

PREPARING FOR PEACE? SYRIAN DEFENSE EXPENDITURES AND ITS DRIVE FOR REGIONAL HEGEMONY

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Syria's Defense Expenditures

Any cursory examination of Syria's military strength reflects that traditional sources of military expenditures **information** are vastly underestimating the amount of resources that Syria is devoting to the build-up and development of its military. Accurately determining Syria's military expenditures, given its closed society and dictatorial regime, is an extremely challenging task. However, given the relative availability and reliability of open sources in the West, it is possible to obtain general information on the Operational and Maintenance (O&M) costs incurred in training, fielding, and maintaining various military units.¹

While this analysis is far from precise, given the enormous cultural and political discrepancies that would result in deviations in amounts devoted toward maintenance and training, it is far more accurate than relying on traditional sources of military expenditures **information**. Moreover, it is important to note that the costs to a third-world country to maintain equipment may actually be incrementally higher since many such components are subject to a myriad of additional importing, shipping, and distribution costs.

Army

Syrian ground forces consist of 11 divisions that include: six armored divisions, three mechanized divisions, a Republican Guards Division, and a Special Forces Division. The Syrian I Corps is deployed in the Golan region and consists of the 1st, 3rd, and 9th armored divisions and the 5th and 7th mechanized divisions. II Corps is deployed in the Lebanon region and

consists of the 10th Mechanized Division, 14th Airborne Division, and seven Special Forces regiments. The Republican Guards Division and 569th Armored Division are deployed near Damascus.² Syria fields a 215,000-man army with another 400,000 in reserve.

Virtually all of the equipment in these divisions is Soviet manufactured and consists of approximately 4,600 tanks including 1,500 T-72s and 1,000 T-62s. Additionally, they also **deploy** over 3,000 armored personnel carriers including 2,250 BMP-1s and 60 BMP-2s. The annual cost to field and maintain an active US Army armored **or** mechanized division is \$976 million.³ Of this amount, yearly operational costs for an armored **or** mechanized division are \$146 million and \$140.3 million respectively.⁴ An additional \$175 million is spent on equipment avg./yr, and the remaining funds are associated personnel costs (military pay, family housing, etc). A more detailed breakdown of the yearly operational costs follows:

	Armored Division	Mechanized Division
Consumables	\$48.962	\$47.995
Reparables	\$70.266	\$65.267
POL	\$ 5.651	\$ 5.470
Indirect Costs	\$21.152	\$21.609
TOTAL	\$146.031	\$140.341

Source: Department of the Army, Office of the Deputy Chief of Staff for Operations.

Cost figures are in millions.

This would put Syria's yearly operational costs of maintaining its 6 armored divisions at \$876.19 million, \$421.02 million for its three mechanized divisions, and \$140.341 million for the Republican Guards Division (excluding personnel and equipment costs avg./year).

In addition to its traditional armored and mechanized forces, Syria has one infantry division and ten airborne/special forces independent brigades.

According to a March 4, 1997 Department of the Defense information paper submitted to the House National Security Committee, the yearly operating costs for a light infantry division was \$583 million and for an airborne division, \$733 million. Once we extract personnel costs we arrive at \$204 million for the infantry division and approximately \$750 million for the airborne brigades (excluding personnel and equipment costs avg./year).⁵

Syria deploys over 2,000 major towed **artillery** weapons including D-20 152mm, A-19 Model 1931/1937 122mm and M46 130mm weapons. While the exact construction of these units is not known, their size is large enough to require 15 artillery brigades. A breakdown of the yearly operational costs for an artillery brigade follows:

Consumables	\$3.573
Reparables	\$9.633
POL	\$.311
Indirect Costs	\$1.822
TOTAL	\$15.339

Source: Department of the Army, Office of the Deputy Chief of Staff for Operations.

Cost figures are in millions and are for a 155SP BN.

By multiplying the 15 brigades by the yearly operational costs of \$15.339 we arrive at a figure of \$230.08 million (excluding personnel and equipment costs avg./year).

Air Force

Syria possesses one of the largest air forces in the region. Its inventory consists of over 575 aircraft, the majority of which are MiG23s, MiG-25s, MiG-29s, and Su-24s. They are deployed across Syria at over 20 bases.⁶ The air force is comprised of some 9 fighter

and 15 interceptor squadrons. A detailed breakdown of the 1997 yearly operational costs for a squadron of modern fighters follows:

Aviation Fuel	\$4.0
Depot Maintenance	\$0.8
Consumable Supplies	\$1.7
Depot Level Repairables	\$6.5
Training Munitions	\$1.1
Rel and Safety Mod Kits	\$1.1
Rel and Safety Mod Install	\$0.2
Training	\$0.5
TOTAL	\$15.9

Source: Department of the Air Force, 11th Wing.

Cost figures are in millions and reflect the costs for maintaining a squadron of F-16C/D's.

By multiplying the yearly operational costs by the 24 squadrons in the Syrian Air Force we arrive at a yearly operational cost of \$381.6 million (excluding personnel and equipment costs avg./year).

Additionally, Syria possesses over 190 helicopters, comprising some 15 squadrons. These include Gazelle gun ships, Mi-24 Hinds, and Mi8/Mi-17 Hips. A detailed breakdown of the yearly operational costs for a squadron of helicopters includes:

Consumables	\$02.34
Repairables	\$11.02
POL	\$00.46

Indirect Costs	\$00.36
TOTAL	\$14.18

Source: Department of the Army, Office of the Deputy Chief of Staff for operations.

Cost figures are in millions and are for a squadron of AH-64's.

Using the figure of \$14.18 million for the yearly operating cost per squadron we arrive at a total figure of \$212.7 million for the yearly operational costs for Syria's 15 squadrons (excluding personnel and equipment costs avg./year).

This brings the total yearly operational costs for Syria to maintain its fighter and helicopter squadrons to approximately \$594.3 million (excluding personnel and equipment costs avg./year). While the actual operational costs may differ due to differences in equipment and maintenance schedules, these discrepancies are adequately overcome by the fact that this analysis excludes the costs of maintaining Syria's transportation aircraft and its training assets.

Air Defense Forces

Syrian air defense forces consist of over 60,000 men **with** 450 SA-2s, 200 SA-6s, over 4,000 short-range air defense missiles, and over 2,000 air defense guns.⁷ The size and structure of Syria's air defense forces is well over 75 battalions. The yearly operational costs for sustaining an **Air Defense Artillery** battalion follow:

Consumables	\$1.45
Reparables	\$1.36
POL	\$0.11
Indirect Costs	\$0.77
TOTAL	\$3.69

Source: Department of the Army, Office of the Deputy Chief of Staff for operations.

Cost figures are in millions and are for a U.S. ADA Avenger Battalion.

If we multiply the yearly operational costs of \$3.69 million to Syria's 75 active duty ADA battalions we arrive at a total figure of \$276.75 million for the maintenance of Syria's air defense forces (excluding personnel and equipment costs avg./year). While the actual operational costs of maintaining a lesser quality ADA battalion may be lower, this estimate is viable considering that Syria maintains a totally separate command structure for these assets.

Navy

Syria's navy consists of approximately 50 vessels including; 16 missile patrol boats, 7 mine sweepers, a dozen coastal patrol boats, and four Destroyers/Frigates/Corvettes. (The crux of Syria's navy consists of eight Russian Osa II-class Rocket Cutters armed with updated versions of the SS-N-2 Styx missiles.)

Data pertaining to the number of hours that vessels in the Syrian navy deploy each year are unavailable. However, it costs approximately \$3,000 per hour to operate a patrol boat and over \$1,000 an hour to operate a minesweeper. Given these figures, notwithstanding the relative small size of the Syrian navy, a yearly operational cost of \$75 million is a conservative estimate (excluding personnel and equipment costs avg./year).⁸

Personnel Costs

Thus far, this discussion has only addressed operational costs for fielding, maintaining, and sustaining Syria's military and its command structure. In addition to operational costs, there are a myriad of personnel expenditures associated with maintaining its military. These include salaries, clothing, food, housing, medical costs, etc. Indeed, personnel costs often account for about 65 percent of military expenditures.⁹ While recognizing that Syrian personnel expenses are probably significantly lower than those incurred by

the West, the maintenance and sustainment of a large standing army consumes a substantial portion of its military budget.

Syria has approximately 450,000 soldiers in uniform. Of these, approximately 320,000 are conscripts. Additionally, there are another 254,000 in the reserves. Considering the direct costs of sustaining a soldier such as clothing, feeding, housing, health care, etc., coupled with the indirect costs of benefits **paid** to retirees, construction and maintenance of facilities, and dependent care, an average daily cost of \$10 per soldier is modest. Using the figure of \$10 and multiplying that amount by the number of personnel in its active forces, we arrive at an annual expenditure rate of \$54 million (excluding direct pay). The annual per capita GNP of Syria is slightly over \$2500. Assuming that conscripts are **paid** a nominal wage of \$10 per month and that regular army personnel average pay and allowances are equivalent to the per capita GNP, we arrive at a figure of \$35.7 million.¹⁰

Thus far, the analysis of Syria's defense budget places it far higher than its official estimation of \$1.7 billion. Indeed, as the following table illustrates, Syria actually spends twice its officially reported figures to maintain, sustain, and operate its conventional forces:

Component	Estimated Yearly Operating Costs
Armored Divisions	\$876.18 million
Mechanized Divisions	\$421.02 million
Infantry Divisions	\$204.00 million
Airborne Regiments	\$750.00 million
Artillery	\$230.08 million
Air Force	\$594.30 million
Air Defense	\$276.75 million
Navy	\$075.00 million
Personnel Costs	\$089.70 million
TOTAL	\$3,517.03 million

However, this discussion has not addressed the single most expensive component of Syria's military forces. This is its development, production, and deployment of non-conventional weapons. The economic collapse of the Soviet Union made Syria's attempt to achieve conventional strategic parity with Israel unattainable. As Russia sank deeper into its economic morass, it was unwilling to continue underwriting Syria's defense costs and began pressuring that country for repayment of its \$12 billion debt. This prompted Syria to make the strategic decision to abandon its attempts to achieve conventional strategic parity with Israel. Rather, Syria decided to focus its resources on the development of its non-conventional forces to create a viable first strike option in hopes of compelling an Israeli withdrawal from the Golan Heights.

Non-Conventional Weapons

Syria's chemical weapons program dates to the early 1970s and is the consequence of the recognition that, after three decisive conventional military defeats, Syria lacked the resources to defeat Israel in a conventional conflict. Consequently, Syria embarked on an ambitious non-conventional weapons program. The core of Syria's program is its chemical weapons development and delivery systems. The production of such weapons provides Syria with an answer to Israel's nuclear capability at a fraction of the costs of building a credible conventional capability.¹¹ Syria's chemical weapons development has developed to such an extent that its arsenal is estimated to be greater than that of pre-Gulf War Iraq's.¹² Included in its massive chemical weapons programs are a large arsenal of both blister and nerve agents such as mustard, VX and sarin.¹³

The primary conduit for Syria's chemical weapons production program is its Scientific Research Council (CERS). Under its cover as a civilian research center, it has developed extensive contacts with a myriad of pharmaceutical centers throughout the world.¹⁴ At least four production plants have been positively identified and it is believed that these facilities are producing hundreds of tons of chemical agents a year.¹⁵ Most of its ballistic delivery systems for these weapons have been obtained from China, North Korea, and Russia. However, France, and to a lesser extent Germany, have played a pivotal role in building up Syria's chemical industry through the sale of various pharmaceuticals.¹⁶

Concurrent with the development of its massive chemical warfare program has been the acquisition of **numerous** delivery systems for these weapons. Syria has been building its ballistic missile forces for the last two decades and has amassed one of the largest ballistic missile arsenals in the Middle East. Included in Syria's arsenal are: 200 Scud-B missiles with a 985kg payload and 300km range; 200 SS-21 missiles with a 480kg payload and 70km range; approximately 60 Scud-C missiles with a 500kg payload and 500km range; and an undisclosed number of M-9 missiles with a 950kg payload and 600km range.¹⁷ Additionally, Syria possesses an unknown number of cruise missiles including the SS-N-3b with a 1,000kg payload and 450km range.¹⁸

In addition to developing and acquiring a massive non-conventional arsenal, Syria is devoting substantial resources to the construction of a complex of tunnels to protect its missile ballistic missiles forces from Israeli attack. Thus far, five tunnels have been completed and an additional nine are under construction. Once these are completed, virtually all of Syria's missiles can be hidden and the vulnerability of these weapons to a preemptive strike will have been greatly reduced.¹⁹

Given the tyrannical structure and closed nature of the Syrian regime, it is impossible to accurately determine how much Syria is spending on its non-conventional weapons development, production, and deployment. However, Western sources, having gained access into Iraq's non-conventional weapons program following that country's defeat in the Gulf War, estimated that Iraq has devoted tens of billions of dollars to its non-conventional program. Given the size of Syria's program, it is easily spending \$1-2 billion a year on its non-conventional weapons program.

It needs to be noted, that this analysis has excluded administrative and support costs needed to sustain divisional units, O&M costs for support facilities, as well as the costs associated with the maintenance of military schools and administrations. More important, this analysis has excluded Syria's military intelligence network including those resources devoted in support of Hizbullah activities in Lebanon.

When these elements are factored it is clear that Syria's actual defense expenditures are probably closer to **5 to 6 billion dollars**. This is more than three times the amount claimed by published sources. However, despite its massive size, Syria's military is ill prepared to militarily force Israel from

the Golan Heights. Many of Syria's major weapons are obsolete and in need of major overhaul. Leadership at all levels of its force structure is weak, and Syria lacks a modern Command, Control, Communication, Computer, and Intelligence structure.²⁰ Given these factors Syria is ill-prepared to take the Golan Heights by force from Israel. However, Assad recognizes that by participating in the peace process he can not only compel an Israeli withdrawal from the Golan but can also rectify many of his military's systemic problems as he can expect an influx of economic and military aid as a quid-pro-quo for Syria's participation in the peace process.

Whither the Peace Process?

Syria's attempt to achieve strategic parity with Israel is predicated upon Assad's desire to compel Israeli withdrawal from the Golan Heights without resorting to military force. Assad is dependent upon the Arab-Israeli conflict to facilitate Syria's desire to become the regions hegemon. It's contiguous border with Israel, and its claim to be in the vanguard against Zionist imperialism, has allowed Syria to compete with its rich and militarily more powerful cousins as the leader of the Arab world. Resolution of the Arab – Israeli conflict will diminish Syria's regional strategic importance and marginalize that country. Consequently, Syria is greatly dependent upon the continuation of the conflict for both internal and regional strategic reasons.

However, Assad recognizes that the current geo-political environment does not favor Syria in a military confrontation. Without the political and military support of the Soviet Union, any Syrian attack on Israel would face a devastating counterattack by an Israeli army unencumbered by geo-political superpower constraints. The events in Kosovo, where even vociferous Russian opposition was not enough to deter a NATO attack on Serbia, was undoubtedly closely monitored by Syria. The **lesson** Assad should have learned is that Russia's historical role as the benefactor to countries challenging the West has been greatly diminished by its dependence upon Western economic aid.

Consequently, Assad sees Syria's participation in the peace process as its only viable alternative to achieving an Israeli withdrawal from the Golan Heights and facilitating the modernization of its military. However, Assad will not agree to sacrifice any core Syrian values **by taking such action as normalizing relations** with Israel, relinquishing control over Lebanon, or

agreeing to anything less than a full Israeli withdrawal from the Golan Heights.

Proponents of the peace process have long argued that a new paradigm has risen in the region. Conventional wisdom proclaimed that the economic collapse of the former Soviet Union not only ended superpower rivalries but left many of the former Soviet Union's client states without the ability to wage a sustainable war against Israel. Moreover, it was believed that the United States, as the only remaining regional hegemon, would exert its leadership role and ameliorate tensions between Israel and its neighbors. Unfortunately, the West failed to take advantage of this fleeting opportunity to alleviate regional tensions between Israel and its neighbors **and** proceed toward a comprehensive and lasting peace. Rather, the United States, and other Western countries, acquiescing to the demands of their regional allies, have allowed a facade of regional peace to cloak an unprecedented, and largely unfettered, regional arms proliferation.

There is no reason to assume that this **phenomenon** will stop because of a peace treaty with Syria. Indeed, Assad will exploit his willingness to participate in the peace process by making Syria's signing of any peace accord contingent upon Western commitments to modernize and expand Syria's military. If the past is any indication, Assad will find the West only too willing to oblige and Syria will embark on a massive modernization of its military much of which will be bankrolled by the oil rich states. This will only serve to exacerbate an already dangerous situation. Unfortunately, weapons proliferation in the region is not abating. Despite leading the world in arms imports throughout the decade, there is no sign that the region's appetite for weapons has been satisfied. In March 1999, the United States announced that it would sell Egypt an additional \$3.2 billion worth of advance weapons including 24 advanced F-16 fighters, 200 M1A1 tanks, and a Patriot 3 anti-missile battery.²¹ This announcement was followed by a Russian agreement to sell Syria a weapons package valued at approximately \$2 billion.²² The purchase is reportedly to be financed by the United Arab Emirates and Iran and includes the purchase of T-90 tanks, MiG-29 fighters, and more advanced anti-missile systems.²³

The peace process has been exemplified by an unfettered arms race, as the Arab states modernize and expand their arsenals, and Israel attempts to maintain its historical qualitative edge. The danger for Israel is that it cannot compete economically in such an arms race. Indeed, should Israel attempt to

maintain its qualitative edge it runs the risk of suffering the same fate as that of the former Soviet Union. It is important to note that each incremental gain in Israel's qualitative advantage will cost it substantially more in research and development. Consequently, Israel's only chance to maintain its qualitative superiority is by diverting resources from its force structure to research and development. Unfortunately, such a decision will exacerbate the critical quantitative gap with no guarantee that Israel will preserve its qualitative advantage. As the following tables illustrate, Israel is losing in its attempts to maintain to stem the quantitative gap.

Arab – Israeli Quantitative Balance of Power

Main Battle Tanks						
	1967	1973	1985/6	1989/90	1995/6	1999
Total Arab	1,450	4,841	12,870	14,156	14,436	18,019
Israel	950	2,000	3,600	3,794	4,095	4,300
Ratio	1.53	2.42	3.57	3.73	3.53	4.19

Combat Aircraft						
	1967	1973	1985/6	1989/90	1995/6	1999
Total Arab	580	1,038	1,988	1,940	2,190	3,103
Israel	288	360	640	676	699	481
Ratio	2.01	2.88	3.10	3.00	3.13	6.45

Total Arab numbers include Egypt, Syria, Jordan, Saudi Arabia, Iran, Iraq, Libya, Bahrain, Kuwait, Oman, Qatar, the UAE, and Yemen.

Sources: IISS Military Balance and JCSS Middle East Military Balance for the appropriate year. Data for 1967 and 1973 was

taken from Anthony Cordesman's **After the Storm: Changing Military Balance In the Middle East** (Boulder: Westview Press, 1993). The 1999 data was taken from Cordesman's **The Military Balance in the Middle East, Part V, 1999**.

More disturbing than the expanding quantitative gap between Israel and its neighbors has been the qualitative erosion of Israeli weapons *vis-à-vis* the Arab states. Today, for the first time in the history of the Arab-Israeli conflict, the combined Arab forces are able to deploy more "high quality" combat tanks and aircraft than the Israelis. It is important to note, it was the superior quality of Israeli weapons, coupled with the quality of its soldiers, that allowed Israel to achieve decisive victories in past regional wars. Today, Israel no longer enjoys the advantage of being able to deploy significantly superior weapons. Moreover, the quantitative gap in virtually every major category has more than doubled since the 1973 Arab-Israeli War. Equally important is that the technological ease and lethality of the current generation of weapons has neutralized Israel's vaunted human qualitative edge.

There is no doubt that the region is much more unstable than it was a decade ago. Egypt is still battling Islamic fundamentalism. Algeria is in the midst of civil war. Saudi Arabia and the Gulf states face growing challenges to regime stability. Saddam Hussein is still in power. Iran still harbors regional ambitions in spreading the Islamic revolution. More important, arms proliferation in the region has greatly outpaced progress in the peace process. Should Israel reach accommodation with its neighbors, and achieve a comprehensive and lasting peace, then a "New Middle East" may indeed emerge. However, for this to occur the peace process will have to overcome the forces of history, religion, culture, hatred, and a growing belief on the part of Israel's neighbors that the military balance of power is shifting in their favor.²⁴ Given these conditions, proponents of the peace process are being fatefully optimistic in their estimation of where the peace process is leading Israel.

Should Israel refuse to acquiesce to Palestinian core demands such as a division of Jerusalem, right of Palestinian refugees to return to Israel proper, or full withdrawal from territories captured in the 1967 War, then the peace process will collapse and Israel will find itself in a political situation similar

to that faced in 1967, but facing an adversary who is far better prepared to challenge Israel militarily than at any time in the 50 year conflict. Unfortunately, nothing in the actions and rhetoric of Israel's neighbors suggests that they are seriously seeking a resolution of the conflict that will result in the integration of Israel into the region. Given the evolution of the Israel-Egyptian peace accords, and the current direction of the Israeli – Palestinian peace process, it appears that the best that supporters of the peace process can aspire to is a “cold peace”, one in which Israel is seen by the region as a tolerated interloper. Unfortunately, given the recent proliferation of weapons into the region this indeed may prove an overly optimistic assessment and a sixth Arab – Israeli war may well be in the offing in the not too distant future.

SYRIAN MILITARY EXPENDITURES

- ¹ O&M costs represent the operating costs of fielding a force. It includes costs for purchasing and distributing spare parts and supplies to support the military members and equipment.
- ² International Institute for Strategic Studies (IISS) 1993-1994, London, UK.
- ³ A Department of Defense information paper dated March 4, 1997 used a higher figure putting the time cost of operating a heavy division at \$1,014 billion.
- ⁴ Department of the Army, Office of the Deputy Chief of Staff for Operations and Plans, letter dated July 18, 1997. The Department of Defense information paper

dated March 4, 1997 used slightly higher figures of \$617 million on personnel; \$184 million on operations; and \$175 million on equipment avg./yr.

⁵ The costs of maintaining an independent brigade is usually about 30 percent higher than the costs associated with maintaining a brigade within a division. This is because an independent brigade has its own combat support and combat service support elements to support it.

⁶ Anthony H. Cordesman, **The Military Balance in the Middle East – Arab-Israeli: Part VI, 1998/9.**

⁷ Ibid.

⁸ Department of the Navy, Freedom of Information Act. These figures exclude personnel and equipment costs avg./yr.

⁹ Department of the Army, Office of the Deputy Chief of Staff for Operations and Plans, letter dated July 18, 1997.

¹⁰ There is no denying that the standard of living enjoyed by the American soldier is far greater than his Syrian counterpart. However, Syria has a GNP of approximately \$2500 yet has one of the highest reenlistment rates in the region. See Cordesman, **The Military Balance in the Middle East – Arab-Israeli: Part VI, 1998/9.**

¹¹ **Jerusalem Post**, August 7, 1994.

¹² See the internet site of The Center For Nonproliferation Studies, Monterey Institute of International Studies, CA. Additionally, this claim was made by former Israeli Chief of Staff Ehud Barak, quoted in the **Jerusalem Post**, December 8, 1991.

¹³ Center for Defense and International Strategic Studies, 1996 country report on Syria.

¹⁴ **The 1995-6 Military Balance.**

¹⁵ See the internet site of The Center For Nonproliferation Studies, Monterey Institute of International Studies, CA.

¹⁶ See Federation of American Scientists (FAS), report titled “Syria – Special Weapons”.

¹⁷ Reported in Special to ABCNEWS.com, August 23, 1999.

¹⁸ See Federation of American Scientists (FAS), report titled “Syria – Special Weapons”.

¹⁹ The Center For Security Research, No. 99-D 54.

²⁰ Anthony H. Cordesman, **The Military Balance in the Middle East – Arab-Israeli: Part VI, 1998/9.**

²¹ **New York Times**, March 11, 1999.

²² **Ha'aretz**, January 29, 1999.

²³ British Broadcasting Corporation, July 27, 1999.

²⁴ It is generally believed by observers in the region that preventing a future war is predicated upon Israel's neighbors perceiving that Israel still maintains a superior military position *vis-à-vis* the Arab states.