

Iraqi Army Will to Fight

A Will-to-Fight Case Study with Lessons for
Western Security Force Assistance

Appendixes

BEN CONNABLE

Prepared for the United States Army
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Preface

This document consists of three appendixes to *Iraqi Army Will to Fight: A Will-to-Fight Case Study with Lessons for Western Security Force Assistance* (Ben Connable, RAND Corporation, 2022, available at www.rand.org/t/RRA238-1).

These appendixes document research and analysis conducted as part of a project entitled *Will to Fight Cases, Modeling, Gaming, and Simulation: Europe and the Middle East*, sponsored by the Deputy Chief of Staff, G-3/5/7, U.S. Army. The purpose of the project was to provide the U.S. Army with up to two detailed case studies of partner and/or adversary will to fight, focusing on the Middle East; test each case with complementary gaming and simulation efforts; and provide the Army with a will-to-fight model for incorporation into simulations.

The research was conducted within the RAND Arroyo Center's Strategy, Doctrine, and Resources Program. RAND Arroyo Center, part of the RAND Corporation, is a federally funded research and development center (FFRDC) sponsored by the United States Army.

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Iraqi Army Will to Fight in the Iran-Iraq War—Part II: Factors

This appendix presents the evidence behind the factor-by-factor analysis of the Iraqi Army's will to fight in the Iran-Iraq War of 1980–1988. The case is coded for both the beginning and end of the war to show changes. Summary analysis and key findings on the Iran-Iraq War can be found in Chapters Three and Four of the main report. This appendix is also intended to serve as an exemplar for the application of the will-to-fight model for historical cases.

Chapter One of the main report describes the will-to-fight model as portable. It is designed to be modified for every specific case, with the understanding that there may be factors it does not account for and data sources or methods that might have idiosyncratic value. This case study relies heavily on primary and secondary historical sources, with reinforcement from interviews with senior Iraqi general officers conducted in early 2019.

The model is primarily intended to help military advisors and intelligence analysts guide their understandings of will to fight. In all likelihood, neither advisors nor busy analysts will undertake deep historical research for a decades-old case. This case is primarily designed to show how the model can be used when time and resources are less restraining than they are during combat advising missions, or while analysts are otherwise sifting through a deluge of daily intelligence reporting. It is also designed to show how the model can be used to develop a set of cases to help understand the concept of will to fight more broadly.

How to Assess Will to Fight in a Historical Case: Iran-Iraq War Example

This is the first published historic case study using the RAND will-to-fight model. It builds from the case analyses for *Will to Fight*,¹ as well as an exploratory case of the Vietnam War that will be published at a later date.

Amassing Evidence

The model is designed to provide a clear, simple, but necessarily detailed guide for assessment. Factors guide evidence gathering and writing. For a historical case such as the Iran-Iraq War, the first step is basic literature review. This involves a simultaneous quest for primary and secondary source material to obtain sound and, ideally, mutually-reinforcing evidence to support findings. In turn, evidence-based findings give policymakers a solid basis for decisionmaking. Assessments should be transparent and credible to the consumer, relevant to the task at hand,

¹ Ben Connable, Michael J. McNerney, William Marcellino, Aaron Frank, Henry Hargrove, Marek N. Posard, S. Rebecca Zimmerman, Natasha Lander, Jasen J. Castillo, and James Sladden, *Will to Fight: Analyzing, Modeling, and Simulating the Will to Fight of Military Units*, Santa Monica, Calif.: RAND Corporation, RR-2341-A, 2018.

based on a balanced selection of evidence, carefully analyzed, congruent with standing theories regarding advising or intelligence, and parsimonious with the time and effort required from advisors in the field.² For intelligence analysts, this approach will help them meet Intelligence Community standards for analytic integrity and source validity.³

In this case, primary sources consisted of transcripts of captured audiotapes from Saddam Hussein's leadership discussions, published interviews with Iraqi Army general officers, and the 2019 RAND semistructured interviews with Iraqi Army general officers. Ideally, historical case assessment would include detailed archival research for additional primary sources, such as official documents. Time and resources were not unlimited and did not permit archival work for this case; available online transcripts from the Wilson Center Digital Archive and the cited works by Kevin Woods et al. were sufficient to provide a representative sample.⁴ However, diverse and detailed secondary sources—when matched with the more limited but unique primary sources—were more than sufficient to produce solid, evidence-based findings. Some of these sources referred back to the same primary sources, but they also interpret a wide array of material ranging from restricted archival records to revealing semi-structured interviews.

Table A.1 shows the primary and secondary sources used to assess Iraqi Army will to fight in the Iran-Iraq War.⁵ Secondary sources fall into three general categories: (1) books, (2) journal and newspaper articles, and (3) declassified intelligence reports. The purpose of showing this lineage from primary to secondary sources to the assessment is to make this assessment as transparent and as credible as possible. The rightmost column provides a record code. This code will be used as shorthand for citation later in this appendix.⁶

Some of the secondary sources provide deeper anchoring into valuable primary sources. For example, Razoux (2015, code f), Murray and Woods (2014, code e), and Woods, et al. (2011, code bb) cross-reference their analyses with archival research from the Saddam Hussain audiotapes captured in the 2003 coalition invasion, available at the Conflict Records Research Center at National Defense University, Washington, D.C. Malovany (2018, code h) derived his extensive findings across nearly 1,000 pages of published research from primarily Iraqi sources, including Arabic-language newspaper articles and official documents. Sassoon's analysis is directly reflective of the primary-source records from the official Ba'ath Party archives.

Coding the Literature

Coding in this context means finding citations for each factor in the literature. Each interview transcript, book, article, and declassified intelligence report was read and coded using the will-

² Ben Connable, *Embracing the Fog of War: Assessment and Metrics in Counterinsurgency*, Santa Monica, Calif.: RAND Corporation, MG-1086-MCIA, 2012, pp. xvi–xvii.

³ See Director of National Intelligence, *Sourcing Requirements for Disseminated Analytic Products*, Intelligence Community Directive 206, McLean, Va.: Director of National Intelligence, January 22, 2015.

⁴ See Wilson Center Digital Archive at <http://digitalarchive.wilsoncenter.org>. See Woods, Pallki, and Stout, 2011.

⁵ These sources were cited in Chapter 3, and can be found in the References section of this report.

⁶ Some sources were perused but not directly cited. These include books that might be considered part of the Iran-Iraq War canon. For example, Edgar O'Ballance, a prolific war chronicler, wrote the oft-cited *The Gulf War* (McLean, Va.: Brassey's Defense Publishers, 1988). However, the book includes no citation and provides no references. It refers loosely to O'Ballance's research trips to the Middle East. *The Gulf War* is not included in Table 3.2. Several U.S. military masters theses on the Iran-Iraq War were also informative, but they generally referenced the secondary sources already cited in Table 3.2. They are not cited here.

Table A.1
Sources for the Iran-Iraq War Will-to-Fight Assessment

Type	Title or Summary of Source Set	Author(s)	Year	C
Primary Sources				
Interviews	RAND interviews with Iraqi general officers (8 interviews)	RAND	2019	a
Transcript	Conflict Records Research Center, National Defense University, "Saddam Tapes"	National Defense University	--	b
Interviews	<i>Saddam's Generals: Perspectives of the Iran-Iraq War</i> (5 interviews)	Woods et al.	2011	c
Interview	<i>Saddam's War: An Iraqi Military Perspective of the Iran-Iraq War</i>	Woods, Murray, and Holaday	2009	d
Secondary Sources				
Book	<i>The Lessons of Modern War, Volume II: The Iran-Iraq War</i>	Cordesman and Wagner	1990	e
Book	<i>The Iran-Iraq War: A Military and Strategic History</i>	Murray and Woods	2014	f
Book	<i>The Iran-Iraq War</i>	Razoux	2015	g
Book	<i>The Longest War: The Iran-Iraq Military Conflict</i>	Hiro	1989	h
Book	<i>Wars of Modern Babylon: The History of the Iraqi Army from 1921–2003</i>	Malovany	2018	i
Book	<i>Iran and Iraq at War</i>	Chubin and Tripp	1991	j
Book	<i>The Gulf War</i>	Mauil and Pick	1989	k
Book	<i>The Iran-Iraq War</i>	Johnson	2011	l
Book	<i>The Iran-Iraq War: New Weapons, Old Conflicts</i>	Tahir-Kheli and Ayubi	1983	m
Book	<i>Arabs at War: Military Effectiveness, 1948–1991</i>	Pollack	2002	n
Book	<i>Armies of Sand: Past, Present, & Future of Arab Military Effectiveness</i>	Pollack	2019	o
Book	<i>Saddam Hussein's Ba'ath Party: Inside an Authoritarian Regime</i>	Sassoon	2012	p
Book	<i>Fighting Armies: Antagonists in the Middle East</i>	Gabriel	1983	q
Article	"Saddam Husayn and Civil-Military Relations in Iraq"	Hashim	2003	r
Article	"The Puzzle of Personalist Performance..."	Talmadge	2013	s
Article	"Trial by Error: Reflections on the Iran-Iraq War"	Sick	1989	t
Article	"Civil-Military Relations in Iraq (1921–2006): Introductory Survey"	Kadhim	2006	u
Article	"The Iran-Iraq War: A Military Analysis"	Segal	1988	v
Article	"Geopolitical Origins of the Iran-Iraq War"	Swearingen	1988	w
Article	"The Iran-Iraq War"	Sterner	1984	x
Article	"Military Power and Foreign Policy Goals. The Iran-Iraq War Revisited"	Karsh	1987	y
Book	<i>Iraq's Armed Forces: An Analytical History</i>	Al-Marashi and Salama	2008	z
Book	<i>Iraq in Wartime: Soldiering, Martyrdom, and Remembrance</i>	Khoury	2013	aa
Book	<i>The Saddam Tapes: The Inner Workings of a Tyrant's Regime, 1978–2001</i>	Woods, Pallki, and Stout	2011	bb
Book	<i>I Put My Sword Away</i>	Yousif	2015	cc
Book	<i>State of Repression: Iraq Under Saddam Hussein</i>	Blaydes	2018	dd
Articles	Contemporaneous newspaper articles: <i>New York Times</i> , <i>Washington Post</i>	Various, informative, see list of references in the main report		
Intelligence	Declassified intelligence reports from the Central Intelligence Agency (11 reports)	CIA—see citations in Table A.2		
Literature	Cited literature on Iraqi history, sociocultural issues	Various, see Chapter Two in the main report		

SOURCES: See full citations in the References section.

NOTE: "Literature" describes the background reading that informed the more detailed, cited research.

to-fight factors. This involved reading the piece, marking each section that touched on any one of the 29 primary factors or nine contextual factors, and then referring to the coded data for the factor-by-factor assessment using the assessment tool. These coded pieces of information are referenced as evidence for the informed subjective judgments required in the tool.

Level of Assessment: The Iraqi Army as Organization

The will-to-fight model is designed to assess either a military unit, from squad through corps, or a military organization or service, such as the Iraqi Army. For the Iran-Iraq War case, the assessment focuses on the Iraqi Army as an organization. Insufficient English-language information was available to assess individual units for the Iran-Iraq War.

Contextual Case Assessment

Will to fight can be assessed as a *general* disposition or as a *contextual* disposition. General assessments are used to help understand the will to fight of an organization or unit in a broad array of prospective situations. A contextual assessment focuses on a known or single, prospective combat situation. In this case, the Iraqi Army is assessed in the context of the Iran-Iraq War and specifically against the Iranian ground forces. Findings might or might not apply to other conflicts the Army might have fought at the same time (e.g., its internal combat against well-armed Kurdish militias).

Coded References for Each Factor in the Iran-Iraq War Case

This section presents the coded references for each factor in the Iran-Iraq War case. In addition to the interviews, I read approximately 5,000 pages of material, some of which is not cited here. Non-cited works include newspaper articles, master's theses, and books that were insufficiently sourced and therefore insufficiently reliable for analysis.

RAND's will-to-fight model is designed to help support *assessments* of partner forces and *analyses* of adversary forces. Analyses conducted by U.S. intelligence analysts have specific standards for citation. One purpose of using this table was to shorten the overall length of the paper and reduce the volume of the footnotes. Another purpose of providing this table, and for organizing the information in this way, is to demonstrate how historical case assessments might be organized to meet Intelligence Community Directives 203 and 206. These directives dictate the source requirements necessary to meet analytic integrity standards.⁷ Coding might be helpful for these analyses.

Each section presents the evidence for a single factor. Sources are coded from Table A.1 (the rightmost column, labeled "C"). Intelligence reports are listed by their report codes, with the exception of one uncoded report (CIA, July 1982b). I listed the Saddam Tapes as code "b" in Table A.1 but did not cite them here. There is already considerable circular reinforcement in this list: Sources cite each other, sometimes without clear attribution. The Saddam Tapes are amply sampled throughout and, in some cases, they appear to reflect primary source material under two or three layers of additional analyses.

⁷ As of July 19, 2019, all of the active directives can be found on the Office of the Director of National Intelligence website (Office of the Director of National Intelligence, "Intelligence Community Directives," webpage, undated, <https://www.dni.gov/index.php/what-we-do/ic-related-menus/ic-related-links/intelligence-community-directives>).

Here is an example of how to read Table A.2. Under the left-hand column, labeled “Factor,” “Individual Ideology” is the first cell. This factor assessment in Chapter Four is substantiated by evidence from secondary sources f, l, h, m, p, t, and Kifner (1986) and primary sources (interviews) a1, a2, a3, a7, and a8. In this example, the reader can look up *The Iran-Iraq War: A Military Strategic History* by Murray and Woods (source f) and go to pages 51 and 216 to find evidence supporting the assessment on Individual Ideology for the Iraqi Army in the Iran-Iraq War. Similarly, a reader could look up *Saddam Hussein’s Ba’ath Party: Inside an Authoritarian Regime* by Sassoon (source p) and go to pages 3 and 7 for more information on Individual Ideology in the Iraqi Army in the Iran-Iraq War. This same approach can be used to find information on all of the other cited sources for the Iraqi Army in the Iran-Iraq War.

Readers should keep in mind that, while Table A.2 is intended to support transparent sourcing, these sources are not independent intelligence analysis reports. Aside from the interviews, most of these sources—including the declassified CIA reports—reflect aggregated analyses. This pool of evidence represents the collective analytic judgment of academics, intelligence analysts, Western military observers, and Iraqi political leaders and military officers who have made their views known between 1980 and 2019. In most cases, given the source and the page number, an interested analyst could find the primary source from which the factor insight was derived.

Table A.2
Factor-by-Factor Citation for Iran-Iraq War Assessment

Factor	Evidence
Individual Ideology	f: pp. 51, 216; l: pp. 27, 68, 79, 85; h: p. 258; m: pp. 71–79, Chapter Six by Tareq Y. Ismael; p: pp. 3, 7; t: p. 231; Kifner, 1986, p. 1; a1; a2; a4; a7; a8; aa: pp. 24–26, 50, 56–57, 212; cc: pp. 24, 46–51, 59–63; dd: pp. 76–78, 176–195, Chapter 9, 281–292
Desperation	l: pp. 68, 76; i: p. 219; h: p. 70; n: p. 207; j: p. 57; CIA, NESAs M 82-10342, p. 2; t: p. 236; CIA, NESAs M 85-10231, pp. 1–3; a1; a2; a8
Economics	e: pp. 5, 42; f: pp. 265, 285; g: p. 472; l: pp. 62, 64, 118, 123, 130; h: pp. 188, 250; j: pp. 109, 112–113; o: pp. 236, 332, 391; k: Chapter 3; m: Chapter 3; Cl, SNIE 34/36.2-86, p. 1, 2; CIA, NESAs M-84-10255, pp. 3, 4; CIA, NESAs 84-10027, pp. iii–18; a2; cc: pp. 66–67; dd: pp. 63–69, 108–113
Revenge	f: p. 270; i: p. 421; CIA, NESAs M 82-10342, p. 3; a8
Individual Identity	e: pp., 43, 44; f: pp. 66, 133; l: pp. 41, 54, 66–67, 68, 79, 85; i: p. 456; h: pp. 44, 45, 51, 61, 88, 89–90, 107, 148, 149, 257; j: pp. 9, 15, 97; o: pp. 381, 383; m: pp. 71–72; t: pp. 231, 236; d: pp. 28; c: p. 149; a1; a2; a5; a7; aa: pp. 24–26, 56–57, 182–183, 208; cc: pp. 24, 46–51; dd: pp. 69–73, Chapter 9
Quality	f: p. 215; n: pp. 201, 212, 189, 234; o: pp. 28, 29, 145, 236, 237, 238, 241–243, 332, 333, 372–374, 388–390, 416–437; p: p. 135; q: pp. 71–72; CIA, NESAs 84-10239C, pp. 3–4; d: pp. 30, 77; c: p. 146; a1; a5; a6; a7; aa: p. 212; cc: pp. 15–17, 35–36; dd: pp. 271–272
Individual Competence	o: pp. 24, 25, 145, 147, 237, 238, 332, 333; d: pp. 35–37; c: pp. 92–93, a1; cc: pp. 24–26
Unit Cohesion	n: p. 193; q: p. 79; o: pp. 31–33, 147, 399–401; Kifner, 1986, p. 1; a1
Unit Control	s: pp. 210–211; o: pp. 145, 147, 375–380, p: pp. 95–108, 130–135; q: p. 79; CIA, SR 80-10157JX, p. 2; Kifner, 1986, p. 1; a1; a4; aa: pp. 102; cc: p. 53

Table A.2—Continued

Factor	Evidence
Unit Competence	e: pp. 124, 125, 220, 253, 353–355, 373, 374, 382; f: pp. 114, 115, 122, 140, 145, 173, 174, 179, 180, 203, 212, 246, 267, 296, 297, 322, 325; g: pp. 131, 137, 155, 185–185, 198, 213, 215, 237, 245, 252, 262, 266, 267, 322, 354, 355, 389, 391, 394, 437, 440; i: pp. 172, 182, 183, 185, 189, 207, 211, 222, 223, 227, 233, 235, 239, 240, 242, 243, 273, 276, 294, 295, 309, 319, 325, 333–335, 336–337, 344, 391, 413, 418, 420, 421, 444; s: pp. 192–193, 196–198; o: pp. 24, 25, 145, 147; m: pp. 38–41; q: pp. 68–70; CIA, NESAs M 82-10342, pp. 3, 5; CIA, SR 80-10157JX, p. 1, 2; CIA, NESAs 84-10239C, pp. 3, 4; CIA, NESAs M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 47–48, 61, 68–69, 81, c: pp. 99, 100, 120–121, 130–131; a1; a5; z: p. 171
Unit Support	e: p. 452; f: pp. 58, 60; g: p. 8, 155, 186–187, 199; i: pp. 347, 400–402; h: p. 180; n: pp. 191, 192, 206, 207, 220; o: pp. 244–245, 225, 335–338, q: p. 71–74, 78; CIA, July 1982b, p. 11; CIA, SR 80-10157JX, p. 13–14; CIA, NESAs M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 61; c: pp. 131–132; a2; a8; cc: p. 53
Unit Leadership	f: pp. 60, 136, 302, 342; g: pp. 198, 213, 252, 356, 437; i: pp. 172, 453; n: p. 189, 201, 212; o: pp. 24, 25, 156, 157, 375–380; q: p. 76; CIA, July 1982b, p. 11; CIA, SR 80-10157JX, p. 2; CIA, NESAs 84-10239C, pp. 1, 3–4; Kifner, 1986, p. 1; d: pp. 24, 34, 37–38, 61; c: pp. 96–97, 120–121, 142–145; a1; a6; a7; a8; aa: p. 102
Unit Esprit de Corps	l: p. 161; i: pp. 170, 172, 223, 241; o: pp. 147, CIA, NESAs 84-10239C, p. 3; d: pp. 58–60, 61; a6
Expectation	e: pp. 42, 78, 79; f: pp. 47, 94, 96, 142; i: pp. 86, 87, 305, 382; h: p. 256; j: p. 7; CIA, NESAs 84-10239C, p. 3; t: p. 234; CIA, NESAs M 85-10231, pp. 1–3; d: pp. 26, 38, 68–69, 82; c: pp. 88–89, 94, 116, 121, 126; a5; a8; z: p. 161; bb: pp. 138–139
Organizational Control	e: p. 156; f: pp. 61, 64, 146, 183, 232; g: pp. 138, 313, 366; l: pp. 61, 62, 66, 76, 123, 124, 152; h: pp. 3, 109; i: pp. 170, 172, 213, 222, 228, 240, 241; q: p. 79; j: p. 19; s: pp. 210–211; o: pp. 375–380, p: pp. 95–108, 130–135, 139–159; q: p. 79; CIA, SR 80-10157JX, p. 2; d: pp. 40, 61; z: pp. 144–146, 148; aa: pp. 68–69, 73–77, 84, 129, 167–172, 208, 213, 219–244; bb: pp. 160–162; cc: pp. 27–33
Organizational Integrity	aa: pp. 106, 128; cc: pp. 24, 34, 39, 66–67 [Remarkably little has been written about corruption within the Iraqi Army. What is available lacks specificity or any clear connection to will to fight. Assessing this factor required broad reading across all of the cited sources.]
Organizational Training	e: pp. 43, 68, 110, 388; f: pp. 65, 202, 216, 303; g: pp. 8, 433; i: pp. 387, 410, 454; n: pp. 217, 218, 220, 234; s: pp. 207–208; o: pp. 245, 439–444; m: pp. 30–31; q: pp. 80–82; CIA, NESAs 84-10239C, pp. 4–5; d: pp. 48, 61; c: p. 97; a1; z: pp. 148, 171; aa: p. 212; cc: pp. 24–26
Organizational Support	e: p. 452; f: pp. 58, 60; g: p. 8, 155, 186–187, 199; i: pp. 347, 400–402; h: p. 180; n: pp. 191, 192, 206, 207, 220; o: pp. 244–245, 335–338; q: p. 71–74, 78; v: pp. 951–952; CIA, July 1982b, p. 11; SR 80-10157JX, p. 13–14; CIA, NESAs M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 35–37, 55–58, 61; c: pp. 131–132; a2; a8; z: pp. 143, 168
Doctrine	e: pp. 60, 79, 80, 97, 123, 199, 204, 424, 425; f: pp. 52, 111, 177; g: pp. 32, 143, 440, 481; l: p. 57; i: pp. 86, 209, 213, 418, 444; n: pp. 187, 201, 212, 221; j: p. 8; v: p. 951; o: pp. 33–34, 48–57, 144, 145, 151, 153, 444–449; SR 80-10157JX, pp. 2–3; NESAs 84-10239C, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 53, 76; c: pp. 119, 134–136, 139–140; a5; z: pp. 131, 132, 166
Organizational Leadership	e: pp. 80, 412, 420; f: pp. 54, 59, 118, 261, 302; g: pp. 198, 252; i: pp. 172, 266, 453; h: p. 47; n: p. 208; o: pp. 156, 157; p: pp. 137–139; q: p. 76; CIA, July 1982b, p. 11; CIA, NESAs 84-10239C, pp. 1, 3–4; d: pp. 24, 33, 34, 37–38, 58–60, 61, 83; c: pp. 101, 102, 114–116, 120, 130, 138–139, 142–145; a1; a5; a7; z: pp. 145, 148, 169; bb: pp. 146–148, 160–162
Organizational Esprit de Corps	f: p. 126, 57, 310–311; g: p. 137; l: p. 66; i: pp. 170, 172, 205, 223, 241; d: pp. 58–60, 61; a5; a6; bb: pp. 160–162
Civil-Military Relations	e: pp. 42, 68; f: pp. 52, 130, 286, 342; g: pp. 8, 16; h: pp. 67, 257; j: p. 18; o: pp. 115–126, 143, 148–150, p: Chapter 5; d: pp. 25; c: pp. 134–135; z: pp. 130, 138, 140, 146, 153, 163, 165, 166; bb: pp. 146–148, 156–160

Table A.2—Continued

Factor	Evidence
State Integrity	h: p. 110; p: pp. 42–47; aa: p. 106; bb: pp. 146–148 [I drew a great deal of insight from the other cited works on Iraq here. This requires considerable reading. See Chapter Two for extended citation. Sassoon (p) is a critical source for this factor.]
State Support	e: p. 169; f: pp. 58, 60; g: p. 313; v: pp. 951, 954, 956; m: pp. 31–32; CIA, July 1982b, p. 11; CIA, NESAs 84-10027, pp. 1–2; CIA, NESAs M 85-10231, pp. 1–3; z: pp. 142–143, 168; aa: p. 72, 129; dd: pp. 104–107
State Strategy	e: pp. 59, 109; f: pp. 24, 108, 125, 227, 270; g: pp. 258, 452, 481; i: p. 385; h: p. 60; n: p. 230; o: p. 144, 145, 151, 153; k: pp. 49–51; m: pp. 29–31, 45; SNIE 34/36.2-86, p. 1, 5; CIA, July 1982b, p. 10; SR 80-10157JX, pp. introduction, 1; t: p. 234; CIA, NESAs M-84-10255, pp. 3, 4; CIA, NESAs 84-10027, pp. iii–18; CIA, NESAs M 85-10231, pp. 1–3; d: pp. 32–33, 53, 75, 76; a1; a2; a3; a4; a5; a6; a7; a8; aa: pp. 126–127; bb: pp. 132–138, 156–160
State Leadership	e: pp. 42, 80, 108, 153, 412, 420; f: pp. 19, 60, 63, 136, 224, 342; g: pp. 234, 250, 258; 355, 452, 478; l: pp. 69, 70, 76; i: pp. 152, 229, 342, 397, 410, 427, 453; h: pp. 47, 68, 197; s: all; o: pp. 29, 30; p: pp. 137–139, Chapter 6; CIA July 1982b, p. 11; Kifner, 1986, p. 1; d: pp. 33, 34, 40–44; c: pp. 112, 114–116, 120, 123–125, 142–145; a1; a5; a7; z: pp. 134, 136, 138, 146, 56–57; aa: pp. 129, 181, 213, 219–244; bb: pp. 146–148
Societal Identity	e: pp. 43, 44; f: pp. 66, 133; l: pp. 41, 54, 66–67, 68, 79, 85; i: p. 456; h: pp. 44, 45, 51, 61, 88, 89–90, 107, 148, 149, 257; j: pp. 9, 15, 97; o: pp. 381, 383; m: pp. 71–72; Chapters 5 and 6, p: Chapters 1, 6, and 7; d: p. 28; c: pp. 117, 149; a5; z: pp. 150–152; aa: pp. 161, 167–172, 182–183, 185–195; dd: pp. 9–11, 69–73, 107–108, Chapter 9
Societal Integrity	l: p. 130; h: p. 110; o: pp. 411–412; p-Chapter 7; bb: pp. 146–148; cc: p. 40
Societal Support	e: p. 498; f: pp. 189, 290, 297, 298, 308; g: pp. 311, 313, 394; l: pp. 8, 66–67, 41, 54, 68, 70, 79, 111, 122–123, 130, 134, 184; i: pp. 146, 241, 274, 313, 348; h: pp. 182, 188; o: pp. 407–410; CIA, NESAs 84-10027, pp. 1–2; CIA, NESAs M 85-10231, pp. 1–3; a5; z: pp. 134–135, 149; aa: pp. 50, 73–77, 219–244; bb: pp. 156–160; dd: pp. 274–278
Climate and Weather	f: p. 268; g: p. 155; i: pp. 427, 433; CIA, GIM 86-20277, all
Terrain	e: pp. 221, 355; i: pp. 310, 430, 433; m: pp. 32–35; q: p. 66; v: pp. 948–960; CIA July 1982b, p. 10; d: pp. 68–69, 75; z: p. 162; aa: p. 211; 215
Fatigue	f: p. 241; g: p. 471; i: p. 193; a1; a4; a7
Mission	f: p. 176; i: p. 421; k: pp. 49–51, m: p. 45, 46; CIA, NESAs M 82-10342, p. 3, 5; CIA, NESAs 84-10239C, pp. 3–4; d: pp. 33, 34; a1; a2; a4; a5; a6; a7; aa: pp. 126–127
Adversary Reputation	e: Chapter 1; f: woven into multiple sections; k: pp. 46–47; m: pp. 5–9, 27, 32, CIA, SR 80-10157JX, pp. 1; d: pp. 27; a5; a7; aa: pp. 132–133
Adversary Performance	e: pp. 93, 368, 374, 383, 396; f: pp. 80, 194, 242–243, 316–317, 327; i: pp. 193, 212, 393, 411, 444, 457; Kifner, 1986, p. 1; CIA, NESAs M 85-10231, pp. 1–3; d: pp. 65–66, 67, 68–69, 73–75, 87–88; c: p. 147; z: p. 138; aa: pp. 132–133, 210
Adversary Equipment	g: pp. 359, 398; d: pp. 65–66
Messaging	e: p. 181; g: pp. 155, 312; l: pp. 41, 54, 61, 66–67, 70, 79, 122–123, 124, 126; i: pp. 146, 212, 313; h: pp. 108, 203; j: p. 95; s: pp. 213–214; o: 384–388, p: pp. 62–64, 67; a7; z: pp. 135–136, 141; aa: pp. 56–57, 86–94, 181, 185–195, 219–244; dd: pp. 104–107
Allies	e: pp. 5, 104, 133, 135; f: pp. 197, 289; g: pp. 88–112, 103, 322, 421; l: pp. 90–106; i: pp. 459–460; h: Chapter 3; j: Chapter 10; k: Chapters 7, 8, and 9; SNIE 34/36.2-86, p. 11; t: pp. 239–240; c: pp. 108–109; z: p. 158; bb: pp. 129–132, 139–144

Factor-by-Factor Analysis of Iraqi Army Will to Fight in the Iran-Iraq War, 1980 and 1988

Factor-by-factor analysis reveals a meaningful shift in the factors that affected Iraqi Army will to fight from 1980 to 1988. This section shows the side-by-side comparison of the results from will-to-fight assessment for both years. The 1980 assessment covers the first year of combat, rolling together the period from late 1979 through the end of the year. The 1988 assessment covers the factors in place as the Army shifted to major offensive operations and through the end of the war in August.

Individual Will-to-Fight Factors for the Iraqi Army: 1980 and 1988

Table A.3 depicts the side-by-side comparison of individual-level factors that influenced the Iraqi Army's will to fight during the initial period of hostilities in 1980 and at the end of the war in 1988. These scores represent my subject-matter-expert- and evidence-informed, subjective analysis of each factor. See Chapter One for greater detail on the factors and the model. Each section begins with a brief summary of the factor, with the full definition provided in a footnote.

For this and for all the tables that follow, each factor, listed on the left, shows a condition score and an influence score for both the 1980 and 1988 periods. In general, higher scores mean a better condition for the Iraqis, and lower scores mean worse conditions; higher scores for influence mean more positive influence, and lower scores for influence mean less positive influence, or a drag on will to fight.

The subsections that follow Table A.3 discuss each factor listed in the table, and the sub-head that begins each subsection summarizes the scores. For example, Ideology is rated 3 for condition and 3 for influence for 1980, and 4 for condition and 4 for influence for 1988. The heading for Ideology includes a summary of these scores as “3-3 and 4-4.”

Desperation in the 1980–1988 Iran-Iraq War: 2–2 and 5–4

Desperation reflects the idea that combatants will fight in order to survive.⁸ Desperation, revenge, and economics shifted with the strategic situation between 1980 and 1988. In 1980, few Iraqi Army soldiers perceived either strategic or personal desperation, at least through the period of the first Iranian counterattacks. But Saddam successfully reinforced the belief that the Iranians presented an existential threat to the Iraqi state and the Iraqi way of life. Ayatollah Khomeini did not help his own cause with some of his more inflammatory rhetoric:

He demanded that the Ba'ath be rooted out of Iraq, and the country liberated “from the accursed party.” This one comment had the effect of driving the Ba'ath “loyalists ever closer to Saddam and, more importantly, it persuaded the armed forces that only by supporting Saddam and the regime could there be any chance of success in mobilizing the country and of giving the armed forces the tools they needed.”⁹

⁸ Desperation exists at two levels. Soldiers can feel desperate to protect their families, their homes, their country, their ethno-sectarian group, etc. This deep feeling of fear is typically enduring beyond the scope of a single battle. Second, soldiers can feel immediate but temporary desperation in combat. Desperation can either reduce or improve will to fight. Sources referenced for this assessment: l: pp. 68, 76; i: p. 219; h: p. 70; n: p. 207; j: p. 57; CIA, NESAM 82-10342, p. 2; t: p. 236; CIA, NESAM 85-10231, pp. 1–3; a1; a2; a8.

⁹ Johnson, 2011, p. 68.

Table A.3
Comparative Assessment of Individual Will-to-Fight Factors: Iran-Iraq War, 1980 and 1988

Category	Factor	1980		1988	
		Condition	Influence	Condition	Influence
Individual Motivations	Desperation	Dark	Dark	Light	Light
	Revenge	Medium	Null	Light	Light
	Ideology	Medium	Medium	Light	Light
	Economics	Light	Light	Light	Light
	Individual Identity	Medium	Medium	Light	Light
Individual Capabilities	Quality	Medium	Dark	Medium	Medium
	Individual Competence	Medium	Medium	Light	Light

Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables A.1 and A.2.

By 1988, Iraqi soldiers were fighting for their lives, the lives of their families, and their homeland. All the narratives of the war are clear on this point: Desperation had become an important factor in the motivation of individual soldiers.

Revenge in the 1980–1988 Iran-Iraq War: 3-null and 5-4

Revenge is the desire to make someone suffer for something they have done.¹⁰ Revenge was effectively a nonfactor for Iraqi Army will to fight in 1980: The Iraqis were the aggressors, and any notion of Iranian culpability in the war was vague or not well supported by contemporaneous propaganda. However, by 1988 most Iraqi soldiers had lost a comrade, a brother, a cousin, a father, or a son in the war.¹¹ Effective propaganda had created a strong, if substantively misleading, narrative of unwarranted Iranian aggression. Revenge helped to motivate Iraqi soldiers as they fought to retake Iraqi territory.

Ra’ad al-Hamdani, a commander in the Iran-Iraq War, felt very strongly about the Iranian incursion into Iraq: “Faw was taken by the Iranians, so I was determined to retake it. We considered this attack as a stab at the dignity of the Iraqi leadership.”¹² Saddam played heavily

¹⁰ For example, soldiers might hate soldiers from another nation or ethno-sectarian group because of longstanding antagonism between their groups. Or, soldiers can have a desire for revenge if they view atrocities or lose friends in combat. Revenge may be less likely to *undermine* will to fight than other factors. Sources referenced for this assessment: f: p. 270; i: p. 421; CIA, NESA M 82-10342, p. 3; a8.

¹¹ Most of the Iraqi combatants were male. The Iraqi Army and other military organizations aggressively recruited women but for the most part employed them away from the front line fighting.

¹² Murray and Woods, 2014, p. 270.

on this sentiment in the Army, reinforcing it with propaganda messaging and continual references to historical narratives that favorably skewed the story line to make the Iranians appear to be the aggressors in the war.

Ideology in the 1980–1988 Iran-Iraq War: 3-3 and 4-4

Ideology is a commitment to a cause or belief system.¹³ Iraqi society in the 1980s was riven by an array of political and social ideologies including Ba'athism, sectarian Islam, Christianity, Zoroastrianism, nationalism, pan-Arabism, secularism, Communism, and both fascism and democracy.¹⁴ In 1980, Saddam was still meddling with the ideological components of Ba'athist socialism. By the mid-1980s, he had focused most of his efforts on building nationalism and nonsectarian Islam as the two primary organizing ideologies for the state. In 1988, he had mostly succeeded in unifying Iraqi society behind his personalized brand of nationalist ideology. Saddam's efforts to co-opt Islamic ideology were less successful across Iraqi society as a whole, but they were at least partly successful in undermining organized Shi'a opposition to the state. Rob Johnson describes the forceful efforts to manipulate religious ideology for military purposes as early as 1982:

New, more intensive Islamic education was introduced into the Revolutionary Guards while Islamic associations of dedicated ulema were dispatched like commissars to the front-line units. Their role was to ensure compliance with the “right” way of thinking, to make sure that government policies were not challenged, to raise religious consciousness, to pass on intelligence about “dissidents” and to look after the spiritual welfare of the units under their care.¹⁵

Both approaches helped considerably with recruiting and soldier motivation. Toward the end of the war, many soldiers believed that they were defending the Islamic religion from Iran's Ayatollah Khomeini, who (according to Iraqi propaganda) sought to destroy it. To some extent, by 1988 religious ideology had become temporarily super-sectarian and anti-Iranian, and therefore a positive influence on Iraqi Army will to fight.

Economics in the 1980–1988 Iran-Iraq War: 4-4 and 5-4

Economics describes the impact of employment and financial stability on soldiers' perception of well-being.¹⁶ In 1980, the Iraqi Army was one of the few institutions in Iraq provid-

¹³ Ideology can include general ideas of patriotism; religious commitment; explicitly political ideologies, such as democracy, communism, or fascism; and abstract concepts, such as freedom. Ideology can help unify soldiers and improve their will to fight; it can divide soldiers and undermine their will to fight; it can unify soldiers against the military's objectives or discipline, reducing will to fight; or lack of ideology can undermine efforts to unify soldiers around a cause. Sources referenced for this assessment: f: pp. 51, 216; l: pp. 27, 68, 79, 85; h: p. 258; m: pp. 71–79, Chapter Six by Tareq Y. Ismael; p: pp. 3, 7; t: p. 231; Kifner, 1986, p. 1; a1; a2; a4; a7; a8.

¹⁴ See the multiple sources on Iraqi history and culture cited in Chapter Two.

¹⁵ Johnson, 2011, p. 41.

¹⁶ Economic factors can motivate soldiers to fight or undermine their will to fight. Economic motivation can be immediate or long-term, and personal or collective. Immediate factors include the need for food, water, and money. Long-term factors include the need for a stable salary and advancement, and the desire to preserve economic opportunity. Individuals can focus on their own immediate needs or they can be motivated by concerns for their families, regions, ethno-sectarian groups, or countries. Sources referenced for this assessment: e: pp. 5, 42; f: pp. 265, 285; g: p. 472; l: pp. 62, 64, 118, 123, 130; h: pp. 188, 250; j: pp. 109, 112–113; o: pp. 236, 332, 391; k: Chapter Three; m: Chapter Three; CIA, SNIE 34/36.2-86, pp. 1, 2; CIA, NESAs M-84-10255, pp. 3, 4; CIA, NESAs 84-10027, pp. iii–18; a2.

ing consistent and adequate pay. The Iraqi economy was weak, but the state was not facing considerable debt. Economic benefits generally enhanced Iraqi Army will to fight even at the beginning of the war. Saddam put extraordinary effort into sustaining Iraqi standard of living throughout the war, and into ensuring that citizens appreciated the need for any sacrifices that might emerge:¹⁷

There was significant prestige for families who lost a male relative, with official blessings and material benefits. The government established the Martyr's Foundation which gave widows or parents \$3,300 a year with an additional child allowance of \$670. Military personnel got preferential treatment in the allocation of scarce goods or services, from a motorbike to a car, and from jobs to university education.¹⁸

He effectively shielded most of the population from the negative economic effects of the war. By 1988, the Iraqi Army was probably the best-paid organization in Iraq. Successful soldiers were showered with financial and material rewards. Saddam and Iraqi ministerial leaders had generated powerful and generally consistent economic motivation for military service and performance. Razoux describes this approach:

In adversity, the Iraqi people united behind their president. Their support was more readily achieved thanks to Saddam's unstinting efforts to promote a semblance of normality in Iraqis' everyday lives. . . . A significant part of the state's budget was devoted to buying manufactured products and common consumer goods. . . . Agriculture was privatized to improve food supplies.¹⁹

If anything, by 1988 there was significant financial incentive in place to join the Iraqi Army; to obey orders so as to receive steady pay and promotions; and to fight, act, or persevere when needed.

Individual Identity in the 1980–1988 Iran-Iraq War: 3-3 and 4-4

Individuals identify with different groups, often simultaneously.²⁰ Ideology and identity are closely intertwined but sufficiently different to warrant separate assessment.²¹ Even as the Kurds sought independence in the north, ethno-sectarianism was effectively a null issue for the army in 1980.²² In this case, the lack of expected identity issues actually reinforced Iraqi will to fight. The partly organic, partly contrived rise of Iraqi nationalism helped to feed

¹⁷ Johnson, 2011, p. 62.

¹⁸ Johnson, 2011, p. 62.

¹⁹ Razoux, 2015, p. 313.

²⁰ Individuals also have a specific sense of self that affects their decisionmaking. For example, if a soldier believes he or she is "elite" (an identity) or attaches their identity to an elite unit or organization, they might be influenced to have stronger will to fight than a soldier in a regular unit or organization. Both military and nonmilitary identities exist simultaneously, and both can improve or undermine the will to fight. All soldiers have multiple identities that might or might not conflict with or reinforce each other. Sources referenced for this assessment: e: pp., 43, 44; f: pp. 66, 133; l: pp. 41, 54, 66–67, 68, 79, 85; i: p. 456; h: pp. 44, 45, 51, 61, 88, 89–90, 107, 148, 149, 257; j: pp. 9, 15, 97; o: pp. 381, 383, m: pp. 71–72; t: pp. 231, 236; d: pp. 28; c: p. 149; a1; a2; a5; a7.

²¹ See Appendix B for explanations of these two factors. See Connable, et al., 2018, Chapter Two, for analysis of the distinction between the two.

²² Hiro does describe a few issues of Shi'a dissent. Hiro, 1989, pp. 45, 51, and 61. Also see Chubin and Tripp, 1988, p. 103.

Iraqi Army fighting spirit. As Kurdish identity firmed up and Kurdish dissent in the north accelerated, Shi'a dissent temporarily ebbed. Hiro notes that as early as 1981, as the Iranians pushed towards Iraqi soil, "Iraqi Shi'a troops lost the physical and psychological grounds for defection."²³ Individuals joining the army generally felt closer connections to the Iraqi state and to the army in 1988 than they had in 1980.²⁴

There is an interesting dynamic that emerges when discussing ethno-sectarianism with Iraqis, and particularly with Sunni and Shi'a Arabs.²⁵ Most Iraqis of all ages will aggressively downplay ethno-sectarian divisions within the Iraqi state, even as those divisions rise to the surface and cause internecine violence. It is difficult to overestimate the adamant nature of the continuous rejection of primordialism in interviews with Iraqis. Whether or not the perceptions are, or were true, they are truly felt. This is a representative quote from an Iraqi general officer, in response to the question, "What role did ethno-sectarianism play in the Iraqi Army before 2003?"

Believe me there was no role. No way, it was not allowed, even if you were Sunni. If a Sunni said something about a Shi'a, he would be sent to court. Sectarianism was not allowed.²⁶

The effects of stronger identification with the state and the military were a wash when looking across the entire army. The gradual parsing of special from regular units unbalanced the strong identity many soldiers had with regular units like the 3rd Armored Division in 1980. Soldiers in Republican Guard and Special Forces units had stronger identity with the army and their units by 1988, whereas regular units inspired less personal identification. This is echoed in the split between units such as the 9th Infantry Division and the Golden Division, or Counter Terrorism Service division, in 2019 (see Chapter 6).

Quality in the 1980–1988 Iran-Iraq War: 3-2 and 3-3

Individual soldier quality includes physical fitness, psychological stability, and experiential and behavioral qualities.²⁷ Data from the World Bank and the International Labor Organization from 1976 show that Iraq had 26 percent literacy and a 55.2-year life expectancy.²⁸ Only 2.2 percent of women were in the Iraqi workforce. Over 60 percent of Iraqis lived in urban areas. In 1978, the CIA assessed that, of the 2.6 million Iraqi men of military age (ages of 15–49), 1.48 million were fit to serve in the military.²⁹

²³ Hiro, 1989, pp. 89–90.

²⁴ Saddam tried to manipulate religious identity to build will to fight, but it is not clear that he had significant effect.

²⁵ These insights are drawn from my personal interactions with Iraqis of all ages and from all ethno-sectarian groups, and from my approximately 100 formal interviews with Iraqi leaders from all communities, and of all age groups, between 2003 and 2019.

²⁶ Interview with senior Iraqi general officer, Amman, Jordan, 2019, interview #8.

²⁷ Are soldiers well or poorly educated? Do they have good or poor social skills for bonding? Are they adaptable? Are they resilient? In general, more stable, intelligence, educated, social, adaptable, and resilient soldiers are influenced to have stronger will to fight. Weaknesses in these categories is likely to undermine will to fight. Sources referenced for this assessment: f: p. 215; n: pp. 201, 212, 189, 234; o: pp. 28, 29, 145, 236, 237, 238, 241–243, 332, 333, 372–374, 388–390, 416–437; p: p. 135; q: pp. 71–72; CIA, NES 84-10239C, pp. 3–4; d: pp. 30, 77; c: p. 146; a1; a5; a6; a7.

²⁸ Pascal, Kennedy, and Rosen, 1979, p. 22.

²⁹ Pascal, Kennedy, and Rosen, 1979, p. 39. It is not clear that the CIA standards—whatever they were—are generally applicable.

Psychological qualities of the recruiting pool and serving soldiers would be difficult to judge without some kind of valid and reliable testing results. It is not clear from the available evidence that these young men had poor mechanical abilities. Most youths in rural areas were adept at fixing small motors on irrigation pumps or farming vehicles. Urban youths had similar experiences with rare and relatively expensive household appliances or old automobiles.³⁰ The general conclusion that the average young Iraqi man in 1980 had little ability to understand basic military equipment would be difficult to prove.

Physical fitness of the average Iraqi recruit or soldier would be equally difficult to verify. Iraqi youth from rural areas and mountain areas were generally hardy. However, organized athletics may not have been well integrated into the Iraqi school system throughout the Ba'ath Party period. Wrestling was popular in small circles. Pickup games of soccer (football) were popularized during the British occupation, but other types of athletics, such as track and field, swimming, gymnastics, calisthenics, and weight lifting, may not have been readily available in or outside of most schools.³¹ It can be broadly assumed that most young Iraqi men were not exceptionally fit, or at least not comparatively fit when considering Western cultural and military standards.³²

To make matters worse, quite a few older Iraqi men with even less physical capability than the younger soldiers served in the Iraqi Army throughout the war. While they primarily served in the reserve and militia forces, field grade and general officer commanders were often inadequately fit. This might not matter in a decentralized force, but it was particularly relevant in a military that required forward presence and decisionmaking by commanders at all levels. In this example, an out-of-shape but aggressive battalion commander decided to jump from his tank to pursue fleeing Iranian infantry on foot. He grabbed his rifle and started running across the desert on a hot day. The results were as might be expected:

The commander was very fat and a very heavy smoker. He hadn't slept for three days. He ran, he fell down, and we told him that he had to go back and rest. He refused and then passed out. They had to give him fluid in his veins while he cooled off in the tank.³³

Between 1980 and 1988, soldier quality improved a bit as a result of forced physical fitness and education programs driven by Saddam and top Iraqi leaders. However, it is not possible to make an entire population fit and literate in less than a decade. As with other reported improvements from 1980 through 1988, it is difficult to differentiate optimistic Iraqi interpretations of progress from actual progress. Incremental improvements in the quality of recruits coming into the military might have affected military competence and confidence, but they had no appreciable, externally observable, *direct* influence on will to fight.

³⁰ This is a broad assessment based on the collective literature on Iraq cited in this report. It is congruent with personal anecdotes told by Iraqis to the author, and from personal observation by the author in Iraq in the 2000s.

³¹ There were certainly exceptions, including for wealthier families. See Yousif, 2015, p. 10.

³² There is limited English-language literature on this subject. This assessment is drawn from a range of sources cited throughout this report. For an informative parallel narrative in Palestine, see Issam Khalidi, "Body and Ideology: Early Athletics in Palestine (1900–1948)," *Jerusalem Quarterly*, No. 27, 2006, pp. 44–58; and the small-*n* study, Kemal Tamer, *A Measurement and Comparison of Selected Physical Fitness Components of American, Middle Eastern, and East and Southeast Asian Male Students at Oklahoma State University*, thesis, Stillwater: Oklahoma State University, 1979.

³³ Interview with senior Iraqi general officer, Amman, Jordan, 2019, interview #3.

Individual Competence in the 1980–1988 Iran-Iraq War: 3-3 and 4-4

Competence is the application of military skills to individual qualities.³⁴ Individual soldier competence is easier to control and more amenable to quick improvement. Competence has direct influence on will to fight: Confidence in training and ability feeds the disposition to fight. But the evidence does not support a strong finding on the effect of improved Iraqi Army competence on will to fight through 1988.³⁵ Training for individual soldiers improved from 1980 through the end of the war. Most sources cited in Table 4.2 suggest that the improvements were fairly steady—and particularly so with the Republican Guard—but that there were many exceptions and setbacks along the way. With each incremental step generating improved confidence in the individual Iraqi soldiers. See Unit Training and Organizational Training for more detail and a different perspective on competence.

Unit Factors in the 1980–1988 Iran-Iraq War

Table A.4 depicts the side-by-side comparison of unit-level factors that influenced the Iraqi Army's will to fight during this period.

Unit Cohesion in the 1980–1988 Iran-Iraq War: 4-3 and 4-4

Cohesion is the bonding, or lack of bonding, within a military unit. It exists horizontally between soldiers and vertically between soldiers and leaders.³⁶ Iraqi Army units were fairly cohesive through 1980, but the social and task bonds holding the units together had yet to be tested. Although tens of thousands of Iraqi soldiers deserted during the war—reportedly almost 25,000 in a four-month period between 1986 and 1987, alone—in general these bonds held in combat.³⁷ Hiro notes: “Iraqi units hung together and remained cohesive even in tough fights such as the house-to-house combat for Khorramshahr [1990].”³⁸ But cohesion was not always beneficial for will to fight.

When Iraqi units started to break and run in 1981, they generally did so en masse. They held together and fought until the situation turned sharply against them. Then they held together and ran. Saddam noted this dynamic: “You tell an Iraqi to go forward, two of them run! And they take thousands with them. But if you say to him, ‘go back,’ the first two at the front will go back and also take thousands with them.”³⁹ In a 2019 interview, an Iraqi general described a mountaintop battle against Kurdish forces that suggested a similar dynamic:

³⁴ Are the soldiers well trained? Is the training relevant to the mission at hand? Do soldiers have confidence in their training and skills for combat? Are their individual skills sufficient to succeed? How have skills been sustained and improved upon over time? Have they been allowed to languish? Capability breeds confidence, and confidence influences stronger will to fight. Lack of capability undermines confidence and will to fight. Sources referenced for this assessment: o: pp. 24, 25, 145, 147, 237, 238, 332, 333; d: pp. 35–37; c: pp. 92–93, a1.

³⁵ Both quality and competence are quite important for combat effectiveness: They matter for both will to fight and the physical ability to fight. These ratings simply reflect the inability to directly tease out their influence on will to fight from historical records.

³⁶ There are two general types of cohesion: social and task. Social cohesion consists of comradeship, trust, and mutual-ity. Task cohesion is developed through collective goals, mutual sacrifice, and shared hardship. Sources referenced for this assessment: n: p. 193; q: 79; o: pp. 31–33, 147, 399–401; Kifner, 1986, p. 1; a1.

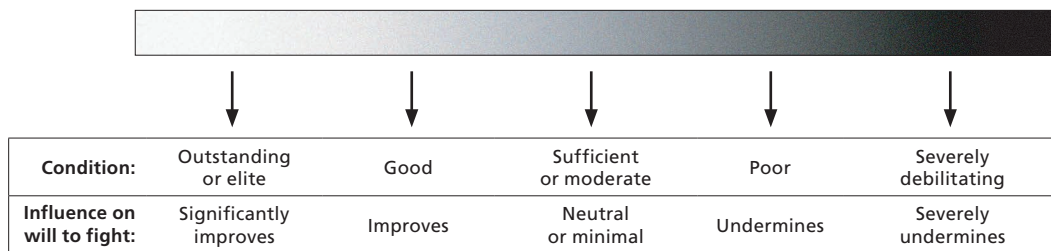
³⁷ Murray and Woods, 2014, p. 287.

³⁸ Hiro, 1989, p. 193.

³⁹ Saddam Hussein, quoted in: Murray and Woods, 2014, p. 146.

Table A.4
Comparative Assessment of Unit Will-to-Fight Factors: Iran-Iraq War, 1980 and 1988

Category	Factor	1980		1988	
		Condition	Influence	Condition	Influence
Unit Culture	Unit Cohesion				
	Unit Control				
	Unit Esprit de Corps				
Unit Capabilities	Unit Competence				
	Unit Support				
	Unit Leadership				



SOURCES: See Tables A.1 and A.2.

I saw my soldiers were in a bad situation. Morale was getting bad because they were out of water, they were tired, and they started to rise up against me. They started saying, “we’re going to die!” I reorganized the fighting lines and distributed ammunition to the machine-guns. I said to the platoon, “Does anyone want to leave? Go!” I took their bullets and water. More than half the platoon left. After midnight it was getting cold. Enemy shooting had subsided. Many of the soldiers came back and were very ashamed. They apologized and I let them back in to the unit.⁴⁰

In the 1981 Iranian attack on the 3rd Armored Division at Abadan, the division’s subordinate brigades and battalions fought until they realized that they were hopelessly pinned in between two strong Iranian forces. The details of the collapse are somewhat fuzzy, but together the collective accounts suggest mass flight. Cohesive bonds between leaders and led, between peers, and with units to the left and right held in a way that undermined will to fight. Cohesion that might otherwise help a unit stick to its guns backfired.

Later in the war, tight unit cohesion was a boon to Iraqi Army will to fight. Units held together and generally did not break. Arguably, cultural communalism and hybridity facilitated social cohesion in Iraqi Army units.⁴¹ Improved small unit leadership generated closer

⁴⁰ Interview with a senior Iraqi Army general officer, Amman, Jordan, 2019, interview #1.

⁴¹ Most of the sources on Iraqi culture and history listed in Chapter Two provide some insight into this dynamic. Muhsin J. al-Musawi and Orit Baskin also provide some insight in their respective treatises on intellectualism and culture in Iraq: Muhsin J. al-Musawi, *Reading Iraq: Culture and Power in Conflict*, New York: I.B. Tauris and Co., Ltd., 2006; Orit Baskin, *The Other Iraq: Pluralism and Culture in Hashemite Iraq*, Stanford, Calif.: Stanford University Press, 2008.

vertical cohesion between leaders and soldiers across the army. In general, improved cohesion in turn improved will to fight by 1988.

Unit Control in the 1980–1988 Iran-Iraq War: 3-2 and 4-3

Control is the approach that unit leadership takes toward discipline.⁴² Control measures at the unit level in the Iraqi Army remained fairly consistent from 1980 through 1988. The intensity of their application, however, sharply increased over that time. Army leaders applied a both coercion and persuasion—in Arabic, *tarhib* and *targhib*. These more extreme terms generally mean the application of terror and enticement. Unit, organizational, and broader state-wide control measures consisted of a generally equivalent mix of both *tarhib* and *targhib*, though fear measures were more immediate and more heavily emphasized.

Commanders and senior noncommissioned officers could, and did, routinely strike enlisted soldiers to obtain their obedience and to motivate their behavior. Unit commanders were authorized to apply capital punishment in the early phases of the war, but they later shifted to more persuasive approaches. The insinuation of Ba'ath Party Commissars at the unit level stiffened unit disciplinary measures. Execution squads roamed the rear areas, hunting down suspected deserters.

Here, Dina Khoury relates her interview with Iraqi Army soldier Mazin Hadithi. Mazin fought at Al Faw and had just been through a horrible experience at a small area called Mamlah. He barely escaped with his life and then ran into the execution squads. Mazin expresses his frustration and dismay with these roaming disciplinary squads:⁴³

While he managed to find his way to the rear lines, he refused en route to help an injured soldier because he could not carry him, and he had to persuade his own army's execution squad that he was not fleeing his front line unit. He was prepared to shoot at them if they were not convinced. Meeting them after he had barely survived a battle in which he had lost his commanding officer and numerous comrades, they represented the enemy within. As [Mazin] put it, they always had "clean boots." They did not conform to the code of honor and manhood that supposedly governed soldiering in defense of the nation.

The Iraqi Army's brutal approach to discipline was often excessive, and it probably violated a number of laws of land warfare. However, in general, it was culturally appropriate and increasingly effective over time. Tight unit discipline improved the disposition to fight. See the section on Organizational Control, below, for more insight.

⁴² It always consists of a mix of *persuasion* and *coercion*. Leaders persuade soldiers to do their jobs by rewarding them and coerce soldiers through threat of punishment. Methods of control that are well-aligned with cultural norms are typically more effective than those that are misaligned. Sources referenced for this assessment: s: pp. 210–211; o: pp. 145, 147, 375–380, p: pp. 95–108, 130–135; q: p. 79; CIA, SR 80-10157JX, p. 2; Kifner, 1986, p. 1; a1; a4.

⁴³ Dina Rizk Khoury, *Iraq in Wartime: Soldiering, Martyrdom, and Remembrance*, New York, N.Y.: Cambridge University Press, 2013, p. 215.

Unit Esprit de Corps in the 1980–1988 Iran-Iraq War: 2-2 and 4-3

Esprit de Corps is group spirit.⁴⁴ With the exception of the 3rd Armored Division, there were few Iraqi Army units in 1980 that had a combat lineage and a strong sense of esprit.⁴⁵ At the onset of the Iran-Iraq War, the general absence of deeply rooted esprit de corps appears to have undermined Iraqi Army will to fight. In the few cases where it was strong, the devastating losses that followed the initial Iranian counteroffensive contributed to a crisis of expectation: Soldiers who expect their units to succeed may be all the more distraught when they fail. By 1988, intensive training, combat hardening, and the growth of elite units increased the general esprit de corps at the unit level.

Unit Competence in the 1980–1988 Iran-Iraq War: 3-3 and 4-4

Unit competence is a unit's collective ability to successfully perform tasks and defeat enemy forces under most reasonable conditions.⁴⁶ Aggressive improvements to unit-level training, and particularly the emphasis on training during combat, supported a general improvement in Iraqi disposition to fight. Many units that could not apply combined arms effectively in 1980 were approaching or had achieved basic competence by 1988.⁴⁷ Armor and infantry trained together and fought together in the kind of mutually supporting relationship expected in Western armies. Competent unit-level performance improves unit-level confidence, which in turn improves the disposition to fight. But this is not a completely clear story.

One of the challenges with interpreting unit competence in the Iraqi Army is the fact that it was uneven, and particularly so toward the end of the war as elite units emerged. Selective task organization within units also hid uneven competence. One of the general officers we interviewed described the process of drawing out the best soldiers from within a unit to create an elite strike force for a 1983 behind-the-lines mission against an Iranian mountaintop outpost in the Kurdish region of Iraq. With the personal approval of Saddam Hussein, the general did the following:

I prepared 100 fighters, choosing only the best ten soldiers for each squad, and a lieutenant to lead every squad. We planned to go behind the Iranian troops, of course with silent communication, nothing, without artillery supporting, no air force supporting, a silent attack at the time that the Iranians normally ate lunch. . . . We went to Erbil, went for reconnaissance [to] see the battlefield and chose the routes for the helicopters to go. We trained at a similar mountain nearby. We arrived in Russian Mi-8 helicopters painted with

⁴⁴ Unit esprit de corps includes the reputation of the unit, the sense of belonging soldiers feel to the unit, their collective fighting spirit, eagerness to execute tasks, confidence in battle, and the concept of elite membership. Sources referenced for this assessment: l: p. 161; i: pp. 170, 172, 223, 241; o: pp. 147; CIA, NESA 84-10239C, p. 3; d: pp. 58–60, 61; a6.

⁴⁵ There were some combat brigades that had good esprit de corps, including the 10th Armored Brigade.

⁴⁶ Unit competence rolls together unit skills, training, and performance. Are collective skills sufficient for the mission? Is collective training appropriate and sufficient? How much have the soldiers absorbed? What is the unit's collective performance? Sources referenced for this assessment: e: pp. 124, 125, 220, 253, 353–355, 373, 374, 382; f: pp. 114, 115, 122, 140, 145, 173, 174, 179, 180, 203, 212, 246, 267, 296, 297, 322, 325; g: pp. 131, 137, 155, 185–185, 198, 213, 215, 237, 245, 252, 262, 266, 267, 322, 354, 355, 389, 391, 394, 437, 440; i: pp. 172, 182, 183, 185, 189, 207, 211, 222, 223, 227, 233, 235, 239, 240, 242, 243, 273, 276, 294, 295, 309, 319, 325, 333–335, 336–337, 344, 391, 413, 418, 420, 421, 444; s: pp. 192–193, 196–198; o: pp. 24, 25, 145, 147; m: pp. 38–41; q: pp. 68–70; CIA, NESA M 82-10342, pp. 3, 5; CIA, SR 80-10157JX, p. 1, 2; CIA, NESA 84-10239C, pp. 3, 4; CIA, NESA M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 47–48, 61, 68–69, 81, c: pp. 99, 100, 120–121, 130–131; a1; a5; z: p. 171.

⁴⁷ The most successful were in the Republican Guard, and the least successful were in the regular army.

the Iranian flag on the side exactly ten minutes before the Iranians were getting their food. They thought that when we arrived we were Iranians arriving to give them the food so the queue was out with their trays for lunch. It was one of our best operations, we didn't suffer any killed, we engaged, and they fled.⁴⁸

This kind of raid might have been executed by elite Western special forces soldiers. In this case, however, the operating unit had to cull away its less capable soldiers and put an officer in charge of each squad of ten soldiers, a job normally held by a noncommissioned officer. The unit was not represented in this action as a whole, so its overall competence is hard to judge.

Unit Support in the 1980–1988 Iran-Iraq War: 4-4 and 4-4

Unit support is the sufficiency and timeliness of the delivery of equipment, supplies, weapons, medical assistance, fires, food, water, and other things the unit needs to accomplish its missions and to have basic quality of life.⁴⁹ Most Iraqi Army units were well supported in 1980. Soldiers had adequate supplies and adequate medical facilities, and most had all of their equipment. At the unit level, this kind of steady support of the soldiers and their mission requirements has more of a palliative than motivational effect: It prevents soldiers from worrying about the unit's ability and intent to help them get the job done. Little changed between 1980 and 1988.

Unit Leadership in the 1980–1988 Iran-Iraq War: 2-1 and 4-4

Leadership is the act of a single person in authority directing and encouraging the behavior of soldiers to accomplish a military mission.⁵⁰ In 1980, the unit-level leadership of the Iraqi Army was mostly untested in combat and sometimes—but not always—incompetent. Good leaders were insufficiently rewarded. By 1982, the Army was facing a leadership crisis as units collapsed and executions were used to motivate improvement.⁵¹ After the initial fallback from Iran, leadership at all levels of the Iraqi Army improved unevenly, and in fits and starts, throughout the course of the war.⁵²

Two factors helped affect this general, though inconsistent, trend of improvement. First, war is an unforgiving crucible. Combat almost always weeds out paper tigers. Between 1980 and 1988, natural selection and combat promotion generated a new caste of handpicked, combat-tested leaders in most of the units throughout the Iraqi Army. Second, Saddam's direct

⁴⁸ Interview with senior Iraqi general officer, Amman, Jordan, 2019.

⁴⁹ Unit support reflects on the soldiers' perceptions of unit leaders' ability to provide support. Sources referenced for this assessment: e: p. 452; f: pp. 58, 60; g: p. 8, 155, 186–187, 199; i: pp. 347, 400–402; h: p. 180; n: pp. 191, 192, 206, 207, 220; o: pp. 244–245, 225, 335–338, q: p. 71–74, 78; CIA, July 1982b, p. 11; CIA, SR 80-10157JX, pp. 13–14; CIA, NESA M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 61; c: pp. 131–132; a2; a8.

⁵⁰ Competence and character are the two primary subfactors for leadership. Are leaders effective and capable of getting the unit to perform? Are they ethical and do they uphold expected moral standards? How do they take care of soldiers? This addresses all leaders within the unit hierarchy. Sources referenced for this assessment: f: pp. 60, 136, 302, 342; g: pp. 198, 213, 252, 356, 437; i: pp. 172, 453; n: p. 189, 201, 212; o: pp. 24, 25, 156, 157, 375–380; q: p. 76; CIA, July 1982b, p. 11; CIA, SR 80-10157JX, p. 2; CIA, NESA 84-10239C, pp. 1, 3–4; Kifner, 1986, p. 1; d: pp. 24, 34, 37–38, 61; c: pp. 96–97, 120–121, 142–145; a1; a6; a7; a8.

⁵¹ Executions tapered off within a few years as other control measures took hold.

⁵² Ken Pollack notes that "Failure in the Iraqi Army often meant something very different from what it meant in the U.S. Army. For the Iraqis, it was about whether they fulfilled their orders, *not* whether they accomplished their mission. That's a huge difference between the Iraqi (and other Arab) armies and Western armies." Ken Pollack, email with author, August 3, 2019.

intervention changed the nature of the entire officer corps. Even those tribal flunkies and political appointees who survived combat failure were shifted to positions where they could do little harm.⁵³ Soldiers saw this shift firsthand. It significantly improved their will to fight over time.

Organizational Factors in the 1980–1988 Iran-Iraq War

Table A.5 depicts the side-by-side comparison of individual-level factors that influenced the Iraqi Army's will to fight during this period.

Organizational Control in the 1980–1988 Iran-Iraq War: 3-2 and 4-4

Organizational control is the general approach to applying discipline through some mixture of coercion or persuasion.⁵⁴ It can also refer to the ways in which leaders control their forces; both are intertwined. Transliterated Arabic words help to bring the concept of control into regional cultural context. *Targhib* is generally translated as *enticement*, and *tarhib* is generally translated

Table A.5
Comparative Assessment of Organizational Will-to-Fight Factors: Iran-Iraq War, 1980 and 1988

Category	Factor	1980		1988	
		Condition	Influence	Condition	Influence
Organizational Culture	Organizational Control				
	Organizational Esprit de Corps				
	Organizational Integrity				
Organizational Capabilities	Organizational Training				
	Organizational Support				
	Doctrine				
	Organizational Leadership				

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables A.1 and A.2.

⁵³ Lieutenant General Tala al-Duri provides a good example here. See Malovany, 2018, pp. 125, 174, 274, 300, 333, 350, 366, and 590.

⁵⁴ At the organizational level, control centers on policies, training, and education. As with unit control, it consists of both persuasion and coercion. Methods of control that are well aligned with cultural norms are typically more effective than those that are misaligned. Sources referenced for this assessment: e: p. 156; f: pp. 61, 64, 146, 183, 232; g: pp. 138, 313, 366; l: pp. 61, 62, 66, 76, 123, 124, 152; h: pp. 3, 109; i: pp. 170, 172, 213, 222, 228, 240, 241; q: p. 79; j: p. 19; s: pp. 210–211; o: pp. 375–380; p: pp. 95–108, 130–135, 139–159; q: p. 79; CIA, SR 80-10157JX, p. 2; d: pp. 40, 61; z: pp. 144–146, 148.

as *intimidation*.⁵⁵ All military organizations, without exception, apply some measure of both, regardless of their cultural underpinnings or structure.

Various methods of control are not inherently better or worse for achieving combat effectiveness. Centralized armies situated in dictatorial governments are as likely to incentivize behavior as they are to threaten with punishment. Two questions dictate assessment of control: (1) Is the approach congruent with the regional culture? (2) Is the approach to control practical and effective? In general, the Iraqi Army is a top-down organization, which is generally congruent with Iraqi societal norms. But was top-down control effective? In December 1980, the CIA described the Army's approach and its impact on combat effectiveness:

Control has been overcentralized. The political and military leadership reportedly has tightly controlled combat operations from Baghdad, probably causing delays in decision-making and in the transmittal of orders, and reducing the flexibility of commanders in the field.⁵⁶

Even a brief perusal of the transcripts of Saddam's discussion with top military leaders during the war would be enough to reinforce this assessment.⁵⁷ There was remarkable consistency between the Iraqi Army's organizational approach to control and the approach applied at the unit level. Behavioral monitoring was pervasive and constant. Elaborate rewards were lavished on top performers. Officers who failed were summarily executed or granted a pro forma inquest and then executed. Razoux describes Saddam's approach to control of the military organizations:

Saddam Hussein also took good care of his military. The standard of living of soldiers was improved by numerous perks. Following the Soviet model, medals were generously awarded. The most deserving officers were given one or several cars, sometimes even an apartment or a villa. Colonels and generals got Mercedes. Many years later some would brag with quavering voices that Saddam had given them one, two, or maybe even three Mercedes as a reward for their amazing exploits. The families of dead or disabled soldiers had the right to a pension, a plot of land, and an interest-free loan to build a house. However, the president was utterly merciless when it came to deserters and plotters, whose families were subjected to severe sanctions. In one instance he ordered the execution of some fifty officers accused of having wanted to assassinate him. . . .⁵⁸

One of the general officers who were interviewed summed up the effects of this control measure on will to fight. When asked why soldiers fought in the Iran-Iraq War, this general replied:

It was easy, first we are a regular, real army. When an order is issued, that's it, we shoot. We cannot reject or refuse an order. Your commander's leader is Saddam he is the commander of the army. We were frightened to withdraw or leave the battlefield, so we preferred to

⁵⁵ Al-Marashi and Salama offer a good explanation of both concepts: Al-Marashi and Salama, 2008, p. 129. Also see Batutu, 1979.

⁵⁶ U.S. Central Intelligence Agency, 1980.

⁵⁷ See Appendix B for further discussion of the so-called Saddam Tapes, and citation. Some of these transcripts are cited in this appendix.

⁵⁸ Razoux, 2015, p. 313.

get killed in battle than withdraw and be arrested. Some people would get killed if they withdrew.⁵⁹

In some cases, the Iraqi Army's coercive measures were so intense that they backfired, reportedly encouraging some People's Army militia and even some military commanders to surrender to the Iranians rather than face Iraqi military justice. After a crushing defeat at the battle of Chananeh in 1982, the commanding general of the Iraqi Army 10th Armored Division reportedly surrendered to the Iranians rather than return home to face Saddam's wrath.⁶⁰

Organizational Esprit de Corps in the 1980–1988 Iran-Iraq War: 2-3 and 4-4

At the army level, esprit de corps was middling or relatively weak in 1980.⁶¹ The army had a limited battle history and, even when filtered through the lens of Iraqi cultural perception, its performance had been less than exceptional. Some pride in army service existed, but that sentiment was not necessarily a strong motivator for Iraqi will to fight. All that changed by 1988. Hard-earned battle experience, massive pro-army propaganda efforts, and the many public celebrations of combat victories and individual heroics helped to rapidly build Iraqi Army organizational esprit de corps by 1988. One senior Iraqi general stated:

To join the army was to a proud thing. Of course any victory or any battle had an effect on the people. When the army did well the people were happy. After these five main liberation battles in 1988 you saw that the willingness and capability of the soldiers was very, very high. Even the morale of the Iraqi people was high, they were proud of what we'd done.⁶²

While the aforementioned disparity between elite and non-elite units created a harmful imbalance, this was partly outweighed by the perceptual value of the rising elite units across the force.

Organizational Integrity in the 1980–1988 Iran-Iraq War: 2-3 and 3-3

Integrity represents the professional character of the organization.⁶³ Saddam ruthlessly pursued organizational integrity throughout the war. He firmly believed that corruption would undermine the army's will to fight and overall combat effectiveness. He pursued violators and enforced increasingly rigorous standards through the Ba'ath Military Bureau commissars. Corruption continued to exist across the military, but wartime corruption in a fully milita-

⁵⁹ Interview with Iraqi Army senior general officer, Amman, Jordan, 2019.

⁶⁰ Razoux, 2015, p. 198.

⁶¹ Organizational esprit de corps is very similar to unit esprit de corps. Esprit de corps is group spirit. It includes the reputation of the organization, the sense of belonging soldiers feel to the organization, their collective fighting spirit, eagerness to execute tasks, confidence in battle, and elite membership. Sources referenced for this assessment: f: p. 126, 57, 310–311; g: p. 137; l: p. 66; i: pp. 170, 172, 205, 223, 241; d: pp. 58–60, 61; a5; a6.

⁶² This quote primarily refers to the period at the end of the war, but it applies collectively through the successes of 1988. Interview with senior Iraqi general officer, Amman, Jordan, 2019.

⁶³ All organizations have some corruption, but context and impact of corruption vary. Is the organization corrupt by regional cultural standards? Putting aside cultural standards, does corruption harm the functioning of the organization? Does corruption harm the character and reputation of the organization? Is corruption ferreted out? What standards exist for ethical behavior? Are they enforced or ignored? Very little has been written about organizational integrity in the Iraqi Army, at least in English-language sources. This assessment is drawn from tangential mentions and disparate snippets from the cited interviews.

alized state dominated by a massive and competent internal intelligence network is harder to hide than routine peacetime corruption. By 1988, organizational integrity had been improved. However, there is little direct evidence that these efforts significantly impacted will to fight.

Organizational Training in the 1980–1988 Iran-Iraq War: 3-4 and 4-5

Organizational training is the organization’s approach to training soldiers in basic, advanced, and collective skills.⁶⁴ After the initial defeats of the early war period, top Army generals had a free hand to improve the Iraqi Army’s generally mediocre or inadequate organizational training programs of the late 1970s and early 1980s. Institutional standards and practices improved.⁶⁵ Western-style training academies emerged, and the army put extensive resources to designing training; making fuel and ammunition available for training; and obtaining external support to help design curricula. The term *morale* has nebulous and questionable meaning for the assessment of will to fight, but Iraqi training support emphasized morale, or the moral component of war:

Building the morale of officers and men: This was a vital component in the Iraqi conception of success in battle and one of the important factors in training the individual as a fighter in the armed forces, in both the regular army and the reserves.⁶⁶

Organizational support to frontline training was essential to the success of the unit-level training programs. By 1988, improved organizational training had at least marginally improved competence and confidence across the Army, influencing relatively greater disposition to fight.

Organizational Support in the 1980–1988 Iran-Iraq War: 5-4 and 5-5

Does the organization provide the necessary materiel, personnel, reserve forces, sustainment chains, medical support, and other requirements to keep the units and their soldiers in the field and effectively functioning?⁶⁷ All analyses of the Iraqi Army generally commend its logistics and sustainment capabilities. Excellent support to forward units was a hallmark of the Iraqi Army from the post–World War II period. While there were some incremental improvements to support from 1980 to 1988, there was little room for improvement. Most growth came in the form of improved weaponry and other material. There were exceptions to the army’s good record early in the war. At the mountain battle of Mehran in the winter of 1981, “The Iraqi soldiers, poorly equipped to face the harshness of winter at high altitudes, had only met them

⁶⁴ Organizations provide capabilities, which are more or less relevant to the missions at hand, more or less sufficient for mission accomplishment, and well or poorly sustained over time. Sources referenced for this assessment: e: pp. 43, 68, 110, 388; f: pp. 65, 202, 216, 303; g: pp. 8, 433; i: pp. 387, 410, 454; n: pp. 217, 218, 220, 234; s: pp. 207–208; o: pp. 245, 439–444; m: pp. 30–31; q: pp. 80–82; CIA, NESAs 84-10239C, pp. 4–5; d: pp. 48, 61; c: p. 97; a1; z: pp. 148, 171.

⁶⁵ The degree to which they improved is contested. Iraqi versions of this narrative suggest marked improvement and institutional growth, while some of the Western analysts cited throughout this report suggest that the improvements were aspirational, or at best marginal.

⁶⁶ Malovany, 2018, p. 454. For more discussion of the term *morale*, see Connable et al., 2018, Chapter One.

⁶⁷ Can units count on organizational support when it is needed? Sources referenced for this assessment: e: p. 452; f: pp. 58, 60; g: p. 8, 155, 186–187, 199; i: pp. 347, 400–402; h: p. 180; n: pp. 191, 192, 206, 207, 220; o: pp. 244–245, 335–338; q: pp. 71–74, 78; v: pp. 951–952; CIA July 1982b, p. 11; CIA, SR 80-10157JX, pp. 13–14; CIA, NESAs M-84-10255, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 35–37, 55–58, 61; c: pp. 131–132; a2; a8; z: pp. 143, 168.

with nominal resistance, choosing instead to take to their heels.”⁶⁸ In this case, the lack of organizational support directly undermined will to fight.

In 1988, the Iraqi Army was one of the largest and best-equipped military forces in the world. With advanced armor, artillery, and intelligence systems, soldiers advancing against the Iranian defenders at Majnoon Island and Fish Lake had every right to feel confident. Malovany describes the degree to which material intertwined with will to fight:

The Iraqis entered the operation with a huge, powerful army and a clear advantage in ground forces and war materiel (tanks, APCs, and land guns); furthermore, their forces' morale had reached a new high, as opposed to the enemy's low morale and lack of fighting spirit.⁶⁹

Perhaps the most significant form of support came in the form of chemical weapons. As horrific, unethical, and immoral as the use of chemical warfare might be, they are undeniably effective in combat. Iraqi soldiers sitting in defensive trenches or poised in their assault positions preparing to jump forward into the Iranian lines could take solace in the fact that Iraqi mustard and nerve gas would panic, maim, or kill many of the opposing soldiers before the close-quarters combat began. This finding is not an endorsement of the use of chemical munitions, only an acknowledgement of their influence on Iraqi Army will to fight in the Iran-Iraq War.⁷⁰

Doctrine in the 1980–1988 Iran-Iraq War: 2-1 and 4-4

Doctrine is the organization's approach to organizing, functioning, and fighting.⁷¹ Prewar Iraqi doctrine was a muddled mix of mostly British and Soviet tactical theory. But it was also uniquely Iraqi. It ignored the value of good infantry, a central component to British military art. A Western military attaché who was closely observing the war in theater noted this continuing gap in 1986, well after the Iraqis should have improved: “Artillery alone will not do the job; neither will chemical weapons. At some point they will have to get on firm ground and fight hand to hand.”⁷² Prewar doctrine also downplayed Soviet emphasis on high-tempo, combined-arms fire and maneuver.⁷³ Iraqi organizational doctrine in 1980 drew the most static, templated, and ponderous components from both systems: Heavy fires soften up targets for methodical armor advances. Enemy positions are pounded into submission and then care-

⁶⁸ Razoux, 2015, p. 155.

⁶⁹ Malovany, 2018, p. 440.

⁷⁰ I twice faced the prospect of Iraqi Army chemical munitions attacks, first in the 1991 Gulf War and then in the 2003 coalition invasion of Iraq. The very idea of being attacked by chemical munitions is rather unpleasant and memorable.

⁷¹ Doctrine provides guidelines for how each unit should prepare itself for combat and how it should act and fight. Doctrine represents the organization's understanding of war. It is more or less appropriate to the task at hand, and more or less effective in helping the organization to succeed. Sources referenced for this assessment: e: pp. 60, 79, 80, 97, 123, 199, 204, 424, 425; f: pp. 52, 111, 177; g: pp. 32, 143, 440, 481; l: p. 57; i: pp. 86, 209, 213, 418, 444; n: pp. 187, 201, 212, 221; j: p. 8; v: p. 951; o: pp. 33–34, 48–57, 144, 145, 151, 153, 444–449; CIA, SR 80-10157JX, pp. 2–3; CIA, NESA 84-10239C, p. 1; CIA, NI IIM 88-10004C, all; d: pp. 53, 76; c: pp. 119, 134–136, 139–140; a5; z: pp. 131, 132, 166.

⁷² Kifner, 1986.

⁷³ To be fair, in practice the Russians also sometimes ignore this part of their own doctrine. Their armor-heavy advance into Grozny, Chechnya, in 1994 was a complete disaster. See Olga Oliker, *Russia's Chechen Wars 1994–2000, Lessons from Urban Combat*, Santa Monica, Calif.: RAND Corporation, MR-1289-A, 2001.

fully rolled up by soldiers ensconced behind inches of solid steel. This approach didn't work at Khorramshahr in 1980, and it continued to fail through the middle of the decade. Malovany summarizes the problem:

On the eve of the war, the Iraqi Army faced a complex and difficult challenge. Its operational experience was limited, amounting to fighting against irregular Kurdish forces. This bore no resemblance to what could be expected in the anticipated war against Iran, which had been considered as having a strong army until the fall of the Sha's regime.⁷⁴

The army adjusted its doctrine throughout the war. One of the most significant shifts was to integrate infantry and maneuverable reserve forces into the rudimentary Iraqi combined arms formula. Cordesman and Wagner describe the shift from the early war period to 1988:

Iraq was not prepared for effective infantry combat when the war began. In accordance with Soviet doctrine, the Iraqis placed great stress on the use of tanks and mechanized units during the first stages of the war. . . . The Iraqis made a massive effort to create new infantry units after their initial reverses in 1980. Reserve forces were mobilized . . .

Improvements in doctrine led to improvements in tactics, which contributed to greater success in battle. There is debate over whether or not the Iraqis improved the adaptability of the force over time: None of the cited resources in this report fully agree with one another on this critical point. The Iraqis certainly desired to improve adaptability, and they recognized that the lack of adaptability undermined their combat effectiveness. Some tactical leaders demonstrated the instinct to deceive, flank, surprise, and to use terrain to their advantage. Others stayed true to the straightforward, sluggish, unimaginative, and non-adaptable organizational culture that existed in 1980. Some Iraqi leaders regularly counterattacked even in the early years of the war; many reports of counterattacks recur in all sources on the Iran-Iraq War. Some counterattacks inevitably gained effectiveness as they better integrated infantry and fires. For a whole host of reasons, including improved doctrine, many soldiers gained confidence in the army's approach to fighting. With that confidence came greater will to fight.

Organizational Leadership in the 1980–1988 Iran-Iraq War: 2-2 and 4-4

Army leadership improved considerably over the eight years of the Iran-Iraq War.⁷⁵ There were some competent leaders in the army at the outset of the war, but their overall value to the organization was effectively neutralized by the presence at senior levels of sycophants and political incompetents. Primarily as a result of weak organizational leadership, the initial planning for the war was half-hearted and generally incompetent.⁷⁶ Both central characteristics of good

⁷⁴ Malovany, 2018, p. 86.

⁷⁵ Organizational leadership can be personalized or generalized, or both, depending on the scale and hierarchy of the organization. In some cases, subordinate opinion will hinge on the reputation of one charismatic general or civilian. In others, it will generalize to a distant group of senior leaders, or an entire class of leaders. As with unit leadership, both competence and character matter. Sources referenced for this assessment: e: pp. 80, 412, 420; f: pp. 54, 59, 118, 261, 302; g: pp. 198, 252; i: pp. 172, 266, 453; h: p. 47; n: p. 208; o: pp. 156, 157; p: pp. 137–139; q: p. 76; CIA, July 1982b, p. 11; CIA, NESA 84-10239C, pp. 1, 3–4; d: pp. 24, 33, 34, 37–38, 58–60, 61, 83; c: pp. 101, 102, 114–116, 120, 130, 138–139, 142–145; a1; a5; a7; z: pp. 145, 148, 169.

⁷⁶ Saddam also deserves blame here. His rushed and secretive directions did not help the Army prepare for war.

leadership were in short supply in 1980: character and competence.⁷⁷ A contemporaneous CIA report was highly critical of Iraqi unit leadership:

The incompetence of Iraq's senior commanders has been a major Iraqi weakness. Iraqi generals, many of whom hold their positions because of political loyalty rather than military competence, have been unable in past battles to assess correctly the terrain or anticipate the major avenues of Iranian attacks. Overall direction of the Iraqi defense by senior commanders has been weak, especially their use of reserve forces.⁷⁸

While combat helped to weed out bad leaders at the unit level, Saddam was far more involved in replacing leaders at the organizational level. Murray and Woods note:

By this point in the war [1987], Saddam was supporting military professionalism over political, tribal, and regional loyalties when choosing his senior commanders. The resulting changes in the high command coupled with hard earned experience finally began to influence Iraq's fielded capabilities . . .⁷⁹

His intensive efforts to promote competent leaders generated significant improvement in the quality of the army's leadership and in the effect their leadership had on the army's collective will to fight: Top-level competence generated increasing confidence in the organization over time.⁸⁰ As early as 1983, senior Iraqi military leaders could be found at the front trying to rally units to hold out or drive forward.⁸¹

State Factors in the 1980–1988 Iran-Iraq War

Table A.6 depicts the side-by-side comparison of state-level factors that influenced the Iraqi Army's will to fight during this period.

Civil-Military Relations in the 1980–1988 Iran-Iraq War: 1-2 and 3-3

Civil-military relations are the official and practical ways in which the military and civilian authorities interact.⁸² Saddam formally assumed control of the Iraqi state in 1979. In 1980, his control over the officer corps of the Iraqi Army was far from solidified. All the preexisting history of civil-military relations in the Iraqi state to that point undermined military effectiveness. Army leaders had been the victims of repeated purges, even while they executed continual coup attempts against state leadership. As noted in Chapter Two, the line between civilian and

⁷⁷ It was not always true that political appointees were bad leaders. For example, Adnan Khairallah was a competent leader at several levels of command. See Woods, Murray, and Stout, 2011, p. 40.

⁷⁸ U.S. Central Intelligence Agency, *Iran-Iraq: Military Strengths and Weaknesses*, declassified intelligence analysis, July 24, 1982b.

⁷⁹ Murray and Woods, 2014, p. 286. They go on to note that Saddam retained a pervasive distrust of his officer corps.

⁸⁰ Saddam probably was not sufficiently ruthless in cutting away poor leaders such as Tala al-Duri. However, it was clear that he was making some accommodations to preserve his power base in Tikrit and amongst other loyalist groups.

⁸¹ For example, Razoux, 2015, pp. 250, 252.

⁸² Relationships between civilian and military leaders are more or less *appropriate* and *functional*. Appropriate relations fit within societal cultural norms and are generally acceptable to soldiers. Functional relations facilitate effective military activity. If civil-military relations are inappropriate or less than functional then confidence in the system may be degraded. Sources referenced for this assessment: e: pp. 42, 68; f: pp. 52, 130, 286, 342; g: pp. 8, 16; h: pp. 67, 257; j: p. 18; o: pp. 115–126, 143, 148–150; p: Chapter 5; d: pp. 25; c: pp. 134–135; z: pp. 130, 138, 140, 146, 153, 163, 165, 166.

Table A.6
Comparative Assessment of State Will-to-Fight Factors: Iran-Iraq War, 1980 and 1988

Category	Factor	1980		1988	
		Condition	Influence	Condition	Influence
State Culture	Civil-Military Relations	Severely debilitating	Undermines	Poor	Undermines
	State Integrity	Severely debilitating	Undermines	Poor	Undermines
State Capabilities	State Support	Good	Sufficient or moderate	Good	Sufficient or moderate
	State Strategy	Severely debilitating	Undermines	Poor	Undermines
	State Leadership	Good	Sufficient or moderate	Good	Sufficient or moderate

↓	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables A.1 and A.2.

military leadership was unstable and unclear throughout the post-mandate period. Soldiers on the front line in 1980 could not be sure of the stability of the Iraqi state at any time. They might wake up in an Iranian swamp to find out that Saddam was no longer in power and that a new military junta had changed military strategy. Lack of confidence in Iraqi civil-military relations may not have been an overriding will-to-fight factor in 1980, but it did probably have some negative influence on soldiers' disposition to fight.⁸³

In any event, Saddam remained in power. He effectively solved the problem of civil-military relations by eliminating it from consideration. By 1988, there was no gray line between the civil state and the military. Hiro puts this unification of president and state in military context: "The military command and control system in Iraq was impeccable, with Saddam Hussein as the commander-in-chief and the Revolutionary Command Council containing top military leaders."⁸⁴ Saddam personified state and army, president and commander-in-chief. His dictatorial control over the armed forces was made complete, and his constant and public appearances in military uniform—a uniform he had never worn in service and had not earned in military training—drove home his central, personalist control of both sectors of government. Any lack of clarity about control of the Iraqi state in 1980 had been effectively eliminated by 1988.⁸⁵ Uncertainty or outright fear associated with that lack of clarity was also eliminated.

⁸³ Evidence of this linkage is generally not clear, though the collective history emphasizes the fear and chaos associated with Iraqi civil-military relations in the early war period.

⁸⁴ Hiro, 1989, p. 47.

⁸⁵ There were still coup plots and coup attempts underway throughout the war. However, many of these were attributed to nonmilitary groups. One major assassination attempt at Dujail conducted by a Shi'a-affiliated group stands out. See Edward Wong, "Hussein Admits He Ordered the Execution of 148," *New York Times*, April 6, 2006.

State Integrity in the 1980–1988 Iran-Iraq War: 2–3 and 3–3

State integrity is the way the state maintains and applies standards for behavior and corruption.⁸⁶ In parallel with the anti-corruption efforts within the army, Saddam enforced a stringent anticorruption regime within the various state ministries and subordinate organizations. The Iraqi state was rife with corruption through 1980, and none of Saddam's efforts could have fully eliminated it in less than a decade. However, the general consensus in the literature is that the brutal application of intelligence surveillance and capital punishment effectively improved state integrity through fear. At the very least, corruption was brought within culturally acceptable standards in Iraq. State integrity may have improved through 1988, but there is little indication that this significantly improved Iraqi Army will to fight.

State Support in the 1980–1988 Iran-Iraq War: 4-5 and 4-5

States provide support to organizations, which in turn provide it to units and soldiers.⁸⁷ Throughout the war, the Iraqi state provided good, dependable support to the army. Although there were a few periods where weapons and ammunition were less available than others, state leaders constantly pursued the best weapons, equipment, and other supplies for the war. State efforts to militarize Iraq were specifically designed to support the military, and particularly the army. There was no doubt about the state's desire and ability to support the Iraqi Army at any time during the war. All analyses of the war are clear that high-quality equipment, dependable supply chains, effective air support, generous rewards programs, and extensive state moral support were key factors in Iraqi will to fight and combat effectiveness.

State Strategy in the 1980–1988 Iran-Iraq War: 1-2 and 4-4

Strategy is the approach the state takes to succeed in a specific conflict or contest, such as a war.⁸⁸ In 1980, the Iraqi strategy to seize parts of Iran consisted of bad assumptions and unjustified optimism overlaid on a decades old British training plan. Saddam assumed that a weakened post-revolutionary Iran would submit to his will. When the Iranians refused his requests for ceasefires he was genuinely surprised. As the Iranians built their forces for the 1981 counteroffensive, Saddam and his top generals had no strategic options prepared. The entire concept of operations for the war was questionable in its construct and undeniably flawed in its execution. Iraqi soldiers on the receiving end of the subsequent Iranian assaults were well aware of the failure of Iraqi strategic design. As late as 1986, the CIA noted the lack of clarity in Iraqi strategy and its impact on the military campaign:

⁸⁶ Is the state corrupt? Do leaders and bureaucrats follow rules and maximize efficiency for the military, or does money and equipment intended for soldiers get diverted? Is there a sense of equanimity, or are rules routinely broken to favor those in power? What role does character play? Sources referenced for this assessment: h: p. 110; p: pp. 42–47. This assessment relied heavily on insight from the other cited works on Iraq here. This requires considerable reading. See Chapter Two for extended citation. Sassoon (p) is a critical source for this factor.

⁸⁷ Organization and unit support are in many ways limited by what the state does and does not provide. State support is more or less sufficient and timely. It can consist of major equipment items, personnel, supplies, medical assistance, and information. Sources referenced for this assessment: e: p. 169; f: 58, 60; g: p. 313; v: pp. 951, 954, 956; m: pp. 31–32; CIA, July 1982b, p. 11; CIA, NESA 84-10027, pp. 1–2; CIA, NESA M 85-10231, pp. 1–3; z: pp. 142–143, 168.

⁸⁸ Strategy is more or less *clear* and *effective*. More effective strategies improve success and confidence. Less effective strategies undermine both. Sources referenced for this assessment: e: pp. 59, 109; f: pp. 24, 108, 125, 227, 270; g: pp. 258, 452, 481; i: p. 385; h: p. 60; n: p. 230; o: pp. 144, 145, 151, 153; k: pp. 49–51; m: pp. 29–31, 45; CIA, SNIE 34/36.2-86, pp. 1, 5; CIA, July 1982b, p. 10; CIA, SR 80-10157JX, introduction, p. 1; t: p. 234; NESA M-84-10255, pp. 3, 4; CIA, NESA 84-10027, pp. iii–18; CIA, NESA M 85-10231, pp. 1–3; d: pp. 32–33, 53, 75, 76; a1; a2; a3; a4; a5; a6; a7; a8.

Despite Iraq's advantage in weaponry, its objective is only to *end*, not *win* the war—that is, to emerge with the Ba'th [sic] regime and Iraqi territory intact. The regime translates this objective into a reactive, ineffective use of its military forces that has largely yielded the initiative to Iran.⁸⁹

In sharp contrast to the 1980 debacle and the mid-war malaise, the 1988 counter-counter-offensive strategy was well designed and well executed. Strategic planning skillfully integrated theater-wide deception operations. Objectives were carefully selected, and resources were applied to achieve combined-arms dominance. Saddam and his top generals reined in any instincts they might have had to pursue the Iranians deep into their own territory; their limited incursion was tailored to facilitate a diplomatic settlement to the war. Soldiers on the front line of the 1988 operation had every reason to feel confident in the state's strategy.

State Leadership in the 1980–1988 Iran-Iraq War: 4-4 and 5-5

State leadership usually exists at many levels, from the premier (president, prime minister, king, etc.) down to ministers, governors, and others.⁹⁰ I cannot overemphasize the recognition of Saddam Hussein's egregious and unforgivable acts. However, given this clear record of atrocity, Saddam was still a competent state leader during the later phases of the Iran-Iraq War. At the outset, he was a military naïf who blundered into a war he had no means of winning. He did not like to read the long, detailed military reports that probably would have improved his understanding of the war. His reluctance to hear bad news could cripple effective decisionmaking, and his selective favoritism for some incompetent officers undermined Army confidence at various levels of command. Over time, however, he demonstrated adaptability, personal courage, and cunning insight into the needs of his people and his military. Saddam's masterful manipulation of state media amplified his effectiveness and, perhaps more importantly, it amplified Iraqi perceptions of his effectiveness as state leader. Below, Rob Johnson describes Saddam's personalization of the state. In his analysis, it did more to instill fear than to inspire:

The grandiose cult of personality, already well developed before the war, increased in momentum, such that statues and portraits of Saddam, often on a vast scale, protruded from hoardings, buildings, and every public space across the country. The media broadcast songs, poems, and letters of praise. As the circus of Saddam reached new heights, so the morale of the Iraqi people correspondingly suffered. The effect of the towering images of Saddam merely increased their fear that his intelligence services were everywhere.⁹¹

Saddam is still revered by some retired Iraqi Army officers, but there is also a lingering dislike for Saddam in military circles. This brief aggregation of quotes from senior officers summarizes their varying perceptions of Saddam's leadership:

⁸⁹ CIA, 1986, p. 1.

⁹⁰ This can be a collective assessment or it can center on top-level leadership, whichever is most relevant. State leaders have stronger or weaker *character* and are more or less *effective*, with possible complementary effects on will to fight. Sources referenced for this assessment: e: pp. 42, 80, 108, 153, 412, 420; f: pp. 19, 60, 63, 136, 224, 342; g: pp. 234, 250, 258, 355, 452, 478; l: pp. 69, 70, 76; i: pp. 152, 229, 342, 397, 410, 427, 453; h: pp. 47, 68, 197; s: all; o: pp. 29, 30; p: pp. 137–139, Chapter 6; CIA, July 1982b, p. 11; Kifner, 1986, p. 1; d: pp. 33, 34, 40–44; c: pp. 112, 114–116, 120, 123–125, 142–145; a1; a5; a7; z: pp. 134, 136, 138, 146.

⁹¹ Johnson, 2011, p. 70.

He was extremely courageous. He could take ideas from everyone and create a new idea. At the political level, he was an excellent tactical player. However, at the strategic level, 99 percent of his concepts were wrong.

Saddam was torn between two views of the world, two conflicts. He wanted complete loyalty to himself, which required violent, ignorant personalities. On the other hand, he needed competent leaders because of the size of his army and his goals. In the end, he admitted that holding a high rank within the Ba'ath Party did not necessarily make one a competent commander.

In that time Saddam ordered the Iraqi people to welcome the troops wherever they came. It was a huge moral support to the whole Iraqi army.

Saddam Hussein was stupid.

First, he believed in the Arab nation, he never discussed sectarianism. He was a hero and everybody likes hero. Everyone was on board with his strategic goals. He had a whole-of-country strategy to get everyone behind the war.⁹²

While these views are mixed, Saddam's competence towards the end of the Iran-Iraq War had a clear, positive influence on Iraqi Army will to fight in 1988.

Societal Factors in the 1980–1988 Iran-Iraq War

Table A.7 depicts the side-by-side comparison of societal-level factors that influenced the Iraqi Army's will to fight during this period.

Societal Identity in the 1980–1988 Iran-Iraq War: 1-3 and 2-3

Societal identity exists across three categories: ideological (religious, political, etc.), ethnic, or historical and not otherwise ideological or ethnic.⁹³ Full societal mobilization for the war required the fullest societal support for the state, the military, and Iraqi war aims. Any societal divisions or diversions would reduce available military recruits, decrease willingness to suffer economically, and decrease willingness to carry on through Iranian ground attacks and missile strikes. The sections above describe the increasing shift toward national identity among the Arab Iraqi population, and a decided split in the Kurdish population between those pursuing independence and those serving in the national armed forces. Societal identification with the state gradually overmatched other identities. Saddam played a central role in unifying societal identity behind the state. Rob Johnson describes some of these efforts:

⁹² In order: Lieutenant General Ra'ad Majid Rashid al-Hamdani, in: Woods, Murray, and Stout, 2011, p. 13; Hamdani, in Woods, Murray, and Stout, 2011, p. 38; interview with senior Iraqi general officer, Amman, Jordan, 2019, interview # 5; interview with senior Iraqi general officer, Amman, Jordan, 2019, interview # 2; interview with senior Iraqi general officer, Amman, Jordan, 2019, interview #7.

⁹³ Identity can unify or divide a society, or do both in a complex way that might influence will to fight. Does the society provide a useful or harmful belief system for the military? Is it aligned with the military system, or with the military mission? How do identities affect the disposition to fight? Sources referenced for this assessment: e: pp. 43, 44; f: pp. 66, 133; l: pp. 41, 54, 66–67, 68, 79, 85; i: p. 456; h: pp. 44, 45, 51, 61, 88, 89–90, 107, 148, 149, 257; j: pp. 9, 15, 97; o: pp. 381, 383, m: pp. 71–72; Chapters 5 and 6, p: Chapters 1, 6, and 7; d: p. 28; c: pp. 117, 149; a5; z: pp. 150–152.

Table A.7
Comparative Assessment of Societal Will-to-Fight Factors: Iran-Iraq War, 1980 and 1988

Category	Factor	1980		1988	
		Condition	Influence	Condition	Influence
Societal Culture	Societal Identity				
	Societal Integrity				
Societal Capabilities	Societal Support				

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables A.1 and A.2.

New efforts were made to punish dissidents and to reconcile the Shia to the regime. The Ministry of Waqfs and Religious Affairs was expanded. More funds were allocated to the renovation and repair of mosques. Five million copies of the Koran were printed for free distribution outside Iraq. In speeches . . . Saddam stressed the importance of the southern Shia cities as Arab and Iraqi settlements and invoked the idea that Imam Ali was an Arab ancestor not an Iranian one. . . . The Committee of Religious Indoctrination, made up of ‘reliable’ ulema, monitored sermons. The Popular Army’s efforts in this regard were stepped up with regular patrols.⁹⁴

One senior Iraqi general officer with considerable respect for Saddam described his use of historico-cultural narratives to help bring Iraqi society together from 1980 through 1988:

He is pure Iraqi, so he used the Iraqi culture, mixed with the history of the Muslim religion [to bring everyone together]. He emphasized the better side of Arab culture: Encouragement, patience, forgiveness. He selected and told meaningful stories from Arab history in a simple way.⁹⁵

Societal identity and individual identity are closely linked. The former assesses the general relationship of the people with the state and the military, while the latter describes the soldiers’ identities and the impact of these identities on will to fight in combat. Because culture is not an island—the military is not neatly separated from society but is instead intertwined—societal identity closely affects individual soldier identity. It also links closely to societal support.

⁹⁴ Johnson, 2011, pp. 66–67.

⁹⁵ Interview with senior Iraqi Army general officer, Amman, Jordan, 2019, interview #7.

Societal Integrity in the 1980–1988 Iran-Iraq War: 1-3 and 1-3

Societal integrity is the presence, nature, and effect of corruption and ethical behavior in the society from which the military is drawn.⁹⁶ Corruption and the general lack of honesty in society can undermine the bonds a soldier has with society, and it can have a knock-on effect on state and organizational integrity, and then will to fight. Integrity is also a matter of perspective. What might be forbidden in one group might be accepted in another. From an Iraqi cultural perspective, Iraqi society is fairly corrupt.⁹⁷ In other words, Iraqis often don't play by their own professed rules. For soldiers, this means that they can't always count on their fellow citizens to deal fairly with the military. Siphoning of military funds by dishonest arms dealers and suppliers was commonplace, leaving military units without some of their required equipment. Societal corruption remained effectively unchanged over the course of the war, as did its slightly negative effect on will to fight.

Societal Support in the 1980–1988 Iran-Iraq War: 4-4 and 5-5

Societies provide varying levels of support for the military and for current military missions.⁹⁸ Iraqi support for the war, and specifically for the military, ebbed and flowed at the beginning of the war and then gradually solidified to firm commitment by 1988. At the outset of the war, there was a collective spirit of adventurism and anti-Persian animosity. Initial exuberance faded quickly as military setbacks and casualties mounted from 1980 through approximately 1985. Razoux describes some of the gloom in the early years of the war: "Civilian and troop morale had been shaken by the bombing of cities, widespread destruction and shortages, constantly escalating casualties, but also the lack of a potential end in sight."⁹⁹ However, the direct attacks on Iraqi soil, and the missile attacks on Baghdad, in particular—with lots of coercion from the government—helped to galvanize Iraqi society.¹⁰⁰

Societal support to the military was often overt. Malovany describes the greeting given by Iraqi citizens to a Special Republican Guard unit after a notable battlefield success:

After a hard battle they managed to take control of [Penjwin] and expel the Iranian force. Upon completing its mission on 8 November, the brigade "marched triumphantly" back to Baghdad and was received in the sectors it traversed by ecstatic crowds, government offi-

⁹⁶ Weak integrity undermines social trust, or the cohesion between people in the society, while strong integrity can have the opposite effect. Integrity also affects social functioning, or the day-to-day workings of society from business transactions to basic communication. Societal Integrity directly influences, but might be very different from State Integrity and Organizational Integrity. Regional cultural norms help define what is or is not acceptable in terms of corruption and ethical behavior. Societal expectations for behavior are important: Behavior that might be corrosive in some societies might not be in others. Sources referenced for this assessment: l: p. 130; h: p. 110; o: pp. 411–412; p: Chapter Seven.

⁹⁷ For additional reading on corruption in Iraq, see Heller, 1977; Makiya, 1989; Phil Williams, "Organized Crime and Corruption in Iraq," *International Peacekeeping*, Vol. 16, No. 1, 2009, pp. 115–135.

⁹⁸ Support can come in several forms, including popular support for the military and operations demonstrated in polls, marches, or writing; material support like war bonds, packages to deployed troops, and rationing; and recruiting support in the form of parental approval for service and youth willingness to serve. Is the society behind the military? Support is more or less *consistent* and *efficient*. Sources referenced for this assessment: e: p. 498; f: pp. 189, 290, 297, 298, 308; g: pp. 311, 313, 394; l: pp. 8, 66–67, 41, 54, 68, 70, 79, 111, 122–123, 130, 134, 184; i: pp. 146, 241, 274, 313, 348; h: pp. 182, 188; o: pp. 407–410; CIA, NESA 84-10027, pp. 1–2; CIA, NESA M 85-10231, pp. 1–3; a5; z: pp. 134–135, 149.

⁹⁹ Razoux, 2015, p. 311.

¹⁰⁰ Chubin and Tripp (1988, p. 57) describe Saddam's manipulation of the initial phase of the war and his effective argument that the war had been an act of defensive preemption.

cials and senior members of the Ba’ath Party. When it arrived in Baghdad the next day (the 9th), it was given an official welcome by Saddam and the defense minister, Adnan Khairallah, and the senior civilian and military leadership, as well as large crowds of Baghdad residents.¹⁰¹

Saddam was so intent on generating societal support that he envisioned enthusiastic parents forcing their sons to join the military to fight.¹⁰² Whether or not this happened on any scale, the general, positive support for the war in 1988 was a significant and positive influence on Iraqi Army will to fight.

Contextual Factors in the 1980–1988 Iran-Iraq War

Table A.8 depicts the side-by-side comparison of societal-level factors that influenced the Iraqi Army’s will to fight during this period.

Table A.8
Contextual Will-to-Fight Factors—1980 and 1988

Factor	1980		1988	
	Condition	Influence	Condition	Influence
Climate and Weather				
Terrain		Null		
Fatigue				
Mission				
Adversary Reputation				
Adversary Performance				
Adversary Equipment				
Messaging				
Allies		Null		Null

Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables A.1 and A.2.

¹⁰¹ Malovany, 2018, p. 241.

¹⁰² Murray and Woods, 2014, p. 298.

Climate and Weather in the 1980–1988 Iran-Iraq War: 2-3 and 2-4

Climate in an area of operations and temporary weather conditions, such as heat, cold, rain, snow, ice, dry air, and humidity, can help sustain will to fight or drain will to fight.¹⁰³ Iraqi soldiers were generally acclimated for the hot summer weather in the south, but only certain units were ready for the mountain cold of the Kurdish north. All the battle narratives describe varying experiences with, primarily, heat and cold. At Mehran, Iraqi soldiers fled in part because they were ill-prepared for the cold weather. Lack of preparedness for cold weather, in particular, seemed to be an important detractor to Iraqi will to fight for some units in the northern campaigns. But units well-conditioned for the mountains excelled in fighting there, and in fact they seemed to have thrived. Iraqi soldiers fared reasonably well in the heat in great part because of their reliable logistics system: They had decent supplies of fresh water when the temperatures rose above 120 degrees Fahrenheit. Throughout the war, Iraqis fought in harsh conditions. By 1988, their improved training slightly improved the degree to which they were able to deal with extreme weather and reduce its impact on will to fight.

Terrain in the 1980–1988 Iran-Iraq War: 2-null and 2-4

Ground combat is fought on or in various types of terrain, including open plains, farmland, hills, mountains, swamps, forests, jungles, urban areas, amongst other variations.¹⁰⁴ Through at least 1986 the Iraqis struggled with the marshy terrain in southern Iraq. They often became bogged down, and in some cases Iraqi soldiers had to abandon armored vehicles. In general, the Army put experienced mountain troops into the mountain battles up north, and in some cases these units excelled against less well-prepared Iranian forces. Malovany describes Iraqi combat effectiveness against an Iranian force in the north in 1986:

The Iraqis' victory was mainly due to their troops' prior experience of mountain warfare (including infantry and commando units and light Kurdish battalions), whereas the Iranian forces had no training for this type of fighting . . .¹⁰⁵

There was no appreciable impact of terrain on will to fight in the earliest part of the war, but by 1988 the well-trained, well-conditioned Iraqi Army was using terrain to its advantage. Confidence in the terrain translated into some improvements in will to fight.

Fatigue in the 1980–1988 Iran-Iraq War: 4-4 and 3-3

Fatigue is the physical and mental wear and toll on soldiers from combat stress (fear, killing, losing friends, etc.), physical exertion, exposure to the elements, long periods away from home

¹⁰³ Cool climate and weather might improve will to fight for an attacking force running hard over rough terrain. Snow might dishearten a military force culturally accustomed and acclimatized to desert terrain. Soggy conditions can prevent sleep, break down the body and weaken the mind. Well-prepared units fighting in conditions to which they are accustomed are less likely to suffer from climate and weather effects, and they may benefit from them. Uniforms and equipment are more or less effective at mitigating climate and weather effects—both should be taken into consideration. Sources referenced for this assessment: f: p. 268; g: p. 155; i: pp. 427, 433; CIA, GIM 86-20277, all.

¹⁰⁴ Military units are more or less familiar with various types of terrain, and they are more or less prepared for combat in these types of terrain. Familiarity and preparation beget capability and confidence, which in turn affect will to fight. Terrain can be tactically advantageous to the military unit or it can undermine the unit in different military situations. Uniforms and equipment are more or less appropriate for the terrain conditions. Sources referenced for this assessment: e: pp. 221 and 355; i: pp. 310, 430, 433; m: pp. 32–35; q: p. 66; v: pp. 948–960; CIA July 1982, p. 10; d: pp. 68–69, 75; z: p. 162.

¹⁰⁵ Malovany, 2018, p. 310.

and family, and similar grinding physical and mental effects.¹⁰⁶ Iraqi troops were fresh in 1980, so fatigue was not a factor in the initial invasion. However, it did not take long for fatigue to set in across the forward-positioned army units. Saddam recognized this dynamic in one of his many hyper-detailed tactical discussions with senior military leaders in Baghdad. In November 1980, just two months after the invasion, Saddam described his reluctance to order a bridge crossing. His rationale was that the troops were fatigued, and that pushing them too hard in the fatigued state might cause their morale to drop:

Nevertheless, when we realized that this crossing operation became complicated, I did not insist much on the operation for fear that our troops were tired; thus, we did not insist more than needed to avoid negatively impacting the morale of our troops. Therefore, this point should be studied.¹⁰⁷

In other words, Iraqi leaders decided to cancel an important military mission because they feared that fatigue would lead to a failure of will to fight. This quote highlights the important idea that will to fight is not always measured by dramatic success or failure, but also by hard-to-measure confidence or hesitation in decisionmaking.

By 1981, the year-long siege at Abadan had ground down units such as the 3rd Armored Division. Fatigue played a reportedly significant role in Iraqi unit collapses and incidents of individual desertion through the middle of the 1980s. Here, the Iraqi Minister of Defense describes the impact of fatigue on the will to fight of an Iraqi unit that broke and ran in 1980:

General Adnan Khairallah explained the collapse of an Iraqi unit as having been due to ‘exhaustion’ resulting from the recent battles in Khorramshahr. The mechanized unit was operating in swampy terrain and had come under increasing pressure from Iranian infantry. The regimental commander had tried to pull his lead company back, and action “which gave the impression that this was the beginning of a withdrawal . . . it was impossible to stop it.”¹⁰⁸

Some Iraqi soldiers continued to serve and fight throughout the war. Continual combat exhausted some soldiers, and, though evidence is lacking, combat stress must have been a factor for some soldiers later in the war. But by 1988 many soldiers were new recruits or mobilized reservists. The effects of fatigue over the course of the war were not necessarily cumulative at the soldier level. Furthermore, army leaders were fairly generous with home leaves and wisely pulled units off the line to allow them time to refresh. Overall, there was probably only a slight negative influence of fatigue on the overall will to fight of the force by 1988.

¹⁰⁶ Fatigue can accrue rapidly or gradually. Fatigue can undermine capability, which undermines confidence and, therefore, will to fight. This factor accounts for accumulated fatigue prior to an anticipated combat scenario. It can also be used to help anticipate the effects of fatigue based on unit preparation and conditions; or both. Some units are particularly well prepared for fatigue, and for some elite units, fatigue can temporarily improve will to fight during combat. Sources referenced for this assessment: f: p. 241; g: p. 471; i: p. 193; a1; a4; a7.

¹⁰⁷ Quoted in SH-SHTP-D-000-856, p. 66.

¹⁰⁸ Murray and Woods, 2014, p. 123.

Mission in the 1980–1988 Iran-Iraq War: 2-2 and 4-4

Units execute missions at the tactical level to support operational and strategic goals.¹⁰⁹ Initial objectives of the war were not effectively transmitted to the average soldier, and they proved hard to justify as the situation degenerated. In 1981, Saddam's tactical directive to hold at all costs contributed to the brittleness of his already weakened force: The command was simply unreasonable given the conditions.¹¹⁰ A CIA analysis in July 1982 doubted Iraqi will to fight and accurately forecast Iranian success northeast of Basrah. Agency analysts were particularly skeptical of the Iraqi soldiers'—and particularly reserve and militia soldiers'—belief in their mission:

Iraqi troops, particularly the militia and reserve forces, apparently have been reluctant to die for Iranian territory Saddam has consistently indicated he would return to Iran in a peace settlement. As a result, the reserve and militia troops often abandoned their positions at critical times.¹¹¹

However, while the lack of a clear mission undermined Iraqi will to fight in the early part of the war to some degree, this dynamic should not be overstated. It could be said that the government and the army did a reasonable job of mission justification for soldiers who were generally used to being kept in the dark. Expectations for low-level briefings or sensing sessions were low. Counterattack proved to be a more viable and more visible motivator for the Army. By 1988, the mission was clear: Take back Iraqi territory and drive out the hated Persian invaders. The line of advance was directly east to west, back over now-familiar terrain.

Clarity of purpose matters for soldiers. A retired Iraqi general with experience in the war stated, “If there is a clear reason *why* they are fighting—a clear goal, the object of fighting—then they will fight. The willingness of Iraqi soldiers to fight were entirely different when we went to Iran versus Kuwait. In Iran there was an aggression, Iranian interests in Iraq.”¹¹² Mission clarity and simplicity generated confidence. The 1988 offensive gave the Iraqi soldiers a clear end state objective that would almost certainly help end the war.

Adversary Reputation in the 1980–1988 Iran-Iraq War: 4-2 and 3-3

In a given situation, the adversary is viewed by soldiers in a unit as more or less competent and dangerous.¹¹³ Iranian reputation had different influences on Iraqi will to fight over the course of the war. In 1980, Iraqi soldiers were led to believe that the Iranians would not put

¹⁰⁹ Missions are viewed as more or less tactically worthwhile; more or less achievable; more or less dangerous to the soldiers; and more or less ideologically and politically valid in a broader operational and strategic context. Worthwhile, achievable, and valid missions with acceptable risk might significantly reinforce will to fight. On the other end of the spectrum the nature of the unit's mission can significantly reduce will to fight. Sources referenced for this assessment: f: p. 176; i: p. 421; k: pp. 49–51, m: pp. 45, 46; CIA, NESA M 82-10342, pp. 3, 5; CIA, NESA 84-10239C, pp. 3–4; d: pp. 33, 34; a1; a2; a4; a5; a6; a7.p

¹¹⁰ A good description of this order can be found in: Murray and Woods, 2014, p. 176.

¹¹¹ CIA, NESA M 82-10342, p. 3.

¹¹² Interview with senior Iraqi general officer, Amman, Jordan, 2019, interview #4.

¹¹³ This is a perception of relative value: Do the unit's soldiers believe they can defeat the adversary? Do they take the adversary seriously? Have they inflated the adversary's capabilities? Are they well or poorly informed about the adversary? Has the adversary warped the soldiers' perceptions through psychological warfare? Does the adversary have a reputation for committing atrocities, and if so how does this affect the unit? This ties closely to expectations. If soldiers have high expectations of adversary performance and the adversary performs poorly, soldier confidence may soar. The inverse also applies.

up much of a fight. Iraqi officers were fully convinced that the invasion would be a walkover. When the Iranians did put up a fight and then counterattacked, it was something of a shock, from the front lines to the army headquarters. As the Iranians started to unleash human-wave attacks and night infiltrations, surprise translated to outright fear. Not only were the Iranians competent fighters, but they were motivated to the point of fanaticism. By 1982, expectations of human-wave attacks and surprise night attacks were having an effect on Iraqi will to fight.

Over time, the Iraqis learned to manage the human-wave tactics with concentrated firepower and chemical weapons. Tactical intelligence improved to help reduce the likelihood and instances of surprise. By 1988, the Iranians' fierce reputation was much diminished. Human-wave tactics were a thing of the past, and it was now the Iraqis who were springing surprise attacks on hapless Iranian defenders. At the end of the war, poor Iranian reputation improved Iraqi will to fight.

Adversary Performance in the 1980–1988 Iran-Iraq War: 2-2 and 3-3

Once combat begins, the adversary's behavior and performance vis-à-vis the unit or the unit's military forces will alter adversary reputation but also have direct effects on unit will to fight.¹¹⁴ Actual Iranian behavior in combat had a similar ebb-and-flow impact on Iraqi Army will to fight. Early in the war, the Iranians wore down the Iraqis. Summarizing the effects of the May to March 1982 Iranian offensives, Malovany found that "The frequent Iranian attacks had a negative cumulative effect on the Iraqi forces' morale and eroded their will to continue fighting."¹¹⁵ The impact of human-wave attacks on young Iraqi soldiers had both an immediate and long-term psychological impact. Murray and Woods quote an Iraqi officer describing what it was like to face an Iranian human wave attack:

They come on in their hundreds, often walking straight across the minefields, triggering them with their feet. . . . They chant Allahu Akbar and they keep coming, and we keep shooting, sweeping our fifty [caliber machineguns] around like sickles. My men are eighteen, nineteen, just a few years older than these kids. I've seen them crying, and at times the officers have to kick them back to their guns. Once we had Iranian kids on bikes cycling towards us, and my men started laughing, and then these kids started lobbing their hand grenades and we stopped laughing and started firing.¹¹⁶

Iranian atrocities were specifically designed to undermine Iraqi will to fight. Corpses were desecrated, limited chemical attacks were used—nothing approaching the volume of Iraqi chemical attacks—and civilians were abused. Malovany describes an Iranian atrocity in 1982:

In addition, the Iranians engaged in psychological warfare and other actions that were directed at damaging the morale of the Iraqi fighters and the residents of Basra. These

Met expectations will have limited additional impact. Sources referenced for this assessment: e: Chapter One; f: woven into multiple sections; k: pp. 46–47; m: pp. 5–9, 27, 32; CIA, SR 80-10157JX, pp. 1; d: pp. 27; a5; a7.

¹¹⁴ Adversary behavior includes successful or failed adversary combat actions, atrocities, surrenders, effective or ineffective tactics, and more timid or more aggressive fighting style. This factor can be assessed prior to combat based on forecasting or performance in previous battles, or it can be reserved for mid-combat assessment efforts. Sources referenced for this assessment: e: pp. 93, 368, 374, 383, 396; f: pp. 80, 194, 242–243, 316–317, 327; i: pp. 193, 212, 393, 411, 444, 457; Kifner, 1986, p. 1; CIA, NESA M 85-10231, pp. 1–3; d: pp. 65–66, 67, 68–69, 73–75, 87–88; c: p. 147; z: p. 138.

¹¹⁵ Malovany, 2018, p. 193.

¹¹⁶ Murray and Woods, 2014, p. 80.

included killing hundreds of Iraqi prisoners who had been captured during the fighting at Muhammara and floating their corpses down the Shatt al-Arab, so they would reach Basra.¹¹⁷

This kind of act can spur both fear and anger, often within the same soldier to varying degrees. Each soldier filters this kind of information differently. Soldiers' reactions may also differ depending on whether they observed the atrocity firsthand or heard about it from fellow soldiers or through state propaganda.

By 1988, poor Iranian performance had a positive influence on Iraqi will to fight. Watching Iranians run away in defeat or, better, surrender to Iraqi forces boosted the advancing soldiers' confidence. Iranian will to fight was collapsing towards the end of the last offensive action, whereas Iraqi will to fight had reached a zenith.

Adversary Equipment in the 1980–1988 Iran-Iraq War: 4-3 and 3-4

Adversary aircraft, long-range ground fires, heavy armor, chemical munitions, or other equipment that offers a significant military advantage can undermine the will to fight of the friendly force.¹¹⁸ Iran made good use of airpower against the Iraqi Army, and particularly of its rotary-wing aircraft in direct support of ground forces. Iran used some chemical munitions but had limited capacity and stock. In general, there was no evidence in the secondary source narratives or the primary sources that Iranian equipment had any significant influence on Iraqi will to fight. However, Iraqis were clearly less concerned about Iranian capabilities by 1988.

Messaging in the 1980–1988 Iran-Iraq War: 3-3 and 5-4

Both friendly and adversary forces may try to use information activities or tailored psychological operations to build or erode the will to fight of soldiers in the unit or organization.¹¹⁹ Iraqi soldiers were on the receiving end of messaging from both their own government and from the Iranians. Iraqi internal messaging was ubiquitous, intense, and increasingly effective from 1980 through 1988. In the earliest part of the war, Saddam was still organizing his propaganda machine. Iranian propaganda was well designed and intensive, although much of it was inwardly focused to incite recruits and popular support for the war. In 1981, 450 Iraqi infantrymen surrendered near Qasr e-Shirin—Iranian state television later put them on parade, sending both an internal and external message.¹²⁰

¹¹⁷ Malovany, 2018, p. 212.

¹¹⁸ Adversaries use equipment such as vehicles, weapons, and aircraft that are more or less effective, more or less intimidating, more or less suitable to the present combat, more or less adaptable to changing conditions, and more or less sustainable over time. The real and perceived physical capabilities and material effectiveness of the adversary force are as relevant to the will to fight of the unit/organization as are its own. This includes the use of terror weapons like chemical, biological, radiological, nuclear (CBRN), or flame munitions. Sources referenced for this assessment: g: pp. 359, 398; d: pp. 65–66.

¹¹⁹ This includes any kind of messaging, through any vector, including political officers, loudspeaker, internet, text messaging, leaflet, rumor mongering through word of mouth, or any other mode that might emerge in the future. Messaging can build or erode soldiers' confidence, and it can be effective or ineffective. Sometimes adversary messaging can unintentionally give friendly soldiers greater will to fight (e.g. a deeply offensive message or a message that makes the adversary look foolish). Sources referenced for this assessment: e: p. 181; g: pp. 155, 312; l: pp. 41, 54, 61, 66–67, 70, 79, 122–123, 124, 126; i: pp. 146, 212, 313; h: pp. 108, 203; j: p. 95; s: pp. 213–214; o: 384–388, p: pp. 62–64, 67; a7: z: pp. 135–136, 141.

¹²⁰ Razoux, 2015, p. 155.

The Iraqis also manipulated images of prisoners and dead soldiers. Iraqi films portrayed images of thousands of dead Iranian soldiers.¹²¹ Saddam knew the value of enemy prisoners. He told his commanders to inflate prisoner numbers: “Any number that exceeds a hundred is to be called hundreds . . . that will trigger a light in the soldier’s psychology.”¹²² Most of the Iraqi messaging toward the army emphasized Iraqi triumphalism, history, and culture. Johnson describes the increasing emphasis on propaganda through 1988:

Posters of Saddam, the ‘greatest Arab since the fall of Baghdad to the Mongols in 1257’ and the ‘symbol of the Arab revival,’ were distributed, and his birthday became a national holiday. A film, *The Battle of Qadasiya*, portrayed the Iraqis as victors because of their nationalist, Arab and Islamic convictions.¹²³

Previous sections in this report showed that messaging was specifically designed to elicit nationalist sentiments. As the Iranians encroached on Iraqi territory, and as the economy suffered, Saddam was much more successful in leveraging these messages of super-ethnic, super-sectarian, and super-provincial unity to the Iraqi people and soldiers:

The crisis represented by the war has merely intensified the sense of beleaguered solidarity within the regime. . . . For the first time, perhaps, this idea of a common plight has made many Iraqis more susceptible to Saddam Hussein’s exhortation that “the most important thing about this battle is that it is the battle of the citizen’s faith in his homeland, kinsfolk, aims, people, and cause. You have a just cause. You are defending Iraq.”¹²⁴

There were few references to tactical messaging in the available material on the war. Activities such as battlefield psychological operations were applied by both sides, but it is not clear that they had any impact on Iraqi will to fight.

Allies in the 1980–1988 Iran-Iraq War: 3-null and 4-null.

Allied military forces may be providing support to the unit or organization.¹²⁵ International support to the Iraqi state and to the army was critical to Iraq’s ultimate success in the war. Various countries provided Iraq with billions of dollars in loans and military sales over the course of the war. Syria cut off part of Iraq’s oil exporting capability early in the war, but few other neighboring states directly opposed Iraq or provided direct support to Iran. Jordan and Egypt both supported Iraq, and Gulf Arab states backed Iraq “enough so that he would not lose, but not to give him the means to win resoundingly.”¹²⁶ Russia, Great Britain, France, and

¹²¹ Cordesman and Wagner, 1990, p. 181.

¹²² Cordesman and Wagner, 1990, p. 108.

¹²³ Johnson, 2011, p. 61.

¹²⁴ Chubin and Tripp, 1988, p. 97.

¹²⁵ The type of support, quality of support, consistency of support, the advantages it might give, the dependencies it might create or exacerbate, and any other associated benefit or challenge can affect will to fight. Sometimes the absence of allies is a factor by itself; this factor could be rated even in the absence of allies, and particularly if there was some expectation for allied support that went unmet. Sources referenced for this assessment: e: pp. 5, 104, 133, 135; f: pp. 197, 289; g: pp. 88–112, 103, 322, 421; l: pp. 90–106; i: pp. 459–460; h: Chapter 3; j-Chapter 10; k: Chapters 7, 8, and 9; CIA, SNIE 34/36.2-86, p. 11; t: pp. 239–240; c: pp. 108–109; z: p. 158.

¹²⁶ Razoux, 2015, p. 103.

the United States played similarly ambiguous roles. Although allies, or perhaps interested parties, were important at the strategic level, they had only an indirect effect on Iraqi Army will to fight at the tactical level.¹²⁷

¹²⁷ This influence is captured within the State Support, Organizational Support, and Unit Support factors.

Iraqi Army Will to Fight in the 1991 Persian Gulf War—Factor Analysis

This appendix provides the will-to-fight factor analysis to support the analysis of Iraqi Army will to fight in the Gulf War in Chapter Four. As with Appendix A, it contains a table of sources (Table B.1), a table matching sources to factors in the will-to-fight model (Table B.2), and a factor-by-factor assessment of the case.

As in Appendix A, the subsections that follow Tables B.3–B.8 discuss each factor listed in the table, and the subhead that begins each subsection summarizes the scores. For example, Ideology is rated 3 for condition and 3 for effect, so the heading for Ideology includes a summary of these scores as “3-3.”

Table B.1
Sources for the Gulf War Assessment

Type	Title or Summary of Source Set	Author(s)	Year	C
Primary Sources				
Interviews	RAND interviews with Iraqi general officers (8 interviews)	RAND	2019	a
Transcript	Conflict Records Research Center, National Defense University, "Saddam Tapes"	National Defense University	--	b
Interview	Wafic al-Sammarai	Frontline	--	c
Interview	<i>Saddam's Generals: Perspectives of the Iran-Iraq War</i> (5)	Woods et al.	2011	d
Interview	Saddam's War: An Iraqi Military Perspective of the Iran-Iraq War	Woods, Murray, and Holaday	2009	e
Secondary Sources				
Book	<i>The Lessons of Modern War, Volume IV: The Gulf War</i>	Cordesman and Wagner	1996	f
Book	<i>Wars of Modern Babylon: The History of the Iraqi Army from 1921–2003</i>	Malovany	2018	g
Book	<i>The Mother of All Battles: Saddam Hussein's Strategic Plan for the Persian Gulf War</i>	Woods	2008	h
Book	<i>Iraqi Power and U.S. Security In the Middle East</i>	Pelletiere, Johnson, and Rosenberger	1990	i
Book	<i>Saddam's War of Words: Politics, Religion, and the Iraqi Invasion of Kuwait</i>	Long	2004	j
Book	<i>Iraq's Armed Forces: An Analytical History</i>	Al-Marashi and Salama	2008	k
Book	<i>Arabs at War: Military Effectiveness, 1948–1991</i>	Pollack	2002	l
Book	<i>Armies of Sand: Past, Present, & Future of Arab Military Effectiveness</i>	Pollack	2019	m
Book	<i>Saddam Hussein's Ba'ath Party: Inside an Authoritarian Regime</i>	Sassoon	2012	n
Book	<i>Fighting Armies: Antagonists in the Middle East</i>	Gabriel	1983	o
Report	<i>Liberating Kuwait: U.S. Marines in the Gulf War, 1990–1991</i>	Westermeyer	2014	p
Report	<i>"Lucky War": Third Army in Desert Storm</i>	Swain	1994	q
Report	<i>Enemy Prisoners of War (EPW) Operations During Operation Desert Storm</i>	Bilbo	1992	r
Report	<i>War in the Persian Gulf: Operations Desert Shield and Desert Storm, August 1990–March 1991</i>	U.S. Army Center of Military History	1991	s
Report	<i>An Operational Analysis of the Persian Gulf War</i>	Craft	1992	t
Report	<i>Lessons Learned: The Iran-Iraq War</i>	Pelletiere and Johnson	1991	u
Report	<i>Air Campaign Against the Iraqi Army in the KTO</i>	Frostic	1994	v
Report	<i>Conduct of the Persian Gulf War: Final Report to Congress, Chapters I Through VIII</i>	U.S. Department of Defense	1992	w
Report	<i>The Whirlwind War: The United States Army in Operations Desert Shield and Desert Storm</i>	Shubert and Kraus	1995	x

Table B.1—Continued

Report	<i>Gulf War Air Power Survey Summary Report</i>	Keaney and Cohen	1993	y
Thesis	<i>The Iraqi Way of War: An Operational Assessment</i>	Griffin	1991	z
Article	"Saddam Husayn and Civil-Military Relations in Iraq"	Hashim	2003	aa
Article	"The Gulf War in Retrospect"	Mahnken	2011	bb
Article	"Civil-Military Relations in Iraq (1921–2006): Introductory Survey"	Kadhim	2006	cc
Article	"The Iraqi Army's Defeat in Kuwait"	Pardew	1992	dd
Articles	<i>Military Review</i> , special Desert Storm edition	Military Review	1991	ee
Article	"The Perfect Enemy: Assessing the Gulf War"	Mueller	1995	ff
Article	"The Myth of Air Power in the Persian Gulf War and the Future of Warfare"	Press	2001	gg
Report	"Psychological Effects of Air Operations in Four Wars"	Hosmer	1996	hh
PhD Thesis	The Iraqi Opposition Movement in the Post Gulf War Era: 1990–1996	Al-Shamrani	2001	ii
Article	"Iraq's Strategic Mindset and the Gulf War: Blueprint for Defeat"	Cigar	1992	jj
Article	"Saddam's Perceptions and Misperceptions: The Case of 'Desert Storm'"	Woods and Stout	2010	kk
Book	<i>Martyr's Day: Chronicle of a Small War</i>	Kelly	1993	ll
Book	<i>Triumph Without Victory: The Unreported History of the Persian Gulf War</i>	U.S. News and World Report	1993	mm
Article	"Combat Stress Reactions in Iraqi Enemy Prisoners of War"	Marcum and Cline	1993	nn
Report	<i>Psychological Operations in Desert Shield, Desert Storm, and Urban Freedom</i>	Jones and Summe	1997	oo
Book	<i>The Gulf Conflict 1990–1991: Diplomacy and War in the New World Order</i>	Freedman and Karsh	1993	pp
Book	<i>The Gulf War Chronicles: A Military History of the First War with Iraq</i>	Lowry	2003	qq
Book	<i>The Fires of Babylon: Eagle Troop and the Battle of 73 Easting</i>	Guardia	2015	rr
Book	<i>The Saddam Tapes: The Inner Workings of a Tyrant's Regime, 1978–2001</i>	Woods, Pallki, and Stout	2011	ss
Report	<i>73 Easting: Lessons Learned from Desert Storm</i>	Orlansky and Thorpe	1992	tt
Articles	Contemporaneous newspaper articles from the <i>New York Times</i> and <i>Washington Post</i>	Various, informative, see References		
Intel	Declassified intelligence reports	Various, see note		
Literature	Cited literature on Iraqi history, sociocultural issues	Various, see Chapter Two in the main report		

NOTE: Several declassified intelligence reports on the Iraqi Army before, during, and after the Gulf War were reviewed on the CIA Freedom of Information Act website.

Coded References for Each Factor in the Gulf War Case

Table B.2
Factor-by-Factor Citation for the Gulf War Assessment

Factor	Evidence
Individual Ideology	h: 179–180; gg: pp. 14, 170–171; jj: Chapter 4; cc: pp. 11–12, 14–15; b: SH-SHTP-A-001–043, pp. 5–6, 18–19; ll: p. 158; j: pp. 170–178; a1; a3; a5; a6; a7; a8; ss: pp. 201–203
Desperation	f: pp. 119–123; k: pp. 177–178; ff: pp. 84, 107; gg: pp. 33–37, 168–171; y: p. 108; jj: Chapter 4; ll: p. 159; a8; oo: pp. 6–7; nn: pp. 482–488; ss: pp. 201–203
Economics	f: pp. 35, 72–76, 502–503; ff: p. 84; z: pp. 42–45; ii: Chapter 4; b: SH-SHTP-A-001–043, pp. 21–22; c: webpage; a4; a8; pp: Chapter 9, pp. 196–197
Revenge	[not applicable]
Individual Identity	h: 179–180; u: p. 67; gg: pp. 14, 171; ii: Chapter 4; cc: pp. 11–12, 14–15; b: SH-SHTP-A-001–043, pp. 18–24; a2; a3; a6; a7; a8
Quality	f: pp. 119–123, 571–573; w: p. 94, 113; ff: pp. 84, 107; gg: pp. 14, 33–37; ll: p. 234; a1; a5; a7; mm: p. 404; nn: pp. 482–483; rr: p. 146; tt: pp. l-108, l-109
Individual Competence	f: pp. 119–123, 571–573; w: p. 113; p: p. 24; gg: pp. 14, 33–37; y: p. 108; jj: p. 16; ll: p. 175; ll: p. 234; a1; a7; mm: p. 404
Unit Cohesion	f: pp. 571–573; w: p. 113; ff: p. 107; gg: pp. 33–37, 170–171; y: p. 108; qq: p. 151
Unit Control	f: p. 24; 571–573; h: pp. 88, 101–102, 174–175, 267–268, 283; k: p. 177; w: pp. 32–33, 113; p: p. 24; ff: pp. 84, 93, 107; gg: pp. 172–173; y: p. 108; ll: pp. 156, 183–193, 223; a4; oo: pp. 6–7; nn: pp. 485–486; pp: pp. 280–281; qq: pp. 46, 68, 113, 140, 188
Unit Competence	f: pp. 24, 119–123, 571–573; h: pp. 60–61; g: pp. 583–584; w: p. 94, 113; s: p. 50, 64–65; p: pp. 24, 112; ff: pp. 93, 107; gg: pp. 14, 33–37; y: p. 108; jj: p. 16; kk: p. 22; ll: pp. 156, 175; mm: pp. 326, 404; qq: p. 103, 110, 128–130, 141, 151; tt: pp. l-108, l-109
Unit Support	f: p. 504, 571–573; h: pp. 64, 186, 202–203, 237, 282; g: p. 585; w: pp. 93–94, 213; gg: p. 14, 29–30; hh: pp. 158, 169; y: pp. 98–99; ll: pp. 156, 164, 234; a4; mm: p. 310; pp: pp. 280–281; rr: p. 146
Unit Leadership	f: pp. 24, 571–573; h: pp. 88, 101–102, 220, 267; p: p. 181; gg: pp. 172–173; y: p. 108; ll: pp. 183–193, 223; a8; nn: pp. 484–486; qq: pp. 46, 68, 188; rr: p. 170
Unit Esprit de Corps	f: pp. 571–573; h: pp. 229, 237; s: p. 50; ff: p. 107; gg: pp. 14, 33–37; y: p. 108; a1; a4; a8
Expectation	f: pp. 571–573; h: pp. 52, 128, 140, 284; g: pp. 567, 583–584; k: pp. 177–178; w: pp. 113, 115; p: p. 65; ff: p. 107; y: p. 108; jj: pp. 3–12, 14–15, 18–19, 22–23; kk: pp. 11–12, 21; c: webpage; qq: p. 151; rr: pp. 171–172; ss: pp. 194–195
Organizational Control	f: pp. 119–123, 266; h: pp. 101–102, 174–175, 267–268, 283; g: p. 563; k: p. 177; w: pp. 32–33, 93–94, 113; q: p. 244; ff: p. 84; u: p. 67; g: pp. 33–37, 172–173; ll: pp. 170, 183–193; a4; a8; oo: pp. 6–7; nn: pp. 484–486; ss: p. 206
Organizational Integrity	h: pp. 88, 101–102, 283; kk: pp. 17–18, 27; ll: pp. 183–193, 223, 235–237; a2; a5; a8; ss: p. 206
Organizational Training	f: pp. 24, 119–123; h: pp. 60–61; ff: p. 93; gg: pp. 14, 33–37; y: p. 108; z: pp. 42–45; ll: pp. 183–193; mm: p. 404; ss: p. 206.
Organizational Support	f: pp. 119–123, 266, 348, 381, 504, 571–573; h: pp. 25, 64, 78–79, 202–203, 282; g: p. 585; w: pp. 213; gg: pp. 29–30; hh: pp. 158, 169; y: pp. 98–99, 116–117; z: pp. 42–45; ii: p. 179; ll: pp. 156, 234; a4; mm: p. 310; nn: pp. 482–485; pp: pp. 280–281, 390; rr: p. 146
Doctrine	f: pp. 119–123, 575–577; h: p. 63; g: p. 584; k: pp. 177–178; w: pp. 93–94, 112; s: p. 67; p: p. 66; ff: pp. 93–94, 100–102; gg: p. 14; z: pp. 42–45; jj: pp. 5, 14–15; ll: p. 156; mm: pp. ix, 285, 296, 310, 326; pp: pp. 278–279, 386–388; qq: p. 63; tt: pp. l-59 to l-60

Table B.2—Continued

Factor	Evidence
Organizational Leadership	f: pp. 24, 119–123; h: pp. 17, 220, 267; g: p. 578; w: pp. 93–94; q: p. 244; p: p. 24; u: p. 67; gg: p. 172; jj: pp. 23–25; kk: pp. 13–14, 18–20; ll: pp. 183–193, 223; a2; a8; pp: pp. 386–388; ss: pp. 206, 211–213
Organizational Esprit de Corps	h: pp. 174–175, 229, 237; k: pp. 177–178; w: p. 113; q: p. 244; u: p. 67; g: pp. 33–37; a1; a4; a8
Civil-Military Relations	h: p. 87; u: p. 67; jj: pp. 1–3, 23–25; cc: pp. 11–12, 14–15; k: pp. 13–14; k: p. 27; c: webpage; a2; a8; ss: pp. 204–206, 211–213
State Integrity	h: pp. 88, 101–102; kk: p. 27; ss: pp. 179–180, 203–204, 206, 211–213
State Support	f: pp. 119–123, 266, 348, 381, 571–573; h: pp. 202–203, 229; w: p. 213; ii: p. 179; pp: pp. 280–281
State Strategy	f: pp. 96, 113; h: pp. 140, 202–203; k: pp. 177–178; w: p. 112; p: p. 66; ff: pp. 93–94; gg: p. p. 14; hh: p. 157; z: pp. 42–45; jj: pp. 1–4, 14–15; ll: p. 158; a1; a2; a3; a4; a5; a6; a7; pp: pp. 278–279, 362, 386–388; qq: p. 63; ss: pp. 170–175; 179–180, 188–191
State Leadership	f: pp. 119–123; h: pp. 17, 52, 220, 234; g: pp. 563, 582; w: p. 113; ff: p. 110; u: p. 67; z: pp. 42–45; jj: pp. 5, 23–25; cc: pp. 11–12, 14–15; b: SH-SHTP-A-001-042, p. 11; d: p. 38; kk: pp. 11–12; c: webpage; ll: p. 170; a1; a2; a4; a6; a8; pp: pp. 386–388; ss: pp. 179–180, 204–206
Societal Identity	h: pp. 179–180, 229; z: pp. 42–45; jj: pp. 5; ii: Chapter 4; cc: pp. 11–12, 14–15; b: SH-SHTP-A-001-042, pp. 23–24; b: SH-SHTP-A-001-043, pp. 5–6, 18, 20; j: pp. 170–178; a2; a5; a6; a7; a8; ss: pp. 201–203; 207–210
Societal Integrity	h: pp. 101–102, 283; b: SH-SHTP-A-001-043, p. 4; kk: pp. 18–20; a5; a8; ss: pp. 204–206
Societal Support	h: pp. 124–125, 224, 267; w: p. 113; ff: p. 104; z: pp. 42–45; jj: p. 5; ii: Chapter 4; cc: pp. 11–12, 14–15; b: SH-SHTP-A-001-042, p. 21; b: SH-SHTP-A-001-043, p. 7, 10–14, 18; c: webpage; j: pp. 170–178; a1; a2; a6; a8; mm: pp. 274–275; pp: pp. 279, 325–326; ss: pp. 201–203, 204–206, 208–210
Climate and Weather	f: pp. 119–123, 513; h: pp. 232, 235; w: pp. 196–197, 414; s: pp. 49–50; q: p. 241; y: pp. 171–173; pp: p. 367; qq: p. 147; tt: pp. I-39, I-93, I-106, I-107
Terrain	h: p. 81; w: pp. 85–86, 93–94, 414; x: pp. 138–139; q: p. 116; y: p. 170; jj: pp. 16–18; tt: pp. I-102, I-106, I-107
Fatigue	f: pp. 571–573; h: p. 282; k: p. 181; w: p. 113, 213; q: p. 225; hh: p. 157; jj: pp. 21–22; ii: p. 179; v: p. 25; a1; a4; a7; a8; mm: p. 310; nn: pp. 482–488; pp: p. 390; ss: p. 206
Mission	f: p. 96; h: pp. 202–203, 234; k: pp. 177–178; ff: p. 104; hh: p. 157; ii: Chapter 4; kk: p. 22; ll: p. 158; a1; a3; a4; a6; a7
Adversary Reputation	f: pp. 389–442; k: pp. 177–181; ff: p. 104; hh: p. 158; jj: pp. 3–12; kk: p. 21; c: webpage; oo: pp. 6–7
Adversary Performance	f: pp. 389–442, 508; h: pp. 22–23; g: pp. 567–568; k: pp. 180–181; w: pp. 149–183, 191, 213; s: pp. 35–63, 64–65; x: pp. 174–205; q: pp. 225, 244; ff: p. 93; gg: pp. 22, 27; hh: pp. 160–170; y: pp. 98–99, 106–108, 116–117; jj: pp. 21–22; v: p. 25; c: webpage; ll: pp. 69, 164; a4; mm: pp. 274–275; qq: pp. 89, 107, 113; tt: p. I-60
Adversary Equipment	f: pp. 389–442, 508, 597–598, 700–701; h: pp. 22–23, 186, 208, 284; g: p. 567; k: pp. 180–181; w: pp. 149–183; s: pp. 64–65; x: pp. 28–33; q: p. 225; gg: pp. 22, 27; hh: pp. 160–170; y: pp. 116–117; jj: pp. 21–22; v: p. 25; c: webpage; ll: pp. 69, 164; a4; nn: p. 483; qq: pp. 89, 111, 113
Messaging	f: pp. 585–586; h: pp. 26, 179–180, 200–201, 240; w: pp. 32, 95, 113, 186–187; ff: p. 104; hh: pp. 142–152; y: p. 22; b: SH-SHTP-A-001-042, pp. 19–20; b: SH-SHTP-A-001-043, pp. 10–14; j: pp. 133–135, specifically, but the entire book focuses on this subject; oo: all; pp: pp. 325–326, 362, 390; qq: pp. 57, 142–143; rr: pp. 137–138, 176
Allies	f: pp. 58–61; h: pp. 75–76; 104–113, 214–219; w: pp. 27–31; y: pp. 163–167; jj: 12–14; b: SH-SHTP-A-001-042, pp. 6–7, 27; j: pp. 139–160, 170–180; mm: pp. 105–107; pp: pp. 85–127, 340–341; ss: pp. 95–98, 196–199

Factor-by-Factor Analysis of Iraqi Army Will to Fight in the 1991 Persian Gulf War

Individual Will-to-Fight Factors

Table B.3 (numbered Table 4.2 in the main report) depicts the individual-level factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Desperation (2-2)

By the time the air campaign culminated in the ground invasion of Kuwait and Iraq, most Iraqi Army units had been decimated by American airpower. While the physical effects of air attack may have been overstated in many cases, the moral effects were considerable and plainly stated by Iraqi interviewees during and after the war. Iraqi inability to deter or counter coalition air attacks placed Iraqis in a state of desperation, which contributed directly to desertions and then surrenders. Further, it was not clear to the average Iraqi soldier that the U.S.-led coalition might not penetrate into Iraq, overthrow the Saddam Hussein regime, and even damage and seize their home towns. In other cases, this fear might have engendered an angry response that might empower will to fight, but in this case it appears to have undermined will to fight.

Revenge (not applicable)

Ideology (3-3)

In February 1991, neither religious ideology nor nationalist ideology were particularly strong in the Iraqi Army. Saddam Hussein tried to generate the same constructed nationalism he had successfully built during the Iran-Iraq War, but in this case he failed. Ideology did not have a

Table B.3
Individual Will-to-Fight Factors in the 1991 Persian Gulf War

Category	Factor	Condition	Influence
Individual Motivations	Desperation		
	Revenge	Null	Null
	Ideology		
	Economics		
	Individual Identity		
Individual Capabilities	Quality		
	Individual Competence		

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

particularly strong pull on individual Iraqi soldiers, nor did it significantly affect their will to fight.

Economics (4-4)

Pay was generally adequate in the Iraqi Army, although it is not clear whether pay was consistent. One of the challenges faced by the Army was rotation of individual soldiers on leave to deliver cash payments to families that were dependent on the soldiers' salaries. Necessity to maintain frontline fighting strength reduced opportunities for rotation, and rotations often gave demoralized soldiers an opportunity to desert, which further disincentivized Iraqi Army leaders from executing leave. It is not clear that Iraqi Army officers or soldiers saw economic motivations as central to their will to fight, but the inability to transmit pay has been a historical challenge in the Iraqi Army.

Individual Identity (3-3)

Many of the regular Iraqi Army units on the front lines of the Gulf War were cobbled together on short notice from reservists and new recruits. Entire divisions that had been disbanded for cost reasons after the Iran-Iraq War were put back together in a hurry to defend Kuwait. These units could not possibly have generated collective identity, either for the unit or for the army. Units that had cohesive identity before the war probably retained that identity: This was apparent in the strong unit identity of the 12th Division. The strong nationalist identity that Saddam had generated from 1980–1988 had started to fade by 1990, and certainly had lost some power by 1991. Ethno-sectarian issues were resurfacing, which became evident in the postwar uprisings in the Shi'a south and the Kurdish north. Identity was becoming more of a friction point for the army than it had been in the Iran-Iraq War. However, there were no noted significant, recurring incidents of identity-driven violence in the Iraqi Army during this period.

Quality (2-2)

Iraqi soldiers in most regular army units generally lacked a competitive spirit, a bias for action, physical fitness suitable for combat, and the general knowledge necessary to understand the political, strategic, and operational context of the war. This lack of quality appears to have contributed directly to the tens of thousands of individual soldiers who deserted prior to the onset of ground combat operations.

Individual Competence (3-3)

Training in regular Iraqi Army units was generally poor. Soldiers lacked competence in both individual soldier skills and in collective unit skills. Advanced infantry and combat arms training was lacking, and there was (and is) no organizational approach to train-the-trainer learning that might help promulgate critical skills down to the individual soldier level. Some basic training was evident.

Unit Will-to-Fight Factors

Table B.4 (numbered Table 4.3 in the main report) depicts the unit-level factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Unit Cohesion (3-2)

Ethno-sectarian divisions did not significantly undermine Iraqi unit-level cohesion. In general, Iraqi culture encourages communalism. This norm for intensive human interaction and generosity encourages the growth of social cohesion. Arguably, social cohesion was stronger than task cohesion in most units, given the generally poor level of unit competence across the regular army. Vertical cohesion was better in units with stronger leadership, and specifically in the armored units assigned to support the Republican Guard Corps. Vertical cohesion was necessarily weaker in frontline infantry units with lower-quality officers and noncommissioned officers.

Unit Control (3-2)

While the Army’s approach to control may have been culturally appropriate during the Gulf War period, the weaknesses in the top-down, fear-driven approach to discipline clearly backfired. Absent strong and consistent leadership, a top-down, fear-driven approach loses its power. Soldiers who might have feared capital punishment for desertion during the Iran-Iraq War had less to fear during the Gulf War period with a less structured military system, and particularly in newly formed units that almost certainly had a less well-developed disciplinary system than more established units. Lack of discipline is most evident in the army’s roughly 200,000 desertions and 80,000 surrenders.

Table B.4
Unit Will-to-Fight Factors in the 1991 Persian Gulf War

Category	Factor	Condition	Influence
Unit Culture	Unit Cohesion		
	Unit Control		
	Unit Esprit de Corps		
Unit Capabilities	Unit Competence		
	Unit Support		
	Unit Leadership		

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

Unit Esprit de Corps (2-2)

There is insufficient evidence to show that individual Iraqi Army units that had performed well or adequately in 1988 had lost significant esprit de corps in the ensuing three-year period. However, most regular army units had not played a significant role in the final battles of the war. Some, including the 3rd Armored Division and 26th Infantry, had suffered serious setbacks that had eroded their historical reputations. Newly formed units had no basis for strong esprit de corps, even if they were manned by a high percentage of former soldiers and reservists. On the whole, therefore, the esprit de corps of the Iraqi Army was poor, but not clearly to the point that it had a broad, debilitating effect on will to fight.

Unit Competence (3-3)

There was still sufficient structure and experience in the army in 1991 to conclude that most units had at least basic collective skills and competence. They could, for example, move together, form defensive positions, and in some cases fight with basic competence. Some newly formed units might have had very poor competence. On average, unit competence was poor and debilitating to will to fight. Soldiers clearly lacked confidence in their collective ability to fight and win. When coupled with adversary reputation and adversary performance, Iraqi Army unit competence looked particularly weak. However, it would be going too far to say that the entire Iraqi Army was completely incompetent in 1991, or that lack of unit competence severely undermined will to fight to the point that it was an overriding factor on its own.

Unit Support (1-1)

Unit support was not good, but neither was it terrible. Most units obtained basic food and water for their soldiers, even in difficult desert conditions with long and often disrupted lines of communication. Ammunition was plentiful, as evinced by captured stocks at the end of the war. Frontline medical support was available, although its quality cannot be adequately judged from available sources. Units did provide fire support, including both mortars and artillery, although fire support was generally ineffective, insufficient, and fired without sufficient spotting. Units are generally not responsible for air support, which in this case was obviously nonexistent. See Organizational Support.

Unit Leadership (2-1)

In a top-down system dependent on coercive control, strong leadership is critical for will to fight. In the Gulf War there were many strong Iraqi leaders at the senior leadership level. Combat experience from the Iran-Iraq War had led to some Darwinian improvements in the overall quality of Iraqi Army leadership in both the officer and non-commissioned officer corps. Leadership in some units was clearly better than in others, with little apparent consistency across units. Again, the differences between existing units and newly-formed units appears to have been significant, although sufficient unit-level information is not readily available to draw a definitive conclusion. Poor leaders appear to have had a stronger effect on Iraqi will to fight than better leaders who might have been further removed or who had been transitioned to the Republican Guard. Some officers were more concerned with stealing from Kuwaitis than fighting.

Organizational Will-to-Fight Factors

Table B.5 (numbered Table 4.4 in the main report) depicts the organizational-level factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Organizational Control (2-2)

Overall, the Iraqi Army’s approach to control during this period was generally consistent with its high-water mark at the end of the Iran-Iraq War. However, the approach was not supported by the same kind of aggressive measures and resources in 1991 as it had been in 1988. That meant that although the organization’s approach to control was generally acceptable, if not great, its efficacy was poor. In general, the weak efficacy of Iraqi Army control should be attributed to inadequate leadership, inadequate support, and other factors rather than to the method of control itself.

Organizational Esprit de Corps (2-2)

In 1991, the Iraqi Army was still one of the most respected institutions in Iraq. Most Iraqis viewed the final year of the Iran-Iraq War as a success. Although the battle history of the army was mixed at best, it was viewed by Iraqis as a successful military organization. Soldiers had little reason to lose all of their faith in the esprit de corps of the Iraqi Army from 1988 through 1991. The army was still a place where different sects and ethnic groups could safely work together and, in a very relative sense, compete with some equanimity for promotion. Organizational esprit de corps may have had only a limited effect on Iraqi Army will to fight during the war. It certainly suffered a dramatic blow from the defeat in Operation Desert Storm, and it dropped considerably after the war.

Table B.5
Organizational Will-to-Fight Factors in the 1991 Persian Gulf War

Category	Factor	Condition	Influence
Organizational Culture	Organizational Control	■	■
	Organizational Esprit de Corps	■	■
	Organizational Integrity	■	■
Organizational Capabilities	Organizational Training	■	■
	Organizational Support	■	■
	Doctrine	■	■
	Organizational Leadership	■	■

↓	↓	↓	↓	↓	
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

Organizational Integrity (2-2)

Corruption was not reported as a serious problem in the Iraqi Army through the end of the Gulf War. Service-wide corruption really took hold in the sanctions period that followed. Through the end of the Gulf War, corruption was generally, on average, reported to be within culturally acceptable limits. In other words, corruption existed and soldiers were aware of it, but the corruption in the Iraqi Army was viewed as standard practice. However, the occupation of Kuwait was run like a looting scheme. It is clear from Iraqi reporting that the behavior of army and People's Army forces during the occupation undermined army discipline, shamed some members of the army, and brought into question the overall purpose of the military operation. This outright corruption against the Kuwaitis appears to have had the effect of undermining the perceptions of army honor and integrity.

Organizational Training (2-2)

The Iraqi Army was rushed into combat in Kuwait. During the interwar period, the regular army had seen the deepest cuts in training budgets while the Republican Guard and other special units were generally preserved. This meant that organizational training was weak across the board. It was particularly weak for newly formed units, many of which went directly into the front lines in Kuwait. There was little to no evidence that frontline regular army units or regular corps reserve units conducted field training in preparation for the war. Lack of organizational training appears to have fed an overall lack of confidence in the soldiers manning the frontline regular army units.

Organizational Support (1-1)

As noted under Unit Support, the army was generally able to get food and water out to most of its units. Medical support was available, but the quality was unclear. The biggest gap in support throughout the war was the lack of available air support and anti-air support. Failure to provide air and anti-air support left army units fully exposed to coalition airstrikes. In turn, these airstrikes had a powerful, negative effect on Iraqi Army will to fight. The Iraqi Air Force shares some of the blame for this deficiency, and the coalition deserves considerable credit for shaping the battlefield in its favor. Saddam Hussein's decision to send combat aircraft to Iran was disastrous. Soldiers suffered for these deficiencies and poor decisions, and quotes and interviews suggest that they were able to put two and two together to see how poor organizational support hurt their chances of survival. This, in turn, undermined their confidence and will to fight.

Doctrine (2-2)

There was nothing particularly wrong with Iraqi defensive doctrine for a by-the-book conventional warfare defense. The Iraqis set in to basically acceptable defensive positions, dug entrenchments, and established overlapping fields of defensive fires. However, Iraqi doctrine was wholly inadequate for the situation and adversary. Iraqi leaders failed to adapt from the Iraqis to the coalition. An ideal defensive doctrine might have put more units in urban areas, relied more heavily on decoys, increased the number of secondary and tertiary positions, and significantly increased mobility in the defense. Lack of adaptation and imagination led directly to the destruction of many Iraqi units that were left in linear, static positions directly exposed to both coalition airstrikes and operational penetrations by spearheading armored units. Moreover, in some cases the Iraqis did not apply their own defensive doctrine. They failed to follow through on their own defensive diagrams that called for overlapping fires and

sectors. However, that is probably more a matter of poor unit competence—doctrine improperly applied—than doctrine itself. Overall, inappropriate doctrine hurt Iraqi Army confidence and will to fight.

Organizational Leadership (2-1)

Many strong Iraqi military leaders remained in place from the end of the Iran-Iraq War through the Gulf War. However, these leaders did not necessarily support the war’s objectives. They may have had more of a mind to preserve the Iraqi Army than to win a war that many of them stated in interviews that they knew they would lose. Even good leaders who were dedicated to the mission appear not to have performed well in the Gulf War, for the same variety of reasons that affected the enlisted soldiers. The Iraqi NCO corps was generally ineffective in the regular Army.

State Will-to-Fight Factors

Table B.6 (numbered Table 4.5 in the main report) depicts the state-level factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Civil-Military Relations (2-null)

Civil-military relations had degraded from 1988 through 1991. Many leaders had lost faith in Saddam Hussein’s leadership. However, there is little evidence to show that civil-military relations affected unit-level will to fight.

State Integrity (3-null)

State corruption is endemic in Iraq, although in 1991 it still fell within generally-acceptable cultural standards. There is little evidence to show that state-level corruption directly or indirectly affected Iraqi Army will to fight in the Gulf War.

Table B.6
State Will-to-Fight Factors in the 1991 Persian Gulf War

Category	Factor	Condition	Influence
State Culture	Civil-Military Relations		Null
	State Integrity		Null
State Capabilities	State Support		
	State Strategy		
	State Leadership		

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

State Support (2-2)

The Iraqi state provided generally adequate logistics support to the forces in the field and to the Iraqi Army organization. However, the state's failure to gain support from allies; its failure to control Iraq's airspace; its failure to retain and use its combat aircraft; and its failure to sustain logistics to the Army appear to have undermined Iraqi Army will to fight.

State Strategy (1-1)

This is one of the clearer findings in this assessment. Saddam Hussein's strategy was ill-conceived, not coordinated within his own government, and directly threatening to his own army. Saddam placed the Iraqi Army in a position of obvious and immediate disadvantage and failed to adapt as the situation worsened. Iraq's strategy in the Gulf War was one of the worst military strategies in the history of armed conflict. Saddam's own officers—many of whom are still loyal to Saddam's memory—have publicly expressed their dismay and anger regarding Iraq's strategic design and failure.

State Leadership (2-2)

Saddam's overconfidence, bluster, and military failings were on full display in the Gulf War. However, it would be a stretch to say that he was completely adrift. He appears to have attempted to replicate what he saw as a winning approach to state leadership from the last year of the Iran-Iraq War in the Gulf War. This might have been a winning approach in different circumstances. He failed to appreciate the dramatic difference in the situation not only with the adversary, but also within his own state and Army, which were suffering from debt-driven budget cuts. Saddam spent considerable time building the trust and confidence of his officer corps in the Iran-Iraq War, but tried to coast through in the Gulf War, exerting far less effort to build a reliable constituency within his own government and military. His failures were evident to his soldiers, and they resulted in a loss of confidence and a lower will to fight.

Societal Will-to-Fight Factors

Table B.7 (numbered Table 4.6 in the main report) depicts the societal-level factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Societal Identity (3-null)

Ethno-sectarian discord was a greater problem in 1991 than in 1988, but it still was not a major friction point within the Iraqi Army. The societal rupture did not occur until after the Gulf War, with the uprising in both the north and south. There is no convincing evidence that societal identity issues played a role in either weakening or strengthening Iraqi Army will to fight in the Gulf War.

Societal Integrity (3-null)

As with state integrity, corruption was endemic but not clearly germane to Iraqi Army will to fight.

Societal Support (2-2)

Societal support is particularly difficult to assess. There was widespread support for the war at the outset, but that support appears to have waned as the coalition built up and prepared to invade Kuwait and Iraq. The clearest evidence of waning societal support is the number of

Table B.7
Societal Will-to-Fight Factors in the 1991 Persian Gulf War

Category	Factor	Condition	Influence
Societal Culture	Societal Identity		Null
	Societal Integrity		Null
Societal Capabilities	Societal Support		

↓	↓	↓	↓	↓	
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

Iraqi Army soldiers who deserted while home on leave. If the society had willingly supported the war, families would have shamed soldiers into returning to the front lines. That did not occur, and it appears instead that families encouraged soldiers to desert. This family dynamic does not emerge in the English-language evidence, but the sheer volume of desertions while on leave, taken in the Iraqi cultural context, allow for no better conclusion.

Contextual Will-to-Fight Factors

Table B.8 (numbered Table 4.7 in the main report) depicts the contextual factors related to regular Iraqi Army will to fight in the 1991 Gulf War. Individual rating explanations follow the table source listings.

Climate and Weather (2-2)

The Iraqis were generally well prepared to fight on their home terrain. There is little evidence to suggest that climate or weather affected Iraqi Army will to fight up to the point of the withdrawal from Kuwait, either in a positive or negative way. However, Iraqi leaders reported that the foul weather on the last day and a half of the war made the withdrawal even more complicated than it might have been. The inability to see nearby friendly forces undermined Iraqi Army confidence in the already poor planning for the move northward. Foul weather on the last day of fighting contributed to the overall misery of the Iraqi soldiers.

Terrain (1-1)

The terrain gave the adversary an enormous tactical advantage. It offered no concealment and very little cover from coalition satellites, aircraft, missiles, bombs, and rockets. In fact, it was ideal terrain for the strategy and tactics the coalition applied against the Iraqi Army. So, while the Iraqi Army was capable of fighting in desert terrain, it was not capable of defending itself against a dominant air power in that terrain. The Iraqis knew this, and it terrified them, severely undermining their will to fight.

Table B.8
Contextual Will-to-Fight Factors in the 1991 Persian Gulf War

Factor	Condition	Influence
Climate and Weather		
Terrain		
Fatigue		
Mission		
Adversary Reputation		
Adversary Performance		
Adversary Equipment		
Messaging		
Allies		

	↓	↓	↓	↓	↓
Condition:	Outstanding or elite	Good	Sufficient or moderate	Poor	Severely debilitating
Influence on will to fight:	Significantly improves	Improves	Neutral or minimal	Undermines	Severely undermines

SOURCES: See Tables B.1 and B.2.

Fatigue (2-1)

Iraqi soldiers were exhausted by the time the first coalition armored units pushed north of the first berm on February 24, 1991. They had been sitting in the desert for months, suffering from food shortages and alternating extremes of cold and hot weather. They had suffered from varying levels of sleep loss due to the extensive 24-hour bombing campaign targeting their positions. Fatigue was a clearly negative factor in Iraqi Army will to fight during the ground campaign of the Gulf War.

Mission (2-2)

Many Iraqi Army soldiers clearly did not believe in the mission to attack Kuwait, then to defend Kuwait, from the coalition invasion. These sentiments emerged in many interviews with leaders and soldiers at all levels. However, the sporadic yet aggressive counterattacks and defenses attempted by a few units suggest that this lack of enthusiasm for the mission was uneven. If it had been absolute across every regular Army unit, this would have been an unequivocal overriding factor: The entire army might have broken on first contact. This factor undermined Iraqi Army will to fight, and in some units it severely undermined will to fight, but in other units it had less impact on will to fight.

Adversary Reputation (1-1)

During the Desert Storm period, Iraqi leaders did a fairly good job convincing themselves and some of their soldiers that they could defeat the coalition in open warfare. This is evident in the

contemporaneous captured documents. Over time, this belief eroded. Even before the air war began, rumors circulated at the lower levels regarding the ferocity and capabilities of U.S. military personnel, in particular. Some soldiers believed that U.S. marines had to kill a member of their own family and drink their blood in order to join the Marine Corps. Others believed that all marines were at least 7 feet tall. While this belief may or may not have been widely shared across the Iraqi Army, it fits the most deleterious factor description for adversary reputation.

Adversary Performance (1-3)

Adversary performance plays out in both the shaping and ground combat phases of the war. During the shaping phase, Iraqi soldiers were clearly terrified by the capabilities of coalition airpower. Many came to believe that they could not hide from coalition air strikes, even though many of those strikes were inaccurate or ineffective. During the ground war, Iraqi experience on the wrong end of American long-range anti-tank missiles and tank cannons convinced many Iraqi soldiers that they could not win. However, because of the duration of the war, most Iraqi units experienced adversary performance only one time. There was insufficient time and insufficient communications for reports of coalition ground-force dominance to make their way across the Iraqi Army to instill fear in its soldiers. In some ways, Iraqi Army will to fight benefited from blissful if temporary ignorance.

Adversary Equipment (1-1)

As with adversary performance, there was some blissful ignorance in ground units regarding the actual capabilities of coalition weapons systems such as the M-1 series tank. However, the continual demonstration of airpower dominance by coalition air units from January 17 through February 28 clearly impressed Iraqi soldiers and severely undermined their will to fight. Many came to believe in the absolute dominance of coalition military capabilities, even before they experienced the comparative accuracy and range of coalition ground weapon systems.

Messaging (1-1)

Loudspeaker messages and leaflet drops certainly gave the Iraqi Army a set of clear instructions regarding surrender: tens of thousands of Iraqi soldiers surrendered while holding leaflets above their heads per psychological operations instructions. This is not causal proof of the efficacy of coalition messaging. It is also important to note that coalition messaging was being countered across the Iraqi Army by Iraqi state messaging. However, a coalition after-action analysis states that there was a general consensus amongst Iraqi prisoners of war that coalition psychological operations severely undermined Iraqi Army will to fight.

Allies (1-1)

Iraq fought the Gulf War with almost no international support. Russia cut off its arms supplies. Arab countries, including Egypt and Syria, actively joined the coalition fighting force. Iraqis looked to their left and right and saw no international soldiers standing with them. This factor undermined Iraqi Army will to fight not because allies performed poorly, but because allies were effectively nonexistent.

Iraqi Army General Officer Interview Questions

This appendix provides the list of questions the RAND team asked to the senior general officers for the semistructured interviews conducted in Amman, Jordan, in March 2019. Interviews were conducted with eight officers who ranged in rank from one- to three-star generals. This report cannot provide additional information because of human subject protection restrictions: Each officer spoke on the promise of anonymity.

Keeping in mind that these were semistructured interviews with senior leaders, these questions served as a guide rather than a strict list. Some questions were asked, some were omitted because of lack of time. Other follow-up questions were asked about specific responses given by the interviewees.

1.0. Background Information

- 1.1. What was your rank at time of retirement or separation?
- 1.2. What period of time are we discussing?
- 1.3. Where did you serve in the Iraqi Army, and when?
 - 1.31. How long were you in command?
 - 1.32. At what level did you command?
 - 1.33. What was your rank when you commanded?

2.0. About the Iraqi Army

- 2.1. When was the Iraqi Army most effective, and why?
 - 2.11. How has the army changed from pre-Saddam, to Iran-Iraq war, to Gulf War, to 2003, to now?
- 2.2. What are the strengths of the Iraqi Army in general?
 - 2.21. How have these changed over time, and why?
- 2.3. What are the weaknesses of the Iraqi Army in general?
 - 2.31. How have these changed over time, and why?
- 2.4. What is the current state of the Iraqi Army?
 - 2.41. If the Iraqi Army had to fight the Iranian Army how would that go?
- 2.5. Why do some divisions of the Iraqi Army tend to fight better and harder than others?

3.0. IA Will to Fight Questions

- 3.1. What motivates Iraqis to join the Army?
 - 3.11. How do these motivations differ across region, or group, or over time?
- 3.2. What binds Iraqi soldiers together? What creates cohesion, and what breaks it apart?
- 3.3. How has leadership changed from Saddam's time to now?
- 3.4. How dependent is the Iraqi Army on American and/or Iranian support?
 - 3.41. In what areas?
 - 3.42. How has the degree of dependence changed over time?
 - 3.43. How does dependency affect development of the Army over time?
 - 3.44. What would happen if support was fully withdrawn?
- 3.5. Can you talk about the influence of leadership on soldier will to fight?
 - 3.51. How has the effectiveness of Iraqi Army leadership varied over time?
- 3.6. How does training influence will to fight? How has training changed over time?
- 3.7. Many Iraqis are frustrated with corruption in the Army.
 - 3.71. How has that problem changed over time?
 - 3.72. How has it affected will to fight?
- 3.8. Under Saddam's time, leaders were often appointed for political reasons. During the Iran-Iraq war more leaders were appointed on performance. How have appointment decisions changed over time?
 - 3.81. How have they affected will to fight?
- 3.9. Many argue that ethnic and sectarian divisions undermine the Army: Sunni-Shi'a-Kurd. What are your thoughts on the impact of ethnicity and religion on the cohesion of the Army?
- 3.10. American advisors say that the Iraqi Army does not have a strong NCO corps. What do you think?
 - 3.101. Is control too restrictive, or not restrictive enough?
- 3.11. How would you describe discipline in the Iraqi Army over time? How have leaders gotten soldiers to do their jobs? How would you evaluate their approaches, and how have they affected morale and will to fight?
- 3.12. How would you describe the compensation the Army was able to provide to the soldiers over time, in comparison to other economic opportunities available to them?
 - 3.121. How (if at all) has pay affected will to fight over time?
- 3.13. How mission-dependent (i.e. the identity of the target, location of the operation, risk in the operation, whether IA is going it alone or alongside a coalition, etc.) is the Iraqi Army's will to fight?
 - 3.131. How has the degree of mission-dependence varied over time and across the Army?

3.14. How have American efforts to build the Iraqi Army (including training, advising, equipping, etc) affected its will to fight over time?

3.141. In particular, how did the American Military Transition Teams (MiTTs) and later the Advisory and Assistance Brigades (AABs) affect the Iraqi Army's capabilities and will to fight?

3.142. What were the most effective components of American efforts to build the Iraqi Army? When was the American approach to building the Iraqi Army at its best?

3.143. What were the least effective components of American efforts to build the Iraqi Army? When was the American approach to building the Iraqi Army at its worst? What should the Americans have done that they failed to do?

3.15. How would ISIS (or ISIS predecessors) try to break the will of the Iraqi Army?

3.151. Was the Iraqi Army overall more susceptible to ISIS' (or ISIS predecessors') strategies during some periods than others? Why?

3.152. Were different divisions of the Iraqi Army more susceptible to ISIS' (or ISIS' predecessors') strategies than other divisions? Why?