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Author(s): David Segal

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David Segal

THE IRAN-IRAQ WAR: A MILITARY ANALYSIS

The eighth year of the Iran-Iraq War is nearly over, but the conflict shows little sign of ending anytime soon. Despite the dramatic events of April, when U.S. and Iranian naval forces clashed in the Persian Gulf, 1988 appears destined to be just another year of bloody stalemate in a seemingly endless war.

Appearances, however, may be deceptive. In the course of the last year or so, Iraq has continued to make significant economic and diplomatic gains while holding its own militarily. Its clear edge in missiles and air power has made the “war of the cities” a decidedly one-sided contest. Much more importantly, with its recapture of the strategic Fao peninsula April 17–18, and despite serious setbacks in the north, Iraq may have actually managed to wrest the land initiative from Iran for the first time in six years.

To appreciate properly the significance of these developments, one must first understand the military situation that has prevailed since the Iranians drove the Iraqi invaders back behind their own borders in the summer of 1982. Since that time, Iran has been slowly winning the war on the ground, while losing it on the economic and diplomatic fronts.

That Iran, with an estimated 6.2 million men fit for military service out of a population of 45.2 million, could be winning a war of attrition against Iraq, whose 15.5 million population includes only 2.03 million men fit for duty, is hardly surprising. If anything, it is surprising that Iraq, despite over two dozen major Iranian offenses since 1982, has kept the numerically superior Iranians at bay for so long.¹

II

The combatants face each other along a 730-mile front from Turkey to the Persian Gulf. Since 1982 the front lines

¹ Unless otherwise cited, all figures on manpower, armaments and military equipment are from *Military Technology*, No. 13/86, McLean, Va: Mönch Media, Inc., December 1986.

David Segal is a writer who specializes in military affairs.

have approximately coincided with the international border.²

Along this vast front, only about 250 miles along the central sector, from Mandali, Iraq, to Bostan, Iran, provide the relatively flat, dry terrain and clear fields of fire that permit the high degree of artillery support, air support and armored mobility necessary for modern mechanized warfare. Iraq's superiority in armor, air power, mobility and training, and its ability to coordinate combined arms operations, show to best advantage on this ground. Every major Iranian attack in this sector has been a bloody disaster, and, if the choice were theirs, the Iraqis would undoubtedly want most of the fighting to take place here. The Iranians, naturally, have not obliged; their major effort is in the southern sector, with a respectable secondary effort in the north.

In the north, the nearly 320-mile front from Oshnoviyeh, Iran, to Khanaqin, Iraq, is mountainous, with peaks ranging from 3,000 to 10,000 feet in height and averaging around 4,000 feet. This sort of terrain allows restricted fields of fire and less effective tactical air support. Mobility is very limited for anything but troops on foot, and armor is largely restricted to a few easily blocked roads. Since air power, firepower, armor and mobility are Iraq's chief military assets, the northern sector is a difficult one for the Iraqis.

By the same token, the poorly trained and lightly equipped infantry formations that make up Iran's *basij* militia (Popular Mobilization Army) and the somewhat better-trained and -equipped infantry units of the *pasdaran* (Revolutionary Guards Corps) show to best advantage in such terrain. Despite the northern sector's intrinsic suitability for Iranian operations, it was not until March 1988 that the Iranians made what appears to have been their main effort in this area.

When they finally did so, the results were spectacular. Iranian forces captured several Kurdish towns, including Halabja, and penetrated to within 75 miles of Kirkuk and 15 miles of the Darbandikhan Dam. This brought the vital Kirkuk oil fields within range of Iranian missiles and the dam within Iranian artillery range. The dam, situated on the southern shore of Lake Darbandikhan, is about 18 miles from Halabja, and supplies much of Baghdad's electricity and water. Only the

² Iraqi forces still remain inside Iran in a number of places (notably in the central sector), and Iranian troops have captured territory inside Iraq (notably in Iraqi Kurdistan).

timely arrival of Iraqi reinforcements and the massive employment of air power and chemical weapons saved it from Iranian conquest. Given this kind of success, further Iranian offensives in the northern sector can be expected.

Until this year the main Iranian effort has focused on the south, for several reasons. By gaining ground in the southern sector, the Iranians cut off Iraq's direct access to the Persian Gulf and brought its second-largest city and main port, Basra, within artillery range. Iran hoped to break Iraqi morale and bring down President Saddam Hussein by actually taking the city. Indeed, since 1982, the Iranians have made the capture of Basra their major military goal, just as the Union Army made the capture of Richmond its chief goal in the early days of the American Civil War. Iran has yet to learn, as the Union Army eventually did, that wars are won by destroying the enemy's armed forces in the field and its economic ability to wage war. As long as these remain intact, the capture of geographical objectives like Basra is of little value.

Still, it is along this 160-mile southern sector, from Bostan in the north to the Persian Gulf in the south, that the Iranians have launched their most serious attacks since their first offensive against Basra in July 1982. While the terrain is flat and open, it is also largely wet and marshy and thus unsuited to armored operations.

The sector's most notable geographic feature is the vast marshland of the Hawr al-Hawizah—80 miles long and as much as 60 miles wide—extending south from Bostan to about 20 miles north of Basra. Offensive operations here are almost impossible, but defense is relatively easy. On the other hand, the infiltration of small groups of lightly equipped infantry is also relatively easy; this favors the Iranians, who infiltrate the area and threaten Highway 6—the main road connecting Baghdad and Basra—from their swampland strongholds. This tactic forces Iraq to devote considerable resources to clearing out small Iranian units and keeping the road open.

Further south, from Basra to the Gulf, the land is dryer, firmer and better suited to Iraq's mobile armored tactics, except in the rainy season, from November through March. Here the Iranians have to attack across the Shatt al-Arab and numerous smaller waterways, facing Iraqi troops in well-prepared positions protected by interlocking fields of fire, pre-registered artillery, barbed wire and minefields. While time and again this has proven a sure recipe for disaster, the Iranians



persist in making their main effort here, gradually grinding the Iraqis down by sheer force of numbers.

Most Iranian operations in the southern sector are characterized by the "big push" strategy that made World War I a byword for military incompetence, but Iran's stunning capture of the Fao peninsula in February 1986 was a notable success.³ Unlike the usual Iranian attempts to smash through by brute force, the 1986 operation was an amphibious landing behind Iraq's river-line defenses. The Iranians took Iraq's main naval base at Fao and threatened to roll up the whole Iraqi line. This threat was only contained at the cost of heavy casualties to Iraq's best mobile units, including the elite Republican Guards Armored Brigade.

In April of this year, however, the same brigade spearheaded the Iraqi offensive that retook the entire Fao peninsula and drove the Iranians back to their 1986 positions behind the Shatt al-Arab. It may not be entirely coincidental that the Iraqi offensive was launched on the same day that the United States was keeping the Iranian navy fully occupied some 300 miles to the south. U.S. strikes against two Iranian oil platforms in the southern Gulf (in retaliation for Iran's mining activities, which had resulted in the April 14 incident involving the U.S. frigate *Samuel B. Roberts*) cost the Iranians six naval vessels.

Aside from shortening the front a bit, the Iraqi offensive on the Fao peninsula accomplished little of military value. The Shatt al-Arab remains closed to Iraqi shipping, as does the port of Fao. What is significant about the Iraqi attack is that it happened at all. The Fao operation, along with a much smaller raid against outposts of an Iranian armored division near Shush on the central front, demonstrates a new Iraqi willingness to seize the initiative on the ground, and may even herald a general Iraqi shift to offensive warfare.⁴ If so, Iran will be on the defensive for the first time since 1981.

³ At the time, several Iraqi sources told me that they had "certain knowledge" that Iran's decision to attack the Fao peninsula was based on satellite photos and intelligence provided by the United States. Their claims were later supported by Oliver North's 1987 testimony before the joint Senate-House hearings on the Iran-contra affair.

⁴ The Iraqis claim the Shush raid as a major victory for the National Liberation Army (NLA) of anti-Khomeini Iranians who support Mujahedeen-al-Khalq leader Massoud Rajavi. The raid was apparently conducted by regular Iraqi units and credited to the NLA for propaganda purposes.

III

Iran has held the initiative for nearly six years now, but has not been able to make its three-to-one manpower advantage tell; the reason is largely one of logistics.

A cursory look at the statistics clearly shows that Iraq has an impressive lead in major operational military items like tanks (4,000 to Iran's 1,040), armored fighting vehicles (3,000 to 750) and combat aircraft (632 to 70). But that is only the beginning.

The Iraqi armed forces are organized along Soviet lines and rely almost entirely on Soviet or Soviet-type equipment, which is rugged and easy to maintain under primitive conditions. Iran, by contrast, began the war relying heavily on U.S. and Western equipment, which is much more difficult to maintain and, because of its hostile relations with its former arms suppliers, extremely difficult to replace. Iran's U.S. and Israeli arms shipments during President Reagan's disastrous Iran-contra arms initiative, even together with American equipment obtained through other sources, are simply not enough for fighting a war. Because of this, Iran has had to seek military equipment elsewhere, obtaining considerable quantities of Soviet-type ordnance from China, Syria, Libya, North Korea and, according to some sources, the Soviet Union itself.

Indeed, almost all recent film of Iranian troops in action instantly reveals two things: most of the troops are *pasdaran* rather than regular army, and most of their equipment is of Soviet or Chinese origin. While the Iranians surely welcome this equipment, its integration into their logistics network is no simple matter. The state of Iran's armored forces provides a vivid example. When the war began in September 1980, Iran had 1,735 main battle tanks that used three different main gun calibers.⁵ Today, Iran's 1,040 estimated operational tanks use seven main gun calibers and require a vastly greater assortment of spare parts.⁶ Such a situation would overwhelm any country's supply services.

Iraq, by contrast, has greatly simplified its logistic situation. In 1980 Iraq's four main battle tank types needed four differ-

⁵ Iran's tanks included 875 British Chieftains, 460 American M-601A1s, and 400 American M-47/48s, according to *The Military Balance, 1981-82*, London: Institute of International and Strategic Studies, 1981.

⁶ These tanks include the Argentine TAM, the British Chieftain and Scorpion, the Chinese T-59, the American M-41, M-47/48 and M-601A1, and the Soviet T-54/55, T-62 and T-72.

ent tank rounds.⁷ The four types of tanks Iraq now uses require only three main gun rounds.⁸ In addition, two of Iraq's tanks, the T-54/55 and the T-59/69, are essentially the same; their parts are interchangeable with each other and, to a large extent, with those of a third tank, the T-62.

The Iraqis have another advantage. They can rely on their main arms supplier, the Soviet Union, to keep up deliveries even as they openly buy additional arms from France, Brazil, Austria, China and other countries. Iraq can also count on Kuwait, Saudi Arabia and other Arab countries to help pay for those arms. Iran's sources of weapons, by contrast, are much more limited, and no one (Iran-contra players excepted) gives Iran weapons or sells on terms other than cash-in-advance.

Iran also has some major problems with battlefield logistics, i.e., bringing soldiers and equipment to the front from Iran's urban centers. Any movement along the roads, especially near the front, is subject to devastating strikes by Iraq's vastly superior air force.

Iraq, on the other hand, has an excellent network of roads running close to the front on a north-south axis. This enables the Iraqis to shift their mobile reserves rapidly to counter Iranian threats and pinch off Iranian penetrations. Highway 6 runs right along the front in the area of the heaviest fighting around Basra. Occasionally this route has been closed by Iranian attacks and shellings, but Basra is also connected to the rest of the country from the west by another highway and Iraq's main rail line. As an extra bonus, of course, all major Iraqi troop movements by rail and road are protected by the Iraqi air force.

IV

Even with all these liabilities, Iran would have easily won the war by now if the shah's well-trained, professional military had not been deliberately destroyed by the regime of Ayatollah Khomeini. Indeed, one of Khomeini's first acts after he seized power on February 11, 1979, was to order a purge of the Imperial Iranian Armed Forces and particularly the officer corps, which he correctly regarded as a hotbed of monarchist sentiment. To make matters worse, the best and most experi-

⁷ The tanks were the Soviet T-34, T-54/55 and T-62, and the French AMX-30.

⁸ The Soviet T-54/55, T-62, T-72 and the Chinese T-59/69. Iraq still maintains its French AMX-30s, but they are not actively used.

enced officers had been trained in the United States and Israel and therefore were not trusted by the new regime. The air force, whose entire fighting element—the combat pilots—is composed of officers, was especially hard hit.

Following the initial Iraqi invasion of September 22, 1980, hundreds of experienced Iranian officers were hastily rehabilitated. Many went to the front directly from prison cells, where they had been awaiting execution. One, Colonel Bezhad Mo'ezzi, became Iran's most distinguished combat pilot and most famous early war hero; but in June 1981 Mo'ezzi took permanent leave of the Islamic Republic, taking a DC-10 cargo plane, deposed President Abolhassan Bani-Sadr and several other opposition leaders with him.

By July 1982 the Iranian regulars, *pasdaran* and *basij* had stopped the Iraqis cold and driven them behind the old borders. Then, in a stunning display of ingratitude, the mullahs resumed their purge of the armed forces as soon as the immediate danger was over. That purge still goes on. It is perhaps the most devastating destruction of a military force by its own government since Stalin's Red Army purges of 1936–38. Precise information is very difficult to obtain and nearly impossible to verify, but it would appear that more than 5,000 Iranian officers have been executed by their own government, while additional thousands have been imprisoned or forced into exile.⁹ Those who remain are supervised by "spiritual guidance officers," just as post-purge Red Army line officers were supervised by political commissars.¹⁰

The effect of all this on Iranian morale and combat performance can easily be imagined. In addition, the *pasdaran* were deliberately established as a rival military organization that would be loyal to the regime and subordinate to their own commander rather than the armed forces chief of staff. Today there are some 250,000 first-line *pasdaran*, organized in nine infantry divisions and an unknown number of air, naval and security units. These are augmented by some 500,000 *basij* militia, which come under direct *pasdaran* command. Eventually the more than two million soldiers of the regular armed

⁹ This estimate is my own, derived from Israeli, Iraqi, Amnesty International, Iranian exile and domestic Iranian sources.

¹⁰ Tehran's official daily, *Kayhan*, frequently boasts about this curious command structure. There is even a Ministry of Enlightenment (*Ershad*) to which the "spiritual guidance officers" report.

forces are likely to be incorporated into the *pasdaran* command structure.

Since *pasdaran* commanders were chosen for religious enthusiasm and political loyalty rather than military competence, their initial performance was poor. Seven years of war, however, have brutally weeded out the worst *pasdaran* leaders (as well as many of their unfortunate men) and left behind a battle-hardened cadre of experienced officers. As a result, *pasdaran* combat performance has shown marked improvement since 1986.

As things now stand, Iran has mobilized about 2.25 million first-line ground troops (two million army and 250,000 *pasdaran*) in addition to the 500,000 second-rate *basij* militia. Another million men (about 500,000 *basij*, 400,000 army reservists and 100,000 *pasdaran*) can be mobilized if needed.¹¹

Iraqi manpower looks weak by comparison. The Iraqis have 475,000 first-line army troops, 450,000 second-line Popular Army troops and 75,000 trained reservists. Iran would appear to have a 4.8-to-one edge in mobilized first-line ground forces, a three-to-one edge in total mobilized ground forces and a 13-to-one lead in manpower reserves. But these figures do not tell the whole story.

While Iraq's quantitative and qualitative superiority in military equipment helps offset Iran's sheer numbers, the Iraqi army's superior training, organization and morale is at least as significant. Unlike the fearful and uncertain Iranian regulars, who are purged, spied upon and saddled with militarily incompetent "spiritual guidance officers," the Iraqi army has the full and enthusiastic support of its government.

If anything, the Iraqi government tries to gain popular support through close association with the armed forces. President Saddam Hussein, who is a political rather than a military leader, usually wears army uniform and often visits units at the front. Indeed, his presence at the front when Iraq retook the Fao peninsula in April 1988 was given wide publicity. While the Iraqi press avoids creating military heroes that could rival the Baath Party leadership, successful Iraqi commanders are almost always rewarded and almost never interfered with.

As a result, the Iraqi army has handily won nearly all the defensive battles of the past six years, and morale remains high

¹¹ The *basij* and *pasdaran* figures are estimates based on Iranian newspaper accounts. The figure for army reservists is from *Military Technology*, *op. cit.*

despite the fact that Iran has been gradually winning through sheer attrition. Quantitatively, Iraq has more than doubled the army's first-line manpower from less than 200,000 when the war began to about 475,000 today. Qualitatively, these troops are more mobile, better-equipped, -trained and -led than Iran's first-line army and *pasdaran* units.

Iraq's ground forces also include the 450,000 second-line troops of the Popular Army under the command of Deputy Premier Taha Yassin Ramadhan. Formed in 1970 as a sort of Baath Party militia to counterbalance the political power of the Iraqi regular army, the Popular Army has been transformed by the war into a highly effective local area defense force, organized into regional commands. Since its primary mission is local area defense, its troops lack the firepower, heavy equipment and mobility of the Iraqi regulars. Even so, they are better armed and more mobile than most of the Iranians they encounter. Indeed, these second-line Iraqis are essentially equivalent to many of Iran's first-line forces.

Theoretically under Baath Party command, the Popular Army is, in practice, subordinate to General Adnan Khairallah, the armed forces chief of staff, and regular army officers train and command its units.¹² This makes a big difference in combat performance and is the main reason why the Popular Army, so similar to Iran's *pasdaran* in theory, is an enormously superior fighting force in practice. Its role in halting the early Iranian offensives of 1982–83 was crucial, and even today, Iraq's mobile defensive operations would be impossible without the Popular Army units that screen and pin down the attacking Iranians.

v

In 1982, after the Iranians drove the Iraqis back behind their borders, Iraq's military situation was desperate. Lacking both numbers and the overwhelming superiority in firepower and mobility that it would later achieve, Iraq was forced into a "hold-at-all-costs" policy of static defense. Despite the failure of Iran's hastily planned and poorly executed initial offensives, 1983 and early 1984 were desperate times for Iraq, when it looked as if the country would be defeated through sheer force of numbers. Under such conditions Iraq resorted to the introduction of chemical weapons.

¹² Khairallah is President Hussein's brother-in-law. This surely is no coincidence.

Iraq's decision to violate the 1925 Geneva protocols forbidding the use of chemical weapons (signed by both Iraq and Iran) was not a hasty one. Indeed, as early as 1981—two full years before chemical weapons were used—the Iraqis had built three giant underground bunker complexes around Baghdad to protect top government and armed forces personnel from chemical attack.¹³ When the Iraqis finally did initiate chemical warfare in 1983, they had to choose between the possible adverse effects of offending world opinion and the certain adverse effects of being overrun by Iranian soldiers. Under the circumstances, the choice was easy.

Iraq's use of chemical weapons has been essentially defensive, i.e., they have been primarily employed to disrupt Iranian offensives, not to launch Iraqi ones. Under the combat conditions of 1983–84, so eerily similar to those of World War I, chemical weapons were quite effective in neutralizing Iranian operations. Since then Iran has come up with effective countermeasures, and in 1987 Iran also apparently started using chemical weapons on the battlefield, specifically mustard gas and phosgene.¹⁴ Meanwhile, with Iraq's introduction of effective mobile defensive tactics in 1984, its use of chemical weapons has been steadily declining. Iraq's sudden large-scale use of hydrogen cyanide, nerve gas and mustard gas in the Halabja area in March 1988 demonstrates how dangerous the Iranian offensive really was, but it was an exceptional case. Generally, since 1984, the Iraqis have been able to stop Iran's offensives without blatant violations of the 1925 Geneva protocols.

Following a massive influx of Soviet military equipment in early 1984, Iraq was finally able to abandon its static, defensive tactics for a more flexible, mobile defense. The new Iraqi strategy assumes that, with a three-to-one numerical superiority and the option of selecting the time and place to attack, the Iranians will usually break through Iraq's forward defenses. The mobile defense strategy calls for the less-mobile units to hold the line and channel the Iranian breakthrough, while mobile reserve units move in to destroy the attackers.

The Iraqi air force plays a vital role in these operations by destroying Iranian reinforcements in their staging areas and in transit. It also provides close air support to Iraq's ground units,

¹³ *New Scientist*, May 17, 1984, p. 3.

¹⁴ For details, see the report of the Secretary General to the U.N. Security Council, S/18852, May 8, 1987, pp. 13–19, 25–31.

knocking out Iranian armor and artillery. Interestingly, the Iraqi air force's recent French training seems to have improved its performance enormously, as rigid Soviet-style tactics have been abandoned. Pilot initiative is now encouraged, targets of opportunity are aggressively sought, and "close ground support" means just that. It is perhaps ironic that Iraq's air force has achieved an impressive operational effectiveness by abandoning Soviet doctrine even while using Soviet aircraft.

Iraq's new ground tactics deliberately allow the Iranians to penetrate a selected area of the front and pour in their reserves. Then, while artillery pins them in place and air strikes interdict their reinforcements, the Iranian penetration is cut up and annihilated by Iraqi armored and mechanized units attacking from one or both flanks with air, artillery and infantry support. Those familiar with U.S. Army tactical doctrine will note that Iraq's mobile defensive tactics have all the elements of "combined arms" operations, albeit in a well-rehearsed, "set-piece battle" atmosphere. So far these tactics have worked every time—largely because Iranian operations seem almost designed to bring about Iraqi victories.

Iranian objectives are nearly always geographical—cut the road, take the hill, capture the town—rather than operational—disrupt the enemy's command and control, knock out its artillery and support units, threaten its line of retreat and supply. In addition, Iranians tend to attack frontally and reinforce units that have bogged down or been stopped. They almost never bypass pockets of heavy resistance, reinforce units that have already broken through, or try to hit the enemy's flanks and rear areas. Even with its manpower advantage and a bravery born of religious conviction, such tactics are doomed against dug-in Iraqi positions with interlocking fields of fire, minefields to channel enemy attacks, preregistered artillery, mobile reserves and tactical air support.

Also, Iranian armored doctrine—at least as practiced on the battlefield—calls for massed infantry to achieve the initial breakthrough and for the tanks to exploit it. This is disastrous in practice. The infantry seldom achieves a real breakthrough, and the Iranians either use their armor piecemeal to support the infantry, or do not use it at all.

When the Iranian infantry does clear the way for armor, it is usually into a carefully planned Iraqi ambush. The Iraqis lure the Iranian tanks onto minefields and within range of concealed antitank guns and wire-guided antitank missiles,

pound the Iranians with air power, and cut them up with hard-hitting Iraqi mobile forces attacking from the flanks. It might seem as if the Persians have not learned much since Alexander the Great opened his phalanx to Darius III's chariots in order to slaughter them.

But Iran is still winning the ground war. Even though Iranian operations generally result in casualties twice as high as Iraq's, Iran can afford such losses. Iraq cannot. Thus, despite horrendous losses, Iran is inexorably grinding the Iraqis down.

VI

Iraq, however, has already decisively won the air war and is now using its powerful air force to cripple Iran's economic ability to keep fighting. If this can be achieved, the attrition of Iraqi manpower will seem unimportant by comparison. Air power is the only instrument that Iraq can realistically use to end an otherwise hopeless struggle on something resembling acceptable terms.

Iraq has used its air force to provide tactical air support for the army and to attack Iran's population centers and economic targets. From a military point of view, the value of the attacks on Iranian population centers, the "war of the cities," has been virtually nil. The only real value of these attacks has been their effect on morale. Even an ineffective Iraqi raid on Tehran boosts Iraqi morale—in much the same way as the ineffective Doolittle raid on Tokyo boosted American morale in early 1942. The enemy capital is the preferred target in this kind of exchange and, in this respect, until 1985 Iraq had the advantage because Baghdad is beyond Iranian artillery range. Iran's standard reply to Iraqi air attacks on Tehran was to shell Basra and other Iraqi towns along the border.

Then, in 1985, Iran acquired Soviet-made Scud-A and Scud-B surface-to-surface missiles from Libya and Syria. With maximum ranges of about 90 miles and 175 miles respectively, these missiles were able to hit Baghdad from Iranian positions some 80 miles distant, and they could not be intercepted. Iraq was unable to retaliate with its own Scuds because Tehran is about 320 miles from the front, but several all-out raids on Tehran by the Iraqi air force discouraged further Iranian missile attacks on Baghdad. In any case, the Iranian missiles appeared to be in short supply.

Then, in the summer of 1987, Iraqi strike planes attacked Iranian targets along the Caspian Sea over 500 miles from

their own bases. Since this is well beyond their normal attack range, there was some speculation that the Iraqi planes might have refueled in the Soviet Union.

This year's major development in the war of the cities is the bombardment of Tehran by Iraqi missiles, nearly 150 of them so far. According to *Jane's Defence Weekly* these missiles are simply Scud-Bs with an added booster stage, but there has been considerable speculation that they may in fact be Soviet SS-12s, which are due to be scrapped under the U.S.-Soviet treaty on intermediate-range nuclear forces. The SS-12 is similar to the Scud-B and uses the same transporter/launcher, but its 560-mile reach puts it within easy range of Tehran or, for that matter, Tel Aviv. Both the SS-12 and the Scud are being completely phased out of the Soviet inventory.

The Soviets have chemical warheads for their Scuds. It would be surprising if the Iraqis have neglected to develop or obtain similar warheads for their own missiles, and it would be nearly as surprising if the Iranians have not followed suit. As of this writing, however, neither side has attacked the other's cities with chemical weapons, although Iraq has threatened to do so.

The greatest damage the Iraqi air force has inflicted on Iran up to now has been the result of attacks on economic targets. One unusual feature of this war is that both countries get virtually all the hard currency they use to buy imported arms and military supplies from a single commodity—oil. Thus a loss of oil revenue through reduced production, reduced exports or lower market price can seriously impair either side's ability to wage war. Economic warfare began in earnest in March 1984, when Iraq proclaimed a blockade of all Iranian ports and shipping facilities, with particular emphasis on Iran's vital Kharg Island oil terminal, which at the time handled over 80 percent of Iranian petroleum exports.

The Iraqi navy has never been a match for Iran's. Thus early in the war, before Iraq achieved complete air superiority, Iran was clearly winning the economic struggle, particularly after its artillery effectively closed the Shatt al-Arab to Iraqi shipping in June 1982. Meanwhile, Syria, Iran's Arab ally, shut down Iraq's main oil export pipeline, which ran through Syrian territory. As a result, Iraqi oil exports fell from a prewar level of 1.5 million barrels a day to under 700,000. Iran, whose air force was still functional at the time and whose navy dominated the Gulf, meanwhile boosted its own daily oil shipments to nearly three million barrels.

Since then the Iraqis, by doubling the capacity of their Turkish pipeline, building a new pipeline to Saudi Arabia and transshipping their oil through Saudi and Kuwaiti ports, have boosted their exports above two million barrels per day, which, together with hard-currency grants and loans from various Arab countries (especially Saudi Arabia and Kuwait), is enough to finance their war effort.

Since March 1984, on the other hand, Iranian oil shipments have steadily declined. Persistent and effective Iraqi air raids on the Kharg Island complex eventually drove away foreign shipping and severely reduced the capacity of this all-important facility. Today Iranian oil is transported from Kharg by Iranian vessels, either directly to markets abroad, to the holds of foreign tankers in the southern Persian Gulf and Gulf of Oman, or to the storage and shipping facilities at Iran's Sirri and Larak Islands.¹⁵ These islands, being 320 and 435 miles farther from Iraqi airfields than Kharg, are proportionately less vulnerable to air attack and serve as loading facilities for foreign tankers.

Despite these vigorous and ingenious measures, Iranian oil exports have fallen to about 1.5 million barrels a day by the most optimistic estimates, and perhaps as low as 500,000 barrels per day. To make matters worse, when Iran was exporting nearly three million barrels a day, oil sold for over \$30 per barrel. As of late April, the price of oil stood at \$17 per barrel. This is manifestly not enough to support the Iranian war effort, particularly since much Iranian oil is being sold well below market price and nobody is lending, let alone giving, hard currency to Iran.

The adverse effect of this is more decisive than is generally understood. Just as the British naval blockade in World War I put an economic stranglehold on Germany despite Germany's conquests on land, so in the same manner is Iraq defeating Iran. Iraq's economic warfare against Iran has the distinction of being perhaps the sole example in history of a successful economic blockade essentially carried out by air power alone.

VII

The very success of Iraq's air blockade compels Iranian retaliation. Just as Germany attempted to offset Britain's naval blockade through unrestricted submarine warfare, so Iran is

¹⁵ The U.S. attack on Iran's Sirri platform in April is believed to have reduced Iranian oil exports by as much as eight percent.

compelled to strike out at those Gulf states, notably Kuwait and Saudi Arabia, that provide Iraq with generous financial support and port facilities.

Iran's attempt to intimidate Kuwait and Saudi Arabia has been in high gear since at least 1986. In a systematic hate campaign, the Iranian media continuously denounced the two countries and charged them with allowing Iraq to use their air bases to attack Iran. Violence-prone antigovernment groups in the two countries were (and are) consistently praised in the Iranian media.

Then came the rioting at Mecca's Grand Mosque on July 31, 1987, in which over 400 people were killed. Iraq's English-language *Baghdad Observer* reported that former Iranian Interior Minister Akhund Nateq-Nuri was among those organizing the riot.¹⁶ The Saudi government openly accused Iran of organizing the riots; the Saudi ambassador in Washington, Prince Bandar Bin Sultan, said that Iran might go so far as to launch a war against his country.¹⁷ The Mecca riots were followed by more violence: Iranian crowds attacked the Saudi and Kuwaiti embassies in Tehran; in August a mysterious explosion destroyed a Saudi natural gas complex;¹⁸ and Iran began firing Chinese Silkworm missiles at Kuwaiti port facilities from its positions on the Fao peninsula.

These hostile acts, however, have not had the desired effect; if anything, Kuwait and Saudi Arabia have moved closer to Iraq because of them. Any direct military threat that Iran might have posed to Kuwait evaporated when Iraq recaptured the Fao peninsula in April. Thus, if Iran still intends to cripple Iraq's economy, its only real choice is to attack the shipping of Iraq's Gulf allies. Iran has tried to do this by indiscriminately laying minefields in international and neutral waters and by attacking neutral shipping throughout the Persian Gulf in the best Barbary corsair tradition.

The Iranians understand that such actions will provoke retaliatory action by one or both of the superpowers (indeed, in April the United States did assume wider responsibility for protecting neutral shipping in the Gulf), but they appear to be counting on the United States and the Soviet Union to prevent

¹⁶ Aug. 11, 1987, p. 1.

¹⁷ *Ibid.*

¹⁸ The explosion was officially blamed on an "electrical short," but unconfirmed reports of sabotage abound.

one another from taking serious action. Iran seems willing to risk episodic superpower retaliation for the chance, however slim, of achieving economic victory over Iraq. This sort of high-stakes political risk to gain a military victory is hardly unique to Iran. Indeed, Germany's resumption of unrestricted submarine warfare in February 1917 is, perhaps, the classic example of it. Unlike the Germans in 1917, however, Iranians have no reasonable grounds to assume they can cripple the enemy with their present methods.

Iran's continuing depredations against neutral shipping probably indicate that Tehran is counting on the United States and the Soviet Union to neutralize each other in the Persian Gulf. This would be a mistaken assumption, if recent Soviet actions and statements are any indication of the direction of Moscow's policy toward the Iran-Iraq War.

The Soviet Union's ideological hostility toward Iran's theocracy is now at an all-time high. Recent remarks by Dr. A. Z. Arabajan, head of the Iranian Department of the Soviet Academy of Sciences' Institute for Eastern Studies, are quite revealing: "The so-called Islamic Revolution," he recently told me, "constitutes a step backward from the shah's rule from the point of view of serving crucial historical and economic tasks." This is a far cry from early 1979, when the Soviet press universally praised Khomeini's Islamic Republic as "progressive." Indeed, the Soviet Union now views Iran's Islamic expansionism as a serious problem.

Another indication of Soviet policy came from Gennadi Gerasimov, head of the Soviet Ministry of Foreign Affairs Information Department, widely regarded as the chief spokesman for Soviet leader Mikhail Gorbachev. Asked about Soviet policy in the Persian Gulf, Gerasimov replied: "We now have something which we haven't had for a very long time: a Soviet-American dialogue, not just on disarmament, but on all the issues. This includes regional conflicts. There are many problems made more difficult by our rivalry that we can solve together."¹⁹ Finally, the Soviet Union pointedly did not condemn America's April 18 attack on Iranian oil platforms and ships.

The best clue to Soviet policy lies in Soviet actions. The U.S.S.R. continues to be Iraq's main arms supplier and is

¹⁹ Talk by Gennadi Gerasimov at the Denver campus of the University of Colorado, Apr. 16, 1988.

thought to have provided all of the surface-to-surface missiles that have hit Tehran. Additionally, the chemical munitions used on Iraq's Soviet-made 122-, 130- and 152-millimeter guns and its BM-21 multiple rocket launchers appear suspiciously similar to standard Soviet chemical munitions for these weapons. Finally, there are the unconfirmed reports that the Iraqi planes that bombed Iranian targets along the Caspian Sea near the Soviet border in 1987 refueled in the Soviet Union. These reports seem plausible because the target areas were well beyond the known range of the Iraqi SU-20, MiG-19, MiG-23 and MiG-21 aircraft that attacked them.

The United States and the Soviet Union have both regarded Iran as a problem for some time now. If they are moving toward a consensus on how to deal with that problem, as certain recent developments seem to suggest, then Iraq will survive, and the war may end far sooner than most people now expect. If there is no U.S.-Soviet consensus but both countries continue their present policies, then Iraq should still be able to defeat Iran economically within about 18 months, perhaps sooner if it can maintain the initiative on the ground that it seized in April.