

Egyptian General Saad-Eddine El-Shazly

Controversial Operational Thinker and Architect of the 1973 Yom-Kippur War

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When studying the October 1973 Arab-Israeli War, it is important to read from various sources to gain a better understanding of the conflict. Since there are western, Israeli, and Arab sources, readers may want to consider the agendas of the author. Egyptian General Saad-Eddine El-Shazly's work is an important contribution to understanding the Arab tactical mind. There is a single book by Shazly in English, but it is not as extensive as the Arabic book featured in this review essay. For those wanting to pursue their study of Shazly in English ask for *The Crossing of the Suez* (San Francisco: American Mideast Research, 1980). You can also request a copy through a website dedicated to General Shazly, www.el-shazly.com, which contains a biography of El-Shazly as he sees himself in the context of the history of Arab-Israeli conflict.

On May 16, 1971, Egyptian President Anwar Sadat appointed General Saad-Eddine El-Shazly as Armed Forces Chief of the General Staff. This appointment was significant in Egyptian military history, for it heralded a new shift in promoting those with true tactical and strategic abilities in the aftermath of the 1967 War. By the time El-Shazly assumed his post, he had already tangled with the future Egyptian War Minister Field Marshal Ismail Ali in the Congo in 1960, and had alienated several of his peers by instilling into the Egyptian military a competent Special Forces capability composed of the *Saaqa* (Commandos) and the *Mizalaat* (Paratroops). El-Shazly would put into practice Special Forces and airborne assault tactics in the Yemen War, an insurgency that lasted from 1962-1967.

During the operational planning phase for the October 1973 War, Shazly had put together all the elements for a successful crossing of the Suez Canal and breach of the Israeli Bar-Lev defensive line. When ordered by President Sadat to go beyond the range of the SAM air defense umbrella, Shazly became defiant knowing this was tactical suicide. Egyptian generals — like the late Chief of Operations General Al-Gamassy — and Israeli authors narrate that Shazly has gone into complete collapse over the decision. The final straw that led Sadat to relieve Shazly was his insistence on pulling back one or two divisions to counterattack Ariel Sharon's units that had crossed into Egypt proper along the Ismailiah road and were clearly a threat to Cairo.

El-Shazly went into a diplomatic exile as Egypt's ambassador to Portugal. Ultimately, his criticism of Sadat and the Camp David Peace Accords led him to be tried in absentia for illegally publishing his memoirs and allegedly leaking military secrets while he was in a more permanent exile in Libya. He dabbled with Islamic fundamentalism and the Muslim brotherhood as a means

of undermining Sadat. In 1979, he wrote *Harb Uktubur: Mudhakiraat Al-Fariq El-Shazly (The October War: Memoirs of General Shazly)*. It was published in Algeria by the National Establishment for Authors. If one takes away

the political aspects of El-Shazly's career and his dabbling with Islamists, one finds a truly extraordinary book that is the best record of Egyptian tactical planning of the 1973 War. His attention to every detail of Operation Badr and his argument with War Minister Ismail Ali and Sadat on going beyond the 12 kilometer air defense umbrella was madness and not within the capability of the Egyptian military makes his book an important Arab viewpoint of the 1973 War. Shazly's memoirs and the tactical lessons learned therein became so influential among Arab military circles that it went through three printings within four years of initial publication. This review essay will explore aspects of this 491-page book that demonstrates a sophisticated level of tactical analysis to a series of tactical problems and their solutions leading up to D-Day October 6, 1973. The focus is on Shazly's preparation for the conflict.

Egyptian Military Planning in 1971

Shazly writes that when he assumed command as Egypt's Armed Forces Chief of Staff there was no offensive military plan for the recapture of the Sinai. He looked upon two plans (Plan 200 and Granite), each of which consisted primarily of commando raids that harassed the Israelis and focused on reconnaissance of the Sinai. His first order of business was to conduct assessments of Egypt's military capabilities and balance of forces between Egypt and Israel. What came out of this assessment was the following:

- * The Egyptian Air Force (EAF) was weak and could not be relied upon to provide air cover for Egyptian military units operating in the Sinai.

- * The analysis revealed Israeli pilots had the advantage of a two-to-one ratio in flight hour training over the Egyptian pilots, and that electronic warfare in Egypt's fighter-bombers was nonexistent. Compared to the Israeli Air Force (IAF), the Egyptian air fleet was a decade behind the times.

- * Soviet surface-to-air missile (SAM) defenses was respectable but not mobile. Air defense assets were fixed in place, as Egypt did not possess enough light and mobile SAM-6 air defense



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systems. Therefore Egyptian anti-air missile coverage provided only limited air defense capability.

* Anti-air guns such as the ZSU-23 were useless against modern jet fighters like the F-4 Phantom.

* Egyptian infantry formations were quantitatively superior, but Israel's qualitative edge made the Egyptian-Israeli infantry balance about equal.

* Egypt retained the quantitative edge in artillery. Nevertheless, the Israeli Bar-Lev Line undermined Egypt's artillery advantage.

The Egyptian Navy was quantitatively superior to Israel's but was useless in the face of Israeli air dominance that extended into the Gulf of Suez and the northern Red Sea. Egyptian frigates because of Israeli air dominance could not challenge Israel's coastal patrol craft.

After leading his general staff through a rigorous analysis process, he came to the conclusion that Egypt could only mount and sustain a limited offensive to seize the canal, but not liberate the entire Sinai from Israeli occupation. One of the most important aspects of this analysis was that Shazly and his staff would relegate the EAF to a psychological and demoralizing strike along the Bar-Lev Line and in bases in the Sinai.

The Idea for Egyptian SAM Missile Air Defenses.

Based on their experience during the War of Attrition (1968-1970), the Egyptian General Staff realized that IAF probes into Egyptian airspace were characterized by deliberate avoidance of areas known to have high concentrations of SAM sites. In response, Egyptian air defense planners proposed the creation of thick, fixed forests of SAM missile batteries that would protect Egyptian ground units advancing a distance of 12 kilometers beyond the eastern shore of the Suez Canal.

Shazly reports that in late summer of 1971, he discussed the general staff's study with Egyptian War Minister Ahmed Sadek. The study included a detailed examination of Israel's mobilization techniques and the need to carry out a decisive and swift victory, as well as the ability of the Egyptian armed forces to undertake a limited attack to take the eastern banks of the Suez Canal.

The plan of attack and capture of the Bar-Lev Line was codenamed "*High Minarets*," while the plan to attack and capture the Bar-Lev Line and also advance 10 to 15 kilometers into the Sinai was codenamed "*Plan 41*." It was developed and shared with the Soviets as a contingency to take over the Bar-Lev Line and push past towards the Gidi, Mitla and Khatmia passes, which were well beyond the range of SAM air defenses. The Egyptians did not trust Moscow with their original plans and proposed a more ambitious program to elicit more technologically advanced military hardware from the Soviets. When the Egyptians concluded a massive arms deal with Moscow in October 1971, it included 100 MiG-21s and a limited number of mobile SAM-6 anti-air missiles. The tactic of proposing a more complex operation to the Soviets seemed to be paying off.

In late October 1972, Ismail Ali was promoted to War Minister and Shazly briefed him on the plans; "*Plan 41*" by now had evolved into "*Granite 2*" and "*High Minarets*" remained the same. It was during this time that Shazly decided to share these plans with a wider audience of Egyptian flag officers to elicit their views on how Israel would likely conduct a counterattack. The Director for Military Intelligence warned to expect an Israeli ground response to reinforce the Bar-Lev Line within 6-8 hours. Shazly and the General Staff disagreed with this intelligence estimate. Rather, they believed that the Israeli mobilization would require more like 10-12 hours. This led to the tactical discussion of how to delay and undermine Israel's rapid armor response, and the ideas for the "*Malotka*" anti-tank wire-guided missile took form. These preliminary discussions between Shazly and the flag level officers shaped the following plan of attack which would form the nucleus of Operation *Badr*, formerly known as *High Minarets*:

H-Hour: Artillery and Air Strikes along the Bar-Lev Line and the Sinai.

H+5 to 7: Infantry crosses the canal by rubber boats and watercraft as a first assault on the Bar-Lev Line.

H+7 to 9: Bridges are up with an infusion of 30,000 troops along the Bar-Lev Line.

H+12: Infantry formations dig in to face the Israeli armored counterstrike.

Shazly's Views on Egyptian Troop Numbers and Office of Chief of Staff

When Shazly assumed his post as Chief of Staff in 1971, he commanded a total force of 800,000 men. Before October 1973, this number would rise to 1,050,000. The Office of the Chief of Staff consisted of 5,000 officers and 20,000 enlisted men. Under Shazly, the Egyptian General Staff consisted of 40 flag level officers representing 14 commands.

Shazly writes that he missed the personal contact he had with officers in the field while serving in the Special Forces and as commander of the Red Sea Sector. He felt he should balance reports coming from his commanders with personal contact. Consequently, Shazly initiated a series of monthly conferences with his 40 commanders, who brought with them parts of their staff and battalion commanders. Over time, the meetings grew to include more than 100 senior officers. This solved one of the cardinal sins of the 1967 Six Day War, when field commanders did not know about the Plan *Al-Qahir* for the defense of the Sinai. From July 1971 to September 1973, Shazly issued more than 50 Chief of Staff directives, which were distributed to the battalion level.

With a million-man army including 10,000 battalion commanders, Shazly oversaw the production of millions of tactical booklets on such topics as desert navigation, air reconnaissance, disengagement and cease fire, land vehicle navigation, and religion, creed and victory.

Among the problems facing him was a 30-40 percent shortage of officers across all ground units. He decided to promote enlisted personnel with a college degree, but many were less than enthusiastic as they felt it would extend their draft. Shazly, for the first-time in Egyptian military history, had to explain why he needed more officers and assure them that it would not impact on their enlistment. He immediately got 15,000 volunteers from the ranks, and using the 1971 to 1973 draft years was able to acquire another 10,000 officers to add to the 5,000 officers from the regular army. The problems of recruitment extended into the enlisted ranks. As Egypt drafted only

120,000 out of 350,000 eligible draft age men, this left a shortage of 40,000 troops per year. He had no choice but to lower education and health standards. He also championed the ability of Egyptian women to enlist and become officers serving in the rear echelons.

Numerous Tactical Problems

Planning for the 1973 war revealed numerous tactical problems and subsequently changed the Egyptian armed forces in many ways, including the establishment of amphibious battalions and a refocus on combat engineers as warrior-builders that would lead a frontal assault in conjunction with infantry. Some of the more notable issues are as follows:

The Bar-Lev Sand Barrier: The Bar-Lev Line essentially consisted of sand ramparts three to 10 meters high to deny a foothold for Egyptian armor when crossing the Sinai. The Bar-Lev Line included 17 *maozim* (strong points) at 10 to 30-kilometer intervals; each manned 30 to 90 soldiers. Each strong point was essentially an underground bunker with some so elaborate they included underground command and control, fuel storage, and communications centers.

Shazly writes that initially the plan was to get the engineers across the canal, after which they would bore a hole through the sand of the Bar-Lev Line, place 200 kilograms of explosives and withdraw 200 meters before detonating the explosive. Egyptian combat engineers reported that this tactic still required a bulldozer to clear 1,200 sq meters of sand and debris. The task also required 60 people and 5-6 hours to complete the job. The solution came from an unlikely source, a young Egyptian engineer who had worked on the Aswan High Dam project. He argued that pressurized water could clear away sand efficiently. His idea was tested, and orders for hundreds of pressurized water cannons were placed.

The Napalm Pipes: The Israelis had attempted to install a spray that would create a floating sheet of fire along the canal. Although the Israeli attempt never worked, the demonstration so impressed the Egyptians that Shazly writes how he and his planners obsessed on the napalm pipes. Egyptians experimented with methods of blocking the pipes, putting fire retardant chemicals to counter the napalm, and many other solutions.

Infantry Kit: It was determined that each infantryman from the initial assault would need enough ammunition and rations to sustain himself until H+12 or H+18. The soldier's load was further complicated by the necessity of carrying anti-tank weaponry. This included the Malotka wire-guided tank-buster missile, which usually was employed by a team of two infantrymen and SAM-7



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portable infantry anti-air missiles (MANPAD). Ultimately, the basic pack an Egyptian infantryman carried was approximately 25 to 40 KG. [Rations which included water typically weighed 4KG, clothes and bedding 10KG AK-47 assault rifle and 300 rounds was 15KG].

Infantry Night Vision Equipment:

Egyptian troops would be trained to fight at night in an effort to effect tactical surprise on the Israelis, who believed that the Egyptians lacked this capability. So, unlike in the previous Arab-Israeli Wars, Egyptian planners equipped their infantry with a variety of night vision goggles (NVGs) and what Shazly calls "Starlighters" (probably night vision scopes that rely on a combination of moonlight and starlight). Likewise, anti-tank infantry teams were equipped with darkened welding glasses to counter what Shazly's book calls "xenon rays" which were emitted by Israeli tanks to blind infantry. The Israelis had

evidently employed this tactic during the War of Attrition.

Electric and Gas Golf Carts: Egyptian reconnaissance noted powerful golf carts that the Israelis were using to move around artillery shells and other supplies along the Bar-Lev Line. Based on this observation, Shazly commissioned a similar cart to carry 150KGs of ammunition and supplies up the Bar-Lev incline. Egyptian Defense official's raided local Vespa™ motor scooter agencies to buy up the tires necessary for these specially designed military vehicles. More than 2,000 such carts were made and, according to the book, they carried 336 tons of equipment in the first days of the war.

Crossing Brigade: The Egyptian General Staff agonized over the composition of the initial assault force. They eventually came up with a figure of 32,000 troops crossing on 12 points in three waves. Specialized crossing battalions made up of military police (to direct traffic), waterborne craft drivers, and mechanics as well as combat engineers were established. This unit created 40 crossing points for troops of the Egyptian 2nd and 3rd Armies made up of 18 watercraft, 35-foot bridges (for infantry only), and 15 bridges (10 heavy for tanks and 5 light for jeeps and foot crossings).

The task-organized crossing brigade was made up of 500 officers and 1,000 NCOs. Shazly writes that its main challenge was keeping constant communication with one another to ensure units linked up on the Sinai side of the canal. This required 500 walkie-talkies and 200 portable phones connected by 750 kilometers of wire. Of the number of bridges created along the canal, each brigade would have two bridges assigned to it.

Medium-Range Missiles: Shazly was aware of an earlier collaboration between Egyptian and German scientists in the 1950s



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to develop what would become the Al-Qahir and Al-Zafir missiles. When Shazly became chief of staff, he decided to spend time looking into the efficacy of these programs and was the first military leader to order tests of these missiles which had since been in storage. In September 1971, a series of tests were done, and it was determined that the missile was highly inaccurate. Despite this finding, two rocket battalions were created; one called codenamed *Teen* (Fig) and the second codenamed *Zaitun* (Olive). Unless one has memorized portions of the Quran, the codename means nothing. It is in reference to the 'verse of the fig' (Surat Al-Teen – Chapter 95:1), which begins, "by the Fig and the Olive, and Mount Sinai." In other words, these codenames were specifically meant to refer to the Sinai Peninsula, in this case, lobbing medium-range missiles into Israeli positions in the Sinai.

Hovercraft Experiments: Shazly commissioned a British firm to look into creating a small hovercraft that would carry the weight of a single tank across the Great Bitter and Timsah Lakes. A small-scale model and drawings were developed, but the development of the 30-knot craft was never undertaken.

Joint Syrian-Egyptian Studies on the Canal Crossing: Shazly's book describes

how a Syrian major – a combat engineer – with many ideas on how the Egyptians might approach crossing the Suez canal – spent several months in Egypt studying the problem. Although the major's ideas did not amount to anything actionable, what is interesting was that Shazly kept the project going to demonstrate Egyptian-Syrian cooperation to his troops and engineers, and also as a deception that Egypt was not getting any closer to solving the problem of assaulting Israel's Bar-Lev Line.

Air Defense the Incessant Problem: Shazly had a healthy respect for Israeli capabilities and envied their ability to locally manufacture the Gabel and what he terms the "Loz" air-to-surface missiles. The Egyptians negotiated for 6,000 Russians to provide for Egypt's air defense during Shazly's tenure as Chief of Staff. Shazly also traveled to Pyongyang, and afterwards the late North Korean dictator Kim Il Sung provided 20 MiG pilots to aid in providing air defense for Egypt proper in July 1971.

Training and Exercises

One of the major lessons learned in the aftermath of the 1967 Six-Day War was that, despite the lead up to hostilities, the Egyptian army had not conducted a division-level exercise since 1954. The Egyptians were not going to make the same mistake again, and Shazly presided over 16 major exercises called *Tahrir* (liberation) Series. Many of his 53 directives were issued as a result of what he observed during these exercises in the field.

The following is a short list of skills the exercises focused on:

- Practicing the opening of gaps along a sand barrier.
- Real practice with flame agents while crossing a water barrier.
- Paddling across a water barrier and assaulting a sand barrier under live fire and flammables. Artillery exercises, focusing on directional fire and concentration of fire.
- Amphibious assaults using Soviet made BMP amphibious infantry fighting vehicles.
- Divisional-level night fighting exercises. Tank training, with laser directional finders. TU-16 bomber practice.

While serving as an attaché in London, Shazly was very impressed with Professional Military Education (PME) programs in the

British Army. He took these ideas and implemented field trips for junior officers and leaders at the battalion level and below to encourage unit cohesion. He also organized hundreds of competitive sporting events between forces, units and brigades.

War Minister Field Marshal Sadek and General Shazly Clash

When Shazly proposed his limited war theories to War Minister Field Marshal Sadek, the minister was still of the mindset that Shazly's limited attack on the Bar-Lev would be the first stage of the liberation of the entire Sinai. This would not be the first time the two would clash, and the book devotes several pages to the subject. What distinguished Shazly from many other generals was his willingness to speak his mind on tactical and operational matters. Here are a few of his disputes with Sadek:

The T-62 Tank Dispute: The availability of new Soviet T-62 tanks revealed a significant difference in opinion between Shazly and Sadek on the tactical deployment of Egyptian armor assets. Shazly wanted to concentrate the T-62s into a new tank division where he could deploy them along the Sinai front where they were most needed. Sadek preferred to spread the tanks among T-55s and T-34s in several armored units. Commander-in-Chief Sadek felt that concentrating these state-of-the-art tanks in the hands of a single brigadier general was too dangerous for Egypt's internal security. This argument is somewhat reminiscent of the disagreement between Field Marshal Rommel had with Field Marshal Von Runstedt over the division of Panzers along the Normandy coast. Rommel wanted to concentrate his panzers using strategic depth to repel the invasion where it was most crucial. Von Runstedt preferred to spread his panzers along the coastline and repel the invaders from the shore.

The Captain Eid Affair: In 1972, a tank commander named Captain Eid was given the mission of intercepting Israeli paratroopers that drop in and around Cairo. On his own initiative he decided to exercise his unit in Cairo, and stopped his tanks at a downtown mosque so that his troops could pray. As soon as they came out of the mosque, military police surrounded the armored unit, and Captain Eid was rewarded for his initiative by being declared

insane to avoid the charge of treason and inciting revolution. Shazly disagreed with this tactic and, according to his memoir, he attempted to intervene, but the counterrevolutionary culture in Egypt was too great to save what probably may have been a competent officer. Sadek would eventually be relieved from his post of supreme commander in part due to this affair.

General Ismail Ali Assumes Command, Shazly opposes the appointment

Ismail Ali was an apolitical general, and therefore, the perfect choice in a region with a propensity for military coups. He was also a learned infantryman who excelled in his studies at the Frunze Military Academy and who took notes and by all accounts was a Clausewitzian purist.

Shazly had once gotten into a shouting match with Ismail in 1960 while Shazly commanded Egyptian peacekeepers in the Congo propping up the elected administration of Patrice Lumumba. Ismail Ali – a brigadier – had come to inspect Colonel Shazly and his unit just as Joseph Mobutu Sese Seko had overthrown and murdered Lumumba, and the Egyptian mission was unraveling. It was a tense environment and made worse by the fact that Ismail Ali did not appreciate the situation around him in Leopoldville and came in with rank to enforce his authority. Now as he assumed Egypt's position as top officer, Shazly argued with Sadat that this would create a divisive chain of command. Shazly still did not appreciate Sadat's ability to politically appoint generals to create the kind of divide and conquer environment where no one officer in the military concentrated power in his hands. In 1969, Ismail became Chief of Staff and Shazly was commander of Special Forces in the Cairo Airbase of Inshass. They were forced to work with each other in 1972 when Ismail replaced Sadek as War Minister.

Colonel Trevor Dupuy highlights major tactical issues during the October 1973 War. They include differences in tactical philosophy between Shazly and Ismail. The first issue was a debate on the breakout beyond the Suez Canal. Ismail sensed that Israeli forces could not simultaneously withstand a Syrian onslaught and an Egyptian offensive into the Gidi and Mitla Passes. Shazly meticulously planned for the initial take over of the canal and pushing no more than 15 kilometers beyond (range of SAM protection). Timing is everything according to Dupuy. Ismail, he argued, was correct in his assumption that had Egyptian forces attacked between October 7-9, they would have had a chance to secure the passes.

The Die is Cast and Rubicon Crossed

The highest echelon of Syria's high command, led by Defense Minister General Mustafa Tlas, arrived in the seaport of Alexandria on 21 August 1973. Thirteen Syrian and Egyptian senior officers led by the War Minister from each nation spent three days discussing force readiness and timetables of attack, with the objective of reporting back to their respective political leaders the range of dates. The date of attack was set at some time between 7-11 September and 5-11 October 1973.

Sadat conducted his last war counsel on October 1st. That same day the respective commanding officers of the 2nd and 3rd Army were informed of D-Day: October 6, with H-Hour set at 1400 Cairo time. Shazly's book describes the actual point of no return in an

exchange between Egyptian Naval Chief Admiral Zikry and himself that day. Shazly gave the order personally to Admiral Zikry to deploy several submarines to blockade the Bab-el-Mandab and Tiran Strait. The Egyptian naval chief told Shazly, "I want to be clear (that) once they deploy with orders, they cannot be recalled until hostilities begin. The sub commanders will commence attacking once they open their orders at sea." Shazly singles this out as the point of no return. What follows is a breakdown of when, according to Shazly, commanders were informed of D-Day and H-Hour:

- October 1- commanders, 2nd and 3rd Army.
- October 3 - divisional commanders.
- October 4 - brigade commanders.
- October 5 - flight wing and battalion commanders.
- October 6, H minus 6 hours - most units and personnel informed.

The evening of October 5, Shazly writes that he left Center Ten Headquarters, turned in early and returned the next morning. He had put his faith in God and in what would become the most meticulously and professionally planned military endeavor that the Egyptian military mind had yet conceived.

Shazly's memoirs describe the crossing with a detailed description of every hour and unit that crossed over the canal. After 14 October, with Sadat and Ismail insisting he extend forces into the passes, Shazly made four trips to the Sinai field headquarters. His last trip found the 2nd Army commander in a state of complete collapse, having suffered a heart attack in the field. Both 2nd and 3rd Army commanders carried out the orders to proceed beyond SAM air coverage but warned Shazly, who already knew, that Ismail's orders were suicidal. Shazly was the first Egyptian general to acknowledge the entrapment of the Egyptian 3rd Army, and he blames this squarely on Sadat and his politically correct War Minister General Ismail.

Shazly never got over Sadat's orders that completely destroyed his military gains, first developed as Plan "High Minarets." His book includes the text of a letter he sent in 1979 requesting Sadat be brought before Parliament to answer for his order that caused the death of thousands of Egyptian soldiers. He remained a lifelong opponent of Sadat, the Israeli peace plan, and at one point dabbled with Islamist politics. There are many lessons in these memoirs, most importantly insight into the nature of Egyptian civil-military affairs, the problems of having a uniformed Defense Minister and Chief of Staff, and how internal political intrigue undermines the operation planning for warfare. Shazly's book is an important part of a series of books that gives an Arab perspective on warfare and the 1973 War.

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Author's Note: LCDR Aboul-Enein's analysis and translation of excerpts of General Shazly's memoirs represents his understanding of the material. LCDR Aboul-Enein wishes to thank the Pentagon and Georgetown Libraries for making Shazly's memoirs available for study and research as well as Dr. Jonathan Clemente for providing valuable comments that improved this essay. Dr. Clemente is currently writing a scholarly history of United States medical intelligence from World War II to the present.
