

THE YOM KIPPUR WAR

Kenneth S. Brower

THE most recent Arab-Israeli major clash, commonly identified as the "Yom Kippur War," began on 6 October 1973 and lasted 18 days. During this brief period, the combined Arab armies lost about 475 aircraft, 2300 tanks and probably over 10,000 killed. Israeli casualties included about 2400 dead. Moreover, the Israeli Defense Forces (IDF) lost 115 aircraft and at least 200 unsalvageable tanks.

The Arabs lost four times as many tanks as the US Marine Corps owns and committed over six armored divisions (plus many brigades) to combat. On 7 October alone, the Israeli Air Force flew 20 times as many sorties as the US Sixth Fleet is capable of, with virtually identical aircraft.

These numbers clearly indicate the magnitude of the combat that occurred during this period. In fact, either of the two separate campaigns, on the Golan Heights or along the Suez Canal,

would rank among the great land-air battles of all time. Furthermore, the rival armies were armed with the latest weapon systems available, both Soviet and Western in origin, many of which had not previously been exposed to large-scale combat. Not surprisingly, therefore, these hostilities are of major interest to most military analysts.

On 6 October, at approximately 1400, Egypt and Syria launched synchronized full-scale attacks on Israel. These achieved virtually perfect strategic surprise, as the IDF were only six hours into a partial mobilization—a process that requires 72 hours. That October Saturday was Yom Kippur, the Day of Atonement of the Jewish people, and the IDF was clearly unprepared psychologically for a blow at this sacred holiday time.

Israeli frontlines were manned at very low levels. In the north, along the

Golan Heights, three Syrian mechanized infantry and two armored divisions, with 1000 tanks and 600 guns, assaulted a front held by an Israeli force which consisted of two armored brigades, both understrength and one in virtual cadre status, with about 70 operational tanks. These backed up several infantry positions, each of platoon size—equal in total strength to much less than a brigade. The Israelis were outnumbered 12:1.

Nonetheless, the Israelis were on alert and a series of tank-to-tank battles developed almost immediately. The single operational tank brigade was reinforced by the bulk of the power of Israel's largely regular air force. This consisted of about 130 *F4E Phantoms*, 165 *A4 Skyhawks*, 100 *Mirages* of various types, 25 *Super Mystères* and several hundred additional second-line transport and helicopter aircraft.

Since the sortie-length ranges were short, and pilot-plane ratios were great, exceedingly high plane utilization ratios were developed by the Israeli Air Force. Overall, the air force flew over 2000 sorties on a daily average throughout the war.

By Sunday night, the armored forces of the Syrian Army were spent although they had penetrated deep into the Golan Heights. The IDF armor, outnumbered 12:1, had achieved a 12:1 kill ratio and, together with the air force, had decimated the Syrians.

In the south, things had gone well for Israel. Five Egyptian mechanized infantry divisions, reinforced by paratroopers and commandos, had launched an attack on the Bar-Lev Line. This line—really a series of positions—consisted of about 30 forts with average complements of 50 men each. The bulk of the active Israeli armor in Sinai, a reinforced division,

was well back at Bir Gifgafa. The Egyptians were able to cross easily since there was little Israeli armor available up front where it was needed.

Israel had assumed its embankment along the Suez Canal would require at least 24 to 48 hours of effort to breach. However, the Egyptians had devised a clever system using high-pressure water jets which did the job far quicker. Thus, Egypt had 500 tanks across the canal sooner than the IDF anticipated and before IDF armored reserves could reach Sinai. Through a remarkable engineering effort, by dawn on Sunday, 7 October, Egypt had 10 operational bridges across the canal, plus 50 motorized ferries busy reinforcing the bridgehead—all this under the protection of over 50 *SAM2*, *3* and *6* batteries.

The Israeli armored division in the south did launch a major counterstroke starting the first evening of combat. However, this force was ambushed on roads by commandos using *RPG7* bazookas and man-portable *Sagger* antitank guided missiles (ATGM). The Israeli armor was badly chewed up. Combat against Egyptian armor and the massed antitank weapons of the five Egyptian Infantry divisions continued into daylight Sunday. By late afternoon, the Israeli division had lost 150 of its 240 tanks. With only 90 Israeli tanks left operational and the IDF reserves not yet deployed, the Egyptians might have had an opportunity to attack the major Sinai passes, 20 to 30 miles back from the canal. However, they hesitated and the front became stabilized with the arrival of large Israeli reserves, including over 700 tanks. The Egyptians now held a long, shallow beachhead from which they could move east only through four passes, each less than 100 yards wide.

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Thus, by Sunday night, a virtual stalemate had developed. Both Syria and Egypt had made substantial gains. They had already inflicted heavy casualties on Israel, while that nation was still in the midst of a hurried, disorganized mobilization. Had a truce been reached at that point, the war might have ended as a distinct Arab tactical victory. However, the Arabs, flushed with their early successes, continued to fight.

Israel had decided to make its major effort in the north, which is closer to its vital population centers, and offered the IDF fewer good defensive options than did the south. A two-pronged north and south offensive was ruled out to permit the air force to concentrate on one area at a time. While fighting static attritional battles in the south, the IDF went on the offensive in the Golan.

On Monday, Israeli reserve units started the destruction of the pinned down Syrian spearheads. Methodically, brigade after brigade was smashed. On Monday night, the last Syrian ar-

mored division was thrown into the battle and was, in its turn, demolished. Of the total of 1250 tanks which crossed into Israeli-occupied territory, nearly 1000 were left behind by the Syrians, captured or destroyed. A quick Israeli counteroffensive at this point might well have broken the Syrians completely. However, because of logistical and organizational problems with newly mobilized reserves, this attack could not be launched until much later in the week. Using slow, conventional tactics to keep their own casualties to a minimum, the IDF moved forward. An Iraqi division and a Moroccan brigade, thrown into battle to protect Damascus, were rendered ineffective through carefully planned Israeli maneuvers which were marked by very low IDF casualties.

Within several days, the Israelis were in artillery range of Damascus and were near the Amman-Damascus Road. Having increased its hold in this area, the IDF settled into the best defensive positions it could find and stopped moving forward. There is a



Israeli Phantom aircraft

combination of reasons why this occurred. First and foremost, Israel had received clear signs from the Soviet Union with respect to Damascus being off-limits. Cutting the Amman-Damascus Road would have also put King Hussein of Jordan in an awkward position and, until then, the Jordan front had been quiet. Most important, however, was that Israel's relatively slow advance had given Syria a chance to catch its breath. Damascus could be reached, but now only at an unacceptable cost to the IDF.

For the remainder of the war, this front was largely static. The combined Arab armies did launch a series of counterattacks which cost them several hundred additional tanks to gain but small amounts of territory.

Just before the cease-fire, the IDF launched a large-scale attack against the Syrian positions on Mount Hermon, the dominant terrain feature of this area. The mountaintop positions were taken, but only with substantial IDF casualties. This was one of the most expensive operations of the entire war.

Meanwhile, at sea, a series of battles took place in Arab territorial waters between Israeli *Saar* and *Reshef* and Arab *Osa* and *Komar* class missile boats. These actions pitted the Soviet *Styx* surface-to-surface missile against the much smaller range Israeli *Gabriel* missile. The advantage of increased range should have been decisive. Nearly 50 Soviet missiles were fired, but not one hit was obtained, probably because of superior Israeli electronic countermeasure equipment. On the other hand, at least eight *Osa* and *Komar* craft were destroyed by *Gabriel* missiles. In addition, at least three neutral merchant ships got caught in the sea battles and were sunk. Additional Arab craft were sunk by gunfire from IDF motor missile boats (PGMs). The *Gabriel* was so successful that the Arab navies ceased leaving port. As a result, Israeli boats bombarded coastal targets in Syria and Egypt almost at will.

In the critical ground warfare, Israeli attention shifted to the south after the eight-day defeat of Syria during the period 6-14 October. Dur-

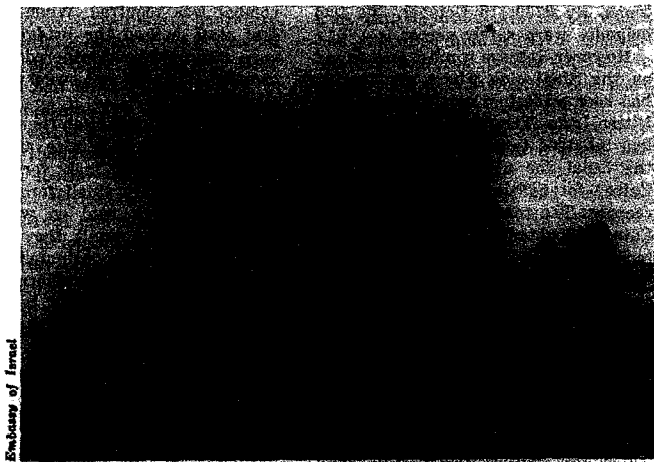
ing this time, three Egyptian armored divisions were moved to the East Bank to reinforce the five mechanized infantry divisions still there. Perhaps reacting to their ally's difficulties in the north, on Saturday and Sunday, 13 and 14 October, they launched massive armored attacks against the Israeli bottlenecks. The Egyptians lost heavily in these attacks. Up to 300 tanks were destroyed. Nonetheless, for all practical purposes, the Egyptians gained no ground. By this time, a total of 1200 Egyptian tanks had crossed over into the Sinai from Africa. A substantial number were destroyed or otherwise became nonoperational, while the bulk of Israeli armor was still uncommitted.

Israeli tactics for the sort of situation then existing had never envisioned broad frontal attacks. Rather, Israeli doctrine called for a narrow piercing of anticipated Egyptian lines

and crossing onto the west bank. This attack could have taken place at any time after 8 October when IDF forces reached Sinai in numbers. However, the general staff first wanted to wear down Egyptian armored strength. The attacks of the 13th and 14th had gone far to accomplish this. Furthermore, virtually the entire armored and mechanized strength of Egypt was now in Sinai. Once across the canal into Egypt, there would be little to oppose the advancing IDF forces.

Israel intended both to penetrate the Egyptian lines and to cross the canal in the same night. An overstrength division—consisting of three armored and two mechanized (paratrooper) brigades—was used for this operation. One mechanized unit acted as a base of fire, two armored brigades formed the spearhead and the remaining two brigades were to be used to cross the canal—the tanks on motor-

Israeli 155mm howitzer



Embassy of Israel

In foreground, an Israeli armored M2 half-track equipped with 12.7mm and 7.62mm machineguns; at left an Israeli M113

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ized barges, the paratroopers on pontoons. By 0730, 16 October, the two brigades were safely across.

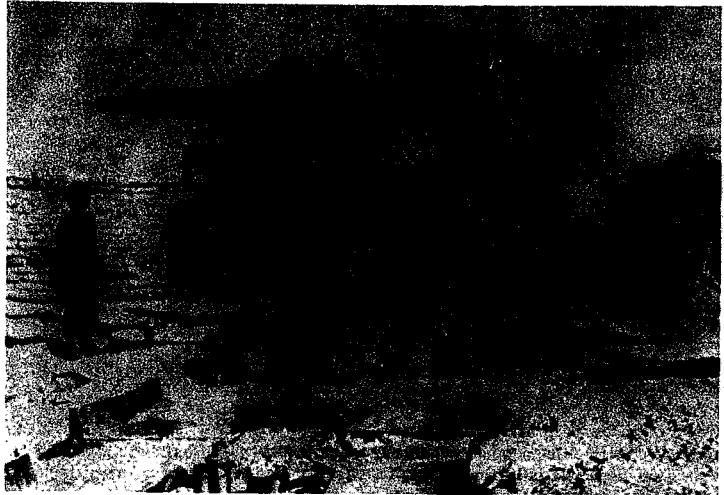
However, intense combat still raged on the Sinai side where penetration had been made just north of the Great Bitter Lake. The division commander had intended to use his forces across the canal for a large-scale raid on Cairo—for political and psychological reasons. The road was wide open and Cairo undoubtedly could have been attacked that night. However, the Southern Command and the general staff believed that the division should take a more conservative approach and simply widen the bridgehead north toward Ismailia. This was so ordered. But the confusion in purpose cost the IDF vital hours. It took this division about 36 additional hours to widen the gap to Ismailia on both

sides of the canal. Exceedingly heavy combat was required. When the general staff judged the bridgehead secure, two additional armored divisions crossed the canal and swept south toward Suez.

Initially, the Egyptian General Staff badly misjudged the size and intention of the IDF task force. They thought it was a small force largely organized for a raid on west bank SAM sites. As a result, they launched only small and uncoordinated counterattacks against it. Furthermore, the attack had coincidentally been made near the junction of the two Egyptian corps (or armies) in Sinai. The location was actually chosen to coincide with pre-prepared weak spots in the embankment and protected vehicle marshaling areas.

The Great Bitter Lake formed a

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Goa (SAM3) missiles mounted on a twin launcher

naturally protective southern flank for the assaulting Israeli forces. The five-division-strong Third Army was threatened by Israeli units operating against both its flanks while it fronted against impossible bottlenecks near the Giddi and Mitla Passes.

Meanwhile, the two Israeli armored divisions which had crossed the canal following the breakthrough unit swept west and south—west up to a series of natural defensive ridges (which they captured) and south toward Suez City and the logistical life line of the Third Army. In this rapid advance, they destroyed hundreds of Egyptian tanks with the aid of the Israeli Air Force which threw the bulk of its strength into the battle. By 22 October, they had advanced almost to Suez City, but several trails farther south were still open. Although a UN-inspired truce was scheduled, combat and movement continued until the IDF

had completely cut off the Egyptian Third Army.

When the IDF launched its offensive, the Egyptian Air Force, which had remained hidden in its concrete bunkerettes, took to the air, and a massive series of air battles took place over Suez. In this short period, over 200 *MIGs* and *Sukhois* were shot down by the Israeli Air Force which lost only three aircraft.

Overall, the Israelis had destroyed about 375 aircraft and 40 helicopters in the air, for a cost of under 10 Israeli fighters. About 50 Arab and 100 Israeli aircraft were, in addition, shot down by ground-based SAMs or other antiaircraft weapons. Israel had not been able to destroy Arab aircraft on the ground in significant numbers due to large-scale use of bombproof hangarettes throughout Egypt. And, thus, the Israeli Air Force had to achieve air superiority solely in the



Israeli armored column in Sinai

air. This they did handily.

Thus ended, at least temporarily, the latest of the Arab-Israeli wars.

Already, some pundits are asserting that the blitzkrieg, which emphasized air-ground interaction, is dead, having been stopped permanently by surface-to-air missiles and antitank guided missiles. However, statistical reality suggests that quite the opposite is true. Actual Israeli Air Force loss rates per thousand sorties were less in 1973 than in 1967. Although losses climbed from 40 to 104, the combat lasted three times as long and the air arm was flying considerably more sorties per day. It should be noted that the combination of Egyptian SAMs and bunkerettes meant that the Israeli Air Force had to use a considerable portion of its daily effort for escort, top cover and anti-SAM missions which were otherwise unproductive.

Similarly, tank losses were heavy

in breakthrough actions, but that is an expected reality of armored combat. In 1967, the tank battalion first atop the Golan Heights lost 33 of 35 tanks. Tanks are generally salvageable, however, and relatively low personnel casualties are usually associated with tank losses. In 1973, tanks did not have the opportunity to exploit fully their breakthroughs because of political limitations.

It should also be noted that Soviet infantry antitank weapons such as the *RPG7* and *PUR64 Sagger* use shaped charge or HEAT warheads. In Vietnam, these proved to be relatively poor killers of vehicles such as the *M113A1*, the *M48* and the *Centurion* all of which are found in the Israeli Army. In the Yom Kippur War, these weapons proved effective only when small numbers of Israeli tanks made tactically suicidal frontal attacks on large Egyptian infantry

positions—as they did on 7 October. After that date, when the Israeli armored corps modified its tactics, losses attributable to these weapons dropped substantially. The large losses generally reported in the press represented the total number of armored vehicles *hit*, including armored personnel carriers and self-propelled artillery—the totals given were not for main battle tanks *destroyed*.

Most of the Egyptian and Syrian tanks destroyed were in fact demolished by Israeli tanks. This tends to corroborate the old adage "The best antitank weapon is another tank." Overall, the Arab-Israeli tank loss ratio in actual combat was well over 10:1, peaking at an Israeli-claimed 25:1 on 14 October.

The small, but tactically significant, sea battles may have heralded a new era of naval warfare—the simple statistics speak for themselves. One can certainly question the survivability of intermediate-size warships, such as destroyers, in the face of the proven guided missile craft concept. This is the more so when guided missile boats are supported by adequate tactical air.

The relative Israeli/Arab casualty ratio was lower than in 1967 because there were few exploitation actions in this latest war which was characterized by breakthrough battles where unbalanced casualties can hardly be

expected. The results of this war would, therefore, seem to indicate that had the IDF launched a preventive attack, as it had always done previously, the results would probably have been an overwhelming victory similar to 1967.

Interestingly, even though the Arabs had initially taken the initiative and achieved surprise, the ratio of Israeli dead to Arab tank losses was nearly the same as in 1956 and 1967.

In some respects, it appears that the gap in tactical fighting quality between Israeli and Arab remains wide. However, at high levels, the Israeli Defense Forces had become overconfident and contemptuous of their enemy; qualities which, coupled with an increase in Arab competence, led to their opponent's brief successes. Furthermore, the IDF had been slow to develop countersystems for Arab/Soviet weapon systems which, as a result, proved so successful during this latest war.

The Yom Kippur War showed that small countries no more populous than an American or Soviet city have proven capable of an immense defense effort, fielding several corps and flying thousands of sorties daily. This should provoke some rather deep thought among analysts concerning the role of superpowers in a nonnuclear environment.

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