

THE LEBANESE ARMED FORCES

Challenges and Opportunities in Post-Syria
Lebanon

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Executive Summary

The purpose of this report is to examine the force development challenges that the Lebanese Armed Forces (LAF) are facing in post-Syria Lebanon. It also seeks to build on opportunities for Lebanon and its foreign allies to strengthen the LAF both as a local institution, and as a stabilizing fighting force in the Middle East.

The withdrawal of Syrian troops from Lebanon on April 26, 2005, redefined the role of the LAF. The overlapping domestic and regional contests over post-Syria Lebanon, aggravated by the assassination of political and security figures, the Israel-Hizbullah war of 2006, terrorism and the remilitarization of society, placed heavy pressures on the LAF. Indeed, the struggle over post-Syria Lebanon has also been a contest over the future mission and ideological direction of the LAF.

The LAF has shown that it is one of the few Lebanese institutions in the post-Syria era trusted by a substantial cross-section of Lebanese society. However, its force development over the 2005-2008 period does not reflect its increasingly important institutional role in Lebanese and regional security.

The analysis reveals that the LAF has become more representative, more balanced and more capable as a fighting force. Furthermore, it is unlikely that Lebanon could have weathered the turbulence of the post-Syria era without the LAF. Local and international actors also appreciate the military's role as a stabilizer in Lebanon and the Middle East.

If the Lebanese military is to consolidate its position as the guarantor of Lebanon and as a positive force in the region, the present unique opportunity to develop the LAF as a fighting force has to be pursued in earnest. Lebanon's competing parties, the LAF and the country's international allies – especially the United States – will face important challenges in 2009 and beyond on the road to LAF force development. Recommendations to bolster LAF force development in 2009 and beyond include:

- Efforts to control or re-orient the Lebanese military by competing Lebanese actors only serve to undermine the LAF's effectiveness as a fighting force and a national institution. Such attempts must stop if LAF unity and its stabilizing role in the country and the region are to be preserved.
- The Lebanese government must move quickly to provide the military with the close to \$1 billion it requires for essential force development. This can be accomplished by setting national expenditure on defense at 4 to 5 percent of GDP over a three year period to implement an updated force development plan modeled on the fiscally conservative 2006 plan.
- Any attempt to strengthen the LAF so that it can fight Hizbullah will fail. Close to 30 percent of the officers corps is Shi'a and given that the LAF is a reflection of Lebanese society, it cannot be ordered to act militarily against one or another

community. The U.S. needs to recognize that building up the LAF as a deterrent against Lebanon's neighbors undermines Hizbullah's logic regarding its weapons arsenal. Accordingly, the U.S. should focus on helping the LAF to lay the foundation for Hizbullah disarmament in the mid-to-long term rather than all-out confrontation in the short term.

- U.S. policy towards the LAF is unclear and hurts U.S. efforts to bolster the LAF as a positive force in Lebanon and the region. These policy ambiguities should be revised and the U.S. must articulate clearly whether or not it will provide the LAF with the heavy combat systems it needs for force development.
- Recent spikes in U.S. military assistance funding have not yet translated into additional defense aid to Lebanon. Congressionally appropriated funding should be set at a level that reflects U.S. recognition of LAF needs.
- The U.S. should consider mechanisms that would reform Foreign Military Sales (FMS) and Foreign Military Financing (FMF) to accelerate equipment deliveries to Lebanon. Alternatively, it could allow congressionally appropriated and supplemental funding earmarked for the LAF to be used in the acquisition of military equipment from U.S. allies. Such moves would positively impact the turnaround time for the receipt of new systems by the LAF while also relieving the burden on the U.S. effort to arm and equip the Afghan and Iraqi security forces.

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Introduction

The withdrawal of Syrian troops from Lebanon on April 26, 2005, redefined the role of the Lebanese Armed Forces (LAF). The overlapping domestic and regional contests over post-Syria Lebanon, aggravated by the assassination of political and security figures, the Israel-Hizbullah war of 2006, terrorism and the remilitarization of society, placed heavy pressures on the LAF. Indeed, the struggle over post-Syria Lebanon has also been a contest over the future mission and ideological direction of the LAF.

A multi-sectarian force, the LAF is both constrained by and forced to navigate Lebanon's confessional political system. It is also a severely undermanned, underequipped and underfunded national military. However, the LAF's policy of neutrality in Lebanese politics has not stopped it from acting pragmatically to safeguard Lebanese national security interests. It made difficult but necessary choices to preserve its unity as a fighting force and it has maintained relations with major antagonists throughout Lebanon and the international community. It has also had to evolve as a fighting force to meet emerging asymmetric threats from foreign non-state actors operating in Lebanon.

The LAF has shown that it is one of the few Lebanese institutions in the post-Syria era trusted by a substantial cross-section of Lebanese society. However, its force development over the 2005-2008 period do not reflect its increasingly important institutional role in Lebanese and regional security. The purpose of this report is to examine the force development challenges that the LAF is facing in the post-Syria era. It also seeks to build on opportunities for Lebanon and its foreign allies to strengthen the LAF both as a local institution, and as a stabilizing fighting force in the Middle East.

A brief examination of how the LAF has hitherto navigated the dire straits of the Lebanese sectarian system is followed by an analysis of the LAF's fighting experience, its relations with major players in the Middle East, and how it compares to other regional fighting forces in the post-Syria era. The report then considers the current status of the LAF as a fighting force, its future development options, needs, share of public expenditure and patterns of international military assistance. It closes with some recommendations pertaining to the LAF's future domestic and regional roles.

Lebanon, Confessional Politics and the Military

Lebanon's political crisis both feeds into and is exacerbated by Lebanon's confessional political system by allocating power and distributing seats of office according to sectarian representation. Lebanon's political structure accommodates power sharing among elites belonging to a plurality of competing sectarian or ethnic groups.¹ Yet Lebanon has never been able to enforce such a system. Many of the security challenges faced in and by the country today are intrinsically linked to the Lebanese sectarian system – a system that, among others, exposes Lebanon to foreign intervention and the persistent pursuit of foreign patronage on the part of Lebanese political actors.

Lebanon experienced a brief civil war in 1958, followed by the drawn-out Lebanese Civil War from 1975 to 1990. More recently the country has suffered from heightened instability since the assassination of former Lebanese Prime Minister Rafik al-Hariri on February 14, 2005, with loose rival camps aligned either around the government of Prime Minister Fouad Saniora or against it. Four years after the assassination, Lebanon remains divided and the threat of further civil violence cannot be discounted. How the Lebanese military navigates the country's sectarian system will inform its effectiveness as a fighting force.

The Lebanese Armed Forces in Historical Context

The LAF was formed two years after the National Pact on August 1, 1945 when officers and enlisted men of the LAF's precursor, *les Troupes Speciales*, officially transferred to the new force. Divisive confessional politics in the new Lebanon prompted the newly formed LAF to play the role of political arbiter between competing political parties, culminating in its crucial role in neutralizing the political imbalance created by the 1958 Civil War. Despite this role, the LAF under the command of General Fouad Chehab was kept largely out of national politics.²

During the 1958 to 1970 period, the LAF was effectively a shadow government supporting the Maronite Christian president, principally through the intelligence branch, the *Deuxieme Bureau*. However, the rise of a mainly Muslim socio-politically disaffected opposition, which aligned itself with Pan-Arab and Palestinian forces during the late 1960s and early 1970s undermined the LAF's domestic position and robbed it the national legitimacy and force cohesion that it needed in order to prevent the outbreak of civil war in 1975.³

During the Civil War, LAF brigades fragmented along sectarian lines. Attempts to restore order in the ranks were unsuccessful, and rather than unifying the force, hundreds deserted and the military ultimately faced the prospect of its own collapse along confessional lines.⁴ The LAF that emerged from the Civil War in 1990 was a divided fighting force that had Christian and Muslim officers serving in brigades that were mainly homogenous along confessional lines.⁵

The collapse of the LAF in the 1970s and then again during the 1980s also created a power vacuum that Syria could exploit to play an increasingly pivotal role in Lebanese national security and foreign policy. The potential collapse of the LAF and the growing assertiveness of the Palestine Liberation Organization (PLO) – which was locked in a bitter struggle with Maronite Christian militia in a bid to secure its place as a major player in Lebanon – prompted Syria to send heavy armor backed by infantry on the night May 31, 1976.⁶

Fractured, undermanned and ill-equipped, the LAF could do little to restore national order. Syria legitimized its presence in Lebanon from 1976 to 1982 thanks to its central role in the Arab League's Arab Deterrent Force – a 35,000-man force that included some

25,000 Syrian military personnel.⁷ Later, Syria would be the chief architect behind the Taif Accords of 1989 that largely brought an end to the Lebanese Civil War.

Syria moved quickly to control Lebanon's security-military apparatus and asserted near-total control of Lebanon's domestic and foreign politics from 1991 through April 2005. By 1995, Syria could count on General Emile Lahoud, then Commander of the LAF, and Brigadier General Jamil al-Sayyid, the deputy director of military intelligence to execute "the creeping intelligence colonization of state institutions, economic cartels, the media, the courts, the universities and the professional associations."⁸

Syrian penetration of Lebanese public and private institutions presented growing problems for the LAF as Lebanese popular opposition to the Syrian military presence grew in 2004 and 2005. Throughout much of the Civil War and the post-Taif Accord period, Lebanon's Christians have had antagonistic relations with Syria and the Syrian role in Lebanon. In contrast, Lebanon's Sunnis enjoyed generally positive relations with Syria, as did the Shi'a represented by Hizbullah and Amal. The assassination of former Prime Minister Rafik al-Hariri on February 14 2005 played a crucial role in re-orienting Sunni public opinion against Syria.

In light of political developments on the ground, the LAF shifted its position. President Michel Sleiman, then Commander of the LAF, did not carry out orders from the government of Prime Minister Omar Karami to move against millions of Lebanese demonstrators who took to the streets to demand the withdrawal of Syrian forces. With this first step, the LAF set in motion a concerted effort to restore Lebanese public support for the military as it tries to resurrect its role as the vanguard of Lebanon.

The Lebanese Armed Forces and the Lebanese Confessional System

Navigating the Lebanese confessional system presents the Lebanese military with unique challenges. The LAF was and remains a force that is risk-averse and slow to take actions that could undermine force cohesion and cross-sectarian unity in the ranks. Post-war reconstruction of the Lebanese military focused on making it more representative of Lebanon's socio-political and sectarian make-up. Over the 1991-2004 period, the sectarian distribution of the officer corps shifted to one that was roughly 47 percent Christian and some 53 percent Muslim.⁹ The post of LAF Commander, however, continued to be reserved to Maronite Christians.

Being a more representative military force meant that the LAF had to be more socially conscious of its role and place in Lebanese society, while trying to preserve a post-civil war ideology that gave priority to LAF unity above all else. As one senior LAF officer put it, "the LAF represents the 'least worst' characteristics of Lebanese society, but this still means that if there is no unity of purpose at the governmental and national level, we cannot act decisively. Despite our unity as a force, each of us has to go back to our own

town, village and city, and there we cannot avoid the realities of sectarianism in Lebanon.”¹⁰

The LAF is sensitive to its public image. It often turns to media outlets and its official website to communicate its ongoing operations, LAF policies, and to respond to verbal attacks against it by both local and international actors.¹¹ With the exception of the Israel Defense Forces (IDF), and for different reasons, no other military in the Middle East and North Africa engages in similarly high profile, regular and institutionalized public diplomacy with the national body politic.

The LAF remains very positive. Many now consider the military to be the country’s most effective and representative national institution. Polling carried out in July 2008 by the International Peace Institute found that 76 percent of Lebanese supported better arming the LAF for its fight against armed militias.¹² The Lebanese polling and research firm *Information International* carried out its own survey in October 2007 in the wake of the LAF’s fight against Fatah Al-Islam. In light of continued domestic political instability, this survey found that 62.7 percent of respondents were favorable of the military “tak[ing] control of the country for a temporary period.”¹³ While public opinion polling is by no means a perfect measure of national sentiment in a confessional society like Lebanon, polling evidence does provide valuable anecdotal data to better frame Lebanese public opinion concerning the LAF.

An Uneasy Civil-Military Relation

Civil-military relations in Lebanon are not uni-directional. While the Commander of the LAF, General Jean Kahwagi is technically subordinate to the authority of the Minister of Defense, Elias Murr, it is important to note that the authority and recommendations for action in the field flow in both directions.

On most matters, the LAF is comfortable with classical civilian leadership over the military, whereby the military executes the overall orders of the government. However, the LAF command has at times held off on implementing, opposed, or even overturned civilian orders that it felt could undermine the stability of Lebanon or the unity of the LAF as a fighting force. Examples of these include the LAF’s autonomous response to the Fatah Al-Islam terror group attacks in 2007, and the LAF’s mixed response to the Saniora government’s decisions which led to the May 2008 Hizbullah takeover of West Beirut.

These LAF “vetoes” – though rare – are usually handled delicately and in consultations with the Lebanese government, as the LAF command will always try to avert confrontation with the civilian leadership and continue to foster the image that the Lebanese military and the country’s heads of state are on the same page.

As one senior LAF officer stated, “Our challenge is not in the implementation of difficult orders. We can carry out difficult orders. What would make things difficult for the [LAF] is if in the future we are given orders that we could not in good conscience execute

without hurting Lebanon and the [LAF].”¹⁴ The absence of new directives by the civilian authorities on what constitute Lebanese national security interests in the post-Syria era stand in stark contrast to this last statement.

The Struggle over the LAF in Post-Syria Lebanon

The withdrawal of Syrian forces from Lebanon triggered a domestic contest over state institutions. One of the most important battles in the post-Syria era was over the LAF. While the LAF played a crucial role in staving off the threat of civil war in the wake of the Hariri assassination, it could not avoid being marred in the battle over its future ideological orientations and mission in post-Syria Lebanon era.¹⁵

The LAF’s sympathetic attitude toward Hizbullah’s opposition to Israel was diametrically opposed to the “March 14” forces’ attempt to relocate Lebanon to the pro-American “moderate Arab” camp.¹⁶ The political opposition has also had an interest in trying to control and shape the LAF’s post-Syria doctrine, either to avoid diluting Lebanese opposition to Israel, or to keep the LAF and Lebanon from becoming a threat to Damascus.

The LAF considers itself to be the vanguard of the Republic, and officers are taught that the military institution should rise above Lebanon’s political and sectarian rivalries and uphold a more stringent code of civic and military service.¹⁷ This central doctrine within the officer corps has hitherto enabled the LAF to insulate itself from divisive national politics. However, left unchecked, political competition and extreme politicization in the battle for state control can only serve to weaken the LAF as a national institution.

Lebanese Armed Forces Combat Experience in the Post-Syria Era

The presence of over 15,000 to 25,000 Syrian soldiers on Lebanese soil from 1976 to 2005 affected the operational space of a number of players in the country. Syrian efforts to expand Damascus’s umbrella over the Lebanese security vacuum lead to the repeated use of the “Hizbullah card” against Israel – a move that ultimately kept the LAF from carrying out its primary role as the protector of Lebanese territoriality and sovereignty – and all under the guise of “distinct relations” between the Syria and Lebanon under the Taif Accords of October 22, 1989.¹⁸

In the wake of the April 2005 withdrawal of Syrian forces, the LAF found itself having to drastically expand a role it had already been playing since the beginning of its reconstruction: securing Lebanon’s internal peace. Internal political confrontations between the pro-government “March 14” forces and the anti-government “March 8” alliance, the rise of Salafi extremism in the wake of the 2003 U.S.-led invasion of Iraq, and growing international tensions between the U.S., Saudi Arabia and Israel on the one hand and Syria and Iran on the other had serious ramifications for Lebanese security.

From the Israel-Hizbullah war of 2006 to the 2007 fight against Fatah Al-Islam and the May 2008 Hizbullah take-over of West Beirut, the LAF's combat effectiveness and operational planning were affected by eight core variables:

- The LAF's sensitivity to the Lebanese sectarian balancing act
- The ability to act against non-Lebanese actors within the country
- The absence of a post-Syria national defense strategy
- The reactive and defensive force posture of the LAF
- A major LAF internal security role despite the expansion in the size of the ISF
- LAF capabilities/capacity shortfalls due to mission over-stretch
- The absence of modern combat systems essential for the carrying out of decisive LAF combat operations
- The regional balance of power and how it impacts Lebanon

The Israel-Hizbullah War of 2006: The LAF as Bystander to War

The LAF was largely a bystander in the 33-day war between Israel and Hizbullah in terms of combat operations. The LAF's few symbolic actions against Israeli forces were limited to bursts of anti-aircraft (AA) gun fire with minimal targeting and no effect. This is not surprising given the LAF's limited inventory of air defense (AD) systems and the absence of modern radars minimal command, control, communications, computers and intelligence (C⁴I) capabilities.

When the LAF was effective, it was not as a fighting force. Lebanese soldiers played a pivotal role in providing relief to internally displaced Lebanese from the South of the country in addition to playing a lead role in coordinating relief efforts in major urban centers and ensuring the maintenance of law and order.

The LAF's effective "non-engagement" in the war did not keep it from being targeted by Israeli fire. A total of 49 LAF officers, non-commissioned officers (NCOs) and soldiers died during the war across, and Lebanese military installations – including bases and positions near or at the Northern cities of Jbeil, Batroun and Tripoli – were targeted by Israeli attack helicopter. The headquarters of the 5th Infantry Brigade at Qoubbet Chamra about 15 km north of the Nahr Al Bared Palestinian refugee camp was also targeted.¹⁹

Some in the opposition aligned with Hizbullah expressed concern that the LAF did not actively take part in the fighting, but this view constitutes a minority as actors on both sides of Lebanon's political divide recognize that the military were neither equipped nor deployed in a way that would allow it to play a meaningful combat role.

Lessons Learned

In the aftermath of the 2006 Israel-Hizbullah war, about 15,000 troops were deployed to the South and the LAF resumed its main focus on maintaining internal peace and border

security. The 2006 war between Israel and Hizbullah was a sour wake-up call for the LAF. While it was a unifying force at a time of increasing socio-political and sectarian tension, the LAF was acutely aware that Hizbullah did not factor in what could be the reaction of Lebanon's legitimate military forces if the Shi'a group carried out its attack on Israel. Hizbullah, like many other players in the Lebanese political environment, took for granted that what the LAF would or would not do was irrelevant, and that the LAF – fearful for its integrity and force cohesion – did not need to be consulted.

The LAF and supporters of a more robust national military apparatus learned the hard way that in order to discourage, contain and block future Hizbullah cross-border operations that do not enjoy the full support of Lebanon's various political actors, the LAF would have to become a force that cannot be side-stepped by Hizbullah or any other Lebanese faction in the context of Lebanon's sovereignty and national security.

The Fight against Fatah Al-Islam in 2007: Hard Lessons and the Cost of Attrition

On May 19, 2007, an Islamist group known only as Fatah Al-Islam robbed a bank in Tripoli before returning to the nearby Nahr Al-Bared refugee camp. The group was originally pursued by the Internal Security Forces (ISF), which was unable to apprehend the militants. The security situation near Tripoli continued to deteriorate and Fatah Al-Islam terrorists brutally killed nine Army servicemen while they slept in their barracks.

The "March 14" forces accused Syria of supporting the group, while the "March 8" forces retorted that the Hariri family, Saudi Arabia and other Sunnis in Lebanon financed and supplied the group with arms. A number of Lebanon observers point to the fact that the two accusations are not mutually exclusive.²⁰ The Brookings Institution's Bilal Saab writes that "Fatah Al-Islam is not merely a Syrian tool, but an actual jihadist group whose goals are inimical to Syrian interests."²¹

Syria attempted to manipulate the group to achieve its own ends, although it ultimately lost control of it. The same appears to be true of Lebanese Sunnis aligned with "March 14" who initially backed Salafi groups in the North to increase their chances of winning Lebanon's first post-Syria parliamentary elections in 2005.²² Both Syria and "March 14" would ultimately see Fatah Al-Islam as a threat to both Lebanon and Syria.

Regardless of Fatah Al-Islam's true origins, the fighting that ensued proved to be the most important military operation carried out by the LAF in the post-Civil War period. Despite tragic military losses and the evacuation of the camp's more than 30,000 Palestinian inhabitants, the fighting at Nahr Al-Bared was the one true opportunity for the Lebanese military to gain major combat experience in counter-insurgency and asymmetric warfare against a well armed and well trained force.

Combat Operations

LAF senior officers were aware of the potential threat posed by Fatah Al-Islam prior to the attack on its barracks, and moved closer to Nahr Al-Bared to maintain tighter control of the camp. Given the military's concern for national sectarian stability and consensus, the LAF felt it was not in a position to go on the offensive and risk the wrath of North Lebanon's conservative Sunnis.

The LAF knew in advance that it could come under attack, but it felt obligated to act in reaction to an external attack.²³ The indiscriminate brutality of the terror group's initial encounter with the LAF mobilized public opinion across sectarian lines around the Lebanese military, ultimately leading it to undertake a four month-long bitter military campaign against the terrorists.²⁴ It is also important to note here that the LAF's response to the terror group was largely autonomous of the civilian government: there was a good deal of disagreement surrounding whether or not operations within the camps should take place. Both Hizbullah and members of the pro-government March 14 forces hesitated to condone the move. The LAF proceeded with its plans to confront the group without complete political cover.

The 5th Infantry Brigade, based at Qoubbet Chamra and responsible for the Akkar region, was the main force in the fight against Fatah Al-Islam, in addition to several hundred special forces troops. In the aftermath of the 2006 war, the 5th Infantry Brigade – which consisted of three infantry battalions, one artillery battalion and one tank battalion – deployed its three infantry battalions to carry out border security operations in accordance with United Nations Security Council Resolution 1701.

The deployment of as many as 1,500 men to the northern border with Syria left the 5th Infantry Brigade's original headquarters (HQ) vulnerable and undermanned. To compensate for this deficiency, the Brigade moved its HQ in 2007 from Qoubbet Chamra to the air base at Qlai'at north of the Nahr Al-Bared refugee camp. Despite being undermanned and lacking the flexibility of infantry battalions, the 5th Infantry Brigade's artillery regiment began to carry out patrol operations around the Nahr El-Bared camp in early 2007 while the Brigade's tank battalion took up defensive positions around the perimeter of the camp. The Brigade's location at Qlai'at was not ideal, but senior military officials thought it to be the only suitable location to provide adequate over-watch of the Akkar region, the Lebanese-Syrian border, and the Nahr Al-Bared refugee camp. The 5th Brigade was also tasked with cooperating with the ISF on border security.

When hostilities broke out between the LAF and Fatah Al-Islam, the 5th Infantry Brigade moved its HQ once more to the town of Al Mahmra. The refugee camp had an average topographic height of 4-12 meters above sea level. In contrast, Al Mahmra was at 50-60 meters above sea level and provided the ideal location and superior over-watch for command and control of combat operations at the camp. The 5th Infantry Brigade executed combat operations in collaboration with four special forces (SF) units: the Ranger Regiment,²⁵ the Marine Commando Regiment, the Airborne Regiment and the 3rd Intervention Regiment.

Elements from other combat units were deployed to Nahr El-Bared to supplement the under-strengthened 5th Infantry Brigade. These included elements from the 3rd Infantry Brigade, the 7th Infantry Brigade and the 12th Infantry Brigade. However, as a mechanized brigade, only the 5th Brigade benefited from artillery and tank units. The Support Brigade's Engineering Regiment soon joined the fray and began to carry out demolition and clearance operations as Fatah Al-Islam had taken steps to render access to the camp as difficult and as lethal as possible. The 1st Artillery Regiment and the 2nd Tank Regiment supplemented 5th Infantry Brigade's artillery and tanks.

In all more than 2,000 LAF troops took part in the Nahr Al-Bared operation.²⁶ The need to redeploy troops from other mission areas was a necessity, as it was unclear at the onset of fighting whether or not the 5th Infantry Brigade's infantry battalions would be able to reintegrate into the main force without compromising border security.

It is important to recall here that for the better part of the post-Civil War period, the LAF had been carrying out mainly internal security, counter-infiltration and border patrol operations. The LAF had vintage 1950s tanks, limited towed artillery units with poor targeting and counter-battery capabilities. LAF soldiers had no night-vision goggles (NVGs) for night time combat, no sniper rifles with scopes, and many did not have adequate body armor. Despite their reputation and superior training, Lebanon's special forces units engaged in the fighting were not much better equipped.

The LAF had poor stockpiles of munitions when the fighting began. In addition to contributing to poor overall marksmanship, it also left the LAF concerned that despite the size of the Lebanese military presence in and around the camp, LAF troops could have run out of ammunition before their enemy did.

Overall, Fatah Al-Islam had more lethality on a 1-to-1 basis with LAF troops. In addition to access to NVGs for night operations, the militants had sniper rifles with scopes, access to stockpiles of Palestinian heavier weapons, including Katyusha rockets, RPG-7s and mortars. Perhaps most importantly, Fatah Al-Islam had intimate knowledge of the layout of the refugee camp, enabling them to keep LAF forces off-balance, wearing them down with hit and run attacks, sniper fire and booby trapped buildings.

The Support Brigade's Engineering Regiment and other engineering and demolition units were crucial in tackling Fatah Al-Islam traps and improvised explosive devices (IEDs) that had ground the pace of the battle down to a halt. These units did not have armored equipment to facilitate their operations under fire. LAF troops were forced to improvise and armored-up civilian bulldozers by encasing the driver's cabin in a metal cage filled with sandbags while soldered steel plating offered some protection against Fatah Al-Islam snipers and IEDs.²⁷

Lebanese U.S.-built M-48A5s were deployed at Nahr Al-Bared, as were Russian T-54/55s. These units were used primarily in support of infantry and SF units, and while they did give ground units added protection, short range targeting of militant positions both demolished buildings and turned them into makeshift fortifications as well. LAF 120

mm and 130 mm artillery batteries were also used to pound enemy position to no better effect and with only limited ranged fire and poor overall accuracy.

Combined maneuvers between tanks, infantry and artillery would have been more effective were it not for the infrastructure density of the camp. LAF units had little room to maneuver, were often exposed to enemy fire, lacked up-to-date intelligence on enemy positions and, crucially lacked much needed air support. At the end of May 2007, the U.A.E. sent SA-342L *Gazelle* attack helicopters to augment the LAF's air assets. However, these systems lacked much-needed air-to-ground missile capabilities.²⁸

While foreign assistance in the form of ammunition and light combat equipment started to flow into the country, the LAF was frustrated by the slow pace of assistance given the immediacy of ongoing combat operations. With regards to augmenting its air capabilities, the LAF did what it had grown accustomed to: it improvised. Using parts from some of its Hawker *Hunter* fighters, *Mirage* IIIEL/BL components and global positioning system (GPS) receivers, the LAF was able to modify some of its UH-1 helicopters to carry unguided bombs under makeshift pylons.

While 250 kg munitions were initially used for aerial bombardment, the LAF quickly shifted to 400 kg bombs as they were more effective against Fatah Al-Islam's fortified positions in the older part of the camp.²⁹ These drastic measures were necessary, given the limited effect of LAF artillery fire and the high degree of fortification offered by bomb shelters in the camp – which had offered protection to Palestinians from Israeli air strikes during the 1970s – used by the militants.³⁰ The LAF tactic ultimately proved to be the right one.

In the final tally, 169 LAF soldiers, 222 militants and about 42 civilians lost their lives. Given the level of destruction at the camp in part thanks to the necessity of using heavy explosives and artillery fires, fatalities would have been significantly higher had not the LAF taken immediate steps to evacuate the camp's 40,000 Palestinian residents. **Figure 1** shows a timeline of the fatalities during the conflict. With the exception of the initial 27 officers, NCOs and soldiers killed on the first day of fighting, casualty rates averaged about one death per day for the duration of the offensive. This highlights the cost of attrition paid by the LAF, given that it was not equipped or trained to neutralize Fatah Al-Islam quickly and decisively in an urban combat context.

Figure 2 shows LAF fatalities by fighting force and by region of origin. There were some who expressed the view that the LAF had sent mainly Sunni troops to confront a Sunni threat. The forces responding to Fatah Al-Islam included a high number of voluntary conscripts. 10,500 such volunteers – many of them from North – are active in the LAF, and traditionally operate near their towns, villages and cities of origin.³¹ While the bulk of fatalities were from the North and Tripoli, this was due to standard LAF operational and organizational practices governing troop deployment and not due to sectarian calculations.

As **Figure 2** clearly shows, the 5th Infantry Brigade suffered the highest casualty rate, including 6 officers, 17 soldiers and 30 soldiers for a total of 53 dead. Such a high number of deaths can be explained by the 5th Infantry Brigade's combat role over the length of the four-month operation at Nahr Al-Bared. SF fatalities were also very high. Some three hundred special forces troops, acting in conjuncture with the 5th Infantry Brigade, were engaged at Nahr Al-Bared. In all 90 special forces personnel were killed in action – more than 50 percent of total combat fatalities. The Airborne Regiment saw 39 killed in action, while the Marine Commando Regiment and the Ranger Regiment had 25 and 23 combat deaths respectively.

Lessons Learned

The price in blood paid by the LAF at Nahr Al-Bared was high by Lebanese standards, but the military ultimately did what it could to adapt to rapidly changing combat parameters on the ground. LAF commanders were also the first to recognize their operational failures, and lessons learned are being integrated should there be a need to carry out similar counter-insurgency operations in the future.

The confusion in the lead-up to the Nahr Al-Bared operation highlighted the need for improved cross-agency and cross-ministerial communication. The fighting also refocused attention on the stalled national debate on security in Lebanon. There were reports that the ISF did not adequately communicate its May 19, 2008 operations against Fatah Al-Islam to the LAF.³² It is likely that clearer warnings from the ISF of potential attacks on LAF positions could have saved lives simply by virtue of prompting the LAF to adopt a higher state of readiness.

The fighting at Nahr Al-Bared highlighted not only the need to augment the LAF's conventional forces, but also the need to take steps to ensure Lebanese special forces have the training and equipment they need to remain elite forces. Lebanese combat engineers and demolitions teams were crucial in dealing with heavily fortified enemy positions protected by IEDs. However, these forces lacked adequate protection and would have particularly benefited from the use of armored bulldozers.

Regular forces at Nahr Al-Bared were at a distinct disadvantage when confronting the terror group mainly because they lacked the necessary equipment to carry out successful counter-insurgency operations with minimal friendly losses and collateral damage. The LAF identified the need for NVGs, sniper rifles, better combat communications and a renewed emphasis on training in marksmanship and artillery fires as some of the core lessons learned for conventional Lebanese ground forces.

Insufficient levels of ammunitions in inventory was a major concern as the fighting dragged on, and U.S. resupply efforts proved pivotal during the fighting. The LAF needs to ensure that should it have to carry out similar operations in the future, it has the necessary stocks of equipment and munitions for operations lasting more than a few days or weeks.

Lebanese SF regiments' coordination with the 5th Infantry Brigade's tank assets may have suffered from poor communications. SF units were far too reliant on the presence of heavy armor, and were reluctant to advance without tank cover. This is not surprising, however, given that Lebanese infantry and special forces alike were highly exposed to enemy sniper fire and IEDs. The lack of meaningful LAF sniper counter-fire, the complete absence of any real air support or armored bulldozers for demolition duty meant that the protection offered by LAF tanks could not be understated.

SF units also made use of 5th Infantry Brigade's tanks in a close-range artillery role. Special forces were neither trained for – nor were they expected to take part in – tank operations. SF units brought Lebanese armor within 50 meters of enemy positions. 5th Infantry Brigade tanks were exposed to, and ultimately hit by, Fatah Al-Islam RPG fire. In addition the increased exposure of LAF tanks undermined ammunition resupply and logistics operations, forcing the LAF to execute resupplies at night. Again, such tactics would not have been employed had the LAF enjoyed the benefit of air power – be it fixed wing or rotary – to provide cover and targeting in support of ground forces.

Although SF fatalities remained high by any measure and showed LAF Command that it needed to address both regular and SF units' levels of readiness training and equipment. Communication could have been better between SF units and the 5th Infantry Brigade, however, given limitations in combat communications equipment, it may come as no surprise that the LAF suffered the casualties it did.

Perhaps the most important lessons learned from Nahr Al-Bared is that the LAF is far more capable and willing as a fighting force than many – both inside and out of Lebanon – gave it credit. Despite being caught off guard by Fatah Al-Islam's initial attack, the LAF overcame many of its limitations thanks in no small thanks to the ingenuity and forward engagement of LAF troops.

Hizbullah and the Beirut Clashes of May 2008

On Tuesday May 6, 2008, the government of Prime Minister Fouad Saniora announced that it would close down Hizbullah's private communications and fiber-optic network connecting its HQ in Southern Beirut with its nodes in the South and East of Lebanon. This move followed a government decision to relocate Brigadier General Wafic Shoukeir of the Lebanese Armed Forces – then head of security at Rafik al-Hariri International Airport – under the pretext that he was too close to Hizbullah.³³

Hizbullah has one of the most effective command and control infrastructures of any militia or non-state armed group – certainly the most effective in the Middle East. Hizbullah's fiber optic network in particular allowed it to coordinate complex battle and deployment orders during the 2006 Israel-Hizbullah War, and the group turned to wireless communications only when no other options were available to it under fire. Not only is the network integral to the group's command and control structure, it doubles as an intelligence gathering and distribution system.³⁴

A number of allegations persist surrounding the logic behind the government decrees. Hizbullah's network was not new, however it had been consistently upgraded over the years to meet the group's needs. Given that Hizbullah had maintained regular contact with the LAF and various groups within the Lebanese political sphere on both sides of the country's political divide, the group interpreted the move to shut down its network as a direct threat to its status not only as a political actor, but as an armed militia seeking to maintain its weapons arsenal.

The decision to remove Shoukeir was equally provocative amidst reports the LAF was not properly consulted by the central government on the matter. High ranking officers are expected to be appointed with the blessing of their sect's leaders, and their dismissal or redeployment is subject to similar scrutiny.

On May 7, 2008 Hizbullah engaged in running battles in predominantly Sunni West Beirut with Lebanese Sunni fighters aligned with the anti-Syrian government of Fouad Saniora. Fighting quickly spread to the Chouf Mountain – the traditional bastion of the Druze community – and to Tripoli in the North.

Hizbullah wanted to show its local opponents that it meant business and the LAF Command was initially caught in the crossfire. The military had maintained broad national deployment since August 2006 with minimal time in barracks and a high mission load with little time for training. In addition to these constraints, the LAF was well aware that challenging predominantly Shi'a Hizbullah and its allies Amal and lesser players such as the Syrian Social Nationalist Party (SSNP) may rupture its ranks and undermine LAF cross-confessional unity.

Fighting Fatah Al-Islam presented fewer operational difficulties than confronting Lebanese actors. The LAF has shown that it can confront non-state actors in a defensive role, especially when they are not Lebanese and the military feels it enjoys broad popular support. The deaths of Lebanese civilians in a crossfire involving the LAF could undermine force cohesion in the ranks. The LAF also took into consideration – and was sensitive to – earlier clashes between the Army and supporters of the political opposition and Hizbullah in January, 2008 when seven Shiite protestors were killed by Army gunfire.³⁵

The LAF had three options: side with the government, side with Hizbullah or do nothing and opt to carry out damage control. Despite some coordination with Hizbullah, which will be discussed later, the LAF Command opted for the third option. On May 10, 2008, the LAF overturned the government's two decisions regarding Hizbullah's network and the re-assignment of General Shoukeir to his post as head of airport security, adding that it wanted to handle the crisis by taking steps "that would not harm public interest and the security of the resistance."³⁶

The LAF drew immediate criticism from those aligned with the government on the basis that it was working in tandem with Hizbullah in Beirut. The LAF had moved quickly to establish checkpoints and show its presence in areas affected by the fighting, but it did

not intervene directly until the fighting died down. Then-Commander of the LAF, General Michel Sleiman responded to critics, saying that the events in Beirut and throughout the country represented “a real civil war that no national army in the world can confront. Major states encountered such wars and [their] armies could not contain the fight.”³⁷

There were conflicting reports that some 40 LAF officers – most of them Sunni – submitted their resignation protesting the LAF’s non-intervention in West Beirut.³⁸ On May 13 2008, the LAF Command stated that no resignations had taken place, adding that the Lebanese media should not get involved in internal LAF matters.³⁹ More than anything else, this point underscores the LAF’s primary concern throughout the entire crisis: maintaining LAF cohesion and neutrality

Lessons Learned

In the afterglow of the LAF’s success at Nahr Al-Bared, its sensitivity to national sectarian politics and its own legacy of institutional collapse signaled that the force was still far from achieving immunity to local socio-political ebbs and flows.

The May 2008 confrontation also brought the LAF face to face once more with the realities of its contradictory relationship with Hizbullah. The Shi’a group was able to quickly relinquish areas of West Beirut under its control only because the LAF was there to create security zones. Were it not for the LAF, Hizbullah would have had to contend with being perceived as an occupying force in predominantly Sunni areas.

This cooperation was perceived as necessary to defuse the crisis, but the LAF was also confronted by the realities of the 2006 war, namely that an armed militia with superior capabilities, training and autonomy within Lebanon was not acceptable. 2006 may have been the wake up call, but May 2008 was an alarming reminder that little had been done since 2006 at the national level to develop the LAF into a force that would make Hizbullah think twice before taking unilateral action.

Ultimately, the election of then-LAF Commander General Michel Sleiman to the Presidency would re-emphasize the stabilizing role played by the LAF in the Lebanese national arena. The events of 2008 brought back into focus the need for the LAF to stay on course with the buildup of its fighting capability, upgrading its systems, upgrading and up-arming SF units, and, under the leadership of President Sleiman, redouble the country’s efforts to make the LAF a more modern, mobile and capable fighting force in the next few years.

Regional Challenges and Contradictions of the Lebanese Armed Forces

As was discussed above, the LAF has to balance its actions and policies to take into account the interests of Lebanon’s many confessional groups. Similarly, and in good part

due to the absence of an overarching and commonly agreed upon Lebanese national defense strategy, the LAF also has to balance contradictory policies and positions concerning major local, regional and international players. Chief among these actors are Syria, Hizbullah, Israel and the U.S.

The Lebanese Armed Forces and Syria

The LAF officially characterizes its relations with Syria as brotherly and natural within the social and geographic contexts of the Levant, common Arab roots, and a common enemy in the form of Israel.⁴⁰ In reality, LAF-Syria relations are far more nuanced.

The LAF saw the emergence of Syria as a major military power in the 1970s and 1980s and, in the context of the Civil War, different elements of the LAF had different views of Syria's intervention. Lebanon's Christians viewed Syria with distrust.⁴¹ In 1989, mainly Christian elements of the LAF under the command of General Michel Aoun – Commander of the LAF from 1984 to 1989 – waged an ill-fated war on Syria and her allies in Lebanon.⁴²

In the post-Taif period, relations between Syria and the LAF were defined under the context of the May 22, 1991 Treaty of Brotherhood, Cooperation and Coordination and the September 1, 1991 Defense and Security Agreement, which harmonized Lebanese security and foreign policy objectives with those of Syria.⁴³ While the Treaty stipulated that Syria, in coordination with Lebanese authorities, would “redeploy” Syrian forces to the Bekaa Valley with an eventual total withdrawal from Lebanon thereafter, Syria ultimately did not abide by the treaty.

The May 22, 1991 Treaty was further bolstered by the Syrian-drafted Defense and Security Agreement, which was ratified by the Lebanese Parliament on September 26, 1991. In addition to providing for regular contact between the LAF and the Syrian Armed Forces, three core elements of the Agreements stood out:⁴⁴

- Paragraph 211: The prohibition of any activity undertaken by military, security, political or media institutions in either country that could cause “prejudice to the other country.”
- Paragraph 212: Lebanon and Syria were to not provide “shelter for, facilitate the passage of or provide protection for individuals and organizations operating against the security of the other state.”
- Paragraph 214: Streamline the sharing of security and intelligence information between Lebanon and Syria “with the aim of having a common vision of eventual dangers and their dimensions,” and when appropriate, “to create joint organs from the defense ministries of both countries to follow up and supervise the implementation of this coordination between [Syria and Lebanon].”

The Agreement acted as a rubberstamp for Syrian domination of Lebanese civil society as well as Lebanese security and military institutions. While the U.S. would go on to play a major role in the post-Civil War era in terms of re-equipping and training the post-war

LAF, the Syrian military played an important role in shaping the LAF officer corps from 1991 to 2005. It is important to note, however, that Syrian military training did not translate into LAF deference to Syrian interests.

From 1990 to late 2002, the U.S. tacitly accepted Syrian domination of Lebanon. However, the U.S.-led invasion of Iraq in 2003 and the escalating rhetoric of regime change aimed at Damascus put Syria on the defensive. Accordingly, Syrian actions, interests and decision-making towards Lebanon and the LAF during the presidency of Bashar Al-Asad are best explained by balancing and regime security considerations. In the wake of the fall of Baghdad, Lebanon served to promote Syrian regional interests in addition to buffering Syria against perceived threats to regime stability posed by the U.S., Israel, Saudi Arabia and France.⁴⁵

The assassination of former Prime Minister Rafik al-Hariri in 2005 severely undercut Syria's relations with the LAF, and the popular upheaval against Syria threatened Syria's use of Lebanon in furthering its own geostrategic interests. The Security Agreement was suspended after the withdrawal of Syrian forces from Lebanon in April of 2005. There was no overt rupture between the LAF and Syria; however Lebanon's two former LAF Commanders – General Emile Lahoud and General Michel Sleiman – both came to office under the aegis of Syria's presence in Lebanon. Recognizing Lebanon's need for sovereignty and territoriality, Sleiman was and remains a moderate who felt a more balanced relationship between Lebanon and Syria was long over-due. Sleiman was also careful to show Syria that the LAF did not present an overt threat to Damascus in the post-Syria era.

There is a persistent fear in Lebanon that Syria wants to return its military forces to the country. Ironically, the exit of Syrian troops from Lebanon benefited Syria first and foremost. Damascus's 30 year presence in Lebanon had further corrupted its own military establishment and generated resentment of the regime's decadence within the larger Syrian public.

By withdrawing all its forces, Syria also learned that it did not need to be in Lebanon in order to impact political outcomes in its favor. Syria can achieve far more of its political and economic aims in Lebanon through local allies than it ever could through violence and military belligerence.⁴⁶ In addition to maintaining close ties to Hizbullah, Amal and other pro-Syrian factions, Syria continued to maintain positive relations with Lebanese Sunni, Druze and Maronite actors.

Syria continues to offer training for Lebanon's armed forces, and in the summer of 2007, the LAF counted on the support of Syria to provide ammunition and parts for its campaign against Fatah Al-Islam. Lebanon and Syria also share an increasing radical Islamist threat. On September 27, 2008, a car bomb killed 17 people on a busy intersection in Damascus.⁴⁷ Blaming the attack on Islamist militants, Syria moved to secure its southern border with Lebanon under the guise of securing Syria against future attacks. Senior LAF personnel felt that the Syrian deployment of more than 10,000 troops

along the Syrian-Lebanese border was for security reasons and not a precursor for the return of Syrian troops to Lebanon.⁴⁸

While LAF-Syria relations are not as they were prior to the withdrawal of Syrian troops, they will continue to be contradictory for the foreseeable future. Lebanon – and consequently the LAF – continues to fit into Syria’s regional balance of power calculus, and the absence of national consensus on how to approach Syria contributes to Lebanon being played rather than being a player. However, as was discussed above, Syria seems to have learned that turning to its allies across Lebanon is more productive than turning to its military or intelligence services. As for bilateral military relations, the two militaries will continue to cooperate on border security and counter-terrorism operations despite continued political instability in the aftermath of the Hariri assassination and Syria’s withdrawal from Lebanon.

The Lebanese Armed Forces and Hizbullah

On paper, the LAF and Hizbullah are mutually re-enforcing forces in post-Taif Lebanon. In terms of official doctrine, the LAF defines its relation to Hizbullah as follows:⁴⁹

“The internal agreements and the universal declarations give all peoples the right to resist occupation and aggression and to defend themselves using all means that enables them to survive. Under this umbrella, the Lebanese Resistance against the Israeli occupation of Lebanese territories is a legal right which ends up only with withdrawal of occupation. This Resistance, which has been supported by the government, the army and the civilians, has led to the defeat of the enemy on Lebanon’s land. But the enemy is still located in Sheba the Farms, in places of great strategic and economic significance. Therefore, the Lebanese have the right to fight the enemy until it withdraws.”

Hizbullah views its relations with the LAF, its armed status and security details as natural and necessary given the latter’s weaknesses as a fighting force. In 2005 Hizbullah Deputy Secretary-General Naim Qassem expressed the Shi’a group’s views on the matter:⁵⁰

“The alleged reasons that some Lebanese have provided for deploying the army in the South were not convincing, inconsistent with [Hizbullah’s victory in the South in 2000], and incapable of achieving their publicized goals (...).

(...) Where the objective is to secure borders against Israeli aggression – essentially an army role, the army being the palisade and protector of national boundaries – then it is public knowledge that the Lebanese army is much weaker than its Israeli counterpart, and an Israeli decision to invade Lebanon (...) would be faced by army retaliation of a limited effect (...).

[There is a desire] to deploy the army in the South in order to forbid the Resistance and any other faction or force from undertaking operations against Israel, be they in the Shebaa Farms or otherwise. In our view, this would only serve to remove Lebanon from the circle of confrontation with the Israeli enemy (...).

(...) The occupation is still represented by the seizure of the Shebaa Farms, the capture of *mjahideen* and their imprisonment by Israel, the danger of naturalizing the Palestinians in Lebanon, and Israel's expansionist avarice for land and water (...).

Who said that Lebanon is capable of remaining neutral? Lebanon's geographic and political positions impose two alternatives on the country: either an allegiance to Syria or an allegiance to Israel. It is only natural for us to choose the former (...).

Refusing to deploy the Lebanese army in the South is a wise decision that Hizbullah supports (...). Even if [segments of the Lebanese] supporting such an alternative do wish it, claims for closing the southern front serve only Israel (...)."

In reality and in spite of their stated guidelines, relations between the LAF and Hizbullah are more nuanced. Despite a history of continued cooperation in the post-Civil War era, LAF-Hizbullah relations are at times marked by competition loosely veiled by the mantra of resistance and Lebanese security. Both recognize the other's right to operate as a legitimate fighting force in the name of wider Lebanese national interests. However, as Qassem clearly stated, the LAF's perceived weakness as a fighting force were taken as a given by Hizbullah. In addition to its capacity and capabilities weaknesses, Hizbullah does not believe the LAF has the commitment or will of purpose to confront Israel. Nevertheless, Hizbullah has been careful not to embarrass the LAF's southern deployment, and consequently downplays the redeployment of its militiamen in the border area.⁵¹

In the post-Syria era, both Hizbullah and the LAF seek to check the areas of operation and the potential rise of the other. Jane's reported in mid-2006 that Hizbullah maintained the most sophisticated intelligence gathering infrastructure of any actor in the Levant with the exception of Israel, making use of reconnaissance drones and modern eavesdropping equipment in addition to signals and human intelligence. It went on to report that Hizbullah's intelligence services were geared towards providing early warning against any potential moves from other players within Lebanon to allow Hizbullah to take preventive action to preserve its social, political, security and military interests.⁵² Senior LAF command officers currently still in service have corroborated these reports adding that Hizbullah maintains active and regularly updated intelligence dossiers on mid-level and high-level LAF officers in active duty.⁵³

In the context of the LAF's fight against Fatah Al-Islam, Hizbullah opposed the LAF entering the camp to root out the terrorists. On May 27, 2007, Hizbullah Secretary General Hassan Nasrallah commented that:⁵⁴

"The army is a red line and should not be harmed. Whoever kills an officer or any member of the army should be prosecuted and punished. At the same time, the [Nahr Al-Bared] refugee camp is also a red line. We cannot be partners in covering up a war within the camps."

Despite the strong tone of this statement, Hizbullah offered no real opposition to the LAF's operations in the camp. Indeed, Hizbullah played a significant role in keeping

other Palestinian camps quiet as the LAF during the Nahr Al-Bared battle. The ambiguities in Hizbullah-LAF relations are mutual.

Competition and mistrust has not stopped the LAF and Hizbullah from sharing intelligence and coordinating on security operations. The LAF has been deployed in the South since the end of the 2006 Israeli-Hizbullah War, and while this new reality-on-the-ground has challenged Hizbullah at home, the LAF's neutrality and tacit support of Hizbullah's mantle of resistance during the war smoothed the expansion of LAF areas of operation in the South. This was also illustrated when the LAF was handed over security areas held by Hizbullah during the May 2008 fighting against pro-government forces.

LAF-Hizbullah day-to-day relations have continually been placed under repeated strain by the overlapping military deployments of the two military forces. The most recent such incident was in late August, 2008, when an LAF SA-342-K Gazelle helicopter on exercise near the southern village of Sojod was shot down by Hizbullah militants for entering a Hizbullah security zone. The shooting, which killed the helicopter's navigator, was quickly labeled an accidental "friendly fire" incident by both groups, but it still created a degree of tension between the LAF and Hizbullah. Allegations that Hizbullah continues efforts to augment its inventory of short and medium range rockets – which would violate UNSCR 1701 and undermine the LAF and UNIFIL's deployment in South Lebanon – have also added to the tension.

Were it not for regular communications and coordination between the two groups – and the fact that the LAF, UNIFIL and Hizbullah coordinate regularly on security matters in the South given the proximity of all three armed forces in the region – the incident could have had far more destabilizing consequences. In private, senior LAF officers expressed outrage at Hizbullah for the incident, but little else.⁵⁵

One key challenge to Hizbullah that ultimately benefits the LAF is the group's increasingly sectarian identity and future political role in Lebanon. While Hizbullah is a Shi'a movement, it has made an effort to define itself as a cross-confessional and Lebanese national resistance movement against Israel. It succeeded in legitimizing much of the group's actions in the 1990s and early 2000s, protecting the group's armed status by insulating itself from domestic Lebanese politics.⁵⁶

The summer 2006 Lebanon War and the confrontation between pro- and antigovernment forces from 2006 to 2008 have undermined Hizbullah's efforts to give "the resistance" a Lebanese facade, as did a failed sit-in against the Saniora government. A Crisis Group report in October 2007 characterized Hizbullah as adopting an increasing deterrence-based military strategy, rather than one based on resistance, and Hizbullah remains a sectarian faction in a country where new confessional struggles are all too possible.⁵⁷

As was discussed earlier, fighting broke out in Beirut between pro and antigovernment supporters in early May 2008, wherein Hizbullah crossed one of its own red lines and turned its weapons on fellow Lebanese. These successive events are symptomatic of the growing pressure not only on the Lebanese political and state superstructure, but also on

Hizbullah as an extra-governmental armed group. Going into 2009, the LAF is the only truly cross-sectarian institution – military or otherwise – in Lebanon. While Hizbullah has not weakened politically or militarily, the LAF has strengthened its position as a cross-sectarian fighting force that represents the broadest possible swath of Lebanese groups.

Hizbullah's disarmament and integration into the LAF – partial or otherwise – cannot be de-linked from either domestic Lebanese political developments or from a lasting regional settlement that includes Israel and Syria.

With increasing tensions in the region the prospect of the LAF rapidly supplanting Hizbullah as the guarantor of Lebanon's southern border seems unlikely. The LAF is not the force it was during the 1960s: around 30 percent of LAF officers are Shi'a,⁵⁸ making it very difficult for the military to move against Hizbullah. This is further compounded by LAF senior personnel holding contradictory views of the Shi'a group and its role in Lebanon and the region. Despite being the most powerful faction in Lebanon, Hizbullah is still a minority faction and faces the possibility that LAF capabilities will improve to the point where Hizbullah's armed status will become increasingly illogical.

The Lebanese Armed Forces and Israel

The LAF recognizes Israel as Lebanon's primary antagonist and enemy,⁵⁹ but of all the Arab armies that have confronted the Israel Defense Forces (IDF), the LAF has been the least committed ideologically and the most limited in terms of manpower and capabilities. The LAF has never been a true threat to Israel, and despite stated rhetoric, there are no grounds on which to expect the LAF to overtly or covertly seek confrontation with Israel – or Syria – on the battlefield.

The LAF can characterize its relations with Israel as due to regular Israeli over-flights of Lebanese airspace, intermittent violations of Lebanese territorial waters – all of which undermine UNSCR 1701 and the LAF and UNIFIL security deployments in South Lebanon – and the occupation of the Shebaa Farms, a roughly 20 square mile area under Israeli military control. The Lebanese government and Syria contend is Lebanese sovereign territory while Israel and the UN dispute this claim, and assert that the Shebaa Farms belong to Syria.⁶⁰

The LAF has no significant position on Lebanese-Israeli moves towards a long-term peace, opting to relegate the issue to the country's civilian leadership and the political process. Should final peace talks move in a positive direction, the LAF would hardly oppose them. In absolute terms, the LAF does not see the long-term interest of Lebanon being in a perpetual state of war with a country where the outstanding issues of interest to Lebanon – the Shebaa Farms and Israeli violations of Lebanese sovereignty – are not insurmountable.⁶¹

The LAF poses no military threat to Israel, and while Israel by in large bares no direct hostility to the LAF, its perceptions of the Lebanese military are largely informed by the

LAF's relations with Hezbollah and Syria. Key elements of Israeli foreign policy towards the LAF include:

- The need to secure Israel's northern border with Lebanon
- Minimize the threat of rocket fire, presumably from Hezbollah, into Israeli urban areas in the north of the country
- The re-armament of Hezbollah in the wake of the 2006 Israel-Hezbollah war.
- The inability or the unwillingness of the LAF to disarm Hezbollah and other armed groups operating in South Lebanon.
- The perceived weakness of the LAF and UNIFIL in implementing UNSCR 1701.
- Repeated and continued cooperation and/or collaboration between Hezbollah and the LAF

Israel views any group or institution maintaining good relations with Hezbollah with suspicion, if not a threat, including the LAF.

Israel has not undertaken military operations in the post-Civil War era where the aim was to deal a decisive blow to the Lebanese military. Most if not all Israeli military operations have focused on Hezbollah and other non-state actors that have made fighting Israel their core *raison d'être*. When the LAF incurred casualties as a result of Israeli fire, as in the case of the 2006 Israel-Hezbollah war, it did so for two reasons: because Israel thought the LAF was cooperating with Hezbollah, or because LAF personnel were at the wrong place at the wrong time.

In addition to the ambiguities of the LAF's relations with Hezbollah, Israel is suspicious of the LAF for its hot-and-cold relations with the Syria and the Syrian military. The LAF has also maintained a delicate balance between close ties and overt autonomy in its relations with Syria. In a country polarized along pro and anti-Syrian lines, this balancing act continues to stabilize Lebanon. Once again, however, Israel views LAF-Syria relations with suspicion, and will continue to do so for as long as the Israel-Syria peace track remains stalled.

It is also important to note that Israel's perception of the LAF is determined by another factor: the LAF's relative weakness as a fighting force. Israel has grown accustomed to being next to an unstable Lebanon with an under-manned, under-equipped and under-funded national military. These realities fall in line with Israel's preference that its Arab neighbors maintain limited military capabilities, thereby adding to Israel's already tremendous quantitative and qualitative military edge.

Israel views the potential development of Lebanon's military with even older systems such as M-60 main battle tanks (MBTs) – which are considerably outclassed by Israeli *Merkava* Mk-1-4s – as alarming and a cause for concern given the risk that new weapons could fall into the hands of Hezbollah. This fear is unfounded as Hezbollah's force structure, resources and doctrine are not suited to integrating conventional systems such as MBTs, helicopters or combat aircraft – all of which would be easy targets for Israeli fire.

Israel's perception of the LAF remains on shifting sands. In the wake of the 2006 Israel-Hizbullah war, there was an overarching sentiment that the LAF's deployment to the south was an important step towards quieting the Israel-Lebanon border with positive security ramifications for both Israel and Lebanon.⁶² More recently, however, there have been some who advocate not only retaliating against Hizbullah in any future war, but also using disproportionate military force against Lebanon as a whole, including national infrastructure, the state and the military.⁶³

Third party force of arms cannot dislodge Hizbullah from the security politics in the region and Israel's preference for a weak LAF is counter-productive not only for Lebanese but also Israeli national security interests in the long term. Only a robust Lebanese national military institution, facilitated by a resumption of the Israeli-Syrian peace process, can lay the foundation for the peaceful demobilization of Hizbullah.

The Lebanese Armed Forces and the U.S.

A discussion of LAF-U.S. relations must be framed by the development of core U.S. interests concerning Lebanon over time. The U.S. has intervened militarily twice in Lebanon: first in 1958, at the request of then-President Camille Chamoun, and again in 1982-1984. While the reasons for intervention were different, their overall objective was the same: stabilizing the security situation in Lebanon.

In spite of all the rhetoric centered on supporting Lebanese democratic development, U.S. foreign policy towards Lebanon remains largely unchanged. It has been largely determined by two major imperatives:

- Israeli security imperatives centered on the pacification of Israel's northern border with Lebanon.
- U.S., Israeli and Saudi Arabian competition with Iran – and to a lesser extent Syria – over the shaping of the Middle East's security order in the wake of Iraq in 2003.

While the U.S. has strong ties to Lebanon, U.S. direct military involvement in Lebanon is not conceivable. Insofar as regional competition with Iran is concerned, the U.S. is bogged down in Iraq and Afghanistan and will not commit resources to impact outcomes in Lebanon so long as its allies in the region – especially Israel and Saudi Arabia – are engaged in the country.

LAF-U.S. relations, while at times strained by the LAF's ties to Hizbullah and Syria, have been relatively consistent over time. For more than 60 years the LAF has been a status quo actor in its goal of safeguarding stability in Lebanon. From institutional and doctrinal perspectives, the LAF has also never harbored hostility to the U.S. These factors inform U.S. views that the LAF is a consistent – if weak – player in Lebanon.

The U.S. has had reservations about augmenting the LAF's capabilities in light of Israeli interests, Hizbullah, Lebanon's place in the ongoing Israeli-Arab conflict and the overall perceived instability and weakness of Lebanon from political and security standpoints. It

is noteworthy that unlike Egypt and Jordan, the LAF is a recipient of U.S. military assistance without a definitive peace deal with Israel. U.S. support for the LAF should be increasingly informed by the Lebanese military's struggle against emergent asymmetric threats in Lebanon, especially Islamist groups such as Fatah Al-Islam.

Lebanese Military Forces in Regional Perspective

The LAF has already been too weak to field forces strong enough and well-equipped enough to meet emerging security challenges in the Middle East., The LAF is a minor military player in the region even though it has good officers, good overall training, and mainly professional soldiers.

The Impact of the Regional Military Balance

Lebanon has always had a small fighting force, and as **Figure 3** shows, its recent force number of some 56,000 is small compared to the forces of Israel, Syria, Egypt and even Jordan. The LAF is poorly equipped compared to its neighbors. **Figure 4** shows Arab-Israeli armored holdings. While Lebanon has a large force of armored personnel carriers (APCs) and other armored fighting vehicles (OAFVs), these are almost entirely older second-hand models and cannot be considered modern systems.

The imbalance of forces is especially acute in main battle tanks (MBTs). Arab-Israeli holdings are shown in **Figure 5**. Lebanon operates a mix of 1950s U.S. and Russian tanks it either integrated from the various militias, or acquired at reduced costs from the U.S., Syria and other states. In addition to being vintage hardware, many of Lebanon 310 MBTs may not be in operational status and are completely outclassed by most of the older Israeli, Egyptian, Jordanian and Syrian tanks.

Figure 6 shows that Lebanon's artillery holdings are negligible compared to those of its neighbors. The LAF does not have self-propelled (SP) artillery which are crucial in an increasingly mobile modern battle space. While Syria has the largest overall holdings, Israel leads in terms of total SP assets. In addition, while Jordan has fewer towed artillery units than Lebanon, it has substantial holdings of SP units with levels close or comparable to Egypt and Syria.

The LAF has inferior holdings of multiple rocket launchers (MRLs), and only has antiquated truck-mounted systems. As **Figure 7** shows, Egypt and Syria have major holdings, and while Israel appears to have fewer such systems, numbers can be misleading: Israel has developed a family of highly sophisticated rockets for its MRLs, and Syria and Egypt are more dependent on conventional Soviet-Bloc rounds with limited accuracy and lethality. Regardless, Lebanon is a non-factor in this category.

Lebanon is the only country in the Middle East and North Africa not to have modern or even older 3rd generation fixed-wing combat fighters, ground attack aircraft or bombers. The pre-Civil War Lebanese Air Force was considered an adequate force with small

holdings of combat aircraft that met the country's limited needs during the 1960s and early 1970s. **Figure 8** shows the systems currently fielded by Egypt, Israel, Jordan and Syria, and while Lebanon's Arab neighbors continue to maintain older-generation aircraft such as Soviet-era MiG-21s and MiG-23s, Lebanon has yet to rebuild its fixed-wing air forces.⁶⁴

Figure 9 shows that other nations have large holdings of operational attack helicopters, although Israel and Egypt, with their fleets of AH-64A/D *Apache* helicopters, are the only countries in the region with modern attack helicopters. In contrast, the Lebanese Air Force maintains a small inventory of older attack helicopters with antiquated anti-tank (AT) capabilities, with a sizeable number of non-operative units.

The Lebanese Navy has steadily increased its fleet of small patrol and fast patrol craft and, in terms of overall holdings, outnumbers Syrian and Jordan overall holdings. However, **Figure 10** shows Syrian holdings include missile patrol craft in addition to frigates equipped with ship-to-ship missiles (SSMs). Jordan for its part has little need for major naval forces given the size of its 26 km coastline. Israel and Egypt have capable navies with larger surface assets. Israel is the only navy in the Middle East to field relatively modern and effective submarines and surface forces, backed by effective airpower. Israel has effective anti-ship missiles, as well as superior systems and targeting/electronic warfare capabilities. Its three *Sa'ar 5*-class corvettes are very modern ships with considerable long-range capability by local mission capability standards.

Comparative Military Spending and the Impact of U.S. Aid

The LAF also suffers from expenditure levels that do not meet the country's national defense needs. **Figure 11** demonstrates this. Lebanese defense expenditures between 1997 and 2007 range from \$US 522 million to \$US677 million, with an average annual expenditure of \$613 million for that period. These numbers are not inconsequential given Lebanon's difficult recovery from its 15-year long civil war. However, the country's almost consistent defense spending shown in **Figure 12** of roughly three percent of GDP – with some spikes into four percent – over the 1990-2007 period are far too low to meet its long term military development needs.

Israel and Jordan spend 10 and six percent on defense respectively, while Egypt and Syria have spending levels of three and four percent respectively. Israel, Egypt and Jordan have enjoyed high levels of consistent U.S. support in the form of modern equipment and training under the FMS, FMF and IMET programs as **Figure 13** shows. Syria for its part could count on Soviet support during the Cold War and what appears to be renewed if inconsistent Russian support from 2006 onwards.

As was mentioned above, Lebanon receives military aid from U.S. despite not having signed a bilateral peace agreement with Israel. However, levels of support have been minimal in the post-Civil War period. Lebanon has benefited from significantly higher

levels of U.S. support in the wake of the 2006 Lebanon War and the LAF's fight against the Fatah Al-Islam terror group in 2007, receiving close to \$293 million in military funding from 2006 to 2008

It is notable that Lebanon is one of only three countries⁶⁵ in the Middle East earmarked to receive military assistance and training under the Department of Defense (DoD)'s Section 1206 authority to train and equip foreign countries.⁶⁶ However, as of December 2008, U.S. efforts have yet to deliver tangible gains for the LAF in terms of new equipment and increased capacity.

The Current Status of Lebanon's Military Forces

A united LAF has never undertaken offensive military operations since the Arab-Israeli conflict in 1948. Offensive warfare has never truly been an option, and the LAF has been challenged by rival militaries and sectarian factions ever since the outbreak of Lebanon's Civil War. The challenge for the post-war LAF has been to become a uniting force in Lebanon with the long term goal of deterring interference from Lebanon's neighbors.⁶⁷

It remains to be seen whether the military can serve the purpose of unifying the country, and help put an end to its civil conflicts, militias, and armed factions. The LAF seems to have stayed clear of divisive politics thus far, but it is unclear whether the LAF can maintain force cohesion and order within the ranks should national politics continue to degenerate. The LAF must now attempt to negotiate Lebanon's political ebbs and flows in ways that keep the armed forces neutral despite the country's instability and heightened sectarian tension.

The current LAF with its standing force of some 56,000 has no meaningful capability for offensive operations and no plans to develop such capabilities. The question is whether it can build up suitable deterrent and defensive capabilities, given the limitations on its strength in modern heavy weapons, ammunition, under-developed military communications infrastructure, and the absence of effective reserve forces. The Lebanese military continues to increase its capabilities at a slow rate and, if permitted, could meet Lebanese national defense needs and confront asymmetric threats at home.

The LAF does formally identify Israel as an immediate threat to Lebanon. The LAF is not a force that is either willing or designed to go to war with either of its neighbors. The LAF is, by definition, a defensive and reactive force, and has elected to go on the offensive only when the collapse of LAF unity and force cohesion is improbable.

This is reflected in the fact that the LAF has identified the following seven objectives or duties as its core mission in 2008:⁶⁸

- Defending Lebanon and its citizens against any and all aggression.
- Confronting all threats against Lebanon's vital interests.
- Coordinating with Arab armies in accordance with ratified treaties and agreements.
- Maintaining internal security and stability.

- Engaging in social development activities in line with Lebanese national interests.
- Undertaking relief operations in coordination with other Lebanese public and humanitarian institutions.

With over 250 generals, the LAF's force structure is top-heavy and in need of major structural reform. In 2008 the Cabinet of Prime Minister Fouad Saniora was still considering a plan formulated by the LAF Command staff to update not only the LAF's organizational structure, but also to reform the advancement process from the rank of Colonel to General. These would include new guidelines concerning physical training and age. As one LAF senior commander put it, "the LAF shouldn't have 48 year-old generals. This would only lead officers to serve a decade in a position that in principle they should occupy for a shorter period of time."⁶⁹ The retirement age for LAF generals ranges from 58 for a Brigadier General to 60 for the Commander of the LAF.⁷⁰

The LAF also must deal with its heritage of underfunding and major equipment problems. As was discussed earlier, the LAF was not immune to the turmoil of the Civil War and many of its more modern systems were destroyed, appropriated by various competing militias, or sold for scrap in the post-Civil War era. As a result, the LAF includes an unusual mix of U.S. and Soviet hardware. This is largely as a result of the post-Taif Accord disarmament process. The main fluctuations in Lebanese force trends over the 1975 to 2008 period can be seen in **Figure 14**.

The Lebanese Army

In light of recent internal security operations ranging from crowd control to counter-insurgency operations, as in the case of the Summer 2007 fighting against the Fatal Al-Islam terror group, the Lebanese Army command has increasingly expressed the Army's role in terms of combating terrorism within the country's borders, and playing a vital role in securing internal peace and stability. The Lebanese Army did not play an offensive combat role during the 2006 Lebanon War, staying out the fighting and concentrating on taking part in relief efforts, given the high civilian casualty rate during the fighting.

Prior to the 2006 Lebanon War, the Lebanese Army, much like the rest of the armed forces structure of the country, was underfunded and had only minimal capabilities. Despite recent efforts to develop its force capabilities and an increase in international military support, especially from the U.S., the Lebanese Army continues to operate largely vintage or obsolete hardware.

In the event of full scale war with either Israel or Syria, the Army would be routed quickly and would not present a major threat to either state in terms of conventional warfare. The Army also has limited, although well trained unconventional or special forces capabilities with limited mobility and varying levels combat experience. Lessons learned from the fighting at Nahr El-Bared will benefit future force development.

The Lebanese Army has been carrying out missions and deployment operations on a near-continual basis since the Syrian withdrawal in 2005 in an effort to contain sectarian

tensions. The Army has not had a window of opportunity to carry out brigade or regiment-level rest and relaxation (R&R), lessons learned and combat re-orientation operations, and is generally an “out of the barracks” force.

Prior to the 2006 Lebanon War, there were no Army personnel manning the Southern border with Israel, leaving Hizbulah to create its own security zones. With the end of hostilities and the establishment of UNSCR 1701,⁷¹ the Lebanese Army, in concert with United Nations Interim Force in Lebanon (UNIFIL), deployed 15,000 troops in force to the South for the first time 30 years.

The Army has poorly developed logistics, support and maintenance capabilities, though there has been some progress toward the mechanization of the Army with substantial deliveries from the U.S. of surplus M113 Armored Personnel Carriers (APCs). Given their continual use and mission deployment, especially post-2005, it is proving difficult to carry out much needed large scale repair and upgrade operations to keep these systems combat-ready and effective.

Despite these shortcomings, the Army remains the only meaningful branch of the Lebanese military. There was strong support for the Syrian withdrawal in 2005, and in the aftermath of the 2006 war and continued instability through 2008, the Army has enjoyed strong popular support and has seized the momentum to play a more active role in carrying out security operations.

Force Strength, Structure & Deployment

As **Figure 15** shows, the Army enjoyed the support of close to 23,000 conscripts in service per year for total force strength of 70,000 men in 2007.⁷² Its threat profile and overall ability to carry out defensive and security operations within Lebanon had been undercut by the end of conscription. In 2008 the Army had 53,900 men,⁷³ including some 10,500 “voluntary conscripts mostly from Northern Lebanon.”⁷⁴ As **Figure 16** shows, the Lebanese Army forms the vast majority of Lebanon’s military forces.

Jane’s reported that in September 2007, around 8,000 Army personnel were deployed along the Lebanese-Syrian border in a counter-smuggling and border patrol role. An additional 8,000 were carrying out security operations in Beirut and more than 15,000 men were deployed south of the Litani River. Deployment levels to the North and the northern coastal city of Tripoli are not known but can safely be assumed to be substantial in light of the region’s increasing instability and isolation from the pervading security environment in the rest of Lebanon.

There are five Regional Commands based on five military regions: Beirut, Mount Lebanon, Bekaa, North Lebanon and South Lebanon. The Army’s main bases are located at the Henri Chehab Barracks near Jnah for the Beirut region, Sarba near East Beirut for the Mount Lebanon region, Ablah, Ba‘albek and Rachaya for the Bekaa, Aramayn (the Hanna Ghostine Barracks), Batroun, and Tripoli (Bahyat Ghanem & Youssef Hleil

Barracks) for the North, and Sidon (the Mohamed Zogheib Barracks) and Tyre (the Adloun & Benoit Barakat Barracks) for the South Lebanon region.⁷⁵

The regular size of a Lebanese Army battalion is 500 soldiers, while brigades are made up of five to six battalions. The army's force structure includes:⁷⁶

- 5 mechanized brigades (1st, 2nd, 3rd, 5th and 6th Brigades)
- 6 infantry/light brigades (7th, 8th, 9th, 10th, 11th and 12th Brigades)
- 2 tank regiments (1st and 2nd Regiments)
- 2 artillery regiments (1st and 2nd Regiments)
- 1 Republican Guard Brigade
- 1 Ranger Regiment (*Fawj Al-Maghawir*)
- 1 Marine Commando Regiment (*Fawj Maghawir al-Bahr*)
- 1 Airborne Regiment (*Fawj Al-Moujawqal*)
- 1 Counter-Sabotage Regiment (*Al-Moukafaha* under the command of LAF Military Intelligence)
- 1 Stricking Force (*Al-Quwa Al-Dariba* under the command of LAF Military Intelligence)
- 5 Intervention (*Tadakhul*) Regiments

Ground forces combat support units include:

- 1 medical brigade
- 1 support brigade
- 1 logistics support brigade
- 1 military police brigade
- 1 independent works regiment

While the Army was originally organized around 11 mechanized brigades and an assortment of smaller combat regiments and units, only five brigades continue to be mechanized. These include the 1st, 2nd, 3rd, 5th and 6th Brigades, which are full-strength brigades capable of deploying armor and artillery. These five major brigades are deployed in security-intensive regions, namely the Bekaa, North Lebanon and South Lebanon. The Army's 5th Infantry Brigade is by far its most effective fighting force due to its frontline combat experience during the fighting at Nahr Al-Bared in 2007. It has three infantry battalions, one artillery battalion and one tank battalion.

The 7th, 8th, 9th, 10th, 11th and 12th Brigades are light infantry brigades generally deployed to core or "internal" military regions, namely Beirut and Mount Lebanon. While the mechanized brigades are equipped with armor and artillery, such assets at the brigade level is deemed counterintuitive for the internal security and counter-terrorism roles these brigades play. Lebanese MBT holding have been placed into two newly formed tank regiments, one fielding Russian-built T-54s and T-55s while the other is equipped with U.S.-built M-48s.⁷⁷

In the aftermath of the 2006 war between Israel and Hizbullah, it was claimed that in 2007 two mechanized infantry brigades – the 2nd and 6th brigades – and as many as half of Lebanon's light infantry brigades – including the 10th, 11th and 12th brigades – were

stationed in the South to supplement UNIFIL forces.⁷⁸ LAF command staff note, however, that the Lebanese Army is a mobile force and brigades are regularly rotated and deployed where they are needed. As of January 3, 2009, the Army's mechanized and light infantry brigades were deployed to:⁷⁹

- 1st Mechanized Infantry Brigade: The Bekaa Valley
- 2nd Mechanized Infantry Brigade: Near the Nahr Al-Bared Palestinian Refugee Camp (The North)
- 3rd Mechanized Infantry Brigade: Near the Ain Al-Hilweh Palestinian Refugee Camp (The South)
- 5th Mechanized Infantry Brigade: Sarba (Mount Lebanon)
- 6th Mechanized Infantry Brigade: Naqoura (The South)
- 7th Infantry Brigade: Koura/Zgharta (The North)
- 8th Infantry Brigade: The Bekaa Valley
- 9th Infantry Brigade: the Chuf (Mount Lebanon)
- 10th Infantry Brigade: Tripoli (The North)
- 11th Infantry Brigade: Bint Jbeil (The South)
- 12th Infantry Brigade Tyre (The South)

As was touched on above, the Army broke down along sectarian lines during the Civil War on more than one occasion with different units assuming regional, party and sectarian characteristics. Then Army Commander General Emile Lahoud created a cross-confessional force where advancement would be contingent upon merit rather than political affiliation. There was also a robust effort to create confessionally integrated units with regularly rotated battalions and brigade level commands to different bases every six months in order to undermine the legacy of sectarianism in the military. This process has also involved rotating officers of one sect to command units in a different region of the country or of a different religious group.⁸⁰

The effort to create a truly cross-confessional Army was continued under the leadership of former LAF Commander General Michel Sleiman and the task now falls on the new LAF Commander General Jean Kahwagi. Current LAF senior Command personnel believe that efforts to create unit cohesion and stamp out sectarianism in the LAF have been a success.⁸¹ However, most of the LAF's combat operations are reactive or defensive in nature, and the LAF has not taken any major command decisions in the post-Civil War era that could put its new-found force cohesion up to a test.

Given the Lebanese Army's mixed Western and Eastern pool of equipment, the Army has taken care to provide units with standardized heavy weapons systems. For example, one unit would include a tank force composed exclusively of Russian T-54s and T-55s, whereas another would be made up entirely of U.S.-built M-48A1s and M-48A5s.

The creation of tank regiments seems to signal an overall shift in force planning to a more simplified regiment-based structure, whereby commanders report directly to the Army Command. It is hoped that the increased use of regiment-level forces manned above battalion and below brigade manning levels will lead to increased operational flexibility.

Major Army Combat Equipment

Despite its small size, the Lebanese Army has a relatively large pool of equipment. Most of the Army's systems are of low or moderate capability, consisting mainly of worn or older equipment transferred at no or low cost from other states. The U.S. has played an especially important role in providing the Army with low/no cost equipment.

In 2008 the Lebanese Army had 310 MBTs, consisting of 200 T-54/T55s and 110 M-48A1/M48A5s. While these are vintage 1950s systems, they have proven their effectiveness in an infantry support role in counter-terrorism and counter-insurgency operations rather than in conventional warfare. In relative terms, Lebanese MBTs are obsolete systems with only minimal survivability against Israeli or Syrian armor or munitions. Army efforts to acquire more capable MBTs and armor will be discussed in greater detail later.

While the Army phased out its Ferret, Staghound and AMX-13 light-armored reconnaissance (RECCE) vehicles, it still has 60 AML-90s for RECCE operations. Jane's also reported that the Army maintains 25 of its old Saladin RECCE vehicles in reserve.⁸² The Army also has 1,164 M-113A1/M-113A2s armored personnel carriers (APC) in service in addition to 12 M-3/VTT and 81 VAB VCI wheeled APCs. While the M-113 had been in operation in Lebanon since the early 1970s, most were either appropriated by the many militias or damaged during the Civil War years. The U.S. contributed more than half of the Army's post-war APCs, providing 777 M-113s in all from 1994 to 2000.⁸³ These are aging systems nonetheless, and the Army needs more modern APCs.

The Army also has 285 M998 HMMVW. Lebanon's HMMVWs were meant to provide the LAF with greater mobility and replace its motor pool of older utility vehicles. The delivery of HMMVWs was part of wider U.S. effort to enhance the capabilities of the Lebanese Armed Forces. Deliveries began in 2007 and while Jane's reports that only 190 were in inventory by September 2008, the IISS listed that the Army had the total 285 HMMVWs in 2008.⁸⁴

The Lebanese military has traditionally relied on towed artillery units to provide infantry support, and has never had self-propelled (SP) artillery unlike its neighbors. The Army had 157 towed artillery weapons in 2008. Lebanese holdings include 105 mm 13 M-101A1s and 10 M-102a, 122 mm 24 D-30s and 32 M-30s, 130 mm 16 M-46s, and 155 mm 15 M-114A1s, 32 M-198s and 15 Model-50s. Both the IISS and Jane's report all of these systems to be in service.⁸⁵

In addition to its heavy fire units, the Army continues to maintain relatively small holdings of 369 light and medium mortars. These include 158 81 mm, 111 82 mm and 100 120 mm Brandt mortars for area suppression on infantry support. The Army's 120

mm mortars are vehicle mounted. The Army also has 122 mm multiple rocket launchers (MRLs), including 25 BM-21 Grad and 5 BM-11 Soviet-era vehicles mounted unguided launchers.⁸⁶

The Lebanese Army also has a limited anti-tank (AT) capability that includes recoilless rifles (RCLs), rocket launchers (RLs) and rocket-propelled grenades (RPGs). The Army has 30 ENTAC, 16 Milan and 24 TOW man-portable anti-tank (MANPAT) missiles. It also has 5 M-40A1 RCLs, and an unknown number of 73 mm RPG-7 Knout and 89 mm M-65s.⁸⁷ While some of these systems – especially the newer Milan and ENTAC MANPATs – are modern systems, the size of Lebanese holdings do not allow them to pose a major threat to Israeli or Syrian armor strength. However, a June 2008 delivery of an additional 100 Milan MANPATs is a major boost to the Army's AT capability in relative terms.⁸⁸

The Army does not have effective ground-based anti-air capabilities by any modern measure; rather it has token anti-air systems which include systems largely integrated into the LAF inventory as part of the militia disarmament process in the post-Civil War era. The Army has some 20 SA-7A Grail/SA-7B Grail man-portable air defense (MANPAD) missiles. The Army also has around 10 40 mm M-42A1 SP air defense (AD) guns in addition to 23 mm ZU-23-2s. As was previously touched on, the LAF has been very resourceful in combining and mixing Western and Eastern weapons platforms, and the Army's ZU-23-2s are mounted on M-113 APCs to provide them with an SP capability. These are expected to number about 75 guns in total.⁸⁹

The Army also has a limited tactical unarmed aerial vehicle (UAV) capability, consisting of 8 Mohajer IVs.⁹⁰ These Iranian-built UAVs are not modern systems, and the usefulness of these systems is uncertain given their very limited number.

The Lebanese Navy

The LAF has done its best to draw up pragmatic mission roles for the Lebanese Navy. These include coastal protection and patrol of Lebanon's 225 km coastline, naval support to Army units, counter-smuggling and counter-piracy operations, search and rescue (SAR) operations, surveillance and navigation control missions. The Navy's official list of threats includes Israel, narcotics smuggling, alcohol and tobacco smuggling, illegal immigration, illegal port operations, port security and commercial maritime surveillance operations.⁹¹ The development of Lebanese naval capabilities does not seem to be an immediate objective for the LAF.

Lebanon has 1,100 men assigned to the Navy under the command of Commodore Ali Muallem. The Navy's total force number includes 395 naval officers and the elite Marine Commando regiment. Lebanon does not have any major blue water craft or combat capability, and trends in its naval forces are shown in **Figure 12**. All of its ships are based in the port cities of Beirut and Jounieh, and in 2008 the Navy had more than 35 patrol and fast patrol craft, including five *Attacker* and seven *Tracker* inshore patrol craft, more than 25 fast patrol boats, 3 larger patrol craft and two amphibious landing ships.⁹²

Lebanon's Attacker-class craft are 38-ton ships equipped with radar and twin-23 mm guns. Its *Tracker*-class ships are ex-Royal Naval Units originally commissioned in 1983 and transferred from the U.K. in 1993. Two of these ships were transferred from the Navy to Customs in 1995, and their 23 mm guns were replaced by lighter 7.62 mm machine gun.⁹³ These are all aging vessels with maximum speeds in the range of 20 knots and are too slow for antiterrorist and infiltration missions.

The U.S. transferred 27 M-boot type river patrol craft to the navy in 1994. These small 6-ton ships have 5.56 mm machine guns, a relatively low maximum speed of 22 knots, and a range of 154 nautical miles at top speed. Jane's reported that 20 were operational in 2007, but the status of these craft could not be confirmed in early 2009.

In addition, Lebanon also had 2 ex-German 126-ton *Bergen*-class patrol craft in 2007, with a third scheduled for mid-2008 delivery. The largest craft in the Navy's fleet, the *Amchit* (ex-*Bremen 2*) is a 34 m patrol craft capable of achieving 28 knots while the *Naquora* (ex-*Bremen 9*) is a 20 m craft capable of achieving 32 knots and carrying a 3 m interceptor craft. The third ship, the *Tabarja* (ex-*Bergen*), a 27.8 m craft that had originally entered service in 1994, is a slower craft with a top speed of 16 knots but with better sea keeping endurance. The ship was officially handed over to the LAF on June 17, 2008.⁹⁴

Lebanon's two 670-ton landing craft are French *Edic*-class ships and are armed with two Oerlikon 20 mm guns, one 81 mm mortar, two 12.7 mm machine guns and 1 7.62 mm machine gun. Both were damaged in 1990 and subsequently repaired the following year to operational status. Capable of transporting 96 troops and 11 combat trucks or 8 APCs, these two ships are operated by the Navy's Marine Commando regiment and provide adequate – if limited – amphibious assault capability.⁹⁵

Given its scarce resources and manpower, the Lebanese Navy has a limited coastal patrol capability and some troop lift capability but no real war-fighting capability against Israel or Syria. It can perform a surveillance role, inspect cargo ships and intercept small infiltrating forces, but only along a limited part of Lebanon's 225-km coastline.⁹⁶

The Lebanese Air Force

The Lebanese Air Force is a token force, especially given the absence of meaningful fixed wing aircraft in operational inventory. As **Figure 16** shows, the Air Force has maintained a fairly constant manpower level of 1,000 men since 2002. Air Force manpower appears to be in a downward trend, and is down from a post-Civil War maximum of 1,700 men in 2000.⁹⁷

The Air Force has 6 Hawker *Hunters*, but these are obsolete aircraft. Four of the Air Force's *Hunters* were made operational by November 2008 and are stationed at Rayak Air Base in the eastern Bekaa Valley. All four are combat-ready and said to have adequate levels of spare parts.⁹⁸ These vintage systems have not taken part in post-Civil War combat operations and their effectiveness in a ground support role remains untested.

In 2000, Lebanon sold its 10 non-operation *Mirage* IIIEL/BL fighters to Pakistan in a deal worth \$4.7 million.⁹⁹ Lebanon has less fixed-wing aircraft than are needed to meet its minimum requirement of one to two squadrons of combat fighters. However, this also implies the procurement bar is low. Second-hand aircrafts considered obsolescent in other air forces would equal a major capacity and capabilities boost for the Lebanese Air Force.¹⁰⁰

Lebanon has eight older CM-170 *Magister* training aircraft, of which only three could potentially be brought up to flight readiness. Again, it may be more cost-effective in the long run to procure second-hand systems and have any capability as any system would provide improved capacity and capability.

With regard to both fighters and trainers, the availability of ground crews let alone pilots is a major issue. Lebanon is a long way from the days when it had respectable air-to-air fighter assets in the pre-Civil War era. As will be discussed later, a decision to develop the Air Force's fixed-wing assets will come at far higher costs than just buying more fighter aircraft and trainers.

The Air Force has placed the emphasis on developing post-Civil War Lebanese air mobility by augmenting its helicopter assets. However, given that the LAF did not have the budget required to purchase new systems, most of Lebanon's inventory of helicopters are aging second hand donations. These include eight SA-342L *Gazelle* attack helicopters armed with obsolete short range AS-11 and AS-12 air-to-surface missiles developed in the late 1950s. An additional five SA-342s are grounded and could be refurbished.¹⁰¹

The Air Force also has 45 utility helicopters, which give the LAF meaningful yet inconsistent transport capabilities. However, most of Lebanon's utility and transport helicopters are similarly aging systems, and only 20 of the 45 are in working or serviceable condition. The Air Force has 16 UH-1Hs in service with an additional seven that are not serviceable, four R-44 *Raven II*s for training, seven out of action Bell 212, of which five could be refurbished, five SA-330 *Puma* in storage, five unserviceable SA-316 *Alouette III* and one SA-318 *Alouette II*.¹⁰²

Prior to the 2006 Lebanon War, its five serviceable Bell 212s were not operational, nor were three of its SA-330s and four of its SA-342Ls.¹⁰³ However, the Air Force has shown a great deal of ingenuity and engineering prowess not only by keeping many of its systems airborne, but also by retrofitting its forces to play roles they were not originally designed or equipped to carry out. This point is best illustrated by the improvised use of air power during the fighting at Narh Al-Bared in 2007 discussed later in this report.

Lebanese Special Forces

The LAF has seven elite special forces regiments. These include a Ranger regiment (*Fawj Al-Maghawir*), a Marine Commando regiment (*Fawj Maghawir Al-Bahr*), an Airborne regiment (*Fawj Al-Moujawqal*), Military Intelligence's Striking Force (*Al-Quwa Al-Dariba*), a Counter-Sabotage regiment (*Al-Moukafaha*) and five Intervention

regiments (*Fawaj Al- Tadakhul*). The LAF's Counter-Sabotage regiment is also under the command of LAF Military Intelligence.¹⁰⁴

Operating under the aegis of the new Anti-Terrorism and Counter-Intelligence command,¹⁰⁵ the Lebanese Army took steps in 2008 to update its special forces force structure with an emphasis on organizational jointness across the different branches of the Lebanese military. A Lebanese Special Operations Command was established to coordinate the operations of all of Lebanon's SF units.

A Senior Lebanese military official commented that the LAF hoped to have a special forces capabilities built around an initial force of some 5,000 men with the ultimate expectation of scaling up to two or three brigades within a few years. This growing force is expected to play an important role in addressing one of the LAF's primary operational imperatives: countering asymmetric threats from armed militias and extremist groups – many of which have chosen Palestinian refugee camps as their base of operations.¹⁰⁶

SF candidates undergo a rigorous selection process before joining SF units. They enjoy excellent training and superior pay. While it is not publicly acknowledged, it is generally understood that Lebanese SF units are expected to have high unit cohesion and loyalty to the overall Army Command. During the 1990s, Special forces units had not yet achieved the level of sectarian representation that existed in the LAF's other fighting units, with unconfirmed allegations that special forces units in the LAF were made up of primarily Maronite Christian officers and soldiers. Senior officers deny that this is the case today, emphasizing that the entire LAF is a representative force. The Army Command is hoping that elite status, superior pay and benefits will be the primary motivator for Lebanese soldiers to try to gain access to these elite fighting units.¹⁰⁷

Lebanon's Marine Commandos have forged a strong reputation in the country and the region. Formed in 1997 and granted autonomous status in 2001,¹⁰⁸ the Marine Commando regiment has the reputation of being one of the most effective maritime SF units in the Middle East. This is in no small part thanks to training by U.S. Navy SEALs and British Royal Marines Commandos with training missions in Lebanon, the U.S. and the U.K. The Marine Commando regiment is part of the Lebanese Army rather than the Lebanese Navy.

Jane's reported in 1997 that the Marine Commando regiment was not equipped for underwater demolition operations, and it is not as of yet clear whether it has received such training in the past 10 years. Training and equipment was focused on landmine clearance, navigation, amphibious assault, urban guerilla and unconventional warfare operations. The initial goal was to man a force of some 300 Marine Commandos, however actual numbers are unclear.¹⁰⁹

U.S. sources told *Jane's* that a squad of Lebanese Marine Commandos was part of the force that intercepted members of the Israeli Defense Force's elite Flotilla 13 maritime SF unit on the night of September 4, 1997 near the southern port city of Sidon. In all 12 Israeli soldiers were killed and more were wounded. While the Lebanese government

divulged that the operation was carried out by Marine Commandos in conjuncture with Hizbullah and Amal forces, the IDF could not corroborate the incident at the time.¹¹⁰

Such cross-sectarian and cross-factional cooperation was unheard of in the immediate post-Civil War era. Hizbullah and Amal are Shi'a movements, whereas the Navy Commando units were alleged to be predominantly composed of Maronite Christian forces at the time. As **Figures 1** and **2** and the previous discussion showed, Lebanon's SF units paid an especially high death toll for their pivotal role at Nahr Al-Bared in 2007.

Training and Readiness

Given its poor holdings of heavy weapons systems and weaknesses in maintaining the heavy weapons it has, the LAF continues to place an emphasis on building up its light anti-armor and short range artillery and mortar training. This trend is likely to remain unchanged until the LAF obtains new heavy war-fighting systems, let alone develops the manpower skills and budget structure needed to maintain a larger and more modern inventory of systems.

Lebanon has only limited stockpiles of ammunition, and the average Lebanese soldier has roughly 10-20 rounds per year for small arms and combat training, which is wholly inadequate for combat readiness by any measure. Lebanese soldiers are forced to compensate for this weakness with a mix of "spray and pray" and, for lack of a better word, sheer bravery.¹¹¹ Lebanon has no choice but to develop stockpiles of ammunition that meet real world training requirements.

LAF officers and personnel were mainly trained in France prior to the Civil War. However, once post-war LAF reconstruction efforts were underway in earnest, Soviet-inspired Syrian methods and training were also absorbed by the military during the 1980s and 1990s. In recent years the U.S. has played an increasingly prominent role in shaping LAF operational art and tactical doctrine. This was increasingly the case after the withdrawal of Syrian military forces from Lebanon in 2005 and after the 2006 war between Israel and Hizbullah. LAF personnel also receive training in France, the United Kingdom and Italy.

Brigade level officers take part in JANUS tactical simulations to simulate realistic command and control during the fog of war, combat communications and joint operations with other combat units in the execution of coordinated mechanized and infantry maneuvers.¹¹² These simulations are carried out in-country.

Senior Lebanese command staff feel that the LAF has been "on mission" since the assassination of Prime Minister Rafik al-Hariri on February 14, 2005 with largely detrimental effects on overall combat training. The LAF has largely been on the receiving end of both minor and major threats to Lebanon's sovereignty, territorial integrity and internal stability. On the ground, this translates into a military force that is perpetually out of barracks, has not had the time or the opportunity to properly integrate lessons learned,

and consequently has taken only limited steps towards incorporating adjustments into training, force structure and future mission operational parameters.¹¹³

LAF training and readiness has also suffered from the necessary evil of carrying out internal security operations to keep the peace in the country. While the LAF is expected only to supplement Lebanon's roughly 20,000 Internal Security Forces (ISF), in reality the LAF fills a major internal security vacuum. This is due to the perception by some parties in Lebanon that the ISF is close to the Sunni-dominated March 14 alliance. A standing army used to carrying out police and internal security operations may have difficulties in carrying out "real" combat operations – a risk that became all the more real during LAF combat operations in 2007 against at Nahr Al-Bared.

The LAF is aware of its own short-comings in training and readiness..While it does not overtly indicate it, its long-term aim is to expand training and readiness to include border security, counter-infiltration operations against Israeli military forces and broadening its operational art to include limited retaliatory operations against Israel. As was mentioned earlier, the LAF also wants to increase its readiness and training for counter-infiltration and smuggling operations across the Lebanese-Syrian border and the ability to carry out more comprehensive sweeps of the demarcation line between the two states.

While Lebanon has benefited from military training in the U.S. and Western Europe, there is renewed emphasis on improving regional partnerships on training. The LAF enjoys excellent relations with the Jordanian armed forces and it is expected that U.S.-trained Jordanian military personnel will play an important role in training LAF future trainers. Such initiatives will take place in Jordan and Lebanon and are expected to facilitate immensely Lebanese plans to set up a new all-forces training center over the next three to four years.¹¹⁴

Despite these efforts to improve training and readiness, the LAF is not training to go to war with either of its neighbors. Despite the official LAF doctrine concerning the ongoing struggle against Israel, it is understood that LAF operational art and readiness will not evolve to confront either Israel or Syria in major combat. It is more likely that the LAF continues to foster the long-term goals of securing Lebanon's border, developing the country's counter-terrorism capabilities, improving Lebanese deterrence and replacing Hizbullah as the primary guarantor of security along Lebanon's southern border with Israel.

Development Needs of the Lebanese Armed Forces

The LAF has major deficiencies with regard to holdings of modern tanks, ATGMs, fixed-wing ground support aircraft, rotary ground support, air defense systems, C⁴I, and modern systems for carrying out decisive combined operations and counter-insurgency operations. These requirements now shape the LAF's plans, although they have changed as result of the Israeli-Hizbullah war of 2006 and military operations in 2007 and 2008.

Needs Prior to the 2006 Israel-Hezbollah War

In early 2006, prior to the war between Israel and Hizbullah, the LAF began assessing what would be its main military needs through 2008. **Figure 17** is based on information provided by the LAF and outlines its February 2006 plans by type of equipment for the 2006-2008 period. The original appropriation plan – listed in 2006 dollars – expected annual costs of an estimated \$266.5 million for 2006, \$337.2 million for 2007 and \$286.9 million for 2008. The biggest ticket items on the LAF's appropriation list include:¹¹⁵

- \$150 million for 12 transport helicopters
- \$150 million for 31 water-borne craft including 15m to 60m patrol craft and 2 tank landing ships (LST)
- \$120 million for 120 MBTs
- \$60 million for 120 wheeled APCs (WAPCs)
- \$25 million for SAM systems
- \$24 million for six attack helicopters
- \$18 million for six medium and long range radars

The total estimated value of proposed appropriations for the LAF over the life of the plan was estimated at \$890.7million in 2006, or an estimated \$929 million in current dollars.

For its land forces, the LAF hoped to appropriate 120 MBTs, 120 WAPCs, seven command and control vehicles, 600 light trucks, 500 SUVs and a number of other vehicles including ATVs, military ambulances and fuel and water trucks. The plan also hoped to augment the capabilities and protection of LAF infantry and special forces. This included plans to acquire 5,000 helmets, 7,000 bulletproof vests, 400 NVGs 7,000 assault rifles for special forces, 200 sniper rifles with optics, 24 RATAc-type battlefield artillery tracking and fire control radars, 80 MANPATs, 36 155 mm howitzers and some 260 60 mm, 81 mm and 120 mm mortars.

Orders for 24 RATAc (Radar de Tir d'Artillery de Campagne) battlefield radars to provide superior detection, acquisition, identification, location and tracking of surface and low-flying targets are especially telling given that such systems are essential for directing artillery fires in combat environments similar to those at Nahr Al-Bared. Designed for vehicle-mounted all-weather operations and equipped with Pulse Doppler and monopulse detection systems, RATAc offers detection ranges in excess of 15 km for vehicles and the ability to acquire targets with small cross-sections, including single individuals, at over 8 km.¹¹⁶ It is not clear whether the LAF has taken steps to acquire such systems, but should the LAF have the option and the means to acquire RATAcs in the future, this would present a significant boost to the LAF's directed fire capabilities.

The LAF did not have an expected need for fixed wing combat aircraft. However, it did look to augment its fleet of rotary aircraft through 2008. As was previously discussed, the LAF has a number of non-operational older attack and support helicopters. The 2006 proposal would have seen some \$28.5 million to repairing and refurbishing five AB-212 and three SA-330 *Puma* support helicopters in addition to four SA-342 *Gazelle* attack

helicopters. The LAF also had a requirement for six new attack helicopters with ammunition (presumably AH-1 *Cobra* attack helicopters) for \$24 million and 12 additional transport helicopters at a cost of some \$150 million. Given its poor holdings in air tracking equipment and major radar systems, the LAF also anticipated a need for 6 medium and long range radars at a cost of some \$18 million.

The LAF did not choose to change the force structure of the Navy, opting instead to augment existing holdings. The 2006 appropriation plan includes requirements for two additional LSTs worth \$13.5 million to augment the Navy's holdings of two French *Edic*-class LSTs. It also hoped to acquire 29 inshore patrol craft, including two 50-60 m, three 30-35 m, 12 20-25 m and 12 12-15 m patrol craft at a cost of some \$137 million. Half of the required 20-25 m craft should be capable of maximum speeds of 20-30 knots, while the rest should reach speeds of 40-50 knots for high-speed chase and interdiction operations. The Navy would also receive 12 Zodiacs and 6 maritime radars under the 2006 plan.

It is clear that in February 2006, the LAF was aware that it needed to mold itself into a modern and highly mobile force with improved C⁴I capabilities, better equipped infantry and special forces, and expanded naval holdings to secure the Lebanese coastline. In addition, the LAF's need of more capable armor, enhanced ground support capabilities, battlefield radars, C&C vehicles, newer artillery and modern radars seemed to show that it recognized where its weaknesses lay in most areas of conventional ground forces operations.

The LAF's requirement for the \$25 million in AD systems is not a new or unusual requirement. The LAF recognizes that countries like the U.S. are reluctant to sell Lebanon meaningful SAM capabilities for fear that such systems could be used against Israeli aircraft or appropriated by Hizbullah. It is equally important to note that one of Hizbullah's main arguments in favor of maintaining its armed status centers on the fact that the LAF does not have the means to secure Lebanese airspace.

The force improvements shown in **Figure 17** were also, however, very costly by Lebanese standards. Acquisitions for land forces totaled \$430.6 million over the 2006-2008 period constituted 48.3 percent of the proposed appropriation. Proposed air and air defense acquisitions totaled \$300 million accounted for 33.7 percent while proposed naval acquisitions accounted for 18 percent at a cost of \$160 million. The total cost of the 2006 proposal was close to \$930 million in current dollars.¹¹⁷

Changing Needs Following the 2006 Israeli-Hizbullah War and the 2007 Fight against Fatah Al-Islam

Many of the LAF's procurement needs remain largely unchanged from the parameters outlined in the 2006 appropriation proposal. However, the fighting at Nahr Al-Bared re-focused attention within the LAF on much needed airpower. Moreover, Hizbullah's war

with Israel prompted the LAF to consider how it could best develop its capabilities to become the primary defender of Lebanese sovereignty.

As with its 2006 proposal, the LAF is modest in terms of its needs and the political hurdles it will face, and it is not looking to acquire the most modern systems available. An LAF official described this approach best, adding that “there are a number of old but fairly good jet fighters available in the market that the LAF could get for either free or very low prices, but the best offers are American-built, which means Washington would need to give its approval for the transfer to Lebanon, and that is a problem now.”¹¹⁸

The LAF’s priorities center on acquiring systems that would augment its ability to carry out combined operations across different branches of the military with an emphasis on combating terrorism and carrying out counter-insurgency operations. Accordingly, the LAF’s requirements for combat communications, combat management systems, C&C, C⁴I, better equipment and training for special forces and modern battlefield, medium range and long range radars remain largely unchanged.

Development Options for the Lebanese Air Force

While Lebanon has major development needs in all branches of the military, the development of Lebanon’s Air Force deserves singular attention. What the LAF did not anticipate in the initial period following the withdrawal of Syrian forces from Lebanon – or at least did not feel was an immediate need – was a requirement for fixed-wing combat aircraft in a ground support role, given the initial emphasis on continuing to develop Lebanese rotary aircraft capabilities.

The LAF now has a requirement for a minimum of one squadron with six combat aircraft capable of close air support of ground units in the context of limited combat operations. Developing the Lebanese Air Force is not possible at current national budget levels, but will be a priority for the LAF if it is to ensure that the slow pace of war fighting and high combat deaths – as were the case at Nahr Al-Bared – are to be avoided in the future

Money also is not the only problem. Lebanon has not had a meaningful Air Force since the collapse of the Lebanese state in the 1970s, and it saw the gradual degradation of its air assets through to the end of the 1980s. The Air Force has not updated ground crew readiness, nor does it have crews who can carry out maintenance operations on modern fighters. Before the Air Force can develop its fighter or trainer capability, its ground crews, infrastructure, command and control and other logistical considerations would have to be addressed by the LAF and the Lebanese government with regards to personnel, equipment, training and funding.

Major Challenges to Air Force Development

Any future procurement of combat-capable aircraft will be scrutinized – and may face political opposition from Israel and Syria. While both countries have substantial air capabilities with the support of C⁴I, medium-to-high quality fighters and modern air

defense systems, a Lebanese Air Force with fixed wing capabilities would be perceived as a threat by both countries, given that there has not been a meaningful Air Force since the pre-Civil War era.

While the LAF official doctrine considers Israel to be an enemy state, this is not the primary cause for concern. Israel continues to evaluate Lebanese capacity-building by reverting to the fear that such systems could fall under the direct or indirect control of Hizbullah. Should the LAF acquire modern to medium-quality air-to-air and air-to-ground capable combat aircraft, Israel would not adopt a deterrence posture as its initial response, rather there is a risk that the IDF would act decisively to neutralize a “threat on the horizon.”

Such actions on the part of Israel would not be necessary. **Figures 18 and 19** show that any acquisition of new combat aircraft on the part of Lebanon – even limited numbers of modern systems – would pose no real threat to Israeli air defenses. Israel, however, does not expect that the U.S. will provide Lebanon with modern combat aircraft such as the F-16C/D Block 50. There is also no tangible basis on which Israel should be concerned about Lebanese fixed wing aircraft being appropriated by Hizbullah. Hizbullah does not have access to runways and as an asymmetric guerilla force, it does not have a need for such systems currently or in the future.

Renewed Lebanese Air Force capabilities would also be a concern for Syria. While Lebanon’s Arab neighbor has not had overt military assets in Lebanon since the withdrawal of Syrian troops in 2005, and while a LAF capable of internal security operations benefits Damascus, Syria has grown used to being able to operate militarily in and around Lebanon without having to worry about LAF air power. More pressingly, however, Syria did not have to worry about Lebanese air capabilities potentially being turned against friendly armed groups in the country – including Hizbullah and Palestinian armed elements, including the Popular Front for the Liberation of Palestine General Command (PFLP-GC), which operates mainly in the Bekaa Valley near the Lebanese-Syrian border and has tense relations with the LAF.

As with Israel, Syrian concerns over increased Lebanese air capabilities are clearly counter-balanced by the size of Syria’s air force and its overlapping short, medium and long range missile defense installations. **Figures 20 to 22** show the numbers and locations of Syrian AD systems and fighters.

Capabilities-Building

With a total area of 10,452 sq km, Lebanon does not have a need for a supersonic combat aircraft. Lebanon’s best option over the next one to three years may be to acquire older subsonic intermediate combat systems. The LAF has expressed a strong desire to acquire U.S.-built fighters most probably from surplus Saudi or Jordanian holdings.¹¹⁹ However, as with the case of Jordanian M60A1/A3s and AH-1s, the LAF may have to seek financial assistance beyond the U.S., given that FMF does not allow for country-to-country transfers of U.S. military equipment, parts and ammunition. Lebanon has skilled

personnel for maintaining its aging fleet of helicopters, yet it does not have the technical staffing or the budget to maintain a meaningful air wing of technologically modern combat aircraft.

As **Figure 8** shows, most Arab air forces now operate modern combat aircraft. Given that Lebanon is the only country in the region to have no operation holdings of 4th or 3rd generation combat aircraft, the LAF's best path to capabilities-building may be through relative obsolescence. Older platforms like the Northrop Grumman F-5, the BAE Systems *Hawk* and the Dassault *Alpha Jet* are used principally as trainers by many Arab air forces. Most are older systems intended to be replaced by modern American and Western European 21st century fighters.

Lebanese Air Force pilots, currently training in the U.A.E, would benefit from valuable flight hours and in-air combat training for operational parameters that would include reconnaissance, search and rescue (SAR), counterinsurgency (COIN) operations and intelligence gathering. Discussions on acquiring of F-5s, *Hawks* or Alpha would have to be executed in parallel with increased investment in facilities, personnel and personnel training, command, control and computers (C³), spare parts and jet fuel.

Should Lebanon opt to pursue acquiring these systems, it will have to convince the U.S. to back potential transfers even if U.S. funding will not be involved in sales. The U.S. has the added task of reassuring Israel that any such transfers would not undermine Israeli national security and the LAF has to navigate around this constraint if it wants to develop its fixed-wing air force.

The F-5 Family of Fighters

A future acquisition of F-5s by the Air Force might represent a significant boost to the LAF's ability to carry out counter-insurgency and close air support operations without posing a challenge to Lebanon's neighbors. F-5s would pose a minimal threat to either Israeli or Syrian air defenses. They lack meaningful radar and countermeasures, and it is highly probable that they would be intercepted before leaving Lebanese airspace.

The F-5 family of aircraft would require significant rebuilding of most available aircraft, but may be adequate in meeting the LAF's preliminary requirements. Most air forces in the Middle East have either completed the replacement of their fleets of F-5s with F-16C/D/Ns, and F-5s that remain in inventory are in storage until they can be sold or otherwise decommissioned.¹²⁰

It is important to bear in mind that F-5s – especially older F-5As – are 30 year old worn and over-used aircraft that will require significant upkeep and maintenance. Depending on which country the LAF approaches, the cost of using these out-of-production aircraft will vary from medium to high. F-5E/F *Tiger IIs* are newer than F-5A/B holdings in the Middle East and may be easier to maintain than F-5A/Bs. In the Lebanese context, the F-5's low interceptor, external attack and loiter capabilities and age may be offset by their

usefulness as ground attack-capable trainers and the absence of meaningful Lebanese air power.

The Hawk Family of Fighters

While the F-5 is essentially late 1960s technology, the *Hawk* family of fighters is far more modern. First flows in 1974, the out-of-production *Hawk* is a capable two-seat jet trainer that is easily adaptable for ground attack and air defense roles, but with minimal interceptor capabilities and a non-afterburning Rolls-Royce Turbomeca Adour engine.¹²¹

Lebanese pilots have gained proficiency on the *Hawk* thanks to a training program provided by the U.A.E. It is not clear whether Oman, Kuwait or the U.A.E. are looking to part with these systems. Most of the U.A.E.'s *Hawks* have been in service since the 1980s, while Bahrain only received its planes in 2006. Given the size of Saudi Arabian *Hawk* holdings in a training capacity, it is probably the only country in the region that can absorb the loss of a small number of these aircraft and not have to immediately compensate for a reduction in manning and training for its own pilots.

The *Hawk* is a British system and U.S. funding cannot finance it. This is no different than the problems the LAF would face were it to opt for the F-5. Here too, Lebanon has to find either a national or international solution to procure funding.

The Alpha Jet Family of Fighters

The Dassault/Dornier *Alpha Jet* offers many of the same flight and combat characteristics as the Hawk: a tandem two-seater airframe with dual turbofan engines, a centerline 30 mm gun pod, four underwing hardpoints, air-to-air and air-to-ground attack capability and a total external load capacity of 2,500 kg.¹²²

As with the Hawk, it is not clear what the long term status of these aircraft may be. It is notable that France, Lebanon's one time patron and current ally, has invested 22.6 million Euros to modernize 20 of its *Alpha Jet E* aircraft. However, by virtue of the size of its aircraft, Egypt is the only country that could potentially absorb losing some of its *Alpha Jets*.

The Russian Fighter Wild Card?

The Associated Press reported on December 16 2008 that Russia has promised to provide Lebanon with 10 MiG-29 fighter aircraft.¹²³ The MiG-29 multi-role fighter would be a substantial increase in capabilities over Lebanon's existing vintage holdings. As of February 5, 2009, it was not yet known which version of the 1980s airframe could be provided to the Lebanese Air Force. There were also no immediate details on the value of the deal, potential delivery dates, weapons systems, ammunition, equipment or training.

Given Lebanon's small size, supersonic combat aircraft have never been of much use, and even in an interceptor role – as was the case with Lebanese Air Force Mirages, MiG-29s could prove to be more of a burden than an asset. Maintaining such major systems could be prohibitively expensive and it is unclear as to whether Russia would offer assistance to Lebanon in training air and ground crews, upgrading Lebanese radar and C⁴I systems and infrastructure – including runways – to accommodate MiG-29s.

Russia is not bound by the procurement mechanisms that handle U.S. FMF and FMS to foreign countries, and is able to provide its allies and clients with support in a much shorter time frame. However, as with as-yet unfulfilled promised to provide Syria with modern SAM systems, it is unclear when the LAF could receive these aircraft.

Lebanon has never flown Soviet or Russian military fixed-wing aircraft and this would be a departure from on-going training operations on Emirati *Hawks* and long-standing requirements for Western light fighters, which are generally considered to be more reliable and cost-effective systems.

The COIN Alternative?

While most proposals on Lebanese air force development have focused on surplus light fighters, the LAF may also consider the acquisition of dedicated counterinsurgency (COIN) aircraft as another viable option for force development given the Lebanese military's irregular warfare needs.

As the war in Afghanistan has shown, million-dollar hardware against insurgents using off-the-shelf hardware and black market light weapons has not proven cost-effective for the U.S. This is even truer for a cash-strapped fighting force such as the LAF.

Single or twin-engine propeller-driven sub-sonic COIN aircraft could meet many if not most of the LAF's close air support (CAS) needs with regards to internal security and counter-terrorism operations in Lebanon.

In 2007, the U.S. Special Operations Command (SOCOM) identified the Hawker Beechcraft AT-6B and the Embraer Tucano or the EMB-314 Super Tucano as possible low-cost options for light strike and air-to-ground COIN roles. These and similar aircraft boast good endurance and weapons loading. The AT-6B has up to 6 hours of loiter time with a heavy weapons load that includes two 500 lb bombs and a .50-caliber machine gun. The load could be further increased by at least an additional 285 lb.¹²⁴

Aircraft like the AT-6B and the EMB-314 could be a solid and cost-effective alternative to meeting the LAF's immediate needs. They are easy to maintain, do not need heavily built up air bases and can operate from makeshift landing strips. In addition, aside from their combat role, COIN aircraft could easily double as trainers.

There have traditionally been concerns that propeller-driven COIN aircraft are dangerous to operate in the presence of AA systems, given their slower speed compared to jets.

Propeller-driven COIN aircraft would offer air crews more protection and higher survivability in combat than the LAF's existing fleet of helicopters. Turboprop-driven aircraft also offer reduced heat signatures when compared to conventional fighter jet aircraft. Given that the LAF will not use COIN aircraft in combat operations against Israel or Syria, there is no direct disadvantage to considering their use.

According to the IISS *Military Balance*, there were no air forces in the Middle East operating COIN aircraft in 2008, and one cannot dispute that there are some roles where a jet fighter is essential. However, in the context of an almost non-existent force – such as the Lebanese Air Force – turboprop-driven COIN aircraft could be a good option for force development. The re-constituting Iraqi Air Force may point the way with its acquisition of Cessna 208B Grand Caravan trainers, which will be equipped with AGM-114 Hellfire ATGMs to fulfill CAS and COIN roles.¹²⁵ The LAF should also consider its own needs and whether COIN aircraft could be a cost-saving alternative to more costly – and aging – jet fighter options.

If the LAF is serious about even minimal airpower and wants to acquire such systems from its regional and international allies in a timeframe of under 24 months, low cost COIN aircraft and force development through obsolescence might be the only options available to the LAF in the short to mid-term.

Future Lebanese Expenditures on National Defense and Arms Imports

Funding force development will present major challenges. The LAF has come a long way in terms of overall capacity and capabilities in the post-Civil War era, and as **Figure 17** shows, its projected future needs in 2006 were substantial at an estimated cost of some \$890.7 million.¹²⁶ However, the LAF's efforts to meet its procurement benchmarks for newer systems have yet to materialize three years on, with Lebanon signing few arms agreements over the last ten years.

As **Figures 23** and **24** demonstrate, Lebanon only made \$200 million-worth of new arms agreements over the 1996-2007 period, with its most recent arms deliveries worth \$200 million being completed during the 1996-1999 period. It is important to note that despite pledges by many foreign suppliers, including the U.S., to provide the LAF with new systems, Lebanon only signed agreements valued at \$100 million during 2004-2007, and these deals were with suppliers other than the U.S. or Western European states.

While assessing the LAF's needs provided a valuable benchmark for evaluating preferred and attainable force capacity and capabilities building, an examination of Lebanese defense spending is crucial in ascertaining why the LAF is so far off course from its 2006 procurement targets for 2008.

Evaluating Lebanese Armed Forces Expenditures

There are uncertainties in much of the reporting on Lebanese military spending, but the broad trends are clear.¹²⁷ **Figure 25** shows the post-Civil War development of Lebanese central government spending, Lebanese gross domestic product (GDP) and Lebanese national defense spending in constant dollars.

In sharp contrast to the national budget and GDP, Lebanese defense expenditures grew from \$200 million to \$700 million from 1990 to 1995, but have remained largely flat at around \$600-700 million over the 1998 to 2008 period, averaging \$550 million over the overall post-Civil War period. According to the Lebanese Ministry of Finance, the budget of the Lebanese Armed Forces for 2008 was \$760 million or 8.6 percent of Lebanon's \$8.8 billion national budget, or 3.2 percent of GDP for the year. In 2007, at \$742 million it represented 8.2 percent of the budget and 3.3 percent of GDP, and at \$598 million for 2006 defense spending represented 7.6 percent of the budget and 2.7 percent of GDP.¹²⁸

Comparing the development of Lebanese defense spending against other economic indicators alone does not tell us whether Lebanese defense spending – consistent and unchanging thought it may be – is adequate or inadequate in meeting the military development needs of the LAF. Evaluating the main elements of LAF expenditure offers a better perspective

Salaries and wages for the LAF accounted for 32.6 percent, 34.6 percent, 35 percent and 35.5 percent of all public sector salaries and wages for 2005, 2006, 2007 and the first half of 2008 respectively. These wages in turn accounted for 81.6 percent, 81.1 percent and 80.2 percent of total LAF expenditures for 2005, 2006 and 2007.

Based on the data presented above, it is clear that the LAF is the largest single recipient of public funds for wages and salaries. The expenditures also account for 80-82 percent of total LAF expenditures, leaving less than 20 percent of the budget for other military expenditures which is mostly sufficient for basic up-keep and maintenance of current forces and facilities.

Had the additional funding for 2006-2008 proposed in **Figure 17** been appropriated, they it would have amounted to estimated total increases in defense spending by 30.8 percent in 2006, 31.2 percent in 2007 and 27.4 percent in 2008. The estimated increase in defense expenditures over the life of the 2006 procurement plan would also have resulted in defense spending constituting 3.9 percent of GDP for 2006, 4.8 percent of GDP for 2007 and 4.3 percent of GDP for 2008.

The 2009 Budget

Figure 26 shows the proposed LAF operational budget for 2009. While this \$875 million budget was prepared in consultation with the Ministry of Finance and represents a potential increase of over 15 percent over the previous year's budget, new Ministry of

Finance data shows that the LAF's budget ceiling may be set at \$755 million for 2009.¹²⁹ Given that the budget provided by the LAF was still a working budget, it remains to be seen what LAF expenditures will actually be in 2009, but for the purpose of our analysis, the 2009 budget proposal is a valuable tool.

Of the total budget requested for 2009 by the LAF, \$695.6 million or 80 percent accounts for salaries, contractual pays bonuses, social security fund contributions and other allowances. This observation is in keeping with the trend established above. The bulk of the remaining \$179.4 million of the 2009 budget consists of:

- \$103.2 million for consumable goods, including among others \$36.4 million for food expenses, \$43 million for diesel fuel, \$19.9 million for medical expenses and \$15.3 million for water, electricity and communications.
- \$39.4 million for maintenance of facilities, technical infrastructure and other maintenance costs.
- \$5.46 million for maintain and renting light and heavy vehicles and other consumable expenses.

The 2009 LAF budget proposal serves only to underscore what the trend data was showing, namely that given the existing burdens on funding, the LAF operates on a "shoestring" budget and does not have the necessary funds to order, acquire and maintain newer combat systems as outlined in **Figure 17**. There are only two options for Lebanon if it wants to try to bring its military forces out of obsolescence: expand Lebanese military spending or seek high and reliable levels of foreign military assistance and financing abroad.

The first option faces stiff opposition at home. Many across the Lebanese political spectrum are reluctant to promote allocating in excess of \$800 million in new funding to the LAF, especially during a period of potential political and economic uncertainty. Even spread out over three years in accordance with the LAF's 2006 appropriation plan, the LAF would have to nearly double annual defense expenditures for three consecutive years. This does not include follow-on costs associated with maintaining new systems. Lebanon's public debt stood at \$45.6 billion (in excess of 200 percent of national GDP) in September 2008 with few Lebanese politicians willing to take responsibility for further increases.

The Overall Pattern of Foreign Military Assistance to the Lebanese Armed Forces

Lebanon is unable to develop its military forces without the assistance of funds and equipment from other countries, such as the United States, France, the United Kingdom, Belgium and the U.A.E. In addition to increasingly shaping Lebanese tactics and force structure, the U.S. has focused mainly on assisting the LAF with spare parts, training, ammunition and assisting to develop its ground forces and logistics.

France continues to offer training to LAF personnel in the post-Civil War era in addition to providing some missiles for the LAF's AS-342Ls. Germany has been instrumental in assisting the LAF develop its ability to police and secure both its coastline and its border with Syria,¹³⁰ while the U.A.E. has played an important role in developing Lebanese pilot training in anticipation of potential LAF fixed-wing deliveries sometime in the future. Russia and Syria have also provided assistance to the LAF, the former focusing on enhancing Lebanese engineering regiments and the latter by assisting the LAF with ammunition and parts during the 2007 battle with Fatah Al-Islam.

Assistance Since 2006

In the absence of major increases in national defense spending, the need for aid is essential if the LAF is to meet many of the needs set out in **Figure 22**. As **Figure A** shows, a number of countries are actively involved with assisting Lebanon develop its military forces with an informal "division of labor" among major Western states.

The U.S. has played a decisive role in rehabilitating and replacing the LAF's aging motor pool of light and heavy transport vehicles in support of logistics operations in-country. U.S. military assistance has also been crucial in bolstering LAF munitions stocks, AT capabilities, SF fighting capabilities, communications, training and night fighting capabilities.

The U.A.E. has done more to assist Lebanon's Air Force than any other country, providing 9 AS-342L *Gazelle* attack helicopter and much needed no-cost training in the U.A.E. on Emirati *Hawk* light fighters/trainers. The U.A.E. has also supplemented U.S. efforts to augment LAF AT holdings and has provided the Lebanese Navy with 10 additional patrol craft.

France provided the LAF with 50 HOT ATGMs to arm its AS-342L attack helicopters, as helicopter transfers from the U.A.E. did not include AT missile systems. Like the U.S. and the U.A.E., France also continues to offer combat training to LAF personnel. Germany provided Lebanon with three larger patrol craft to supplement LAF holdings of smaller patrol boats, in addition to providing LAF personnel with littoral surveillance, seamanship and border patrol training.

Russian military support has mainly been targeted at the LAF's Support Brigade. Russian assistance included mobile bridges, trucks and bulldozers. The Support Brigade's engineers and sappers played an important role at Nahr Al-Bared by disarming and clearing Fatah Al-Islam IEDs, traps and fortifications.

Figure A: Major Assistance to the LAF since the 2006 Israel-Hizbullah War

From the U.S.:

- In excess of 12 million rounds of ammunition
- Components for LAF helicopters

- 1,000 disposable MANPATs
- 150 M24 sniper rifles for SF use
- Unspecified numbers of M4 carbine spare parts, components and accessories
- 150 M500 shotguns for SF use
- 150 NVG gun sights
- 200 hand-held GPS receivers
- Five tactical ambulances
- In excess of 285 HMMVWs with an additional 312 expected for short-term delivery
- 200 M35A3 two-and-a-half-ton trucks
- 20 M109A3 two-and-a-half-ton trucks
- 15 M915 heavy tractor trucks with 12 M872/M872A1 flat-bed trailers
- Assault rifles automatic grenade launchers, sniper weapons systems, AT weapons, anti-bunker weapons and body armor
- A secure battlefield communications system
- Additional clothing, gear and equipment for LAF personnel

From the U.A.E.:

- 9 AS-342L *Gazelle* attack helicopters armed with machine guns (no air-to-ground missiles)
- 100 Milan ATGMs
- Training for Lebanese Air Force fighter pilots on Hawk jets
- 10 12 m fast assault boats
- Communications equipment

From France:

- 50 HOT missiles to arm AS-342L *Gazelle* helicopters provided by the U.A.E.

From Germany:

- Three patrol vessels in addition to seamanship and littoral surveillance training to the Lebanese Navy

From Russia:

- Nine heavy-duty mobile bridges, an unspecified number of trucks, cranes, bulldozers other vehicles worth an estimated \$30 million

From Syria:

- Parts and ammunition for Lebanese T-54/55 MBTs and M-46 130 mm artillery batteries

Source: Department of Defense, "DOD to Equip Lebanon's Special Forces with Small Arms, Vehicles," *Inside the Pentagon*, April 10, 2008, p.1, Riad Kahwaji, "14-Week Siege Ends with Lebanese Victory," *Defense News*, September 10, p. 26, Riad Kahwaji, "More Weapons for Lebanon," *Defense News*, September 1, 2008, p. 30, Riad Kahwaji, "Special Operations Command, More Military Aid for Beirut," *Defense News*, January 22, 2008, available at <http://www.defensenews.com>, Nicholas Noe, "A Fair Fight for Lebanon's Army," *The New York Times*, June 18, 2008, available at <http://www.nytimes.com>, Alex Pape, "Germany donates third patrol vessel to Lebanese Navy," *Jane's Navy International*, June 6, 2008, available at <http://www.janes.com>, and Robert F. Worth & Eric Lipton, "U.S. Resupplies Lebanon Military to Stabilize Ally," *The New York Times*, October 26, 2008, available at <http://www.nytimes.com>.

Future Assistance Plans

Figure B shows additional assistance that donor countries now plan to provide to the LAF in 2009 and beyond.¹³¹ The lack of heavy weapons support presents an ongoing problem. The sale of some 66 surplus Jordan M60A3, an unspecified number of AH-1 *Cobra* attack helicopters and more than 34 U.S. M109 SP 155 mm artillery systems is certainly a step in the right direction, but there are still some major hurdles. LAF officials expect to receive no more than 10 of the tanks before the Parliamentary elections set for June 2009, and potentially none of the AH-1s by that date. There were few details on the potential delivery of M109s to the LAF at the time of writing.

Russia and Poland both proposed to upgrade and retool LAF T-54/55s, but these proposals remain prohibitively expensive, with the Russian offer to upgrade 100 T-54/55s expected to cost some \$500 million.¹³²

The LAF was hoping to have the stabilization systems of all its future M60A3s upgraded to allow for fire on the move. However, according to a senior LAF official, it seems that the 10 the LAF will initially receive will be equipped with a less sophisticated gun stabilization system in order to expedite the delivery process. The remaining 56 MBTs could take as much as 1-2 years for the upgrades to take place, let alone allowing until 2010 for physically transferring the tanks to Lebanon. The M60A3 upgrade will not be carried out under FMF funding, and it is expected that Saudi Arabia will pay for the upgrade package. Issues surrounding maintenance and spare parts have slowed down the transfer of Jordanian AH-1s to Lebanon, and it is not clear whether the transfers and added costs will be offset under FMF.¹³³

Figure B: Major Assistance to the LAF in 2009 and Beyond

From the U.S.:

- 66 surplus M60A3 tanks to be transferred from Jordan upon completing modifications to the tanks' stabilization systems to allow for fire on the move
- More than 34 M109 155 mm self-propelled artillery systems
- 44 M198 155 mm towed howitzers to replace aging LAF units, including Soviet era D-30 and M-1939 122 mm systems
- 300 addition HMMVWs
- One 42 mm blue-water CSC-137 Class-1 patrol craft armed with one 25 mm cannon and two .50 caliber guns
- Unspecified numbers of AH-1 *Cobra* attack helicopters from Jordan
- A secure battlefield communications system

From Belgium:

- 40 Leopard-1A5 MBTs
- 32 YPR armored infantry fighting vehicles (AIFVs) armed with 25 mm guns

Source: Department of Defense, "DOD to Equip Lebanon's Special Forces with Small Arms, Vehicles," *Inside the Pentagon*, April 10, 2008, p.1, Riad Kahwaji, "14-Week Siege Ends with Lebanese Victory," *Defense News*, September 10, p. 26, Riad Kahwaji, "More Weapons for Lebanon," *Defense News*, September 1, 2008, p. 30, Riad Kahwaji, "Special Operations Command, More Military Aid for Beirut," *Defense News*, January 22, 2008, available at <http://www.defensenews.com>, Nicholas Noe, "A Fair Fight for Lebanon's Army," *The New York Times*, June 18, 2008, available at <http://www.nytimes.com>, Alex Pape, "Germany donates third patrol vessel to Lebanese Navy," *Jane's Navy International*, June 6, 2008, available at <http://www.janes.com>, and Robert F. Worth &

Eric Lipton, "U.S. Resupplies Lebanon Military to Stabilize Ally," *The New York Times*, October 26, 2008, available at <http://www.nytimes.com>.

The Impact of Military Assistance in Meeting LAF Needs

Levels of international assistance during the 2006-2008 period have contributed to alleviating the burden on the LAF in meeting both Lebanon's internal and national security defense needs. The key areas of improvement are in equipment and training for Lebanese special forces units, logistics, ammunition, and some increase in the LAF's ability to provide rotary aircraft ground support in the field.

The level of planned assistance to the LAF in 2009 and beyond could go a long way toward meeting some of its core requirements for developing its capabilities and force capacity. The future receipt of a combined total of some 106 tanks, 32 AIFVs and 300 additional HMMVWs will allow the LAF to update its operational parameters, carry out combined maneuvers and take advantage of more modern and more reliable armor, all the while allowing it to potentially retire some if not most of its older T-54/55s from service.

Despite these positive shifts in favor of the LAF, however, it is likely that Lebanon will continue to have major weaknesses in 2009, given that the LAF's immediate requirements for heavy weapons systems, including additional MBTs, towed and SP artillery, WAPCs, additional patrol craft, LSTs modern attack helicopters, modern medium and long range radar, battlefield management systems and at least some AD and fixed-wing ground support capacities will remain largely unmet.

The Impact of U.S. Military Assistance

The U.S. has traditionally been the LAF's most important source of arms and military financing for over 50 years. Successive U.S. governments have had a vested interest in ensuring Lebanon's stability. While democracy promotion, economic reform and combating corruption were important components of the Bush Administration's Lebanon agenda, the core of U.S. policy for more than the past 30 years has been, and continues to be, the security of Israel's northern border.

U.S. Assistance from 1950 Onwards

Despite fluctuations, the U.S. has been Lebanon's most important source of arms and military financing for over 50 years. U.S. support for the LAF has varied sharply over time, depending on the perceived stability and regional threat profile of Lebanon and local Lebanese actors.

During the last major U.S.-led effort to provide the LAF with modern weapons in the 1980s, the then mainly Shi'a 4th and 6th Infantry Brigades split from the rest of the LAF in 1984, joining Shi'a militias Amal and Hizbullah and taking their weapons and

equipment with them.¹³⁴ This and the return of instability at the national level prompted the U.S. to reconsider its assistance to Lebanon. The U.S. ultimately suspended Lebanese requests for FMF over the 1984-2005 period.¹³⁵

During the 1950 to 2007 period, the U.S. made Foreign Military Sales (FMS) to Lebanon of an estimated \$718 million, \$668.8 million of which took place over the 1950-1997 period. The Defense Security Cooperation Agency (DSCA) reported that U.S. FMF for 1950-2007 was in excess of \$278 million while the U.S. Department of State notified Congress that FMF for Lebanon over the 2006-2007 period alone was \$240.3 million in FY 2008 dollars. It should be noted that it is unclear whether the DSCA data includes some \$220 million in supplemental funding for FY 2007. DSCA also reported that the U.S. also provided training worth \$17.2 million to 3,984 LAF officers as part of its IMET program from 1950 to 2007.¹³⁶

U.S. Assistance from 2006 to 2009

Figure 27 shows actual and projected U.S. military assistance to Lebanon based on Foreign Military Sales (FMS), Foreign Military Financing (FMF), International Military Education and Training (IMET) and Global Train and Equip Authority (Section 1206 Authority) in current US dollars.

By adding Section 1206 Authority funds to FMF and IMET and using the OMB deflator, it can be estimated that the U.S. provided a total of \$292.9 million in FY 2008 dollars in total military assistance over the 2006 to 2008 period.¹³⁷

Given that Lebanon received only \$700,000 in IMET in 2005 and no military assistance at all in 2005 (due in large part to perceived instability in the country in the wake of the Hariri assassination and the withdrawal of Syrian troops in April of that year), the spike in U.S. military assistance from 2006 onwards was truly unprecedented.

The figures in this report do not include U.S. military assistance to Lebanon under the Foreign Assistance Act of 1961 Section 516, also known as Grant Authority 516. Grant Authority 516 allows for the transfer of non-lethal Excess Defense Articles (EDA) sales or grants to U.S. allies at prices ranging between five and 50 percent of the original cost of acquisition.¹³⁸ The following articles were supplied to Lebanon at low or no cost between January 2006 and April 2008 under Grant Authority 516 for the 2006 and 2007 fiscal years:¹³⁹

- 200 M35A3 two-and-a-half-ton trucks
- 20 M109A3 two-and-a-half-ton trucks
- 15 M915 heavy tractor trucks with 12 M872/M872A1 flat-bed trailers
- UH-1 Synthetic Flight Trainer System 2B24
- Additional clothing, gear and equipment for LAF personnel

Figure 28 shows U.S. economic and military assistance to Lebanon from 2000 and 2009 in current dollars. Lebanon has been a steady recipient of U.S. economic aid under the

aegis of the Economic Support Fund (ESF), receiving anywhere from \$35 million to \$39.6 million per year from 2001 to 2006. What is interesting, however, is that the spike in U.S. military support in 2007 was mirrored by an equally high ESF allocation for that year. This is largely thanks to \$220 million in supplemental FMF funding and \$295 million in supplemental ESF for FY 2007. The actual requested level of funds for Lebanon for 2007 were \$4.8 million for FMF – a steady rise from the \$3.7 million earmarked for 2006 – and \$39.6 million for ESF – consistent with ESF allocations for the 2001 to 2006 period.¹⁴⁰

Figure 29 shows actual/estimated levels of economic and military assistance as they compare to their originally requested levels of support. This is useful in showing any radical variations in resource allocations to Lebanon. **Figure 29** shows that the amounts requested and ultimately appropriated for ESF support to Lebanon have undergone little variation. Where there are changes in the level of assistance, the actual level of ESF is usually higher than the level originally requested by the U.S. Department of State. U.S. military support in the form of IMET and FMF shows a similar pattern, with actual levels of assistance equaling and at times overtaking the original levels requested.

The only break in this trend occurred when the U.S. government allocated \$515 million in additional funds in FY 2007 for ESF and FMF. This can largely be attributed to the economic and security challenges Lebanon was facing, namely continued political escalation between the pro-U.S. Saniora-led government and the opposition and the fighting at the Nahr Al-Bared refugee camp between the LAF and the Fatah Al-Islam terrorist group. **Figure 30** shows the same trend but only as regards military assistance to Lebanon.

It is expected that in FY 2009, U.S. military and economic assistance will be at near parity for the first time with the former estimated at \$64.3 million and the latter at \$67.5 million.¹⁴¹ However, support levels are subject to congressional approval. In January 2008, LAF sources reported to *Defense News* that the Lebanese military expects strong support from the United States in 2008, anticipating an aid package to be in the range of \$200 million.¹⁴² If one is to judge U.S. military support to Lebanon on the basis of FMF, IMET and Section 1206 Authority funding, it is difficult to expect such a high level of assistance without addition supplemental funding in FY 2008.

The Pace and Timing of U.S. Aid

Based on the data in **Figure 27**, the U.S. earmarked \$240.4 million in FMF funding for the 2006-2008 period in FY 2008 dollars, with total military aid so far being estimated at \$292.9 million. However, the mechanisms governing the FMF and FMS process may mean that it will be some time before Lebanon tangibly receives the military support it clearly needs.

As with any country that receives U.S. military assistance under the Department of State supervised FMF program, military sales to Lebanon are procedurally slow and

convoluted, taking as much as three to four years to carry out deliveries.¹⁴³ Accordingly, FMF orders agreed upon in 2006 could take until 2009 or 2010 before completion.

FMF funding is a good financing mechanism for U.S. allies such as Egypt, Israel or Jordan that have relatively advanced militaries with good capabilities, robust stocks of ammunition and spare parts and relatively flexible time horizons for delivery. It is also important to keep in mind that these countries are continually taking deliveries from the U.S. while also placing new orders over time.

Lebanon has far more immediate needs – as evidenced by the shortage of ammunition and the lack of adequate equipment during the fighting at Nahr Al-Bared – and only recently resumed soliciting U.S. military support under FMF after a more than 20 year hiatus. Accordingly, countries like Lebanon are in need of a far more fast-paced financing and delivery regime for military equipment.

Section 1206 of the National Defense Authorization Act for Fiscal Year 2006 allows the DoD to train and equip foreign military forces. This is an important departure from how the U.S. has traditionally assisted its allies. Under the FMS and FMF programs, DoD equips and trains foreign militaries under the authority of the Department of State. Section 1206 allows the DoD to move quickly to equip and train foreign militaries by accessing funds authorized by Congress on a yearly basis.¹⁴⁴

According to a *Congressional Research Service* report, Lebanon received \$10.6 million and \$30.6 million worth of assistance in 2006 and 2007 respectively. This accounted for a fairly substantial 28.6 percent of total Section 1206 funding for the Middle East and South Asia, with the only other recipients for that period being Bahrain (\$30.2 million total), Pakistan (\$41.4 million total) and Yemen (\$31 million). The same report also adds that as of May 15, 2008, the LAF had received \$7.2 million so far in 2008.¹⁴⁵ As was discussed earlier, these funds were used to equip Lebanon's SF units with modern equipment for counter-terrorism and counter-insurgency operations.

Given the fact that Section 1206 funding allocated since 2006 to Lebanon totaled \$48.6 million as of mid-2008, it seems likely that the U.S. will continue this level of support in the short term.

Key Issues in Funding U.S. Military Assistance

Lebanon may be a recipient of U.S. military assistance, but it is also subject to a U.S. embargo on arms exports in the wake of the 2006 Israel-Hizbullah War. On December 15, 2006, the Department of State's Bureau of Political-Military Affairs gave official notice that in accordance with United Nations Security Council (UNSC) Resolution 1701:¹⁴⁶

“(...) all licenses and approvals to export or otherwise transfer defense articles and defense services to Lebanon pursuant to Section 38 of the Arms Export Control Act

(AECA) are suspended, except those authorized by the Government of Lebanon on the United Nation Interim Force in Lebanon (UNIFIL) (...).

(...) U.S. manufacturers and exporters and any other affected parties (e.g., brokers) are hereby notified that the Department of State has suspended all licenses and approvals authorizing the export or other transfer of defense articles and defensive services to Lebanon except those authorized by the Government of Lebanon and UNIFIL.

(...) Holders of existing licenses or authorizations must submit documentation for review by the Directorate of Defense Trade Controls (DDTC) supporting the authorization of the transaction by the Government of Lebanon and UNIFIL. For future authorizations, exceptions to this policy of denial will be made, in accordance with the [International Traffic in Arms Regulations] IRAR, on a case-by-case basis to determine whether they conform to UNSCR 1701.

Based on the parameters of this notice these sanctions apply to extra-legal Lebanese actors, and would not impact the LAF directly. There is no indication that the embargo is negatively impacting the LAF's efforts to procure U.S. assistance.¹⁴⁷

While the FMF process is slow and frustrating, the U.S. has moved exceptionally quickly to ensure that the LAF has some of its more basic needs met promptly. 285 HMMVWs and other systems have already been sent to Lebanon under the scheme, with an additional 300 of the vehicles also expected to be paid for under FMF funding.¹⁴⁸ The fact remains, however, that less than half of the funds appropriated since 2006 have yet to translate into real-world military hardware,¹⁴⁹ and it was not clear in December 2008 whether this was related to the FMF program's inherently slow life cycle, or whether other considerations were at play.

Another problem with FMF funding is that sales are required to be carried out by U.S. suppliers or manufacturers that are incorporated or licensed in the U.S.¹⁵⁰ This presents major challenges in acquiring second-hand hardware like Jordanian M60A1/A3s and AH-1s, given that it would effectively constitute a country-to-country sale. As discussed above the LAF has taken alternative steps to finance the sale, but this is a major obstacle to force development, given that many systems the LAF hopes to acquire in the future are U.S. hardware in inventory with other countries.

The role of Section 1206 Authority assistance in bolstering LAF force development needs further recognition. Section 1206 allows the U.S. to assist the LAF far quicker than under FMF and FMS, however there are two factors that could limit its effectiveness. First, Section 1206 funds are drawn from limited budgets. The Section 1206 funding ceiling was \$300 million for FY 2006, FY 2007 and FY 2008 respectively with a provisional request for \$500 million for FY 2009.¹⁵¹ Second, under Section 1206 authority, countries are expected compete for funds yearly for projects, whereby requests are expected to meet U.S. requirements rather than those of partner-nations.¹⁵²

The first factor would only prove problematic if Section 1206 funding ceilings were met annually. Given that Section 1206 allocations totaled \$106.4 million in 2006 and \$289.2

million 2007 with ceilings of \$300 million for both years,¹⁵³ it is too soon to say just how competitive the international vetting for funds will be for 2008 and beyond.

As for the second factor, meeting U.S. requirements for assistance to Lebanon and the LAF pursuing funds for systems it is convinced it needs do not have to be mutually exclusive. Meeting some of Lebanon's military needs under Section 1206 will depend heavily on increasing U.S.-Lebanese communication on defense issues. Given the creation of a joint U.S.-Lebanese military commission to manage foreign military aid to the LAF,¹⁵⁴ such steps may already be underway.

The slow pace of U.S. military assistance, especially in the delivery of heavy weapons to the LAF, may be driven by "differing points of view," with some at State and DoD being eager to rebuild the LAF, while others remained reluctant given Israeli concerns that new weapons deliveries could fall into the hands of Hizbullah.¹⁵⁵ It is important to stress that the allegations discussed above could not be verified at the timing of writing. In contrast, Mark T. Kimmett, the Assistant Secretary of State for political and military affairs praised the LAF as a reliable partner that "[has] demonstrated year after year after year that when we give them equipment, they take responsibility for it."¹⁵⁶

Another issue with the U.S. effort to assist the LAF are U.S. aid and assistance priorities beyond Lebanon. In addition to re-building the Iraqi Security Forces, the U.S. is also actively engaged in training-up and equipping the Afghan National Army (ANA). While the funding for these efforts may be independent, all these efforts draw from similar pools of resources and equipment in the U.S., creating pressure on the U.S. to provide its allies with new or surplus equipment within a short turn-around time. As a June 2008 U.S. Government Accountability Office (GAO) report on Afghan security states:¹⁵⁷

"When U.S. forces or other nations have higher priority to receive equipment, [Combine Security Transition Command - Afghanistan] officials noted that [Afghan national Army] orders are delayed. Officials at the U.S. Army Security Assistance Command also stated that Iraq may be a higher priority than Afghanistan, while a senior official from the Defense Security Cooperation Agency (DSCA) stated that other nations, such as Georgia and Lebanon, may also receive higher priority. Furthermore, production delays for certain equipment items may contribute to equipment shortfalls. For instance, CSTC-A officials stated that due to production delays, certain equipment items, such as NATO-standard heavy machine guns and mortars were not currently available and would not likely be delivered until 2009 or 2010."

The U.S. cannot undercut its efforts to build up the ANA or the Iraqi Security Forces. However, it can move to facilitate LAF efforts to use FMF/Section1206 funds to acquire U.S. hardware from friendly Arab states in the region – and relieving the burden on ANA and Iraqi Security Forces procurement in the process.

The Russian Wild Card in Military Assistance to Lebanon

As was discussed earlier in this study, in December 2008 Russia offered to supply the LAF with 10 MiG-29 *Fulcrum* multi-role aircraft. It was also reported that a potential

deal would also include T-90 MBTs, Tor-M1 short range SAM systems and possibly AT-13 *Metis* or AT-14 *Kornet-E* ATGMs.¹⁵⁸

It is undeniable that Lebanon – and the LAF in particular – have been frustrated by the slow pace of assistance from the U.S., but even more so by the U.S.’s unwillingness to provide the LAF with major combat systems such as light or multi-role fighter aircraft.

More than a reflection of Lebanon turning to one or another “camp” as a source of military assistance, the Russian offer challenges the U.S. role in upgrading the Lebanese military within the broader context of Russian foreign policy assertiveness. As of January 2009, the U.S. has not made any offers on par with the Russian offer. There has also been no agreement between Lebanon and Russia formalizing the sale of such systems to Lebanon in keeping with a specific time frame.

Conclusion

Lebanese security and politics will be put under increasing pressure as the country moves closer towards hotly contested parliamentary elections set for June 2009. However, it is unlikely that Lebanon could have weathered the turbulence of the post-Syria era without the LAF. Local and international actors have come to appreciate the military’s role as a stabilizer in Lebanon and the Middle East. Four years after the Hariri assassination, the LAF is looking to enhance its role in post-Syria Lebanon. The LAF, local Lebanese political actors and the country’s international allies – specifically the United States – will face important challenges in 2009 and beyond on the road to LAF force development.

Recommendations for Lebanon’s Political Actors

- The LAF in the post-Syria era cannot be made to serve the interests of one or a few communities as it did in the pre-Civil War era. Being a multi-sectarian military means that the LAF is a reflection of Lebanese society and the confessional system. The polarization of Lebanese politics and the battle to control or re-orient the Lebanese military only serve to undermine its effectiveness as a fighting force and as a national institution. Lebanon’s competing actors must recognize that such efforts must end if LAF unity and its stabilizing role in the country and the region are to be preserved.
- Lebanese political actors have to rise to the challenge of LAF force development. The Lebanese government needs to move quickly to provide the military with the close to \$1 billion it requires for essential force development. Such a move would be difficult politically. However, the will exists at the Lebanese national level, especially under the leadership of President General Michel Sleiman.

Recommendations for the LAF

- The Lebanese military faces asymmetric threats from non-state actors based in Lebanon. It is also the only force capable of meeting the challenge from terrorist groups, Islamist or otherwise. The LAF must integrate the lessons learned from the 2007 fight against Fatah Al-Islam. This entails developing an umbrella organization for directing Lebanese special forces units.
- LAF should delineate more precisely its medium and short term needs in terms of military equipment – especially in regards to the LAF’s requirement for close air support for combined ground operations.
- While the goal of drafting a common Lebanese national defense strategy is the purview of Lebanon’s competing political actors, the LAF must contribute to shaping Lebanon’s national security imperatives.
- Despite adhering to civilian leadership over the military, the LAF is willing to act independently to safeguard Lebanese national security interests. The LAF still has enough political capital to advise when possible and veto where necessary on matters impacting the territoriality, sovereignty and national security interests of Lebanon.
- LAF public diplomacy is unique to the Arab armies of the Middle East. However, the LAF remains largely opaque on matters relating to LAF force development and changes in LAF policies. The publication of LAF white papers and reports on its doctrine and its military needs in terms of personnel and equipment would bring the debate on LAF development to the Lebanese and international public spheres.
- At the international level, the LAF needs to recognize that it has a vested interest to increase its engagement with the policy communities in countries assisting the LAF and Lebanon. There is no better example than the vigorous and dynamic public policy and think tank community than that of the U.S. The LAF would greatly benefit from expressing its concerns, interests and needs to international public policy institutions; however it is equally important the LAF do so in coordination with the Lebanese government.

Recommendations for the United States

- The Bush administration has repeatedly cited Lebanon as an important Arab ally and as a test case for democracy in the Middle East. However, U.S. policy towards the LAF is unclear and hurts U.S. efforts to bolster the LAF as a positive force in the country and the region. These policy ambiguities should be revised and the U.S. must articulate clearly whether or not it will provide the LAF with the heavy combat systems it needs for force development.
- Any attempt to strengthen the LAF to enable it to Hizbullah will fail. Around 30 percent of the military’s officers corps is Shi’a and given that the LAF is a

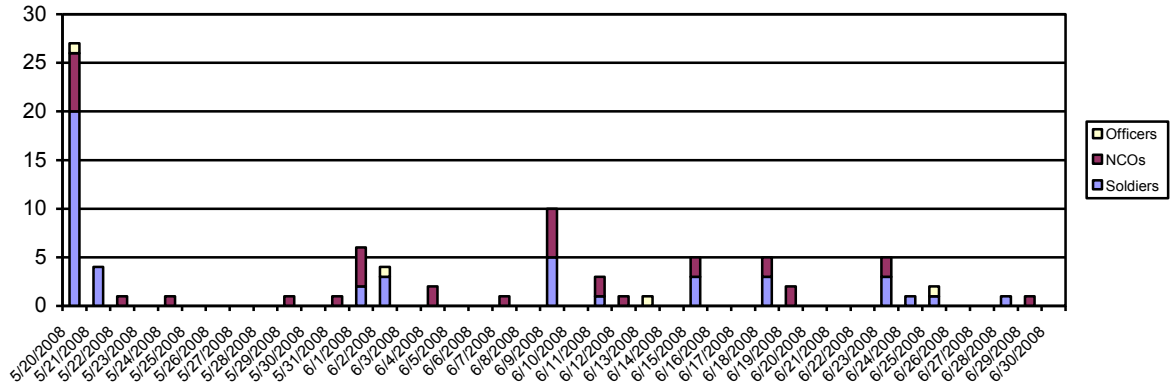
reflection of Lebanese society, it cannot be ordered to act military against one or another community.

- The U.S. must recognize that building up the LAF as a deterrent against Lebanon's neighbors undermines Hizbullah's logic regarding its weapons arsenal. Accordingly, the U.S. should focus on helping the LAF to lay the foundation for Hizbullah disarmament in the mid-to-long term rather than all-out confrontation in the short term.
- The threat to Lebanon from non-state actors other than Hizbullah is an important regional security development in the aftermath of Syria's military withdrawal from Lebanon in 2005. Left unchecked, the threat from groups like Fatah Al-Islam would destabilize Lebanon and the region. The U.S. needs to place added emphasis on the LAF's stabilizing role given that the Lebanese military has shown that it is ready to pay a high price to defend Lebanon from unconventional threats.
- Despite points of contention, the U.S. views the LAF as a reliable partner in Lebanon and the region. Thus, the U.S. needs to set clear guidelines with respect to U.S. military assistance to Lebanon under the FMF and IMET programs. Recent spikes in funding have not yet translated into a higher overall pattern of U.S. military assistance to Lebanon. Congressionally appropriated funding should be set at a level that reflects U.S. recognition of the LAF's role and needs.
- Given the competing schedules for delivery of U.S. combat systems to Lebanon, Iraq and Afghanistan, the U.S. stands to gain from LAF procurement of U.S.-made combat systems from friendly states such as Jordan or the U.A.E. The Department of State, in coordination with DoD and its DSCA should consider mechanisms that would allow congressionally appropriated and supplemental funding under FMF and Section 1206 Authority to be used in LAF acquisitions from U.S. allies.
- Lastly, it is important to note that efforts to augment the LAF's capabilities to bolster Lebanon's place as a neutral player in the region will not materialize in a vacuum. Stability or instability in Lebanon is linked to regional stability and instability. Making strong pushes towards a resumption of Israeli-Arab peace talks – especially the Israeli-Syrian peace track – in 2009 and beyond will positively impact Lebanese and U.S. security interests.

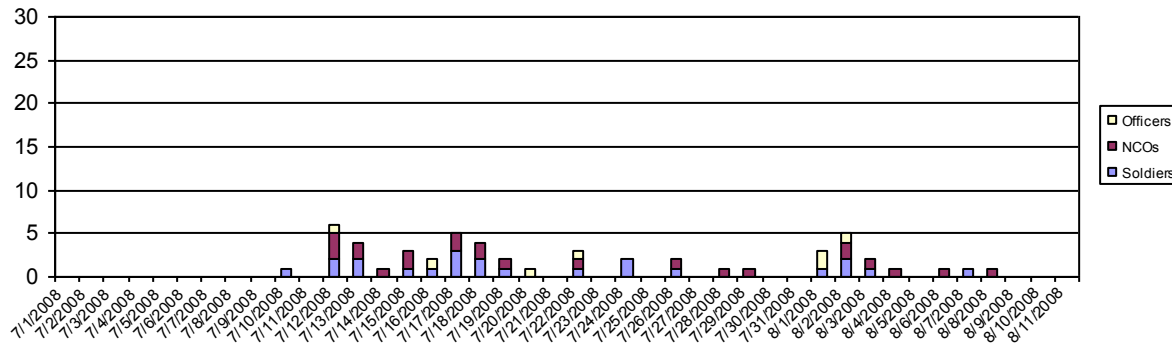
While there have been past efforts to build-up the Lebanese military, at no time in its history has the LAF been more representative, more balanced or more capable as a fighting force. If the Lebanese military is to consolidate its position as the guarantor of Lebanon and as a force for regional stability, this unique opportunity to develop the LAF as a fighting force will have to be pursued in earnest and without delay.

Figure 1: The Cost of Attrition – Lebanese Armed Forces Fatalities during the Fighting at the Nahr Al-Bared Refugee Camp in 2007

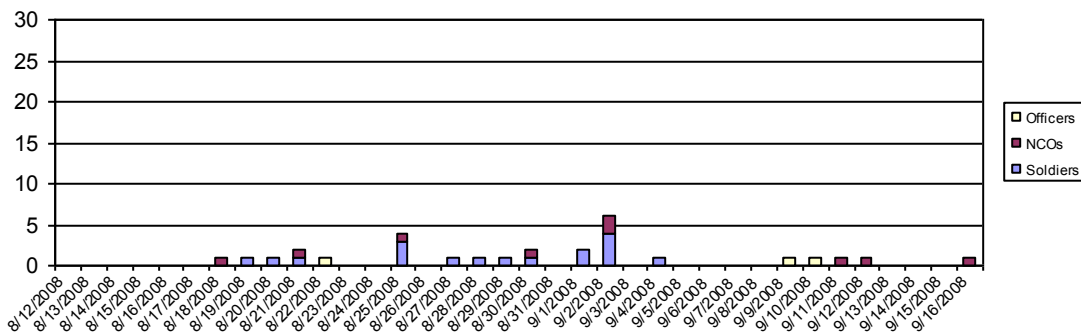
May 20, 2008 to June 30, 2008



July 1, 2008 to August 11, 2008



August 12, 2008 to September 16, 2008



Note: Does not include wounded or fatalities that occurred from wounds the following year. “NCOs” are non-commissioned officers.

Source: Adapted by Aram Nerguizian from data provided by the Lebanese Ministry of Defense.

Figure 2: Lebanese Armed Forces Fatalities at Nahr Al-Bared in 2007**Fatalities by Combat Unit:**

	Officers	NCOs	Soldiers	Total
<i>3rd Infantry Brigade</i>		2		2
<i>5th Infantry Brigade</i>	6	17	30	53
<i>7th Infantry Brigade</i>		1	7	8
<i>8th Infantry Brigade</i>		3	4	7
<i>12th Infantry Brigade</i>			1	1
<i>Commando Regiment (Maghawir)</i>	3	11	9	23
<i>Navy Commando Regiment (Maghawair al-Bahr)</i>	2	14	9	25
<i>Airborne Regiment</i>	1	12	26	39
<i>3rd Intervention Regiment</i>		2		2
<i>1st Artillery Regiment</i>	1			1
<i>2nd Tank Regiment</i>		2		2
<i>Support Brigade – Engineering Regiment</i>	1	2		3
<i>Other</i>		2		2
Total	14	68	87	169

Note: 5th Brigade numbers include infantry and mechanized. Totals include numbers that were detached from one combat force to another. “NCOs” are non-commissioned officers.

Source: Lebanese Ministry of Defense, Author’s interviews with senior Lebanese Armed Forces Command staff, June 6, 2008 & September 5, 2008.

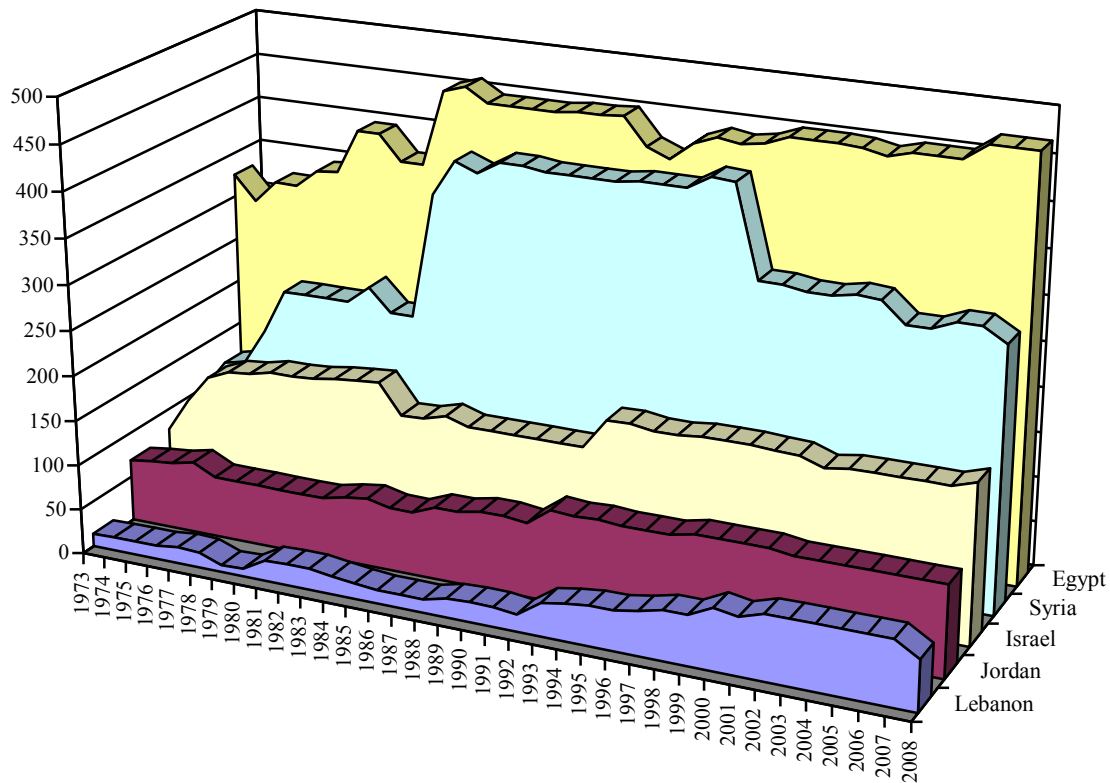
Fatalities by Region:

	Officers	NCOs	Soldiers	Total
<i>Ba‘albek (Bekaa Valley)*</i>	2	14	5	21
<i>Beirut</i>	1	2	1	4
<i>Bekaa Valley</i>		1	4	5
<i>Chouf (Mount Lebanon)*</i>	2	6	1	9
<i>Mount Lebanon</i>	1	3		4
<i>North</i>	2	28	56	86
<i>Saida(South)*</i>	2	2		4
<i>South</i>	2	5	3	10
<i>Tripoli (North)*</i>		6	8	14
<i>Zahleh (Bekaa Valley)*</i>	1	1	2	3
<i>Other</i>	1		7	8
Total	14	68	87	169

Note: “*” Shows districts known as “qadas” with the region or “muhafaza” they belong to in parentheses. “Other” includes officers, NCOs and soldiers born outside Lebanon. Totals include numbers that were detached from one combat force to another. “NCOs” are non-commissioned officers.

Source: Adapted by Aram Nerguizian from data provided by the Lebanese Ministry of Defense and interviews with senior Lebanese Armed Forces Command staff, June 6, 2008 & September 5, 2008.

Figure 3: Total Arab-Israeli Active Military Manpower: 1973-2008
(Troops in thousands)

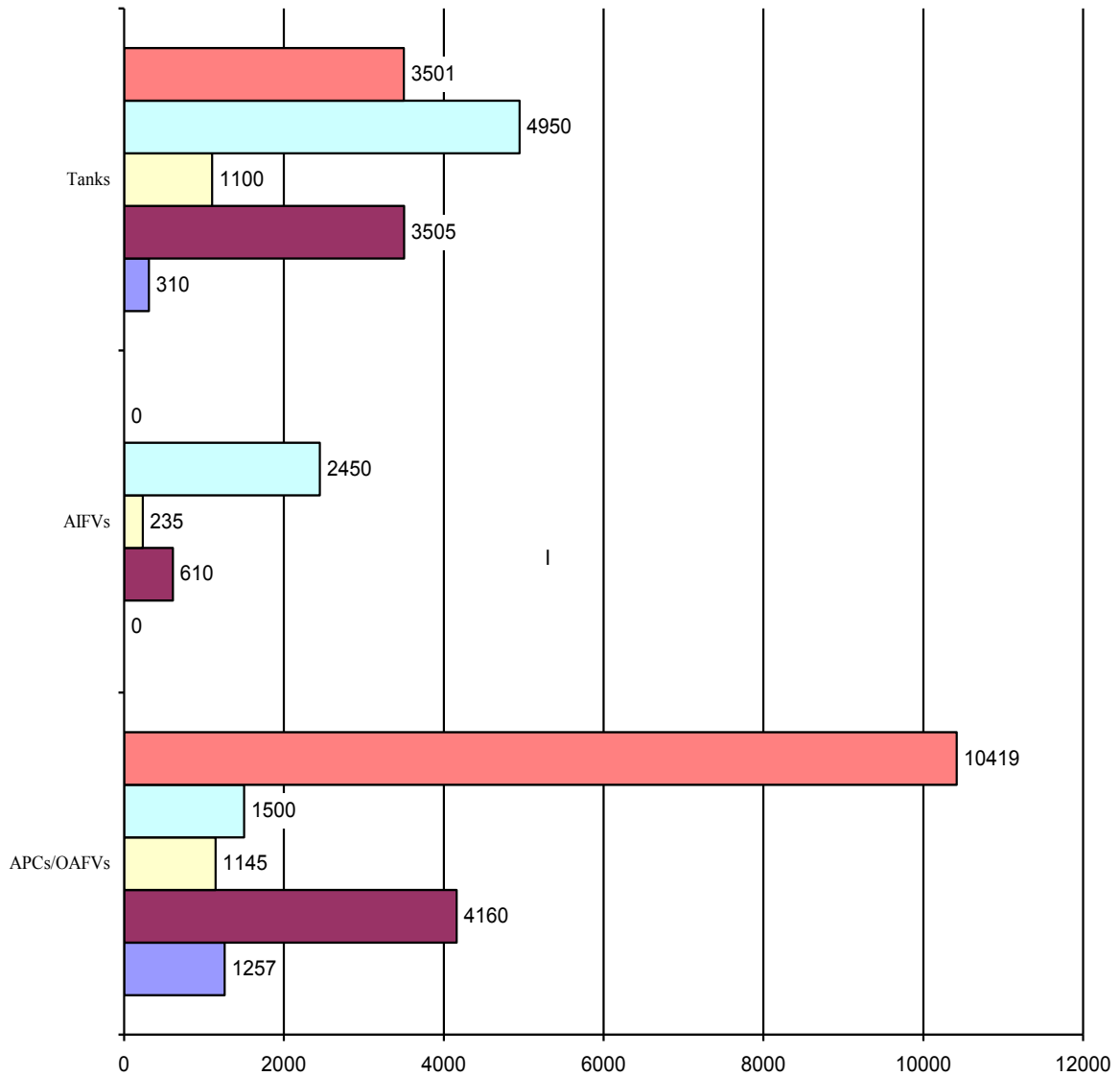


	1973	1976	1982	1985	1988	1991	1994	1997	2000	2004	2005	2006	2007	2008
Lebanon	14.25	15.3	23.75	17.4	15	21.8	41.3	48.9	67.9	72.1	72.1	72.1	72.1	56
Jordan	69.25	80.25	67.5	70.3	80.3	82.25	100.6	98.65	104	100.5	100.5	100.5	100.5	100.5
Israel	77	156	172	142	141	141	176	175	173.5	168	168	168.3	168	176.5
Syria	100	177.5	222.5	402.5	407.5	404	408	421	316	296.8	296.8	307.6	307.6	292.6
Egypt	325	322.5	367	445	445	450	430	440	450	450	450	468.5	468.5	468.5

Source: Adapted by and Aram Nerguizian from the IISS, *The Military Balance*, various editions. Some data adjusted or estimated by the author.

Figure 4: Arab-Israeli Armored Forces in 2008

(Numbers of major combat weapons)



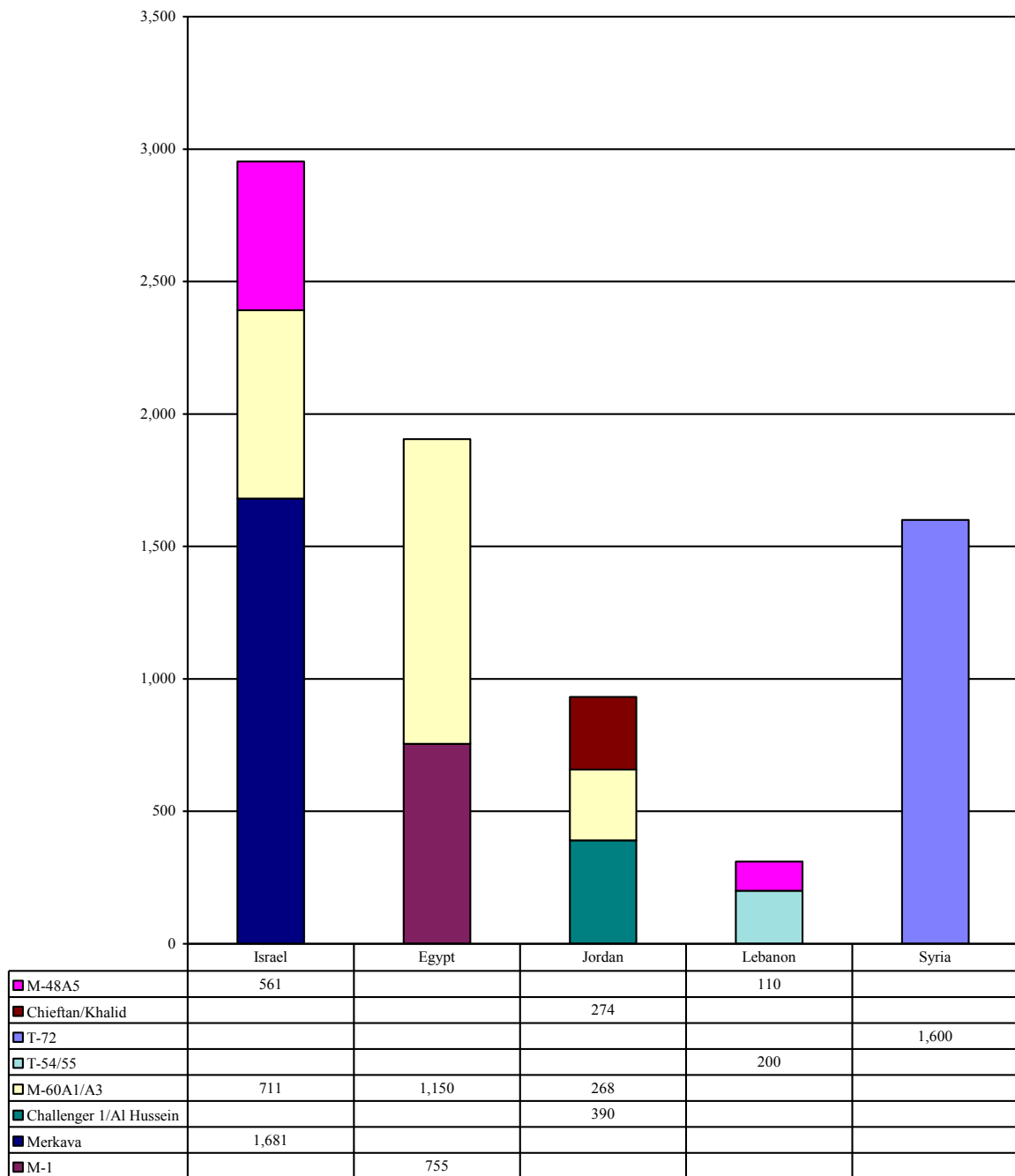
	APCs/OAFVs	AIFVs	Tanks
Israel	10419	0	3501
Syria	1500	2450	4950
Jordan	1145	235	1100
Egypt	4160	610	3505
Lebanon	1257	0	310

Note: Does not include old half-tracks and some combat engineering and support equipment. Tanks include MBTs and LTs. APCs/OAFVs do not include Recce systems. Numbers for Lebanon show total holdings and not active holdings.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions. Other data based upon discussions with U.S. experts.

Figure 5: Lebanon versus Israel, Egypt, Jordan and Syria: Operational Tanks by Type 2008

(Numbers of major combat weapons)

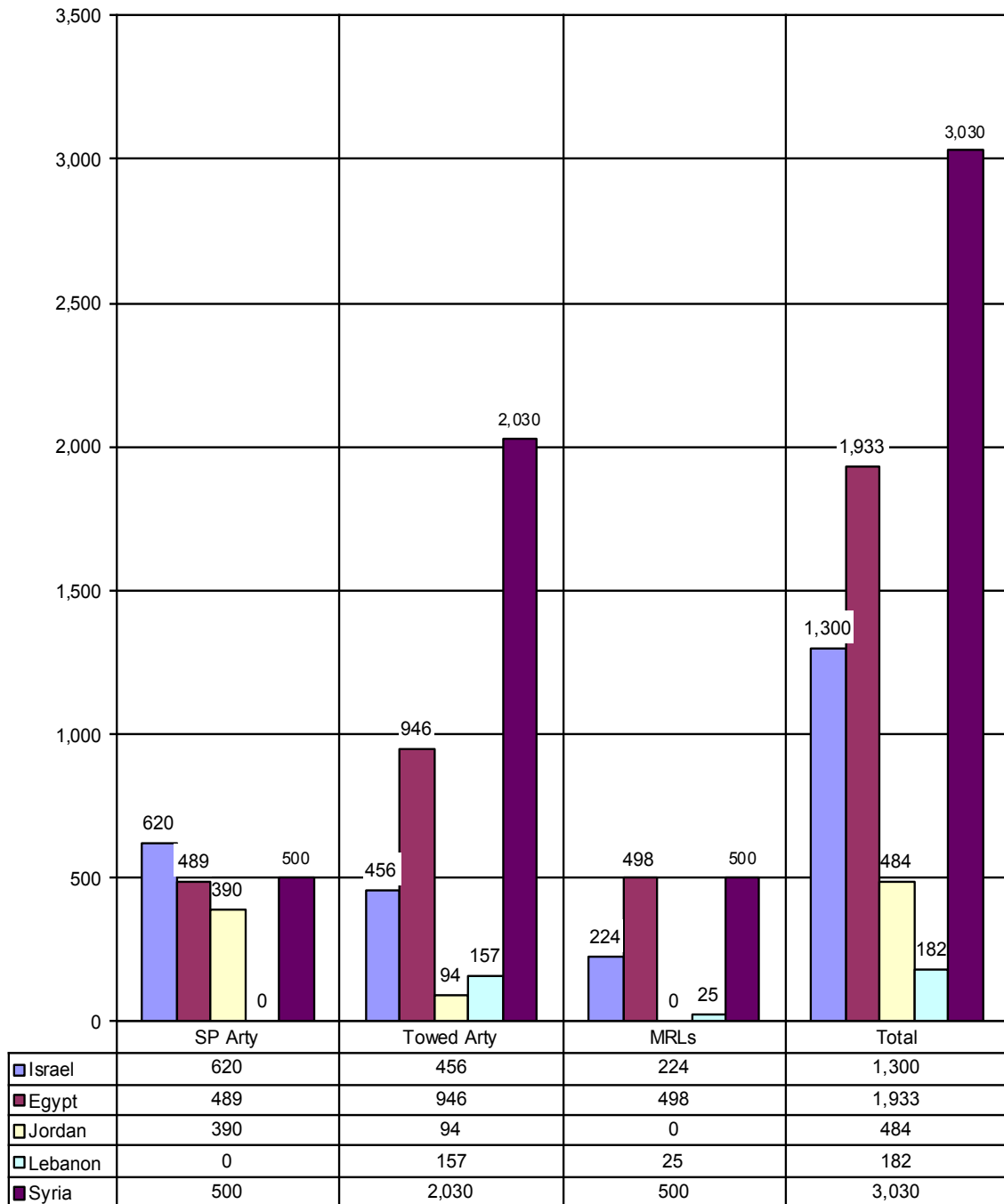


Note: The totals exclude large numbers of vehicles that are in storage or are fixed in place. In 2000, these included 300 M-47/M-48A5s for Jordan, 1,200 tanks for Syria, and an unknown number for Egypt and Israel. All of Lebanon’s holdings are included, and there is no confirmation on their operational status.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions. Some data adjusted or estimated by the author. Data differ significantly from those estimated by U.S. experts.

Figure 6: Arab-Israeli Artillery Forces by Category of Weapon in 2008

(Numbers of major combat weapons)

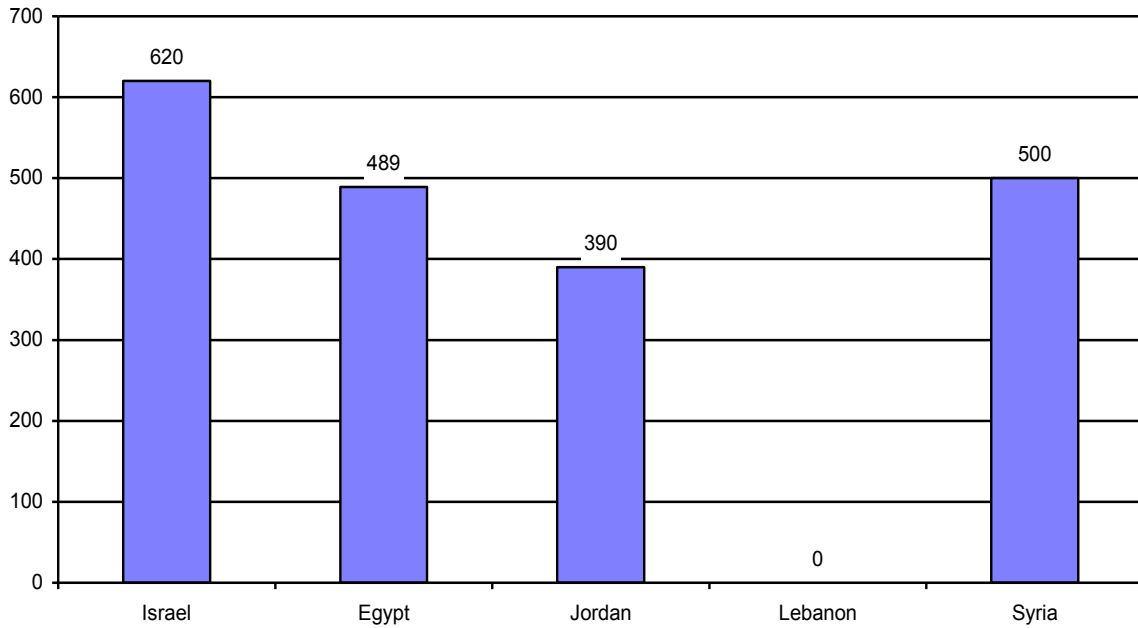


Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, and discussions with U.S. experts.

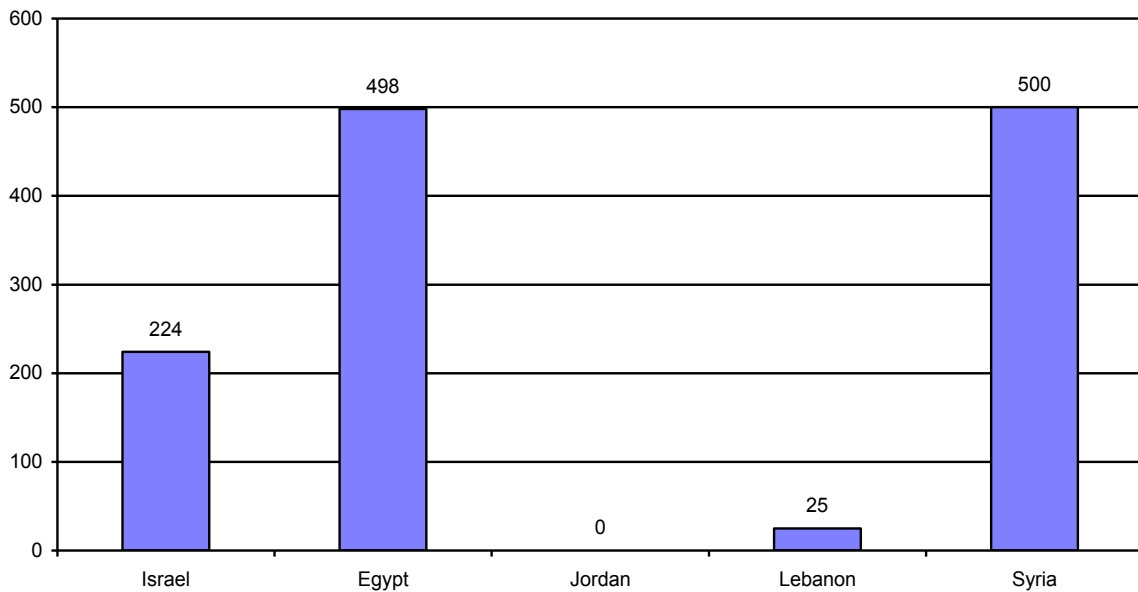
Figure 7: Israel versus Egypt, Syria, Jordan, and Lebanon: High Performance Artillery in 2008

(Numbers of major combat weapons)

Modern Self-Propelled Artillery



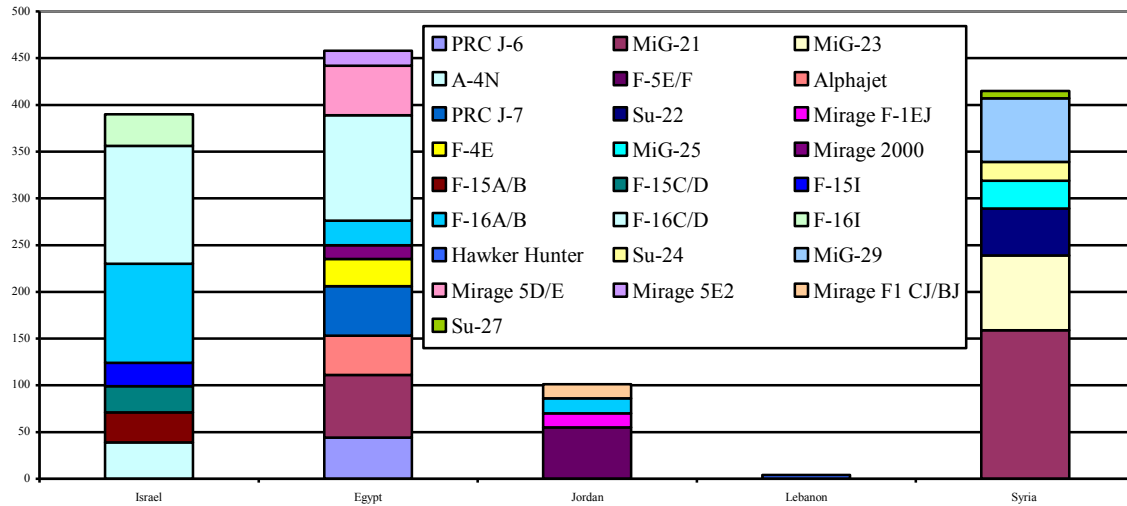
Multiple Rocket Launchers



Source: Prepared by Aram Nerguizian from the IISS, *The Military Balance*, and discussions with U.S. and regional experts.

Figure 8: Total Operational Arab-Israeli Combat Fighter, Attack, Bomber by Type in 2008

(Does not include stored, unarmed electronic warfare, or combat-capable reconnaissance [RECCE] and trainer aircraft)

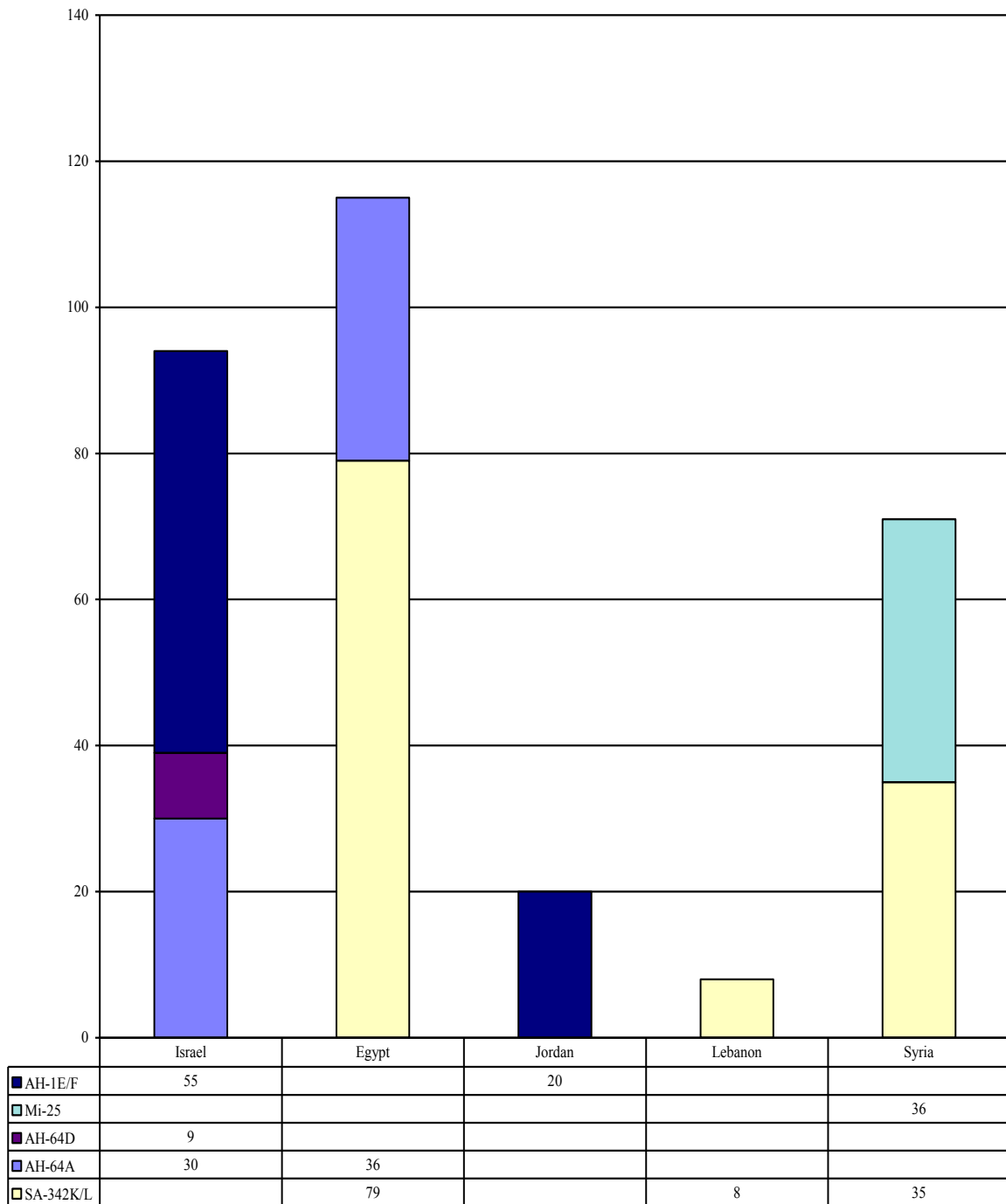


	Israel	Egypt	Jordan	Lebanon	Syria
PRC J-6		44			
PRC J-7		53			
A-4N	39				
F-5E/F			55		
F-4E		29			
F-15A/B	32				
F-15C/D	28				
F-15I	25				
F-16A/B	106	26	16		
F-16C/D	126	113			
F-16I	34				
Hawker Hunter Mk6/Mk9				4	
Su-22					50
Su-24					20
Su-27					8
MiG-21		74			159
MiG-23					80
MiG-25					
MiG-29					68
Alpha Jet		42			
Mirage 2000		15			
Mirage F-1EJ			15		
Mirage 5D/E		53			
Mirage 5E2		16			

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, and discussions with U.S. and regional experts.

Figure 9: Operational Arab-Israeli Attack and Armed Helicopters in 2008

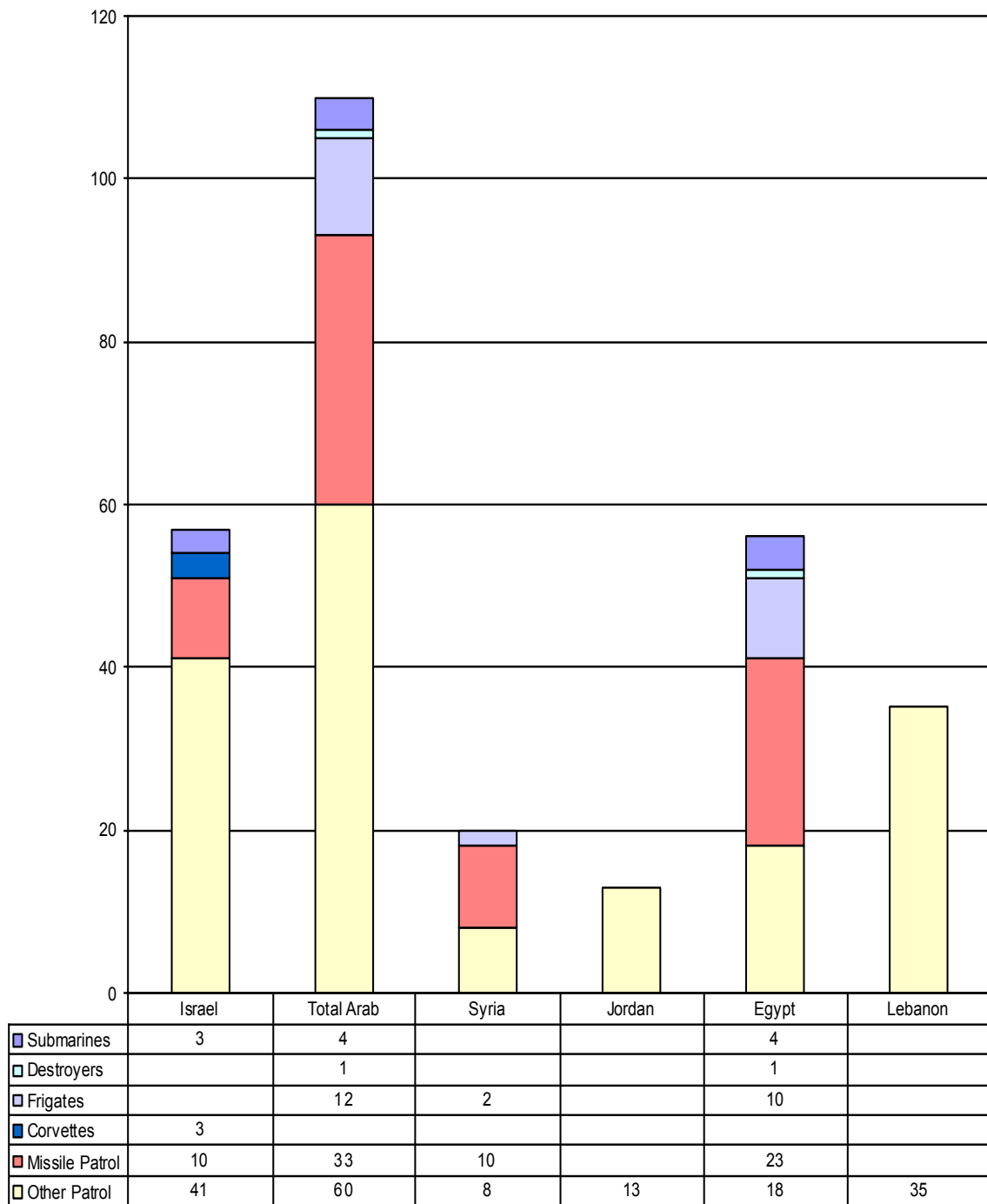
(Does not include antisubmarine warfare or anti-ship helicopters)



Note: Lebanon has 13 SA-342L *Gazelle* attack helicopters, of which five were not operational in 2008.

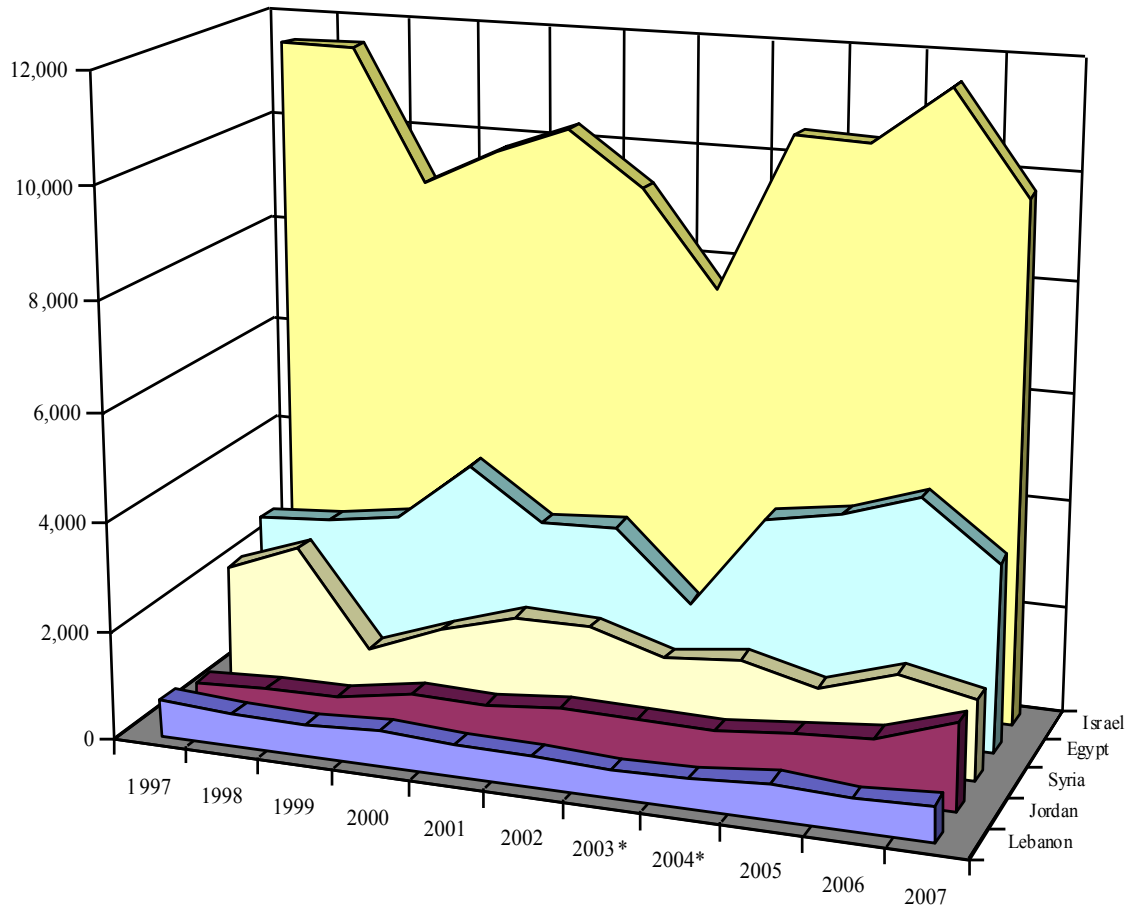
Source: Prepared by Aram Nerguizian from the IISS, *The Military Balance*, various issues, and discussions with U.S. and regional experts.

Figure 10: Arab-Israeli Major Combat Ships by Category in 2008



Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, and *Jane's Fighting Ships*, various editions.

Figure 11: Arab-Israeli Military Expenditure by Country: 1997-2007
(in 2008 \$U.S. Millions)

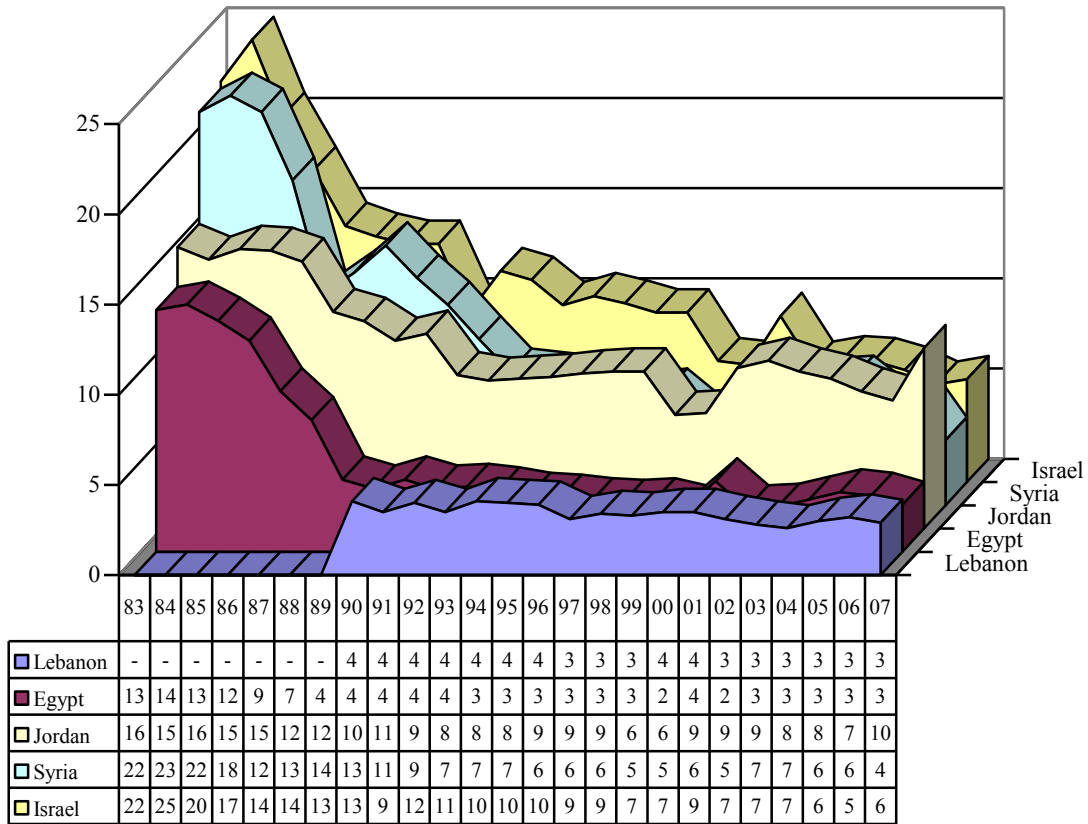


	1997	1998	1999	2000	2001	2002	*2003	*2004	2005	2006	2007
■ Lebanon	690	606	575	673	600	547	522	564	678	613	677
■ Jordan	506	560	581	808	805	911	904	895	1033	1146	1623
■ Syria	2,246	2,757	1,010	1,531	1,940	1,940	1,531	1674	1,328	1803	1490
■ Egypt	2,757	2,859	3,063	4,186	3,267	3,370	2,093	3,838	4,070	4512	3491
■ Israel	11,537	11,537	9,087	9,801	10,312	9,291	7,555	10,495	10,436	11496	9648

* Number reflects amounts budgeted as opposed to expenditures as the IISS no longer reports expenditures.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions.

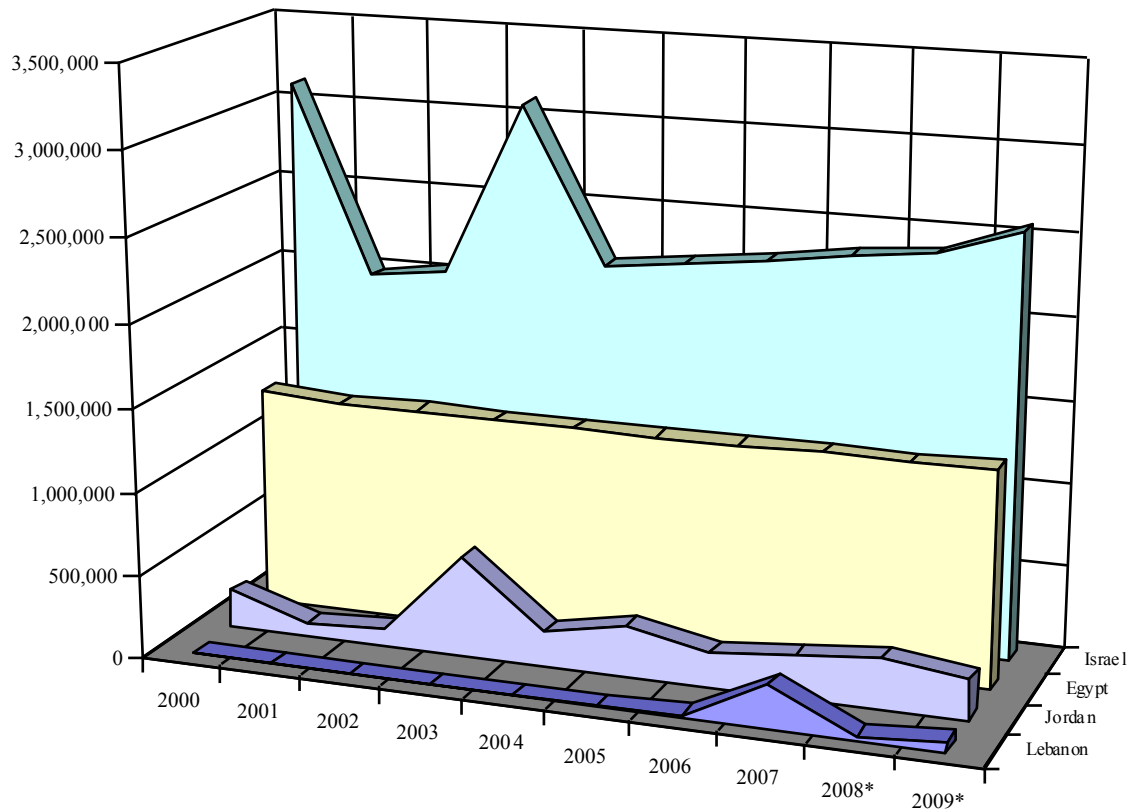
Figure 12: Trends in Percent of GDP Spent on Military Forces: 1983-2007



Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions.

Figure 13: Actual and Projected US Military Assistance to Lebanon Compared to other Arab-Israeli States from 2000 to 2009.

(In thousands of current US dollars)



	2000	2001	2002	2003	2004	2005	2006	2007	*2008	*2009
■ Lebanon	582	546	560	700	700	0	15,065	256,305	15,597	64,330
■ Jordan	226,394	76,535	102,012	606,400	208,010	307,411	210,920	255,822	301,299	238,100
■ Egypt	1,326,006	1,298,259	1,301,217	1,292,782	1,293,699	1,290,864	1,288,208	1,301,203	1,290,707	1,301,300
■ Israel	3,120,000	1,975,644	2,040,000	3,086,350	2,147,256	2,202,240	2,257,200	2,340,000	2,380,000	2,550,000

* Data for 2008 reflect estimates; data for 2009 reflect requested amounts.

Note: “FMF” is Foreign Military Financing, “FMS” are Foreign Military Sales and “IMET” is International Military Education and Training. Includes supplemental funding and FMF/IMET funds tied to the Wye River Agreement. Data shown include FMF, IMET and Department of Defense Section 1206 funding for Lebanon for 2006, 2007 and 2008 as of May 15, 2008.

Source: Adapted by Aram Nerguizian from *Congressional Budget Justification for Foreign Operations*, various fiscal years.

Figure 14: Lebanese Major Force Trends 1975-2008

Category/Weapon	1975	1985	1990	1995	2000	2004	2005	2006	2007	2008*
<u>National GDP</u>										
(Constant \$US 2008 millions)			4,800	10,600	19,100	22,100	22,500	22,100	22,400	24,000
<u>Defense Budget</u>										
(Constant \$US 2008 millions)	613.8	-	228.7	453.4	673.4	572.3	564.4	613	677	753
<u>Mobilization Base</u>										
Men Ages 13-17	-	-	-	148,700	210,000	216,000	?	?	?	?
Men Ages 18-22	-	-	-	146,500	196,000	194,000	?	?	?	?
<u>Manpower</u>										
Total Active	15,300	20,300	22,300	44,300	67,900	72,100	72,100	72,100	72,100	56,000
(Conscript)	-	-	-	-	27,400	22,600	22,600	-	?	0
Total Reserve	-	-	-	-	-	-	-	-	-	-
Total	15,300	20,300	22,300	44,300	67,900	72,100	72,100	72,100	72,100	56,000
Paramilitary	5,000	7,500+	105,000	13,000+	13,000+	13,000+	13,000+	13,000+	13,000+	20,000
<u>Land Forces</u>										
Active Manpower	14,000	19,000	21,000	43,000	65,000	70,000	70,000	70,000	70,000	53,900
(Conscripts)	-	-	-	-	-	-	-	-	-	0
Reserve Manpower	-	-	-	-	-	-	-	-	-	-
Total Manpower	14,000	19,000	21,000	43,000	65,000	70,000	70,000	70,000	70,000	53,000
Main Battle Tanks	0	142	105+	300	304+	310	310	310	310	310
AIFVs/Armored Cars/Lt. Tanks	143	160	32	30	-	40	40	0	0	0
APCs/Recce/Scouts	96	515	390	885	1,281	1,424	1,424	1,317	1,317	1,317
ATGM Launchers	20+	18+	20+	20+	20+	70	70	70	70	70+
SP Artillery	0	0	0	0	0	0	0	0	0	0
Towed Artillery	119	64	69	185+	151+	147	147	147	147	157
MRLs	170	200	some	30	23	25	25	25	25	25
Mortars	25	-	25	280	312	369	369	369	369	369
SSM Launchers	0	0	0	0	0	0	0	0	0	0
AA Guns	75	some	15+	10+	10+	10+	10+	10+	10+	10+
Lt. SAM Launchers	0	0	0	-	-	20	20	20	20	20
<u>Air & Air Defense Forces</u>										
Active Manpower	1,000	1,000	800	800	1,700	1,000	1,000	1,000	1,000	1,000
Reserve Manpower	-	-	-	-	-	-	-	-	-	-
<u>Aircraft</u>										
Total Fighter/FGA/Recce	24	3	5	(3)	-	(11)	(11)	(6)	(6)	(6)
Bomber	0	0	0	0	0	0	0	0	0	0
Fighter	6(5)	3	5(1)	(3)	0	0	0	0	0	0
FGA	13	0	0	0	0	0	0	0	0	0
COIN/OCU	11	0	0	0	0	0	0	0	0	0
Recce	0	0	0	0	0	0	0	0	0	0
Air. Early Warning (AEW)	0	0	0	0	0	0	0	0	0	0
Electronic Warfare (EW)	0	0	0	0	0	0	0	0	0	0
Maritime Patrol (MP)	0	2	0	0	0	0	0	0	0	0
Combat Capable Trainer	0	0	0	0	0	0	0	0	0	0
Tanker	0	0	0	0	0	0	0	0	0	0
Transport	0	2	0	0	0	0	0	0	0	0
<u>Helicopters</u>										
Attack/Armed/ASW	0	4	4	4	-	-	-	2	2	13(5)
Other	16	28	24	12	16	24	24	38	38	20(25)

Total	16	32	28	18	16	24	24	40	40	33(30)
SAM Forces										
Batteries	0	0	0	0	0	0	0	0	0	0
Heavy Launchers	0	0	0	0	0	0	0	0	0	0
Naval Forces										
Active Manpower	300	300	500	500	1,200	1,100	1,100	1,100	1,100	1,100
Reserve Manpower	-	-	-	-	-	-	-	-	-	-
Total Manpower	300	300	500	500	1,200	1,100	1,100	1,100	1,100	1,100
Submarines	0	0	0	0	0	0	0	0	0	0
Destroyers/Frigates/Corvettes	0	0	0	0	0	0	0	0	0	0
Missile	0	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0	0
Missile Patrol	0	0	0	0	0	0	0	0	0	0
Coastal/Inshore Patrol	5	4	4	9	34	32	32	32	32	35+
Mine	0	0	0	0	0	0	0	0	0	0
Amphibious Ships	0	0	0	0	0	0	0	0	0	0
Landing Craft/Light Support	1	0	2	2	2	2	2	2	2	2
ASW/Combat Helicopter	0	0	0	0	0	0	0	0	0	0

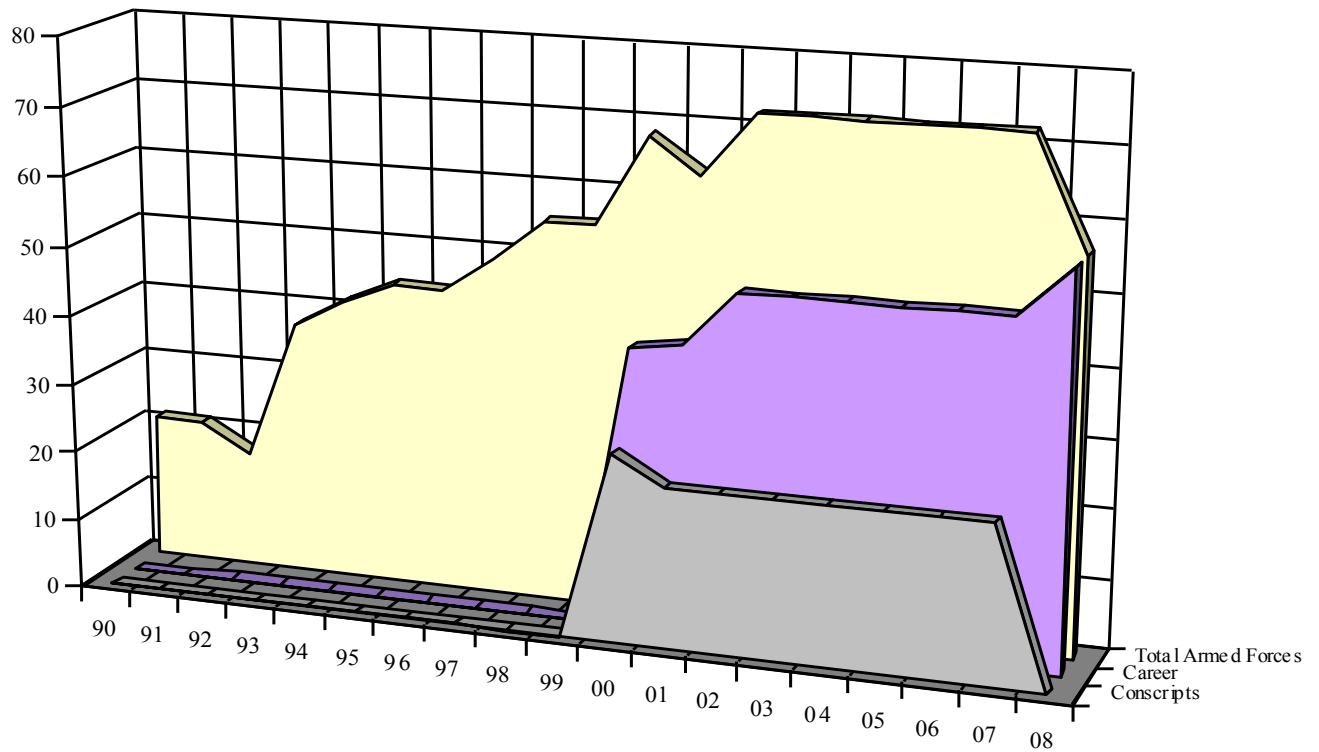
“*”: GDP data for 2008 is a Lebanese Ministry of Finance estimate.

Note: Figures in parenthesis are additional equipment in storage or not operational.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions, the Lebanese Ministry of Finance and data provided by US and Lebanese experts.

Figure 15: Total active Lebanese Armed Forces Including Conscripts from 1990 to 2008

(Troops in thousands)

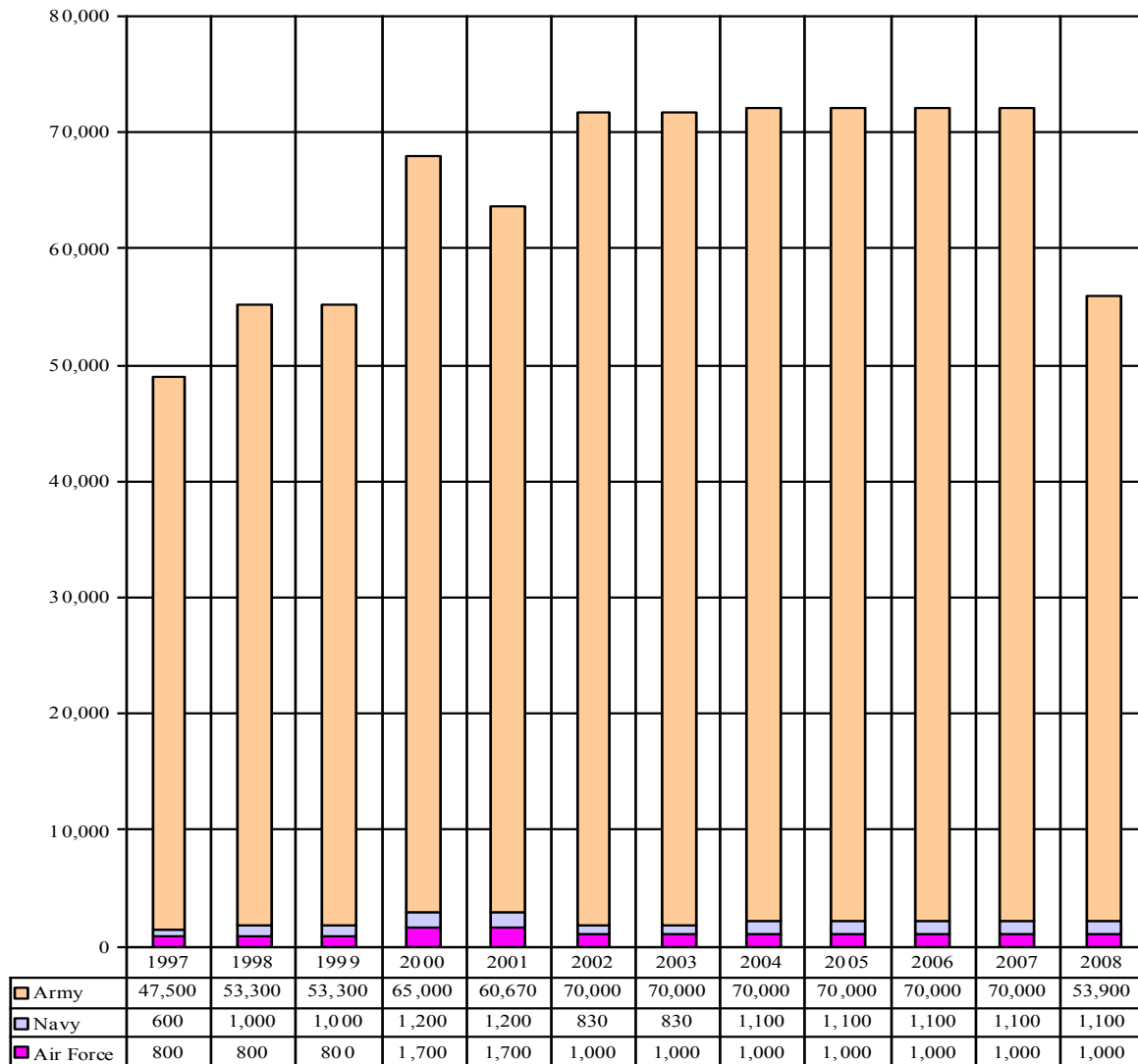


	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	06	07	08
Conscripts	?	?	?	?	?	?	?	?	?	?	27	23	23	23	23	23	23	23	0
Career	?	?	?	?	?	?	?	?	?	?	40	41	49	49	49	49	49	49	56
Total Armed Forces	21	21	17	37	41	44	44	49	55	55	68	63	72	72	72	72	72	72	56

Note: Figures rounded to the closest thousandth. Data does not include paramilitary forces or the Internal Security Forces.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions.

Figure 16: The Centrality of Lebanese Land Forces: Total Active Lebanese Armed Forces Manpower by Branch from 1997 to 2008



Note: Data does not include paramilitary forces or the Internal Security Forces.

Source: Adapted by Aram Nerguizian from the IISS, *The Military Balance*, various editions.

Figure 17: Proposed Appropriation Plan of the Lebanese Armed Forces by Type of Equipment: 2006-2008

Equipment	2006	2007	2008	Total	Approximate cost (In 2006 \$US)
<u>Land Forces</u>					
Vehicles					
Light Trucks	300	150	150	600	18,000,000
SUV/Jeeps	200	150	150	500	10,000,000
MBT Carriers	-	8	7	15	
ATVs	-	100	100	120	2,250,000
WAPCs	-	60	60	120	60,000,000
MBTs	-	60	60	120	120,000,000
Military Ambulances	30	-	-	30	3,000,000
Fuel Trucks (20,000 litters)	20	-	-	20	2,000,000
Water Trucks (20,000 litters)	20	-	-	20	2,000,000
Weapons & Ammunition					
Assault Rifles (SF units)	7,000	-	-	7,000	5,600,000
5.56 mm Machine Guns	50	-	-	50	250,000
7.62 mm Machine Guns	50	-	-	50	150,000
Sniper Rifles with Optics	200	-	-	200	1,600,000
12.7 mm Machine Guns	100	-	-	100	500,000
60 mm Mortars	100	-	-	100	1,000,000
81 mm Mortars	100	-	-	100	1,500,000
120 mm Mortars	-	30	30	60	1,200,000
155 mm Howitzers	-	18	18	36	5,400,000
Command, Control Vehicles	-	4	3	7	910,000
Battlefield Radars (RATAC)	-	12	12	24	2,400,000
AT Missiles	-	40	40	80	8,000,000
SAM Systems		*Quantity Dependent on Foreign Assistance*			25,000,000
Ammunition (Rifles, Machine Guns, Mortars, Howitzers)		*Quantity Dependent on Foreign Assistance*			10,000,000
Equipment for Personnel					
Combat Helmets	5,000	-	-	5,000	2,500,000
Bulletproof Vests	6,000	-	-	6,000	6,000,000
NVGs	400	-	-	400	600,000
<u>Air & Air Defense Forces</u>					
Helicopter Refurbishing & Repair					
Bell 212	5	-	-	5	13,500,000
SA-330 Puma	3	-	-	3	10,000,000
SA-342L Gazelle	4	-	-	4	5,000,000
New Equipment					
Combat Helicopters (With ammunition)	2	2	2	6	24,000,000
Transport Helicopters	6	3	3	12	150,000,000
Fire Fighting Aircraft	1	1	1	3	75,000,000
Short Range Radars	1	1	1	3	4,500,000
Medium and Long Range Radars	2	2	2	6	18,000,000
<u>Naval Forces</u>					
Landing Ship Tank (LST)	-	1	1	2	13,500,000

50-60 m Patrol Craft	1	1	-	2	50,000,000
30-35 m Patrol Craft	1	1	1	3	30,000,000
20-25 m Patrol Craft (20-30 Knots)	2	2	2	6	24,000,000
20-25 m Patrol Craft (40-50 Knots)	2	2	2	6	15,000,000
12-15 m Patrol Craft	4	4	4	12	18,000,000
Zodiacs	12	-	-	12	60,000
Maritime Radars	6	-	-	6	3,000,000

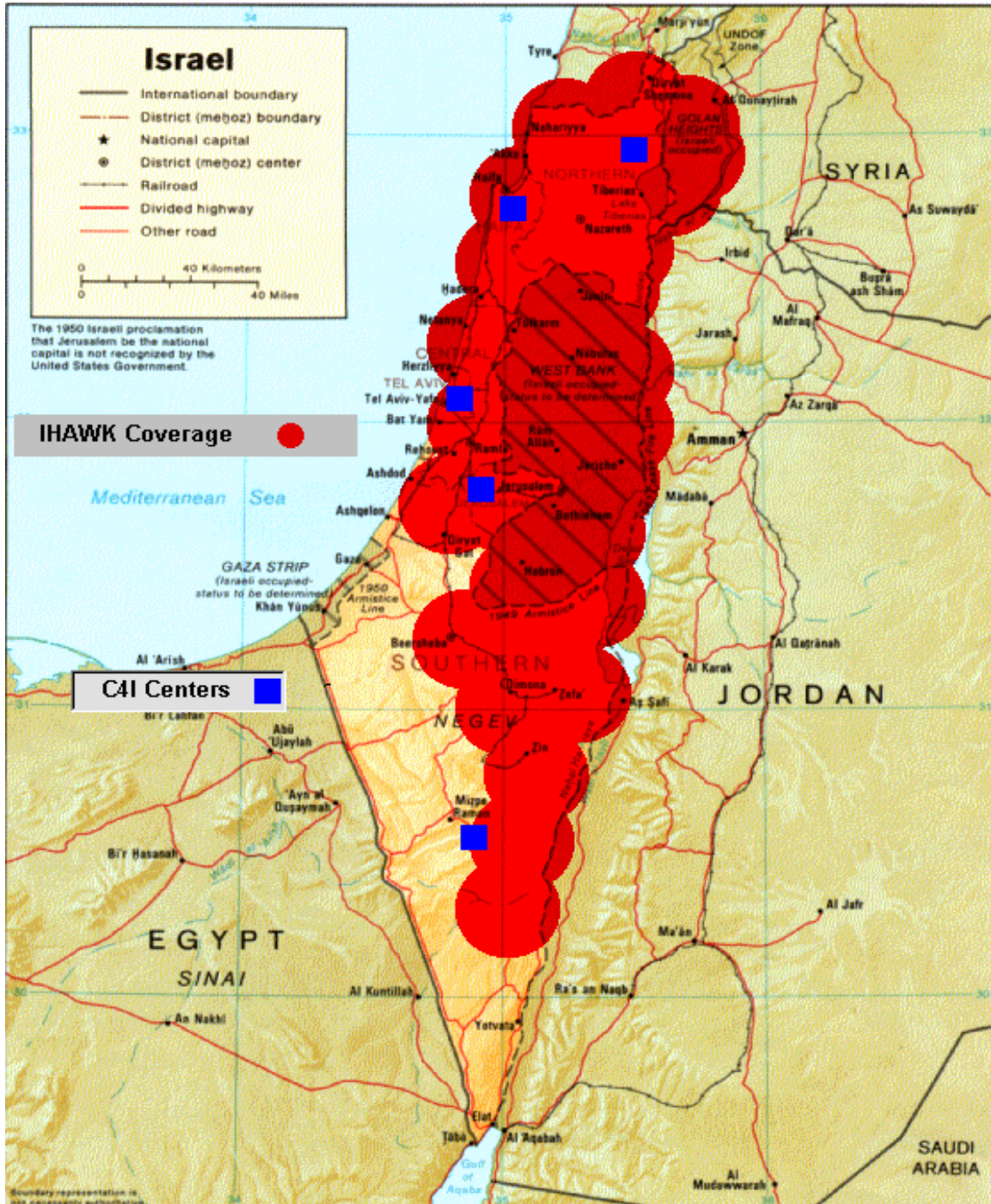
**Total Approximate Costs
(In Current \$US 2006)**

	2006	2007	2008	Total
Land Forces	65,480,000	195,220,000	169,940,000	430,640,000
Air & Air Defense Forces	144,000,000	78,000,000	78,000,000	300,000,000
Naval Forces	57,060,000	64,000,000	39,000,000	160,060,000
Total Forces	266,540,000	337,220,000	286,940,000	890,700,000

Note: WAPCs are wheeled armored personnel carriers. MBTs are main battle tanks. ATVs are all terrain vehicles. AT stands for anti-tank. SAMs are surface-to-air missiles. NVGs are night vision goggles. RATAC stands for Radar de Tir pour l'Artillerie de Campagne, an I-band tracking and acquisition radar for both ground and low altitude targeting. The data in this table represents what the Lebanese Armed Forces consider to be best-case conservative estimates of the force needs of the LAF over the 2006-2008. 1,508 Lebanese Lira to 1 US\$ exchange rate used. The data in this table was compiled in February, 2006, and represent the immediate needs of the LAF prior to the 2006 Lebanon War.

Source: Adapted by Aram Nerguizian from data provided by the Lebanese Ministry of Defense.

Figure 18: Israel SAM Order of Battle & IHAWK Coverage in 2008-2009



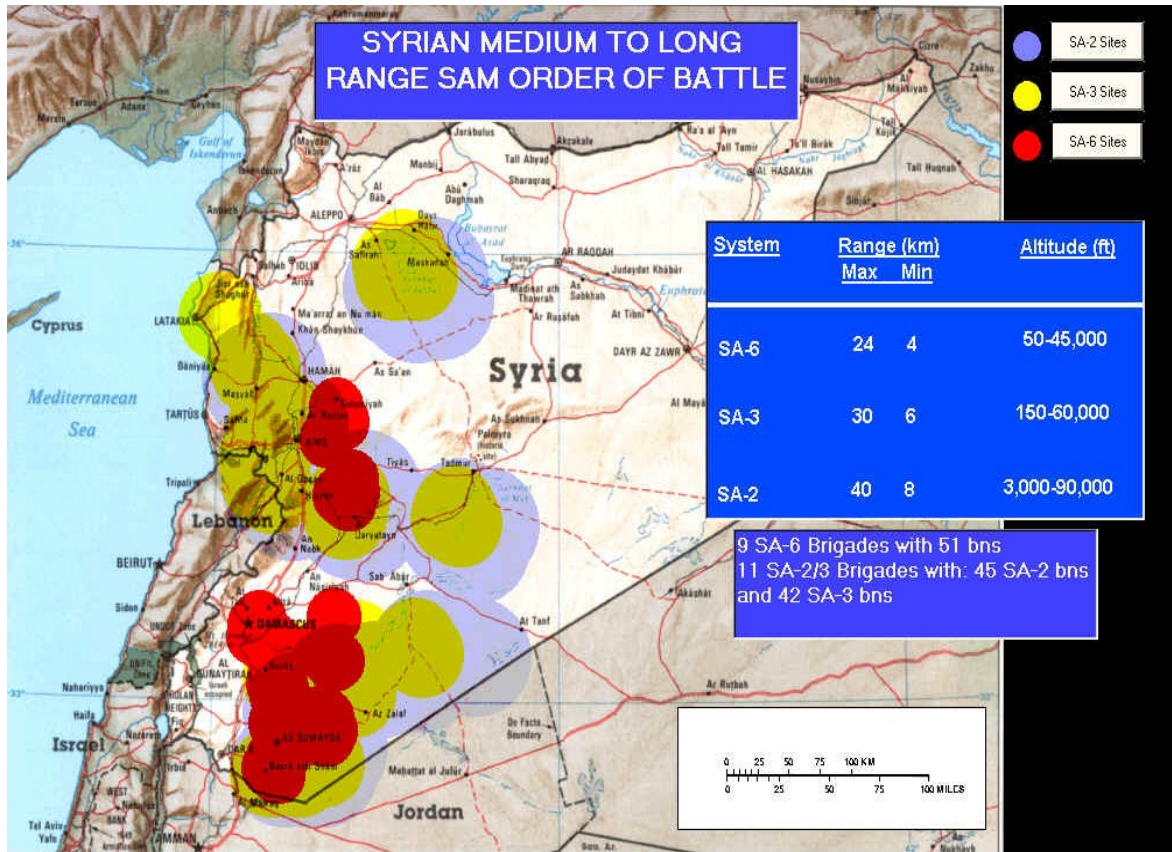
Source: Anthony H. Cordesman & Abdullah Toukan, "Israeli-Syrian Air and SAM Strength Analysis: Working Estimate of Force Numbers and Locations," *Arleigh A. Burke Chair in Strategy Report*, CSIS, November 25, 2008.

Figure 19: Israeli Air Force Order of Battle in 2008-2009



Source: Anthony H. Cordesman & Abdullah Toukan, "Israeli-Syrian Air and SAM Strength Analysis: Working Estimate of Force Numbers and Locations," *Arleigh A. Burke Chair in Strategy Report*, CSIS, November 25, 2008.

Figure 20: Syrian Medium to Long Range Order of Battle in 2008-2009



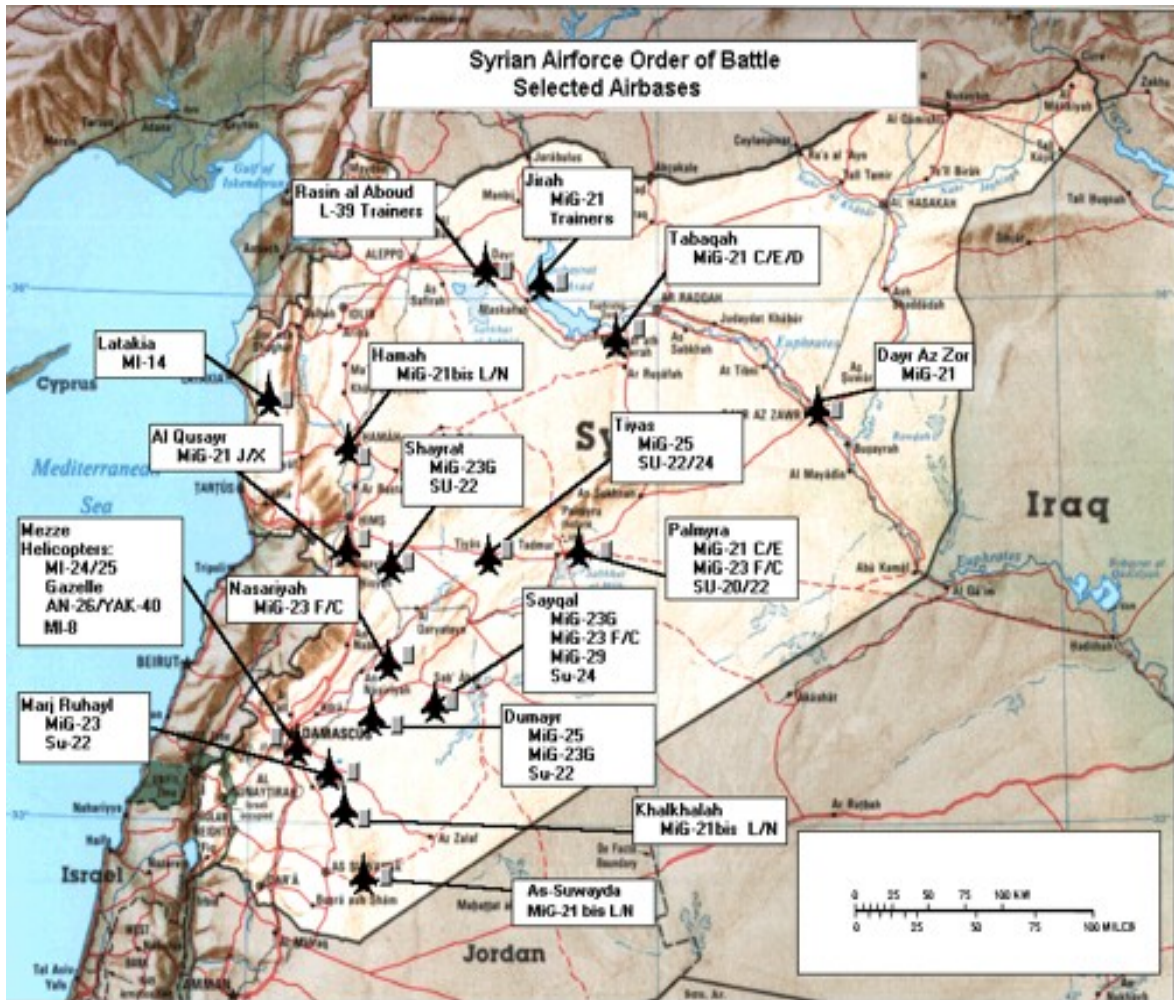
Source: Anthony H. Cordesman & Abdullah Toukan, "Israeli-Syrian Air and SAM Strength Analysis: Working Estimate of Force Numbers and Locations," *Arleigh A. Burke Chair in Strategy Report*, CSIS, November 25, 2008.

Figure 21: Syrian SAM-5 Ranges in 2008-2009



Source: Anthony H. Cordesman & Abdullah Toukan, "Israeli-Syrian Air and SAM Strength Analysis: Working Estimate of Force Numbers and Locations," *Arleigh A. Burke Chair in Strategy Report*, CSIS, November 25, 2008.

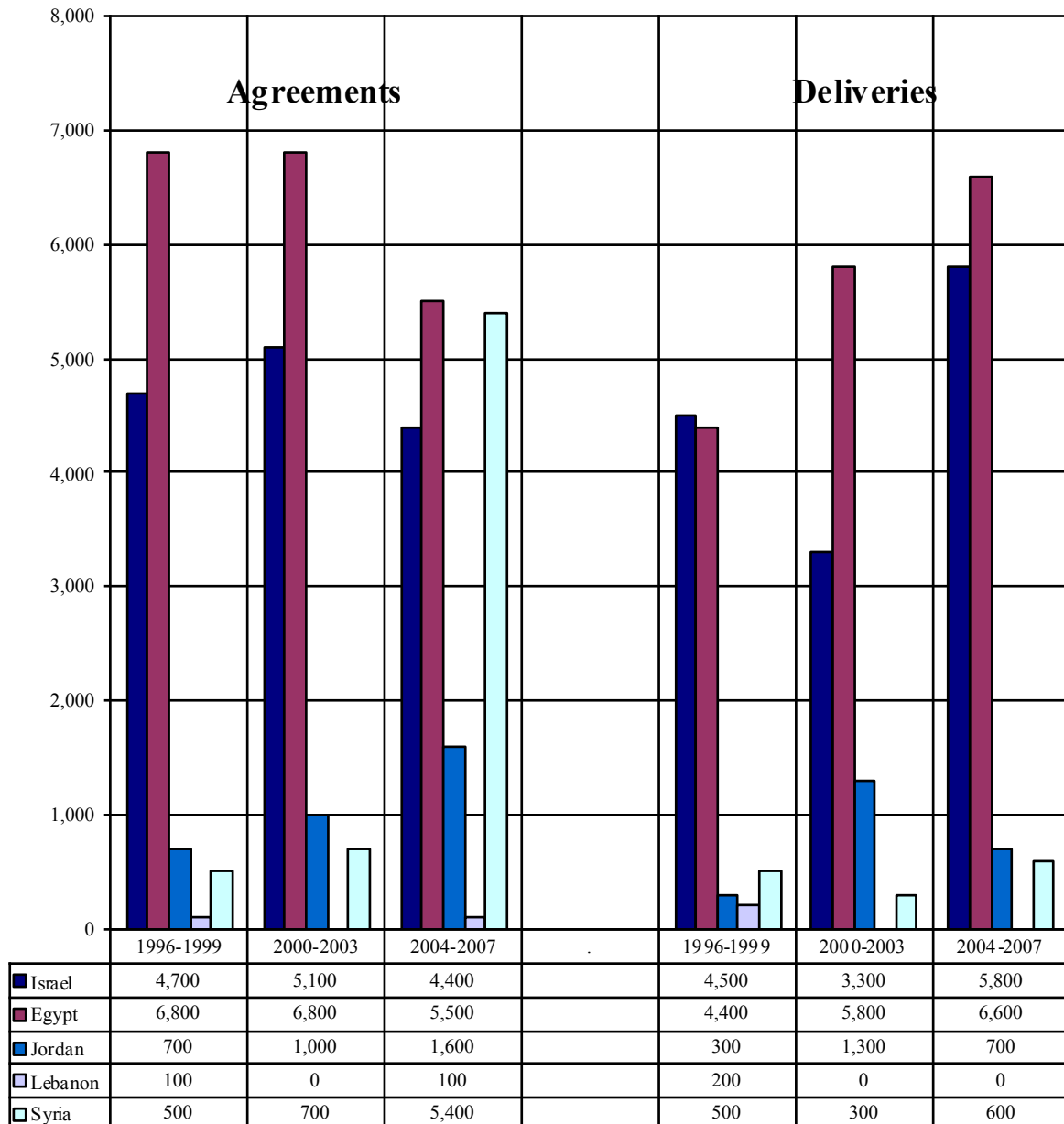
Figure 22: Syrian Air Force Order of Battle in 2008-2009



Source: Anthony H. Cordesman & Abdullah Toukan, "Israeli-Syrian Air and SAM Strength Analysis: Working Estimate of Force Numbers and Locations," *Arleigh A. Burke Chair in Strategy Report*, CSIS, November 25, 2008.

Figure 23: Arab-Israeli New Arms Agreements and Deliveries by Country: 1996-2007

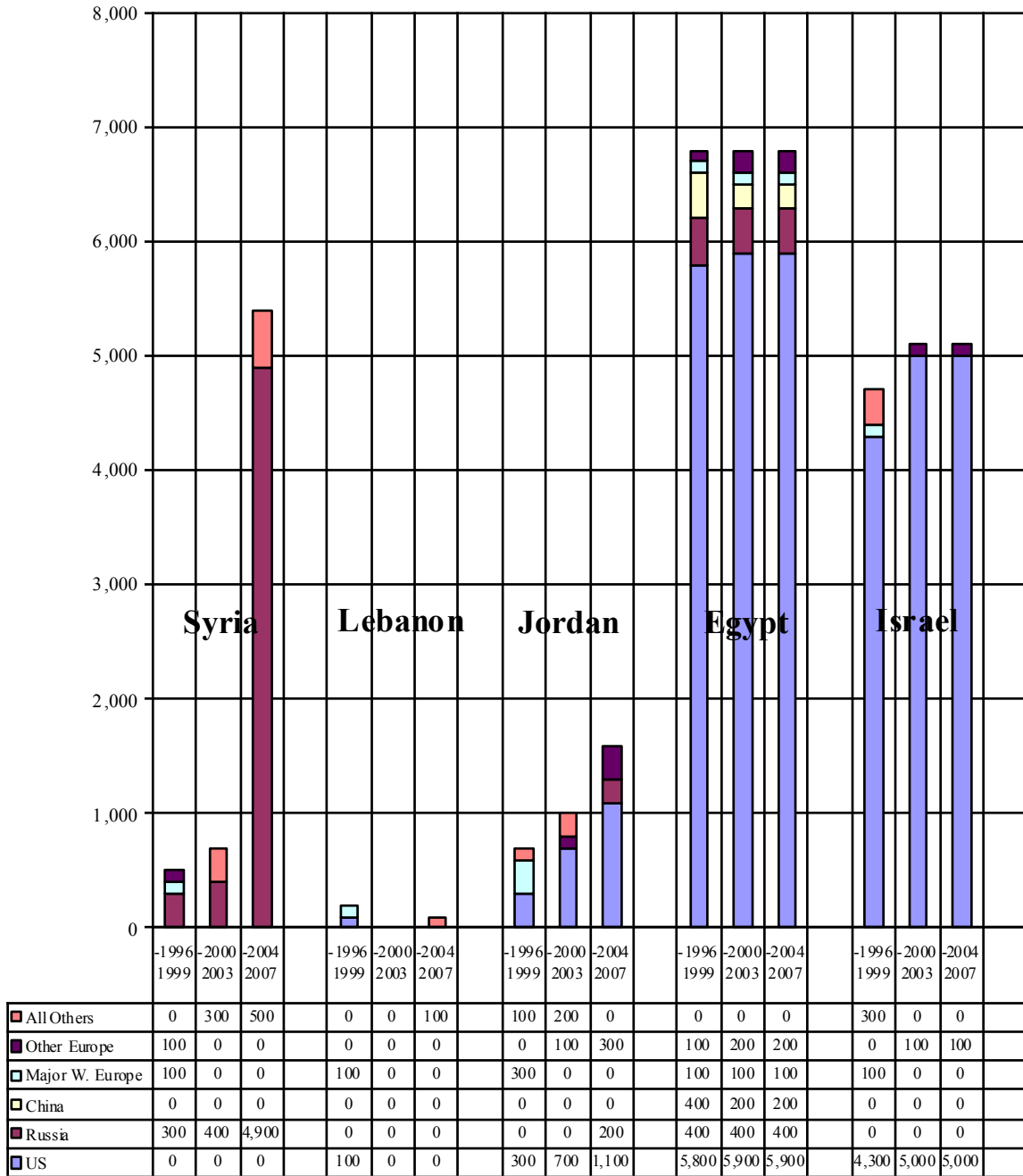
(In \$U.S. Current Millions)



0 = Data less than \$50 million or nil. All data rounded to the nearest \$100 million.

Source: Adapted by Anthony H. Cordesman and Aram Nerguizian, from Richard F. Grimmett, *Conventional Arms Transfers to the Developing Nations*, Congressional Research Service, various editions.

Figure 24: Arab-Israeli Arms Orders by Supplier Country: 1996-2007
(In \$U.S. Current Millions)

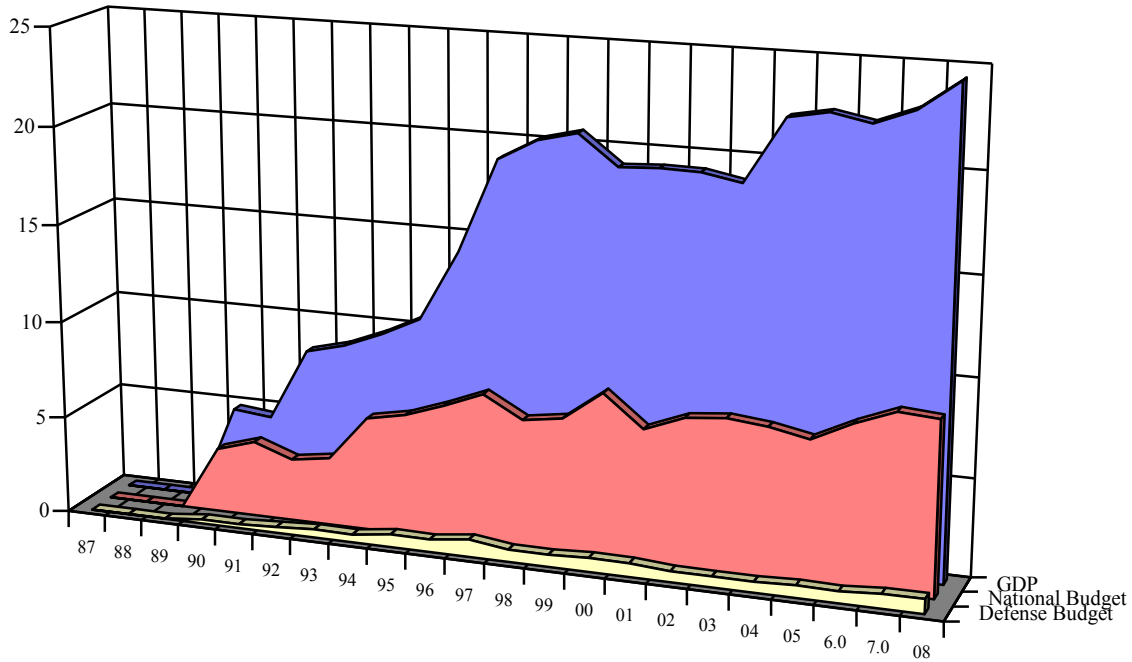


0 = less than \$50 million or nil, and all data rounded to the nearest \$100 million.

Source: Source: Adapted by Anthony H. Cordesman and Aram Nerguizian, from Richard F. Grimmett, *Conventional Arms Transfers to the Developing Nations*, Congressional Research Service, various editions.

Figure 25: Lebanese National Budget, Defense Expenditure and GDP from 1992 to 2008.

(In constant 2008 US\$ Billions)



	87	88	89	90	91	92	93	94	95	96	97	98	99	00	01	02	03	04	05	6.0	7.0	08
■ Defense Budget	-	-	-	0.2	0.2	0.3	0.4	0.4	0.7	0.6	0.9	0.6	0.6	0.7	0.7	0.6	0.6	0.5	0.6	0.6	0.7	0.8
■ National Budget	-	-	-	3.3	3.9	3.2	3.5	5.8	6.2	6.9	7.7	6.6	6.9	8.4	6.8	7.6	7.8	7.6	7.2	8.2	9.0	8.9
■ GDP	-	-	-	4.8	4.6	8.3	8.8	9.6	10.6	14.2	19.0	20.1	20.6	19.1	19.2	19.2	18.8	22.1	22.5	22.1	22.9	24.4

Note: Data for 2006, 2007 and 2008 are based on Lebanese Ministry of Finance budget statistics. Data rounded to the nearest \$US 100 million.

Source: Adapted by Aram Nerguizian from the Lebanese Ministry of Finance, *Lebanese Budget Law Proposals*, various editions, *World Military Expenditures and Arms Transfers*, U.S. Department of State and the IISS, *The Military Balance*, various editions. Some data adjusted by the author.

Figure 26: Proposed Lebanese Armed Forces Operational Budget after Consultations with the Lebanese Ministry of Finance: 2009

(In approximate constant 2006 \$US)

Budget Item	2009 Budget Prior to Consultations With the Ministry of Finance	2009 Budget After Consultations with the Ministry of Finance	Variation
Consumable Goods			
<u>Offices Supplies</u>	417,000	417,000	0
<u>Administrative Supplies</u>			
<i>Food Expenses</i>	43,100,000	36,400,000	-6,700,000
<i>Generators & Heating (Diesel Fuel)</i>	1,200,000	1,000,000	-200,000
<i>Other Expenses</i>	5,500,000	3,000,000	-2,500,000
<u>Transportation Expenses</u>			
<i>Liquid Combustibles (Diesel Fuel)</i>	44,500,000	43,000,000	-1,500,000
<i>Other</i>	2,700,000	1,700,000	-1,000,000
<u>Military Medical Supplies & Expenses</u>	21,800,000	19,900,000	-1,900,000
<u>Water, Electricity, And Communications</u>	22,600,000	15,300,000	-7,300,000
<u>Special Requirements</u>	2,300,000	2,300,000	0
<u>Other Consumables</u>	33,000	33,000	0
<u>Other Expenses</u>	100,000	87,000	-13,000
Consumable Services			
<u>Rent, Properties & Maintenance</u>	2,000,000	1,000,000	-1,000,000
<u>Light & Heavy Vehicle Rental</u>	3,000,000	2,300,000	-700,000
<u>Consumable Fees & Services</u>	1,900,000	1,500,000	-400,000
<u>Other Expenses</u>	700,000	669,000	-67,000
Salaries, Pays & Allowances			
<u>Allowances & Salaries</u>	457,500,000	544,000,000	86,500,000
<u>Contractual Pays & Consulting Fees</u>	4,700,000	5,000,000	300,000
<u>Allowances (Transportation, Family, Various)</u>	29,900,000	29,900,000	0
<u>Compensation for Work in The Public Sector (Medical, Maternity, Marriage,</u>			

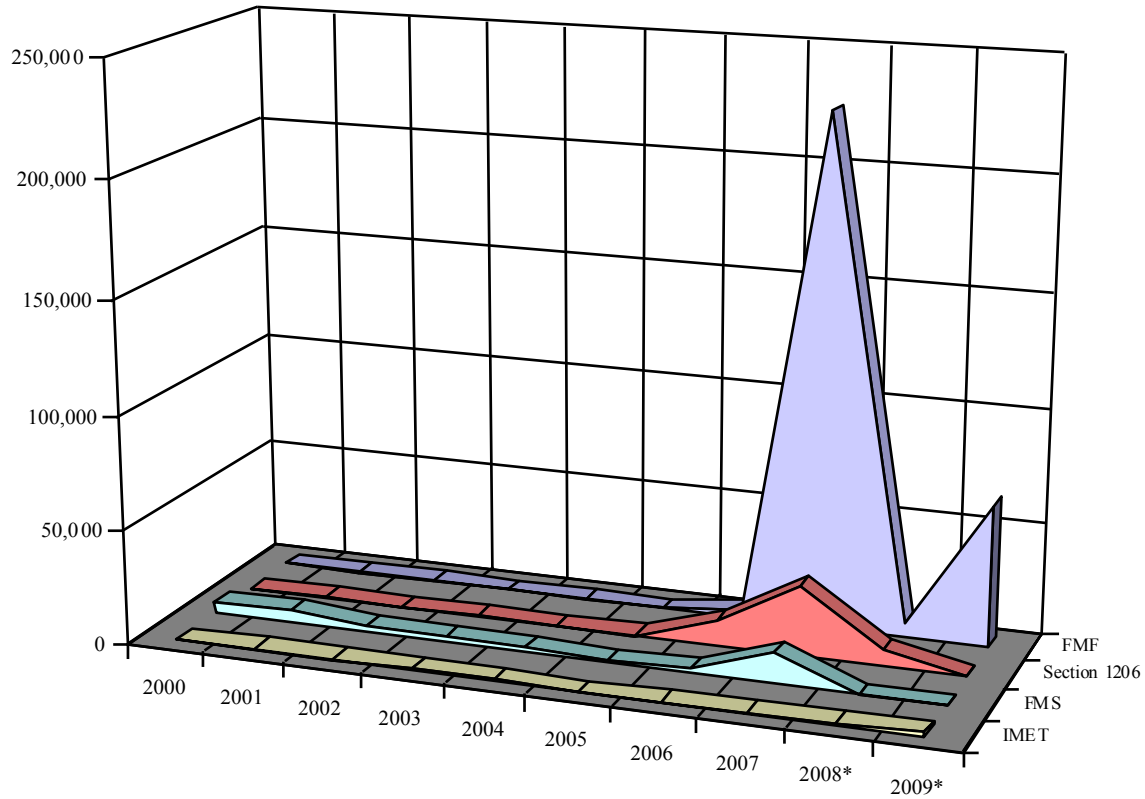
<u>Education, Social Expenses)</u>	122,300,000	120,400,000	-1,900,000
<u>Bonuses</u>	199,000	199,000	0
<u>Social Security Fund Contributions</u>	199,000	199,000	0
Various Expenses			
<u>Legal Services</u>	30,000	30,000	0
<u>Secret Expenses</u>	8,000,000	4,800,000	-3,200,000
<u>Foreign & Domestic Travel</u>	47,000	37,000	-10,000
<u>Delegations & Conferences</u>	142,000	142,000	0
<u>Education & Training</u>	50,000	50,000	0
<u>Private Sector Medical Expenses</u>	67,000	53,000	-14,000
<u>Other Expenses</u>	427,000	391,000	0
Appropriation to Build & Operate Roads	4,700,000	300,000	-4,400,000
Infrastructure			
<u>Specialized Infrastructure & Equipment</u>	28,900,000	20,900,000	-7,400,000
<u>IT Infrastructure & Equipment</u>	596,000	596,000	0
<u>Other Expenses</u>	696,000	547,000	-149,000
Construction in Progress			
<u>Specialized Buildings</u>	19,900,000	12,900,000	-7,000,000
<u>Road Work</u>	1,300,000	1,300,000	0
<u>Water Work</u>	398,000	265,000	-133,000
<u>Electrical Work</u>	67,000	67,000	0
Maintenance			
<u>Specialized Building Maintenance</u>	3,000,000	2,700,000	-300,000
<u>Technical Infrastructure Maintenance</u>	299,000	299,000	0
<u>IT Infrastructure Maintenance</u>	129,000	99,000	-30,000
<u>Other Maintenance</u>	7,000	7,000	0
Budget Discrepancy	-1,500,000	1,200,000	2,100,000
	Prior to Consultations With the Ministry Of Finance	After Consultations With the Ministry Of Finance	Variation
Total Budget Requested for 2009	833,900,000	875,000,000	41,100,000 (4.9% increase)

Note: 1,508 Lebanese Lira to 1 US\$ exchange rate used. Numbers rounded to nearest thousand and approximated. Total Budget discrepancies from original in Lebanese Liras do not exceed US\$ 2.2 million.

Source: Adapted by Aram Nerguizian from data provided by the Lebanese Ministry of Defense.

Figure 27: Actual and Projected US Military Assistance to Lebanon by Type: FMF, Section 1206, FMS and IMET from 2000 to 2009

(In thousands of current US dollars)



	2000	2001	2002	2003	2004	2005	2006	2007	*2008	*2009
IMET	582	546	560	700	700	0	752	905	1,428	2,130
FMS	4,884	6,097	3,148	3,086	1,942	1,252	1,702	13,193	-	-
Section 1206	0	0	0	0	0	0	10,632	30,600	7,226	-
FMF	0	0	0	0	0	0	3,713	224,800	6,943	62,200

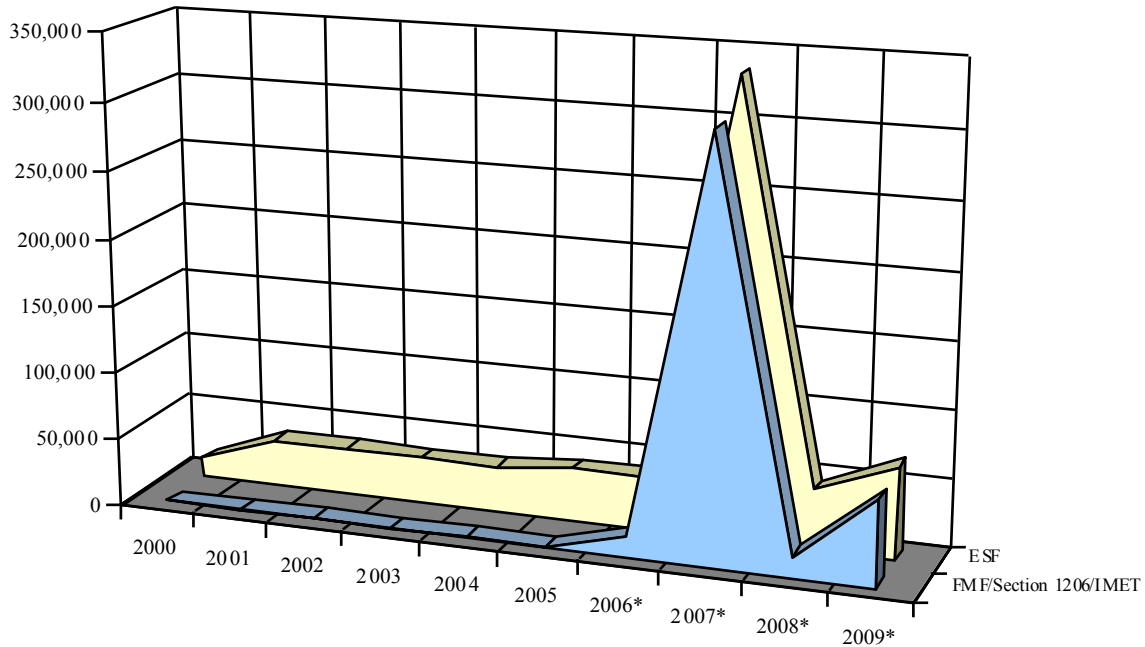
*FMF and IMET Data for 2008 reflect estimates; data for 2009 reflect requested amounts. Section 1206 data for 2008 is up to May 15, 2008.

Note: FMF” is Foreign Military Financing, “FMS” are Foreign Military Sales and “IMET” is International Military Education and Training. Includes supplemental funding and FMF/IMET funds tied to the Wye River Agreement. Data shown include FMF, IMET and Department of Defense Section 1206 funding for Lebanon for 2006, 2007 and 2008 up to May 15, 2008.

Source: Adapted by Aram Nerguizian from *Congressional Budget Justification for Foreign Operations*, various fiscal years, the DSCA *Historical Facts Book 2007*, and Nina M. Sorafino, “Section 1206 of the National Defense Authorization Act for FY 2006,” *CRS Report for Congress*, RS22855, May 15, 2008.

Figure 28: US Economic and Military Assistance to Lebanon 2000 to 2009 (ESF, FMF, Section 1206 Authority and IMET)

(In thousands of current US dollars)



	2000	2001	2002	2003	2004	2005	*2006	*2007	*2008	*2009
■ FMF/Section 1206/IMET	582	546	560	700	700	0	15,097	308,257	15,597	64,330
■ ESF	15,000	34,923	35,000	34,772	34,794	39,720	39,600	334,600	44,636	67,500

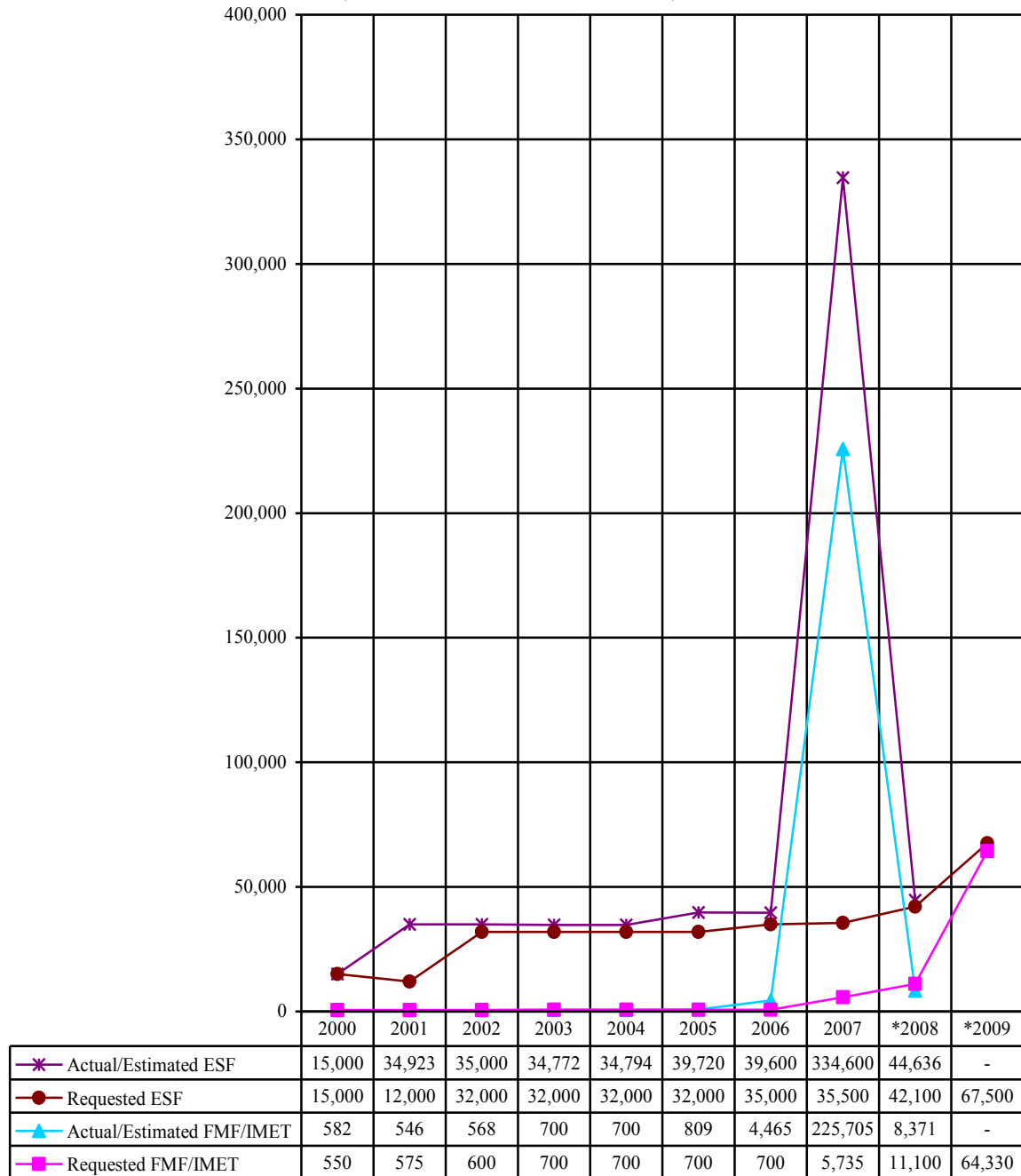
* FMF and IMET Data for 2008 reflect estimates; data for 2009 reflect requested amounts. Section 1206 data for 2008 is up to May 15, 2008.

Note: FMF” is Foreign Military Financing, “FMS” are Foreign Military Sales and “IMET” is International Military Education and Training. Includes supplemental funding and FMF/IMET funds tied to the Wye River Agreement. Data shown include FMF, IMET and Department of Defense Section 1206 funding for Lebanon for 2006, 2007 and 2008 up to May 15, 2008.

Source: Adapted by Aram Nerguizian from *Congressional Budget Justification for Foreign Operations*, various fiscal years, and Nina M. Sorafino, “Section 1206 of the National Defense Authorization Act for FY 2006,” *CRS Report for Congress*, RS22855, May 15, 2008.

Figure 29: Actual/Estimated vs. Requested US Economic and Military Assistance to Lebanon 2000 to 2009 (ESF, FMF and IMET)

(In thousands of current US dollars)



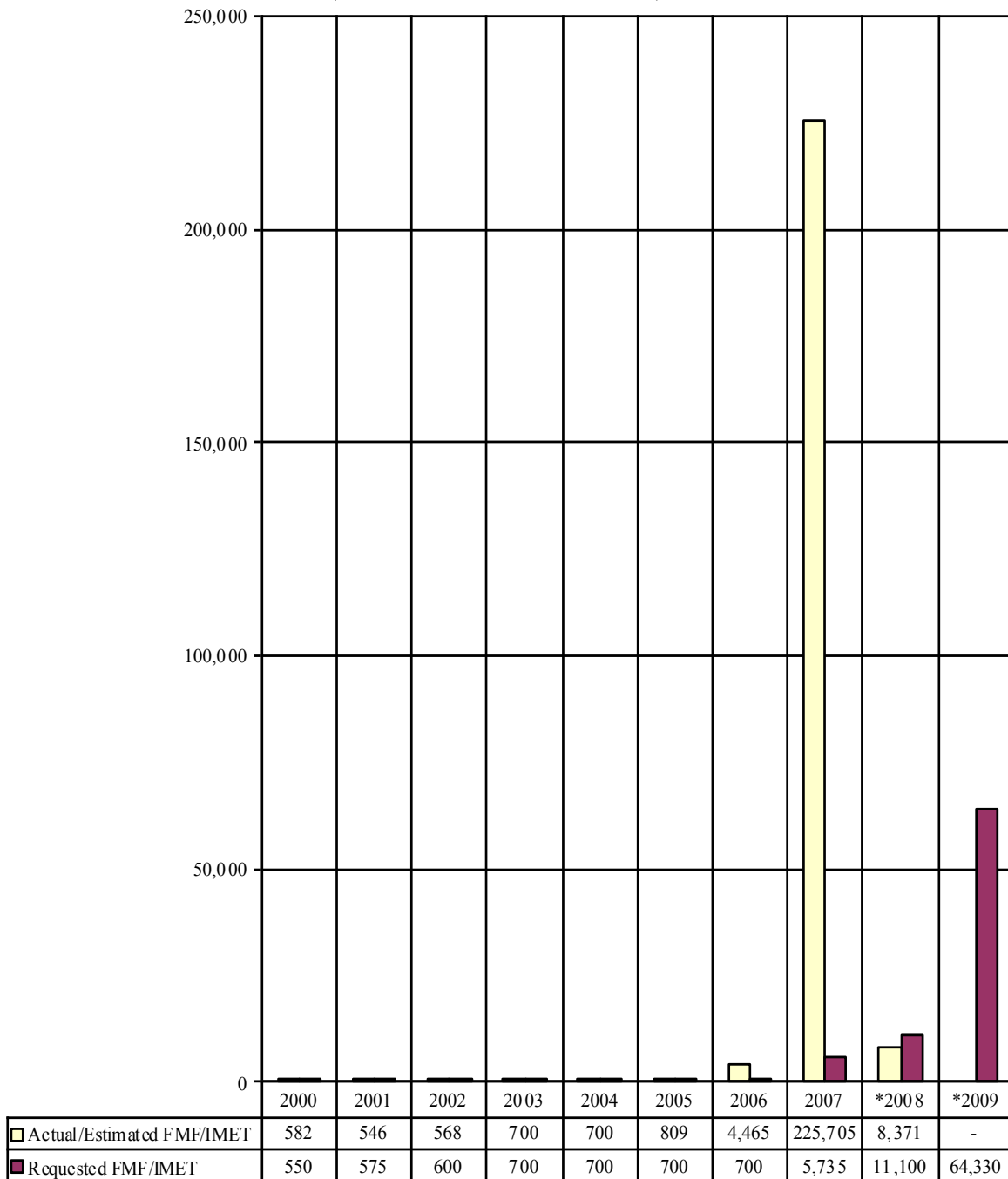
* Data for 2008 reflect estimates; data for 2009 reflect requested amounts.

Note: FMF” is Foreign Military Financing, “FMS” are Foreign Military Sales and “IMET” is International Military Education and Training. Data shown include FMF, IMET and Department of Defense Section 1206 funding for Lebanon for 2006, 2007 and 2008 as of May 15, 2008. US economic support shown is in the form of Economic Support Fund (ESF). ESF, and FMF/IMET data shown and include supplemental funds when allotted.

Source: Adapted by Aram Nerguizian from *Congressional Budget Justification for Foreign Operations*, various fiscal years.

Figure 30: Actual/Estimated vs. Requested Military Assistance to Lebanon 2000 to 2009 (FMF and IMET)

(In thousands of current US dollars)



* Data for 2008 reflect estimates; data for 2009 reflect requested amounts.

Note: FMF” is Foreign Military Financing, “FMS” are Foreign Military Sales and “IMET” is International Military Education and Training. Data shown include FMF, IMET and Department of Defense Section 1206 funding for Lebanon for 2006, 2007 and 2008 as of May 15, 2008. US economic support shown is in the form of Economic Support Fund (ESF). ESF, and FMF/IMET data shown and include supplemental funds when allotted.

Source: Adapted by Aram Nerguizian from *Congressional Budget Justification for Foreign Operations*, various fiscal years.

List of Acronyms

AA anti-aircraft
AD air defense
AIFV armored infantry fighting vehicle
ANA Afghan National Army
APC armored personnel carrier
AT anti-tank
ATGM anti-tank guided missile
C&C command and control
C³ command, control and computers
C⁴I command, control, communications, computers and intelligence
CAS combat air support
COIN counterinsurgency
CSTC-A Combined Security Transition Command – Afghanistan
DoD Department of Defense
DoS Department of State
DDTC Directorate of Defense Trade Controls
DSCA Defense Security Cooperation Agency
ESF Economic Support Fund
FMF Foreign Military Financing
FMS Foreign Military Sales
FY fiscal year
GAO Government Accountability Office
GDP gross domestic product
GPS global positioning system
HMMVW high mobility multipurpose wheeled vehicle
HQ headquarters
IDF Israel Defense Forces
IED improvised explosive device
IMET International Military Education and Training
ISF Internal Security Forces
LAF Lebanese Armed Forces
LST tank landing ship
MANPAD man-portable air defense
MANPAT man-portable anti-tank
MBT main battle tank
MRL multiple rocket launcher
NATO North Atlantic Treaty Organization
NCO non-commissioned officer
NVG night vision goggle
OAFV other armored fighting vehicle
PFLP-GC Popular Front for the Liberation of Palestine – General Command
PLO Palestine Liberation Organization
RATAC Radar de Tir d'Artillery de Campagne

RECCE reconnaissance

RCL recoilless rifle

SAM surface-to-air missile

SAR search and rescue

SF special forces

SOCOM Special Operations Command

SP self-propelled

SSM ship-to-ship missile

SSNP Syrian Social Nationalist Party

UAV unarmed aerial vehicle

UNIFIL United Nations Interim Force in Lebanon

UNSC United Nations Security Council

UNSCR United Nations Security Council Resolution

WAPC wheeled armored personnel carrier

¹ Arend Lijphart, "Constitutional Design for Divided Societies," *Journal of Democracy*, 15.2 (April 2004), p. 100-101.

² See Adel Beshara, *Lebanon: The Politics of Frustration – the Failed Coup of 1961*, New York NY: RoutledgeCurzon, 2005p. 70-97, and Sami Rihana, *Histoire de l'Armee Libanaise Contemporaine*, 2 Volumes, Beirut: Imprimerie Rahbani, 1984, 1988.

³ Georges Corm, *Le Liban Contemporain: Histoire et Societe, France: Bussiere*, 2005, p. 111-118 and Elizabeth Picard, *Lebanon: A Shattered Country*, Revised Edition, New York NY: Holmes & Meier, 2002, p. 94-88,

⁴ Ronald McLaurin, "Lebanon and its Army, Past, Present and Future," in Edward Azar (Ed.), *The Emergence of a New Lebanon*, New York: Praeger, 1984, p. 79-113.

⁵ Oren Barak, "Towards a Representative Military? The Transformation of the Lebanese Officer Corps since 1945," *The Middle East Journal*, Vol. 60.1, Winter 2006, p. 89.

⁶ Patrick Seale, *Assad: The Struggle for the Middle East*, University of California Press, Berkeley, 1988, p. 283.

⁷ Istvan Pogany, *The Arab League and Peacekeeping in the Lebanon*, Aldershot: Avebury, 197, p. 109, 145-146

⁸ Bassel F. Salloukh, "Syria and Lebanon: A Brotherhood Transformed," *Middle East Report*, Fall 2005 No. 236, p. 18, 20.

⁹ Ibid.

¹⁰ Ibid.

¹¹ The LAF regular responds to criticism, attacks and characterizations by the media and individuals in the Lebanese political sphere. For examples of this, see <http://www.lebarmy.gov.lb/article.asp?cat=9&ln=en>.

¹² The International Peace Institute, *Lebanon Public Opinion Survey*, August 22, 2008, available at <http://www.ipacademy.org/asset/file/377/lebanese.pdf>.

¹³ "Opinion Poll," *The Monthly*, Issue 65, December 2007, p. 7, available at <http://www.information-international.com/pdf/iipolls/2007/Pages%20from%20TheMonthly-issue65-DEC07-English.pdf>.

¹⁴ Author's interviews with senior Lebanese Armed Forces Command staff, September 5, 2008.

¹⁵ Jihad al-Zayn, "Al-Sira' 'ala al-Jaysh," *al-Nahar*. June 2, 2007.

¹⁶ Bassel F. Salloukh, "[Security Politics, State-Society Relations, and Democracy in Lebanon.](#)"

¹⁷ Author's interviews with senior Lebanese Armed Forces Command staff, September 5, 2008. The idea that the military should be above the Lebanese fray is based on what one senior LAF commander called "La tete au dessus des etoiles." Etoiles or stars here is a reference to military rank and the concept that military by virtue of its role as a vanguard of the republic should uphold a higher standard of civil and military duty

¹⁸ Bassel F. Salloukh, "Syria and Lebanon: A Brotherhood Transformed," *Middle East Report*, Fall 2005 No. 236, p. 18-19.

¹⁹ Author's interviews with senior Lebanese Armed Forces Command staff, December 5, 2008.

²⁰ "Sunni Rising – The Growth of Sunni Militancy in Lebanon," *Jane's Intelligence Review*, December 5, 2007, available at <http://jir.janes.com>, and Bilal Y. Saab, "Al-Qa'da's Presence and Influence in Lebanon," *CTC Sentinel*, November 2008, Vol.1 No. 12, p. 7.

²¹ Bilal Y. Saab, "Al-Qa'da's Presence and Influence in Lebanon," *CTC Sentinel*, November 2008, Vol.1 No. 12, p. 7.

²² Gary C. Gambill, "Salafi-Jihadism in Lebanon," *Mideast Monitor*, Vol. 3 No. 1, January-March 2008, available at http://www.mideastmonitor.org/issues/0801/0801_1.htm.

²³ Author's interviews with senior Lebanese Armed Forces Command staff, June 6, 2008, September 5, 2008, December 5, 2008 and December 15, 2008.

²⁴ Ibid.

²⁵ The Lebanese Armed Forces refer to the *Maghawir* as both "Rangers" and "Commandos," but for the sake of continuity, this report refers to this special forces unit as the Ranger Regiment.

²⁶ Nicholas Blanford, "Lebanon declares victory against Fatah al-Islam," *Jane's Defense Weekly*, September 12, 2007, available at <http://jdw.janes.com>.

²⁷ Ibid.

²⁸ Riad Kahwaji, "U.S. Rushes Arms to Lebanon As Beirut Confronts Terrorists," *Defense News*, May 28, 2007, p. 16.

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- ²⁹ Barbara Opall-Rome, "Salah: Lebanon Sharpens Urban Tactics," *Defense News*, April 7, 2008, p. 46, corroborated by author's interviews with senior Lebanese Armed Forces Command staff, December 5, 2008
- ³⁰ Nicholas Blanford, "Lebanon declares victory against Fatah al-Islam," *Jane's Defense Weekly*, September 12, 2007, available at <http://jdw.janes.com>, and author's interviews with senior Lebanese Armed Forces Command staff, June 6, 2008, September 5, 2008 and December 5, 2008.
- ³¹ Author's interviews with senior Lebanese Armed Forces Command staff, June 6, 2008, September 5, 2008, December 5, 2008 and December 15, 2008.
- ³² Ibid, and Gary C. Gambill, "The Rise of Fatah Al-Islam," *Mideast Monitor*, Vol. 2 No. 1, June-July 2007, available at http://www.mideastmonitor.org/issues/0705/0705_5.htm.
- ³³ "Beirut to Axe Hezbollah Telecoms," *BBC News*, May 6, 2008, Accessed May 8, 2008 from http://news.bbc.co.uk/2/hi/middle_east/7385733.stm
- ³⁴ Riad Kahwaji & Barbara Opall-Rome, "Fiber-Optic Battle Lines," *Defense News*, June 2, 2008, p. 11.
- ³⁵ "Lebanon on high alert after deadly riots," *Agence France Press*, January 27, 2008, available at <http://afp.google.com/article/ALeqM5hZPZ1Im0tcQL514qNymW8nCcGQhcQ>.
- ³⁶ Khaled Yacoub Oweis, "Lebanese Army Overturns Measures against Hezbollah," *Reuters*, May 10, 2008, available at <http://www.reuters.com>.
- ³⁷ Nicholas Blanford, "Lebanese Army walks tightrope amid latest unrest," *Jane's Defense Weekly*, May 16, 2008, available at <http://jdw.janes.com>.
- ³⁸ Ibid.
- ³⁹ "L'armee dementit des pretentions concernant la demission de certains officiers," Lebanese Armed Forces website, May 13, 2008, available at <http://www.lebarmy.gov.lb>.
- ⁴⁰ Lebanese Armed Forces website, "Al-Kirass Tawjihi," accessed September 10, 2008, available at <http://www.lebarmy.gov.lb/arabic/kirras.asp>.
- ⁴¹ Fawwaz Traboulsi, *A History of Modern Lebanon*, London: Pluto Press, 2007, p. 105-107.
- ⁴² Marius Deeb, *Syria's Terrorist War on Lebanon and the Peace Process*, New York NY: Palgrave Macmillan, 2003, p. 157-181.
- ⁴³ For an informal translation of the Treaty, see the website of the Syrian Lebanese Higher Council at <http://www.syrleb.org>.
- ⁴⁴ For an informal translation of the Agreement, see the website of the Syrian Lebanese Higher Council at <http://www.syrleb.org>.
- ⁴⁵ For a detailed analysis of Syrian foreign policy under Bashar Al-Asad's presidency, see Bassel F. Salloukh, "Demystifying Syrian Foreign Policy under Bashar," in Fred Lawson, ed., *Demystifying Syria*, London: Saqi Books, forthcoming 2009.
- ⁴⁶ Ibid.
- ⁴⁷ "Syrian Car Bomb Attack Kills 17," *BBC News Online*, September 27, 2008, available at http://news.bbc.co.uk/2/hi/middle_east/7639137.stm
- ⁴⁸ Author's interviews with senior Lebanese Armed Forces Command staff, October 3, 2008.
- ⁴⁹ Lebanese Armed Forces website, "Al-Kirass Tawjihi," accessed September 10, 2008, available at <http://www.lebarmy.gov.lb/arabic/kirras.asp>.
- ⁵⁰ Naim Qassem, *Hizbullah: The Story from Within*, London: Saqi Books, 2005, p. 133-135.
- ⁵¹ Nicholas Blanford, "UN Resolution 1701: A View from Lebanon," *PolicyWatch* #1414, October 21, 2008.
- ⁵² "Hizbullah's intelligence apparatus," *Jane's Terrorism & Security Monitor*, September 13, 2006, available at <http://www.janes.com>.
- ⁵³ Author's interviews with senior Lebanese Armed Forces Command staff, June 6, 2008, September 5, 2008, December 5, 2008 and January 3, 2009.
- ⁵⁴ "When Politicians Talk," *The Monthly*, Issue 74, August, 2008, p. 33.
- ⁵⁵ Ibid, September 5, 2008.
- ⁵⁶ International Crisis Group, "Hizbollah and the Lebanese Crisis," *Middle East Report*, No. 69, October 10, 2007, p. 2, 7 and 13.
- ⁵⁷ Ibid.
- ⁵⁸ Oren Barak, "Towards a Representative Military? The Transformation of the Lebanese Officer Corps Since 1945," *The Middle East Journal*, Vol. 60, No.1, Winter 2006, p. 89, Table 2

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- ⁵⁹ Lebanese Armed Forces website, "Al-Kirass Tawjihi," accessed September 10, 2008, available at <http://www.lebarmy.gov.lb/arabic/kirras.asp>.
- ⁶⁰ For a detailed analysis of the dispute over Shebaa, see Asher Kaufman, "Who Owns the Shebaa Farms? Chronicle of a Territorial Dispute," *The Middle East Journal*, Vol.56, No.4 Autumn 2002.
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- ⁶⁵ The other two are Barhain and Yemen.
- ⁶⁶ Nina M. Serafino, "Section 1206 of the National Defense Authorization Act for FY2006: A Fact Sheet on Department of Defense Authority to Train and Equip Foreign Military Forces, *CRS Report for Congress*, RS22855, May 18, 2008, p.6.
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- ⁸⁷ The IISS, *The Military Balance*, 2008, p. 252
- ⁸⁸ Riad Kahwaji, "More Weapons for Lebanon: But Officials Say Military Needs More," *Defense News*, September 1, 2008, p. 30.
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- ¹¹¹ Riad Kahwaji, “Lebanon Continues Push to Arm Military,” *Defense News*, April 21, 2008, p. 12, and author’s interviews with senior Lebanese Armed Forces Command staff, September 5, 2008.
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- ¹¹³ Ibid.
- ¹¹⁴ Author’s interviews with senior Lebanese Armed Forces Command staff, December 15, 2008.
- ¹¹⁵ Figures shown in 2006 U.S. dollars unless stated otherwise.
- ¹¹⁶ “RATAC Battlefield Radar,” *Jane’s Radar and Electronics Warfare Systems*, February 22, 2006, available at <http://www.janes.com/extracts/extract/jrew/jrew0166.html>.
- ¹¹⁷ Office of Management and Budget (OMB) deflator used to convert FY 2006 U.S. dollars to FY 2008 U.S. dollars.
- ¹¹⁸ Riad Kahwaji, “Lebanon Seeks Hardware, Will Train Jet Pilots in UAE,” *Defense News*, December 3, 2007, p. 16.
- ¹¹⁹ Riad Kahwaji, “Lebanon Seeks Hardware, Will Train Jet Pilots in UAE,” *Defense News*, December 3, 2007, p. 16.
- ¹²⁰ The IISS, *The Military Balance*, various editions. Current Middle East and North Africa holdings of F-5s include:

- Bahrain (8 F-5E *Tiger II*, 4 F-5F *Tiger II*)

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- Jordan (54 F-5E *Tiger II*/F-5F *Tiger II*)
 - Morocco (8 F-5A *Freedom Fighter*, 2 F-5B *Freedom Fighter*, 20 F-5E *Tiger II*, 3 F-5F *Tiger II*)
 - Saudi Arabia (22 F-5B *Freedom Fighter*/F-5F *Tiger II*/RF-5E *Tigereye*)

Bahrain considered retiring its F-5s from combat service as early as 1996. Jordan sold seven F-5E/Fs to Singapore in 1994 and was reportedly willing to sell more of its remaining fleet. Morocco has already taken steps to acquire 24 new F-16C/Ds from the US as part of a FMS worth \$2.4 billion,¹²⁰ though it is unclear what the future of its F-5s will be. Lastly Saudi Arabia accepted unsolicited industry proposals to modernize its F-5 fleet, but even upgraded F-5s are expected to be used primarily in a trainer role, given the lead role of Saudi F-15s, Tornados and the soon-to-enter-service Eurofighter *Typhoon*.¹²⁰

Iran also has in excess of 60 F-5E/Fs and some 20 F-5Bs in inventory, but given the age of these systems and the political ramification of trying to acquire American systems from a state the U.S. considers as hostile, the LAF should consider such a move as a non-option as it would place Lebanon under regional pressures it simply does not need.

¹²¹ The IISS, *The Military Balance*, various editions. Flight controls are conventional with accommodations for a crew of two in tandem with minimal detection systems, minimal radar and GPS tracking systems. The *Hawk* can carry about 680 kg in external weight, including a 30 mm MAE Systems Aden Mk 4 cannon with 120 rounds under its centerline or alternative a pylon for munitions in addition to two or four hardpoints underwing. The typical payload of a *Hawk* Mk6x is 30 or 12.7 mm centerline gun and four packs of 68 mm rocket launchers with 18 rockets each. Other configurations examples include five 1,000 lb free-fall bombs or four Sidewinder or two Magic air-to-air missiles (AAMs). Similar configurations are also possible for *Hawk* Mk1xx and *Hawk* Mk2xx fighters. Current Middle East and North Africa holdings of *Hawks* include:

- Oman (4 *Hawk* MK103, 12 *Hawk* MK203)
- Kuwait (11 *Hawk* Mk64)
- United Arab Emirates (17 *Hawk* MK63A/*Hawk* MK63C/*Hawk* MK63, 13 *Hawk* MK102, 5 *Hawk* MK61)
- Saudi Arabia (30 *Hawk* Mk65, 20 *Hawk* Mk65A)

¹²² The IISS, *The Military Balance*, various editions. The standard *Alpha Jet* does not come equipped with radar.¹²² As with the *Hawk*, multiple loadout options are available. Current Middle East and North Africa holdings of *Alpha Jets* include:

- Egypt (24 *Alpha Jet*)
- Morocco (19 *Alpha Jet*)
- Qatar (6 *Alpha Jet*)

As with the F-5 and the *Hawk*, the *Alpha Jet* is used primarily as a trainer by Egypt, Morocco and Qatar. The French design was built with a secondary light combat role in mind and was expected to be the *Hawk*'s primary competitor for the trainer/light fighter market during the 1980s.

¹²³ "Russia to Provide Lebanon with Fighter Jets," *The Associated Press*, December 16, 2008, available at <http://www.google.com/hostednews/ap/article/ALeqM5icYIaOKQxZM5P5Qs35LuvMPhwiUQD953PC4G0>.

¹²⁴ "Opinion: Counterinsurgency requirements could the return of turboprops to combat," *International Defense Review*, September 4, 2008, available at <http://idr.janes.com>.

¹²⁵ Ibid.

¹²⁶ \$929 million in current 2008dollars.

¹²⁷ Evaluating national defense spending is difficult under even the best of circumstances and ambiguities and discrepancies cannot be avoided in evaluating Lebanese military spending. The data used from 1990 through 2007 is from the IISS *Military Balance* and the U.S. State Department's *World Military Expenditures and Arms Transfers*, while figures for 2008 are from the Lebanese Ministry of Finance. All data are in constant 2008 U.S. dollars.

¹²⁸ *Lebanese Budget Law Proposals*, various editions, the Lebanese Ministry of Finance website, accessed November 21, 2008, available at <http://www.finance.gov.lb/Public+Finances/Budget/Budget.htm>, and *Fiscal Accounts of the Lebanese Government from 1993-2006*, October 17, 2007, available at <http://www.finance.gov.lb/The+Ministry/Archived+News/Archived+News+2007/Fiscal+Accounts+for+1993-2006.htm>.

¹²⁹ The Lebanese Ministry of Finance, *Budget Preparation for 2009, Budget Ceilings*, accessed December 1, 2008, available at <http://www.finance.gov.lb/Budget+Preparation+for+2009/Budget+Ceiling/>.

¹³⁰ "Rencontre Sleiman/Merkel: Berlin veut securiser la frontiere avec la Syrie," *L'Orient Le Jour*, December 3, 2008, available at <http://www.lorientlejour.com/page.aspx?page=article&id=point1>.

¹³¹ "Riad Kahwaji, "More Weapons for Lebanon," *Defense News*, September 1, 2008, p. 30.

¹³² *Ibid.*

¹³³ Author's interviews with senior Lebanese Armed Forces Command staff, December 5, 2008.

¹³⁴ Ronald D. McLaurin, "Lebanon and its Army: Past, Present and Future," in E. Azar (Ed.), *The Emergence of a New Lebanon: Fantasy or Reality?* NY: Praeger, 1984, and Robert F. Worth & Eric Lipton, "U.S. Resupplies Lebanon Military to Stabilize Ally," *The New York Times*, October 26, 2008, available at <http://www.nytimes.com>.

¹³⁵ Alfred B. Prados, "Lebanon," *CRS Report for Congress*, Congressional Research Service, July 11, 2007, p.30.

¹³⁶ Department of Defense Security Cooperation, *Historical Facts Book 2007*, September 30, 2007, available at <http://www.dsca.mil/programs/biz-ops/factsbook/FactsBook07.pdf>, *Congressional Budget Justification: Foreign Operations Fiscal Year 2009*, Revised February 29, 2008, p. 554 and *Congressional Budget Justification: Foreign Operations Fiscal Year 2008*, Revised May 2, 2007, p. 501.

¹³⁷ Other sources place the level of U.S. military support to Lebanon as high as \$400 million, but it was not clear how this total was calculated. See David Schenker, "The Future of U.S. Military Aid to Lebanon," *Policy Watch*, No. 1407, October 3, 2008, available at <http://www.washingtoninstitute.org/templateC05.php?CID=2933>.

¹³⁸ Committee on International Relations, Committee on Foreign Relations, "*Legislation on Foreign Relations Through 2005*," The U.S. House of Representative, U.S. Government Printing Office, January, 2006, p. 274-277, available at <http://foreignaffairs.house.gov/archives/109/24796.pdf>, and Defense Security Cooperation Agency, "*Program Definition for the Excess Defense Articles*," available at <http://www.dsca.mil/programs/eda/progdef.htm>.

¹³⁹ Based on data search carried out September 15, 2008 at <http://www.dsca.mil/programs/eda/search.asp>.

¹⁴⁰ *Congressional Budget Justification: Foreign Operations Fiscal Year 2009*, Revised February 29, 2008, p. 554

¹⁴¹ *Ibid.*

¹⁴² Riad Kahwaji, "Special Operations Command, More Military Aid for Beirut," *Defense News*, January 21, 2008, from <http://www.defensenews.com/story.php?F=3308844&C=mideast>, accessed January 22, 2008.

¹⁴³ U.S. Department of Defense, *Fiscal Year 2009 Budget Request Summary Justification*, February 4, 2008, p. 103.

¹⁴⁴ Nina M. Sorafino, "Section 1206 of the National Defense Authorization Act for FY 2006," *CRS Report for Congress*, RS22855, May 15, 2008, p. 1-2.

¹⁴⁵ Nina M. Sorafino, "Section 1206 of the National Defense Authorization Act for FY 2006," *CRS Report for Congress*, RS22855, May 15, 2008, p. 6.

¹⁴⁶ Department of State (Public Notice 5645) "Bureau of Political-Military Affairs; Embargo on Arms Exports to Lebanon," *Federal Register*, Vol. 71, No. 241, Friday, December 15, 2006/Notices 75609.

¹⁴⁷ Directorate of Defense Trade Controls, "Country Policies and Embargoes," U.S. Department of State, December 19, 2008, accessed January 5, 2009, available at http://pmdtdc.state.gov/embargoes_countries/index.html.

¹⁴⁸ "Riad Kahwaji, "Lebanon gets \$63 million in U.S. Aid," *Defense News*, October 13, 2008, p. 26.

¹⁴⁹ Robert F. Worth & Eric Lipton, "U.S. Resupplies Lebanon Military to Stabilize Ally," *The New York Times*, October 26, 2008, available at <http://www.nytimes.com>.

¹⁵⁰ Defense Security Cooperation Agency, *Guidelines for Foreign Military Financing of Direct Commercial Contracts*, August 2001, p. 2-3, available at http://www.dsca.mil/DSCA_memoranda/fmf_dcc_2005/Guidlines2005%203.pdf.

¹⁵¹ Nina M. Sorafino, "Section 1206 of the National Defense Authorization Act for FY 2006," *CRS Report for Congress*, RS22855, May 15, 2008, p. 2-3.

¹⁵² U.S. Department of Defense, *Fiscal Year 2009 Budget Request Summary Justification*, February 4, 2008, p. 103.

¹⁵³ Nina M. Sorafino, "Section 1206 of the National Defense Authorization Act for FY 2006," *CRS Report for Congress*, RS22855, May 15, 2008, p. 6.

¹⁵⁴ "Riad Kahwaji, "Lebanon gets \$63 million in U.S. Aid," *Defense News*, October 13, 2008, p. 26.

¹⁵⁵ Author's interviews with senior Lebanese Armed Forces Command staff, June 6, 2008, September 5, 2008 and December 5, 2008.

¹⁵⁶ Robert F. Worth & Eric Lipton, "U.S. Resupplies Lebanon Military to Stabilize Ally," *The New York Times*, October 26, 2008, available at <http://www.nytimes.com>.

¹⁵⁷ United States Government Accountability Office, "Afghanistan Security," *Report to Congressional Committee*, GAO-08-661, June 18, 2008, p. 29.

¹⁵⁸ Nicholas Blanford, "Lebanon gets caught in power play as Russia offers MiG-29s," *Jane's Defense Weekly*, December 19, 2008, available at <http://jdw.janes.com>.