The Syrian Nemesis

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Almost thirty five years ago, the Soviet Union got into a war in Syria on the side of Hafez al-Assad, the Syrian ruler and the father of the present leader, with results disastrous for the USSR.

In June 1982, the Israeli Air Force totally destroyed the powerful Fed facility of Syrian forces and air defences in the Bekaa Valley. The shock in Moscow was almost greater than that of the Syrians. Everything about it was Soviet: the Volga S-75M, Pechora S-125M and Kub (Kvadrat) surface-to-air (SAM) missile systems and the associated self-propelled reconnaissance and guidance vehicles, radar stations, several Osa (‘Wasp’) tactical surface-to-air missile systems, Shilka self-propelled anti-aircraft guns, and electronic warfare systems.

Moreover, alongside Syrian personnel, the equipment was being operated by Soviet officers. At that time, some 1,000 Soviet military specialists and instructors were working in the Syrian army, many of them serving in the group occupying Lebanon. In the first two hours of the operation, 13 of the Syrians’ 19 SAM battalions and 3 or 4 other battalions were neutralized. The next day, the remaining 4 surface-to-air missile battalions were destroyed. In an operation lasting less than two days, the Israelis had totally wrecked 19 Syrian surface-to-air missile battalions and neutralized 4 other battalions.

No less severe was the shock caused by the battle in the air above the Bekaa Valley: Israeli pilots shot down dozens of Syrian aircraft, again without a single loss on their own side.

“‘The Syrian Air Force has been defeated, our surface-to-air missiles are useless, and without air cover our army cannot fight,’ the Syrian Minister of Defence, General Mustafa Tlass, stated in his report to President Hafez al-Assad. In a cypher message sent on 12 June 1982, Colonel General Grigoriy Yashkin, the main Soviet military adviser in Syria, informed Dmitry Ustinov, USSR Minister of Defence, ‘The Air Force, Air Defence Force, Electronic Warfare units, radio and radio technology sub-units, equipped with our technology, have done and continue to do everything possible to perform their tasks, but it has to be conceded that our technology is inferior to that of the US and Israel. There are many vulnerabilities in these branches of the armed forces, troops and special troops of the Armed Forces of the Syrian Arab Republic’ [Grigoriy Yashkin, ‘Beneath the Hot Sun of Syria’, Journal of Military History/ Voenno-istoricheskii zhurnal, No. 4, 1998].

From the same cypher message, we learn that operational and strategic leadership ‘was and continues to be carried out with the assistance of our advisers at the headquarters of the Syrian Ministry of Defence. The Supreme Commander-in-Chief, President H. Assad, and Defence Minister of the Syrian Arab Republic, M. Tlass, work closely with us. Decisions on military matters are arrived at jointly.’ This means that the Soviet military advisers carried a considerable share of responsibility for what happened, because it was their advice, their principles and headquarters plans that were guiding the Syrians. In fact, the Syrian generals and officers can also be considered ‘Soviet products’: they had either studied in Soviet military colleges and academies, or been trained

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1 This paper was written for the Russian Service of Radio Free Europe / Radio Liberty. It can be accessed at: Voronov, V. ‘Sirinski rok’, svoboda.org, 4 October 2016, available at: http://www.svoboda.org/a/28029586.html
by Soviet instructors locally in Syria. Bekaa was a defeat for Soviet military training, with all its doctrinal principles and methods of organization and waging war. What is most important, however, is that the defeat in the Bekaa Valley subverted almost all the established notions of the Soviet generals about the nature of modern warfare. It starkly demonstrated that the USSR's Armed Forces were grossly lagging behind in the most advanced military technologies. Much later, it was even suggested that this defeat was ‘one of the main causes of Perestroika’ [‘To this day, very few people in our country realize that one of the main causes of Perestroika was the defeat Israeli aircraft inflicted on the Syrian air defence system in Lebanon’s Bekaa Valley on 9-10 June 1982.’ Alexander Khramchikhin, ‘Military Construction in Russia’, Znamia, No. 12, 2005].

In the present writer’s opinion, closer to reality is the more reserved view expressed by Rebecca Grant, an American expert on modern military technology: ‘The blow to the Bekaa Valley SAMs was part of the cascade of events leading to the collapse of the Soviet Union’ [‘The Bekaa Valley War’, Air Force Magazine, June 2002].

The ground fire tally

Syria occupied a large part of Lebanon in 1976, and by 1982 had more than 25,000 soldiers and some 600 tanks in the country. Protecting them from air strikes was the task of the Feda facility, which the Syrians deployed in the Bekaa Valley from April 1981. By the outbreak of the 1982 war, 4 Syrian surface-to-air missile brigades (19 battalions) were located there. Immediate cover for the facility was provided by 47 units with Strela-2 man-portable air defence systems, 51 Shilka self-propelled anti-aircraft guns, and 17 anti-aircraft artillery batteries. After the outbreak of hostilities, the Bekaa Valley facility was reinforced by 1 further surface-to-air missile brigade and 3 anti-aircraft artillery regiments. This brought the total number of SAM battalions in the facility up to 24. They were deployed over an area 30 by 28 km. All ‘these groups and units were closely integrated for combat,’ Lieutenant General Alexander Maslov, chief of staff of Army Air Defence wrote in 2007. ‘This provided 3-4 fold mutual protection.’

When, on 6 June 1982, the Israeli army invaded southern Lebanon to begin ‘Operation Peace for Galilee’, with the aim of destroying the bases of Palestinian terrorists, their task was hindered by the presence of the powerful Syrian Feda facility, which was near Beirut. Since a clash with the Syrians was inevitable, the Israelis had to ensure air cover for their troops and prevent the enemy defeating their attack from the air. To this end, on 9 June 1982, the Israeli command began Operation Mole Cricket 19 and, in startlingly short order, totally destroyed the Syrian air defence facility.

Simultaneously, an air battle developed during which, on the first day, Israeli pilots shot down 29 Syrian fighter aircraft, again without losing a single one of their own. On 10 June, the Israeli Air Force shot down a further 30-35 Syrian MiGs in air battles over Lebanon, and on 11 June a further 19. Figures for total losses of Syrian aircraft diverge, but not by much. If some sources claim that, by the end of July 1982, Syria had lost 82 aircraft [Rebecca Grant, ‘The Bekaa Valley War’], others put the losses at 85 [Benjamin S. Lambeth, ‘Moscow’s Lessons from the 1982 Lebanon Air War’, Rand Corporation Report, 1984, p.10]. Others again put the tally at 87, with 29 SAM battalions destroyed [Matthew M. Hurley, ‘The Bekaa Valley Air Battle, June 1982: Lessons Mislearned?’, Airpower Journal, Winter, 1989]. The Syrians themselves were forced to admit the loss of 60

By way of contrast, losses of the Israeli Air Force from ground fire totalled two downed helicopters. One A-4 Skyhawk attack aircraft was shot down, but by the Palestinians rather than Syrians, and one F-4 Phantom fighter-bomber was also lost. All that, however, was at another time and in other places and unrelated to Operation Mole Cricket 19.

**War, live on air**

The biggest surprise for the Syrians and the Soviet military was the extensive use of unmanned aerial vehicles, or drones. This proved one of the main factors in reliably taking out the Syrian air defences. The Israeli military made full use of the drones Tadiran Mastiff (two versions), IAI Scout, and even the superannuated, American-manufactured AQM-34 Firebee. Why should this have come as such a surprise to the Soviet generals, when the selfsame Firebee, flying since 1951, had been extensively and very effectively used by the Americans during the Vietnam War? Even the Mastiff and Scout could hardly have been a big secret from the Soviet military: these drones had been shown in 1979 at the international air show in Le Bourget. It took almost 30 years for Soviet military thinking to understand how vital and valuable a role they could play.

One of the developers of the Kub surface-to-air missile system was sent, together with other specialists, to the battle zone to establish the reasons for the defeat. Something crucial in determining the causes of such spectacular losses of the air defence systems was intelligence about small devices flying above the Syrian positions, to which no great significance had been attached at first. In fact, however, these meant that ‘an operator, located on the Golan Heights, could see on his television monitor the entire situation within the operational area of the drone,’ the missile specialist marvelled. He was even more amazed by the coordinated use with drones of television-guided missiles. Upon detecting an anti-aircraft target, the operator ordered the launching of remotely controlled missiles. ‘These missiles were relatively slow-moving, which enabled the operator to home them in precisely on the target.’

Drones were, however, also used for the benefit of ground troops. A recognized image was immediately transmitted to the command posts, and army commanders were able to monitor the battlefield online, instantly analysing the situation and making necessary adjustments, coordinating joint actions, and providing the air force and artillery with data for strikes. During the most intense fighting, drones constantly hovered over the battlefield, and the data they transmitted were so accurate and valuable that, without further confirmation, they were used to direct artillery fire. The Israeli Defence Minister, Ariel Sharon, personally watched the progress of the fighting on his television monitor, as it detailed the strikes on the positions of individual Syrian SAM sites.

General Yashkin reminisced, ‘flying over the SAM-6 positions, [the Israeli drones] sent live television coverage to the command post. With that information, the Israeli commanders were able to take unerring decisions on where to target missile strikes. In addition, these pilotless aircraft could undertake jamming. They detected the operating frequencies of radar stations and the guidance systems of the Syrian missile complexes. They further acted as decoys: by drawing the fire of Syrian air defences, these pilotless spy aircraft diverted it away from combat aircraft.’
Drones could do almost everything: they were used for reconnaissance, searching for and revealing positions, targeting, jamming, evaluating the results of raids, and acting as decoys to divert the fire of SAMs. Israel’s ‘kit’ contained much that was of interest and unfamiliar to the Soviet military. Quite apart from the drones, they were impressed by the exemplary fashion in which radar stations were put out of action through the use of active and passive jamming, and they found almost miraculous the way airborne radar support operated, which included the E-2S Hawkeye Airborne Early Warning Aircraft. The Soviet army had nothing remotely approaching the Hawkeye. Moreover, all this sophistication was working not in isolation but in a seamless operation that seemed to the Soviet military experts something from the realms of fantasy. The fighting in Lebanon showed only too clearly that, already, the outcome of wars was being determined less by the number of tanks than by completely new technologies of which Soviet military thinking knew practically nothing. The most enlightened and educated Soviet marshals and generals were quick to realize just how disastrous this superiority of Western technology was for the USSR, because in the European theatre much the same fate would await the Soviet army as had befallen the Syrians in the Bekaa Valley. In truth, those who recognized this were few and far between. There seemed to be less interest in finding a way out of a dire situation than in looking for scapegoats.

**A ‘human wave attack by the Jewish Mafia’**

In his diary, Anatoly Chernyaev, at that time a member of the international department of the Central Committee of the CPSU [Communist Party of the Soviet Union – Ed.,] wrote of events in Lebanon, ‘We really fouled up there … and the Arab press including the PLO, the West European press, the Iranian press shat on us from a great height, claiming we had done nothing but offer a lot of bluster.’

Information about how Moscow reacted to the defeat in Bekaa is contradictory. It is claimed that in September 1982 a special meeting was held of the Central Committee, to which the most senior figures of the Defence Ministry, the General Staff and the military-industrial complex were summoned, and that it culminated in a special resolution of the Central Committee and of the USSR Council of Ministers.

As the relevant archives remain classified, this cannot be verified. Not trace has been found of the Central Committee resolution referred to. Nevertheless, there undoubtedly was a reaction from the Kremlin. According to Doctor of Technological Sciences Yuriy Yerofeyev, who worked in a secret military research institute (‘Institute 108’), in the immediate aftermath of the Israeli operation an extraordinary meeting was called of the Military-Industrial Commission, as the Commission on Military-Industrial Matters at the Presidium of the USSR Council of Ministers was known. This was ‘to assess the political implications of the event.’ In the air were muffled threats of expulsion from the Party for ‘discrediting Soviet military technology.’

What most shocked the military at the time was that systems that were on the move, not even in use, covered up and not emitting radiation of any description, were being targeted and destroyed. A group of systems developers was ordered to fly out to Syria immediately to ‘travel round the combat positions and get to the bottom of this mystery.’ The developers were included in a commission that arrived in Damascus on the evening of 13 June 1982, headed by First Deputy Commander of the Soviet Air Defence Forces, Artillery Colonel General Yevgeny Yurasov [Lambeth, *Moscow’s Lessons from the 1982 Lebanon Air War*, p. 13]. Of course, that was not the
only commission to arrive. As General Yashkin remarks irritably in his memoirs, ‘It was particularly annoying that in Moscow too by no means everybody had a clear understanding of the situation. Without asking the permission of the rulers of Syria, one commission after another, from different branches of the Armed Forces and different troops, started turning up in Damascus. They were particularly interested in what had caused the destruction of the surface-to-air missile systems.

Oddly enough, they were inclined to look at their own side for those responsible’ [Yashkin, ‘Beneath the Hot Sun of Syria’]. Since, in General Yashkin’s words, ‘it became impossible to put up with this situation any longer,’ he telephoned Marshal Dmitry Ustinov, the Soviet Defence Minister, to complain about all these trippers. To ‘follow up and continue’ his telephone conversation, General Yashkin sent Ustinov a personal cypher message, emphasizing that ‘conclusions are being drawn from reports by persons remote from the reality of current events that there has been some kind of defeat, and even a complete rout, of the Syrian forces in Lebanon in the course of repulsing the Israeli aggression. Conclusions of this kind are entirely in line with the desire of the United States and the global Jewish Mafia to discredit Soviet armaments, our operational skill and tactics’ [Ibid.].

Yashkin even reported that ‘Syrian forces in Lebanon actually repulsed a “human wave attack”.’ What human wave attacks were taking place in 1982? Either the bureaucrats in the office of the Principal Military Adviser to Syria had been watching the film Chapayev too often, or they had not been drinking responsibly or, most likely, it was a bit of both.

Yashkin’s secret message about the Jewish Mafia and their human wave attacks nevertheless fell on receptive ears, and Ustinov ordered Yashkin to convey to the rulers of Syria that they should immediately send a delegation to Moscow to ‘determine what equipment, arms and ammunition should be delivered as a first priority.’

**A lesson not learned**

The catastrophic defeat in the Bekaa Valley did, nevertheless, alarm Moscow and an endless succession of consultations and meetings at the highest level began. The Syrian rulers demanded immediate delivery of the most advanced air defence systems and aircraft and, moreover, made it clear that the people fighting with it should be Soviet servicemen! [Yuri – Ed.] Andropov proposed that Syria’s losses should be made good with the latest armaments, but that there should be no overhasty deployment of Soviet military bases there, and that no answer should be given to the request to send Soviet military personnel to fight in Syria. The diplomat, Oleg Grinevsky, writes that it was decided on behalf of [Leonid – Ed.] Brezhnev that Assad should be sent a reply suggesting that ‘the Arabs themselves must do more.’

In the top echelons of Soviet power, however, nobody was in any hurry to draw conclusions about the wrecked military hardware, about its quality and how far it was adequate to the challenges of modern warfare. It occurred to nobody (or if it did, they kept quiet) that it was now not simply a matter of heavy losses damaging the prestige of the USSR due to someone’s negligence, incompetence or cowardice, but of a military catastrophe which had swept away the old concepts of projecting military power and how war should be waged. The battle in the Bekaa Valley made it only too obvious how far ahead the West was in military technology, and that this disastrous lagging
behind could not be overcome by an endless increase in the numbers of tanks, missiles, aircraft and men under arms.

On 28 June 1982, at an expanded meeting of the Central Committee Secretariat, Defence Minister Ustinov, according to Oleg Grinevsky, ‘angrily and at great length’ bewailed the fact that, at the instigation of the treacherous Assad, deceitful fabrications were being spread through the Arab world about the ineffectiveness of Soviet armaments. ‘The weapons are splendid,’ Ustinov expostulated, ‘but their soldiers are fucking useless cowards!’

The question of the quality of Soviet arms refused, however, to go away. It was first publicly raised by the Libyans. Abdessalam Jalloud, a close adviser of Gaddafi, summoned the Soviet ambassador one night and all but shouted at him, ‘The Syrian air force and air defences have been effectively destroyed. Soviet armaments have proved inadequate against the latest American weapons.’ Then Gaddafi himself gathered the ambassadors of the socialist countries together and told them, ‘The arms we buy from you are children’s toys. Your tanks and missile systems go up in flames like cardboard boxes.’

On 28 June 1982, the first deputy commander of the Air Defence Forces, General Yurasov, reported to the Minister of Defence on the situation in Syria and Lebanon. As Colonel General Volter Kraskovsky [then first Deputy Chief of Staff of Air Defence Forces] explains in his memoirs, Yurasov reported to Ustinov that ‘in the automated control systems we export, nothing is properly finished. We have to hastily retrofit, supply missing parts, and that takes a lot of time and work. The military conflicts abroad have put us on the spot.’ In late August 1982, the High Command of Air Defence Forces, by now taking due note of the ‘lessons of the Bekaa Valley,’ presented a report to Ustinov on the state of affairs in the entire national air defence system. ‘It spoke,’ General Kraskovsky recalled, ‘of the emergence of new means of attack, including precision-guided weapons capable of reaching all parts of Soviet territory from any direction (intermediate-range ballistic missiles and cruise missiles), and of how difficult it was to combat them.’

Words remained words, however, and no action followed. As General Kraskovsky writes ruefully, ‘The role of air defence troops within the armed forces was underappreciated by General Headquarters. It is difficult to find an explanation for the insistence of GHQ [General Headquarters - Ed.] on inflating the ground forces at the expense of air defence troops, when the experience of all contemporary wars and local conflicts demonstrated the increasing role of air attack armaments and the need for powerful air defences.’ ‘The military leadership weakened the air defences and continued its buildup of ground forces,’ notwithstanding the experience of modern warfare ‘in which air attack resources had proved to be the major striking force, capable of attaining strategic goals in war.’ General Headquarters failed to recognize this fully and ‘in all major exercises continued to develop troop movements mainly in terms of offensive operations ... The failures of our armaments in local conflicts were glossed over.’

Reform of Soviet Air Defence continued, but in a very strange direction. According to General Kraskovsky, entire regiments of Air Defence were re-equipped with fighter-bombers! Everything had come full circle, and the marshals of the Soviet Union continued to prepare for the wars of yesterday, or the day before. On the ground, they demanded more tanks to attack and break through to the English Channel, and in the air, analogously, they demanded fighter-bombers for
missile, bomb and assault strikes on enemy tanks, rather than seeking to gain air supremacy and air cover for their troops.

The hard lessons in Syria were not learned, even when they were repeated elsewhere. On 1 September 1983, a South Korean passenger Boeing-747 was shot down over Sakhalin after the much-vaunted Soviet air defence system failed to identify it as a civilian aircraft. In March and April 1986, when the US Air Force mounted retaliatory strikes against Libya, the Soviet-manufactured Libyan air defence systems, manned by Soviet specialists, could neither fend off the attack nor cause significant damage to the US aircraft. Then, in May 1987, Matthias Rust landed his unauthorized little Cessna near Red Square, which also demonstrated the inadequacies of the Soviet model of air defence. When, in January 1991 as part of Operation Desert Storm, a multinational coalition of forces launched an air attack on Iraq, that country’s air defence system, built by Soviet specialists on the Soviet model and equipped with Soviet surface-to-air missiles, Soviet radar, and Soviet aircraft, also proved unfit for purpose.

Right up until the collapse of the Soviet Union, its economy continued to be burdened by the production of hundreds, even thousands, of new tanks, planes and missiles. It would not be fair to say no effort was made to close the technology gap: a lot of money went down the drain in an attempt to catch up with the West’s military electronics, but it proved impossible to create and put into production Soviet rivals to AWACS and Hawkeye. The Soviet military industry continued to concentrate on manufacturing tanks, of which, by the mid-1980s, the USSR had more than all the other countries in the world combined.

Of drones, which had been responsible for the total destruction of the Syrian-Soviet facility in the Bekaa Valley in June 1982, no more was heard until the 2008 war against Georgia.
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