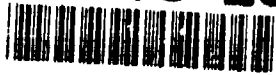


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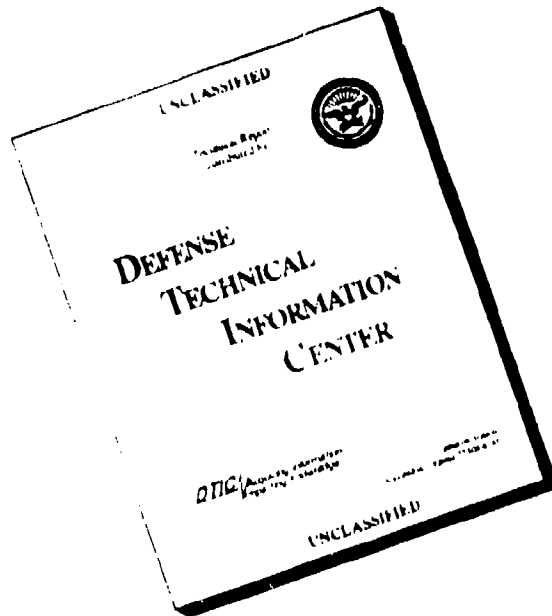


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1. AGENCY USE ONLY (Leave blank)		2. REPORT DATE 19 Apr 93	3. REPORT TYPE AND DATES COVERED FINAL	
4. TITLE AND SUBTITLE Analyzing Reports of Recent Iranian Weapons Acquisition From Open Sources			5. FUNDING NUMBERS	
6. AUTHOR(S) Raymond J. Leisner LtCol, USAF				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) AIR WAR COLLEGE 325 CHENNAULT CIRCLE MAXWELL AFB AL 36112-6427			8. PERFORMING ORGANIZATION REPORT NUMBER Unnumbered AWC research paper	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) N/A			10. SPONSORING/MONITORING AGENCY REPORT NUMBER N/A	
11. SUPPLEMENTARY NOTES PAPER IS WRITTEN TO FULFILL ACADEMIC RESEARCH REQUIREMENTS FOR AN IN-RESIDENCE SENIOR SERVICE PROFESSIONAL MILITARY SCHOOL.				
12a. DISTRIBUTION/AVAILABILITY STATEMENT APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED			12b. DISTRIBUTION CODE	
13. ABSTRACT (Maximum 200 words) See page ii				
			94-25436 	
14. SUBJECT TERMS Analyzing, Recent, Weapons, Open, Sources			15. NUMBER OF PAGES 23	
			16. PRICE CODE	
17. SECURITY CLASSIFICATION OF REPORT UNCLAS	18. SECURITY CLASSIFICATION OF THIS PAGE UNCLAS	19. SECURITY CLASSIFICATION OF ABSTRACT UNCLAS	20. LIMITATION OF ABSTRACT UL	

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## **A-B-S-T-R-A-C-T**

**Title: Analyzing Reports Of Recent Iranian Weapons Acquisition From Open Sources**

**Author: Raymond J. Leisner, Lieutenant Colonel, USA**

Since the end of the Iran-Iraq war in 1988, the massive weapons acquisition program by the Iranian military has been a source of concern for many observers. American and Gulf Cooperation Council leadership in particular seem to see a disturbing vision that requires careful watching. This paper reports and summarizes major Iranian weapon acquisition listed in the open press, then analyzes their potential in regional military and political terms.

The author concludes that the greatest potential concern for the U.S. and its Middle Eastern allies is the synergy arising from the acquisition of large numbers of surface to surface missiles, an emerging potential to independently use commercial satellite imagery, and Iran's expanding nuclear program.

## BIOGRAPHICAL SKETCH

LTC Raymond J. Leisner (B.S., Xavier University) is a Regular Army Officer with extensive experience in Armor and Cavalry units, including tank battalion command in Korea. His staff assignments include duty in the Office of the Deputy Chief of Staff for Operations And Plans, Department of the Army, where he was responsible for *The Army Plan*. LTC Leisner is a graduate of Armor, Infantry and Quartermaster resident officer courses, as well as the Command and General Staff Course. His decorations include the Legion of Merit and the Army Staff Identification Badge.

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## **I. Purpose.**

The changes in the Iranian military since the end of the Iran-Iraq war in 1988 have been a source of concern for many observers. American and Gulf Cooperation Council leadership in particular seem to have looked to the convergence of these trends and seen a disturbing vision that requires careful watching. The purpose of this paper is to summarize these major trends, then analyze their potential in regional military and political terms.

## **II. General.**

The Islamic Republic of Iran is buying arms at an extraordinary pace. Estimates have been published of military expenditures reaching up to 35% of the Iranian national budget in the mid 1980's (26:229). Some business sources have estimated that the cost of the Iranian acquisition effort for its ground forces alone will be over \$15 billion (9:1). Certainly, some of this is due to the unique set of international circumstances Iran finds itself in today. Alone among the Gulf states, Iran's cash reserves were not depleted as a result of Desert Storm. A buyers market exists in the area of sophisticated weaponry from a number of states in need of hard cash. These sellers impose no intrusive conditions on the sale of their arms. They have the equipment on hand now, along with plenty of spares, so

that the results of all this acquisition can be realized quickly, with less reaction time available to those who might oppose. It is indeed a good time to buy for those who can.

All this is true, and it may explain why Iran is buying now, and whom she is buying from. What it does not explain is why Iran has deferred a great deal of badly needed civilian recovery from its eight year war with Iraq in favor of massive weapons purchases. Absent candid access to Iranian decision makers, one of the ways to gain that kind of insight is to look at the acquisitions themselves.

The task of describing the acquisition driven changes in Iranian military capability is complicated by a number of factors. Precise numerical comparison of military assets yields little of value. The difficulty of calibrating a base line from which to determine change is, frankly, beyond the capability of the open source researcher. While one could theoretically reconstruct the organization and equipment on hand in Iranian Imperial Forces on the day the Shah fell, the process of estimating the result of more than a decade's worth of combat loss and cannibalization would probably not withstand a great deal of scrutiny. Similarly, much of the equipment procured during the period of international sanctions as a result of the Iran-Iraq war was purchased on the black market (9:2). The audit trail for this equipment presumably exists only in Teheran. The precision of press reports of recent controversial arms sales, especially in terms of quantity and

delivery date, should be considered somewhat suspect. Finally, the degree to which some reputed suppliers (e.g. Czechoslovakia) can deliver as they themselves disintegrate is a matter for conjecture.

Similarly, one can only speculate about the real, proximate, reasons for particular hardware transfers. In such a guessing game, one's perspective means everything. Individual purchases may have as easily been motivated by business or political sense as military necessity.

Finally, there is the issue of intention. In the political sense, the existence of a military capability can be its own justification, and does not clearly imply a specific intention to actualize it on the battlefield. No one can imply future intention with certainty.

Fortunately, an analysis of arms purchases, at a summary level, can lead to some meaningful conclusions. While the accuracy of any given report of an arms transfer is questionable, the fact that Iran is spending a lot on its military is not. The overall pattern of such commitments are not without purpose, and one may reasonably ascribe a plausible programmatic intention. From even a summary examination of the function of the particular weapon and Iran's recent experiences of war, the desired operational military capability can be generally stated. Finally, Iran is a regional power, and its military is designed to operate in that venue. New

or altered operational military capabilities can therefore be overlaid on the existing situation to discern potential regional implications. This, then, is the methodology of this paper.

### III Ground Forces.

One of Iran's enduring strategic strengths is her large population. The data at Table 1 illustrates the extent of this dominance. Other than Turkey and Pakistan, there are nearly as many people living within Iran as all her immediate neighbors combined. This disparity is so great that it will be a strategic planning factor into the next decade.

TABLE 1  
REGIONAL POPULATION DATA

COUNTRY	POP(M) 1990	% IRAN 1990	POP(M) 2000(E)	% IRAN 2000
IRAN	54.607	100.00%	68.789	100.00%
PAKISTAN	122.626	224.56%	162.409	236.20%
TURKEY	55.868	102.31%	66.789	97.13%
IR.IQ	18.942	34.69%	26.239	38.31%
AFGHANISTAN	6.557	30.32%	26.511	38.56%
SAUDI ARABIA	14.134	25.88%	20.697	30.10%
AZERBLAN	7.146	13.09%	8.171	11.88%
TURKMENISTAN	3.6	6.59%	4.523	6.58%
ARMENIA	3.575	6.55%	3.841	5.59%
KUWAIT	2.039	3.73%	2.639	3.84%
U.A.E	1.569	2.91%	1.951	2.84%
OMAN	1.502	2.75%	2.176	3.16%
BAHRAIN	0.561	1.03%	0.683	0.99%
QATAR	0.358	0.67%	0.499	0.73%

(25:108-109, 18)

It is not surprising that the bulk of Iran's Armed Forces are to be found in her ground forces, nor that the sheer size of these forces should be intimidating to Iran's less populous neighbors. In Iran's case, however, geography and recent history have combined to make the combined capability of these forces perhaps less than the sum of their parts. As one will soon see, these factors can limit the effects of acquisition as they apply to overall force capability.

For purposes of equipment, Iran's ground forces consist of the Iranian Islamic Ground Forces (IIGF), units of the Revolutionary Guards (*Sepah* or *Pasdaran*) as well as units of the Gendarmerie and the National Police. IIGF and *Pasdaran* were estimated to number 350,000 and 250,000 respectively in 1991. During time of war, the mobilized militia (*Basij*), many of them children, can total over 200,000. Exact organization is unclear, but the IIGF and large formation *Pasdaran* are commonly reported to consist of up to 3 or 4 heavy (tank or mechanized) divisions, 7 lighter (infantry or motorized) divisions and 6 independent brigades (mostly paratroop/ special forces). Gendarmerie, National Police, and *Basij* units are generally believed to be only lightly armed (10:5, 16: 254, 17:160).

Iranian ground forces entered the war with Iraq with a variety of U.S. and U.K. equipment. As mentioned previously, the exact losses from that conflict cannot be determined from open sources, but the reports that have emerged

indicate that the lethality of modern combat took its toll quickly. The case of main battle tanks is probably illustrative of most major ground force weapons. In the 1981 battle of Susangerd alone, Iran lost some 300 of the 400 tanks involved (26:172). Cut off from direct western sources of spares for their British Chieftain and American M-60 tanks, by 1986 the IIGF was operating an increasing number of Soviet made T-54, T-55, T-62 and T-72s, as well as Chinese T-59s. This hodge-podge of weapon types (up to 5 different calibers of main gun tank ammunition at once) greatly complicated both training and logistics (16:256). Solving this problem has apparently become a priority in post-war procurement decisions. One of the major capability problems the Iranians faced was that of operational movement. Although the IIGF and *Pasdaran* were able to move large infantry formations throughout the war, movement of heavy forces was a significant problem. The poor state of the Iranian railroads (single track, light tonnage rolling stock, poor roadbeds) at the start of the war was exacerbated by an estimated \$4 billion in damage from Iraqi action. These problems, and a shortage of motor transport, had significant operational impact. The movement of a single heavy division in 1980 from Mashad to Kuzestan is said to have required six weeks of non-stop activity by the nation's transportation system. (5:6-7).

As the data in Table 2 indicates, acquisition for ground forces before 1989 can be plausibly described as wartime procurement to meet current operational losses. Post-war Czech and Rumanian orders in 1989 and 1990 are on the order of

75-90% of the standing IIGF/*Pasdaran* fielded main battle tank fleet. A reequipping cycle, after eight years of combat, is a very plausible programmatic explanation for these orders, especially since the alternative is an enormous peacetime increase in heavy force structure. Even though the 1989 Roumanian buy of 180 Heavy Equipment Transporters (HET) represents a quantum improvement over previous capability, there is little evidence of an extensive national transportation infrastructure repair program (5:8). This alone makes heavy force expansion unlikely, or, if force expansion is the real intent, limits the operational effectiveness of such an enlarged force. The heavy forces of the IIGF/*Pasdaran* are no different from such forces world wide in one important respect: they are voracious consumers of sustaining supplies. The delapidated infrastructure shackles even a modernized IIGF to the same capabilities as its predecessors. Unless Iran's transportation and logistics infrastructure is improved, the operational capability of Iranian ground forces remain what they were in the war with Iraq: comparatively shallow, combined arms operations in multi-division strength. Given this, a plausible programmatic intent for the large Czech tank purchase discussed in 1991 is more in line with securing a long term modernization supplier than with Iranian heavy force expansion. One non-operational capability such deliveries might give Iran is to barter its displaced equipment for influence in less developed countries outside the region. Although Iran denies that it is currently supplying Sudan with such equipment, President Rafsanjani has stated that the two countries are "determined to establish military cooperation in the future" (18:32).

---TABLE 2  
IRANIAN ISLAMIC GROUND FORCE ACQUISITION

YR	OBSERVATION	REF	PLAUSIBLE PROGRAM	CAPABILITY	REGIONAL IMPACT
85	260 T-59 MBT, 50 T77 APC FROM CHINA	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
85	200 HOWITZERS FROM AUSTRIA	9:11	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
85	100 TAM MED TANKS FROM BRAZIL	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
85	2008 TOW & HAWK SPARES FROM USA	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
86	UNK # SA 2, 300 AT3, 400 SA7 Fm CHINA	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
86	UNK # 105MM HOW Fm YUGOSLAVIA	9:11	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
86	DIVISIONAL FA& ADA FROM CHINA	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
87	200(+) STINGERS FROM AFGHAN REBELS	8:6	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
87	180 AT3, 400 SA 7 FROM CHINA	9:10	REPLACE COMBAT LOSSES	CONTINUE IRAQ WAR	CONTINUE IRAQ WAR
89	180 HET FROM RUMANIA	9:11	FIX TACTICAL WEAKNESS	SHALLOW DIV(+) OPS	REFIGHT SHATT-AL-ARAB
89	APPROX 300 MBT/APC FROM RUMANIA	9:11	REEQUIP/WAR RESERVE	SHALLOW DIV(+) OPS	REFIGHT SHATT-AL-ARAB
89	11-13 CH-47 HELOS FROM ITALY	9:9	FIX TACTICAL WEAKNESS	SHALLOW DIV(+) OPS	REFIGHT SHATT-AL-ARAB
89	180 T-54-55 MBT FROM CZECHS	9:10	REEQUIP/WAR RESERVE	SHALLOW DIV(+) OPS	REFIGHT SHATT-AL-ARAB
90	300 T-72 MBT FROM CZECHS	9:10	REEQUIP/WAR RESERVE	SHALLOW DIV(+) OPS	REFIGHT SHATT-AL-ARAB
91	1500 MBT (PROPOSED) FROM CZECHS	9:10	LONG TERM MOD	FUTURE MOD/ RESALE INFLUENCE BEYOND GULF??	

#### IV Naval Forces.

The Iranian Islamic Navy (IIN), the smallest of the services, is currently estimated to be manned at a level of about 15,000, excluding *Pasdaran* naval units.

The IIN was composed of 3 Destroyers, 3 Frigates and 2 Corvettes, as well as a large fleet of Hovercraft and numerous small attack vessels at the start of the Iran-Iraq war (17:160). Combat losses and maintenance unavailability have drastically reduced the operational readiness of the IIN (16:256-57). IIN Aviation is primarily rotary wing, including mine sweepers. Reports vary about the status of the only fixed wing aircraft in the fleet: anti-submarine Lockheed P3Fs. Of the 6 present in 1979, only 3 were believed operational in 1986, and at least one 1992 report omitted them all together (16:257, 17:160).

As the data at Table 3 indicates, the IIN does not seem intent on replacing any of its larger surface combatants. A significant number of the 1985 and 86 LST deliveries were lost, including one captured and two destroyed by Americans in the 1984 phase of the "Tanker War". Open sources do not reveal a replacement plan for them. One of the most controversial aspects of Iranian rearmament after Desert Storm is the acquisition of submarines from Russia ( 2:53, 9:4, 10:13, 11:A12, 24:38).

Establishment of an Iranian submarine arm is not a new idea. The Shah ordered three *Tang* class surplus submarines from the U.S, and commissioned 6 new submarines from shipyards in Germany. Neither the *American Tangs* nor the German boats were delivered, and the Khomeini government later abandoned the whole idea (9:4). The order of three Kilo class Russian boats appears to be a

partial revival of this concept. Of greater interest is the large increase in anti-ship missiles, particularly the 800+ HY-2 and HY-4 "Silkworms" delivered to Iran from China and North Korea (9:10). These missiles, coupled with the 1992 resurgence of Iranian dominance over the islands of Abu Musa, Greater Tunb and Lesser Tunb give the IIN/Pasdaran the capability to control all deep draft navigation in the Straits of Hormuz (7:1, 12:22).

**TABLE 3**  
**IRANIAN ISLAMIC NAVY ACQUISITION**

<u>YR</u>	<u>OBSERVATION</u>	<u>REF</u>	<u>PLAUSIBLE PROGRAM</u>	<u>CAPABILITY</u>	<u>REGIONAL IMPACT</u>
85	3 LST FROM NETHERLANDS	9:5	GULF MINE LAYING	LIMITED DENIAL	NAVAL OPS AGAINST GCC
86	UNK # MINISUBS FROM NORTH KOREA	9:10	GULF SOF OPS	HARB/TERMI STRIKE	NAVAL OPS AGAINST GCC
86	3 LST FROM S. KOREA GCC	9:5	GULF MINE LAYING	LIMITED NAV DENIAL	NAVAL OPS AGAINST GCC
87	3 LARGE PATROL CRAFT FROM CHINA	9:5	REPLACE COMBAT LOSSES	SECURE STRAITS	CONTEST U.S. NAVY OPS
89	800 HY-2/4 SILKWORM MISSILES	9:10	ROBUST GULF DOMINANCE	SECURE STRAITS	CONTEST U.S. NAVY OPS
91	3 KILO SUBS FROM RUSSIA	2:53 8:4, 9:10, 10:13, 11:A-2	COMPLETE PRE-1979 PLAN	SECURE STRAITS	CONTEST U.S. NAVY OPS

## V. Air Force

In the Shah's day, the Iranian Air Force consisted of almost 100,000 men in fifteen combat, one recon, and 6 support squadrons. This impressive force fielded

**Most importantly, perhaps, Iranian acquisition would support achievement of a strong military force as a matter of deliberate national intent. Properly trained and lead, the Iranian military could be comparatively modern, large by regional standards, reinforced in the short term by robust SSM forces, and underwritten by the reconstitution potential of the large Iranian population.**

**The synergism of these air, sea, and emerging space capabilities might allow a future Iran to challenge the western (primarily American) monopoly as supplier of regional conflict termination force. Such a role is in concert with long held Persian conceptions about the proper distribution of power in the region.**

**Should such a capability emerge, there are a number of troubling ways in which it could reveal itself to regional actors such as the CCG and its western allies. Although outright closure of the Straits of Hormuz to commercial traffic is unlikely (Iran is totally dependent on Gulf shipping for its oil export), asserting Iranian hegemony by denying the Persian Gulf to western warships may be possible. In an ironic reversal of Desert Storm roles, a western force rushing to the aid of Gulf allies might be confronted with a "stay clear" demarche from an Iran in control of the Straits and the airspace over the Gulf.**

**Such a situation has occurred before. In 1988, the U.S. Navy easily suppressed Iranian units on the Tumbas and oil platforms as it guarded the freedom of**

navigation of reflagged tankers. The emerging Iranian capability is, however, far more capable robust, and integrated than the collection of *Pasdaran* speedboats of the "tanker war". The data indicate an Iranian conventional naval and air capability that, if not big enough to win over a properly sized western force, is certainly too big and capable to be ignored. A future Iran might have the capability to not only challenge western forces for military access to the Persian Gulf, but also a real capability to set the terms of the initial battle if western forces accept the challenge. This would be a new capability in the region, and would have immediate strategic impact if employed. Under such circumstances, this hypothetical "stay clear" demarche would be far from hollow.

The teeth in such a demarche might come in the overwhelming Iranian Surface To Surface Missile regional capability that is now emerging. The open source data do not yet suggest a force of long-range precision guided munitions, capable of surgical precision against military targets. Instead, the SSM capability is a political one. Even with conventional warheads, this force's greatest capability is to threaten civilian populations in the region. Increasing warhead lethality or terror potential with chemical or nuclear warheads only enhances the political effect, as does increasing the range to directly threaten non-contiguous states such as Egypt or Israel.

## **VIII Conclusion.**

**The basic premise of this analysis is that Iranian weapons acquisitions are not random, and that a summary examination of them in an Iranian national context can lead to meaningful conclusions about what military capabilities Iran's leadership desires for the future. The thrust of those desired capabilities, in a regional context, can yield a set of possible regional security implications.**

**We have seen that Iranian rearmament is plausibly targeted at wresting the position of regional security guarantor for the Persian Gulf from western powers. The degree and consequences of whatever hegemony such a position may confer, however, is far beyond a summary analysis of weapons acquisition.**

**It is therefore incumbent on the other Gulf States, the United States, and its allies, to determine how their interests align with such an Iranian position, and to focus intelligence on all the components of the various military capabilities enabled by Iran's acquisition strategy. Where interests are seriously threatened, preventative action before Iranian capabilities mature will be less painful than waiting for the other shoe to drop.**

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