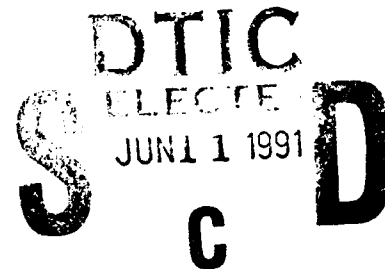


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NAVAL WAR COLLEGE
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OPERATIONAL INSIGHTS OF IRAQ GLEAMED FROM THE IRAN-IRAQ WAR

By

Joseph F. Cramer

Major, U.S. Marine Corps

A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

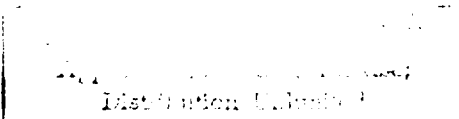
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OPERATIONAL INSIGHTS OF IRAQ GLEAMED FROM THE IRAN-IRAQ WAR

CHAPTER I

INTRODUCTION

On August 2, 1990, the military forces of Iraq invaded its Persian Gulf neighbor, Kuwait. On January 17, 1991, coalition forces commenced hostilities against the Republic of Iraq and its military forces in Kuwait in order to force the withdrawal of Iraq's forces from Kuwait. The coalition is facing the fourth largest military force in the world in the fourth largest regional conflict since World War II. It would appear prudent to revisit the last major regional conflict, the Iran-Iraq War of 1980-88, especially in light of Iraq being the major belligerent in each conflict. The purpose of revisiting the Iran-Iraq War is an attempt to gain any operational insights of Iraq's military forces relevant for consideration by the military forces of the coalition as they enter the present Persian Gulf crisis.

This paper is not intended to be an evaluation of Iraqi Armed Forces' capabilities today, but an attempt to provide a baseline of knowledge from which one can better understand the operational considerations in today's conflict. Only a general overview of the Iran-Iraq War will be provided in the framework of the major phases as presented by Anthony Cordesman in "The Lessons of Modern War".¹ Lastly, this paper is not a compilation of all the lessons learned from strategic through tactical levels, but a presentation of those major operational insights that have relevance for coalition forces in the present crisis.

CHAPTER II

GENERAL OVERVIEW

The Iran-Iraq War was primarily the result of a conflict between the goals and ambitions of Saddam Hussein and Iraq's Ba'thist leadership elite; and the Ayatollah Khomeini and Iran's religious leadership elite.¹ In early 1980, both Iran and Iraq were sending arms to rebel groups in each others countries. Numerous border clashes occurred between the two countries. Both countries were involved in cross-border clashes in the Qasr e-Shirin Territory in early September 1980.² Both countries called for the overthrow of the existing regimes in each others countries. On 22 September 1980, Iraq launched its invasion into Iran and the two countries became involved in an eight year war that would cost from 500,000 to one million dead, one to two million wounded, 2.5 million refugees and cost the two countries upwards of 200 billion dollars.³

Saddam Hussein, President of Iraq, saw the opportunity to take advantage of a perceived weakness of Iran as a result of the turmoil inside Iran. This turmoil was caused by the Islamic Revolution and the weakened status of Iran's military after the Revolution purged over one-third of the military officers. Hussein's goals were: to achieve the role of dominant regional leader in the Arab world; to destroy the weakened Iranian military; to create a condition that would cause the overthrow of Khomeini; and to gain the territory near the Shatt al Arab with unimpeded access to the Persian Gulf. Hussein expected a quick

and limited military offensive that would be followed by an even quicker cease-fire. Iran responded in an unlimited fashion forcing Hussein to modify his goals within the first two years to: survival of his regime; return to the status quo (pre-invasion borders); and efforts to terminate the war.⁴

Prior to Iraq's invasion into Iran, Khomeini's goals were the overthrow of Saddam Hussein and the Ba'thist Regime in Iraq; and the spread of the Islamic Fundamentalist Revolution throughout the world. There were no apparent designs to achieve these objectives via the use of military force other than the border clashes and the assassination attempt on an Iraqi Deputy Prime Minister, Tariq Aziz, on 1 April 1980.⁵ After the invasion Iran added the goals of militarily regaining her lost territory and war reparations from Iraq. As Iran regained her lost territory she adopted a new goal of invading Iraq militarily.⁶

The eight year war can be divided into seven phases. A listing of those phases is provided below.⁷

<u>PHASE</u>	<u>EVENT</u>	<u>YEAR</u>
I	Iraq's invasion of Iran.	1980
II	Iran's counter-attacks to liberate lost territory.	81-82
III	Iran's invasion of Iraq.	82-84
IV	War of Attrition and War in the Gulf.	84-85
V	Iran's final offenses.	86-87
VI	Expansion of Gulf Tanker War and War of Attrition	87-88
VII	Iraqi offenses, collapse of Iran's military forces and cease-fire.	88-89

CHAPTER III

GENERAL INSIGHTS

Strategic Defensive. Throughout the eight year war Iraq maintained a strategic defensive posture. Even the initial Iraqi invasion in September 1980, has been described as a tactical offensive operation to provide a stronger strategic defensive posture. The Iraqi forces attacked at four points along a 730 kilometer front seizing key terrain to control the Shatt al Arab and other key terrain to increase the buffer between Iranian forces and Iraq's two major cities: Basra and Baghdad. The remainder of the war would be highlighted by Iraqi defensive operations with the exception of: some offensive air operations, including both aircraft and surface missiles; some counter-attack operations on Iraqi soil; a small offensive operation to seize the Iranian town of Mehran; and the launching of the final offensive campaign in 1988.¹

Iraq's attempt to gain control of the Shatt al Arab failed as a limited operation. However, overall the strategic defensive posture Iraq assumed was successful in defending a 730 kilometer front against numerous large scale assaults for eight long years. This success has provided Iraq with a false sense of security. Iraq's defensive actions utilizing superior weapons and technology were able to counter human wave assaults by lightly armed infantry, on foot without air cover and with little artillery cover.² It can be expected that Iraq will again maintain a strategic defense in the present crisis. It is to be seen,

however, how Iraq's strategic defensive posture will fare against a modern, combined arms force with superior air power.

Logistics. One of the key operational insights to consider from the Iran-Iraq War is the Iraqi system of logistic oversupply. Saddam Hussein fully understands the importance of logistics, the technical aspects associated to it and the need for immense levels of weapons and supplies on the battlefield.³ The Iraqi system of logistics oversupply is modeled after the Soviet "supply push" concept and is in sharp contrast to the American "demand pull" concept. The Iraqis pre-stage massive amounts of logistics forward in the battle area, in essence force feeding the supplies to the front. These massive amounts are not based upon conservative estimates of expenditures, but appear to be based upon a concept of unlimited expenditure rates. Iraqi daily rates of ammo expenditure have been compared to U.S. Army anticipated expenditure rates for one week.⁴ Extensive road networks are constructed throughout the battlefield to expedite distribution of the supplies to the user. Additionally, Iraq has developed tank transporters to quickly move large numbers of tanks long distances to save on maintenance and to provide enhanced armor mobility between areas of operation.⁵

Iraq understands the difficulty of replacing critical items such as ships, aircraft and personnel. During the war Iraq was seen husbanding those resources by: keeping the ships in port; refusing air-to-air combat with the Iranians; fleeing the battle area or the country with the aircraft; and refusing to conduct extensive offensive operations that were likely to bring heavy

casualties. This had direct operational impact as will be discussed in the Air Forces and Naval Forces insights. The political climate in Iraq required Saddam Hussein to limit his casualties to maintain popular support. Hussein was also aware of his shortage in the manpower pool in comparison with Iran (1.6 million in Iraq to 45 million in Iran).⁶ The operational impacts of this were brought out when Saddam Hussein ordered Khoramshahr surrounded vice assaulted due to the number of expected Iraqi casualties. Additionally, he ordered the retreat back to the pre-invasion borders at the end of phase I for the same reasons.⁷

Iraq also learned from Iran that dependency on foreign support was a major factor in the defeat of Iran and a limiting factor for Iraq during the war. Therefore, after the war Iraq spent billions of dollars buying overstocks of high tech equipment and she developed numerous military industries in an attempt to become self-sufficient militarily.⁸

MORALE. "Although morale cannot substitute for military competence it is necessary for winning."⁹ Both Iraq and Iran maintained a high state of morale despite the very high casualty rates. The ancient tradition of warfighting can be found in the histories of both countries (Persia vs the Arabs). The Shia Muslim beliefs of martyrdom and the "passport to paradise" through death in battle provide traditional and religious enhancements that form a strong basic morale, difficult to dent.¹⁰ It was noted however that the Iraqi forces exhibited a much higher morale in defending Iraqi soil in comparison to the morale exhibited in battle on Iranian soil. The less professional Popular Army of

Iraq exhibited more of a tendency to break and run than did the regular troops. It can be assumed that Iraqi leaders and the military forces overall will fight with great tenacity if they perceive a threat to Iraq by the coalition forces.¹¹ They can easily use their ancient history to identify the Americans, British and French forces as their foes from the time of the crusades and wage this war as a war against the infidels.

Escalation and De-Escalation. The Iran-Iraq War provides some interesting insights into escalation and de-escalation. Overall the escalation attempts by both Iran and Iraq proved ineffective in achieving their desired goals. The reason these escalations were ineffective was their indecisiveness as actions in and of themselves to achieve the tactical or strategic effect. They were not decisive enough to eliminate other alternatives to the enemy as being less attractive than the desired response. Lastly, one must remember that escalation is based upon the impression it makes in the eyes of the receiver not the sender. The most significant act of escalation in the war was Iraq's invasion of Iran in September 1980, after many months of border clashes. Throughout the war a series of escalations of all types occurred: horizontal, vertical, symmetrical, and asymmetrical. Iran quickly escalated the war from military targets to economic targets. Iraq escalated the war into the Persian Gulf by striking Kharg Island. Iran continued the escalation by striking into Kuwait, a non-belligerent. These apparently uncontrolled escalations continued into a War of the Cities (population centers), the War on Gulf Shipping, and the use of chemical

weapons. These exchanges of escalations were more of a tit-for-tat defensive response to each other's actions, than a conscious strategic campaign of escalation to achieve a specific objective. Unless these escalations were conducted decisively and in sufficient force, they proved ineffective. One of the few effective escalations was the final War of the Cities campaign, by Iraq, which included 450 air sorties and 200 scud missiles in two months, March and April 1988.¹² The important insight to glean from the series of escalations in the Iran-Iraq War was the quickness to which traditional thresholds were crossed: attacks against economic targets, population centers and outside non-belligerents; and the use of chemical weapons.¹³

The escalation by Iraq to use chemical weapons was significant in crossing the threshold of the international standard prohibiting the use of chemical weapons. But its significance once used proved less dramatic. No single success in battle can be contributed directly to the use of chemical weapons. The number of casualties due to chemical agents, over the course of the war 45,000, were small in comparison to over one million casualties overall. The use of chemical weapons was significant in the long haul in its negative impact on the military and civilian morale of Iran.¹⁴

The de-escalation occurrences in the Iran-Iraq War were as frequent as the escalation occurrences and warrant our attention. Different variants of de-escalation were utilized by both sides. A declared, unilateral halt by one side led in many cases to a de-escalation of a particular occurrence. An example of these halts

was the War of the Cities in 1984, 85, 86, and 87 with both Iran and Iraq mutually agreeing to cease the attacks each year.¹⁵ Self-restraint by Iraq to limit its use of chemical weapons, as compared to her potential capability, was viewed as a form of de-escalation. Outside pressure from the U.S., after the USS Stark incident, slowed Iraq's efforts against shipping in the Gulf. With all of the de-escalation efforts, the war became one in which escalation was the exception to a rule, rather than a distinctive change to the rule.¹⁶

Limited War Expansion. Iraq did not take into account the lesson of history that limited wars do not always remain limited in scope and duration (Korea, Vietnam, Afghanistan). The Iraqi concept of a limited offensive action, designed to achieve specific objectives, quickly exploded into an unlimited conflict between the two belligerents. Iraq's initial invasion is often criticized for not utilizing sufficient forces and not exploiting the speed and shock effect of the armor to penetrate further into Iran and force war termination. Iraq had overestimated her own strength in comparison with that of Iran. Through the escalations of both sides (previously discussed), Iran and Iraq battled for eight years with over one million casualties and economic turmoil to achieve nothing more than the status quo.¹⁷

Limited conflicts do not always remain limited to the initial belligerents. The Iran-Iraq War was for the most part limited to direct military-to-military action between just Iran and Iraq. There was a limited amount of interaction: between Iran and the Gulf States and the U.S.; between the U.S. and Iraq (USS Stark);

and numerous military to civilian actions in the Gulf with the war on shipping and the shooting down of the Iranian airbus.¹⁸

A limited war does not always remain limited in the support provided to the belligerent countries from outside sources, nor may it appear clear who is supporting whom. The French and American support for Iraq midway through the conflict surprised Iran. Even the eventual U.S. support to Iraq may have surprised Iraq. Certainly covert support to Iran by the U.S. surprised the U.S. The longer the limited conflict lasts the more complicated this outside support becomes as countries adapt and change their national policies.

Nuclear, Biological, and Chemical Weapons. One of the most significant insights of the Iran-Iraq war was the precedence the use of chemical weapons has set for future conflicts.¹⁹ Iraq crossed the international threshold prohibiting the use of chemical weapons since the Geneva Accords in 1925. But of even greater significance is the extent that Iraq had incorporated the use of chemical weapons into their military offensive and defensive doctrines. Iraq's military setbacks in 1982 led to her first use of chemical weapons. From 1982 to 1988, Iraq used chemical weapons in 19 known instances utilizing artillery, mortars, fixed wing aircraft, helicopters and bombs as delivery means.²⁰ Chemical agents have become a tactical element of Iraqi military operations. Iraq doctrinally targets enemy artillery, logistics, and command and control forces on the battlefield.²¹ In most cases the use of chemical agents has not had a decisive role in battlefield success, but only a contributing role. At the

operational/strategic level, the continued use of chemical weapons did have a significant role in affecting the morale of the Iranian military and civilian populace. Iraq took advantage of this effect on morale by warning Iran prior to the actual use of the chemical agents.²² The United Nations condemned Iraq for the use of chemical weapons but did not take any specific action against her. The significance of the use of chemical weapons and the lack of punishment thereof by the international community, sets a precedence for third world countries summed up by President Rafsanjani of Iran:

"Chemical and biological weapons are the poor man's atomic bombs and can easily be produced. We should at least consider them for our defense. Although the use of such weapons is inhuman, the war taught us that international laws are only scraps of paper."²³

Although there is no evidence of the use of biological agents during the Iran-Iraq War, Iraq is believed to possess botulin toxin, anthrax, tularemia and equine encephalitis.²⁴ Iraq has continued her efforts to develop nuclear weapons since 1970 and is believed to be very close to the development of these type weapons. As the war began to go badly for Iraq she did not hesitate to use those NBC weapons that were available to her at the time.²⁵ There is no reason to believe that Iraq will do things any differently in the present crisis.

CHAPTER IV

GROUND FORCES

Mobile/Positional Defenses. During the initial years of the Iran-Iraq War, Iraq experimented with extensive static defenses (not defenses in depth) and counter-attacks to attack the enemies flanks. In Phase II of the War, Iranian counter-offenses, Iraq used this type of defense, including a double envelopment, to defeat the Iranian counter-offensive at Susanguard. Iran first used the human wave assaults at Bostan in 1982 and was able to gain many successes against the Iraqi shallow static defenses. Not willing to take the large number of casualties created by defending against these human wave assaults, Iraq withdrew to the pre-war borders leaving the initiative of the War to Iran. Upon withdrawing, Iraq developed extensive defenses in depth creating the "Iron Ring" around Basra and other key locations. These positions utilized earthen berms, trenches, concrete bunkers, natural obstacles, and artificial obstacles. The success of these "defenses in depth" reinforced their further development. Iraq became very proficient in establishing deep, integrated and fortified zones supported by highly mobile, armor heavy reserves and massed artillery. These reserves were rapidly deployed along previously constructed roads to possible employment locations. This mobile/positional defense became the backbone of the Iraqi military throughout the remainder of the war repelling successive Iranian assaults of upwards of 200,000 strong, along the entire 730 kilometer front. These defenses further developed the mobile

reserves to include elite units like the Republican Guard, which was first used in this capacity in 1984 at the Battle of Badr. From these positions Iraq would strike offensively at Iranian assembly areas in the attempt to force an early engagement by an unprepared Iranian force.¹

Command & Control. The primary command and control insight to be gleaned from the Iran-Iraq War was the shift of command and control over the military from the personal control of Saddam Hussein to the control of the general staff. Prior to 1982, the military officer structure was highly politicized with Ba'th Party members being commissioned and promoted based upon their loyalty to the Ba'th Party vice their military professional capabilities. Command and control of the military was exercised by Saddam Hussein through this politicized structure. The military was characterized by officers and NCO's unwilling to take the initiative and advance without direct orders. This caused numerous failures to exploit success on the battlefield. The senior officers consistently failed to report bad news and exaggerated their successes. The failures of the Army in the first two years of the war resulted in Saddam Hussein's orders to withdraw back to the pre-war Iraqi borders. Hussein was convinced of the need to reorganize the military to allow the forces to act on the basis of military professionalism and to avoid overmanning of the force at the political level. The reorganization included force structure, command systems and training designed to create a combined arms force capable of maneuver warfare.² In late 1982, Hussein purged the officer structure of the non-proficient Ba'th

Party hacks. This allowed the General Staff to develop a professional military force. Command and control was still exercised by Saddam Hussein but the generals were given more latitude to initiate actions on the battlefield. This developed the confidence levels of the generals and contributed to significant successes. As an example, on February 22, 1984, Iran conducted a surprise attack by crossing the marshes north of Basra. The Iraqi General Fakhri realized the threat of a major offensive and quickly and decisively committed sufficient forces to halt the attack.³ This would not have been possible under the earlier rigid, overcentralized command and control structure of pre-1982. In 1986, Hussein shifted the command and control of the battlefield almost entirely to the generals as the Iraqi forces took on a more offensive nature that required a more fluid and responsive command and control system. As long as the Iraqi forces remained on the defensive, Saddam Hussein was able to maintain a limited amount of command and control. Over the course of the eight years of the war, Iraqi forces found themselves on the defensive reacting to Iranian attacks. This resulted in the Iraqi generals being more comfortable with reacting to enemy initiatives than initiating actions themselves.

Combined Arms Operations. Certainly one of the most dramatic insights to be gleaned from the Iran-Iraq War is the evolution of the Iraqi Armed Force from a rudimentary, unintegrated force into a combined arms army, fourth largest in the world, in less than eight years. This is certainly no small feat considering the mobilization, system procurement, individual/unit training and

force integration. Iraq went from an armed force of approximately 242,000 in 1980, to 642,000 in 1985, accompanied by a massive military build up almost doubling its aircraft and tank forces, while quadrupling its artillery assets by 1988.⁴

During the initial stages of the war both sides lost large numbers of tanks and armored vehicles by employing them in terrain that required dismounted infantry for protection of the armor, but without those infantry assets. Although Iraq made great strides in incorporating infantry and armor into defensive operations, the use of armor was limited to direct fire artillery roles or as a reserve counter-attack unit. With continuing successes of the mobile/positional defenses, Iraq was lured into a false sense of victory that contributed to the continuance of the war.

Clausewitz proclaimed, "A sudden powerful transition to the offensive - the flashing sword of vengeance - is the greatest moment for the defense."⁵ It would not be until 1987/88 that Iraq would develop a combined arms counter-offensive operation.

By the end of the war Iraq had become capable of combined operations including armor, mechanized infantry, massive pre-planned artillery barrages and attack helicopter support as airborne artillery (lobbing munitions). As of the end of the war Iraq was still non-effective in: on-call artillery support to maneuver units, heliborne operations, and fixed wing close air support.⁶

To help orchestrate combined arms operations, Iraq utilized drills, mock-ups, and rehearsals. The preferred offensive operation would include: high force rations, very heavy fire

support, a well orchestrated plan and rehearsals on mock-ups. Although this appears inflexible, Iraqi forces are not. They are quick learners and excellent problem solvers. They are, however, less efficient and less coordinated in other than well orchestrated operations.⁷

Iraq's final offensives in 1988, are the only available examples to observe how far her combined arms operations have developed. Iraq conducted secret multi-division rehearsals behind Basra in preparation for operation Tawakalna Ala Allah (In God We Trust). This operation commenced on April 17, 1988, with a complex combined arms operation, including chemical weapons and amphibious assaults, in an effort to retake Al Faw. It was the largest Iraqi operation since the invasion in 1980. Commanded by General Rashid, Iraqi forces smashed Iranian forces and secured Al Faw in 35 hours. This operation was conducted so rapidly that Iraq was able to capture almost all of the Iranian equipment and stocks at Al Faw. Subsequent operations included seizing Salamchah on May 25, in 8 hours and the Island of Majnoon in June, in about 4 hours. These battles destroyed Iranian forces and finished off the disintegration of Iran's military overall.⁸ The Ayatollah Komeini agreed to a cease-fire on July 20th, 1988.⁹

A key insight to Iraq's combined arms development is the ability to improve quickly. This improvement can be assumed to have continued since 1988 to further enhance Iraq's combined arms development.

Infantry Is Still Decisive. The Iran-Iraq War reinforced the old adage of the role of infantry on the battlefield. The

infantry still has a decisive impact in modern warfare.¹⁰ Iraq's initial invasion into Iran was stopped by poorly trained Pasdaran infantry in the urban areas and other terrain that restricted armor mobility. Iraq had used some all armor units and found that armor has little utility in urban warfare.¹¹ Later in the war Iran conducted counter-offensives using human wave assaults that proved decisive in breaching the Iraqi static defenses. The key to remember is armor has distinct weaknesses and limitations when employed without infantry and urban warfare requirements are primarily suited to ground infantry. Iraq was forced to realize this and had to develop her Peoples' Army into an aggressive combat arm enabling Iraq to move from its restrictive static defenses into a more mobile, less road bound force. The Iran-Iraq War also proves that infantry/armored conflicts can quickly escalate to very high levels. After exhaustion of the high tech assets the infantry will be left to slug it out on the ground. It will be at the infantry level that victory will ultimately be decided.¹²

Casualties of Modern War. The Iran-Iraq War provides a vivid remainder to all that a modern, large scale ground war will produce vast numbers of casualties. Iraq suffered 400,000 - 700,000 wounded and 150,000 - 340,000 dead. Iran suffered 600,000 - 1,200,000 wounded and 450,000 - 730,000 dead. Over the course of the eight year war 115,000 prisoners of war would be taken.¹³ These figures vary greatly and there is a lot of speculation on their accuracy. However, even at the lowest estimates the number of casualties is unnerving. Since Vietnam, over a generation ago,

the U.S. has been involved in two sizable conflicts: Operation Urgent Fury in Grenada and Operation Just Cause in Panama. In each case U.S. casualties were very light. The Iran-Iraq War provides us a better insight to the realities of casualties of modern war.

High Force Ratios. The concept of high force ratios has proliferated itself throughout Iraqi military doctrine. The massing of armor and mechanized infantry units is designed to achieve not just numerical superiority but numerical supremacy. The final operation to seize Al Faw in 1988 had a force ratio of 6 to 1 in Iraq's favor. Iraq literally overwhelmed the Iranian defenses. The massing of Iraqi artillery units for specific operations dwindles the U.S. efforts of massing artillery fires onto specific targets. The expenditure rates of ammunition allow for the massing of firing systems like the anti-air and anti-armor missiles, ensuring success of a kill. However, sheer mass is not a guarantee of success in battle. The effective organization and command and control of forces surpasses the massing of sheer numbers as Iraq was able to learn in her mobile/positional defenses during Phase III of the War, in opposition to the human wave assaults of Iran.¹⁴

CHAPTER V

AIR FORCES

Overestimating Capabilities. A key insight to remember is not to overestimate your operational capabilities in comparison to your enemy. Iraq did just that. In attempting to duplicate the success of the initial air strikes in the '67 and '73 Arab-Israeli Wars, Iraq launched all of her air assets to strike six of the Iranian airfields and four of her army bases on 22 September 1980. Iraq overestimated her ability to successfully damage the Iranian Air Force (IIAF). Iran had learned a different lesson from the '67 and '73 Wars. Iran built hardened bunkers for her aircraft and strengthened her runways. The Iraqi strikes had little to no impact and on the following day the Iranian Air force launched strikes against Iraq that sent Iraqi pilots scrambling for airfields in western Iraq and in the southern Gulf countries. The Iraqi Air Force (IQAF) decided to withdraw even though they had a 4 to 1 operational advantage. Iraqi pilots would continue to avoid air-to-air combat with Iranian pilots throughout the remainder of the war.¹

Strategic Dependency on Foreign Support. Iraq got a first hand look at how not to become technologically dependant upon a foreign country for support. The Iranian Air Force quickly achieved air superiority with its American purchased air planes and American trained pilots, but Iran slowly lost that superiority bit by bit until, in 1982, Iraq achieved air superiority by default. The Iranian Air Force could not maintain the aircraft

they had nor could they replace those shot down. This was the direct result of the withdrawal of U.S. support to Iran due to the U.S. Embassy hostage incident.²

C³ I and Battle Management. Iraq was never able to make effective use of air control, early warning or C³I assets; although they possessed an AWACS capability in two Soviet IL-76 Candid aircraft equipped with Thompson CSF Tiger Radar. This equipment proved ineffective to acquire low flying jets. The lack of a battle management system left Iraq to fight as individual units vice as an Air Force.³

Close Air Support/Battlefield Interdiction (CAS/BI). Another lesson Iraq learned from the Arab-Israeli Wars was that it is difficult for fixed wing assets to provide CAS/BI in a heavy SAM and anti-aircraft gun environment.⁴ The Iraqi aircraft were also inefficient in dropping iron bombs at high speeds due to the lack of high tech targeting devices. So from the outset of the War, IQAF fixed wing assets did not fly CAS/BI, but delegated that role to attack helicopters.⁵ The Iraqi Army Air Corps was created in 1981 due to a perceived lack of support to ground forces by the IQAF. Control of Iraqi helicopter assets now rests with the Army. Helicopters were used extensively as gunships, troop carriers, and emergency resupply. The helicopters proved to be better CAS platforms and were also used extensively as airborne artillery (lobbing munitions). Overall the IQAF had very little impact over the ground portion of the war.

Defensive Counter-Air. Offensive counter air took a back seat to defensive counter air due to the superior capabilities of

the Iranian owned U.S. F-4 and F-5 aircraft and the abilities of the American trained Iranian pilots. The defensive counter air proved effective against the Iranian aircraft with the use of surface to air missiles, anti-aircraft guns and tank machine-gun fire. These were incorporated into free fire zones, point defenses and area defenses. The use of these defenses also proved effective against Iranian attack helicopters.⁶

Air Interdiction. After the Iranian Air Force failed to get off the ground and Iraq acquired the French Mirage (1985), Iraq began an extensive air campaign against Iran that proved effective. However, once Iran introduced the Hawk missile systems, Iraq returned to a defensive posture wanting again to conserve her air assets for the possibility of a last ditch defense against Iran.⁷

Strategic Bombing. Iraq utilized strategic bombing in 1980 to strike the oil distribution facilities of Iran at Kharg Island, but did only limited damage. Iraq's next attempt at strategic bombing was in the series of "War of the Cities" in 1985/86/87. These, too, proved ineffective overall as Iraq was unwilling to strike with sufficient assets to achieve a decisive action. It was not until the final War of the Cities that the IQAF was able to make a contribution to war termination. The IQAF conducted over 450 bombing sorties in March and April of 1988, in coordination with over 200 SCUD missile launches.⁸ This two month period is accredited with a significant drop in Iranian morale and is believed to have contributed to the cease-fire in July 1988.

CHAPTER VI

NAVAL FORCES

Naval Strategy. Iraq began the war with no naval strategy and without any serious surface warfare capability. Iraq utilized the "fleet in being" concept of keeping her fleet in port to protect it from the superior Iranian Navy. The fleet, if one wants to call it that, consisted of: one training frigate, eight fast attack craft (FAC) armed with Styx SSM's, four FACs with torpedoes, eight coastal patrol boats, two landing craft and some inshore patrol boats. The only way Iraq was able to influence the action on the sea was via airpower.¹

Mine Warfare. Iraq utilized naval mines dropped primarily by aircraft, but this effort was nothing in comparison to Iran's mining effort. It should be assumed that Iraq learned, from the overall mining effort in the Gulf, the inherent weaknesses in U.S. mine-warfare forces and can be expected to exploit those weaknesses. One must never dismiss the ability of a third world state from using every weapon and technology in conventional and unconventional manner when challenging western superiority.²

Tanker War. The only practical form of seapower for Iraq was airpower. Although the IQAF achieved initial successes in slowing the flow of oil from the Kharg Island facility, there was never a major interruption of Iran's oil production. Iraq never committed the necessary forces to eliminate Kharg Island nor to effectively patrol the Iraqi Exclusion Zone. The Tanker War was significant in its worldwide impact and the military response required, by

several non-belligerent nations including the U.S., to protect neutral shipping.³

CHAPTER VII

SUMMARY

Numerous operational insights of Iraq have been presented from general categories through the employment of ground, air and naval forces. These operational insights provide a baseline of knowledge from which one can better understand and evaluate the actions of Iraqi forces in today's Middle East crisis.

In general, Iraq maintained a strategic defensive throughout the course of the eight year war. She developed an extensive logistics oversupply concept of pre-staging massive amounts of ammunition and stocks in the battle area. The amounts of these supplies are based upon daily expenditure rates seven times that of U.S. Army projections. Iraq did not learn the lesson of history that "limited war will not always remain limited" and she exercised non-effective escalation efforts in an attempt to terminate the war. The morale of Iraqi forces is very high, based upon ancient traditions and religious factors, but Iraqi forces have proved less tenacious on non-Iraqi soil. Iraq has set a new international precedence in openly utilizing chemical weapons. These chemical weapons have been thoroughly integrated into Iraqi military doctrine. The Iran-Iraq War showed that chemical weapons are a force multiplier, but, in most cases, are not decisive to battlefield success. Chemical weapons did have significant impact on affecting the will of the Iranian military and civilian populace.

The modus operandi of Iraqi ground forces is to establish a

defense in depth with integrated, fortified zones supported by highly mobile, armor heavy reserves and massed artillery. These mobile/positional defenses are the backbone of the Iraqi strategic defense posture. Iraqi offensive operations would be characterized by combined arms operations with very high force ratios, conducting well orchestrated, well rehearsed attacks. These combined arms forces are totally integrated with mechanized infantry, armor, artillery and CAS helicopter forces. Command and control of these forces has shifted from Saddam Hussein to the military commanders on the scene. These forces are evolving in their proficiency and at the close of the Iran-Iraq War were still less effective in conducting on-call artillery support, fixed wing CAS and in coordinating a multi-faceted, offensive operation in a changing situation. Iraq is conscious of her need to limit casualties based upon her small manpower pool, but Iraq continued to wage war in the face of hundreds of thousands of casualties in the Iran-Iraq War.

Iraq overestimated the capabilities of airpower in the initial air attack of the war. After this initial attack Iraq's air forces were conserved at all cost to provide for the ultimate defense of Iraq. However, limited strikes were conducted for strategic effect. Iraq's Air Force did very little CAS support throughout the eight year war and delegated the responsibility of CAS to attack helicopters. Iraq's defensive counter air depended almost entirely on SAMs, anti-aircraft guns and free fire zones. Iraq's attempts at strategic bombing proved ineffective overall except for the last War of the Cities in March/April of 1988, when

Iraq finally committed all of her assets, both in aircraft and in SCUD missiles, in an intensified effort to destroy the will of the Iranian people.

Iraq's naval forces were almost non-existent and as a result Iraq had no naval strategy. Iraq was innovated enough to use airpower to extend her control to the sea. Aircraft were used to drop naval mines and were used to patrol the Iraqi Exclusion zone in the northern Persian Gulf. Certainly Iraq was able to gleam the international impact the Iranian and Iraqi mining efforts had in the Gulf. The results of the Persian Gulf Tanker War also provided Iraq with an insight into U.S. weaknesses in mine warfare countermeasures and it can be anticipated that she will exploit these in the present crisis.

CHAPTER VIII

CONCLUSION

Military analysts agree that there are no significant lessons to be learned from the Iran-Iraq War.¹ I agree that there may not be any new lessons to be learned from the Iran-Iraq War, in terms of providing advances in military theory or doctrine. However, I do believe that the operational insights of Iraq gleaned from the war must assuredly provide a baseline of knowledge from which one can better understand and evaluate the operational aspects of Iraqi forces in today's conflict. Sun Tzu stated, "Know the enemy and know yourself; in a hundred battles you will never be in peril."² The U.S. military's emphasis on planning based upon enemy's capabilities is critical to overall success, but just as critical is the understanding of how the enemy employs those capabilities in the operational level of war.

NOTES

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