ARAB-ISRAELI AIR WARS

The partition of Palestine and Israel's war of independence

On November 29, 1947 Resolution 181 of the United Nations General Assembly recommended a plan to partition Palestine into two sections as the Arab state and the Jewish state. Thus, the endless dispute started between the two nations, and conflicts between Arabs and Jews began to grow worse. In this article, we will mention briefly the air battles of these two nations. In the beginning, the Israelis started to utilize lightweight civil aircraft which were mainly used for reconnaissance. During the clashes in the Nevatim region, the first Israeli air strike took place on December 17, 1947 with the firing of Bren machine guns and hand grenades dropped from the dismantled door of the R.W.D.13 plane to support the Jewish troops on the ground. On May 10, 1948, the Israelis lost their first airplane when the bomber Norseman crashed. Meanwhile, the first attack of the Arabs was the raid of Egypt's Spitfires to Tel Aviv on May 15, 1948 upon the declaration of Israel's

independence. During this raid, most Israeli aircraft at the Sde Dov air base were either damaged or destroyed on the ground. One Egyptian Spitfire was shot down by anti-aircraft guns. At the outset, the Egyptians launched a military exercise with the Spitfires and C-47s modified for bombardment. Syria's T-6 and Iragi Avro Anson aircraft were located in Jordan and operations were conducted from there. Israel immediately started the process for the procurement of fighter planes as it did not have any in those days and eventually bought 25 Avia S-199s from Czechoslovakia. The first fighter plane arrived

in Israel on May 20th. On May 29th, the Egyptian army was only 30 km away from Tel Aviv and Egyptian troops were attacked with four S-199s which had recently been received. Even the test flights had not yet been executed with these aircraft. Israel lost a pilot during the operation but managed to halt the Egyptian attack. The next day, one of the two S-199s that attacked the Iraqi troops in Natanya crashed. On June 3rd, Israel won its first air victory. One of the S-199s shot down two C-47s that had intended to bomb Tel Aviv. The following day, an Israeli Argus was shot down by an Egyptian Spitfire and thus Egypt gained its



first air victory. The conflicts escalated and forces of both parties started to pit against each other more frequently. On June 8th, fighter planes of both sides fought for the first time in the air. The Israeli S-199 confronted the Egyptian Spitfire on the south of Tel Aviv. The Avia S-199 was in fact a Messerchmitt Bf-109 with a Jumo engine. In this way, history repeated itself three years after the end of World War II and Messerchmitt and Spitfire confronted each other in the air once again, and the S-199s won the battle. As a



An Egyptian Spitfire shot down over Tel Aviv on 15 May 1948

Israeli B-17s



result, both parties strived to buy new air vehicles and increase their inventory as much as possible. Aircraft remaining from World War II were bought and launched to the frontier again.

The second phase of air combat took place on July 8 - 18, 1948. During this conflict, also known as "the 10-day Battles", Israel engaged a new air combat player. Three B-17s arrived in Israel on July 15th and immediately joined the operations. During the first six and a half days, Israeli Air Forces carried out 82 sorties and dropped 9 tons of bombs and in the remaining three days and upon the inclusion of the B-17s again, 82 sorties were conducted, and 48 tons of bombs were dropped. In the last days of 1948, the British Royal Air Forces (RAF) started to conduct operations with the Egyptian Air Forces. This cooperation was initially launched with the execution of reconnaissance missions yet later evolved into joint attacks. On June 7, 1949, four British Spitfire FR18s conducting reconnaissance missions were shot down by Israeli anti-aircraft guns and airplanes. Later the same day, the RAF and Israel Air Forces confronted each other once again. This time a British Tempest was shot down. On February 24, 1949, Egypt was the first



The enlistee of American Pilot is seen infront of İsraeli S-199 Aircraft



country to sign a ceasefire agreement with Israel. Egypt was followed by Lebanon on March 23rd, Jordan on April 3rd and Syria on July 20th. Only Iraq withdrew its troops from the region without signing an agreement. Thus, the conflicts throughout the partition of Palestine and the foundation of the state of Israel ended. Without doubt, the controversial issues amid the parties were not resolved with these ceasefire agreements. The tension remained and the outbreak of another conflict was only a matter of time.



Suez Crisis of 1956

During the intervening years, the parties raced to increase their armament and the era of fighter jets began for the armed forces of both parties. The first air combat between the parties took place on September 1, 1955. Israel's Gloster Meteor destroyed Egypt's De Havilland Vampire. On October 19, 1956, Israeli forces launched an attack to invade the Sinai Peninsula. Both air forces were intensively used to support the land forces. Israel's operations were at first conducted by jet fighters, however, as they failed to suffice, the existing aircraft with piston engines were also involved. Israel's superiority was maintained in the air-to-air battles yet the aircraft with piston engines were severely damaged by Egypt's anti-aircraft guns On October 31st, British and French forces launched an air raid against Egypt and Egyptian Air Force bases and aircraft were destroyed. Consequently, on November 1st, control of the airspace over

the Sinai Peninsula fell completely under the control of the Israelis. The air operation was followed by a land assault. British, French and Israeli units fully maintained control of the Suez Canal and the operation lasted until November 6th, but the successful operation in the battlefield was finalized with total diplomatic failure. In March 1957, the Canal Zone was evacuated upon pressure from America and Russia. Sinai became a demilitarized zone and troops of the United Nations were deployed to the zone.

The Six-Day War in 1967

The aircraft equipped with air-to-air missiles, capable of reaching a speed of Mach 2 were included in the inventory of both parties during the period between 1956 and 1967. Surface-to-Air Missiles (SAM) were deployed in the region and air combat between Arab aircraft and Israeli Aircraft occurred from time to time. On July 14th, 1966 Israel's Mirage-III aircraft shot down Syria's Mig-21 for the first time and tension between Syria



Israeli Mirage-III is seen during the readiness of the operation

and Israel escalated. Egypt received intelligence from Russia that Israel was building up its military on the Syrian border and on May 15th, Egyptian President NASSER ordered the United Nations forces to retreat from Sinai and for Egyptian troops to enter the demilitarized zone. Israel felt quite threatened as Jordan and Syria had joined Egypt's offensive approach. Instead of waiting for the Arabs to strike. Israel made the decision to launch a pre-emptive strike against them. In the beginning of June, Israeli Air Forces received an order to conduct Operation Focus (Moked). The main strategy of this operation was to destroy the enemy's air forces on the ground through a surprise attack. The runways were to be hit initially, in this way, the hostile aircraft would not be able to scramble to intercept the Israeli aircraft and would then be destroyed on the ground.

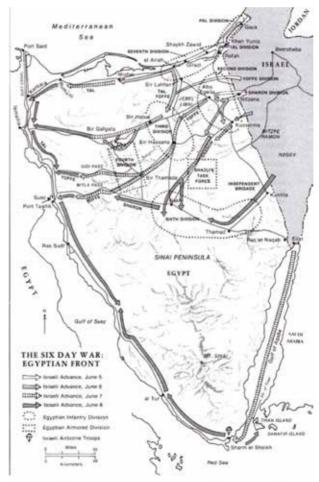
Israel's attack took place on June 5, 1967 at 07:45 Israeli time (08:45 in Egypt local time). There was a specific reason why Israel selected that particular time. The Egyptian troops were in alarm position and as they anticipated a surprise attack to occur at dawn, they were ready with the Mig-21 aircraft that were deployed on the runway for the scramble as well as in the air for combat air patrol. This could not be kept up the whole day and the Israelis estimated that the aircraft on patrol would be landing at 07:30 (at 08:30 in Egypt) as they would be out of gas by then. The second reason



was that in case the attack took place at dawn; the pilots would have to start flight by midnight. So, they would not be able to get adequate sleep the night before the operation and as the operation would continue throughout the day, they would not sleep the following night as well. As the operation time of the first attack was set at 07:45 Israeli pilots were able to rest until 04:00 a.m. Other criteria for the selection of 07:45 was that frequently there was mist at this time in the morning in this region. The mist normally continued until 07:30 in the morning, so by the time of the attack the air would be clear. Last but not the least, was the fact that the Egyptian Air Forces started their shift at 09:00 a.m. When the attack took place at 08:45, a large number of staff and especially the teams that would manage air defense, such as the General or the Staff Officer, would be on their way and therefore away from their place of duty. Thus, 160 Israeli jets took off from their bases at the appointed time. They attacked 10 air bases; Egypt's Mig-21 bases were the first targets. 9 out of these 10 offensives were shot simultaneously. During the first wave of the operation, Israel lost 9 aircraft while over 180 of Egypt's aircraft were destroyed on the ground. The attack was planned

in waves with 10-minute intervals and the second wave was launched and still targeted Egypt's Air Forces and nine more air bases were attacked in the following hours. Only the runway of the air base of El Arish was not attacked because Israel intended to utilize this base as a point for forward supply and casualty evacuation operation. In the evening of June 6th, the base was occupied as planned and started to be utilized by the Israelis.

That morning, Egypt lifted off only 4 Mig-21s from its attacked bases and before they were shot down, they managed to shoot down two Israeli aircraft. A land assault was launched simultaneously with the air combat operation and Israeli troops then entered the Sinai Peninsula. Close air support to ground troops was provided by a few helicopters and Fouga Magisters and Israel's Air Forces combined all of its power to the destruction of Egypt's Air Forces.



War in the Sinai, June 1967: Dispositions and Battles

The operation lasted throughout the day with the third and fourth waves and by the end of the day, and a major part of the Air Forces of Syria and Jordan and particularly of Egypt were destroyed on the ground. The Israeli Air Forces lost 24 aircraft by the end of the first day. The last five days of combat advanced with Israel's air superiority and on June 6th, Egypt attempted a counterattack. Five Egyptian Su-7s were intercepted and shot down by Israeli Mirages. An Iraqi Tu-16 attacked the city of Netanya located 32 km north of Tel Aviv and this air vehicle was shot down on its way back. The Israelis who had launched an unsuccessful assault to the H-3 air base in Irag on June 7th lost two Vautours and a Mirage. These aircraft were shot down by Iraqi Hunters and on the same day, Egypt's Mig-17s shot down four more Israeli aircraft. A Mirage that had conducted an air interception at midnight was shot down by Egypt's SA-2s. This was the first victory using SAMs in the Middle East, and in this way a new era dawned in air combat. On June 8th, Israeli aircraft assaulted the American intelligence ship USS Liberty, allegedly by accidentally. 34 American marines were killed while 171 marines were wounded. At the end of the day, Israeli Air Forces



then focused priority on the Syrian battlefront. The battle on June 9th was mostly fought between Israel and Syria and Israel lost two squadron commands on that same day. On June 10th, the parties compromised on a ceasefire. At the end of the war. Israel acquired the control of Sinai and the west side of the Suez Canal. Moreover, the Gaza Strip and Golan Heights were captured. In addition to the Egyptian Air Forces took a major blow and lost their air bases near Sinai and the Suez Canal and thus lost their potential to conduct a surprise attack on Israel. The aircraft that took off from these bases prior to the battle managed to hit Israeli targets within a few minutes but in the wake of the war they had to fly for hundreds of kilometers in hostile airspace. This was a major loss for Egypt with short-range aircraft such as the Su-7, Mig-17 and Mig-21. Utilizing fighter bombers such as II-28 and TU-16's for deeper attacks in Israel without fighter aircraft cover also became more difficult.

1969-1970 War of Attrition

On March 8, 1969, Egypt launched heavy artillery fire along the Suez Canal. The War of Attrition was launched with this assault. The first stage of the war lasted until July 1969 in which the parties strived to measure each other's capacity through the assaults they conducted. Frightened that the conflicts would escalate, Israel refrained from conducting too many operations against Egypt. On June 17, 1969, four Israeli Mirages flew over Cairo at low altitude at hypersonic speed and caused sonic booms and in response commanders of the Egyptian Air Forces and the Eavptian Air Defense Forces were dismissed. On July 7th, Israeli Mirages violated Egyptian air space and pressured Egyptian aircraft to take off and intercept and shoot down ten Mig-21s. A similar operation was executed in Syria the next day and seven Mig-21s were shot down. On July 12th, 29 Israeli soldiers were killed during the commando

at the Suez Canal. Thus. Israel launched a major air operation on July 20, 1969 in which two Mirages, one Mig-21 and two Mig-17s were shot down. In September 1969, F-4E Phantom IIs commenced service into the Israeli Air Force. On October 22nd. the Phantoms executed their first operations in the SA-2 battery in Abu Suweir. On December 26, 1969, three Israeli Super Frelon helicopters dropped the commandos near Egypt's P-12 radar station. After the station was captured by the commandos, two CH-53s landed and transfer the captured radar to Israel. In early 1970, Israel increased its assaults deep into Egyptian territory. When Israel turned up the pressure, Egypt made another move; NASSER visited Moscow on January 24-25, 1970 and requested military support from the Russia. Russia built up its existence in Egypt. Russian military specialists had already been employed in Egypt. There had been casualties during former operations, so new radars, command control equipment and air defense

systems were dispatched in Egypt with the newly assigned Russian staff. The SA-3 batteries were among the systems being deployed in the region for the first time and the Soviet and Egyptians pilots conducted formation flights together.

On July 18th, Two F-4 Phantoms fitted with ECM pods of the Israeli Air Force targeted both the Egyptian SAM batteries (SA-3) and ancillary infrastructure and two F-4 Phantoms (Squadron commanders) had fallen to SAMs. These aircraft were the first victims of the SA-3 batteries. Soviet pilots fought in air combat as well yet failed to achieve the success they had aimed for; however the Soviet SAM batteries did manage to severely hurt the Israelis. In August a ceasefire between the parties was declared as a result of the pressure imposed by America.

1973 Yom Kippur War

On October 6, 1973 at 14:00 p.m., Egyptian and Syrian forces launched a surprise attack to Israel on Yom Kippur (Redemption Day) which is a religious holiday for the Jews. So, as it was a day of rest and prayer, life came to a standstill in Israel. People were either in their homes or in synagogues. Egypt had executed intensive military exercises prior to the war and using these exercises as an excuse, Egypt had deployed a great amount of personnel and equipment to the Suez Canal region. Israeli intelligence suspected Egypt's battle readiness. The former Egyptian President's son-in-law Ashraf MARWAN, who was also a senior Mossad agent,

leaked information to Israeli intelligence that Egypt was going to launch an attack at dawn that day. However, as he had relayed inconsistent information previously, Israelis approached this new information quite suspiciously. Since the attack did not start on October 6th, the Israelis considered it a deception tactic. Still, the Israeli Armed Forces wished to launch a pre-emptive strike in the morning of October 6th but the government refused. Israel's then Prime Minister Golda MEIR did not want to be the party that initiated a new battle in the Middle East, and this decision played a key role in what was to come. Golda MEIR also did not want to lose the existing and potential military aid from the United States.

The air superiority strategy of the Arabs was mainly based on the SAMs (Surface-to-Air Missiles) and the aircraft remained in the background. The aircraft of the Egyptian and Syrian Air Forces initially attacked targets in the Sinai Peninsula and in the Golan Heights. They did not proceed towards the targets in the deeper regions of Israel. Their most crucial purpose here was that both land and air forces wished to run the operation under the SAM umbrella. Moreover, the Arab officers were aware that they had no capacity to conduct operations in terms of equipment in the deeper regions of Israel.

When the assault started, most of the aircraft had already been switched to air-to-air payload from air-to-ground payload as the pre-emptive strike had



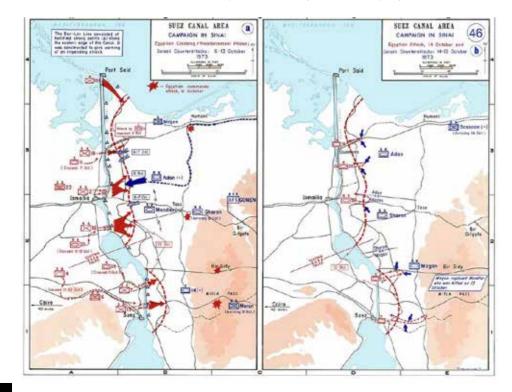
been aborted. An attack to Israeli air bases was expected and the aircraft in air-to-ground configuration dropped their bombs to the sea and started to execute the air interception mission. When most of these aircraft arrived in the Sina or Golan regions, Arab aircraft had already hit the Israeli targets in these regions and on the way back they confronted some enemy aircraft. The Egyptian Aircraft performed their duties under both the fixed and mobile air defense systems umbrella as they passed through the canal. The Israeli aircraft faced severe losses during the attacks due to these air defense systems, with the mobile SA-6 systems having performed quite effectively in particular. As Egyptians activated their air force against Israel, Israel became effective against Syria's air force. In the following days, Israel intensified the SEAD (Suppression of Enemy Air Defenses) operations against the SAM systems located to the west of the canal and as it started to breach the air defense, Israel launched more operations in deeper regions of Egypt. Moreover, Israel gained the opportunity to provide more and effective air support to its ground troops. On October 12th, Israel accepted America's recommendation of a ceasefire due to increasing casualties, but the offer was declined by Egypt.

America started to support Israel in terms of equipment and ammunition while similarly Russia backed Egypt and Syria. On October 14th, F-4Es from America started to arrive in Israel, and they were immediately sent to the frontlines without even changing their camouflage. On October 15th, having turned the situation in the Syrian frontier to its advantage, Israel reinforced the Sinai frontier with a new armored division and launched a counterattack. Israel's mechanized units passing through the canal and advancing in Egypt attacked the Egyptian air defense missile units. By adding the aircraft that were shifted from the Syrian frontier in order to

cover the vulnerability in air defense, air supremacy was achieved over the Equptian forces and on October 18th, Israel started to control air combat. On that day 11 Egyptian aircraft and 3 Mirage aircraft from Libya sent for support were shot down while 3 Israeli aircraft crashed during their return. Since the beginning of the combat, Israel did not lose a single aircraft for the first time as of October 19th. On October 21st, Israel launched an air - mobile operation to Mount Hermon. This region in the Golan Heights with strategic importance had been seized by Syrian commandos on October 6th. 2 Syrian Mig-21s crashed during the conflicts in the region while Israel lost 3 aircraft. On October 22nd, the United Nations Security Council passed Resolution 338 calling for a ceasefire, but the conflicts lasted until October 24th. On October 24th the last air combat took place on the Sinai frontier where 12 Israeli Mirages encountered 20 Egyptian Mig-21s. During this combat, Giora Epstein



shot down four Mig-21s, increasing the total score to 17. By the end of the combat, almost 90% of Israel's losses had occurred due to either air defense missiles or anti-aircraft guns. A great lesson was learned from Yom Kippur: the destruction or electronic jamming of the enemy's air defense had been essential to win the war. This lesson paved the way for stipulating the investments in electronic warfare while underlining the requirement for precision-guided ammunition. The race between the hunter and the prey continued with



new tactics developed in line with new weapons. A new era started for Israel, with the F-15A/Bs arriving in 1976, E-2Cs bought in 1978 and with the F-16A/ Bs that arrived in 1980. Technological and tactical sovereignty was once again established over the Arabs and Israel continued to resort to pre-emptive strikes in the upcoming periods and conducted joint operations which resulted in significant impact. The first attacks were carried out in Lebanon, then to the Osiraq Nuclear Reactor in Iraq and to the Palestine Liberation Organization's camps in Tunisia. These attacks still continue to take place and due the importance they place on intelligence (either manned or unmanned), new tactics and high technology, they maintain their superiority over the Arab Air Forces