Israelis lost no vessels and only 3 killed and 24 wounded; the Egyptians lost seven missile boats, and four torpedo boats and coastal defence craft. In contrast to the army, the small Israeli Navy entered the war at the cutting edge of missile and electronic counter-measures (ECM) technology, and on the night of 6/7 October emerged victorious over the Syrian Navy from the battle of Latakia, the first naval missile battle in history. In the battle of Damiette-Balatin on the night of 8/9 October, six Israeli missile boats sank three similar Egyptian craft. Although the Israeli Navy's operations did not exercise a decisive influence on the October War, they focused the attention of naval planners worldwide on the future shape of war at sea.

Israeli intelligence and the IDF's armoured corps had to answer many searching questions after October 1973. Military intelligence chose to discount many warning signals, ably encouraged by an Egyptian deception campaign of the highest quality. In the Sinai the IDF was totally unprepared for the Egyptian infantry's massive deployment of effective anti-tank weapons – 'Saggers', recoilless anti-tank guns and RPGs. In similar fashion, the IAF had no initial response to interlocking SAM networks. The IDF infantry, equipped with obsolete bazookas and rocket launchers, FN semi-automatic rifles and Uzi submachine guns, could not match the firepower of Egyptian infantry equipped with RPG-7s and AK-47 automatic assault rifles. Only after the war had begun did the United States supply the IDF with TOW anti-tank guided missiles and LAW anti-tank rockets.

In April 1974, in an interim report, the Israeli Agranat Commission reached its principal conclusions on the course of the 1973 War. It charged IDF intelligence with major shortcomings in its assessment of Arab intentions and capabilities. It was to recommend a complete re-organisation of Israel's intelligence services and the dismissal of

General Zeira. Also censured was the Chief of the General Staff, Major General David Elazar, who was blamed for an incorrect assessment of the intelligence he had received and for failing to prepare the army adequately for war. The Commission further recommended that the GOC Southern Command, General Shmuel Gonen, be suspended and not considered for any future high command. Singled out for particularly harsh criticism were the counterattacks along the Canal during 6–8 October. The Agranat Commission, combined with political pressure, was to claim the heads of Zeira, Elazar and Gonen and also end the political careers of Golda Meir and Moshe Dayan.

In the final count, however, purely military victory in 1973 had gone to Israel. Recovering from initial and mainly self-inflicted setbacks, and benefiting from a military leadership which, whatever its faults, combined intellectual and hard-driving qualities in equal measure, the Israelis were able to cross the Canal and ultimately to threaten most of Egyptian Third Army's combat formations with annihilation had not superpower pressure on their respective clients hastened a ceasefire. To the north, Second Egyptian Army maintained open supply lines and intact rear echelons, but its armoured, mechanised and anti-aircraft forces had been so grievously battered by the Israelis that it was in no shape to respond to a renewal of hostilities. The Israelis had prevailed in spite of ferocious internal arguments over the correct strategy for recovery (many but not all centred around the imposing but infuriating figure of Ariel Sharon), but their flexible system of command had ultimately coped with pressures that proved too intense for the more rigid Egyptian military and political leadership. But victory in war is not just measured by territory gained or tanks destroyed. The Israeli people were staggered by the early successes of the Arab armies that smashed the myth of IDF invincibility and the scale of their casualties was beyond comprehension. Someone had to be accountable and the findings of the Agranat Commission did little to assuage the anger. That anger was reflected in the ballot box when the Labour Party that had held office for almost 30 years was voted out of office and replaced by the right-wing Likud government of Menachem Begin in 1977. But the shock remained and the glue that had bound Israeli society together in the face of the external Arab threats for a generation came unstuck. Israel's faith in her leaders, both political and military, was shaken, leading to the factionalised and polarised society that exists today.

To most Egyptians, Sadat had gained a famous victory in the October War. The Egyptian armed forces could now hold their heads high in the knowledge that the crossing of the Canal had been an operation of great skill and courage. The war also led to substantial political gains. Although a military defeat, the war did break the political log jam and thus succeeded in this wider strategic aim by securing Egypt first an interim agreement on Israeli withdrawal from the Sinai and finally a peace treaty that returned the entire area of the peninsula in April 1982.

Sadat did not live to see the culmination of his vision. While reviewing a military parade commemorating the Egyptian crossing of the Canal in 1981, President Sadat was assassinated by a group of Muslim fundamentalists. Yet another threat to peace in the Middle East had emerged with a vengeance.

BATTLEFIELD TODAY

The Sinai Peninsula has been the scene of conflict throughout the 20th century from the Great War until 1989 when Taba, the last Israeli-occupied town, was returned to the Egyptians. The Sinai remains the home of several tribes of Bedu and now enjoys a thriving tourist industry along the Red Sea. From 1967 to 1974, the towns along the length of the Suez Canal were on the frontline between the Egyptians and the Israelis. For years they lay empty of their civilian populations and all were virtually destroyed during the October War. Thanks to Arab oil money, they have been rebuilt and are now thriving centres of commerce. Nevertheless, the Sinai Desert is still littered with the rusting hulks of AFVs from the conflicts of 1956 onwards.

At the entrance of the canal on the Mediterranean Sea is Port Said. A military museum is located on Sharia 23rd July near the Corniche. It is open daily from 8.00am to 3.00pm and 6.00pm to 8.00pm with an entrance fee, at the time of writing, of two Egyptian pounds. Although it covers several centuries of Egyptian military history, the 1973 storming of the Bar-Lev Line takes pride of place with a room devoted to the October War.

Midway down the Suez Canal is the town of Ismailia. Situated 120km (74 miles) east of the capital Cairo, Ismailia was originally established to house the 25,000 labourers that dug the Canal in the 19th century. It is possible to hire a water taxi to cross the Suez Canal and view some of the passages blasted through the 25m- (80ft) high sand embankments of the Bar-Lev Line. Seven kilometres (4.3 miles) to the south of the town is a ferry crossing point with a sculpture on the east bank depicting a fixed bayonet that is a memorial to those that fell storming the Bar-Lev Line on 6 October 1973. To the north of Ismailia there are other ferry crossing points with one for cars and another for trucks and military transport.

The road to the interior of the Sinai Peninsula passes the only remaining Israeli strongpoint on the Bar-Lev Line. Codenamed 'Ismailia East', it has been preserved by the Egyptians as a memorial to the October War but, as it is located within the operational area of the Egyptian Second Army, it is in a restricted military zone and not open to the public.

Suez City at the end of the Canal is 90km (56 miles) south of Ismailia. There is little in the city of interest to the military student except for four captured Israeli tanks displayed on the causeway to Port Tawiq (Tewfik).

BIBLIOGRAPHY

The works of Chaim Herzog, *The War of Atonement: The Inside Story of the Yom Kippur War, 1973* (Weidenfeld and Nicolson 1975) and *The Arab-Israeli Wars: War and Peace in the Middle East* (Arms and Armour Press 1982) remain the most reliable sources from the Israeli point of view.

For the political background to the October War and indeed all the Arab-Israeli wars of the 20th Century, Benny Morris has written an unsurpassed account in *Righteous Victims: A History of the Zionist-Arab Conflict 1881–1999* (John Murray 2000).

The Yom Kippur War by The Insight Team of the *Sunday Times* (Andre Deutsch) was written immediately after the conflict but nevertheless gives an evocative contemporary coverage of the conflict.

There are several excellent accounts of the ground fighting in the Sinai campaign including *Israeli Tank Battles: Yom Kippur to Lebanon* by Samuel M. Katz (Arms and Armour Press 1988) and *Chariots of the Desert: The Story of the Israeli Armoured Corps* by David Eshel (Brassey's 1989).

Lieutenant Colonel David Eshel (formerly of the Israeli Armoured Corps) also produced a series of monographs during the early 1980s on all aspects of the Arab-Israeli wars. The actual campaigns were recounted in a series called 'Born in Battle' and weapon systems in 'War Data' and 'Military Enthusiast'.

For an account of the tensions among the top commanders in Southern Command, *On the Banks of the Suez* by Major General Avraham 'Bren' Adan makes fascinating reading.

From the other side of the hill, there are regrettably very few reliable accounts in English by the Arab combatants. *The Crossing of the Suez* by Lieutenant General Saad el Shazly (American Mideast Research 1980) is by far the most comprehensive. The description of the planning and execution of Operation *Badr* is essential reading for all students of this campaign.

Similarly, *The Ramadan War, 1973* by Hassan el Badri, Taha el Magdoub and Mohammed Dia el Din Zohdy is a good account of the planning and execution of the crossing of the Suez Canal. Thereafter the book deteriorates into mere rhetoric but careful reading can unearth many statistical gems and the perceptions from the Arab perspective. The book was published by T.N. Dupuy Associates Inc in 1979.

Colonel Trevor Dupuy also wrote what must be considered the most comprehensive and impartial account of the Sinai campaign in his excellent book *Elusive Victory: The Arab-Israeli Wars 1947–1974* (Macdonald and Jane's 1978). Its value lies in the fact that Dupuy was able to interview combatants of all the warring nations soon after the conflict to give the most balanced account of the campaign and the statistics it quotes are generally held to be the most accurate.

INDEX

Figures in **bold** refer to illustrations.

Adan, Avraham, Major General **26**, 29, 30, 55–57, 64, 65, 69, 77, 79, 81, 85, 89, 90

Agranat Commission 29, 36, 38, 91–92
Ahmed, Ahmed Badawi Said, Brigadier General 34

aircraft 8–9, 19, 26, **53**, **56**, **57**, **64**, 67, 68
losses **39**, 39–40, 53, **59**, 84, 85, 91

Al Gamassy, Mohamed Abd El Ghani, Lieutenant General 33

Amir, Gaby, Colonel 51, 55, 56

Artillery Road 11, 12, 51, 52, 55

Ashkenazi, Motti, Captain **24**, 49, 50

Assad, Hafez al 18, 37, 85

Bar-Lev Line 9–12, **9**, **10**, **11**, 13, 14, **19**, 22–23, 35, 36, 40, 41, 45, 48, 49–50, 52, 69, 91, 93

Bar-Lev, Chaim, General 8, 9, 30, 58, 66–67, 68, 69, 77, 81

Begin, Menachem 15, 92

Bitter Lakes *see* Great Bitter Lake; Little Bitter Lake

Braun, Arie, Colonel 16

Brezhnev, Leonid 89

Cairo Radio 39

Camp David Peace Accord 15, 32

Carter, Jimmy 15

casualties *see* losses

ceasefires 12–13, 15, 85, 89–90, 92

Chinese Farm 57–58, 73, 74, 75, 77

battle of 14, 77, 78–84, **78**, **79**

civilians, evacuation 37, 39

Damiette-Balatin, battle of 91

Dan, Lieutenant Colonel 76

Dayan, Moshe 16, 21, 28–29, 35, 37, 39, 50, 53, 55, 58, 77, 84, 90, 92

Deversoir 40, 69, 73, 80

Egypt 8–9, 16, 17

Egyptian Air Force 12, 19, 20–21, 24, 39–40, 41

Egyptian forces 9, 11, **18**, **19**, **20**, **22**, **23**, 24–25, **25**, **28**, **29**, **32**, 40–50, **42–44**, **46–47**, **59**, 60–61, **62–63**, 64, 65–67
commanders 32–34

intelligence 53–54

Special Forces 34

Egyptian Second Army 25, 68, 85, 92
Armoured Division, 21st 14, 48, 60, 64, 65, 68, 69, 74, 78, 79–80

Infantry Division, 2nd 25, 48, 56
Infantry Division, 16th 25, 48, 74, 79–80

Armoured Brigade, 14th 48

Infantry Division, 18th 25, 48, 65

Armoured Brigade, 15th 48

Infantry Brigade, 135th 49

Mechanised Division, 23rd 48, 65

Armoured Brigade, 24th 48

Mechanised Brigade, 1st 61, 65

Mechanised Brigade, 116th 79

Egyptian Third Army 15, 25, 48, 49, 68, 69, 85, 89, 90, 92

Armoured Division, 4th 48, 64, 66, 68, 78

Armoured Brigade, 3rd 66

Armoured Brigade, 25th

Independent 78, 79, 80

Infantry Division, 7th 25, 34, 48, 53

Armoured Brigade, 22nd 48

Armoured Brigade, 25th (attached) 48, 53

Infantry Division, 19th 25

Marine Brigade, 130th Independent 50, 51

Mechanised Division, 6th 48

Elazar, David, Major General 21, **26**, 29, 37, 38, 39, 51, 53, 54, 55, 56, 57, 58, 60, 64, 68, 81, 92

Erez, Haim, Colonel 73, 77, 84

Even, Dan, Brigadier General 84

Exercise *Tahir* 73 (Liberation 73) 35, 36

Fahmy, Mohammed Ali, Major General 33

Firdan Bridge 56, 57

Gamassy, General 85

Gedaliah, David, Lieutenant Colonel 36

Ghali, Fouad Aziz, Brigadier General 34

Gidi Pass 50, 51, 53, 56

Gohar, Omar, Major General 33

Golan Heights 7, 8, 18, 35, 39

Gonen, Shmuel, Major General 23, **26**, 29–30, 36, 38, 39, 45, 54, 55, 56, 57, 58, 64, 77, 92

Great Bitter Lake 45, 48, 50, 51, 55, 57, 69, 69, 75, 80, 81, 89

Hafez, Abdel Rab Al Nabi, Brigadier General 34

helicopters 57, 84, 91

Hussein, King 18, 22

Ismail, Ali, Ahmed, General **16**, 25, 33, 34, 61, 68, 78–79

Ismailia 40, 93

Israel 6

Israeli forces 7, 8, 9, 13, 25–27, **26**, **28**, **30**, **35**, **49**, 50–58, **61**, 64–67, 69–77, **69**, **70–72**, **74**, **80**

commanders 28–31

female 45

intelligence 20–22, 36, 37–38, 39, 91–92

Israeli Air Force (IAF) 12, 13, 14, 19, 26, 33, 39–40, 53, 55, 60, 64, **64**, 66, 73, 81–84, 85, 91

Israeli Armoured Corps 29

Israeli Defense Forces (IDF) 7, 9, **12**, 13, 14, 16, 22, 25, 27, 29, 30, 31, 38, **45**, 50, 53, 54, 55, 57, 58–60, 61, 64, 66, 81, 90, 91

Israeli Navy 26, **36**, **37**, 91

Palmach 29, 30

reservists 38, 54

Ugda Albert (252nd Armoured Division) 22, 26, 27, 36, 37, 53

Armoured Brigade, 14th 51, 65, 69–73, 74, 75

Armoured Brigade, 460th 51

Ugda Bren (162nd Reserve Armoured Division) 14, 27

Armoured Brigade, 217th 80

Armoured Brigade, 500th Reserve 80–81

Ugda Magen/Kalman 14, 27

Ugda Sharon/Arik (143rd Reserve Armoured Division) 14, 15, 27

Armoured Brigade, 14th 57

Armoured Brigade, 421st 73

Armoured Brigade, 600th Reserve 69, 74

Jaffe, Amir, Lieutenant Colonel 79

Jordan 14, 17, 18

Kadmon, Asa, Captain 84

Keren, Arie, Colonel 55, 80

Khatmia Pass 51

Kilometre 101 15

- Kissinger, Henry 14, 18, 21, 89
- Latakia, battle of 35, 91
- Lateral Road 12, 53, 55
- Little Bitter Lake 51, 90
- losses 12, 13, 14, 35, **39**, 39–40, 41, 49, 50, 52–53, 56, 58, **59**, 64–65, 66, **66**, 75, 76, 77, 80, 81, 84, 85, 91, 92
- Ma'amoun, Mohamed Sa'ad, Major General 34, 48, 65, 68
- Magen, Kalman, Major General 30, 37, 49, 51, 55, 65, 66, 69, 80, 85, 89, 90
- Mandler, Avraham, Major General **26**, 29, 36, 37, 39, 45, 51, 64–65
- Maozim* (strongpoints) 9–11, **10**, **11**, **22**, **24**, 40, 52
- 'Botzer' 80, 81
- 'Budapest' 39, 48, 49–50, 66
- 'Ismailia East' 93
- 'Lexicon' 80
- 'Matzmed' 74
- 'Milano' 51
- 'Missouri' 74, 81
- Matt, Dani, Colonel **69**, 73, 76–77, 81, 84
- Meir, Golda **15**, 16, 28, 29, 36, 39, 53, 67, 92
- Mifreket 51
- mines 35, 80, 81
- Mitla Pass 50, 51, 52, 53
- Mohamed, Yousf Afifi, Brigadier General 34
- Mohammed, Aly, Major General 33
- Mossad* 37
- Mubarak, Mohammed, Air Vice Marshal 33
- Nasser, Gamal Abdel 8, 9, 12, 13, 14, 16, 18, 32, 33
- Nir, Natke, Colonel 55, 56, 80
- Nixon, Richard 14, 17
- Nobel Peace Prize 15
- oil embargoes 14, 18
- Operation *Badr* 20, 21, 33, 38, 39–50, 55, 60, 68
- Operation Gazelle 68–77, **82–93**
- Operation Nickel Grass 14, 67, 68
- Operation *Shovach Yonim* (Dovecote) 22–23, 36, 37, 39, 50–54
- Organization of Petroleum Exporting Countries (OPEC) 14
- Palestine Liberation Organisation (PLO) 17, 36
- peace initiatives/treaties 15, 16, 32
see also ceasefires
- Peled, Benjamin, General 53, 60
- Pino, Brigadier General 51
- Rabin, Yitzhak 14
- Ras el'Ush, battle of 14
- Raviv, Tuvia, Colonel 69, 74
- Reshef, Amnon, Colonel 51, 57–58, 65–66, 69, 74, 75, 80, 84
- Riad, General 12
- Sa'ada, Hassan Ali Hassan Abu, Brigadier General 34
- Sadat, Anwar 14, 15, **16**, 16–18, 21, 22, 32–33, 34, 36–37, 61, 77–78, 85, 89, 92
- Schonau Incident 36
- Sharon, Ariel, Major General 22–23, 29, 30–31, 53, 55, 56, 57, 58, 60, 64, 65, 69, 73–74, 75, 76, 77, 79, 81, 84, 85, 89, 92
- Shazly, Sa'ad Al, Lieutenant General **16**, 33–34, 41, 54, 60–61, 64, 68, 78, 79, 85
- Shomron, Dan, Colonel 51–52
- Six Day War (1967) 7–8, 14, 28, 29, 34
- Soviet Union 8–9, 12, 15, 16, 17, 36–37, 67–68, 89
- strongpoints *see* *Maozim* (strongpoints), *taozim* (strongpoints)
- Suez Canal
- Egyptian crossing 40–50, **42–44**, **46–47**
- Israeli crossing 68–77, **70–72**, **73**
- Suez City 90
- suicide bombing 84
- Sweetwater Canal 84, 85, 89
- Syria 7, 9, 14, 15, 17, 18, 19, 20, 35, 37–38, 39, 50, 67, 68
- tactics 10–12, 20, 39–40, 50–51, 52, 54, 60–61, 68–69, 84, 85
- Tahir* 73 (Liberation 73) 35, 36
- Tal, Israel, Major General 39
- tanks **7**, 26, **31**, **38**, **41**, **45**, **48**, 49, **49**, 50, 50, 51, 52, **52**, 56, 60, **60**, 61, 64, 65, **65**, 66, **67**, **68**, **70–72**, **73**, 75, 75, 76, **76**, 80, **80**, **81**, **85**, **86–88**, **89**, **90**, 91
- Taozim* (strongpoints) **10**, **11**, 11
- Ten-Hour War 33
- 'Three Nos' 14
- Tov, Benjamin, Lieutenant 36
- United Nations (UN) 7, 13
- Security Council resolutions 8, 17, 89, 90
- United States 12, 14, 17, 18, 22, 39, 67
- Vinogradoff, Soviet ambassador 36
- War of Attrition 9, 12–13, 14
- Wasel, Abd El Al Mona'am Mohamed, Major General 34, 48, 65, 68
- weapons 8–9, 12, 17, **17**, 19, 21, 24, 26, **30**, **32**, 39–41, **54**, **59**
- Yariv, Aharon, Major General 20, 58
- Zeira, Eli, Major General 20, 36, 39, 92
- Zvi, Lieutenant Colonel 76

Accounts of history's greatest conflicts, detailing the command strategies, tactics and battle experiences of the opposing forces throughout the crucial stages of each campaign.



Photographs



Full colour battlescenes



3-dimensional 'bird's-eye view' maps



Maps

The Yom Kippur War 1973 (2)

The Sinai

Israel's victory in the 1967 'Six Day War' sowed the seeds of the 1973 Yom Kippur War. At 1400hrs on 6 October 1973, the Egyptian army launched an assault crossing of the Suez Canal. The carefully co-ordinated attack achieved complete tactical surprise. The sand embankments of the Israeli Bar-Lev Line were breached and an Israeli counterattack thrown back with heavy losses. In the second part of his two-volume analysis of the Yom Kippur War, Simon Dunstan details the fighting in the Sinai, culminating in Operation Gazelle, the Israeli counterattack across the Suez Canal. Although defeated militarily, Egypt did ultimately succeed in forcing the Israelis back to the negotiating table.