The 100 Hour Ground War: How the Iraqi Plan Failed

G2, VII Corps
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"We want to tell the Corps story - no more, no less."

-LTG Franks, CG, VII Corps

Preface

The CG, VII Corps directed the ACoS, G2 to conduct a review of the Corps battles to determine the Iraqi plan and then describe how that plan was executed. The mission was to quickly establish the truth about the composition, disposition, condition, and performance of the Iraqi Army on the battlefield.

COL John C. Davidson, ACoS, G2, tasked a team comprised of LTC David Kirk, MAJ Curt Bartholomew, CPTs Keith Geiger, Eli Maldonado, Ed Ratcliffe, Jay Smith, and Doug Willard, CPL Sondra Penrod, and SPC Cherie Parker to conduct the research and prepare the report. The team depended on the assistance of each major subordinate command, the intelligence staff at VII Corps, and several outside agencies. Important assistance was provided by LTC Kirby Green, CPTs Casey Flagg and Mark Jawoworski, CW3 Robert Barfield, CW2 David Coates, WO1 Alan Jones, and PVT Deanna Haas. Significant contributions were also made by the officers and soldiers of the 207th and 513th MI Brigades.

This is an effort to capture perishable impressions and primary source material before subsequent operations and redeployments dilute the information. It is only the beginning. Time will permit exploitation of a greater number of documents and units will do more detailed reviews. We hope this document serves as a good starting point for any future histories.

This report is dedicated to the soldiers and leaders of VII Corps; their dedication, valor, and leadership truly authored this report.

****
SUBJECT: The 100 Hour Ground War: The Failed Iraqi Plan (S)

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1. (U) General:
   
a. (U) Introduction. The following limited history describes Iraqi force dispositions and defensive plans for the western portion of the Kuwaiti Theater of Operations (KTO) based on information collected by G2, VII (US) Corps (deployed) within the first month after the temporary cease-fire of 28 Feb 91. It is the first of what we expect will be many attempts to reconstruct how Iraq fought the 100-hour war in VII Corps' sector. Where possible, we attempt to validate information from several sources. Sources include interrogations of enemy prisoners of war (EPWs),\(^1\) captured enemy documents and equipment, operational logs and journals, VII Corps interviews of division intelligence staffs and subject matter experts, first phase imagery exploitation and intelligence systems data bases.\(^2\) Because of the high speed of execution of this operation, it was

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\(^1\) Enemy (Iraqi) prisoners of war will be referred to as EPWs in the first three sections of this report. They will be referred to as PWs in section four to conform with our attempt to describe the Ground War maneuver phases from the Iraqi perspective.

\(^2\) Such as Joint Surveillance Target and Attack Radar System (JSTARS) imagery at Tab F (JSTARS Imagery).
not always possible for rapidly moving units to provide precise grid locations and accurate battle damage assessments (BDAs) of all engagements as they occurred.

b. (U) **Unit identifications.** This reconstruction significantly changes the identification of enemy units from what was held by US and Coalition commands on G-day. It was recognized theater-wide that many front line infantry divisions were misidentified prior to the ground campaign, but the number, type and location of their subordinate brigades did not change. Our information indicates that many of the heavy divisions in the corps and theater reserve were also misidentified. Details are described in section three.

c. (U) **Organization.** This history is organized to first provide an overview of some of the more significant aspects of Operation Desert Storm which affected the Iraqi Army's ability to execute its plan. Then we discuss the Iraqi plan based primarily on EPW reports and overlays. Finally, we attempt to reconstruct the action, organized by day, written from the perspective of the Iraqi forces where possible. A comparison between pre-war and post-war knowledge of the enemy's force disposition is also provided at Tabs B and Tab B-1.
d. Iraqi prisoners of war (EPWs). EPWs have been the prime source for much of the information in this report; particularly, on the G-day array of forces and the enemy plan. The prisoners who provided pertinent information represent a small percentage of the Iraqi Army. Although their insights are important, we have tried not to draw broad conclusions from these interrogations.

VII Corps captured approximately 26,000 prisoners. Toward the end of the 100-hour war, prisoners were being transported directly to the Joint Interrogation Facility-West (JIF-W), by-passing the corps cage, because life support for

\[3\] Paragraph classifications are derived from source documents.
The Iraqi Army is divided into two distinct groups; the Republican Guard Forces Command and the Regular Army. The Republican Guard is an all-volunteer force originally recruited from the region around Saddam Hussein's home village of Tikrit. Soldiers in the Republican Guard have, as a minimum, a high school education. The Regular Army primarily consists of conscripts of varying educational backgrounds. The Republican Guard is considered an elite force, Saddam Hussein's favorite. It is given the best equipment, much higher pay, the best training, and reliable logistics. We will describe how a Regular Army colonel had to literally beg to get spare parts from the Republican Guard and how Republican Guard food coffers were generally full, while soldiers in other units often went hungry. Regular Army units were a distinct notch below Republican Guard Forces. The quality of Regular Army units varied widely. Some units consisted of well-respected veterans of the Iran-Iraq war; for example, the 10th Armd Div. Others were hastily organized and poorly led and equipped, such as the 52nd Armd Div. The EPW perspective on the war, from which the bulk of our data is derived, was obtained from personnel of the Regular Army units whose training, equipment, leadership and logistical support were poor and who were least capable of surviving the air campaign.
Almost to a man the JDC prisoners are convinced there was no strategic campaign plan because there was to be no war. All were convinced that Saddam Hussein would bluff his way out of a confrontation with the United States. Even after the air campaign started, officers and soldiers were sure the Baghdad government would negotiate a settlement. Given that so few prisoners were interrogated from the RGFC and the Jihad Corps (comprised of the 10th and 12th Armd Divs), it is not surprising that Iraq's strategic plan which we describe seems vague and amateurish. The front line divisions were not privy to the strategic plans. Other sources, such as captured overlays and equipment, and the actions of the armored reserve units,
provided us with just the outline of a plan.

e. **Captured documents and overlays** place the Iraqi first line of defense where we projected it (Tab A-1 - Initial Iraqi Deployment). Assessed unit identifications for the corps and theater reserve units were in error; however, the correlation of forces remained essentially the same. We have acquired overlays which provide locations for literally every Regular Army division in theater, but to date no overlays have been recovered that depict both Regular Army and RGFC unit positions simultaneously.

Only one overlay obtained depicts the location of any unit of the RGFC and it shows only the location of the Tawakalna Mechanized Inf Div. A captured plan from a Tawakalna artillery officer showed counter-attack plans for the 4th, 6th and 7th Corps. Yet, prisoners from where these artillery fires were planned did not know about them; one of these prisoners was a division commander. It appears that the Regular Army did not have access to the locations or plans of the RGFC.

f. (U) **He did have a plan!** One reason we believe this reconstruction is important and will hopefully form the basis for more detailed histories is because it reverses a wide-spread impression that the Iraqi Army defended the western Kuwaiti Theater of Operations (KTO)\(^7\) by simply positioning all its

\(^7\)We define the western part of the KTO as the area west of the Wadi Al Batin.
forces on the Wadi Al Batin, then waited for the air campaign to end and our ground attack to commence. There is a popular belief that the Iraqi units simply threw up their hands in despair. Although, this is true of some front line infantry divisions (whose commanders also appeared ignorant of any theater-level defensive plan), it is not true of the heavy divisions. Plans existed, preparations for contingencies were made and partially executed, and Iraqi heavy units put up a fight. Factors which contributed to the rapid defeat of the Iraqi Army were the speed with which VII Corps attacked, the mobility, range and accuracy of Coalition weapons systems, highly trained and motivated soldiers, detailed intelligence, and the ever-present threat from the sky. Details of the battle are covered in section four. Other contributing factors to the Iraqi defeat are discussed in section two.

"...science applied to weapons systems, was the key to victory... Soviet military equipment had proven to be inferior. ...Soviet equipment was antiquated and ineffective against America's modern weapons."

-Senior Iraqi officer, 48th Infantry Division
The Iraqi General Staff did in fact devise and possess a strategy to counter the Multinational Coalition Forces (MCF) upon its deployment to Saudi Arabia. The strategy, however, was based on two incorrect assumptions. First and foremost was the assumption that tactics used in the Iran-Iraq War (1980-1988) would be applicable against the Coalition. For example, it is evident from the disposition of the theater and strategic reserve forces (the Jihad Corps, 2nd Armd Corps, and the RGFC) and the orientation of the counterattack arrows we observed on several captured overlays, that the theater and strategic reserve forces intended to counterattack into the nose of the Coalition penetrations. This was a tactic employed in the Iran-Iraq War. "Counterattacks were usually conducted to stop the Iranians or to push them back. No attempts were made to attack the shoulders of the penetration to cut off forward enemy forces."10 "During the war with Iran, Iraqi counterattacks were generally launched to meet Iranian penetrations head on, rather than from the

The Iranian forces were predominantly infantry and the Iraqi planners failed to appreciate Coalition firepower, maneuverability, and logistical sustainability. The second assumption was that the Coalition attack would be terrain oriented in support of the political goal of liberating Kuwait. This assumption led Iraqi planners to consider only five avenues of approach: 1) an amphibious assault on the Kuwaiti coastline; 2) the coastal road from Al Khafji to Kuwait City; 3) Al Wafra (QS86797093) to Kuwait City; 4) "The Elbow" (QT401011), and 5) the Wadi Al Batin following the international border with a branch to the east along Highway 6. They also considered a possible parachute/air assault on Safwan (QU61773488) near the coast. The Iraqi disposition of forces on G-day further supports this perception of the Coalition courses of action.

Given the width of the frontages of the 25th and 27th Inf Divs in the Wadi Al Batin, it is probable the Iraqi planners expected the most likely course of action for Coalition forces to be a main attack up the Wadi. Although the Iraqis considered the threat

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12 2838N04756E.

13 The Wadi Al Batin (aka the Wadi) is essentially a dry river bed which extends in a north-easterly direction from the tri-border area.

14 3007N04743E.

15 HSG, 202nd MI Bn, Joint Interrogation Facility-West, report #346-91, DTG 142013Z Mar 91; and a 10th Armd Div overlay captured by 1st Armd Div.
from a Coalition force using an indirect approach, their terrain-oriented Kuwaiti "fixation" caused them to also discount a force-oriented attack on the Republican Guard forces. Once they missed the Coalition's force orientation on the RGFC as the center of gravity and primary ground objective for destruction by air and ground forces, they similarly missed the Coalition's selection of the more dramatic indirect approach. In a summary of information obtained from senior Iraqi officers by the Joint Debriefing Center (JDC), these sources state, "It was decided soon after the Coalition buildup began that any attack would come from the south, either along the coastal highway or up the Wadi Al Batin, supplemented by an amphibious landing by the US Marines against Kuwait City proper." These two incorrect assumptions, coupled with the lack of a functioning intelligence collection apparatus, made the Iraqis vulnerable to the indirect approach - a flanking attack from the west.
Defending in depth behind the corps reserve was the theater reserve. In the western part of the KTO (which we defined earlier as the area west of the Wadi Al Batin), the theater reserve was the "Operation Jihad Corps." It was comprised of the 10th and 12th Armd Divs. Its missions were counter-penetration, counterattack, and on order, strengthening of weak points in the Iraqi defensive line with detached 18

18 Hereafter, Arabic numbers will be used to identify Iraqi Corps, while Roman numerals will be used to identify US Corps. Country designators will not be used. (I.e., 7th Corps vice VII (17) Corps.)

19 MFR, 513th MI Bde (JDC), Subj: Source Debriefing, BG Ibrahim Adwan Abdul Hussein, JDC Report #048, dated 10 Mar 91.

20 We suspect 3rd Armored Division was a corps reserve for 3rd Corps but our documentation is not detailed enough to state that as fact.
battalions and/or brigades. In the eastern part of the KTO, the theater reserve was the 2nd Armd Corps comprised of the 51st Mech Inf Div and the 17th Armd Div. Its missions were similar to the Operation Jihad Corps, with the addition of countering expected airborne assaults in northern Kuwait and southern Iraq. The Republican Guard Forces Command was the Iraqi strategic reserve, which provided further defense in depth to the KTO. Its mission, once the main thrust of the Coalition was apparent and had been attritted by the forward deployed divisions, corps reserve, and theater reserve, would be to counterattack as a corps to destroy the Coalition main attack.

c. **Forward Deployed Divisions.** The first echelon of defense was comprised of 'straight leg' infantry divisions, as discussed earlier. In the 7th Corps, which was opposite VII Corps, the infantry divisions were deployed with two infantry brigades forward and one infantry brigade to the rear. The 7th Corps sector's eastern boundary was placed just east of the Wādi Al Batin, with the 27th Inf Div deployed across this avenue of approach. Its sector was narrow, only 10 kilometers in width. Moving east to west, the disposition of the 7th Corps was

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22Captured 51st Mech Inf Div order with overlays, dated 4 Oct 90, translated by G5, VII Corps.

23Captured Iraqi overlay provided by 1st Armd Division supports this hypothesis, and also identifies attack options of the 10th Armd Div.
the 27th, 25th, 31st, 48th, 26th, 45th, and 54th Infantry Divisions. Widths of division defensive sectors gradually increased moving east to west, with the 26th Inf Div defending a frontage of approximately 35 kilometers. The 26th Div was the most western deployed unit with the mission to defend. It was tied into a defending division to the east (the 48th Div) and it "refused" its flank on the west. The 45th and 54th Inf Divs were given essentially screen missions to the west of the 26th Div. Both were assigned huge sectors with frontages of well over one hundred kilometers, and they were also most likely given the mission of securing lines of communication. The 45th Inf Div was encountered by XVIII Airborne Corps in its attack north. Although VII Corps penetrated the 45th Inf Div sector before turning its attack northeast, no elements of the 45th or 54th Infantry Divisions were encountered by VII Corps units.24

(S/Rel UK) East of the Wadi Al Batin in the 4th Corps sector, the situation was similar in that the Corps' infantry divisions were deployed abreast with each division placing two infantry brigades forward and one brigade back, again to give their positions some depth. East of the Wadi, division frontages remained fairly constant at about fifteen kilometers for each division. The Corps sector, moving from west to east, was

24Captured Iraqi overlay depicting 7 Corps area, captured by 11th Avn Bde, scale 1:250,000. Captured Iraqi overlay depicting KTO Iraqi dispositions, captured by 2nd Bde/3rd Armd Div, scale 1:100,000.
d. **Corps Reserves.** In the 7th Corps, the 52nd Armored Division was the corps reserve and was dispersed behind the forward deployed divisions. The 52nd Armored Division was comprised of the 52nd Independent Armored Brigade, the 80th Armored Brigade, 51st Armored Brigade, and the 11th Mechanized Infantry Brigade. This division was hastily organized in late December from independent brigades pulled from four different Corps. The 51st Armored Brigade never deployed to the 7th Corps sector, but rather was under operational control (OPCON) of the 6th Corps (defending NE Kuwait and Bubiyan Island). The 52nd Armored Brigade was approximately ten kilometers behind the 48th Infantry Division.
and the 80th Armored Brigade was approximately five kilometers behind the 25th and 31st Inf Divs on the boundary separating the two divisions. The 11th Mechanized Brigade remained approximately 30 kilometers to the north, behind the 27th Inf Div. Identification and location of the 80th Armd Bde and the 11th Mech Bde may be reversed, and cannot be positively ascertained with available information. 28

In the 4th Corps sector, the corps reserve was the 6th Armd Div oriented to the southern part of the Corps sector and the 1st Mech Inf Div oriented to the eastern part of the Corps sector. The 6th Armd Div was comprised of the 16th Armored Brigade, 30th Armored Brigade, and 25th Mechanized Infantry Brigade. The 16th Armored Brigade was ten kilometers behind the rear boundary of the 30th Inf Div. The 30th Armored Brigade was four kilometers behind the 16th Inf Div, and the 25th Mechanized Brigade was approximately ten kilometers behind the 16th Inf Div as well. 29 The 1st Mechanized Division was comprised of the 34th Armored Brigade in the southern part of its sector (five kilometers south of the Ali Al Salem Air Base at QT4550) and an unidentified mechanized infantry brigade located at QT4575. 30 The mission of these corps reserve units (both
4th and 7th Corps), as stated by the Assistant Chief of Staff, 52nd Armored Brigade, 52nd Armd Div (7th Corps) was, "to defend Iraq from allied invaders penetrating Iraqi border defenses by supporting any brigade which came under attack." The 52nd Armored Brigade was also to retake any occupied Iraqi territory. The 52nd Armored Brigade was to repel the invaders with a penetrating linear attack. The dispositions of the 52nd Armd, Div in 7th Corps sector, the 6th Armd Div, and the 1st Mech Inf Div in the 4th Corps sector, corroborates the assertion of the Assistant Chief of Staff, 52nd Armored Brigade as to corps reserve missions.
The mission of the 2nd Armored Corps in the east is believed to have been to counterattack on order in the event of a Coalition penetration.\textsuperscript{38} In addition to the mission described above, the 51st Mech Inf Div was given the additional mission of countering parachute/air assaults on the following airfields:\textsuperscript{39} Umm Al Qasr at QU81332427;\textsuperscript{40} Safwan at QU55303657; and Al Zubayr at QU54706244. This mission addresses the last "avenue of approach" listed in paragraph 2a. Given the disposition of the 51st Mech Inf Div depicted on captured enemy overlays it is probable that this, in fact, was an on order mission of the division.

f. Strategic Reserves. The Republican Guard Forces Command (RGFC) was the strategic reserve of the Iraqi General Staff. The RGFC in the Kuwaiti Theater of Operations was deployed in a crescent moon formation in southern Iraq just north of the 6th and 7th Corps (paralleling the Kuwaiti-Iraqi border). From west to east, the disposition was the Tawakalna alla Allah Mechanized Infantry Division, Medina al-Munawarah Armored Division, and the Hammurabi Armored Division.\textsuperscript{41} North of these three divisions, along the PU70 east-west grid line, three

\textsuperscript{38}Overlays captured by the 1st Inf Div (M).

\textsuperscript{39}Captured 51st Mechanized Infantry Division order with overlays, dated 4 Oct 90, captured by 2nd Bde, 1ID.

\textsuperscript{40}3001N04755E, 3008N04739E, and 3022N04739E, respectively.

\textsuperscript{41}Captured Iraqi overlay depicting Tawakalna Mechanized Division positions, captured by 1st Cavalry Division, scale 1:100,000.
infantry divisions of the RGFC were deployed. As of this writing, these infantry divisions have not been positively identified, but are believed to have been the Adnan (one source describes the Adnan as an artillery division\(^\text{42}\) ), Al Faw, and Nebuchadnezzzer Infantry Divisions.\(^\text{43}\) Additionally, there was a RGFC Special Forces Division, comprised of the 16th and 26th Special Forces Brigades, located at Safwan Airfield and ten kilometers southeast of Basra, respectively. The mission of the RGFC, as the strategic reserve, was to counterattack (as a corps) the Coalition main effort after it had been identified and attrited by the forward deployed divisions, corps reserves, and theater reserves.\(^\text{44}\) A captured artillery overlay from the Tawakalna Mech Division depicts fire plans and target clusters to support counterattacks into the 4th, 6th, and 7th Corps sectors.\(^\text{45}\) The RGFC did not move at the start of the Coalition offensive for several reasons. The most important reason was the lack of a good intelligence collection and reporting structure.
Without good intelligence, determining the main attack must have been extremely difficult. The poor communications structure (degraded by Coalition air strikes) compounded this problem and added to an already confusing situation. Finally, with the frontline units offering almost no credible defense, this adversely impacted on the primary mission of the strategic and theater reserves - commitment to the sector of the main attack. Since the Coalition advance was on multiple axes, the weak resistance on all axes did not allow the RGFC to identify the main attack in time to concentrate its forces and counter-attack as a corps. Multiple sources stated that the RGFC did not want to split its forces during its counterattack. 46 Despite the problems the Iraqis had, they were able to partially, albeit tardily, deploy their theater/strategic reserves to defend against attacking VII Corps units, the CENTCOM main attack.

"The man is a gambler. He was certain that you would not attack, and if you did it would only be by air."

-Cdr, 807th Bde, 48th ID, speaking about Saddam Hussein

\( g. \) Conclusion. The most significant shortfall of the Iraqis, especially Saddam Hussein, was their misunderstanding of US doctrine and tactics. It is apparent that

Hussein was content to engage in a continuous diplomatic debate, self-assured that Coalition forces (especially ground forces) would not attack. However, if an attack occurred, the Iraqi General Staff did have a strategy. That strategy was terrain-oriented (Kuwait) positional defense based on erroneous analysis of avenues of approach and an underestimation of Coalition ground and air capabilities. Compounding their tactical, operational, and strategic errors, was the virtually non-existent Iraqi intelligence collection capability. This enabled the Coalition to devise and exploit the strategy of the indirect approach with a supporting deception plan (which reinforced the Iraqi estimate of most probable Coalition courses of action and avenues of approach). The failure of Iraqi intelligence forced commanders to obtain information about the Coalition through commercial radio and television broadcasts, which only gave further credence to the Coalition deception plan.

"He kept telling the Iraqi people that air power had never won a war in the history of warfare, and the Americans would never have the nerve to engage the Iraqi Army on the ground."

-Cdr, 807th Bde, 48th ID

47 Included in Hussein's strategy, but beyond the scope of this document, were his doomed-to-failure attempts to provoke Israel into the conflict (aimed at undermining the Arab members of the Coalition) with appeals to Arab/Islamic brotherhood and Palestinian liberation.
3. (U) The Iraqi Army (2 Aug 90 to 24 Feb 91).

   a. General. Section three contains ten subparagraphs which address selected aspects of the Iraqi Army and influences of the Coalition force campaign upon it. We have included them to better describe the manner in which the Iraqi Army executed its defense of Kuwait. The symbols and control measures shown at Tab A-1 only represent major maneuver units and their assessed locations and unit boundaries. Obviously, they cannot represent combat effectiveness. Combat support and combat service support units were not included to avoid clutter. The topics discussed here are not inclusive of all the factors weighing upon the battlefield performance of the Iraqi Army. Their inclusion was based primarily upon the availability of sufficient information from which we could reasonably draw conclusions. Future reviews of this war will certainly discuss other relevant factors as more information becomes available.
b. **Size and composition of the Iraqi Army by D-day.** Recent information available to G2, VII Corps indicates that at the start of the air campaign (16 Jan 91), Iraqi forces had built a strong defensive posture along the Saudi Arabian border.\(^48\) See Tab A-1 (Initial Iraqi Deployment, G-day). The Army Central Command (ARCENT) estimated 530,000 personnel, 4,250 tanks, 2,880 APCs, and 3,100 artillery pieces were deployed in the KTO.\(^49\) This equipment was organized into 127 brigades which were further organized into 39 divisions, of which 24 were committed.\(^50\) In the western sector,\(^51\) VII Corps estimated that 33 brigades were organized into eleven divisions belonging to a 7th Corps (erroneously identified as 6th Corps) and the Republican Guard Forces Command (RGFC).\(^52\) These were the forces VII Corps would attack on G-day (by G-day, 7th Corps was

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\(^{48}\) This was based almost exclusively on national imagery products. Counting equipment and identifying unit structures and locations are imagery's strengths. However, determining unit identification and subordination from imagery interpretation is virtually impossible. Even unit boundaries were, for the most part, not accurately identified by imagery.

\(^{49}\) ARCENT INTSUM dated 16 Jan 91.

\(^{50}\) Committed units consisted of any units south of the 29:45N grid lines and east of the 44:00 grid lines. See diagram. Source: VII Corps OPORD 1-90 (Desert Saber), Annex B, Appendix 10, pg. 25.

\(^{51}\) The “Western Sector,” an unofficial term used by the battle reconstruction team, refers to the area west of the Kuwaiti border which is predominately occupied by the 7th (IZ) Corps. It is primarily the area west of the Wadi Al Batin.

\(^{52}\) ARCENT INTSUM dated 11 Jan 91. Of the 33 Bdes in the 7th (IZ) Corps, 15 light infantry Bdes and 3 heavy Bdes were committed; while 15 heavy Bdes were reinforcing. ARCENT's count of divisions is not reflected in TAB A-1, which was derived from captured overlays.
Kuwaiti Theater of Operations/Committed Forces Delineations

44°00'

31°00'

KTO (South of 31°North grid line)
(East of 44°East grid line)

29°45'

Committed Forces
(South of 29°45' North grid line)
(East of 44°00' East grid line)


correctly assessed as the defending corps in the western sector). Detailed debriefings of senior Iraqi officer prisoners of war, particularly those along the front line, indicate that although the Iraqi force array appears formidable, "...the Iraqi Army deployed to the KTO at considerably less than full strength, and that by the time the 39-day air offensive commenced, army morale was already extremely low, and descending. Once the Coalition air offensive began to do its work, a bad situation turned even worse. It appears that the average front line and second echelon division deployed at no more than eighty percent strength, in some cases as low as fifty percent, and then lost fifty percent of its already depleted
numbers through desertions, AWOL, and casualties. Divisions shrank to 4,000 men or fewer. Morale was low and leaders did not support national objectives. If we are to believe captured prisoners, few military personnel supported the attack on Kuwait, whether they were from the regular army units or the RGFC. Units involved in the attack on Kuwait knew only five days in advance of the attack. Units not involved did not find out until after the attack started. Commanders were not consulted and, therefore, not very supportive of the attack. Equipment readiness was a problem. For example, the 27th Inf Div had thirty-four T-55/T-59 tanks, but prior to 17 Jan 91, seventeen of these were unserviceable and were back-hauled to Baghdad for repair. The 52nd Independent Armored Brigade, later to become part of the 52nd Armd Div, arrived in the KTO on 15 Nov 90 with approximately fifty percent...
of its authorized tanks.\textsuperscript{57} Equipment sent back for maintenance frequently did not return to the KTO, and at least one source speculates that there were not enough spare parts.\textsuperscript{58} The "...prisoners describe an Iraqi Army whose (TO&E) composition and disposition closely fits the picture developed by all-source intelligence, but whose size, firepower, and morale had eroded steadily.\textsuperscript{59}" Notwithstanding the extensive stocks of ammunition, and the advantages inherent to the defense, the front line infantry was a demoralized force, tired of war and ready to accept the peace settlement agreed to by Baghdad. But peace did not come.
"But it didn't matter in reality. Even if we knew what you were doing, there was nothing we could do about it."

-An Iraqi senior officer

c. **Iraq's intelligence failure.** The Iraqi intelligence capability has been described as the most sophisticated threat to face the US outside of the Soviet Union. They possessed a wide array of signals intelligence (SIGINT), imagery intelligence (IMINT), and human intelligence (HUMINT) collectors and they had experience using them. During the war with Iran, assisted by the US and the Soviets, and reconnaissance by the Iraqi Air Force, intelligence for the commanders was rated highly. One commander recalled that the intelligence was so good during that war that, "when they were told the Iranians were coming, they came..." Yet during the war with Coalition forces, Army commanders were virtually blind, intelligence was "almost zero," and the lack of warning was a major contributor to the failure of the Iraqi forces.

Iraq had a vast array of intercept and direction finding (DF) systems covering the entire frequency range used by Coalition emitters. During the Iran-Iraq war, artillery rounds
could be placed on targets within five minutes of units being located by direction finding.\textsuperscript{62} Iraq had MiG-21, MiG-25 and Mirage F-1EQ aircraft with imagery pods and side-looking airborne radar, and they had a large inventory of remotely piloted vehicles. They flew collection missions almost daily until 17 Jan, D-day, so data should have been available. Iraqi human intelligence collectors were used also, and targeted on Coalition tactical movements, strengths and locations. Prior to VII Corps' arrival in theater, Iraqi agents were found in base camps and among contract technicians in US and allied camps.\textsuperscript{63} Yet, in spite of all this intelligence collection, the Iraqi field commanders had few clues as to the Coalition plans or unit dispositions.

\textsuperscript{64} The Iraqi field army was without effective intelligence. Not one senior officer EPW could accurately describe Coalition order of battle in his sector. Vague references to Egyptian, Syrian, British (UK), Kuwaiti and American forces somewhere across the border were the best that they could muster. The 26th Inf Div prisoners stated that they thought all the fighting would take place in Kuwait. These soldiers believed that the Syrians and the Egyptians were across
the border from them and that these Coalition forces would not cross into Iraq. Consequently, the 26th Inf Div elements were overrun by VII Corps and were totally taken by surprise. One source recalled the first time his unit was aware that Egyptian forces were opposing them was when the Egyptian tanks overran his defensive perimeter. Even the elite Hammurabi Armored Division had little usable intelligence. A prisoner from the Hammurabi stated he had no advance notice of the air campaign and first heard news of the ground campaign from a foreign radio station. Iraqi intelligence officers were using Radio Saudi Arabia, Radio Monte Carlo, and the Voice of America as sources to brief their commanders. This made commanders extremely susceptible to the theater deception plan, and kept Iraq focused on the Wadi Al Batin and the amphibious assault on Kuwait. One Iraqi division commander stated he received intercept reports from 7th Corps, but Iraqi signals intelligence collectors were severely hampered by their lack of English linguists. What few reports he received were probably limited. Without reports from higher, division commanders had to rely on organic resources for intelligence. The 27th Inf Div commander, having lost his

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65 VII Corps MSC LNO trip report, Mar 91, and IAD Battlefield Reconstruction Input, 30 Mar 91.
the 52nd Armd Div. No evidence that 12th Armd Div knew two weeks prior to G-day that an attack west of the Wadi Al Batin by French forces was possible. It is also probable that the ground attack on 24 Feb caused the 12th Armd Div and the Tawakalna Mechanized Division to shift forces that night; consequently, some warning occurred, but it was incomplete. For instance, the 12th Armd Div did not know the attacking Coalition forces were US, nor did they know the speed or direction of the attack. If that information had been available, it is unlikely the 50th Armd Bde Commander would have taken a nap three hours before being overrun. Similarly on 26 Feb, reporting of the impending approach of Coalition forces certainly caused the Medina Armored Division to deploy a brigade to the north as a blocking force. It is unlikely, though, had timely, complete intelligence been
available, that the brigade commander would have chosen to eat a meal just before having his brigade destroyed by 1st Armd Div.\textsuperscript{72}

As noted previously, Iraq had a vast array of collectors, but once it lost control of its airspace, airborne collectors couldn't fly. There is evidence some commanders attempted to use patrols, but they were never deep enough into Saudi Arabian territory to identify VII Corps forces. Even if intelligence was available, it was obviously inaccurate, incomplete, and not transmitted reliably and rapidly. Finally, the speed of the VII Corps attack may have made any reaction futile. As one prisoner from a front line infantry division pointed out, "Even if we knew what you were doing, there was nothing we could do about it."\textsuperscript{73}

\begin{center}
\textit{"...have not taken a shower since November 17, 1990."}
\end{center}

\begin{flushright}
-An Iraqi soldier from the 102nd Infantry Brigade
\end{flushright}

\textsuperscript{72} Interview of G2, IAD by G2 Ops, VII Corps on 10 Mar 91.

"Fire methodology is simply, fire until told to stop with no set pattern."
- Artillery Bn Cdr, 48th Inf Div

d. Iraqi Army artillery operations and their effects on the Coalition ground campaign. Throughout the air and ground campaigns, Iraqi artillery units were plagued with a number of problems, not the least of which were deadly air strikes and the withering effects of artillery counter-fire. An example of the lethality of the combined effects of Coalition air and VII Corps artillery is found in the destruction of the 48th Inf Div Arty. Statistics from the 48th Inf Div artillery commander who was captured and questioned by the 1st (UK) Armd Div indicate the following: On 16 January there were 100 pieces of artillery in his sector; on 23 February there were 90 tubes; by the time the Division was in close contact (24 Feb), there were no tubes left. His artillery was destroyed by a combination of artillery raids, artillery preparatory fires and Coalition air strikes. (See Initial Iraqi artillery locations in Tab I.)

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74 48th Div Artillery Commander, Debriefing Report and VII Corps G2 LNOS' visit to 1(UK)AD, Trip Report, Mar 91. Tab I provides a small sample of initial Iraqi artillery locations obtained from data collected from VII Corps G2 Targets.

75 VII Corps G2 Liaison Officer Trip Report, Mar 91.
Iraqi Artillery was the one battlefield operating system that definitely matched or out-gunned Coalition artillery and could have been more decisively employed. In tube counts, weapons ranges, diversity of ordinance and modernization, the Iraqi artillery arm was (on paper) superior to Coalition artillery. For example, Iraqi Division Artillery consisted of three 18-tube battalions for direct support of the maneuver brigades and a fourth battalion for general support. (In comparison, a U.S. division's organic artillery consists of three direct support (DS) battalions, each with 24 guns, and an MLRS battery of nine launchers for general support). "These (Iraqi) battalions operate directly under the division commander and are
controlled by the division artillery officer." Frequently, corps-based artillery was attached to the Iraqi division to provide even more gun tubes. The type and caliber of the artillery in these reinforcing units varied, but most cannon systems were 122, 130, 152, or 155 mm cannon systems. Often, a 120mm mortar battalion, with three batteries of six mortars each, was assigned to the division artillery group. Regimental artillery battalions were free to fire and engage attacking forces at will. "The division artillery officer can also order other battalions within the division to provide fire support for units under attack." 

Iraqi artillery doctrine is a composite of two influences: British and Soviet. Battlefield examples included deployments patterned after known Soviet and British practices. A Soviet-style artillery battery deploys to the rear of the infantry regiment in a semicircular formation with artillery pieces spaced thirty to forty meters apart with the battery command center located fifty to seventy meters from the artillery pieces." Both Soviet and British-style artillery batteries are deployed to the rear of the infantry regiment in a lazy "W,"
"V" or linear formation with the artillery pieces spaced forty to fifty meters apart and the command center located sixty to seventy meters behind the formation. Both types of formations were found on the battlefield. All artillery units were organized by separate formations of light artillery, medium artillery and heavy artillery - from the front lines to the rear, respectively.

Artillery officers are trained in fire direction computations, preparation of range cards and artillery fire support procedures. Enlisted soldiers are trained in loading procedures, maintenance, troubleshooting and firing of artillery pieces. All Iraqi artillerymen become familiar with as many as fifteen different indirect fire systems from mortars to self-propelled artillery. They also had to learn on systems made in many different countries, e.g., Yugoslavian, Brazilian, French, and of course British and Soviet.

The 120mm mortar, 122mm howitzer, and 130mm field gun were the most common indirect fire weapons guns found in the Iraqi artillery inventory. The Iraqi inventory also included the South African G5 155mm gun-howitzer, the Austrian GHN-45, 155mm howitzer, the French GCT 155mm howitzer (SP), the Brazilian Astros MRL, and an unidentified Soviet-built multiple rocket

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80 Ibid.
81 Ibid.
launcher system. These systems outranged their counterparts in the Coalition artillery inventory. The GHN-45 gun-howitzer artillery system was the "mainstay" artillery system employed by the Iraqis for deep battle engagements. The GHN-45 gun-howitzer pits were routinely spaced fifty to sixty meters apart. The gun pits were round in shape with a roughly cut two-to-three meter high berm. Many gun pits were poorly dug and obviously done in haste. Artillery ammunition shelters were placed five meters to the left of each gun pit. Ammunition storage shelters normally contained seventy rounds, and alternate ammunition bunkers fifteen meters to the rear contained seventy to eighty rounds. The Iraqi GHN-45 firing batteries all contained 300 rounds in their central storage bunkers. These batteries, with an extended range capability (assessed at 39 kilometers), held a mix of mostly rocket-assisted high explosive and smoke rounds.

The average Iraqi gunner was not brawny, as one would expect. The lack of stature may have severely degraded their ability to "hump" projectiles in a rapid fire

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82 Ibid.
83 Interview of S02, 1st (UK) Armd Div by G2 LNO, VII Corps, 6 Mar 91.
84 Ibid.
85 Ibid.
86 Ibid.
situation. Closer examination of this point may discover that a lack of a viable physical training program, plus several weeks or months of poor rations and a high threat environment would degrade their ability and willingness to "hump" projectiles.

"The decision, when and where to use chemical weapons, comes from the highest level of the government."

- Artillery Forward Observer, Tawakalna Mech Inf Div

Several senior Iraqi officers stated chemical munitions would not be used against Coalition forces out of fear of large scale retaliatory strikes by Coalition forces. Others believed that the Iraqis did not employ chemical munitions because their own forces were severely under-equipped to survive or operate in a chemical environment. Some sources argue that the Iraqi artillery and indirect fire systems were so severely attrited by G-day that they could not coordinate or come close to massing their artillery fire to achieve any significant

87 Ibid.

88 Op. cit., MSG, 202nd Mi En, Joint Interrogation Facility-West (JIF-W), Subj: Artillery Training; Use of Chemical Rounds, cite #0207-91, undated. Iraqi division level artillery units are capable of delivering chemical munitions. However, the commander has no authority to use them. Employment of chemical munitions are monitored by an officer from the special transportation unit.

89 Ibid. Several Iraqi POWs captured did not possess protective masks or any type of chemical protective garments. Some Iraqi soldiers hid what little food and/or personal belongings they had in their empty mask carriers.
ground force advantage. In fact, this was the Corps G2 estimate briefed to the CG, VII Corps on 15 Feb 91. Iraq's artillery-delivered chemical threat was thus overrated for most of the pre-G-day period.

Anti-aircraft artillery batteries were relatively near artillery firing batteries (two or three kilometers). This supports the US opinion that the Iraqis placed considerable importance on their indirect fire systems. In effect, artillery enjoyed dedicated air defense coverage.

A number of factors contributed to the ineffectiveness of Iraqi artillery. Problems associated with command and control were clearly evident. An artillery firing battery command post could speak to the gun positions, but no feedback communication link existed (only one-way communication). One-way communication left no way to acknowledge receipt of orders, request for clarification, or send status reports. There were no radios, vehicles nor designated

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90 Interview, VII Corps G2 Liaison Officers with 1st (UK) AD, 3 Mar 91. Intelligence analysts postulate that the Iraqi lack of targeting intelligence, plus its degraded fire control system (by coalition artillery fire) would not support effective employment of chemical munitions.

91 Iraq's chemical artillery delivery means required specially trained troops from special chemical firing battery teams. (See paragraph 2g., "Iraq's non-use of chemicals.")

92 Op. cit., Interview, VII Corps G2 Liaison Officers with 1(UK) AD, SQ2, 3 Mar 91, and MFR, 513th MI Bde (JDC), Subject: Source Deb briefing, JDC Rpt #973, dated 17 Mar 91.
couriers at the firing gun pits. There was no evident automation for target acquisition, or fire direction control. Individual artillery soldiers had personal weapons and two or three ammunition magazines. Other pouches on the soldiers' load bearing equipment were empty. In numerous cases, those soldiers issued cleaning kits did not use them. This is a strong indicator that both discipline and morale had deteriorated in the front line artillery units. Time not spent cleaning was spent keeping records as most firing positions contained abundant, meticulous records, books, maps, hand-drawn charts and overlays.

Maintenance of artillery systems was also a problem. "Gun Kits" were sparse and few gun crews had tools of any kind at their location. The Iraqis probably relied heavily on centralized maintenance for their artillery tubes and gun firing mechanisms. Centralized maintenance support requires contact teams and the evacuation of equipment; however, their back-haul capability was severely degraded by the Coalition air campaign.
Poor logistical support also hindered the Iraqi Army's successful employment of artillery and this became progressively worse the closer a unit deployed to the front. Transport and equipment necessary to move artillery and ammunition around the battlefield were in high demand but short supply. Available transport was primarily used to resupply units with food and water. As with other units, artillery units closer to the Wadi Al Batin fared better for food and water because they were near military supply routes (MSRs) and logistical sites. The only water found at most battery sites (supporting front line infantry units) by the 1st (UK) Armd Div was the water carried by the soldiers in their canteens.96

The Iraqi front line artillery did not employ decoys, or make effective use of camouflage to provide concealment for their indirect fire assets. The lack of camouflage nets and the poor use of available camouflage did little to provide concealment. Many nets were just draped over the guns.97 This no doubt contributed to the success of the air campaign and the artillery raids.


97 Ibid; VII Corps PERINTREP #019, 24 Feb 91. Recent Reconnaissance in the MARCENT (not VII Corps) sector revealed mockups of radars, artillery pieces and tanks. The artillery mockups were simply tubes, protruding from revetments/dug-out positions.
Iraqi artillery assets were extremely ineffective against the VII Corps offensive. VII Corps artillery raids and pre-offensive preparatory fires destroyed the Iraqi ground forces' ability to integrate or mass artillery fire. Units were paralyzed by the agility of the VII Corps attack.\textsuperscript{98} When Iraqi artillery was brought to bear, it fired sporadically at advancing VII Corps elements.\textsuperscript{99} The incoming Iraqi artillery fire appeared to be predetermined fire on registration points, and seldom, if ever, was adjusted or shifted when elements of VII Corps passed the 55-gallon drums used as

\textsuperscript{98}\textit{Ibid.}

registration points. Iraqi front line elements either did not deploy their forward observers or VII Corps elements successfully captured or destroyed Iraqi ground reconnaissance units before they could call for fire.

The speed, maneuver, and devastating fire power demonstrated by VII Corps forces overwhelmed and surprised the Iraqi artillery forces. The technological advantage of Coalition fire control systems, superior artillery logistical support, and mobility, combined with VII Corps' highly trained crews and leadership, weighed heavily against successful employment of Iraqi artillery.
The Iraqi logistics squeeze. Iraqi officers have indicated that the Army initially had a functioning logistics system which provided "spartan but livable rations" to its units. However, the Coalition air campaign resulted in a systematic loss of transport vehicles, lines of communication (LOC) interdiction, and destruction of the Iraqi infrastructure (in towns like Basra), stressing the system "to the breaking point." Some commanders reported that they had accumulated supplies "adequate for between one week and one month, but that the duration of the air campaign eventually caught up with them." Several of them even said that "the ground campaign was unnecessary, and that, had the air campaign continued for two or three more weeks longer, the Iraqi Army would have been forced to withdraw due to logistical strangulation." 

One theme that is prevalent in the interrogation reports is that the Republican Guards received more than just the bare essentials. There is a correlation between unit "prestige" status and the quantity and quality of supplies. The conscripted infantry units occupied the bottom rung of the supply priority pipeline ladder, the armored units were in the middle and the RGFC was at the top.
Foodstuffs: Although reports of Iraqi soldiers living on grass and rainwater cannot be confirmed, it is true that the soldiers’ daily ration was poor and became worse as the Coalition air campaign interdicted supply lines. The daily ration consisted of a few pieces of poor quality bread, a bowl of rice, tomato and vegetable broth, some dates, fruits and vegetables. Once the bombing started, fresh fruit and bread were given out once every three or four days. Some dried goods such as rice and beans were stocked in 20 to 25 day supplies at the unit. However, this was not always the case. In the Republican Guards sector, the 3rd Armd Div found a buried semi-trailer full of quality foodstuffs, and 1st Armd Div found another trailer full of canned mackerel and crackers – indicating the RGFC certainly wasn’t running short of food. The long distances front line units had to travel to get fresh food and other supplies exposed their transportation assets to the omnipresent threat of air attack. For example, the 48th Inf
Div had to travel over 100 kilometers to get food and the 52nd Armd Bde's closest water point was 30 kilometers away.

**Petroleum, oil, and lubricants:** The front line divisions suffered from fuel and oil shortages. One commander had to falsify his consumption reports to show that each tank consumed its maximum quota of oil just to keep enough oil on hand for those tanks that did consume excess quantities. One tanker said his vehicle hadn't been refueled since his deployment to front line positions in November.

**Ammunition:** Huge caches of ammunition were found everywhere on the battlefield. It is perhaps the one class of supply for which there was no shortage. Units deployed with their basic loads and massive ammunition dumps were constructed in the months before the air war. Because of the nature of the war, very little ammunition was expended; Iraqi units and their ammunition dumps were overrun before much ammunition could be fired or evacuated. However, significant ammunition losses
did occur - due to air strikes prior to G-day.

Major end items: Complaints about the quality of the Iraqi arsenal sprinkle the EPW reports, "...Our Chinese-made M-46 howitzers were fourth quality...","110 "...Our Soviet tanks were second hand and rusty under the paint...","111 "...Our Chinese tanks burned ten liters of oil moving ten kilometers..." Some of the equipment had been warehoused
without maintenance since the Iran-Iraq war. The average soldier couldn't have had much faith in his equipment, especially when he stacked it up against American technology. One theme that is repeated many times over is "...The Republican Guards get the best;" they had T-72s (the most modern tank in the Iraqi inventory) and BMP-1s.

Maintenance and spare parts: Parts were scarce and difficult to obtain after six months of the UN-imposed trade embargo and after over a month of aerial bombardments of supply warehouses. Tanks had to be tow-started because there were no spare batteries (there are no battery manufacturing plants in Iraq). Damaged tanks and APCs evacuated to maintenance workshops were often not returned. Officers had been taught that units with a fifty percent or less readiness rate were supposed to be pulled back for refitting, but this didn't happen. One armored brigade was down to fifteen tanks (from an authorized 90) and it remained deployed. A sergeant reported that his 100mm (sic) mortars were broken for over four months and no spare parts were available for repair. The demand for spare parts

113 Ibid.
114 Ibid.
115 Ibid.
116 MSG, JIF-West, Subject: Iraqi Armor Warfare Training, Equipment, Maintenance, Cite: #0229-91, No date.
117 MSG, 202nd MI Bn Fwd, Subject: Iraqi Division hides more troops, DTG 061200Z Feb 91, p. 2.
was lessened somewhat by the fact that vehicles hiding from air attack couldn't be driven much and therefore couldn't break down. One colonel complained that he had to beg a friend in the Republican Guards for spare parts. Another reported visiting a well-stocked warehouse in Basra, but that he had to be escorted by a Republican Guards officer in order to get supplies.
Transportation: In losses of transportation assets, no unit escaped unscathed in the air war. Coalition air attacks turned the Basra highway into "The Highway of Death." Trucks had to be driven at night, but this tactic met with only limited success. The lack of transportation contributed to the negative psychological impact of the war on Iraqi soldiers. For example, one unit had to wait four days to evacuate its dead because there weren't any trucks available.

Logistics support certainly was curtailed by the Coalition air war. The strength of front line units diminished on a daily basis and the lack of essential food, water, fuel and services acted as a combat multiplier for the Coalition. It appears there were ample stocks for some units, especially the Republican Guards, but the overall situation was close to desperate when the ground war commenced. Infantry units that were intended to delay the Coalition forces, and shape the battlefield for Iraqi counterattacks, were in the worst shape at the most critical time. Consequently, they failed at both missions - ensuring failure for designated counterattack forces. This is indeed the string that unravelled the stocking of the Iraqi plan.
f. Iraq's non-use of chemicals. The Iraqis possess many chemical delivery systems, including aircraft sprayers, bombs and missiles, multiple rocket launchers, artillery (from 122mm and larger) and possibly mortars and RPG-7 rockets. However, no chemical weapons were used in the KTO and no chemical rounds were found in captured munitions stockpiles. There are several possible explanations for this, the most likely being Baghdad's fear of US and multinational Coalition forces retaliation for the use of the chemical weapons. Interrogations of senior Iraqi officers revealed they "...were unanimous in their assertion that there was no intent to employ chemicals, and that there were no chemical munitions issued to their divisions. Most believed that Saddam Hussein recognized that President Bush would react in a manner unacceptable to Iraq if it employed chemicals. None of the commanders expressed any misgivings about their inability to employ chemicals; most regarded them as a bigger threat to (their own) poorly equipped Iraqi soldiers."
VII Corps received several spot reports of pending chemical use from ARCENT before and during the battle, specifically mustard or tear gas. It is doubtful the existing weather - rain and high winds from the southeast - would have supported Iraqi use of chemicals. Furthermore, none of these reports were ever verified by any evidence.

One report from an artillery officer of the Tawakalna Division indicates that officers of the 117th Artillery Bn were told that chemical weapons would be used if Coalition forces penetrated into Iraqi territory. However, "...no further instructions concerning chemical weapons were ever passed down" and no chemicals were issued to the unit.

This point is corroborated by other EPW interrogation reports which reveal that chemical weapons are strictly controlled by Baghdad and the Army Commander-in-Chief. No chemical munitions are kept at division level and are only brought to the firing units by special transportation companies. Although division level artillery is employed to deliver chemicals, the artillery commander has no authority to use them. In fact, during chemical fires, the firing unit is supervised by an officer associated with the special transportation unit.

123 Battle Captains’ Journal, G2 Operations, VII Corps, and ARCENT INTSUMs.


The Iraqi commanders' fear for their own poorly equipped troops is well founded. Many Iraqi soldiers only had masks, but no protective overgarments\(^\text{126}\) and there were complaints about the poor condition of decontamination kits.\(^\text{127}\) Many mask filters hadn't been changed in years and several units reported that their vehicles' chemical filtration systems were broken.\(^\text{128}\)

Some US and Allied intelligence officers speculate that even if the enemy had chemicals and permission to use them, its lack of targeting intelligence and its degraded fire control systems would have prevented the massing of chemical fires on rapidly moving Coalition units.\(^\text{129}\)
He and his men feared the B-52s more. These aircraft ... came every evening at sunset and were able to drop huge amounts of bombs."

- Brigade Commander,
3rd Armored Division

Effects of the air campaign on the Iraqi Army in the VII Corps area of operations (AO). The air campaign, coupled with the embargo and faulty doctrine, had a cumulative destructive effect on the Iraqi military. The air campaign, by targeting military equipment, supply depots and other key components of the Iraqi military infrastructure, exposed the fragility of the Iraqi repair parts supply/maintenance system, resulting in a military force unprepared for mobile armored warfare. Furthermore, the air campaign destroyed soldier morale and is considered by an Iraqi source to be the principal cause for the high rate of desertion from the KTO. Individual combat effectiveness was significantly reduced for those who remained at their place of duty, with a cumulative severe negative impact on unit combat readiness and effectiveness. According to our sources from the 27th, 30th, 48th, 52nd, 31st, and Hammurabi Divisions (from the 'expendable' to the elite), the air campaign was devastating.
The intensity and length of the air campaign was completely unexpected by the Iraqi forces. Initially, soldiers were concerned about their families in the north that lived near strategic targets attacked early in the air campaign. But soon their attention reverted to their own situation as the Coalition quickly gained air superiority and attack operations against ground forces increased in scope. The constant air attacks created a frightened, depressed and very restive Iraqi soldier.

"War weariness, harsh conditions, and lack of conviction of the justice of the invasion of Kuwait caused widespread desertion in the Iraqi Army prior to the air campaign, but in some units the genuine foot race north really commenced when the bombs began to fall." Most Iraq units went into G-day at fifty percent strength. The best available pre-G-day estimates of deserters and casualties are listed in the chart below.
Equipment losses were high relative to personnel losses because Iraqi soldiers either heeded Coalition PSYOPS leaflets warning them to stay away from their vehicles, or because they quickly figured out that tanks and armored personnel carriers (APCs) were not safe places to sleep.\textsuperscript{133}

In the front line divisions, equipment attrition due to the air campaign appeared to be extremely heavy, with all sources reporting that tanks, trucks, water and fuel tankers, APCs, and anything else that moved were systematically targeted by Coalition aircraft with great success (See table). "Artillery pieces (not included in the table), suffered a similar fate, though we do not have figures that are as precise as those for tanks, APCs, and trucks."\textsuperscript{134}

\textsuperscript{133}See Tab I-1 for reported Battlefield Damage Assessment (BDA) estimates by G-Day. See Tab I-2 for the BDA rollup.

Irish air defense operations were virtually ineffective. Early attempts at coordinated air defense were complicated by the initial air campaign when the early warning network was effectively destroyed. According to the commander of the AAA elements of the 31st Inf Div, orders to engage a target came only from Corps level, by the Corps air warning radar network.135 Once the early warning network was destroyed, Coalition attacks came without warning, surprising front line units. AAA equipment was often substandard, antiquated, and in some cases, only recently pulled out of long term storage without being overhauled or cleaned. Training was clearly substandard; unit air defense personnel in the 26th Inf Div received only one live fire training session and no target practice at all during their deployment to the KTO.136 Morale of air defense soldiers was also low. All seventeen members of the Strella (the SA-
shoulder-fired SAM) air defense missile platoon of the 52nd Armor Brigade deserted prior to the start of the ground campaign. The Republican Guard Forces Command had more sophisticated air defense weapons, and engaged Coalition aircraft with AAA and SAMs, including the SA-6. However, their air defense effort broke down when the gunners realized that firing their weapons meant almost certain air attack on their own position. Furthermore, Iraqi attempts to defeat Coalition SEAD measures (both EW and HARM missiles) through various techniques, only further reduced their ability to engage Coalition aircraft.

The effectiveness of the air campaign varied significantly according to aircraft type. The two aircraft which clearly stand out in the eyes of the Iraqis are the B-52 and the A-10. The B-52 was probably the least accurate aircraft in terms of ordnance delivered. Imagery indicates they rarely destroyed or even hit a significant tactical target. However, the B-52 bombardments were the most important factor in pre-ground war desertions. Men were horrified when they heard the B-52s commence their bombing runs. The sound effects alone spawned
such suspense and fear that one soldier called the B52 "something extraordinary."\textsuperscript{141}

The A-10 earned the respect of the Iraqi soldier who was often amazed by its accuracy. According to some soldiers, "...the A-10 never misses."\textsuperscript{142} The soldiers quickly figured out that tanks and equipment were the targets of choice for the A-10. Accordingly, they chose not to sleep in their vehicles and built their foxholes away from their equipment. The 52nd Armored Brigade, an element of the 7th Corps reserve, had two battalions exposed (not revetted or camouflaged) at the start
of the air campaign. By the end of the first day, the unit had lost 13 vehicles to A-10s; most were critical fuel and water tankers. Resupply and refueling operations became extremely difficult, virtually immobilizing the unit. Perceived by the Iraqi commander to be by design, the air attacks would then concentrate on trapped armored vehicles, destroying three to four each day. By the commencement of the ground offensive, the unit was combat ineffective.\textsuperscript{143}

The Commander of the 50th Armored Brigade/12th Armored Division, the theater reserve, went to great lengths to protect his armored vehicles after losing sixty percent of his support vehicles to the air campaign. Through digging in and rotation through multiple revetments, he succeeded in losing only 8 tanks prior to G-day.\textsuperscript{144} The 50th Armored Brigade moved two mechanized battalions into new positions on the morning of 25 Feb. When 'the commander's nemesis' (an A-10) showed up around sunrise, it circled slowly overhead, then commenced to attack. Seven other A-10s joined the attack, and soon ten to twenty APCs and three of his tanks were destroyed. The two tank battalions in the task force were also attacked while en route to new positions by A-10s and rendered combat ineffective.\textsuperscript{145}
Support vehicles were the most sharply attrited; especially critical resupply trucks. Movement attracted attention and resulted in almost certain attack from the air. Disruption of resupply operations resulted in extremely harsh living conditions; especially for those units on the front line that existed at the end of the supply chain. Consequently, morale deteriorated further.

Units attempted to reduce the vulnerability of their equipment to air strikes by various methods. Multiple revetments were constructed for each piece of equipment for regular rotation. Wooden dummies were made to divert pilots away from real equipment and oil drums were set on fire to simulate air damage.\(^\text{146}\) Some units resorted to burying their armored vehicles. This technique did not work because the tank and APCs, once excavated, wouldn't start due to fouling from dirt and dust.\(^\text{146}\) Iraqi soldiers became uniformly afraid of air raids. Attracting attention was a serious mistake. Whether it was moving on the roads, sleeping in armored vehicles, using a radio (Iraqi perception, but not a reality), or defending a position with AAA, all activities resulted in likely attack by air. Very little could be accomplished; most time was spent just

\(^{146}\text{Op. cit., MSG, 202nd MI Bn, JIF-W, cite \#0261-91, DTG 041134Z Mar 91.}\)
trying to survive. Even for combat veterans, the bombing was the worst thing they had experienced in combat. The Iraqi war weariness going into the war, combined with the air campaign, destroyed the will to fight in many soldiers and units. Relief for most of the Iraqi front line divisions came with the start of the ground campaign which offered them their first chance to surrender.
Effects on the Iraqi Army of the PSYOPS campaign. Over half of the Iraqi EPWs interrogated had been exposed to the PSYOPS leaflets. Some admitted that the leaflets had a significant effect on their less educated soldiers, particularly those leaflets that apprised the Iraqi soldiers that they would be fed and allowed to bathe, and that they would be well-cared for by their Islamic brothers. Four of the five Iraqi EPWs that heard radio broadcasts state that "surrender instructions influenced their decision to defect or surrender." The Coalition forces "invitation" leaflets were far more effective than the leaflets that communicated the threat of destruction or total annihilation. One division chief of staff states that his troops received the leaflets telling them of the truth of President Bush's insistence that the United States has nothing against the Iraqi people or the soldiers themselves. Almost all of the EPWs admitted that they were keeping track of the crisis and negotiations to resolve it...
by listening to commercial, Arabic-language broadcasts of the British Broadcasting Corporation (BBC), Radio Monte Carlo and the "Voice of the Gulf." Nine of the ten EPWs interviewed stated that Radio Baghdad was neither reliable nor believable.\textsuperscript{153} Iraqi commanders issued orders that forbade soldiers who owned radios to listen to them. This was an attempt to keep front line soldiers in the dark. "Few commanders enforced the order, and, even fewer soldiers obeyed the order."\textsuperscript{154} Some stated that their men were well aware of the last-minute Moscow negotiations prior to G-day. Leaflets depicting the B-52 aircraft, and the actual appearance of the B-52s over Iraqi positions had a significant effect, instilling great fear in the soldiers. Nearly all Iraqi soldiers carried Coalition force leaflets, despite threats of death if caught with these leaflets.\textsuperscript{155} A sampling of EPWs indicates ninety-eight percent were exposed to Coalition forces PSYOPS products (leaflets, radio broadcasts, loud speaker broadcasts). Eighty-eight percent truly believed the PSYOPS message and seventy percent admitted that the PSYOPS message had influenced their action to desert or surrender to Coalition forces.\textsuperscript{156} See Tab D (PSYOPS Leaflet Examples).

\textsuperscript{153} Ibid, p. 3.
\textsuperscript{154} Ibid, p.5.
\textsuperscript{155} Ibid, p. 3.
\textsuperscript{156} Ibid, p. 5.
Desertion in the Iraqi Army. Desertion appeared to be the single largest personnel problem for Iraqi commanders (for some commanders, it was probably the largest problem). The causes were numerous (as were the desertions), but the most common reasons were war weariness, lack of conviction in the cause, and the devastation caused by the air campaign. Unlike the logistics squeeze, desertion affected all units.

"Our men were unconvinced of the cause, worried about their families due to the bombing, suffering terrible hardships. They could desert, but we senior officers could not lose our honor."

-A senior Iraqi officer (EFM)

The Iraqi Army that deployed to the KTO was an army that had waged a long, bloody war (1980-88) with Iran. With only a short respite, Iraq called up reservists and reactivated retired officers for deployment to Kuwait, many of whom were veterans of the Iran-Iraq war. These battle-hardened veterans may be better described as war weary. The Commander of the 50th Armd Bde explained the sacrifices of the Iraqi Army in the long war with Iran, stating, "We needed ten years to recover from that war." In an opposite view, one officer stated that units were very cohesive with high morale before the invasion of
Kuwait. However, after the invasion, morale had steadily decreased due to the invasion of an Arab brother's country. According to EPW reports, by late January or early February, the exodus had become so large that Baghdad ordered the enforcement of the standing regulation requiring the execution of deserters. The order was carried out in some units, and ignored in others, depending upon the commander. In the 27th Division, which was the focus of the deception plan (they defended the Wadi Al Batin) and therefore targeted twenty times a day by air strikes, there was simply no time for personnel to police the deserter problem. Twenty-six civilians, probably Ba'ath Party members, wearing military uniforms without rank were sent to the 27th Inf Div and placed under the control of the "political officer." They would attempt to send deserters back to their units. However, if a soldier refused, these men could kill them. "Even junior officers were deserting, and most of them were sympathetic to the plight of the men. In the 48th Division, several deserters were executed. Some sort of rear area patrols, called "Death Squads" by US sources, apparently were active in the Iraqi rear."
Preliminary figures, derived from multiple EPW reports, indicate that desertions were causing serious problems in units across the board, as shown in the table below.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>Strength upon Deployment</th>
<th>Total Desertions by G-Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>48th Inf Div (7th Corps)</td>
<td>5,000</td>
<td>1,000</td>
</tr>
<tr>
<td>27th Inf Div (7th Corps)</td>
<td>8,120</td>
<td>4,000</td>
</tr>
<tr>
<td>52nd Arm Bde (7th Corps)</td>
<td>1,125</td>
<td>550</td>
</tr>
<tr>
<td>50th Arm Bde (7th Corps)</td>
<td>1,800</td>
<td>360</td>
</tr>
<tr>
<td>Hammurabi Armd Div (RGFC)</td>
<td>10,000</td>
<td>5,000</td>
</tr>
</tbody>
</table>

A senior Iraqi officer stated that his division had two problems. First, the junior officers sided with the soldiers and ran away themselves. Second, the bombing was so bad that most officers had a hard time just doing their jobs. They could not effectively deal with desertion problems when they were just trying to survive.162

The air war further exacerbated the reasons cited above and brought with it a new dimension of anxiety—the family. Soldiers became more and more restive over the fate of their loved ones in Baghdad. The commander of the 50th Armd Bde recalled the beginning of the air war and stated that his unit was not initially attacked, but that his men were extremely worried for their families, and everyone tried to call home to
find out what was happening. Another commander stated that
the rate of desertion accelerated after the start of the air war
since the soldiers were worried that their houses were being
bombed. When the liberal combat leave policy of the Iran
war was revived, it backfired. Soldiers who went home on leave
simply stayed there more often than not.

(U) Desertion and low morale in Iraqi units also became
combat multipliers for VII Corps. The impact of reduced manpower
is obvious: not enough trained soldiers to man the weapons
systems assigned to the unit or to defend assigned sectors.
Desertion, though, was not the sole reason for combat
ineffectiveness. Some units which produced EPWs that claimed
fifty percent manning, fought aggressive, sharp battles against
VII Corps. However, in predominantly the front line infantry
divisions, desertion was a significant factor in the list of woes
contributing to their poor fighting quality.
Summary snapshot of the Iraqi set. To summarize, the average division-sized unit of the Iraqi Army deployed against the VII Corps approximated 7,500 men, and was attrited to a strength of 4,100 by G-day. If these figures are reflective of the Iraqi army throughout the KTO, then "the 42-division force so accurately tracked by ARCENT G-2 could well have consisted of only 200,000 men by G-day."\(^{166}\)

As cited earlier, the overwhelming success of VII Corps forces can be attributed to a combination of combat multipliers and inherent offensive advantages. This combination broke down the fiber of the Iraqi Army; consequently, by G-day it couldn't effectively employ the available force. To their credit, the Iraqis didn't completely break until they faced ground combat against the awesome speed and firepower of the VII Corps advance. In the case of the Jihad Corps and the Republican Guards, they maneuvered and fought, but they were still overrun.

Dominance on the battlefield by the Coalition forces can't be attributed to one specific armed service, or action in the Iraqi perspective. However, air power, superior technology, and strategy should receive the lion's share of credit. Additionally, the Iraqis admit superior training and care of Coalition soldiers were keys to the success of Coalition

\(^{166}\)Ibid.
These keys are those areas emphasized by AirLand Battle Doctrine, where advantages are maximized with combined and supporting arms and sister services. The Iraqis could not begin to match the battlefield synergism achieved by the sophistication and integration of the Coalition's battlefield operating systems (which are routinely practiced). The employment of sister services to complement and reinforce each other is something Iraq has rarely practiced. Fear, secrecy, and parochialism were blamed for the failure of the Iraqi Air Force preparedness for war and, therefore, not able to support the army.\(^\text{168}\) The lack of integration between Regular Army and Republican Guards units is another example of a failure to integrate and synchronize forces.\(^\text{169}\)

Captured senior Iraqi officers now comprehend that there may be less merit in quantity than quality when it comes to the soldiers and equipment in the field.\(^\text{170}\) Perhaps the Coalition overestimated the Iraqi capability to employ its large, mostly modern arsenal at the start of the conflict.
However, by "worst casing" the Iraqi threat, lives were saved. It must be remembered that the Iraqis had proven themselves capable in the Iran-Iraq war. As one VII Corps staff officer pointed out, "There is difference in fighting a war with a modernized Army vice fighting a war with an Army with modern equipment." In this war, the Iraqi ability to effectively employ its forces was denied by a synchronized, tri-service and multinational effort.

"One general officer and his staff walked some 60 kilometers in the direction that he believed would ensure his capture by the Americans."

-US interrogator, 513th MI Bde

\[171^{Acofs, G2, 18 Apr 91.}\]
4. Iraqi maneuver by VII Corps phases. The following paragraphs describe Iraqi deployment and subsequent actions within the phase time lines established by Coalition forces.

a. **Phase I** (8 Nov 90 - 18 Dec 90) [Movement to Tactical Assembly Areas (TAAs)]. On November 8, 1990, JCS ordered VII Corps to deploy to Saudi Arabia as part of Operation Desert Shield. Concurrently, Iraqi Forces in the Kuwait Theater of Operations had stabilized their ground organization after the 2 August, 1990 invasion. Republican Guard forces, which spearheaded the initial assault into Kuwait, pulled back to the Kuwait-Iraq border by mid-September. By the end of September, there were no heavy divisions along the Saudi-Kuwait border.
Mechanized and armored divisions were employed as tactical or theater reserves, with infantry divisions in positions along the border. However, eight of these nine front line divisions had a heavy brigade attached or under operational control. Throughout the subsequent extension of the defense to the west of Wadi Al Batin, the Iraqi General Headquarters adhered to this defense configuration of armored brigades as tactical reserves to the infantry division defensive line.

Once the Iraqis established their basic defensive posture, they continued to improve their positions. By the beginning of October, Iraqi activity in Kuwait had abated as they had completed their defense in depth. Subsequently, in addition to standard obstacles, such as revetments, tanglefoot, minefields, and fences, the Iraqis began to construct a series of fire trenches along the border late in October.

By September 21, the Iraqi Army had deployed the 1st and 5th Mech Inf Divs to eastern Kuwait (the 5th Mech Div in the vicinity of Ali Al Salem Airfield, and the 1st Mech Div in southeast Kuwait north of Mina Saud) as a potential response to any amphibious assault. To reinforce defense of the Wadi Al Batin, the Iraqis moved the 6th Armd Div further west. The

172 VII Corps INTSUM, dated 02 Oct 90.
173 VII Corps INTSUM, dated 29 Oct 90.
174 VII Corps INTSUMs, dated 21 Sep 90 and 17 Oct 90.
175 VII Corps INTSUM, dated 24 Sep 90.
10th Armd Div, which was garrisoned north of Al Amarah, deployed to northern Kuwait (near Rumaila/Al Rumaylah) in late August or early September.\textsuperscript{176} The 10th Armd Div was the premier Regular Army unit.

In addition to these movements, Iraq brought other forces south once the Coalition began deploying troops into theater. As early as September, two RGFC Infantry Divisions — the Al Faw and the Adnan — deployed to the vicinity of Al Basra.\textsuperscript{177} The 17th Armd Div, garrisoned in northeast Iraq, deployed to the KTO late in November.\textsuperscript{178}

Nowhere was the Iraqi buildup more apparent than in the western portion of the KTO (west of the Wadi Al Batin). As early as September, an apparent infantry division was noted over 100 kilometers west of the tri-border area.\textsuperscript{179} Closer to the KTO, two infantry brigades, each with its assigned artillery battalion, were in place to screen the Iraqi right flank. These brigades were from the 26th Inf Div and the Iraqis worked throughout October to close the gap between the tri-border area and this division. The division in the Wadi Al Batin, which has now been identified as the 27th Inf Div, began to extend its

\textsuperscript{176} VII Corps INTSUM, dated 12 Oct 90.
\textsuperscript{177} VII Corps INTSUM, dated 20 Sep 90.
\textsuperscript{178} VII Corps INTSUM, dated 29 Nov 90.
\textsuperscript{179} VII Corps INTSUM, dated 01 Oct 90.
positions westward in October. Additional infantry trenches were dug near the Wadi Al Batin and in early November an infantry brigade was deployed along a 25-30 kilometer frontage between the 27th Inf Div in the Wadi and the 26th Inf Div. Continuing the buildup, additional brigades were deployed as part of a new unidentified Inf Div at PT19814006, and PT03703066.

By the time VII Corps was ordered to deploy as part of Operation Desert Shield (8 Nov 90), the Iraqi forces had established a defensive line which ran from the Gulf coast to a point over 100 kilometers west of the Wadi Al Batin. As of 16 Nov 90, it was estimated the Iraqis had 27 divisions in theater, with over 400,000 personnel, 3,600 tanks, 2,300 APCs/IFVs, and 1,300 artillery pieces. This represented a dramatic increase in strength from the original invasion force.
### Initial Invasion Force

<table>
<thead>
<tr>
<th></th>
<th>Medina</th>
<th>Hammurabi</th>
<th>Tawakalna</th>
<th>SF Div</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tanks</td>
<td>312</td>
<td>312</td>
<td>222</td>
<td></td>
</tr>
<tr>
<td>BMPs</td>
<td>177</td>
<td>177</td>
<td>249</td>
<td></td>
</tr>
<tr>
<td>Artillery</td>
<td>90</td>
<td>90</td>
<td>90</td>
<td>72</td>
</tr>
<tr>
<td>Personnel</td>
<td>14,375</td>
<td>14,375</td>
<td>14,825</td>
<td>11,290</td>
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</table>

### The Iraqi Buildup

<table>
<thead>
<tr>
<th></th>
<th>2 Aug</th>
<th>8 Nov</th>
<th>18 Dec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>54,865</td>
<td>400,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Tanks</td>
<td>848</td>
<td>3,600</td>
<td>4,100</td>
</tr>
<tr>
<td>APC/IFV</td>
<td>603</td>
<td>2,300</td>
<td>2,580</td>
</tr>
<tr>
<td>Artillery</td>
<td>342</td>
<td>1,300</td>
<td>2,830</td>
</tr>
<tr>
<td>Divisions</td>
<td>4</td>
<td>27</td>
<td>32</td>
</tr>
</tbody>
</table>

(No APCs were used in the initial invasion.)

b. (U) **Phase II** (18 Dec 90 - 23 Feb 91) (Movement to Forward Assembly Areas (FAAs)).

As VII Corps assets began arriving in Saudi Arabia during December 1990, the Iraqis continued to reinforce ground forces in the KTO. The Iraqi goal was to build a strong defense against any contingency using armored or mechanized units for counterattack forces. For example, an unidentified heavy brigade was imaged at the Umm Qasr railhead on 30 November. By 3 December, the Defense Intelligence Agency (DIA) established that two brigades of this division had deployed to northern Kuwait. Concurrently, a new infantry brigade was identified.

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185 VII Corps INTSUM, dated 01 Dec 90.
occupying a wide frontage at NT77743600\textsuperscript{186}, west of the 25th Division (in the Wadi Al Batin), and east of the 26th Division (the western-most division of the newly extended defensive line).\textsuperscript{187} High levels of troop activity were also being observed at various Iraqi garrisons during the time VII Corps units began arriving en masse in mid-December. There were 37 division equivalents in Kuwait, with 32 division headquarters assessed operating in the KTO.\textsuperscript{188} There were possibly over 500,000 personnel, 4,100 tanks, 2,580 APCs/IFVs, and 2,830 artillery pieces. Within six weeks, the Iraqis had introduced into the KTO an additional ten divisions, 70,000 troops, 500 tanks, 500 APCs/IFVs, and 1500 artillery pieces.

Once the air campaign commenced (16 Jan 91), a steady stream of ten to thirty deserters a day crossed the border into the VII Corps sector. They complained of poor diet and living conditions, which worsened as the air campaign intensified. They reported units plagued with large numbers of desertions.

Nevertheless, VII Corps and ARCENT assessed the Iraqis to have a limited "spoiling attack" capability. Because of the proximity of Iraqi armor to the Saudi border, ARCENT further warned that the Iraqis could conduct limited

\textsuperscript{186}2915N04548E.

\textsuperscript{187}VII Corps INTSUM, dated 03 Dec 90.

\textsuperscript{188}VII Corps INTSUM, dated 17 Nov 90.
offensive operations with little or no warning. VII Corps G2 assessments supported this; however, the Corps projected that the logistics structure in the west could not support a multidivision deep-strike offensive. HUMINT reports in January indicated that the Iraqis were planning to attack Hafir Al Batin. The attack never came; at least not with units from west of the Wadi Al Batin.\textsuperscript{189} It came down the coast to Khafji.

Iraqi forces in southeastern Kuwait conducted a three-pronged attack into Saudi Arabia on 29 January. The most well known of these engagements was the battle for Ras Al Khafji (aka Khafji). The air campaign had been in progress for almost two weeks and the Iraqis had anxiously expected the ground campaign to start shortly after the air campaign.\textsuperscript{190}

The 5th Mech Div of the Iraqi 3rd Corps conducted three limited objective attacks during the night of 29-30 January. Fifty tanks attacked southwest of QS635614\textsuperscript{191} at 292151C Jan 91,\textsuperscript{192} and at 292356C, a company task force crossed the border at the same location. Simultaneously, a battalion task force attacked south on the coastal road and seized the unoccupied coastal city of Ras Al Khafji. Except for some

\textsuperscript{189}\textit{Ibid.}

\textsuperscript{190}\textit{Op. cit., MSG, 202nd MI Bn, JIF-West, Subj: IIR #2-340-2852-91, DTG unknown.}

\textsuperscript{191}23308N0474135E.

\textsuperscript{192}"C" is the local (Saudi Arabia) time zone designator, just as "Z" is the designator for Greenwich Mean Time (GMT).
elements remaining in Khafji, all Iraqi mechanized forces returned north of the border by 0947C the next day. The town was retaken by Coalition ground forces after stiff Iraqi resistance. Iraqi forces suffered high losses to Coalition air attacks during the withdrawal. The Commander, 5th Mech Div and one of his brigade commanders were reportedly recalled to Baghdad to explain the reasons for the high losses incurred. (Recalls of this type during the Iran-Iraq war, often led to the death of the callee.)

The reason for the attacks are unclear, but may have been to acquire definitive information on Coalition ground forces south of the Kuwait border. The attacks may also have been an attempt to draw Coalition forces into ground combat and direct attention from the embarrassing air campaign for which they had no effective defense. There was also speculation that the Iraqis were hoping to capture prisoners for political purposes. Regardless, the attacks resulted in the destruction of the 5th Mech Div and probably led the Iraqis to conclude that similar attacks should not be conducted in the future.
The Coalition air campaign was proving to be a resounding success. Iraq failed to successfully engage encroaching Coalition aircraft, and subsequently grounded aircraft after only a few days of action. Despite an increase in intercept, navigational, and night training earlier in November and December, the Iraqi pilots were no match for their U.S. and Coalition counterparts. In order to make the best of a bad situation, Baghdad began to send high performance Iraqi aircraft to Iran in late January. Over 100 aircraft took part in this exodus, and according to unevaluated HUMINT reports, the Iraqis permitted only novice, inexperienced pilots to fly to Iran. Evidently, seasoned pilots were too few and precious to let fall into Iranian hands. In February, as Coalition pilots began to systematically hit hardened aircraft shelters, the Iraqis began to disperse their aircraft away from their main operating bases. This worked to prevent catastrophic losses, but allowed the Coalition to punish Iraqi ground formations with impunity.
Early in January, ARCENT changed its assessment of Iraqi force identification and disposition making it similar to the DIA assessment. A graphical representation is above. Nevertheless, questions concerning unit identifications continued to surface throughout the entire campaign. Chief among them, were the identification of the front line divisions in the 7th Corps and the identification of the heavy brigades committed behind the front line (assessed at the time as belonging to the 12th Armd Div, now known to be the 52nd Armd Div) and the identification of the heavy brigades east of the Tawakalna Mech Div (then assessed to belong to the 17th Armd Div and the Tikrit Div, which we now know was the 12th Armd and 10th Armd Divs). During the punishing air campaign, the intelligence community
detected efforts by the heavy units and the Republican Guards to
disperse in order to escape devastation. This action further
complicated the order of battle.

"Manpower is not what makes an
army in modern warfare; you have to
have the equipment, and we didn't
have it in our units.”
- An Iraqi General

Throughout the air campaign, reports of
potential suicide air attacks against the Coalition forces
continued to trickle through intelligence channels. Older
model aircraft and volunteer Iraqi pilots were reportedly to
attack naval targets and logistics bases. Numbers as high as one
hundred aircraft were projected. No such attack ever occurred;
however, a prisoner has indicated there may have been some
substance to the reports. He claims to have heard of twelve
pilots preparing for a volunteer suicide mission who were killed
when the bunker they occupied was bombed.

Demonstrations by 1st Cav Div in the area of
the Wadi Al Batin/Ruqi Pocket in the final days before the ground
campaign were executed to reinforce the perceived Iraqi estimate
that the Wadi would be a Coalition main avenue of attack. In
support of this estimate, the Wadi was well defended and had obstacles laid out in depth, which were more sophisticated than those found further west. Reinforcing armor was positioned close to the Wadi and the equivalent of two Corps artillery brigades were concentrated to provide supporting fires into the Wadi. Reconnaissance in force and artillery/attack helicopter raids by 1st Cav Div immediately west of the tri-border area (PT5123)\textsuperscript{198} kept Iraqi attention focused on the Wadi and away from the eventual VII Corps main effort fifty kilometers to the west.\textsuperscript{199}

On 23 Feb, the first signs of offensive actions (excluding Arty/helicopters raids) by Coalition forces (the 2nd Armd Cav Regt) occurred in the 26th Inf Div sector. Security elements of the 26th Inf Div received artillery fire and observed A-10 aircraft looking for targets. An unidentified artillery battery was destroyed by a barrage of MLRS fire. In reconnaissance, the 2nd Armd Cav Regt encountered dismounted infantry but reports of this action apparently did not get back to the 26th Inf Div because there was no reaction.\textsuperscript{200} (In fact, previous demonstrations and attacks by 1st Cav Div, 11th Cbt Avn Bde, and VII Corps Arty also elicited no reactions.)

\textsuperscript{198}290734N463307E.

\textsuperscript{199}Message, 1st Cav Div, Subj: 1st Cav Input to VII Corps Battle Reconstruction, DTG 300658Z Mar 91, p. 3.

\textsuperscript{200}MSG, G2, 1AD, Subj: Battlefield Reconstruction from an Iraqi Perspective, dated 30 Mar 91, p. 3.
The ground campaign was ready to commence. The air campaign and cited Coalition ground actions had prepared the battlefield and supported the deception plan. Iraqi units (particularly the infantry divisions) were blind, hungry, and unable to move, attrited by desertions and casualties, fooled by the Coalition deception plan, and deployed according to their outdated plans. Across the border to the south, the Coalition had assembled and deployed the largest armored force since World War II into its forward assembly areas.
c. (U) **Phase III (24 Feb 91) [G-day].**  

(1) **Summary of Sunday, 24 Feb 91 (G-day).** 

Iraqi resistance to VII Corps attacks is light and ineffective. The Iraqi front line trace at the end of the day is from (1) NT6095 to (2) NT8260 to (3) NT6047 to (4) NT6040 to (5) NT9740 to (6) PT0034 to (7) PT6034. The US 2nd Armd Cav Regt and 1st Inf Div (M) make rapid progress through the Iraqi 26th Inf Div and 48th Inf Div sectors. PWs captured by VII Corps on 24 Feb number between 1500-2000. The Hammurabi Division moves out of its revetments and is assessed to be moving to local

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Phases III through V are written in the present tense.

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1) 294700N 453714E,  
2) 292758N 455044E,  
3) 292101N 4553705E,  
4) 291713N 453703E,  
5) 291705N 455954E,  
6) 291349N 460144,  
7) 291327N 463845E.
maneuver training as it remains near its deployment area.\textsuperscript{203}

The Iraqi plan to use front line infantry to slow the Coalition attack and develop the situation begins to go awry. The 1st Cav Div attacks the thick defenses in the Wadi Al Batin in support the deception plan, then breaks contact. The 1st Inf Div(M) overthrows the two forward brigades of the 26th Inf Div too rapidly for the 26th Inf Div to alert even the neighboring division. Reports of French tanks in the west are not clear. Baghdad mobilizes the theater reserve late at night to move to blocking positions on the road to Busaiya. (See Tab E-1 for this day's disposition of Iraqi forces (G-day Battlefield) and Tab F (Engagement Matrix by G-day) for a daily engagement matrix by G-day.)

(2) (U) Weather. The day is mostly cloudy with rain showers until 1000C. Visibility decreases from unrestricted at dawn to as little as 200 meters during the day due to blowing sand. Winds are southeast and range from 5 knots in the morning to as high as 25 knots during the day. Winds subside to 5-10 knots at 2100C.\textsuperscript{204}

(3) 26th Infantry Division sector (facing 2nd Armd Cav Regt and 1st Inf Div). The units of the 26th Inf Div are spread out in such a manner that they could be little

\textsuperscript{203}VII Corps INTSUM #212, 24 Feb 91, pg. 1. This assessment is now deemed incorrect; however, it is still unclear what the Hammurabi Div was doing.

\textsuperscript{204}Tab G-1 (Weather, 24 Feb 91); source: VII Corps Staff Weather Officer (SWO).
more than a speed bump for a VII Corps advance from the west. The division is deployed with two brigades forward: the 110th Bde at NT7144 and the 434th Bde at NT5745, covering a frontage of fifteen kilometers each. The third brigade is centered at NT8496, about forty kilometers north of the division's front and too far away to support the forward brigades. Front line trenches are extremely shallow (12-18 inches), fighting positions are constructed with little regard to terrain, not tied in, and vehicle revetments are unreinforced sand mounds. The 26th Inf Div apparently does not expect to be attacked. Early in the morning, 26th Inf Div must simultaneously defend against the flanking advance of the 2nd Armd Cav Regt, and the frontal assault by 1st Inf Div(M). The 26th Inf Div can only offer light resistance, losing 425 soldiers (PWs) at NT710600. The 26th Inf Div then loses contact with 2nd Armd Cav Regt. The 26th Inf Div loses another 894 PWs as 1st Inf Div attacks to create a breach. Leading elements of 26th Inf Div remain at NT6444 and NT6850. Several bypassed elements of 26th Inf Div

205 291921N454352E.
206 291956N453513E.
207 294727N460338E.
208 G2, VII Corps MSC Liaison Officer Team One Trip Report, dated 9 Mar 91.
209 292801N0454356E.
210 291922N453932E, 292237N4541202E.
211 VII Corps INTSUM #212, 24 Feb 91, pg. 1.
including moving tanks at NT693551 and a battalion withdrawing from NT620400 to NT620440, are engaged by 3rd Armd Div as it follows 2nd Armd Cav. They are quickly mopped up. The 26th Inf Div also receives strikes from the Coalition air forces, plus artillery raids and attack helicopter strikes from VII Corps. These and previous attacks probably cut the communications links between the 26th Inf Div headquarters and its subordinate brigades and battalions. There are no references in reports of prisoners from the brigade and division headquarters that indicate their knowledge of the beginning of breaching operations and the occupation of the 26th Inf Div security zone on 23 Feb, even though 1st Inf Div(M) and 2nd Armd Cav Regt overran their outposts and fired artillery on suspected positions that day. Only radio links remain and no one dares to violate strict radio silence orders, out of fear of Coalition forces direction finding and intelligence collection capabilities. The Division suffers from a high desertion rate; in one case an 1,800-man brigade is down to 1,000.

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212 292522N0454356E, 291713N0453817E, and 291923N0453818E, respectively.

213 Memo, G2, 3rd Armd Div, Subject: Battle Reconstruction Review, dated 12 Apr 91.

214 MSG, JIF-West Report, Cite #0212-91, IIR 2-340-2802-91, Feb 91, pg. 3.

215 Ibid.
Most Iraqi infantry soldiers have no intention of dying for Saddam Hussein. The average Iraqi soldier in the 26th Inf Div is far from being 'motivated,' and in some cases he is resolved to surrender without firing a shot. Some 26th Inf Div elements offer resistance and manage to bring fires on 1st Inf Div (M); however, 1st Inf Div categorizes this opposition as light resistance. Disaster looms for the 26th Inf Div. Its field fortifications are weak and shallow—manned by too thinly spread, unmotivated soldiers and inadequately covered by indirect fires; and its C² is disrupted and uncoordinated due to battle-damaged communications. At day's end its two forward brigades cease to exist.

48th Infantry Division sector (facing 1st Inf Div). The 807th Bde, the western brigade of the 48th Inf Div, sits adjacent to the breach sector near PT0344. It is probably the unluckiest unit in the Iraqi army. Its soldiers have been under air attack for 39 straight days. The Division's other brigades, the 802nd and 863rd, are at PT1945 and PT1356, respectively. There are few, if any,
operational tanks, even after reinforcement by a battalion (71st Armored) of T-55 tanks from the 52nd Armored Division. The 48th Infantry Division is also severely attrited by desertion. Consequently, its soldiers do little but huddle in their bunkers and await the Coalition ground attack.

The effect of American artillery preparatory fires are also devastating. The artillery commander for the 48th Infantry Division loses ninety percent of his artillery pieces on G-day. This is not known to the supported infantry. (The commander of the 807th Infantry Brigade later informed an interrogator that the speed of the Coalition advance prevented execution of his order to reorient the brigade's artillery.)

By the end of the day, the 48th Infantry Division is combat ineffective; its command and control is in shambles and US/UK ground units are rapidly approaching. (The 1st Infantry Division and 1st (UK) Armored Division will mop up the Division's remnants the following day.)

(5) 31st Infantry Division, 25th Infantry Division, and 27th Infantry Division sectors (facing 1st Cav Division). These divisions are probably the best dug in units in the 7th Corps due to their estimate that the Wadi Al Batin will be a primary avenue of
approach for Coalition ground forces. Their combined frontage covers 47 kilometers from PT6421 to PT1723.\footnote{224} For the past two days (22 and 23 Feb) these divisions are engaged by 1st Cav Div's demonstration in their security zone and by several intense night artillery and attack helicopter raids which strike targets throughout their depth. The Iraqis react when 1st Cav Div withdraws its tanks and patrols from the security zone at night, by sending Iraqi patrols back into the security zone to determine likely American patrol routes, emplace point minefields and register firetraps. These tactics inflict losses on 1st Cav Div when they return to the security zone the following day.\footnote{225}

On the morning of 24 Feb, artillery and air strikes supporting 1st Cav Div hammer the '27th, 25th and 31st Inf Divs as 1st Cav Div makes a diversionary attack in support of VII Corps' main attack further west. The Iraqis, with their limited intelligence support and poor command and control systems, do not perceive the attack in the west as the main attack; accordingly, they remain in their defensive positions to execute their original defense plans. Reports from 1st Cav Div indicate that these divisions do not return effective direct and indirect fire, and several Iraqis capitulate in the 25th Inf Div sector.\footnote{226}

\footnote{224}290623N0464107E and 290746N461209E, respectively. \footnote{225}VII Corps G2 Liaison Officer Trip Report, dated 10 Mar 91. \footnote{226}VII G2 Operations Logs, dated from 20-24 Feb 91.
52nd Armored Division (behind forward deployed infantry divisions). The 52nd Armd Div is in position as the 7th Corps reserve. The entire division has been severely worked over by Coalition aircraft, especially the A-10, nicknamed "the silent gun" by 52nd Armd Div troops. By the time the ground offensive begins, the Division's 52nd Armd Bde has only fifteen T-55 tanks and fifteen BMPs remaining out of over 120 armored vehicles at the start of the air campaign. The 52nd Armd Div Commander attempts to reconstitute the 52nd Armd Bde by attaching a mechanized infantry battalion from the 80th Armd Bde. The 52nd Armd Bde had been specifically targeted by the VII Corps Commanding General, as it could most readily influence the success of the breach. The CG's order was clear and concise, as he thumped the map board, "Make it (the 52nd Armd Bde) go away!" Thereafter dubbed "The Go Away Brigade," a concerted systematic effort was undertaken by the VII Corps G2 and the VII Corps Artillery Fire Support Element to destroy this unit by Coalition air strikes prior to G-day. As previously noted, the 71st Armd Bn (of the 52nd Armd Div) is attached to the
Command and control breaks down. Late on 24 Feb, the 52nd Armd Bde receives word that the 48th Inf Div has been attacked, but since they receive no direct orders from division headquarters, they don't react. This may be an intentional oversight by the Brigade commander, who, aware of the lack of direct communications for some time, chooses to remain in his bunker rather than take action.\textsuperscript{230} There is some indication that 52nd Armd Div moves its third brigade, the 11th Mech Bde, forward to support the front line divisions defending the Wadi Al Batin. (This is later confirmed by reports from 1st (UK) Armd Div, which captures elements of the 52nd and 80th Armd Brigades, and the 11th Mech Bde, in sector.)

The 52nd Armd Div's inactivity certainly does not support the forward infantry divisions. The 11th Mech Bde (if it moved forward at this time) exposes its western flank to the British forces (1st (UK) Armd Div), which destroy them in their roll up of the Iraqi front line.

\textsuperscript{230} MSG, 202nd MI Bn, JIF-West report cite #0277-91, dated 26 Feb 91, p. 1.
Republican Guard Forces Command. It is still unclear what occurs in the RGFC.\textsuperscript{236} Certainly word of the Coalition attacks reached its commanders. The Tawakalna Mech Inf Div deploys an undetermined and unidentified force west from where the 29th Mech Bde and the 9th Armd Bde are deployed.\textsuperscript{237} The VII Corps INTSUM assesses movement in the Hammurabi Division as planned training.\textsuperscript{238} Regardless, a brigade size force will soon defend near PU6830.\textsuperscript{239}

Reports are also received claiming elements of RGFC infantry and commando units may have deployed forward into Kuwait to bolster front line infantry divisions. These RGFC units, of probably less than brigade size, have been sent forward to bolster the morale and defenses in front line units. (RGFC units were used in this manner several times during the Iran-Iraq war when Iraq was concerned about the cohesion of front line Regular Army units.)\textsuperscript{240}

Iraqi air activity. Iraqi conducts no flight operations, marking the 14th consecutive day of inactivity, other than an occasional helicopter flight.

\textsuperscript{236}VII Corps INTSUM \#212, dated 24 Feb 91.

\textsuperscript{237}See Tab H-2 (JSTARS Imagery, 24 Feb, Tawakalna Movement). The G2, 3AD, in an interview on 5 Mar 91 by G2 Ops Off, VII Corps, indicated there was some evidence elements of the Hammurabi Division also joined this force.


\textsuperscript{239}300521N464443E.

12th Armd Div/Jihad Corps. The 12th Armd Div of the Jihad Corps has the critical mission of countering Coalition penetrations in the western KTO, particularly in the Wadi Al Batin. The Commander of the 50th Armd Bde reports that he and his Division Commander (12th Armd Div) reconnoitered positions for his brigade thirty kilometers southeast of Busaiya (aka Al Busayyah, at PU0734) and made plans to occupy them in the event of a Coalition breakthrough in this area. On 24 Feb at approximately 2130C, the 50th and 37th Armd Bdes are ordered to leave their positions at PU9909 and PU9513, respectively, by the 12th Armd Div Commander and move to these blocking positions. They depart their assembly areas within 90 minutes of receipt of the order. It is a long road march and their Chinese-made T-55s will not likely make it before dawn.
defense radar activity remains low to moderate.\textsuperscript{241}

If the Iraqi Air Force had plans for use of fixed wing aircraft for close air support (CAS), the Coalition's aggressive offensive counterair (OCA) campaign has so severely degraded all main operating bases and dispersal bases in southeastern Iraq that any plan will be impossible to execute. If aircraft are to be employed against Coalition ground forces, they will have to fly one-way missions or at best, recover at dispersed airfields or highway strips.\textsuperscript{242}

A "significant number" of Iraqi helicopters remain in the KTO and are available for use, but lack of coordinated command and control severely degrades the ability to use air power for CAS operations. The massive degradation of Iraqi command, control and communications facilities and air bases precludes any consideration of conducting a major air offensive against Coalition ground forces. Iraqi forces only have the ability to conduct limited air operations from air bases which are at maximum aircraft ranges from the KTO.\textsuperscript{243}

\textsuperscript{241} Ibid.

\textsuperscript{242} Ibid.

\textsuperscript{243} Ibid.
Battlefield damage assessment (BDA) for 24Feb 91 (G-day) consists of three T-55 tanks, one APC, and 1,580 PWs.²⁴⁴

Iraqi forces plans for 25 Feb 91. The Iraqis are now aware of a large Coalition thrust in the west. Corps reserves are already committed. Theater reserves must shift forces or reorient to meet this thrust, but they are unsure of its size, composition and objectives. Iraqi commanders plan to contain and repulse the thrust using a few brigades of the Jihad Corps and the Republican Guards in successive blocking positions, and still anticipate the main Coalition effort along Wadi Al Batin or into Kuwait proper. They maintain the bulk of their theater and strategic reserves in place to meet this anticipated eastern effort. The first echelon infantry commanders do not get the word of VII (or XVIII) Corps' attack in the west and remain in place to carry out their original sector defense.²⁴⁵

²⁴⁴VII Corps BDA reports numbers 91-30 through 91-34 are consolidated at Tab I-1. BDA reporting was inaccurate because of the high speed and great distances covered by VII Corps forces. Tab I-1 is the BDA reported during the battle. Tab I-2 is VII Corps' effort to improve the reporting by requiring units to review the battlefield and account for that equipment destroyed during the battle. Tab I-3 is an accounting of equipment captured and destroyed after the battle. Subsequent days' battles will describe equipment destroyed as reported to the G2 Battlefield Reconstruction Center by VII Corps units in their battle reconstruction efforts. No attempt is made to reconcile the figures.

²⁴⁵This only speculation. We have no evidence describing Iraqi intent for theater or strategic reserves. We draw these conclusions from what we know he attempts to do the following day and our knowledge of his situation.
d. Phase IV (25 Feb 91) [G+1, Advance to PL Smash].

Summary of Monday, 25 Feb 91 (G+1).

The Iraqi front line trace at the end of the day is as follows: NU9040 to PU2010 to PU4510 to PU5000 to PT4070 to PT2050 to NT9545 to PT0018 to PT5518. The 110th and 434th Bdes of the 26th Inf Div and the 802nd and 807th Bdes of the 48th Inf Div are combat ineffective. Remnants of the 52nd Armd Bde remain in the 48th and 26th Inf Div sectors. The Tawakalna Mech Div deploys a defensive screen ten kilometers west of its position early on 25

Geographic coordinates are: (1) 301115N455605E, (2) 295451N461434E, (3) 295442N463006E, (4) 294915N463308E, (5) 293305N462641E, (6) 292222N461411E, (7) 292948N455842E, (8) 290509N460138E, and (9) 290449N463532E, respectively.
Feb 91. Elements of the 12th Armd Div make contact with VII Corps forces along Phase Line Smash west of the Tawakalna Mech Division.\textsuperscript{247} Efforts to block VII Corps forces penetrating in zone fail.\textsuperscript{248} The Hammurabi, Medina, and the remainder of the 12th Armd Divs remain in place.

"You attacked us with the same NATO force that was designed to attack the entire Warsaw Pact, and the entire earth shook."

-Cdr, 48th ID, BG Saheb Alaw

By mid-day, elements of the 50th Armd Bde, 12th Armd Div, Jihad Corps are overrun by rapidly advancing elements of the VII Corps forces. Deployed Iraqi forces are surprised by the size, speed, and direction of the Corps' attacks. Iraqi armored elements' orders are to block the advance of VII Corps forces in sector and orient their forces to the south or southwest. See Tab A-2 (G+1 Battlefield).\textsuperscript{249}

(2) (U) Weather. Skies are partly to mostly cloudy all day. Intermittent rain showers occur throughout the morning, increasing in intensity and duration with occasional thunderstorms during the afternoon and early evening. Minimum
ceiling is 4,000 feet during the afternoon, 3,000 feet late evening. Minimum visibility is 8,000 meters in the afternoon, 5,000 feet late evening, both due to rain. Winds during the day are predominantly ESE/5-10 knots, increasing to NE/10-15 knots by evening.\textsuperscript{250} The weather degrades the Iraqis' ability to see and acquire targets.

\textsuperscript{(3) The 26th Infantry Division sector} (facing 2nd Armd Cav Regt, 1st Inf Div(M) and 1st Armd Div, followed by 3rd Armd Div in the 2nd Armd Cav Regt sector). At 250950C Feb, elements of 26th Inf Div engage lead elements of 1st Inf Div (M)\textsuperscript{251} at PT8540\textsuperscript{252}. Early on G+1, 2nd Armd Cav Regt maneuvers northeast, allowing 1st Armd Div to attack elements of the 26th Inf Div near Phase Line Colorado;\textsuperscript{253} The 26th Inf Div experiences sporadic contact with 1st Armd Div, losing between 500 to 600 soldiers as PWS. A bypassed unit of 26th Inf Div in a bunker complex at NT704555\textsuperscript{254} engages in a fire fight with 3rd Armd Div's cavalry squadron. Other bypassed Iraqi elements are

\textsuperscript{250}See Tab G-2 (Weather, 25 Feb 91); source: VII (US) Corps USAF Staff Weather Officer (SWO).

\textsuperscript{251}Spot report, VII Corps Battle Captains Ops Journal, dated 25 Feb 91.

\textsuperscript{252}291629N465415E.
engaged and destroyed throughout the day.\textsuperscript{255}

By 1400C, near NT8699,\textsuperscript{256} a dug-in battalion of the 806th Inf Bde battles the attacking 1st Armd Div. The 1st Armd Div lays a solid base of fire, then two battalions maneuver along the eastern flank to attack a defensive position at NU9203\textsuperscript{257}. A similar attack is executed near NU8007\textsuperscript{258} against a battalion (-) of the 806th Inf Bde.

The accuracy of the fires surprise the 26th Inf Div soldiers. When given the opportunity to surrender, over three hundred 26th Inf Div soldiers do.\textsuperscript{259}

Simultaneously, at 1400C, the Busaiya logistics complex and 26th Inf Div rear command post (CP) at PU0728\textsuperscript{260} experience their first AH-64 attack from 1st Armd Div. The attack helicopters engage numerous vehicles, and destroy a tank, an APC, a radar facility, and several trucks and logistical bunkers.\textsuperscript{261} The only way, it seems, to stop the attack is to

\textsuperscript{255}\textsuperscript{}MFR, G2, 3rd Armd Div, Subject: Battle Reconstruction Review, dated 12 Apr 91.

\textsuperscript{256}\textsuperscript{}294904N0455323E.

\textsuperscript{257}\textsuperscript{}295113N455708E.

\textsuperscript{258}\textsuperscript{}295326N0454942E.

\textsuperscript{259}\textsuperscript{}G2, VII Corps MSC Liaison Officer trip report, dated 9 Mar 91, and IAD Battlefield Reconstruction Center Input dated 30 Mar 91.

\textsuperscript{260}\textsuperscript{}29132N460601E.

\textsuperscript{261}\textsuperscript{}MSG, MFR, G2, IAD, Subj: Battlefield Reconstruction from the Iraqi Perspective, dated 30 Mar 91, pg. 3.
surrender, at which time the attack helicopters cease firing and depart.

By nightfall, attacking 1st Armd Div ground forces halt approximately 10 kilometers SW of Busaiya for the night. Elements of 26th Inf Div in Busaiya take a beating all night as 1st Armd Div artillery continues to attack by fire and MLRS.262

(4) The 48th Infantry Division sector (facing 1st Inf Div(M) and 1st (UK) Armd Div). The 48th Inf Div mission remains to defend in place.263 The 48th Inf Div defensive orientation remains fixed to the south. By early morning a brigade commander from the 26th Inf Div informs the 807th Brigade Commander that "the Americans are overrunning the 26th Inf Div and will soon hit the 807th Brigade on its flank."264 The lack of mobility hinders the 48th Inf Div's ability to change its defensive plan. The rapid advance of Coalition forces on the Iraqi western flank renders the 48th Inf Div combat ineffective.265 By the end of the day, the 807th
Brigade Commander surrenders to VII Corps forces. VII Corps assess the 48th Inf Div as combat ineffective.  

(5) **The 31st Infantry Division sector** (continues facing 1st Cav Div and is flanked by 1st (UK) Armd Div). Tank and infantry elements in the northern part of the severely weakened 31st Inf Div sector experience contact first with elements of the 1st (UK) Armd Div. (The 31st Inf Div is indeed severely weakened. For example, over half the assigned personnel from one battalion of the 109th Infantry Brigade, 31st Inf Div deserted before the Coalition ground campaign started. Overall, better than half of the 31st Inf Div personnel deserted or failed to return from leave by the time the ground war commenced.)  

(6) **The 25th Infantry Division sector** (facing elements of 1st Cav Div and flanked by 1st (UK) Armd Div). The 25th Inf Div fires sporadic and uncoordinated artillery fire throughout the day on 1st Cav Div probes and
feints. The 25th Inf Div continues to defend in sector. The mission of the 46th Armored Regiment (not identified until after the battle), attached from 6 Corps to the 25th Inf Div, is to counter any offensive action in sector from Coalition forces. The Division's morale, like other front line infantry divisions is deteriorated due to continued bombing and limited resupply. Partial resupply of divisional units can only be completed at night with its limited resources.
Thus, when information about the attacks in the west reaches the Iraqi General Headquarters (GHQ) and the 7th Corps commander, the 37th and 50th Armored Brigades are ordered by the 12th Armored Division to immediately occupy blocking positions that were prepared during the two previous weeks. The 46th Mechanized Brigade apparently stays behind. By early morning of the 25th of February, elements of the 12th Armored Division are astride the road from Al-Busaiya-Gasr Shaqra to Khadrat Al Ma (at PU15464715, approximately thirty kilometers southeast of Busaiya (aka Al Busayyah). Coalition air forces attack and destroy two tank battalions of the 50th Armored Brigade, while they are en route to their defensive positions. While the 50th Brigade commander awaits the arrival of his medium battle tanks, A-10s also work over his mechanized battalions and at 1300C the 2nd Armored Cavalry Regiment overruns the Brigade's position. This force is larger and more powerful than the 50th Brigade expected to encounter and forces the 50th Brigade Commander to surrender. No movement of the Jihad Corps' other armored division, the 10th,
is detected on this date.280 (See Tab H-2 (JSTARS Imagery, 24-25 Feb, 12 Armd Div Movement)).

"Source explained that he did not want his tanks to fire indiscriminantly at the A-10s because they would give away their positions. Source remarked wryly that he did not have difficulty in enforcing this order."

-Cdr, 50th Armd Bde/12AD

Once elements of the 29th Mech Bde and 9th Armd Bde are in place at PU7028281, time is presumably spent refining positions and interlocking fires, but no reporting can verify any activity in this sector. The southern brigade of the Tawakalna Mech Div, the 18th Mech Bde, probably tried to link-up with the repositioned 37th Armd Bde, 12th Armd Div which moved down the IPSA pipeline road, then along PL Smash during the night. Together, they must defend the road from an attack from the west or southwest. A breakthrough in this sector could easily cut off forces in southern Kuwait and prevent their escaping north.282


281 300415N464549.

282 This is supposition based on subsequent reports of the intensity and orientation of the defense in the area.
(9) Medina Armored Division. Elements of this division are assessed to be task organizing to compensate for the effects of the air campaign. Elements of a probable BMD-equipped reconnaissance battalion are reported at PU92223209.

(10) The Hammurabi Armd Div is not detected in movement. Its mission and position are not changed.

(11) The Adnan Division moves one brigade southwest from QU0258 to PU9036. This brigade occupies a defensive position with the probable mission of securing the northern flank of the Tawakalna Div.

(12) Iraqi air activity. No significant air activity occurs during this day. All Iraqi air assets apparently remain on the ground since the commencement of the Coalition ground attack, except for those which flee to Iran. It is still unlikely Iraq will conduct fixed wing aircraft operations for close air support against Coalition forces. Anti-armor ambushes are still the most likely tactic if Iraq decides to use its

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284 300616N465941E.
286 302011N470604E, 300824N465820E.
287 HFR, G2, 1AD Battlefield Reconstruction Center input, 30 Mar 91. It is not clear what element moves out of QU0258. VII Corps Spot Report from JSTARS, dated 251908C Feb 91, G2 Ops Journal entry #36, indicates it may be elements of the Adnan Div. However, both 1AD and 3AD report engaging elements of the Adnan Div.
helicopters. 288

(13) SRBM launch. Iraq launches an SRBM toward Dhahran, Saudi Arabia289 from QV14425215.290

(14) Iraqi forces plans for 26 Feb 91. As Coalition forces continue to advance, Iraqi forces will be forced to move out of revetments and attempt to hastily reposition units (despite their exposure to fire from Coalition ground units and aircraft) to protect Iraqi withdrawing elements.291 The Iraqi strategic reserve, the RGFC, must counter any major advancement by Coalition forces into the Iraqi defensive sector.292 The Iraqi GHQ now is alarmed by the massive gains in the west by VII Corps forces. The theater reserve blocking position begins to fold. Attempts to seal the penetration of VII Corps elements in sector with counter-attacks are defeated. The mission of the Iraqi forces defending in the west is to delay the advance of VII Corps long enough to permit the withdrawal of the Iraqi Army from Kuwait.

288 VII Corps INTSUM #213, dated 25 Feb 91.
289 Ibid.
290 3111N04715E.
e. **Phase V** (26-28 Feb 91) [G+2 to G+4, Attack and Pursuit]

(1) **Summary of Tuesday, 26 Feb 91 (G+2).**

The Iraqi front line trace is as follows: PU7050 to PT5560 to PT4040 to NT5518. Ground activity is characterized by heavy contact by the deployed elements of the Tawakalna Mechanized Division (and possibly lead elements of the Hammurabi Armd Div) with 1st Armd Div, 3 Armd Div, and 2nd Armd Cav Regt. In the center of sector, elements of the Jihad Corps are in heavy contact with 2nd Armd Cav Regt and 1st Inf Div(M). In the south, elements of the 52nd Armd Div continue to be flanked by 1st (UK)
Armd Div. See Tab A-3 (G+2 Battlefield).

(a) (U) Weather. Sky remains mostly cloudy; the ceiling varies between 3,000 and 12,000 feet. The lower ceilings are associated with isolated rain showers and sand storms moving through the area. Visibility is predominantly unrestricted, but drops to 5,000 meters in haze, and occasionally goes down to 6,000 to 8,000 meters in rain. Winds are NE/10-18 knots until 0500C, E/10 knots from 0500-1000C, then SE/15-25 knots from 1000-1800C with maximum wind speed of 36 knots recorded at 1200C. After 1800C, winds become SE-SW/10 knots.

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294 VII Corps INTSUM #214, dated 26 Feb 91.

295 Tab G-3 (Weather, 26 Feb 91); source: VII (US) Corps SWO.
26th Infantry Division sector (engaging 1st Armd Div). The remaining elements of the 806th Bde are defending the Iraqi 7th Corps Rear Command Post and the logistic base in Busaiya (PU0733). The 806th Bde elements come under a combined Apache helicopter, artillery and multiple launch rocket system (MLRS) attack. The 1st Armd Div attacks during the early morning hours using the previous day's successful tactics of fire, maneuver and PSYOPS. Separate 806th Brigade elements are in succession maneuvered against, fired on, and ordered to surrender. Once the prisoners are secured, the sequence begins again until all resistance ceases. The commando unit of the
806th Brigade is the most tenacious; however, they, too, succumb.

The 1st Armd Div destroys the 26th Inf Div logistic center and rear command post, then continues its drive eastward towards PL Tangerine. Over 451 Iraqi soldiers surrender at Busaiya.\textsuperscript{297} Several bypassed elements of 26th Inf Div are overrun by 3rd Armd Div throughout the morning, yielding several hundred prisoners.\textsuperscript{298}

\textbf{(c)} The 48th Infantry Division sector. The 1st (UK) Armd Div captures the Commander of the 48th Inf Div, and takes several hundred EPWs.\textsuperscript{299}

\begin{quote}
"I didn't know a Challenger tank until I was looking at it outside my bunker."

-Commander, 52nd Armd Brigade, 52nd Armd Div
\end{quote}

\textbf{(d)} The 52nd Armored Division sector. The 1st (UK) Armd Div continues to clear remnants of the 52nd Armd Bde, 80th Armd Bde and 11th Mech Bde. These units, which have been severely beaten by air strikes, piecemealed in support of the infantry divisions, and misoriented to the south, usually surrender when confronted by the British flanking attack. Any

\textsuperscript{297} G2, VII Corps Liaison officer trip reports, 10 Mar 91.

\textsuperscript{298} MFR, G2, 3rd Armd Div, Subject: Battle Reconstruction Review, dated 12 Apr 91.

\textsuperscript{299} G2, VII Corps Liaison Officer Trip Report, dated 10 Mar 91.
attempt to escape exposes their flank to British fire. Almost every unit engaged quickly surrenders.\textsuperscript{300}

\textit{(e) The 12th Armored Division sector.} The 12th Arm Div lost its 50th Arm Bde to A-10 aircraft and the 2nd Arm Cav Regt yesterday (25 Feb). By 260220C Feb, reconnaissance elements of the probable 37th Arm Bde detect the continued eastward movement of the 2nd Arm Cav Regt. The 37th Arm Bde's position anchors the southern flank of the RGFC theater-level screen along the 65 north-south grid line. Fighting is intense, but sporadic throughout the day as weather conditions deteriorate. At 1615C, the remaining elements of the 37th Arm Bde and elements of the 9th Arm Bde, Tawakalna Div mount a coordinated defense, along the 73 north-south grid line, to keep open lines of withdrawal going north.\textsuperscript{301} The battle is dubbed "The Battle for the 73 Easting" and is a chaotic fight of tanks and APCs attempting to simultaneously defend, counter-attack, and withdraw north along the IPSA pipeline. At midnight, the 37th Mech Bde face a fresh division, the 1st ID (M), and will soon collapse under the weight of the new attack.

\textit{(f) The Tawakalna Mechanized Division sector (facing 2nd Arm Cav Regt, 3rd Arm Div, and 1st Arm Div).} The 18th Mech, 9th Arm and 29th Mech Brigades of the Tawakalna Mech Div are attacked today. The confusion of units

\textsuperscript{300}MFR, G2, VII Corps Liaison Officer Trip Report, dated 10 Mar 91.

\textsuperscript{301}Ibid.
moving on the battlefield makes identification tenuous, but the Tawakalna Div is tied to the recently deployed 37th Armd Bde/12th Armd Div on a theater defensive line. As previously mentioned, the middle brigade of the Tawakalna, the 9th Armd Bde, is decisively engaged late in the afternoon by the 2nd Armd Cav Regt. This is the first engagement of the Republican Guard forces with VII Corps.

The 9th Armd Bde, in the center, establishes its defense oriented west-southwest (PU725015-PU690295). The 9th Armd Bde defends with one mechanized battalion task force in the south, one mechanized battalion in the north and two tank
battalions in depth. The 9th Armd Bde is warned by one of his company commanders that US forces are advancing on their position, in spite of the weather. The 9th Armd Bde is amazed that it would be attacked during a rain storm with blowing sand. The brigade prepares for the defense by starting its tanks and shifting them onto a firing line. The 9th Armd Bde repositions a tank battalion to the north possibly to establish a counterattack force or to reinforce the mechanized infantry defenses. The 9th Bde also picked up a tank company cross-attached from the 29th Mech Bde to the north. At 0713C, the 9th Armd Bde's forward screen fails to stop the advance of the 2nd Armd Cav Regt. At 261630C Feb, the 9th Armd Bde and elements of the 18th Mech Bde begin taking fire from the 2nd Armd Cav Regt in the Battle for 73 Easting. The 9th Armd Bde's northern mechanized battalion cannot contain the penetration. Its mechanized battalion task force in the south is likewise unsuccessful. The 9th Bde calls indirect fires on the 2nd Armd Cav Regt with no effect, but this fire draws a heavy MRLS counter-battery barrage, destroying the 9th Armd Bde's firing batteries. The 9th Armd Bde launches an armored counter-attack from the south hoping to hit the flank of the penetration, but

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303 Msg, A Co, 202nd MI Bn, Subj: Republican Guard Forces, DTG 040425Z Mar 91, paragraph 8a.

304 S2 log extract, 2nd Armd Cav Regt, DTG 251147C Feb 91.

305 S2 Log extract, 2nd Armd Cav Regt, DTG 261400C Feb 91.
this element is too slow and is also destroyed. The fight for 73 Easting continues until just before midnight when the 2nd Armd Cav Regt holds for the forward passage of the 1st Inf Div (M).

During the course of the battle for the 73 Easting, the 2nd Armd Cav Regt destroys 64 T-55s, two T-62s, sixteen T-72s, and 23 APCs.

The northern brigade, the 29th Mech Bde, established a blocking position on the night of 24 Feb near the 70 north-south grid line. At 1430C on 26 Feb, Coalition air forces destroy eight T-72s from this task force. By 1600C hours, 3rd Armd Div, after passing around the 2nd Armd Cav Regt, makes initial contact with the same task force. Two hours later, the task force receives intensive artillery fires on its northern flank followed by a brigade-sized attack from 1st Armd Div. The northern sector of the 29th Mech Bde task force consists of an armored battalion reinforced with a company of BMPs and several MTLBs. At 1930C, the 29th Mech Bde, reinforced by repositioning elements of the 9th Armd Bde, puts up a determined fight with the 1st and 3rd Armd Divs. The 29th Mech Bde does not break contact, and is in continuous combat all night. The 29th Mech Bde and 9th Armd Bde elements lose 31 T-72s, seven BMPs and five MTLBs to the 1st Armd Div. The 1st Armd Div destroys the northern part of the

306 [HR, G2, IAD, Subj: Battlefield Reconstruction from an Iraqi Perspective, dated 30 March 91.]
task force by 2200C.\textsuperscript{307} The remainder of the 29th Mech Bde is
dug in with two battalions at PU7028\textsuperscript{308} and PU7025. Also, the
9th Armd Bde is established in positions at PU7317\textsuperscript{309} and
PU7514. 3rd Armd Div engages these battalions throughout the
night of 26-27 Feb, and destroys them by morning.\textsuperscript{310}

(g) \textit{The Adnan Infantry Division (Facing 1st
Armd Div).} One brigade identified by JSTARS as moving south, is
confirmed by close air support, positioned at PU9036.\textsuperscript{311} At
1615C hours, the 1st Armd Div AH-64s engage the Adnan brigade.
At 1915C hours, the Adnan brigade receives artillery and MLRS
fires. The brigade then withdraws north with approximately
thirty truck loads of personnel.\textsuperscript{312}

(h) \textit{The Medina Armored Division sector.}
The division prepares for movement. Throughout the day, 1st Armd
Div attacks the Medina Div using numerous assets to include three
AH-64 company attacks at 2000C, 2030C, and 2200C hours. Four
battalions of the 14th Mech Bde, Medina Division move in a

\begin{itemize}
\item \textsuperscript{307} MFR, G2, 1AD, Subj: Comments on Battle Reconstruction Coordinating
Draft, 30 Mar 91.
\item \textsuperscript{308} 300415N0464549E and 300237N0464547E, respectively.
\item \textsuperscript{309} 295711N0464733E and 295638N0464847E, respectively.
\item \textsuperscript{310} MFR, 3rd Armd Div, Subject: Battle Reconstruction Review, dated 12 Apr
91.
\item \textsuperscript{311} 300824N0465820E.
\item \textsuperscript{312} Message, G2, 1AD, Subj: Battlefield Reconstruction from an Iraqi
Perspective, 30 Mar 91.
\end{itemize}
southwesterly direction to set up a hasty defense in the midst of the theater logistics site. Concurrently, 2nd Armd Bde moves approximately seven kilometers to the northwest to form a defensive line from QU0939 to Q0946. Two unidentified armored brigades depart the south to establish contact between the 14th Mech Bde and 2nd Armd Bde, and provide a coherent defense of the LOCs. These LOCs allow the escape of units from the south to Basra. The 1st Armd Div attacks with helicopters, artillery, and MLRS disrupt the 14th Mech Bde and the two unidentified armored brigades. These three brigades never get positioned. In the north, the 2nd Armd Bde gets into position and relaxes, believing the battle is a long time off.

(i) The Hammurabi Armored Division sector. According to imagery from 26 February, the nine battalions from the Hammurabi Armd Div move out of defensive positions and are likely heading north to defend oil fields at Rumaila (aka Al Rumaylah). If the Tawakalna Mech Div becomes combat ineffective, the Hammurabi Armd Div will probably set up blocking positions.

(j) The 6th Armored Division sector. The 6th Armd Div, the 4th Corps reserve, is currently committed and positioned on line in Kuwait against Joint Forces Command North

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313 300950N471012E to 301337N471017E.

(formerly Northern Area Command) and MARCENT forces. The 51st Mechanized Infantry Division sector. As the success of the Coalition forces' attack becomes apparent, VII Corps is ordered to continue its attack into Kuwait. VII Corps' mission is to occupy northern Kuwait and complete the destruction of the Republican Guard forces in VII Corps sector. The main attack is to seize Objective Denver. VII Corps assesses that the 51st Mech Div maintains defensive positions near Objective Denver. One brigade is located vicinity QU65740354, another brigade is near QU85120217, and an armored brigade is located vicinity QT735930.

(1) Iraqi air activity. There has been no major Iraqi air activity in the last 48 hours. Iraqi aircraft have not been committed against Coalition forces because of the

315 The 6th Armd Div is comprised of two armored Bdes and one Mech Inf Bde. The 16th, 20th, and 23rd Armd Bdes consist of 35 T-62s in each tank regiment and 35 BTR-60s in the Mech Inf Bn.

316 The mechanized infantry brigades are comprised of three Mech Inf battalions and one tank regiment. The Mech Inf Bdes have 35 MTLBs/Type 63 per Bn and 35 T-55/Type 59s in the tank regiment. The armored bde has three tank regiments and one Mech Inf Bn. The tank regiments consist of 35 T-55s/Type 59 in each regiment and 35 MTLBs/Type 63 in the Mech Inf Bn. The 51ID(M) has four artillery battalions (regiments) with 130mm/H46 tubes in each. One D-30 artillery regiment was also identified in the division area.

317 2950N04745E.

318 2949N04757E.

319 VII Corps INTSUM #214, dated 26 Feb 91.

320 2944N04750E.
Iraqi inability to stay airborne due to Coalition offensive counter-air (OCA) efforts. 321

"They attributed almost supernatural powers to our equipment, and were convinced that we could hear, see, detect, and destroy any Iraqi position through the use of computers, satellites, and other sophisticated equipment."

-US interrogator, 513th MI Bde

Iraqi forces plans for 27 Feb 91. The mission of Iraqi ground forces continues to be a hasty defense in depth to delay the advance of Coalition forces until all forces withdraw from Kuwait, and successfully cross the Euphrates River. The remainder of the Tawakalna Mech Div and the repositioned Medina Armd Div of the RGFC are to block any further penetration of VII Corps forces coming from the west. VII Corps assesses that Iraqi forces leaving Kuwait will occupy pre-invasion attack positions in southern Iraq. 322

321 VII Corps INTSUMs Nos. 213 and 214, dated 25 and 26 Feb 91, respectively.
At 2200C hours on 26 Feb, 1st Inf Div (M) passes through 2nd Armd Cav Regt. Consequently, on Wednesday, 27 Feb, three armored divisions and a mechanized infantry division of VII Corps attack abreast into the Iraqi formations west of the Wadi Al Batin. VII Corps has turned the western flank of the Iraqi defenses and is about to penetrate and exploit through the Republican Guards. Iraqi infantry divisions along the Saudi-Iraqi border - the 26th, 48th, 31st, and 25th Inf Divs - are either destroyed or completely cut-off by the flanking attack of the 1st (UK) Armd Div. The 7th Corps tactical reserve, 52nd Armd Div, has been over-run, brigade by brigade, from its western flank.
"I stood and looked to the west and all I could see for as far as one could see were tanks and more tanks; tanks everywhere."

- An Iraqi Brigade Commander

On this date, Iraqi forces will attempt to cover the withdrawal of units in Kuwait by establishing two blocking positions: one by the Adnan Infantry Division, and one by the Medina Armored Division. The Hammurabi Division will continue to withdraw as will every remaining unit in Kuwait.

The Iraqi front line trace at the end of the day is from QU1848 to QU1432 to QU1710 to QT6095 to QT4267; by which time the Iraqi Army in the KTO virtually ceases to exist as a cohesive force. Forward Iraqi corps are assessed as combat ineffective. The corps commanders cannot see the battlefield and do not appear to understand the scope or intent of Coalition operations. The withdrawal of Iraqi forces from Kuwait continues with the emphasis on getting the heavy units out and to the north of the Euphrates River.

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323 (1) 301436N471555E, (2) 300600N471314E, (3) 295404N471450E, (4) 294527N474119E, and (5) 293031N472947E, respectively.

324 PERINTREP #028, VII Corps, DTG 270100Z Feb 91, p. 2.
(a) (U) Weather. Weather will not significantly affect military operations today. Mostly cloudy skies with ceilings varying from 3,000 to 12,000 feet continue. Visibility is unrestricted most of the day, but the winds shift to NE/5-10 knots, bringing in smoke from the oil fires in Kuwait. By 1800C, the smoke begins to reduce visibility, reaching a minimum 6,000 meters at midnight.325

(b) The 12th and 52nd Armored Divisions, and remnants of units withdrawing. The 52nd Armd Div is combat ineffective. The 1st (UK) Armd Div continues to surprise Iraqi divisions by attacking their flanks in its drive to the Kuwaiti coast. Iraqi forces in Kuwait attempt to escape, and are frequently caught moving north in the open. Less motivated, not as well fed, and considered expendable by Saddam, infantry units do not, unlike the heavy divisions, put up a concerted fight. The S0-2 (G2) of 1st (UK) Armd Div responded to the question "What was the Iraqi response to the VII Corps attack?" by putting up his hands in a gesture of surrender. From his perspective, the Iraqi Army was quick to capitulate.326

325 Tab G-4, VII (US) Corps SWO, Weather, 27 Feb 91.

326 Interview of S02 (G2), 1st (UK) AD by G2 Ops Off, VII Corps on 13 Mar 91.
As 1st Inf Div (M) passes through 2nd Armd Cav Regt, it again attacks the revetted positions of the 37th Armd Bde and probably elements of the 18th Mech Bde of the Tawakalna Mech Div. These positions are oriented west and were probably built as part of the extended blocking positions that 12th Armd Div was building the two weeks prior to G-day. Unlike the fate of the 50th Armd Bde, which was completely surprised, the 37th Armd Bde knows (having fought the 2nd Armd Cav Regt) that the 1st Inf Div (M) is coming; it stands and fights. The 37th Armd Bde eventually succumbs to the attacks of 1st Inf Div (M). The 12th Armd Div deployed only two of its three brigades out to VII Corps Phase Line Smash on 24 Feb. Later on this day, the remaining brigade, the 46th Mech Bde (now with three armored battalions and one mechanized battalion which are probably combat ineffective), will be destroyed by the 3rd Armd Div ground attacks at PU9107, PU9305, and PU9807.

(c) The Tawakalna Mechanized Division sector (facing 1st Inf Div(M), 1st Armd Div, and 3rd Armd Div). The Tawakalna Div has been fighting since yesterday and no relief is in sight. The 29th Mech Bde in the north couldn't hold back
1st Armd Div and by 262230C Feb ceased to resist its advance.\footnote{JFR, G2, 1AD, Subj: 1AD Battle Summary (Draft), dated 3 Mar 91.} The 29th Mech Bde continues to hold off 3rd Armd Div through early afternoon on 27 Feb. In the center of the Tawakalna Mech Division, the 9th Armd Bde, having tenaciously fought the 2nd Armd Cav Regt with probably its two southern battalions late on 26 Feb, now must defend against attack by the 3rd Armd Div against its northern battalions and a new attack against its southern battalions.\footnote{Overlay, 2nd Bde/3AD, Subj: Battle Reconstruction, 24 Feb - 1 Mar 91.} By 271800C Feb, 3rd Armd Div assesses 9th Armd Bde losses at twelve tanks and 15 BMPs.\footnote{Overlay, 2nd Bde/3AD, dated 26-27 Feb 91.} On the 3rd Armored Division's southern flank, 1st Inf Div (M), rearmed and refueled, having passed 2nd Armd Cav Regt at 262200C Feb, immediately engages remnants of the 37th Armd Bde of the 12th Armd Div and the 9th Armd and 18th Mech Brigades of the Tawakalna Mech Div. For some Iraqi units, the situation seems hopeless. For instance, the 117th Arty Bn\footnote{Eighteen 2S3s, 152mm, self-propelled.} supporting the 9th Armd Bde, to show their lack of support for the war, chose not to fire a single round as they were being overrun.\footnote{Op. cit., MSG, 202nd MI Sn, JIF-W, IIR #2-340-2839-91/Tawakalna Republican Guard Div Arty DTG 041134Z Mar 91.} For the most part, though, the soldiers of the Tawakalna Division put up a tenacious fight. Like the rest of the Iraqi Army, they are
surprised by the speed of VII Corps' ground attacks. The bunkers in the Tawakalna Division sector still have food on the table and water boiling. The Division didn't expect VII Corps forces to move so quickly nor to attack from the direction they did. For example, its revetments were oriented to the southwest, yet every attack was from the west or northwest. Despite this, the soldiers of the Tawakalna Mech Div fight aggressively. They attempt local counterattacks and fire artillery. In one instance, truck-mounted infantry tries to reposition onto the flank of 3rd Armd Div, but US control of the airspace and the deadly volume of indirect and counterbattery fire, renders the RGFC soldiers' efforts hopeless. The Tawakalna Mech Div crumbles under attacks by the 3rd Armd Div and 1st Inf Div(M).

Together, with the 37th Bde/12th Armd Div, the Tawakalna Mech Div loses 62 tanks (T-72s and T-55s) and 200-500 soldiers as PWs to the 1st Inf Div (M). Logistics bases near the Tawakalna Mech Div also lose ten to thirteen T-72 tanks, seventy to eighty trucks, and two functional 122mm SP artillery pieces to the 1st Inf Div(M). The Tawakalna Division is combat ineffective by the end of the day.

335 Interview of G2, 3AD by G2 Opns Off, VII Corps on 5 Mar 91.
336 PERINTREP #028, VII Corps, DTG 270100C Feb 91, p 1.
337 Ibid.
The Adnan Inf Div and Medina Armd Div sectors. The brigade from the Adnan Div which was attacked by 1st Armd Div on 26 Feb establishes a defensive position out of VII Corps sector from PU9453 to QU0555. The Basra pocket is now defended by a brigade (-) of the Adnan Div in the north, 2nd Armd Bde/Medina Div (in place since 26 Feb) from QU0939 to QU0946, and unknown elements of three brigades attempting to get into position from QU0939 to PU8929. As 1st Armd Div advances, Iraqi forces, probably directed by the Adnan Div soldiers in the defensive positions mentioned previously, attack with indirect fires. An Iraqi D-30 artillery battalion and another artillery battalion of GHN-45s fire approximately 200 rounds before being silenced by 1st Armd Div MLRS. During the artillery attack, the brigade from the Adnan Div engages 1st Armd Div with small arms fire. When attacked, these Iraqi forces...

338 301733N470101E, 301832N470754E.
339 300950N471012E, 301337N471017E.
340 300400N465800E, 300500N0465775E.
342 Op. cit., MFR, G2, IAD, dated 30 Mar 91. The 1st Armd Div attacked with three brigades on line. In the northern sector, 2nd Bde, IAD came under artillery fire. After 39 minutes, Corps grants a request to shoot into the XVIII Corps sector after determining that both the 24th ID and the 3rd ACR have fallen 60 kilometers to the rear. MLRS engages two target sets shooting from information gathered from the target acquisition radars. The 1st AD receives no more artillery fire. (One month later when IAD moves into this sector, it finds 15 D-30 artillery pieces destroyed by MLRS in one area and 13 GHN-45s in the second. MLRS rocket debris lies throughout the area.) Of the 200 artillery rounds the Iraqis fired, none were effective.
soldiers attempt to surrender. However, before 1st Armored Division gets close enough, other Iraqi soldiers begin shooting the would-be POWs.

The 2nd Armored Brigade of the Medina Division is expecting a fight, but is still self-assured enough to take a break for lunch. Obviously, the command and control of these defensive forces is not effective. At approximately 1200 hours (as lunch is cooking), 1st Armored Division rolls up on the 2nd Armored Brigade from the northwest. The 1st Armored Division destroys over 100 vehicles within ten minutes. This is the largest tank battle of the war.

The American M1A1 tank earns its media epithet of "King of the Killing Zone" by the telling evidence of T-72s, T-55s, and BMPs
smoking in the desert.343

Also that morning, south of the 2nd Armd Bde, elements of three unidentified brigades and two battalions of the 14th Mech Bde/Medina Armd Div, attempt to establish a defense of the theater-level logistics bases. None of the Iraqi positions are established before they must fight the advancing 1st Armd Div. They are quickly overrun. By the end of the day, eight logistics sites are overrun. Thousands of tons of ammunition, over a thousand trucks and thousands of bunkers and revetments fall in to 1st Armd Div hands.344

The brigades of the Medina Div, like those of the Tawakalna Div, fight aggressively, but die quickly.345

(e) The 10th Armored Division.

Several positions of the 10th Armd Div are overrun by 3rd Armd Div, immediately east of the Tawakalna Div positions. Many positions are simply abandoned, complete with equipment and supply dumps. Entire company and battalion sets of fighting vehicles are found. The abandoned positions are oriented west and southwest.346

343 MFR, G2, 1AD, Subj: Battlefield Reconstruction from an Iraqi Perspective, 30 Mar 91.

344 Ibid.

345 MSG, G2, 1AD, Battlefield Reconstruction from an Iraqi Perspective, 30 Mar 91.

346 Memo, G2, 3rd Armd Div, Subject: Battle Reconstruction Review, dated 12 Apr 91.
The Hammurabi Armored Division.

Intelligence reporting to the Hammurabi Div continues to be extremely poor. According to one source, reporting from the front line divisions does not give the Hammurabi Div sufficient time to respond to the Coalition attack. Once the word gets to the Division that the Medina and Tawakalna Divisions are destroyed, the Hammurabi Division begins to withdraw. Based on reports by XVIII Airborne Corps of engagements with 200 tanks and 50 BMPs northwest of the Hammurabi Division's assembly area at 1530C, it is likely the Hammurabi Division is withdrawing in this direction. It is unclear whether the Hammurabi Div is given orders at this time to withdraw to establish a blocking position near the Rumaila oil fields or to completely exit the theater. Certainly by the following day, the Hammurabi Division is in full withdrawal as evidenced by the 24th Inf Div's engagement of a brigade's worth of tanks on heavy equipment transports (HETs) on Highway 8.

The 51st Mech., 6th Armd, and 17th Armd Divisions. Since the evening of 26 Feb 91, these units have been withdrawing north and northeast into southeastern Iraq towards Basra. Elements of the 17th Armd Div may have been part of the two-brigade-sized force attempting to reinforce the
Medina Div's defense.\textsuperscript{349}

(h) \underline{Iraqi air activity. No significant air activity was reported on this day.}\textsuperscript{350}

(i) \underline{Iraqi forces plans for 28 Feb 91.}

The Iraqi forces' ability to organize a hasty, coordinated defense under extreme Coalition pressure, using heavily attrited units, is now impossible. Given the chaos of the Iraqi withdrawal, lack of command and control, and apparent desire of the Iraqi units to flee north of the Euphrates River or to Iran, no cohesive tactical operation could succeed. The Hammurabi Division will attempt to defend the northern part of the Rumaila Oil fields and delay Coalition forces maneuvering to cut off other Iraqi units attempting to withdraw north of the Euphrates River across newly erected pontoon bridges at Al Jaza'ir (near QU2399).\textsuperscript{351}

\textsuperscript{349}Ten percent of the PWs captured on this day by 1st Armd Div were from the 17th Armd Div, but there is no evidence of a cohesive unit defense. MFR, 1AD, Subj: Battle Reconstruction from an Iraqi Perspective, Draft #30, dated 13 Apr 91, para 39.

\textsuperscript{350}VII Corps INTSUM #214, dated 26 Feb 91.

\textsuperscript{351}304200N471900E.
The Pursuit. Most Iraqi Divisions in the KTO are combat ineffective. The Iraqi 3rd, 4th and 7th Corps are combat ineffective as subordinate elements continue to attempt to escape north. In the 6th Corps area of operations, revetted positions on Bubiyan Island appear empty while infantrymen and equipment move west across the Bubiyan Island and bridge. See Tab A-5 (G+4 Battlefield).

352 VII Corps INTSUM #215, dated 27 Feb 91.
"The Iraqis believed the Americans had put up a space station, in which three astronauts were hovering over the battlefield, reporting on every move made by Iraqi forces."

-An Iraqi brigade commander

(a) (U) Weather. Winds remain NE/5-10 knots, causing visibility to continue decreasing to a minimum of 1,000 meters from 0000-0700C due to smoke. Skies continue partly to mostly cloudy, with a minimum ceiling of 800 feet, partly attributable to smoke and fog.\(^{353}\)

(b) Iraqi air and air defense activity. Nothing significant is reported today.\(^{354}\)

(c) Iraqi vulnerabilities. Iraqi forces still lack the command and control required to reconstitute an effective defense north of the Euphrates River. The deprivation of food, water, shelter and other basic needs endured by Iraqi troops in many units, and the humiliating defeat of the Republican Guards, leave Iraqi troops demoralized and combat ineffective.\(^{355}\)

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\(^{353}\) Tab G-5, VII (US) Corps SWO, Subject: Weather, 28 Feb 91.


\(^{355}\) VII Corps INTSUM #215, dated 27 Feb 91.
(d) **Iraqi forces activity.** Surviving elements of Iraqi forces attempt to withdraw under cover of darkness to the north and northeast back into Iraq, crossing the area's waterways using tactical bridging and ferries. The day is characterized by Iraqi forces trying to get out of the way, to get away from equipment, to escape north, or to simply wait to be captured. Bypassed Iraqi units continue to surrender. Some residual units are isolated from their units, and may engage Coalition forces making contact, offering small pockets of isolated resistance.\(^{356}\)

The 7th and Jihad Corps are destroyed, and the Republican Guard Forces Command is defeated. The Jihad Corps seems to have deployed only one division against VII Corps, but destroyed equipment and a review of the battlefield indicate that the 10th Armd Div abandoned much of its equipment. The 10th Armd Div appears to have had sufficient warning to begin a deliberate withdrawal, but is surprised by the speed of the attack. Few members of the 10th Armd Div showed up in the PW cage (two percent reported by 1st Armd Div), as they systematically evacuate and destroy their bunkers, but they must abandon their equipment intact. Their equipment was later destroyed by Coalition forces.\(^{357}\) The RGFC Infantry Divisions, except for a brigade of the Adnan Division, are not engaged. The Tawakalna

\(^{356}\) Ibid.

\(^{357}\) Interview of G2, 3AD by G2 Ops, VII Corps, on 5 Mar 91.
Div was destroyed as it defended the IPSA pipeline road north. The remnants of the Medina Division are attacked in the early morning by helicopters, artillery, and tanks of the 1st Armd Div. Two more mech battalions succumb, as well as a 2S1-equipped artillery battalion that is found abandoned with radios running, rounds chambered, and guns laid. The Hammurabi Division may have had a battalion involved in a screen in front of the Tawakalna Division, but otherwise had the opportunity to escape. The 24th Infantry Division reportedly destroyed up to two brigades of tanks on Highway 8. The status of the rest of the Hammurabi Division is still unknown.

Only remnants of Iraqi units are captured by the 1st (UK) Armd Div and 1st Inf Div (M), as they drive to the eastern portion of Kuwait. By this time, most Iraqi forces are north of these attacks. Iraqi forces caught in northern Kuwait, surrounded by 1st Armd Div and 3rd Armd Div in the northwest and the 1st (UK) Armd Div and 1st Inf Div(M) in the south and southwest, quickly abandon their equipment as VII Corps forces close in on their positions. Platoon, company, even battalion sets of abandoned equipment are found by attacking VII Corps units. There is no cohesive defense or prepared withdrawal by late Thursday and early Friday (27-28 Feb). The Iraqi Army in the KTO is defeated.

---

358 MSG, G2, 1AD, Subject: Battlefield Reconstruction from an Iraqi Perspective (comments), 30 Mar 91.
5. (U) Conclusion. Prior to G-day, VII Corps postulated it had a decided advantage in every area except artillery. However, it was not until VII Corps launched its forces on the ground that this advantage was translated into an overwhelming force which quickly flanked and penetrated Iraq's defenses. VII Corps, with air superiority, speed, maneuver, high technology weapons systems, better training and motivation, and superior intelligence and logistics, destroyed the Iraqi 7th Corps, one division of the Jihad Corps, and two of the three heavy divisions of the Republican Guard Forces Command. VII Corps' violent, rapid execution of its plan kept the Iraqi Army reeling from the beginning. The destruction of the Iraqi Army at such a miraculous low cost to VII Corps is a tribute to its soldiers and leaders.

JOHN C. DAVIDSON
COL, GS
ACoF, G2
"I will never forget the way we were treated. Your soldiers are heroes."

-A general officer from an infantry division in the 7th (IZ) Corps, commenting on his treatment at the hands of American forces
DISTRIBUTION:
1-CG
1-Dpy CG
1-CofS
2-G2
1-G3
1-G4
1-G5
1-G6
1-Cdr, Corps Arty
1-Cdr, 207 MI Bde
1-Cdr, COSCOM
1-1ID(M)
1-1CD
1-1AD
1-1(UK)AD
1-3AD
1-2ACR
1-11 Avn Bde
1-7 Engr Bde
1-DA DCSINT
1-DCSINT, USAICS
1-DCSINT, USAREUR
1-G2, XVIII Corps
1-G2, V Corps
1-G2, III Corps
1-G2, I Corps
1-G2, ARCENT
1-N2, CENTAF
1-J2, CENTCOM
1-Cdr, BCTP
1-Cdr, AIA

(The overall classification of this document is SECRET/Releasable to the United Kingdom [Rel UK]).

Classified by multiple sources

Declassify: OADR
METHODOLOGY

The CG, VII Corps directed the ACofS, G2 to conduct a review of the Corps battles to determine the Iraqi plan and then describe how he executed the plan. The mission was to quickly establish the truth about the composition, disposition, condition, and conduct of the Iraqi Army.

To reconstruct the battle, the team spent two weeks collecting data, a week writing and a week getting major subordinate command comments. Sources varied widely from finished intelligence to unconfirmed spot reports, and journals. Examples of sources used are:

• Individual interrogation reports
• G2 and G3 journals and spot reports
• The VII Corps SLAR data base
• The 7th Eng Bde enemy equipment data base
• Captured Iraqi overlays
• Interviews of participant staffs
• Post-war imagery

This is an effort to capture perishable impressions and primary source material before subsequent operations and redeployments dilute the information. The team found that initial impressions were good for general trends but poor for details. Staff journals were of marginal value. The nature of
the VII Corps offensive caused fighting units, battalions and squadrons, to quickly leave division headquarters behind. Therefore, information did not reliably flow up the chain of command. Unit locations were circumspect and damage assessments were inaccurate.

This is only the beginning. Time will permit a greater number of documents to be exploited and units will do more detailed reviews. We hope this document serves as a good starting point for any future histories.
اتركوا معداتكم أو صاغوا عنها و لا توا حفظكم
فالجبار لكم!

لقه قات الأوان!

إن هذا الواقع متعرض للقصف!

UNCLASSIFIED
Tab F (Engagement Matrix by G-Day)

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Source: Battlefield Reconstruction Center, G2 Ops, VII Corps, 4 Apr 91.
Summary
Partly to mostly cloudy skies, intermittent rain showers and gusty southeasterly winds were the predominant features during the time period. Ceilings were typically 3,000 to 8,000 feet. Visibility was usually 5,000 meters or better, occasionally less due to blowing sand/dust or smoke. Total precipitation measured at CTOC for the period was .09 inches.

During the period, the VII Corps SWO forecast verification was 92%.

24 Feb
Mostly cloudy with unrestricted visibility and rain showers until 1000C. During that time, the minimum ceiling was 5,000 feet. Winds were SE/5 knots, increasing to SE/15 knots by 1000C.

From 1000-1700C, skies remained partly to mostly cloudy with a minimum ceiling of 5,000 feet. Visibility was decreased in blowing sand due to strong south-easterly winds. The minimum visibility was 200 meters, winds were SE/17-23 knots. Maximum recorded wind speed was 25 knots. After 1700C, the skies became partly cloudy and the winds decreased to SE/5-10 knots. As a result, the visibility gradually improved to unrestricted by 2100C.

NOTE: The historical data for the period is a compilation of hourly observations taken at the CTOC. While these observations are, for the most part, representative of general conditions throughout the AO, variations can be expected. For example, rain that occurred at the CTOC may have been heavier and of longer duration farther north. Unfortunately, we have no objective observations any closer to the battlefield than our own.
25 Feb
Skies were partly to mostly cloudy all day. Intermittent rain showers occurred throughout the morning, increasing in intensity and duration with occasional thunderstorms during the afternoon and early evening. Minimum ceiling was 4,000 feet during the afternoon, 3,000 feet late evening. Minimum visibility was 8,000 meters in the afternoon, 5,000 meters late evening, both due to rain. Winds during the day were predominantly ESE/5-10 knots, increasing to NE/10-15 knots by evening.

26 Feb
Skies remained mostly cloudy; the ceiling varied between 3,000 and 12,000 feet. The lower ceilings were associated with isolated rain showers moving through the area. Visibility was predominantly unrestricted, but dropped to 5,000 meters in haze, and occasionally went down to 6,000 to 8,000 meters in rain. Winds were NE/10-18 knots until 0500C, E/10 knots 0500C-1000C, then SE/15-25 knots from 1000-1800C with maximum wind speed of 36 knots recorded at 1200C. After 1800C, winds became SE-SW/10 knots.

27 Feb
Mostly cloudy skies with ceilings varying from 3,000 to 12,000 feet continued. Visibility was unrestricted most of the day, but the winds shifted to NE/5-10 knots, bringing in smoke from the oil fires in Kuwait. By 1800C, the smoke began to reduce visibility, reaching a minimum 6,000 meters at midnight.

28 Feb
Winds remained NE/5-10 knots, causing visibility to continue decreasing to a minimum of 1,000 meters from 0000-0700C due to smoke. Skies continued partly to mostly cloudy, with a minimum ceiling of 800 feet, partly attributable to smoke and fog.
TAB G-1 (Weather Summary)

SWO Illumination Data

24 February
Solar: BMNT: 24/0535; BMCT: 24/0603; SR: 24/0626;
SS: 24/1753; EECT: 24/1816; EENT: 24/1844.
Lunar: Moonrise: 24/1319; Moonset: 25/0344; Illumination: 71%

25 February
Solar: BMNT: 25/1817; BMCT: 25/0602; SR: 25/0626;
Lunar: Moonrise: 25/1427; Moonset: 26/0432; Illumination: 81%

26 February
Solar: BMNT: 26/0534; BMCT: 26/0601; SR: 26/0625;
SS: 26/1754; EECT: 26/1818; EENT: 26/1845.
Lunar: Moonrise: 26/1535; Moonset: 27/0514; Illumination: 90%

27 February
Solar: BMNT: 27/0533; BMCT: 27/0600; SR: 27/0624;
SS: 27/1755; EECT: 27/1818; EENT: 27/1845;
Lunar: Moonrise: 27/1641; Moonset: 28/0551; Illumination: 96%

28 February
Solar: BMNT: 28/0532; BMCT: 28/0559; SR: 28/0623;
Lunar: Moonrise: 28/1744; Moonset: 01/0625; Illumination: 100%
### Desert Storm Weather Effects on Operations

#### Chart:

**Valid: 24 Feb - 28 Feb**

**Legend:**
- **Green** - Favorable
- **Yellow** - Marginal
- **Red** - Unfavorable

**US - USA/USAF**

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Note: The above chart was a projected forecast for the VII Corps Area of Operation.
WEATHER SYMBOLS

HIGH PRESSURE AREA

LOW PRESSURE AREA

THUNDERSTORM

RAINSHOWER

BLOWING SAND

COLD FRONT

WARM FRONT

CLOUDS (>= 6/8 COVERAGE)
1. When did the Iraqis recognize the Coalition's main effort in the west; before or during the 100 hour ground campaign?
2. What frag-plans did the Iraqis develop when they recognized the VII (US) Corps as the main effort?
3. Were the revetments and fighting positions which the Tawakalna and nearby units used old training positions or newly constructed?
4. Did the Hammurabi Armd Div really send elements to support the Tawakalna Mech Div? If so, what C² was established?
5. Was the Adnan Div really an "Artillery Division?"
6. What happened to the Hammurabi Division? How much did XVIII Airborne Corps destroy?
7. Why did 10th Armored Division abandon entire sets of undamaged equipment? If they had time to clean out their bunkers, why didn't they organize to fight?
8. How quickly did news of VII (US) Corps attack spread? How accurate was it? What channels were used?
9. When was the order to evacuate Kuwait given?
10. How thoroughly was original Iraqi plan disseminated? Down to what level?
**BATTLE DAMAGE ASSESSMENT BY G-DAY**

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Based on spot reports and daily BDA reports.
### CAPTURED ENEMY EQUIPMENT DESTROYED

**THRU 01 MAR-06 APR 91**

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<td>161</td>
<td>180</td>
<td>12</td>
<td>6</td>
<td>81</td>
</tr>
<tr>
<td>11AB</td>
<td>90</td>
<td>86</td>
<td>8</td>
<td>11</td>
<td>69</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1350</td>
<td>1224</td>
<td>285</td>
<td>105</td>
<td>1229</td>
</tr>
</tbody>
</table>
Note: The above diagram is derived from the 7th Engineer Brigade database of equipment they destroyed.
Tab K (Iraqi Wreckage Data)

1. General. The Iraqi Wreckage Data (AKA WreckInt) overlays depicted at Tabs K1 through K5 summarize the locations of destroyed, damaged and abandoned equipment belonging to the Iraqi Regular Army and Republican Guard Forces Command elements which opposed VII Corps. This data base is all that was available to the reconstruction teams prior to 15 April, and it is not complete. Some units had very complete data bases, others did not. The overlays depict major equipment concentrations as they relate to the VII Corps operations graphics and provide the disposition of Iraqi tanks, BMPs, MTLBs, BRDMs, and artillery units.

2. Sources. The information for these overlays was developed from documents provided by the 7th Engineer Brigade, VII Corps targeting element, and some major subordinate command comments to the VII Corps G2 Battlefield Reconstruction Center. All information shown was collated and produced on the Hawkeye Intelligence Processing System.

Tabs:

Tab K-2 (Iraqi Wreckage Data (WreckInt))
Tab K-3 (Iraqi Wreckage Data, Tanks)
Tab K-4 (Iraqi Wreckage Data, BMP/MTLB)
Tab K-5 (Iraqi Wreckage Data, BRDM)
Tab K-6 (Iraqi Wreckage Data, Artillery)
penetration, counterattack, and Ad Hoc strengthening of weak points in the Iraqi defensive line. The Iraqis considered the 10th Armored Division the best regular division in their army. And as such, it included two armored brigades of T-62s and T-72s, and BMPs. The armored battalion of the division’s mech bde was equipped with T-55s. Although little artillery was imaged in the division sector in January and February, the 10th probably had three battalions of M-46s, and one battalion of 2S1 self-propelled howitzers. (See Tab L-8)

11. The 12th Armored Division probably originated from Tikrit. Imagery in October showed enough armor at the Tikrit Barracks for an armored division. Late in November imagery confirmed the departure of the 12th AD from garrisons northeast of Baghdad. By early December elements of the 12th AD had assumed positions near the 10th Armored Division, as more and more battalions had crowded into the area. However, no command structure and additional artillery were noted. This crowding of battalions into the 10th and Tawakalna area has hampered the assigning of artillery to particular divisions. As in the 52nd AD, brigades in the 12th AD were tasked organized into battalion task forces consisting of T-55s and MTLBs. In addition to the division’s organic artillery battalions, four 2S1 battalions were identified in the 12th/Tawakalna area in February. Two of the battalions were in the 12th AO. (See Tab L-9)

10 Armd Div
17 Armd Bde QU0106(B/17) QU0106
24 Mech Bde QU0106(99 Mech) QU0213
42 Armd Bde QT1199(A/17) QU1200

28 Jan
BM21 Bty QU1219
2S1 Bn(-) QU1408(2S3) QU1219

12 Armd Div
37 Armd Bde Tikrit PT9906
46 Mech Bde PT8395
50 Armd Bde PT7930

103rd M-46 Bn
1 x GCT(SP) Bn PU8632
1 x OHN Bn PU8402
1 x GCT Bn PU8307
12. Republican Guard Divisions: This perimeter force has been Iraq's best equipped, best trained, and best supported component of the Iraqi ground forces. These loyal and highly motivated elite units led the August 1990 invasion into Kuwait. Once RGFC had secured the country, Regular Army divisions took up defensive positions along the Saudi border. By the end of August, Republican Guard divisions were withdrawn to pre-invasion staging areas near the Kuwaiti-Iraqi border, where they constituted a strategic reserve. Infantry divisions were located along the border to delay and channelize attackers, and two operational groups—one in central Kuwait, the other near the Wadi Al Batin were located to support the infantry and defend against a flanking or envelopment in the west. Three heavy Republican Guard divisions acted in a strategic role of protecting the oil-rich southeastern region of Iraq. RGFC units were also in position to meet an attempted envelopment by Coalition forces from the west or east.

13. In September the Tawakalna Mechanized Division moved from positions due west of Kuwait to an area northwest of Kuwait. The Hammurabi and Medinah armored divisions occupied positions along Kuwait's northern border with Iraq. With the exception of minor reshuffling before and during the war, the Republican Guards remained in these areas until the Coalition juggernaut forced a hasty withdrawal into southeastern Iraq.

14. As Iraq's elite force, the Republican Guards were equipped with modern T-72 tanks and BMP infantry fighting vehicles (73mm Main Gun). Two battalion-sized screening forces of BMP fighting vehicles were noted north of the Tawakalna and Hammurabi divisions, and may have been the RGFC's screening force. In addition to the best armored vehicles, the inventories of all three heavy RGFC divisions included 155mm artillery, and SA-6/8 or Roland SAMs. During the air campaign the Iraqis transferred a number of these systems to shore up the battered Iraqi air defense belt in southern Kuwait. A look at the divisions indicates that the Tawakalna had six battalions of
artillery - three or four 155 Bns, one 2S1 Bn, and at least one M-46 Bn. The Medinah and Hammurabi each had three or four battalions. Most of which were GHN or self-propelled GCTs. (See Tab L-10)

<table>
<thead>
<tr>
<th>Tawakalna Mech Div</th>
<th>PT8889</th>
<th>PT7862</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 Mech Bde</td>
<td>PU9022</td>
<td>PU9322</td>
</tr>
<tr>
<td>29 Mech Bde</td>
<td>PU7404</td>
<td>PU5403</td>
</tr>
<tr>
<td>9 Armd Bde</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x 2S1 (Bn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x 155mm Bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x M-46 Bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x M-46 Bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>104th UI Bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142nd UI Bn</td>
<td></td>
<td></td>
</tr>
<tr>
<td>147th UI Bn</td>
<td></td>
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<td>1 x GHN Bn</td>
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<td>1 x GHN Bn</td>
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<td>1 x UI SP Bty</td>
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<td></td>
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<tr>
<td>1 x SA-6 Bty</td>
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<td>1 x SA-6 Bty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 x SA-6 Bty</td>
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</table>

<table>
<thead>
<tr>
<th>Medinah Armd Div (See Tab L-11)</th>
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<th></th>
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</thead>
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<td>QU1732</td>
<td>QU2133</td>
</tr>
<tr>
<td>3A Armd Bde</td>
<td>QU2531</td>
<td>QU3230</td>
</tr>
<tr>
<td>B Armd Bde</td>
<td>QU1225</td>
<td>QU726</td>
</tr>
<tr>
<td>1 x GCT Bn</td>
<td>QU1234</td>
<td>QU1234</td>
</tr>
<tr>
<td>1 x 155mm Bn</td>
<td>QU1434</td>
<td>QU1434</td>
</tr>
<tr>
<td>1 x GCT Bn</td>
<td>QU1736</td>
<td>QU1736</td>
</tr>
<tr>
<td>1 x D-20 Bn</td>
<td>QU1938</td>
<td>QU1938</td>
</tr>
<tr>
<td>1 x BM-21 Bty</td>
<td>QU0224</td>
<td>Unloc</td>
</tr>
<tr>
<td>1 x SA-6 Bty</td>
<td>QU0527</td>
<td>Unloc</td>
</tr>
<tr>
<td>1 x SA-13 TEL</td>
<td>QU0723</td>
<td>Unloc</td>
</tr>
<tr>
<td>1 x SA-13 TEL</td>
<td>QU0728</td>
<td>Unloc</td>
</tr>
<tr>
<td>(2 x poss SA-13 TEL)</td>
<td>QU1526</td>
<td>Unloc</td>
</tr>
</tbody>
</table>
Tab K-5  (Iraqi Wreckage Data, BRDM)
INTRODUCTION

1. VII Corps All-Source Production section committee has attempted to depict Iraqi order of battle for three different dates. These dates are 07 Nov 90 (when VII Corps received the warning order to deploy to Saudi Arabia), 17 Jan 91 (the beginning of the Desert Storm Air Campaign), and 23 Feb 91 (the day prior to G-day, or beginning of the ground war). ASP analysts used several sources in compiling necessary data: National and theater imagery, Iraqi deserters and prisoners of war reports, battlefield damage reports, targeting data, and intelligence products from ARCENT, CENTCOM, and DIA. This work by no means is a complete and totally accurate depiction of Iraqi forces aligned against the U.S. VII Corps. However, given the current available data, it is the Corps' best assessment of Iraqi OB up to the ground war.

THE FRAGILE FRONT LINE

2. Within three months after invading Kuwait, Iraqi forces in the Kuwaiti theater of operations had stabilized their ground organization. By the end of September, the heavy RGFC divisions that had spearheaded the assault into Kuwait, were pulled back to the Kuwait-Iraqi border. With Regular Army mechanized and armor divisions acting as tactical reserves, infantry divisions were deployed along the Saudi-Kuwaiti border.

3. 26th Infantry Division: In the western KTO, the Iraqis had moved an infantry division well to the west of the tri-border area in late September. Two infantry brigades were in place to screen against an attack on their Iraqi right flank. Another infantry brigade, the 806th, was deployed approximately 50 kilometers to the north, as protection against any Coalition attempt to outflank the Iraqis. (See Tab L-2)

4. There were four artillery battalions in the 26th ID. Three D-30 units (122mm) probably provided direct support to the brigades, while a 130mm M-46 battalion, remained
in general support of the division. As the air campaign proceeded, the Iraqis may have added additional artillery. Two batteries of (Type 63) 107 MRL systems and a Type 59-1 were noted early in February. At least one battalion of armor (probable T-55) was assigned to the division. In addition to AAA assets, an SA-13 unit provided air defense cover.

<table>
<thead>
<tr>
<th>UNIT</th>
<th>08 Nov LOC CENTER OF MASS</th>
<th>17 Jan LOC CENTER OF MASS</th>
<th>23 Feb LOC CENTER OF MASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 Inf Div</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>110 Inf Bde</td>
<td>NT7040(A/36/31)</td>
<td>NT6439(E/25)</td>
<td>NT7143</td>
</tr>
<tr>
<td>434 Inf Bde</td>
<td>NT8138(B/36/31)</td>
<td>NT8439(D/25)</td>
<td>NT8844</td>
</tr>
<tr>
<td>806 Inf Bde</td>
<td>NT8299(A/26)</td>
<td>NT8295(A/26)</td>
<td>NT8694</td>
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<tr>
<td>1 x M-46 Bn</td>
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<td>NT8151</td>
<td>NT7648</td>
</tr>
<tr>
<td>1 x Type 59-1 Bn (or D-30 Bn)</td>
<td></td>
<td>Unlocated</td>
<td>NT8050</td>
</tr>
<tr>
<td>1 x D-30 Bn</td>
<td>NT6742</td>
<td>NT7244</td>
<td></td>
</tr>
<tr>
<td>1 x D-30 Bn</td>
<td>NT8443</td>
<td>NT8543</td>
<td></td>
</tr>
<tr>
<td>1 x Type-63 Bty</td>
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<td>NT8544</td>
<td></td>
</tr>
<tr>
<td>2 x Type-63 Bty</td>
<td>Unlocated</td>
<td>NT7244</td>
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</tr>
<tr>
<td>3 x Mortar Bty (Poss 120mm)</td>
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<td>NT8340</td>
<td></td>
</tr>
<tr>
<td>1 x Poss FROG</td>
<td></td>
<td>NT6740</td>
<td></td>
</tr>
<tr>
<td>LCHR</td>
<td></td>
<td>NT6740</td>
<td></td>
</tr>
<tr>
<td>1 x M-46 Bn</td>
<td>NT8259</td>
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<td></td>
</tr>
<tr>
<td>Armor Company</td>
<td></td>
<td></td>
<td>NT8340</td>
</tr>
</tbody>
</table>

5. **48th Infantry Division:** Meanwhile, the Iraqi worked throughout October to close the gap between the tri-border area and the western most 26th Infantry Division. The 28th Infantry Division, anchoring the tri-border area, began to extend its positions westward in October. In early November two brigades—the 807th and the 802nd of the 48th Infantry Division—were deployed along the Saudi-Iraqi border. By the time VII Corps
was ordered to deploy as part of Desert Shield, the Iraqis had established a defensive line which ran from the gulf coast to points over 100 kilometers west of the Wadi Al Batin. The three infantry brigades were deployed in a traditional 'two up, one back' configuration. They remained so throughout the air and ground campaigns. Artillery consisted of at least two D-30 Bn's and one 130mm Bn. As the devastating air campaign progressed, the Iraqis had to apparently deploy corps-level 155mm units to make up for losses sustained in the south. Both T-55 and T-62 tanks were reportedly destroyed in the division sector. There is no further data available on armor units in the 48th ID AO. However, according to DIA estimates from December 1990, there was at least one tank battalion from the 52nd Armored division assigned to the division. Anti-air artillery assets included M-1939 37mm and ZSU 23-4 guns. (See Tab L-3)

48 Inf Div
807 Inf Bde  NT9734(C/36/31)  NT9836(A/25)  PT0544
802 Inf Bde  PT1336(C/25)  PT1336(B/25)  PT2044
803 Inf Bde  PT0081(B/26) (poss)  PT0847(C/25)  PT1555
1 x D-30 Bn No artillery  PT0245  PT0140
1 X D-30 Bn LOCs known for November  PT2038  PT1842
1 x M-46 Bn  PT1549  PT1551
1 x 155mm Bn  Unloc, Poss  PT0655
1 x D-30 Bn (poss) Corps Reserve  PT0253  Dest
1 x 130mm Bn  PT0039  Unloc
3 x 37mm Guns  PT0847(C/25)  Unlocated  PT043
1 x ZSU 23-4  PT1251  Unloc
1 x T-55 Dest  PT2236
1 x T-55 Dest  PT1841
2 x T-62 Dest  PT1836

6. 25th and 31st Infantry Divisions: These divisions were configured similar to the 48th ID. In each division two brigades were forward, and one deployed to the rear. There was very little movement within these front line units once the Iraqis established their basic defensive configuration. By the beginning of October, Iraqi ground forces had almost
completed the defense in depth along the Saudi-Iraqi border and had prepared defensive positions. In addition to standard obstacles, such as revetments, tanglefoot, minefields, and fences, the Iraqis began to construct a series of fire trenches along the border later in the month. (See Tab L-4, L-5)

7. The Iraqis deployed larger caliber and longer-ranging artillery in this portion of the defensive line, as they repositioned forces to best cover what they perceived to be major avenues of approach into Kuwait along the Wadi Al Batin. Several 155mm battalions, which had been imaged in the 31st sector during January, were not noted there prior to the commencement of the ground campaign. Either they were initially misidentified, deployed out of sector, or well concealed.

<table>
<thead>
<tr>
<th>31 Inf Div</th>
<th>601 Inf Bde</th>
<th>PT2542(A/16)</th>
<th>PT3139(A/16)</th>
<th>PT3343</th>
</tr>
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<tbody>
<tr>
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<td>109 Inf Bde</td>
<td>PT3637(B/25)</td>
<td>PT3547(C/36)</td>
<td>PT4143</td>
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<tr>
<td></td>
<td>49 Inf Bde</td>
<td>Unloc</td>
<td>PT4861(50/12)?</td>
<td>PT4252</td>
</tr>
<tr>
<td>1 x UI Bn (M46/D30)</td>
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<td>PT2844</td>
<td></td>
<td>PT2945</td>
</tr>
<tr>
<td>1 x Type 59-1 Bn(-)</td>
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<td>PT3458(130mm)</td>
<td></td>
<td>PT3852</td>
</tr>
<tr>
<td>1 x Type 59-1 Bn(-)</td>
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<td>PT3557(UI Bn)</td>
<td></td>
<td>PT4155</td>
</tr>
<tr>
<td>1 x Type 59-1 Bn</td>
<td></td>
<td>PT4250</td>
<td></td>
<td>PT4253</td>
</tr>
<tr>
<td>1 x M-46 Bn</td>
<td></td>
<td>PT3950(M-46)</td>
<td></td>
<td>PT3451</td>
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<td>PT4454(155 Bn)</td>
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<td>PT2538(155 Bn)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PT4358(155' Bn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PT3553(155 Bn)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PT4253(GHN Bn)</td>
<td></td>
<td></td>
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</tbody>
</table>

| 1 x SA-9 (Prob) | PT2357 | Unloc |
| 1 x Flap Wheel  | PT3626 | Unloc |

Tank TF(UI Type) | PT3451 | Unloc |

<table>
<thead>
<tr>
<th>25 Inf Div</th>
<th>103 Inf Div</th>
<th>PT4631(A/28)</th>
<th>PT4637(B/16)</th>
<th>PT5142</th>
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<tbody>
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<td>72 Inf Bde</td>
<td>PT5750(B/16)</td>
<td>PT6031(C/16)</td>
<td>PT6040</td>
</tr>
<tr>
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<td>102 Inf Bde</td>
<td>PT5649(C/16)</td>
<td>PT5553(A/36)</td>
<td>PT6052</td>
</tr>
<tr>
<td></td>
<td>1 x D-30 Bn</td>
<td></td>
<td>PT6354(130mm Bn)</td>
<td>PT5943</td>
</tr>
<tr>
<td></td>
<td>1 x D-30 Bn</td>
<td></td>
<td>PT5042(3 x D-20 Bn)</td>
<td>PT6141</td>
</tr>
<tr>
<td></td>
<td>1 x M-46 Bn</td>
<td></td>
<td>PT5446</td>
<td>PT4945</td>
</tr>
</tbody>
</table>
8. 27th Infantry Division: This unit was deployed along an extremely narrow sector, demonstrating Hussein’s preoccupation with Wadi Al Batin. The division’s three brigades occupied a frontage less than ten kilometers. And as further evidence of Hussein’s concern for defending this area, seven artillery battalions—at least three of which were D-30’s, and three other M-46—were imaged in the division sector. At least one battalion and a company of T-55s were noted in the area. One week before G-day, air force imagery spotted two SA-6 TELS in the division’s eastern sector. (See Tab L-6)

27 Inf Div
437 Inf Bde  Unloc  PT7335(B/20)  PT7136
424 Inf Bde  Unloc  PT6949(B/36)  PT6638
420 Inf Bde  Unloc  PT8146(A/C)  PT7549

Artillery as of 2 Feb
1 x D-30 Bn(-)  Corps Arty Bde  PT6747
1 x M-46 Bn  PT6450
1 x M-46 Bn  PT6750
1 x M-46 Bn  PT6556
1 x D-30 Bn  PT6747(D-30 Bn)  PT6543
1 x D-30 Bn  PT7739(D-30? Bn)  PT7143
1 x UI Bn  PT6738

2 x SA-6 TELS
PT6450(M-46 Bn)
PT6265(SP Arty)

Unloc  PT7738
PT6933  Unloc
PT6448 Armor Co

THE TACTICAL RESERVE

9. 52nd Armored Division: This unit had been

L-1-5
originally designated by DIA and ARCENT as the 12th Armored. It was deployed as the 7th (IZ) Corps reserve along an extended banana-shaped front stretching over 60 kilometers, and was dispersed behind the forward deployed divisions. The 52nd Armored Brigade was approximately ten kilometers behind the 48th ID, and the 80th Armored Brigade was approximately five kms behind the division boundary of the 25th and 26th IDs. The 11th Mech Bde remained approximately 30 kilometers to the north, behind the 27th ID. The division's mission was to counterattack any Coalition penetration in the Corps sector. Elements of all three brigades were task organized into battalion task forces consisting of T-55s and MTLB APCs. To assist in this effort, a battalion of T-12 anti-tank guns were deployed in the vicinity of PT4354 (just east of the Wadi Al Batin). Three battalions of artillery have been tentatively identified in the division sector. (See Tab L-7)

| 52 Armd Div | 52 Armd Bde PT5861(46 Mech) | PT2353(46 Mech?) | PT2857 |
| 80 Armd Bde PT7678(B/12) | PT7678(37 Armd Bde) | PT8281 |
| 11 Mech Bde PT5869(A/12) | PT4861 30 Armd Bde | PT5463 |
| 1 x D-30 Bn | PT7883 | PT8084 |
| 1 x M-46 Bn | PT8084 | PT8086 Unloc (600th 155mm Towed Bn) |
| 1 x UI Bty | PT8691(Astros) | PT7883 |
| 1 x S-60 | PT5454 | Unloc |
| 1 x SA-9 | PT4900 | Unloc |
| 1 x T-12 Bty | PT3656 | Unloc |
| 1 x T-12 Bty | PT4951 | Unloc |

**THE THEATER RESERVE**

10. The 10th and 12th Armored Divisions formed the theater's 'Operation Jihad' Corps. Its mission was counter-
SA-13 TEL

Hammurabi Armd Div (See Tab L-12)

<table>
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<tr>
<th>Unit Description</th>
<th>QU Code 1</th>
<th>QU Code 2</th>
<th>QU Code 3</th>
</tr>
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<td>QU4446</td>
<td>QU4446</td>
<td>QU4047</td>
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<td>17 Armd Div</td>
<td>QU4240</td>
<td>QU4340</td>
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<td>QU4840</td>
</tr>
<tr>
<td>1 x 2S1 Bn</td>
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<td>QU4040</td>
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</tr>
<tr>
<td>1 x GCT Bn</td>
<td>QU2742</td>
<td>QU2742</td>
<td></td>
</tr>
<tr>
<td>1 x 2S3 Bn</td>
<td>QU4440</td>
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<td></td>
</tr>
<tr>
<td>1 x 155 Bn</td>
<td>QU5443</td>
<td>QU5443</td>
<td></td>
</tr>
<tr>
<td>1 x M-46 Bn</td>
<td>QU4648</td>
<td>QU4648</td>
<td></td>
</tr>
<tr>
<td>1 x SA-6 Bty</td>
<td>QU3443</td>
<td>QU3443</td>
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</tr>
<tr>
<td>1 x SA-6 Bty</td>
<td>QU4247</td>
<td>QU4247</td>
<td>Unloc</td>
</tr>
<tr>
<td>1 x Roland Bty</td>
<td>QU4145</td>
<td>QU4145</td>
<td>Unloc</td>
</tr>
<tr>
<td>1 x Roland Bty</td>
<td>QU4151</td>
<td>QU4151</td>
<td>Unloc</td>
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<tr>
<td>1 x Roland Bty</td>
<td>QU5666</td>
<td>QU5666</td>
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</table>
6 Other Arty Bns:
- 2 x M46 Bn
- 1 x Type 59-1 or D-30 Bn
- 1 x Type-63 Bn
- 1 x 120mm Mortar Bn
- 1 x FROG Pit
1 x M46 or D30 Bn
3 x Type 59-1 Bn
1 x M46 Bn
ATTACHED BROKEN IN TO 424 BDE SPT CO'S FAHD APC'S

NOTE: 3 * 5.50 AAA GUNS W/EACH BDE

8 * 107MM ROCKETS

130MM MORTAR

130MM

155MM

122MM

TAB L-6 (27th Infantry Division Corps)
12

MTLB

XX

37

46

50

103 M46 Bn
1 x GCT (SP) Bn
2 x GHN Bn
2 x 2S1 Bn
Medina

T-72
BMP

2 x GCT Bn
1 x 155mm Bn
1 x D-20 Bn
1 x BM21 Bty
TAB L-12 (Hammurabi Division/RFCE)
1. When did the Iraqis recognize the Coalition's main effort in the west; before or during the 100 hour ground campaign?

2. What frag-plans did the Iraqis develop when they recognized the VII (US) Corps as the main effort?

3. Were the revetments and fighting positions which the Tawakalna and nearby units used old training positions or newly constructed?

4. Did the Hammurabi Armd Div really send elements to support the Tawakalna Mech Div? If so, what C^2 was established?

5. Was the Adnan Div really an "Artillery Division?"

6. What happened to the Hammurabi Division? How much did XVIII Airborne Corps destroy?

7. Why did 10th Armored Division abandon entire sets of undamaged equipment? If they had time to clean out their bunkers, why didn't they organize to fight?

8. How quickly did news of VII (US) Corps attack spread? How accurate was it? What channels were used?

9. When was the order to evacuate Kuwait given?

10. How thoroughly was original Iraqi plan disseminated? Down to what level?