Project AIR FORCE

PSYCHOLOGICAL EFFECTS OF U.S. AIR OPERATIONS IN FOUR WARS 1941–1991

LESSONS FOR U.S. COMMANDERS

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STEPHEN T. HOSMER

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PREPARED FOR THE UNITED STATES AIR FORCE

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PREFACE

This study suggests ways to maximize the psychological impact of U.S. airpower in future conflicts. It draws on enemy prisoner of war (POW) interrogations and other data from the Korean, Vietnam, and Persian Gulf wars to analyze the psychological effects of past U.S. air operations against both enemy strategic targets and deployed forces. Among other objectives, the study aims to identify

- conditions that enhance or limit the psychological effects of air operations
- how future U.S. air campaigns and psychological operations (PSYOP) might be best designed and employed to exploit fully the psychological potential of U.S. airpower
- how the Air Force might increase its own capabilities and role in the psychological dimension of warfare.

The research was sponsored by the Director of Plans, Headquarters United States Air Force, as part of the Strategy and Doctrine Program of Project AIR FORCE. It is intended for commanders and other military personnel concerned with the planning and conduct of U.S. combat operations and PSYOP, and also for the use of professional military education students.

PROJECT AIR FORCE

Project AIR FORCE, a division of RAND, is the Air Force federally funded research and development center (FFRDC) for studies and analyses. It provides the Air Force with independent analyses of

policy alternatives affecting the development, employment, combat readiness, and support of current and future aerospace forces. Research is being performed in three programs: Strategy, Doctrine, and Force Structure; Force Modernization and Employment; and Resource Management and System Acquisition.

CONTENTS

Preface iii

Figures xi

Tables xiii

Summary xv

Acknowledgments xxxv

Abbreviations xxxvii

INTRODUCTION 1

PART ONE
PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST STRATEGIC TARGETS 3

Chapter One
THE USE OF STRATEGIC AIR ATTACKS TO ACHIEVE PSYCHOLOGICAL OBJECTIVES 5

Chapter Two
WORLD WAR II, 1941–1945 9
Germany 9
Japan 11
Italy 14
Other Combatants 16

Chapter Three
KOREA, 1950–1953 17
The Air Pressure Campaign 18

Attacks on Hydroelectric Facilities 19
Attacks Against Pyongyang 19
Attacks on Targets Near China and USSR 20
Attacks on Irrigation Dams 20
PSYOP Support of Strategic Air Attacks 21
Threats to Use Nuclear Weapons and Expand the War to China 23
Reasons the Communists Agreed to End the War 24

Chapter Four
VIETNAM, 1965–1972 27
The Rolling Thunder Bombing Campaign 28
The PSYOP Campaign Supporting Rolling Thunder 29
Failure of Rolling Thunder to Change Hanoi's War Policies 31
The Linebacker I Bombing Campaign 35
The PSYOP Campaign Supporting Linebacker I 36
Contribution of Linebacker I to Negotiations with Hanoi 37
The Linebacker II Bombing Campaign 39
Similarities Between Vietnam and Korea 40

Chapter Five
PERSIAN GULF, 1991 43
Attempts to Change the Iraqi Government 44
Bombing Failed to Neutralize the Iraqi Leadership 45
Saddam Was Not Overthrown 49
A Popular Uprising Did Not Occur 53
Attempts to Change Iraqi Policy 61
Air Attacks Helped Change Saddam's Terms for Withdrawal 62
Why Saddam Refused to Withdraw Unconditionally 65

Chapter Six
LESSONS FOR U.S. COMMANDERS 69
Expect Limits on the Coercive Effects of Strategic Attacks 70
Anticipate Enemy Physical and Psychological Strengths 70
Expect Severe Constraints on U.S. Operations 71

Prepare for Enemy Exploitation of Humanitarian Concerns 72
Plan on Multiple Pressures to Secure War Aims 74
Conditions Producing Enemy Concessions 74
Conditions Producing Enemy Capitulation 74
Consider Enemy Deployed Forces a Strategic Target 75
Improve U.S. Capabilities to Attack High-Value Targets 76
Illustrative Psychological Objectives and How to Achieve Them 76
Threatening Enemy Leaders with Destruction or Internal Overthrow 76
Threatening Leaders with External Overthrow 79
Integrate PSYOP with Strategic Air Attacks 80

PART TWO
PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST DEPLOYED FORCES 83

Chapter Seven
HOW AIR OPERATIONS CAN INFLUENCE MORALE AND BATTLEFIELD BEHAVIOR 85
Experience in the Korean, Vietnam, and Gulf Wars 85
Caveats About Comparing the Korean, Vietnam, and Gulf Wars 87

Chapter Eight
KOREA 91
The Use and Effects of UN PSYOP 91
PSYOP Media 91
PSYOP Themes 92
PSYOP Effects 95
UN Military Pressures Produced Most Surrenders 99
The North Korean Collapse in Fall 1950 101
The Chinese Collapse in Spring 1951 107
Surrenders Stopped When Effective UN Combat Pressure Ended 115

Chapter Nine
VIETNAM 121
The Use and Effects of PSYOP 121
PSYOP Media and the *Chieu Hoi* Program 121

PSYOP Themes 123
PSYOP Effects 125
Reasons for Low Defections and Surrenders 129
Positive Factors Buttressing Troop Morale 129
Negative Appeals and Control Deterring Surrender or Defection 132
Availability of Sufficient Food 134
Absence of Sustained Allied Attack 135

Chapter Ten
THE PERSIAN GULF 141
The Use and Effects of PSYOP 142
PSYOP Objectives 142
PSYOP Media 142
PSYOP Themes 144
PSYOP Effects 148
Effects of Bombing on Iraqi Battlefield Behavior 152
Large-Scale Desertions and Surrenders, Few Killed in Action 153
Weak Iraqi Opposition to the Coalition Ground Campaign 155
Idle Tanks and Armored Personnel Carriers, Abandoned Equipment 155
Initial Motivation and Morale of the Iraqi Military 157
Factors Affecting Prewar Motivation and Morale 157
Prewar Desertions and Readiness to Surrender 159
Effects of the Air Campaign on Motivation and Morale 160
An Unplanned Dividend 161
Convinced Iraqis of Coalition Air Supremacy 162
Proved the Inadequacy of Iraqi Defenses 166
Confirmed the Inevitability of Iraqi Defeat 167
Intensified Hardships 168
Magnified Fears About Personal Survival and Family Safety 169
Other Psychological Effects of Bombing and PSYOP 170
Small-Unit Cohesion Operated Against Iraqi Interests 171
Discouraged Enforcement of Discipline 172
Conditioned Troops to Abandon Weapons and Equipment 173

Chapter Eleven
SUMMARY OF THE KOREAN, VIETNAM, AND GULF EXPERIENCES 177
Conditions That Did Not Necessarily Lead to Large-Scale Surrender and Desertion 178
Initial Morale 178
Casualties 179
Intensity and Quality of PSYOP 180
Conditions That Consistently Produced Large-Scale Surrender and Desertion 181
Sustained, Effective Air and Other Attacks 181
Resulting Food Shortage 184
Timely Ground Attacks to Exploit Collapsing Morale 185
Consistency with German Behavior in World War II 187

Chapter Twelve
LESSONS FOR U.S. COMMANDERS 189
Emphasize Psychological Aspects in Training, Planning, and Operations 190
Adopt an Overall Campaign Strategy That Promotes Psychologically Effective Attack 192
Make Demoralization an Air Campaign Objective 193
Employ Concepts of Operations That Maximize Psychological Effects 194
Keep Enemy Under Sustained Attack 194
Deny Food to Enemy Forces 195
Use Heavy Bombers for Surprise and Shock Effect 196
Make Enemy Air Defenses Appear Impotent 196
Condition the Enemy to Desert His Equipment 197
Develop Weapons That Increase Airpower's Psychological Impact 199
Exploit Psychological Effects of Air with Timely Ground Operations 199
Integrate PSYOP with Air Attacks 199
Know Enemy Psychological Strengths and Vulnerabilities 202
Begin Psychological Conditioning in Peacetime 204

Bibliography 207

FIGURES

8.1. North Koreans and Chinese Killed in Action and Captured in Korea, 1950–1953 97
8.2. Total North Korean and Chinese Prisoners Taken 101
9.1. Vietnamese Communist Forces Killed in Action, Captured, and Defected, 1963–1972 126
10.1. Iraqi Deaths, Desertions, and Surrenders in the KTO, January–February 1991 154

TABLES

8.1 Reasons for Low North Korean Morale According to 825 POWs 106
9.1 PSYOP in South Vietnam and Laos, 1966–1968 122
10.1 Leaflet Themes, Delivery Methods, and Numbers Delivered in Gulf War, 1990–1991 143

SUMMARY

The psychological effects of air operations can significantly shorten wars and reduce their costs, particularly in American lives. In some conflicts, the psychological effects of air operations may exceed the physical effects in importance.

This report suggests ways to maximize the psychological impact of U.S. airpower in future conflicts. To do so, it draws on interrogations of enemy deserters and POWs and other data to examine, compare, and draw lessons from the psychological effects of air operations in the Korean, Vietnam, and Persian Gulf wars and to a lesser extent, in World War II. Two types of air operations in particular have the potential to produce psychological effects that may significantly reduce the duration and intensity of an enemy's resistance:

- air operations against enemy strategic targets, the destruction or threatened destruction of which might help to coerce an enemy government to end a conflict on terms acceptable to the United States
- air operations against enemy deployed forces, the demoralization of which might cause enemy cohesion to disintegrate and battlefield resistance to collapse.

PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST STRATEGIC TARGETS

Experience in Past Wars

In all major conflicts from World War II on, the United States has attacked what have been termed *strategic* targets, including targets near or within the enemy's capital city, to reduce the enemy's physical capacity to wage war. At the same time, these and other strategic attacks have also aimed to produce psychological effects. Among other objectives, the strategic air operations have sought to force enemy governments to halt their aggression and withdraw their forces from friendly territory, negotiate a truce or peace agreement, or capitulate. Air operations have also endeavored to generate internal opposition to the enemy government's war effort and, in at least one instance, to precipitate the enemy government's overthrow.

The experiences of past conflicts suggest that, while U.S. air attacks on strategic targets can provide important coercive leverage on an enemy, such attacks by themselves are unlikely to secure U.S. war aims. To force an opponent to capitulate or negotiate an end to a conflict, the United States and its allies also must be able to convince the enemy leadership that its deployed forces will face defeat or, at best, stalemate if the fighting continues. Because the enemy's decisions about war termination will depend heavily on his perception of the likely battlefield outcome, U.S. air planners should consider enemy deployed forces a strategic target.

World War II, 1941–1945. Air attacks on strategic targets in World War II generally fell short of producing the psychological results their planners hoped for. This was particularly true of Germany, where the Allied bombing of cities failed to deny labor to German industry. The psychological effects of the Allied bombing did speed Japan's decision to surrender and helped shape Italy's decision to seek a peace accord. However, in neither instance was the Allied bombing the sole cause for the enemy decision to terminate hostilities, as the deployed forces of both Axis powers had experienced repeated defeats.

Korea, 1950–1953, and Vietnam, 1965–1972. Throughout the Korean conflict and during much of the U.S. combat involvement in

Vietnam, the United States conducted air attacks against military and military-related strategic targets partly for psychological effect. The principal psychological objective of these attacks was to persuade enemy leaders to negotiate an early end to the conflicts on terms acceptable to the United States.

These air attacks failed to deter the communists from protracting the fighting for three years in Korea and for over eight years in Vietnam. In addition to the humanitarian and other constraints the United States imposed on its air operations, various conditions and attitudes in the enemy camp diluted the coercive effects of the U.S. strategic attacks. These included the enemy government's

- access to support and sanctuary from external powers, which allowed the enemy to continue fighting even when its indigenous war-related production facilities had been destroyed
- strong commitment to the objectives or cause that gave rise to the conflict with the United States
- readiness to absorb enormous human and materiel losses
- ability to maintain domestic support for the war effort and/or sufficient internal security to suppress any potential opposition
- perception that the likely benefits from continued conflict would exceed the costs resulting from the U.S. bombing.

After having already made what it considered to be its maximum feasible concessions in both the Korea and Vietnam peace talks, the United States resorted to escalation or threatened escalation to bring the negotiations to closure.

Severe U.S. escalation or threatened escalation was required to extract comparatively modest concessions from both enemies. In Korea, the dual threat of a widened war with China and the U.S. use of nuclear weapons was needed to break the deadlock over the U.S. demand for the voluntary repatriation of prisoners of war. In Vietnam, Washington had to employ massive B-52 and fighter-bomber strikes on Hanoi and Haiphong to force the communists to complete a peace agreement, the key provisions of which they had already accepted.

The communists agreed to terms only after their military forces on the battlefield had been stalemated. Prior to the settlements, the communist forces in both Korea and Vietnam had mounted major offensives, the defeat of which left them no prospects for immediate further military gains.

Persian Gulf, 1991. The principal psychological objective of attacks against strategic targets in the Persian Gulf conflict was to effect a change in Iraq's policy on Kuwait. Coalition air campaign planners envisioned the bombing as possibly effecting such a change by (1) causing the replacement of the Saddam Hussein regime, which, in turn, would result in a reversal of Iraqi policy toward the occupation of Kuwait, or (2) persuading Saddam to withdraw from Kuwait and to comply with the various other United Nations (UN) resolutions relating to Kuwait.

Coalition planners apparently hoped that air attacks might bring an end to Saddam's regime by (1) incapacitating and isolating Saddam and his senior aides, (2) encouraging Iraqi military and other regime elements to remove Saddam, or (3) inciting the Iraqi population to rise up and overthrow the Iraqi leader. To achieve this outcome, the Coalition focused its air attacks on the leadership and telecommunications and command, control, and communications target sets that were thought to constitute the "central nervous system" of the Baghdad regime.

None of these objectives was realized. Saddam and his senior aides survived the bombing and retained the capacity to control Iraqi forces. Apparently, the Coalition lacked the precise and near–real-time intelligence required to neutralize the cautious and elusive Iraqi leadership. Coalition attacks also apparently failed to prompt a coup or civilian uprising against Saddam, at least prior to the cease-fire. Nor is it clear that an attempted coup or popular uprising would have succeeded. The large numbers of security troops and police forces protecting Saddam in Baghdad apparently were not sufficiently reduced by the bombing. Indeed, the Iraqi leader's extensive palace guard, intelligence, and internal security apparatus seem to have survived the war essentially intact.

The Coalition air campaign directly influenced the Shia and Kurd uprisings that occurred after the war by encouraging the antigov-

ernment sentiments of the regular army forces in the Kuwait Theater of Operations (KTO) and contributing importantly to their catastrophic route. However, the United States declined to aid these postwar uprisings in part because it wanted to preserve a unified Iraq as a buffer against Iran. The uprisings were ruthlessly suppressed, partly by the Republican Guard forces that had been a priority target of Coalition air and ground attacks.

While Saddam moved a significant way toward accepting the Coalition's demands for an unconditional withdrawal from Kuwait, in the end he proved unwilling to agree to withdrawal terms that obligated Iraq to pay reparations and subjected Iraq to a continued UN embargo. Saddam refused the Coalition demands despite the pressures exerted by the continued Coalition bombing, including the devastating attacks on the Iraqi ground forces deployed in the KTO, and the impending Coalition ground offensive.

Saddam had staked his prestige on retaining Kuwait to the extent that he dared not submit to a premature defeat, which might have led to his humiliation and fall from power. He apparently calculated that a ground battle would be more conducive to his personal survival than an unconditional acceptance of Coalition terms. Moreover, Saddam probably hoped that, even if his forces were expelled from Kuwait, they might still be able to give the Coalition enough of a "bloody nose" to salvage his international and domestic prestige.

Saddam also apparently believed that he could control the risks of a ground battle by safely extracting the Republican Guard and other high-value military forces that were important to his regime's survival in the event the fighting went badly for his side.

Lessons for U.S. Commanders

In possible future conflicts, U.S. enemies are likely to seek to prolong the combat and increase the human costs of the fighting to the United States in the expectation that the American public will refuse to accept the casualties, turn against the involvement, and force the U.S. government to make otherwise unwarranted concessions to end the conflict. To disabuse adversaries of the continued efficacy and wisdom of such a protracted warfare strategy, the United States is

likely to turn again to strategic attacks or the threat of such attacks as a means of creating pressure on enemies for early war termination.

This analysis of the psychological effects of air operations against strategic targets in past wars has implications for how U.S. theater, air component, and other commanders might prepare for, plan, and conduct strategic attacks in future conflicts.

Expect Limits on the Coercive Effects of Strategic Attacks. Experience suggests that the bombing of strategic targets alone is unlikely to secure U.S. war aims. In addition to the various internal factors that may make enemy governments resistant to such pressure, U.S. self-imposed constraints are likely to limit the potential coercive leverage that can be achieved through future air operations against strategic targets. The U.S. concern to minimize civilian casualties and other collateral damage has increased over time and will probably constrain severely both the methods and targets of air attacks in future conflicts.

Commanders should expect future adversaries to attempt to promote a further tightening of the constraints on U.S. strategic attacks by (1) stimulating intense international television and other media coverage of any errant U.S. bombing that causes civilian casualties or collateral damage and (2) manufacturing false evidence of errant bombing. Enemies will also exploit U.S. humanitarian concerns by repositioning war materiel and key personnel in civilian areas that are expected to be off limits to U.S. air attack.

To limit the adverse political effects of U.S.-caused civilian casualties or collateral damage, U.S. officials in Washington and commanders in the field must be ready to explain and justify U.S. air attacks to domestic and foreign audiences promptly.

Needless to say, commanders must also exercise care to avoid sanctioning attacks on targets that carry significant risks of producing civilian casualties or collateral damage. The negative political fallout from such errant attacks, including the incitement of anti-American sentiment within the enemy population, is likely to outweigh the value of the targets destroyed and may limit the commander's freedom of action in future bombing.

Plan on Multiple Pressures to Secure War Aims. In the past, a combination of military pressures and other conditions has been required to compel enemy leaders to capitulate or agree to a negotiated settlement acceptable to the United States.

Conditions Producing Enemy Concessions. Attacks or threatened attacks against enemy strategic targets have helped to persuade enemy leaders to terminate wars on terms acceptable to the United States only when the enemy leaders have perceived

- that they faced defeat or stalemate on the battlefield
- that they were unlikely to get better peace terms from the United States if they prolonged the fighting
- that the cost of the damage from the strategic attacks or threatened attacks was likely to outweigh significantly the cost of the concessions the United States was demanding
- that they had no prospect of mounting an effective defense against the strategic attacks and saw no possibility of launching a counterattack that would cause the United States to terminate its coercive operations.

Conditions Producing Enemy Capitulation. The above four conditions have also been required to force enemy capitulation. However, the experience to date suggests that capitulation will probably also necessitate an additional condition: the removal from power of the leader or leaders who started the war.

When weighing the possible advantages and disadvantages of demanding total capitulation from enemy leaders responsible for the initiation of a war, U.S. decisionmakers and commanders should bear in mind the probable intractability of such leaders, even when they confront a seemingly hopeless military situation.

Consider Enemy Deployed Forces a Strategic Target. Because battlefield prospects are likely to weigh so heavily in the enemy decisionmaker's calculations about war termination, U.S. commanders should consider the enemy's deployed forces to be a strategic target. Experience shows that air and other attacks on enemy deployed forces can constitute an important source of pressure on an enemy government to terminate a conflict. In every major conflict from

World War II on, enemies have capitulated or acceded to peace terms demanded by the United States only after their deployed forces have suffered serious battlefield defeats.

In future conflicts, enemy leaders are likely to prove equally reluctant to make concessions or terminate conflicts as long as they see a chance to prevail on the battlefield. To cause future enemy leaders to abandon the strategy of protracted warfare, the United States and its allies must be able to demonstrate that the balance of forces on the battlefield will progressively shift to the enemy's disadvantage as long as the fighting continues.

Improve U.S. Capabilities to Attack High-Value Targets. To be maximally effective, coercive air attacks should focus on targets that the enemy leadership values highly. It is difficult to divine in the abstract the target sets that enemy leaders are likely to value the most. However, almost all enemy leaders are likely to attach high value to their retention of power and personal survival.

To create negotiating leverage from these fundamental enemy interests, a future U.S. air campaign might aim to persuade enemy leaders that they are likely to (1) die, (2) be overthrown by internal forces, or (3) be removed by external forces if they refused to end a conflict rapidly on terms acceptable to the United States. The credibility that enemy leaders will attach to such risks will depend in large part on their perception of the U.S. will, capability, and freedom of action to turn such threats into reality.

To effectively attack or credibly demonstrate a capability to attack senior enemy leaders, air campaign planners will require near–real-time intelligence on the whereabouts of such leadership targets—information that will probably be difficult to acquire in the types of closed, security-conscious regimes that the United States is most likely to confront. The comprehensive and timely intelligence required to use air attacks to incite and/or facilitate the internal overthrow of an enemy regime by other elites is also likely to be difficult to obtain.

Air operations to foment a popular uprising against a well-defended and as yet undefeated enemy government will rarely succeed. Experience shows that enemy populations have failed to move against authoritarian governments even when those populations

have been subjected to massive bombing. In future conflicts, humanitarian considerations are likely to prohibit even limited direct attacks on civilian populations.

A more promising approach may be to threaten the enemy leaders with external overthrow. Enemy leaders are likely to give credence to the threat of a possible external overthrow of their regime if the following apply:

- Statements of U.S. war aims allow for the possible total defeat of the enemy in the event a negotiated settlement cannot be achieved rapidly.
- American air, ground, and naval deployments and military operations against enemy deployed forces are consistent with an ultimate objective of achieving a total military victory and occupying the enemy's homeland.
- The pattern of air operations against strategic targets in the enemy's rear areas is also consistent with a possible march on the enemy's capital and a subsequent military occupation.

Integrate Psychological Operations (PSYOP) with Strategic Air Attacks. To maximize the psychological effects of air operations against strategic targets, such operations must be closely integrated with a supporting PSYOP campaign. The thematic content of the PSYOP leaflets and broadcasts should directly or indirectly reinforce the psychological message or messages that the bombing is attempting to convey. This will require close coordination between the Air Force officers planning and conducting the air campaign, and the Army personnel who will be mostly responsible for the design and dissemination of the PSYOP messages.

In past conflicts, such close integration has sometimes been lacking, in that both the content and the dissemination of PSYOP messages have failed to support adequately the psychological objectives of the strategic bombing operations.

PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST DEPLOYED FORCES

Experience in Past Wars

History demonstrates that air operations can produce significant, even decisive, psychological effects on the morale and battlefield behavior of deployed forces. Air attacks can severely reduce an enemy's capability to prosecute a war by (1) causing enemy troops to desert, defect, surrender, or flee the battlefield and (2) dissuading troops from manning their weapons and otherwise carrying out their military duties.

Large-scale desertions and surrenders may be difficult to achieve because of the effective morale-building and control mechanisms that sometimes exist within military units and because of the individual soldier's attitudes and fears, including the soldier's

- concern that his desertion or surrender attempt will fail and that he will be captured by his own forces or killed by one side or the other in the process
- fear of execution, torture, or other mistreatment by his captors
- fear that his surrender or desertion will cause reprisals to be taken against his family, or against himself if he is eventually repatriated
- confidence in his combat leaders and loyalty to his immediate comrades and his country
- belief in the cause he is fighting for and prospects for victory.

This study analyzed five periods during the Korean, Vietnam, and Gulf conflicts in which the testimony of former enemy personnel provides insights about the battlefield conditions that seem to produce or fail to produce the collapse of resistance and large-scale surrenders and desertions among enemy deployed forces:

- September–December 1950 in Korea, when North Korean resistance collapsed and the vast majority of North Korean prisoners were taken

- April–June 1951 in Korea, when Chinese resistance significantly weakened and units surrendered *en masse*
- December 1951–July 1953 in Korea, when no breakdowns in communist resistance occurred and when few North Korean and Chinese troops surrendered or deserted
- 1963–1972 in Vietnam, when communist resistance never faltered decisively and when only a small number of North Vietnamese Army (NVA) and Viet Cong (VC) main force troops defected or surrendered
- January 17–February 28, 1991, in the KTO, when the morale of the Iraqi deployed forces collapsed and vast numbers of Iraqi troops deserted home or surrendered.

Conditions That Did Not Necessarily Lead to Large-Scale Surrender and Desertion. Some conditions clearly contributed to poor enemy morale but not necessarily to large-scale surrenders and desertions.

Initial Morale. While the status of enemy morale at the beginning of a conflict can importantly determine the pace and scale of enemy demoralization once the fighting begins, initial morale is not a sufficient explanation for why troops surrender or desert in large numbers in some conflict situations, while in others they do not.

Differences in starting morale help to explain why the Iraqi forces collapsed so completely and why the cohesion of the VC main force and NVA units fighting in South Vietnam held up for so long. Starting morale, however, does not explain the collapse of North Korean forces in fall 1950 or the collapse of Chinese communist units in spring 1951. Both the North Korean and the Chinese troops possessed high morale when they first entered the fighting.

Casualties. While high casualties undoubtedly demoralize enemy troops, the number of enemy forces killed does not necessarily correlate with the number of enemy surrenders and deserters. The Gulf conflict, which produced the smallest number of enemy killed both in absolute terms and as a proportion of the number of forces deployed, produced the largest number of deserters and prisoners. In contrast, the Vietnam War, which saw the largest number of enemy killed, produced only a small number of NVA and VC main force prisoners and defectors.

Even though North Korean and Chinese communist units—when on the attack—continued to take significant casualties during the last year and one-half of the Korean War, very few Chinese or North Koreans surrendered or deserted to UN forces.

Intensity and Quality of PSYOP. The intensity of the PSYOP in the various conflicts also does not explain the difference in the number of surrenders and deserters. Allied PSYOP in Vietnam, which involved the dissemination of an estimated 50 billion leaflets, were more intensive than those in Korea and Iraq. Yet no decisive erosion in enemy resistance occurred in Vietnam. The PSYOP effort was least intensive in the Gulf War, yet massive numbers of Iraqi troops deserted and surrendered.

Neither does the quality of the PSYOP seem to explain the difference. While the Coalition's PSYOP campaign against the Iraqi forces deployed in the KTO appears to have been particularly well designed and executed, the allied PSYOP in Korea and Vietnam were also competent operations, particularly with respect to offering assurances of good treatment to prisoners and deserters.

Conditions That Consistently Produced Large-Scale Surrender and Desertion. This examination of the Korean, Vietnam, and Gulf wars suggests three conditions that have consistently produced a catastrophic disintegration of enemy resistance and large numbers of enemy surrenders and deserters.

Sustained, Effective Air and Other Attacks. The Gulf and Korean cases demonstrate that sustained air attacks on deployed forces can prompt and facilitate large-scale enemy surrenders and desertions by (1) demoralizing enemy soldiers and giving them a reason to surrender or desert, (2) degrading the enemy combat leader's capability to reconstitute troop morale, and (3) providing the troops with the opportunity to surrender or desert. The communist forces that were routed in Korea in fall 1950 and spring 1951 and the Iraqi units that disintegrated in the KTO in February 1991 all had been subjected to sustained allied military attacks prior to their collapse.

In the conflict situations in which enemy troops were not subjected to sustained, effective attacks, their resistance did not collapse, and they did not surrender and desert *en masse.* The last 20 months of the Korean War produced few North Korean and Chinese surrenders

or desertions, largely because the communist troops, except for the brief periods when they were on the offensive, were usually well protected by an elaborate system of bunkers, trenches, and tunnels that was largely impregnable to air and artillery attack.

Communist forces in Vietnam were rarely subjected to sustained air, artillery, or other military attack. Communist commanders largely retained the initiative about where and when their units would fight, and as a consequence the communist forces were able, for the most part, to control their own combat exposure and casualties.

Most communist units fought only a few times a year, perhaps once or twice every six months, and then only briefly. After engagements with allied forces, communist troops withdrew to rear areas, where they could evade further air attacks by frequently changing locations and remaining under the protective cover of the triple-canopied rain forest.

Resulting Food Shortage. A second condition that seems to have prompted the collapse of enemy resistance and large-scale surrenders is the food shortage resulting from sustained and effective bombing of enemy lines of communication (LOCs) and supply vehicles. Many of the enemy forces that collapsed in Korea in fall 1950 and spring 1951 and in the Gulf in early 1991 suffered from severe shortages of food. Prisoners and deserters in both conflicts cited food shortages as a leading reason for low morale in their units.

In combat situations in which food was adequate, unit cohesion did not disintegrate and few troops surrendered. Once the battle lines in Korea had stabilized in late 1951, communist troops began to get adequate food. While some VC and NVA units experienced temporary food shortages, the abundance of food sources throughout South Vietnam enabled communist troops to enjoy adequate food rations in most areas nearly all the time.

Timely Ground Attacks to Exploit Collapsing Morale. Ground offensives to exploit the deterioration of enemy morale have proved to be the final condition common to the situations in which collapsing enemy resistance has led to large-scale surrenders.

The erosion of North Korean morale that occurred as a result of sustained UN air and other attacks in summer 1950 was exploited in

September 1950 by the Inchon landing and the UN breakout from the Pusan perimeter. Similarly, the serious deterioration in Chinese fighting will that existed prior to the defeat of the Chinese offensive in May 1951 was exploited by a major UN counterattack.

In the case of the Iraqi forces in the KTO, the Coalition's 100-hour ground offensive in February 1991 exploited the widespread demoralization of Iraqi ground troops that had resulted from the Coalition air campaign.

The Vietnam War saw little, if any, battlefield exploitation of enemy defeats or losses of morale. Once U.S. forces had found and fixed the enemy, they usually relied on air and artillery rather than ground forces to finish him. Even when U.S. troops attempted to close with the enemy, the jungle terrain usually made it extremely difficult to prevent his escape. Army of the Republic of Vietnam (ARVN) units rarely closed with enemy forces and virtually never attempted to pursue retreating enemy troops.

As a result, communist units mauled by friendly air attacks and defeated in battle were invariably able to withdraw to rear areas where they could rest, refit, and rebuild their morale.

Lessons for U.S. Commanders

This analysis of the psychological effects of air and other military operations against deployed forces in the Korean, Vietnam, and Gulf wars suggests the following implications for U.S. theater, air component and other commanders:

Emphasize Psychological Aspects in Training, Planning, and Operations. To exploit fully the potential of U.S. military operations against deployed enemy forces, U.S. commanders will need to devote increased attention to the psychological dimensions of warfare in the planning and conduct of their operations. Commanders should avoid the bifurcated approach often evident in the past, when combat operations were used mainly to produce physical effects on the enemy and PSYOP messages were used to produce any desired psychological effects.

Commanders should understand that military operations rather than PSYOP messages produce the most important psychological effects.

Commanders should also realize that combat operations can inflict psychological damage to an enemy deployed force that equals or even exceeds the physical damage suffered by that force. The psychological effect of combat operations applies especially to sustained air and artillery attacks, which have proved capable of decisively undermining the cohesion and fighting will of enemy ground forces. As the Korean and Gulf wars have demonstrated, enemy demoralization opens the way for rapid and low-cost battlefield victories.

The recognition that military operations produce the decisive psychological effects does not lessen the importance of PSYOP, which exploit and reinforce the psychological effects created by military pressure. PSYOP cost little and can be a significant force multiplier.

Commanders must also seek to minimize the potential adverse psychological effects of their military operations. In rural and urban guerrilla conflicts, for example, air commanders must restrict and carefully control air attacks to avoid causing civilian casualties that would create additional recruits and popular support for the enemy side.

To ensure that future combat leaders and planners understand the psychological dimensions of warfare, the psychological effects of military operations and PSYOP should receive increased coverage in military training and in the curricula of the service war colleges and command and staff schools.

Adopt an Overall Campaign Strategy That Promotes Psychologically Effective Attack. The war-fighting commander should adopt an overall campaign strategy that will force enemy ground units to react in a manner that will expose them to prolonged and psychologically effective aerial and other attack. To erode decisively an enemy's will to fight, friendly aircraft may have to attack over a period of several weeks or more. The air operations and ground fighting that preceded the collapse of enemy forces in Korea in 1950 and 1951 lasted several months; the air campaign that so demoralized Iraqi troops in the KTO lasted 38 days.

Make Demoralization an Air Campaign Objective. In past conflicts, the psychological effects of air operations have been largely unplanned and unanticipated. Air campaigns should be designed to maximize the psychological, as well as the physical, effects of air-

power. To ensure that adequate attention will be given to psychological effects,

- The air component commander should make the destruction of enemy morale a priority air campaign objective.
- Personnel expert in psychological effects should be included on air campaign planning staffs.

Employ Concepts of Operations That Maximize Psychological Effects. The air component commander should adopt concepts of operations that will maximize the psychological effects of airpower. To this end, he should

- *Keep enemy forces under attack or at least under the threat of attack, around the clock, for a protracted period.* Maintaining attack aircraft day and night over all sectors of the battlefield may require a large force. Because the ubiquity of the friendly air presence is likely to have a demoralizing effect on enemy forces, flights to and from deeper targets should be vectored over enemy troop concentrations whenever possible. To deny the enemy leaders an opportunity to reconstitute the morale of their troops, commanders should oppose suggestions for temporary cease-fires or other respites in the air campaign.
- *Deny food to enemy forces by attacking supply depots, interdicting LOCs, and destroying thin-skinned supply vehicles.* Experience also shows that round-the-clock armed reconnaissance flights along enemy supply routes can prove sufficiently intimidating to enemy drivers that they will refuse to drive resupply missions.
- *Use heavy bombers for surprise and shock effect.* In the Vietnam and Gulf wars, the B-52s were often the aircraft most feared by enemy troops, even though they frequently failed to hit their intended targets. The advent of Global Positioning System targeting should make heavy bomber attacks with general-purpose bombs more accurate and allow heavy bombers to be employed in closer proximity to friendly lines. Attacks by heavy bombers equipped with precision weapons could have devastating psychological effects in that they would permit the sudden devastation of bunkers and other hardened emplacements immune to destruction except by direct hit.

- *Make the enemy believe his air defenses are impotent.* Experience shows that enemy forces are demoralized when aircraft can attack them with virtual impunity. Thus, in addition to the obvious traditional reasons the air commander has for holding down his combat losses, there is a psychological reason as well. To convince the enemy that his resistance is futile, U.S. aircraft should strive to attack him with near zero losses. The advent of new sensor, stealth, standoff, and precision-strike capabilities should make it possible for U.S. forces to approach the achievement of this demanding objective more closely.
- *Condition enemy personnel not to operate their weapons and other equipment.* Enemy personnel should be taught by PSYOP messages and military actions that it is dangerous for them to operate or remain with their equipment. Friendly aircraft should strive to react promptly to any enemy vehicular movement, artillery or antiaircraft firing, or the use of radios, radars, and other emitters. The objective of these air conditioning operations would be to convince enemy forces of the following:

  —If you fly, you die.

  —If you fire, you die.

  —If you communicate, you die.

  —If you radiate, you die.

  —If you move with your vehicles, you die.

  —If you remain with your weapons, you die.

Develop Weapons That Increase Airpower's Psychological Impact. The Air Force should seek to develop and acquire sensors and weapon systems that will magnify the potential enemy's perception of American air prowess. Among the capabilities that might have particularly strong psychological effects would be sensors and weapons that would allow U.S. aircraft to detect and attack effectively enemy (1) artillery and mortars immediately upon their firing and (2) personnel and equipment positioned in camouflaged, hardened emplacements or under heavy foliage.

Exploit Psychological Effects of Air with Timely Ground Operations. Experience shows that weaknesses in the cohesion and morale of enemy ground forces are likely to be temporary and subject to repair. After air attacks and other sustained military pressures have eroded the cohesion and fighting will of an enemy force, a ground offensive should be mounted promptly to exploit the psychological vulnerabilities that have been created. Timely ground attacks enable U.S. forces to reap the maximum battlefield benefits of the cumulative psychological softening. Effective follow-up by ground forces must be particularly rapid when one is attempting to exploit the shock effects of a particular, massive bombing attack.

Integrate PSYOP with Air Attacks Against Deployed Forces. Air planners should work closely with their PSYOP counterparts to integrate and coordinate military operations and PSYOP messages. Such close coordination was sometimes lacking in the Gulf War. Air attacks can enhance the credibility and receptivity of PSYOP messages. PSYOP can be used to solidify and exploit perceptions created by air attacks. PSYOP messages help to break down two key barriers to surrender and desertion: (1) enemy concerns about how to surrender or desert safely and (2) enemy fears about treatment after capture.

Know Enemy Psychological Strengths and Vulnerabilities. Because information from former enemy personnel is so vital to the assessment of the effects of military operations on enemy morale and to the design and evaluation of PSYOP messages, war-fighting commanders must ensure that enemy motivation and morale receive high priority in prisoner and deserter interrogations.

The Air Force should develop a cohort of PSYOP specialists and psychologically oriented intelligence specialists, including trained interrogators, to work with Army personnel in conducting and evaluating prisoner and deserter interrogations, in designing PSYOP messages, and in assessing the psychological impact of air and other military operations.

Begin Psychological Conditioning in Peacetime. The Air Force and other U.S. military services have two principal reasons for advertising their capabilities to potential adversaries during peacetime: to deter the would-be aggressors from attacking U.S. interests and to begin

the psychological softening of the potential adversaries in the event war does occur. For the Air Force, much of this advertising will be a natural by-product of air shows and peacetime training and deployment exercises. These and other opportunities should be used where appropriate to demonstrate the superior capabilities of technologically advanced U.S. aircraft and weapon systems.

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ABBREVIATIONS

AAA	Antiaircraft artillery
AAF	Army Air Force (U.S.)
ABN	Airborne
AFAC	Airborne forward air controller
APC	Armored personnel carrier
ARVN	Army of the Republic of Vietnam (South Vietnam)
BBC	British Broadcasting Corporation
BDA	Battle damage assessment
C^2	Command and control
C^3	Command, control, and communications
CENTCOM	Central Command
CIA	Central Intelligence Agency
CINCCENT	Commander in Chief, Central Command
DMZ	Demilitarized zone
DRV	Democratic Republic of Vietnam (North Vietnam)
EUSAK	Eighth U.S. Army in Korea
FEAF	Far East Air Force
GPS	Global Positioning System
GVN	Government of Vietnam (South Vietnam)
HUMINT	Human intelligence
JCS	Joint Chiefs of Staff
JIF	Joint Intelligence Facility
JSTARS	Joint Surveillance Target Attack Radar System
JTF	Joint task force
KTO	Kuwait Theater of Operations
LOC	Line of communication
MACV	Military Assistance Command, Vietnam
NCA	National Command Authority

NCO	Noncommissioned officer
NKPA	North Korean People's Army
NVA	North Vietnamese Army
OIA	Office of Imagery Analysis
PLA	People's Liberation Army (China)
POG	Psychological Operations Group
POLWAR	Political warfare
POW	Prisoner of war
PSYOP	Psychological operations
Psywar	Psychological warfare
RAF	Royal Air Force
RF/PF	Regional Forces/Popular Forces
ROK	Republic of Korea
RVN	Republic of Vietnam (South Vietnam)
RVNAF	Republic of Vietnam Armed Forces
SAM	Surface-to-air missile
UN	United Nations
USAF	U.S. Air Force
USIA	U.S. Information Agency
USMC	U.S. Marine Corps
USN	U.S. Navy
USSBS	United States Strategic Bombing Survey
USSR	Union of Soviet Socialist Republics
VC	Viet Cong; Vietnamese Communists
VNAF	Vietnamese Air Force (South Vietnam)
VUNC	Voice of the UN Command

INTRODUCTION

The aim of U.S. military operations is to defend and advance U.S. national security interests at the lowest cost, particularly in American lives. From a purely military viewpoint, it does not matter whether U.S. national interests are achieved by the destruction of an enemy's physical capacity to resist, by the psychological erosion of his will to resist, or, as is normally the case, by some combination of both.

However, humanitarian and political interests may also dictate that the United States attempt to prevail in war with a minimal cost in enemy lives and perhaps even with minimal damage to the opponent's civilian economic infrastructure. Even if such policy considerations do not apply, the need to hold down American casualties will give U.S. commanders a strong incentive to terminate wars quickly. To reduce the level and duration of enemy resistance, U.S. commanders will want to secure the greatest psychological benefit from their military operations.

This report focuses on two types of U.S. air operations that have the potential to produce psychological effects that might significantly reduce the duration and intensity of an enemy's resistance:

- Part One examines the psychological effects of air operations against enemy strategic targets, the destruction or threatened destruction of which might help to coerce an enemy government to end a conflict on terms acceptable to the United States.
- Part Two examines the psychological effects of air operations against enemy deployed forces, the demoralization of which might cause enemy cohesion to disintegrate and battlefield resistance to collapse.

To illuminate the potential psychological effects of air operations, the report examines and compares the experiences of the Korean, Vietnam, and Persian Gulf wars. The report also examines briefly some of the psychological effects of air operations in World War II. While the report focuses mainly on the psychological impact of air attacks on strategic and ground force targets, it also examines the uses and effects of psychological operations (PSYOP) in the conflicts.[1] Each chapter concludes with a discussion of implications for U.S. commanders, including suggestions as to how they might maximize the psychological effects of air operations in future conflicts.

The research for the study draws on four main categories of information:

- Analyses of interrogations of enemy prisoners and deserters. These include analyses of enemy motivation and morale produced from RAND interviews with prisoners and deserters in both the Korean and Vietnam wars. The author has also analyzed the interrogations of Iraqi prisoners and deserters conducted by U.S. military units in the Gulf War.
- Descriptions and analyses of military operations and PSYOP contained in official military histories, after-action reports and briefings, and nongovernment studies.
- Views of U.S. military commanders and planners derived from memoirs and the personal interviews conducted by the author.
- Other relevant literature, including analyses of U.S. and enemy policy decisions and objectives.

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[1]As defined by the U.S. Joint Chiefs of Staff, PSYOP are

> planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originators' objectives.

See Joint Chiefs of Staff, *Doctrine for Joint Psychological Operations*, Joint Pub 3-53, July 30, 1993, p. GL-5.

Part One

PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST STRATEGIC TARGETS

Chapter One

THE USE OF STRATEGIC AIR ATTACKS TO ACHIEVE PSYCHOLOGICAL OBJECTIVES

During World War II and in the three major conflicts since that war, the United States has bombed what have been termed *strategic* targets, including targets near or within the enemy's capital city. Such air attacks have had the primary purpose of reducing the enemy's physical capacity to wage war by (1) destroying his war stocks, war-related production facilities, and power systems; (2) degrading his command, control, and communications (C^3) and lines of communication (LOCs); and (3) interdicting the movement of enemy troops, arms, and other supplies to forward battlefronts.[1]

At the same time, the United States has also conducted air attacks on strategic targets to produce psychological effects, for example,

- to persuade an enemy government to capitulate or cease its aggression

[1]According to the U.S. Joint Chiefs of Staff, *strategic* air warfare is

> Air combat and supporting operations designed to effect, through the systematic application of force to a selected series of vital targets, the progressive destruction and disintegration of the enemy's war-making capacity to a point where the enemy no longer retains the ability or the will to wage war. Vital targets may include key manufacturing systems, sources of raw material, critical material, stockpiles, power systems, transportation systems, communication facilities, concentration of uncommitted elements of enemy armed forces, key agricultural areas, and other such target systems.

See U.S. Air Force, *Air Force Manual 1-1*, Volume II, *Basic Aerospace Doctrine of the United States Air Force*, March 1992, p. 302.

- to encourage the overthrow of or to weaken the enemy government
- to reduce external and internal support for the enemy government's war effort
- to bolster the morale of friendly forces and leaders.

Part One of this study begins with a brief summary of the effectiveness of strategic air attacks in World War II and then assesses the psychological effects of air operations against strategic targets in the Korean, Vietnam, and Persian Gulf wars. Air operations against strategic targets in each post–World War II conflict are examined in terms of

- psychological objectives
- bombing operations
- PSYOP that supported the bombing.

Part One concludes with an examination of the principal implications of this past experience for U.S. commanders.

At one time or another in all the major conflicts from World War II on, the United States has bombed the enemy to force the aggressor government to surrender, to halt its aggression, to withdraw from friendly territory, and to sign a truce or peace agreement. In most instances, the bombing of strategic targets was designed to convince an enemy regime that it could not win the war and that it could expect to pay a heavy price for its continued aggression and refusal to make peace.

Attacks against strategic targets have also sought to change enemy war policy by weakening, isolating, and inciting the overthrow of that government. Such attacks have aimed to neutralize the enemy leaders promoting the continuation of hostilities, to increase the enemy government's vulnerability to coups or overthrow by reducing its ability to maintain internal security, and to motivate enemy elites and general populations to rise against or apply pressure on a government to make peace.

Another psychological objective has been to reduce internal and external support of the enemy's war effort. Cities have been bombed

to demoralize and drive civilian workers away from their war-production jobs. Attacks on strategic targets have also been designed to induce other external powers to cut back on their support to the enemy by signaling that the war might become more costly and dangerous for the external powers unless terminated by a negotiated solution.

Finally, the bombing of strategic targets has been used to bolster the morale of allied leaders and forces. By bombing an enemy's heartland, the United States has sought to demonstrate its resolve to support an ally and to show the ally's population that the enemy was paying a price for its aggression.

Chapter Two

WORLD WAR II, 1941–1945

Air attacks on strategic targets in World War II generally fell short of producing the psychological results their planners hoped for. The psychological effects of Allied bombing did influence and speed the surrenders of Italy and Japan. However, in neither instance was Allied bombing the sole cause of the surrenders, as the deployed forces of both Axis powers had also experienced repeated battlefield defeats.

GERMANY

The Royal Air Force's (RAF) nighttime strategic bombing of urban targets in Germany was intended, in the main, as a direct assault on enemy civilian morale.[1] The immediate purpose of the bombing was to deny Germany's war industry its labor supply. The assumption was that "the destruction of housing and public amenities would undermine both the ability and the willingness of the industrial

[1]The RAF resorted to area or city bombing only after attempts to conduct more precise aerial attacks had failed. At the outset of its bombing of Germany in 1940, the RAF experimented briefly with daylight attacks on industrial targets but had to abandon this effort because of heavy aircraft losses. Then, the RAF attempted to attack specific German industrial targets at night. This style of attack was also abandoned; the RAF aircrews had difficulty finding their targets with the equipment and techniques then in use. Thereafter, the RAF began its night raids on German urban and industrial centers. See U.S. Strategic Bombing Survey, *Summary Report (European War)*, European Report No. 1, Washington, D.C., September 30, 1945, in David MacIsaac, ed., *The United States Strategic Bombing Survey*, Volume I, New York: Garland Publishing, Inc., 1976a, p. 3.

workers to maintain their posts at the factories."[2] But beyond that specific objective, there was a more generalized intent to erode the German city-dweller's will to support the fight by making life intolerable. As one Bomber Command directive put it, the "primary aim" of the bomber offensive was to "demonstrate to the enemy the power and severity of air bombardment and the *hardship* and *dislocation* which will result from it."[3]

The U.S. Army Air Force (AAF) operations against Germany mainly concentrated on daylight, precision bombing of industrial and other war-related targets. By the beginning of 1945, these raids had seriously degraded German armament production and had brought the German war-supporting economic infrastructure close to collapse. Late that year, the AAF joined the RAF in massed-area raids on Berlin, Dresden, and several other eastern German cities. The Allied commanders viewed these raids "as part of a climactic psychological warfare campaign" in which the massive bombings would cause panicking civilians to clog roads and railroads, thus preventing the resupply and movement of German troops.[4] One effect of the air campaign, which may not have been intended by Allied planners, was that the bombing of cities greatly depressed the morale of the German soldiers at the fighting fronts.[5]

The United States Strategic Bombing Survey (USSBS) made extensive studies of the reaction of the German civilian population to air attacks and especially to city raids. These studies showed that aerial attacks had eroded the morale of the German people and had increased absenteeism somewhat in the later stages of the war. The area raids, however, largely failed to achieve their central purpose of denying labor to German industry. As the USSBS put it: German "workers continued to work. However dissatisfied they were with the

[2]See John Ellis, *Brute Force: Allied Strategy and Tactics in the Second World War*, New York: Viking Press, 1990, p. 180.

[3]Ellis (1990), p. 182; emphasis in original.

[4]Ronald Schaffer, *Wings of Judgment: American Bombing in World War II*, New York: Oxford University Press, 1985, pp. 95–97, 103.

[5]Information provided by Konrad Kellen, who served with the Allied Psychological Warfare Division, European Theater of Operations, in WWII.

war, the German people lacked either the will or the means to make their dissatisfaction evident."[6]

The prospect of ruin by continued Allied air attack did not persuade Germany's leader to surrender. Hitler, who prevented surrender while he lived, had little concern for the welfare of his countrymen by the end of the war. Indeed, Hitler was ready to see Germany destroyed and had ordered Albert Speer, his minister for armaments and munitions, and his Gauleiters to demolish all German transportation, communication, and supply facilities before they could fall into Allied hands.[7] Hitler justified his ruthless scorched-earth policy to Speer on the grounds that:

> If the war is lost, the people will be lost also. It is not necessary to worry about what the German people will need for elemental survival. On the contrary, it is best for us to destroy even these things. For the nation has proved to be the weaker, and the future belongs solely to the stronger eastern nation. In any case only those who are inferior will remain after this struggle, for the good have already been killed.[8]

Following Hitler's suicide on April 30, 1945, the German forces on the Western and Eastern fronts surrendered unconditionally on May 7 and 8. They surrendered because they could no longer sustain an effective defense. The American and British forces advancing into Germany in April 1945 generally met only light resistance.[9]

JAPAN

U.S. air operations against strategic targets in Japan also had a major psychological intent. The air attacks had two principal objectives: (1) to weaken the Japanese capability and will to resist U.S. amphibi-

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[6]USSBS (1976a), p. 4.

[7]See Albert Speer, *Inside the Third Reich*, New York: The Macmillan Company, 1970, pp. 400, 439, 442, 446, 447, 453. Viewing Hitler's scorched-earth policy as a "death sentence" for the German people, Speer actively worked to prevent the policy's execution.

[8]Speer (1970), p. 440.

[9]According to Ellis (1990), p. 432, the Allied campaign of April 1945 constituted "little more than an armed procession."

ous landings on Japan's home islands and (2) to force Japan to surrender without invasion. To achieve these twin objectives, U.S. bombers loaded with incendiary bombs set about destroying the basic economic and social fabric of the country by laying waste to almost every important city in Japan.[10]

The principal purpose of the attacks was to break Japanese morale and to destroy Japanese war-making industry. The fire-bombing attacks and the PSYOP warning-leaflet drops that preceded them were intended to be a "powerful psychological weapon" for creating defeatism and for alienating the Japanese public from their government.[11]

The bombings had a pervasive but limited effect on morale in Japan. In the aggregate, U.S. bombing destroyed some 40 percent of the built-up areas of the 66 cities that were attacked.[12] Roughly one-quarter of the people in these cities fled or were evacuated; production dropped; and people became more outspoken in criticizing the government. According to the USSBS, however:

> National traditions of obedience and conformity, reinforced by the police organization, remained effective in controlling the behavior of the population.... It is probable that most Japanese would have passively faced death in a continuation of the hopeless struggle, had the Emperor so ordered.[13]

Contrary to the U.S. assumption that the bombing would cause the Japanese people to become defeatist and alienated from their gov-

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[10]U.S. Strategic Bombing Survey, *Summary Report (Pacific War)*, Pacific Report No. 1, Washington, D.C., July 1, 1946, in David MacIsaac, ed., *The United States Strategic Bombing Survey*, Volume VII, New York: Garland Publishing, Inc., 1976b, pp. 15–16, and Schaffer (1985), p. 107.

[11]Schaffer (1985), pp. 140–141. General Curtis LeMay, who commanded the bombing campaign, also intended the incendiary bombing to destroy Japanese workshops and war factories, eliminate workers, and produce chaos. The populations in cities were warned by leaflet to flee before their living areas were destroyed.

[12]USSBS (1976b), p. 17.

[13]USSBS (1976b), p. 21.

ernment, the USSBS found that "the will of the political leaders to resist collapsed well before the will of the people as a whole."[14]

The fire bombings and the two atomic bombings that culminated the attacks against Japanese cities, however, did motivate the emperor and other Japanese leaders to change Japan's war policy and seek an end to the conflict.[15]

This transformation in war policy resulted from changes in Japan's government that were influenced in part by concerns about the U.S. bombing of the homeland. These governmental changes brought into the leadership men disposed to make an early peace.[16] As the historian Ernest May described it:

> A change in policy commenced with the dislodgment from power of those men who had staked their careers on the course of action that had failed. The change was completed when the symbolic national leader [Emperor Hirohito], standing above politics, cast his weight into the scales. Actual bombing and fear of future bombing—perhaps especially fear of further nuclear bombing—had some effect on these changes.[17]

Underlying the views of some of the Japanese leaders who advocated an end to the war was the fear that "if the war continued to the point where the nation could not be defended no matter how hard everyone tried, the government would be confronted with 'grave difficulties' with respect to maintaining peace and order."[18] Some senior Japanese elder statesmen warned the emperor that the longer the war continued, the greater the danger of a communist revolution in

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[14]U.S. Strategic Bombing Survey, *Japan's Struggle to End the War*, Pacific Report No. 2, Washington, D.C., July 1, 1946, in David MacIsaac, ed., *The United States Strategic Bombing Survey*, Volume VII, New York: Garland Publishing, Inc., 1976c, p. 10.

[15]USSBS (1976c), pp. 11–13, and Schaffer (1985), p. 148.

[16]Ernest R. May, *"Lessons" of the Past*, New York: Oxford University Press, 1973, p. 135.

[17]May (1973), p. 137.

[18]Robert J. C. Butow, *Japan's Decision to Surrender*, Stanford, Calif.: Stanford University Press, 1954, p. 173.

Japan.[19] But the specter of continued human losses also played a key role. In his speech urging his ministers to accept the Allied surrender terms, the emperor said:

> I cannot endure the thought of letting my people suffer any longer. A continuation of the war would bring death to tens, perhaps even hundreds, of thousands of persons. The whole nation would be reduced to ashes. How then could I carry on the wishes of my imperial ancestors?[20]

But bombing constituted only part of the reason for surrender. By spring 1945, Japan was suffering from an almost total U.S. naval blockade and obviously was unable to prevent an eventual invasion of its homeland by U.S. forces. Most Japanese leaders—including some of those opposing actions to terminate the war on Allied terms—understood that the conflict was irreparably lost.[21] The only issue in dispute was whether the Allied terms for the surrender—particularly with respect to the future status of the emperor—could be improved if Japan waited for the expected Allied invasion and inflicted heavy losses on the first waves of the invasion forces through massive air, naval, and land suicide attacks.[22] One senior Japanese naval official spoke of sacrificing 20 million killed in such kamikaze attacks.[23] The Soviet invasion of Manchuria and the detonation of the nuclear weapons in August 1945 overwhelmed the arguments of the Japanese military leaders who advocated attempting such a suicidal, last-ditch defense.

ITALY

We have evidence that Allied air operations—limited though they were—also contributed to Italy's agreement to make peace in 1943. The Allied bombing of marshaling yards and industrial targets in the

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[19]Prince Konoye in a meeting with Emperor Hirohito on February 14, 1945. See USSBS (1976b), Appendix A-5, Memorandum of Konoye Conversation with Hirohito, February 1945, pp. 21–22.

[20]As quoted in Butow (1954), p. 208.

[21]Butow (1954), p. 95.

[22]Butow (1954), pp. 95–98.

[23]Butow (1954), pp. 163, 205.

suburbs of Rome on July 10, 1943, "caused factory workers to flee or fail to show up . . . [and] . . . provided Italian officials with clear evidence that the civilian population did not have its heart in the war."[24] Within a week of the bombing, Mussolini was deposed, and seven weeks later a successor government regime signed a peace agreement with the Allies. According to General Paolo Puntoni, who was King Victor Emmanuel's closest confidant, it was the bombing that precipitated Mussolini's removal and the decision to seek a peace accord.[25]

Other factors also influenced Italian officials to seek changes in Italy's leadership and war policies. By 1943, the Italian armed forces had suffered heavy defeats in North Africa and Sicily and "everyone could foresee an Allied invasion, which, even if checked, would rip up large parts of the peninsula."[26] At the same time, the senior Italian military and civilian bureaucracy was divided about the war:

> On one side were those whose only hope of retaining power lay in preserving the German alliance and continuing the war. . . . On the other side were men whose brightest prospects lay in a reconstituted regime which broke with Germany and sought a separate peace.[27]

When Mussolini fell ill in 1943, these factions grouped for a succession struggle; the antiwar element won out.[28] The army chief of staff made no move to discourage plotting against the Mussolini government by officers favoring a separate peace because he "feared that bombing, followed perhaps by fighting in Italy itself, might lead to a popular revolt, of which communists would take command."[29]

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[24]May (1973), p. 128.

[25]May (1973), p. 128.

[26]May (1973), p. 134.

[27]May (1973), p. 132.

[28]May (1973), pp. 132, 134.

[29]May (1973), p. 153.

OTHER COMBATANTS

The prospect of military stalemate or even defeat on the battlefield does not ensure that air operations against strategic targets will produce the desired changes in the target country's policy and behavior. In several cases in which bombing was employed against governments that were militarily inferior on the ground to their attackers, the bombing still failed to compel those weaker governments to negotiate an end to hostilities.

In Ethiopia, Mussolini, in 1936, unsuccessfully attempted to coerce Emperor Haile Selassie to negotiate by bombing and aerial spraying the Ethiopian population with mustard gas.[30] In the Spanish civil war, the Nationalists attacked Madrid with incendiary bombs and struck other Republican strongholds as well, but could not induce the Republicans to negotiate.[31] In China, repeated Japanese air strikes against Chinese cities and other strategic targets that were designed explicitly to "create terror and excite antiwar sentiments" failed to induce the Chinese to agree to negotiate a compromise peace.[32]

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[30]However, the air attacks when they preceded or accompanied ground assault were principal causes of the collapse of Ethiopian resistance in early May 1936. See Richard P. Hallion, *Strike from the Sky*, Washington, D.C.: Smithsonian Institution Press, 1989, pp. 83–88, and R. Ernest Dupuy and Trevor N. Dupuy, *The Encyclopedia of Military History*, New York: Harper & Row, Publishers, 1970, p. 1040. Also, see May (1973), p. 127.

[31]Dupuy and Dupuy (1970), pp. 1031–1033, and May (1973), p. 127.

[32]May (1973), p. 127.

Chapter Three

KOREA, 1950–1953

Early in the Korean conflict, the Far East Air Force (FEAF) called for the bombing of strategic targets for psychological purposes. In September 1950, for example, the FEAF commander proposed issuing a warning to the North Koreans and then sending a massive B-29 strike against military targets in Pyongyang, the North Korean capital. Such a strike, he said, would "cause the tottering North Korean government to listen more attentively to United Nations terms for ending the war."[1]

Although Washington opposed these early proposals to take advantage of the psychological attributes of superior United Nations (UN) airpower, it did permit selective attacks against military-related targets in Pyongyang and other areas. By early fall 1950, UN air attacks had neutralized almost all the major strategic targets that the FEAF had identified as contributing support to the North Korean People's Army (NKPA).[2]

Once the battle lines in Korea had stabilized after the Chinese intervention in November 1950 and as the armistice negotiations begun in July 1951 dragged on, the UN commanders began to look increasingly to airpower as a means of achieving favorable results at the bargaining table.[3] When U.S. and other UN ground forces went over to the active defense in November 1951 to hold down casualties, air-

[1]Robert Frank Futrell, *The United States Air Force in Korea, 1950–1953*, New York: Duell, Sloan, and Pearce, 1961, p. 439.

[2]Futrell (1961), p. 184.

[3]Futrell (1961), p. 442.

power became the dominant instrument for exerting leverage on the enemy to end the war.[4]

Although the truce talks at Panmunjom produced agreement on a number of major armistice issues, including several on which the United States had made significant concessions, the progress in the talks was glacial. The North Koreans and the Chinese communists, intent on stringing out the war, hoped that the United States would tire of absorbing continued casualties and would abandon the battlefield.

Eventually, the truce talks hung on one last outstanding issue: the repatriation of prisoners of war (POWs). The United States insisted that all prisoners had the right to accept or reject repatriation; the communists opposed voluntary repatriation, demanding that all prisoners be repatriated, willing or not.[5]

THE AIR PRESSURE CAMPAIGN

When GEN Mark Clark assumed the UN command in May 1952, he authorized the FEAF to commence an air pressure campaign that would make the war too costly for the communists to continue. Some attacks in this air campaign focused on strategic or quasi-strategic targets that had been overlooked, were previously off limits to attack, or had been reconstituted after earlier bombings.

Two major obstacles, however, limited the FEAF's use of air attacks against strategic targets to force the communists to agree to a truce. First, the neighboring communist powers directing and underwriting the continued conflict in Korea—China with troops and war materiel and the USSR mainly with war materiel—were off limits to direct attack. Second, most economic and other strategic targets in North

[4]This remained the case throughout the war. In November 1952, GEN Omar Bradley, the chairman of the Joint Chiefs of Staff, stated that UN airpower constituted the most potent means available "of maintaining the degree of military pressure, which might impel the communists to agree, finally, to acceptable armistice terms." William W. Momyer (Gen, USAF, Ret.), *Air Power in Three Wars*, Maxwell Air Force Base, Ala.: Department of the Air Force, Air University, 1978, pp. 170–171.

[5]See Barry M. Blechman and Robert Powell, "What in the Name of God Is Strategic Superiority?" *Political Science Quarterly*, Winter 1982–83, p. 590.

Korea had already been destroyed in earlier stages of the war.[6] Because strategic targets were scarce, most air pressure strikes were interdiction attacks aimed at destroying such military targets as supply centers, transportation equipment, LOCs, and troop concentrations.

Eventually, four major strategic or quasi-strategic target categories were struck: hydroelectric power facilities, targets in Pyongyang, targets near the Soviet and Chinese borders, and irrigation dams.

Attacks on Hydroelectric Facilities

In late June 1952, the UN air forces began attacking North Korean hydroelectric power facilities, which provided power to both North Korea and Manchuria. The UN intended these attacks to send a dual message: First, it hoped to impress North Korea with the price it was paying for its continued recalcitrance; second, it aimed to demonstrate to both the USSR and China—who were believed to be calling the tune at Panmunjom—that the continuation of the war entailed concrete costs for them as well.[7] The UN attacks on the hydroelectric facilities aroused intense international controversy, especially in the United Kingdom.[8]

Attacks Against Pyongyang

Also to "cause a noise in Moscow," the UN in mid-1952 launched massed raids against military targets in Pyongyang.[9] In a raid on July 11, UN B-29s and fighter-bombers attacked some 30 targets, including command posts, supply dumps, factories, troop billets, railway

[6]Because its economy was relatively primitive, North Korea contained only a limited number of strategic targets even at the start of the war. These were rapidly drawn down when the bombing began. See Max Hastings, *The Korean War*, New York: Simon and Schuster, 1987, p. 268, and Futrell (1961), p. 466.

[7]Futrell (1961), pp. 445, 447.

[8]Hastings (1987), p. 268. Britain was anxious about any bombing that affected communist China, in part, because the British colony of Hong Kong was vulnerable to Chinese retaliation.

[9]Futrell (1961), p. 489.

facilities, and gun positions.[10] According to agent reports, the attacks destroyed the underground offices of the North Korean Ministry of Industry and also killed 400 to 500 communist officials in another underground air-raid shelter. On August 29, UN aircraft flew an additional 1,403 sorties against targets in Pyongyang.[11]

Attacks on Targets Near China and USSR

To exert psychological pressure on Peking and Moscow, UN aircraft also attacked northeastern Korean industrial plants that were located close to the Manchurian and Siberian borders. By hitting targets in the sensitive border zones that had previously been off limits to air attack, the UN command wanted to demonstrate a willingness to take greater risks to force an end to the Panmunjom truce negotiations. Among the targets attacked was the Namsan-ni chemical plant on the Yalu near Sui-ho, the destruction of which on October 1, 1952, eliminated the last strategic-type target in Korea. To continue the air pressure attacks, the FEAF target planners now had to identify a new target system.[12]

Attacks on Irrigation Dams

One such new target system was the 20 or so irrigation dams in North Korea that provided the water used for much of North Korea's rice cultivation. While reluctant to attack North Korea's rice crop as such, the UN commanders were prepared to see that crop damaged as a result of military-related operations to interdict communist LOCs.

In May 1953, UN bombers attacked several irrigation dams to flood local rail and road LOCs. By breaching the dams, the bombers also destroyed the rice growing in the areas inundated by the floodwaters. Had these attacks continued and eventually embraced the entire

[10]Futrell (1961), p. 482.

[11]Futrell (1961), p. 489.

[12]Futrell (1961), p. 492.

North Korean irrigation system, a substantial portion of North Korea's rice crop might have been destroyed.[13]

As a countermeasure to the attacks, the North Koreans began to lower the water levels of some of the reservoirs so as to prevent flooding. This countermeasure, however, deprived adjacent rice fields of necessary irrigation water.[14] As it was, further attacks proved unnecessary, as the communists dropped their opposition to the voluntary repatriation of prisoners of war and agreed to a truce.

PSYOP SUPPORT OF STRATEGIC AIR ATTACKS

To exploit the psychological, as well as the destructive, effects of airpower, UN aircraft dropped tens of millions of leaflets over target areas inhabited by North Korean civilians and rear-area enemy troops. The strategic objectives of the leaflets and the UN radio broadcasts to North Korean audiences were (1) to undermine support for the North Korean regime and its Soviet and Chinese allies and (2) to bolster the image and legitimacy of the "Republic of Korea."[15] The principal themes of the leaflets included the following:[16]

- *Creating animosity between the communist combatants.* Leaflets intended for North Korean troops and civilians emphasized China's exploitation of Korea. Leaflets aimed at Chinese troops emphasized the Soviet exploitation of China and charged that Chinese forces were unjustifiably bearing the brunt of a Soviet-inspired war in Korea. Other leaflets addressed to Korean audi-

[13]Stephen T. Hosmer, *Constraints on U.S. Strategy in Third World Conflicts*, New York: Crane Russak & Company, 1987, p. 60.

[14]Futrell (1961), p. 627.

[15]Stephen E. Pease, *Psychological Warfare in Korea, 1950–1953*, Harrisburg, Pa.: Stockpole Books, 1992, p. 20.

[16]This analysis of the thematic content of UN leaflets is based in part on the weekly leaflet airdrop schedules recorded in Memoranda for Record produced by the Psychological Warfare Section, General Headquarters, United Nations and Far East Command, between September 8, 1951, and March 6, 1952. The Memoranda for Record specified the numbers and themes of the leaflets to be dropped on Chinese and Korean targets in both front-line and rear areas.

ences portrayed the Soviets as using Korean forces to fight the USSR's battles.

- *Generating opposition to the communist position in the armistice negotiations.* Leaflets placed the blame for the prolongation of the war on Chinese and North Korean intransigence at Panmunjom. Some messages explained the UN position on the demilitarized zone, others stressed UN support for the eventual reunification of Korea, and still others discussed UN compliance with the Geneva Convention concerning the treatment of POWs.
- *Fostering popular resistance in North Korea.* Leaflets counseled passive resistance, emphasizing that the real heroes were those who avoided helping the communists.
- *Building up the image of South Korea.* Leaflets stressed the accomplishments of the Republic of Korea despite the confusion and hardships created by alien-inspired communist aggression.

Specifically to support attacks against Pyongyang and other strategic targets, UN aircraft dropped leaflets several days before the attacks warning civilians actively engaged in the logistic support of enemy forces to stay away from military installations. Several days after the attacks, UN planes dropped leaflets reminding civilians that they had been warned to avoid military targets.[17]

PSYOP leaflets and radio broadcasts were also used to support UN attacks against LOCs and communication centers. The vigorous warning program was aimed both to save civilian lives and to disrupt civil order. Leaflets depicting the main supply routes in North Korea warned the population that all military targets along the supply routes would be attacked. After targets were bombed, additional leaflets were dropped reminding those still in the area that they had been warned before the attack.[18]

There is little evidence that these PSYOP appeals had any significant effect on their military or civilian targets. While the various "divisive"

[17]Futrell (1961), p. 481.

[18]The U.S. State Department deplored the use of such pre- and post-attack warnings, believing they could be intensively exploited by communist propaganda. (Futrell, 1961, p. 484.)

leaflets may have increased somewhat the resentment of individual communist soldiers, they were not—at least according to POW interrogations—a major spur to enemy troop desertions and surrenders. Similarly, bombarding the public with leaflets explaining the reasonableness of UN negotiating positions could put no real pressure on the hardened North Korean and Chinese negotiators at Panmunjom. The tight controls that communist authorities exerted on North Korean civilians in the rear areas ruled out the possibility of any overt North Korean public support for UN peace terms.

THREATS TO USE NUCLEAR WEAPONS AND EXPAND THE WAR TO CHINA

The U.S. threat to extend the war to Chinese territory and to use atomic weapons if a truce were not agreed to quickly greatly intensified the Chinese incentive to settle the Korean conflict. President Eisenhower, after reviewing the situation in spring 1953, concluded that the UN would have to undertake a major offensive to bring the war to a close and that such an offensive would require "strikes against the supporting Chinese airfields in Manchuria, a blockade of the Chinese coast, and similar measures." He also believed that, to hold down UN casualties, the United States would have to employ atomic weapons.[19]

Before taking such drastic action, Eisenhower indirectly informed the Chinese and Soviet authorities that, in the absence of satisfactory progress at Panmunjom, the United States "intended to move decisively without inhibition in our use of weapons, and would no longer be responsible for confining hostilities to the Korean peninsula." To be certain that the warning reached Soviet and Chinese ears, American officials at several widely separated points in Asia—India, Panmunjom, and the area of the Formosa Strait—discretely dropped word of the U.S. intention to expand the war to China and to employ atomic weapons.[20]

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[19]Dwight D. Eisenhower, *The White House Years: Mandate for Change, 1953–1956*, Garden City, N.J.: Doubleday & Company, Inc., 1963, pp. 179–180.

[20]Eisenhower (1963), p. 181.

REASONS THE COMMUNISTS AGREED TO END THE WAR

In July 1953, the communists formally terminated the Korean War by signing a truce agreement at Panmunjom. The following considerations probably contributed to the communist decision to end the fighting:

- The U.S. threat to widen the war and use atomic weapons. The potential costs of such an expanded conflict undoubtedly weighed heavily on the Chinese decisionmakers in Beijing, who were the key arbiters of whether the war would continue or end.[21]
- The limited prospects for further communist military gains in Korea, given the UN's strong defensive positions, massive artillery support, and air supremacy over the battlefield. In the weeks immediately preceding the July 1953 Korean truce, Chinese and North Korean forces suffered some 135,000 casualties when UN forces successfully repulsed a series of attacks against their positions.[22]
- The high costs of continued conventional combat in Korea, particularly the damage caused by the UN's air pressure campaign.[23]

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[21]While observers differ as to the factors that most influenced the communist decision, President Eisenhower and his advisers had no doubt that it was the atomic threat that had caused the communists to stop fighting and sign the armistice. When asked what had brought the enemy to agree to the truce in Korea, Eisenhower responded without hesitation: "Danger of an atomic war. We told them we could not hold it to a limited war any longer if the communists welched on a treaty of truce. They didn't want a full-scale war or an atomic attack. That kept them under some control." See Sherman Adams, *Firsthand Report: The Story of the Eisenhower Administration*, New York: Harper & Brothers, 1961, pp. 48–49. For differing views on the importance of Eisenhower's atomic threat in bringing the Korean War to a conclusion, see David Rees, *Korea: The Limited War*, New York: St. Martin's Press, 1964, pp. 404–406, and Blechman and Powell (1983), pp. 589–597.

[22]Walter G. Hermes, *United States Army in the Korean War: Truce Tent and Fighting Front*, Washington, D.C.: United States Army, Office of the Chief of Military History, 1966, p. 477.

[23]Robert Futrell (1961), pp. 656–658, considers airpower the decisive factor in bringing about the armistice. The UN air pressure attacks against the communist rear areas had, in his view, made the war too expensive for the enemy to continue.

- The death of Stalin in March 1953, which triggered a political thaw in East-West relations and apparently increased Moscow's interest in a rapid political agreement to liquidate the war.[24]
- The fact the Chinese communists had gained the key objectives that had prompted their intervention in the war. The North Korean "socialist" buffer had been preserved, and U.S. forces were again at a considerable distance from the Chinese border. Compared with these significant gains, the Chinese agreement to the voluntary repatriation of prisoners was a minor concession.

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[24]See Joseph C. Goulden, *Korea: The Untold Story of the War*, New York: Time Books, 1982, p. 630, and Clay Blair, *The Forgotten War: America in Korea, 1950–1953*, New York: Time Books, 1987, pp. 971–972.

Chapter Four

VIETNAM, 1965–1972

At the outset, the Johnson administration's objectives in bombing the Democratic Republic of Vietnam (DRV, or North Vietnam) were largely psychological. One key objective was to force North Vietnam to end its support and direction of the war in South Vietnam and to negotiate a peace settlement. Among other implications, this would have required Hanoi to cease its infiltration and withdraw whatever forces it had already deployed to South Vietnam. The bombing was intended to (1) convince Hanoi that the United States was resolved to defend the South, (2) impose costs on Hanoi for its continued support of the insurgency, and (3) create conditions for a favorable negotiated settlement by demonstrating the odds against the North's winning.[1]

A second key psychological objective was to bolster the morale of South Vietnam's forces and to destroy the morale of Viet Cong cadres in the South. The Johnson administration also hoped that the bombing would stabilize the government in South Vietnam and increase America's leverage with that government.[2]

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[1]Mark Clodfelter, *The Limits of Air Power: The American Bombing of North Vietnam*, New York: The Free Press, 1989, p. 45, and Robert A. Pape, Jr., "Coercive Air Power in Vietnam," *International Security*, Vol. 15, No. 2, Fall 1990, pp. 104–105.

[2]Clodfelter (1989), pp. 45, 60. William Bundy, Assistant Secretary of State for East Asian and Pacific Affairs, 1964–1969, said that a principal motivation for the bombing in 1965 was to "shore up the situation" in South Vietnam. It was the "only way you could keep any heart at all in the South Vietnamese in Saigon." See Ted Gittinger, *The Johnson Years: A Vietnam Roundtable*, Austin, Tex.: Lyndon Baines Johnson Library, Lyndon B. Johnson School of Public Affairs, The University of Texas at Austin, 1993, p. 55.

Over the course of this initial air campaign, which was labeled Rolling Thunder, and the Linebacker I and II air campaigns that followed it, U.S. aircraft flew some 775,000 sorties over North Vietnam during the eight-year period from 1965 to 1972.[3] About 6,700 of these sorties were by B-52 heavy bombers.[4]

THE ROLLING THUNDER BOMBING CAMPAIGN

The first phase of the Rolling Thunder bombing campaign in spring and summer 1965 focused on threatening Hanoi with the destruction of its nascent industrial base.[5] The targets and intensity of the bombing were increased only gradually over time so as to "keep the hostage alive," while at the same time presenting a vision of inevitable, ultimate destruction to the DRV leaders if they did not change their ways.[6] As one senior Johnson administration official put it:

> At any time, "pressure" on the DRV depends not upon the current level of bombing but rather upon the credible threat of future destruction which can be avoided by agreeing to negotiate or agreeing to some settlement in negotiations.[7]

Disillusioned by the lack of results from the first phase and under domestic political pressure to do more, the Johnson administration shifted the emphasis of the bombing to interdiction. This second phase of the Rolling Thunder campaign, which lasted from summer 1965 to winter 1966–1967, aimed to degrade North Vietnam's capability to infiltrate men and supplies into South Vietnam.[8]

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[3]Thomas C. Thayer, *War Without Fronts: The American Experience in Vietnam*, Boulder, Colo.: Westview Press, 1985, Table 8.2, p. 82.

[4]Thayer (1985), Table 8.5, p. 84.

[5]Pape (1990), p. 114.

[6]Pape (1990), p. 114. When Admiral Thomas Moorer, Commander, Pacific Fleet, 1964–1965, asked Assistant Secretary of Defense John McNaughton what the U.S. was trying to do in the bombing, McNaughton replied, "We're sending a message to Ho Chi Minh." Moorer reflected later: "So far as I was concerned, Ho Chi Minh never got the message." (Gittinger, 1993, p. 59.)

[7]Secretary of Defense Robert McNamara, as quoted in Pape (1990), p. 114.

[8]Pape (1990), p. 118.

The third phase of the bombing, spring 1967 to early 1968, involved attacks, until then prohibited, against industrial and transportation targets in and around Hanoi, Haiphong, and the buffer zone near the Chinese border. According to some proponents of this bombing campaign, the objective was to "wreak havoc on the political and social structure fabric of North Vietnam" by destroying rather than just threatening the industrial base. In hitting such targets, U.S. military commanders "sought to intensify the attack on Northern morale."[9]

The fourth phase of Rolling Thunder, which lasted from April to November 1968, saw a de-escalation of the bombing to promote negotiations. The bombing was successively rolled back from the Hanoi-Haiphong area, first to the 20th parallel and then to the 19th. Except for the continuing interdiction immediately north of the demilitarized zone (DMZ), the Johnson administration's aerial bombardment of North Vietnam effectively ended.[10]

The PSYOP Campaign Supporting Rolling Thunder

A significant PSYOP effort accompanied the bombing of North Vietnam. An estimated billion leaflets and other pieces of printed material were strewn over North Vietnam during the course of the war.[11] Leaflets were dropped both directly over North Vietnam by fighter aircraft carrying leaflet bombs and from cargo aircraft positioned over international waters where the wind would take the

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[9]Clodfelter (1989), p. 113. General William Momyer writes that the "objectives of the air campaign in North Vietnam were never changed significantly throughout the war." These were (1) to reduce the flow and/or increase the cost of infiltration of men and supplies from North Vietnam into South Vietnam; (2) to make clear to the North Vietnamese leaders that, as long as they continued their aggression against the South, they would have to pay a price in the North; and (3) to raise the morale of the South Vietnamese people. According to Momyer (1978, p. 173):

> [S]trategic planners believed that the level of destruction of all the war-related activities in North Vietnam would be so extensive and debilitating that the North Vietnamese would negotiate rather than continue to pursue the war militarily.

[10]Pape (1990), p. 119.

[11]Robert W. Chandler, *War of Ideas: The U.S. Propaganda Campaign in Vietnam*, Boulder, Colo.: Westview Press, 1981, p. 99.

leaflets into the North.[12] Thousands of hours of Saigon radio broadcasts were also beamed to North Vietnamese audiences. To increase radio listening in the North, small transistor radios were dropped into North Vietnam and floated ashore from the Gulf of Tonkin.[13]

The objectives of this psychological offensive were to

- persuade the North Vietnamese regime that the air attacks on the North would increase unless it ceased to support the insurgencies in Laos and South Vietnam[14]
- convince the North Vietnamese people and regime that their aggression in South Vietnam would fail
- motivate the North Vietnamese to agree to a peaceful settlement of the conflict
- drive a wedge between the North Vietnamese people and the ruling Lao Dong Party by placing responsibility for the bombing and the prolongation of the war on the Ho Chi Minh regime[15]
- warn the North Vietnamese people to stay away from military targets because they were subject to air strikes.[16]

Following the initial emphasis on coercing the Hanoi government through the threat of expanded air attacks, the PSYOP program was redirected "toward educating and informing the North Vietnamese people of the actual progress of the war and the intentions of the GVN [Government of Vietnam] and Free World Forces." To create a favorable image of the Saigon regime, many leaflets contrasted the

[12]Jack L. Timies (Capt, USAF), *Psychological Operations Against North Vietnam, July 1972–January 1973*, CHECO/CORONA Harvest Division, Operations Analysis Office, HQ PACAF, May 24, 1974, pp. 3–6, 15–20, 32.

[13]Timies (1974), p. 32.

[14]Timies (1974), p. 13.

[15]The leaflets and broadcasts also accused the Ho Chi Minh government of being a puppet of the Chinese and of sending sons and husbands to the South to fight an unjust, fratricidal war on behalf of the Chinese, "who were willing to support the fight to the last Vietnamese." (Chandler, 1981, p. 112.)

[16]Chandler (1981), pp. 99–100. The aim was threefold: to minimize civilian casualties, to emphasize U.S. and South Vietnamese humanitarianism, and to frighten people away from helping to restore damaged facilities or assisting with other military-related efforts. (Chandler, 1981, p. 112.)

beneficent lives of the populace in the South with the harsh living conditions that existed in the North. It was hoped that such information would help to discredit communist claims and convince the North Vietnamese people that they were "being exploited by their leaders."[17]

The PSYOP leaflet operations that accompanied the Rolling Thunder campaign never reached their hoped-for capacity. At the end of 1967, the Joint U.S. Public Affairs Office directed that approximately 60 million leaflets be dropped per month over North Vietnam, distributed according to population density. This goal was never achieved, primarily because of the lack of a PSYOP delivery system that could penetrate safely the North Vietnamese defenses and distribute large volumes of leaflets. Some 60 percent of the North Vietnamese population resided in the Red River Delta area, which was the most difficult to cover because of the heavy concentrations of antiaircraft and surface-to-air missile (SAM) sites protecting Hanoi and Haiphong.[18] However, with favorable winds, these areas could be reached with standoff drops of autorotating leaflets.

Failure of Rolling Thunder to Change Hanoi's War Policies

The 1965–1968 Rolling Thunder air attacks and the accompanying PSYOP campaign against North Vietnam failed to change Hanoi's policies toward the war. While Hanoi agreed in 1968 to enter into formal negotiations with the United States in exchange for a cessation of the bombing, these formal negotiations proved fruitless, as the communists considered them a forum in which to manipulate international and U.S. domestic public opinion. Hanoi continued to insist on peace terms that, if agreed to, would have handed South Vietnam over to DRV control. The infiltration of North Vietnamese Army (NVA) troops and military supplies into the South continued throughout the course of the bombing.

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[17]Timies (1974), pp. 13–14, and Chandler (1981), p. 108.

[18]See D. R. Smith (Maj, USAF), *Psychological Operations by USAF/VNAF in SVN*, Project CHECO Report, Directorate, Tactical Evaluation CHECO Division, HQ PACAF, September 16, 1968, pp. 44–45.

Rolling Thunder failed to achieve any significant psychological objectives for several reasons.

First, aside from maintaining themselves and the Lao Dong Party in power, the North Vietnamese leaders had no higher priority than acquiring control of the other half of their country. Emboldened by their victory over France and fortified by their faith in the efficacy of protracted warfare, the DRV leaders were convinced they eventually would win in the South. By their calculus, the damage caused by the bombing of North Vietnam was an affordable price for the "liberation" of South Vietnam. Moreover, by 1965, Hanoi had made a substantial political and military investment in the war, particularly with regard to the building and organization of the Viet Cong infrastructure in South Vietnam. Much of this sunk cost might have been irreparably lost had Hanoi acceded to the U.S. demand to abandon the war.

Second, the bombing did not reduce significantly Hanoi's ability to sustain the war in the South. China, the Soviet Union, and the Eastern Bloc countries provided a steady flow of war materiel; petroleum, oil, and lubricants; and other support to the DRV, which compensated for most if not all of what was lost in the bombing. And while Rolling Thunder lessened the capacity of the DRV's transport routes to the South, Hanoi was still able to move sufficient men and materiel to the southern fronts to maintain their forces.[19]

Third, Rolling Thunder did not endanger the Lao Dong Party's control of the North. There is little, if any, evidence that the bombing and the PSYOP messages that accompanied it triggered any active opposition to the Hanoi government or its policies. The Lao Dong Party's ubiquitous security service and other control mechanisms—and its well-earned reputation for ruthlessly suppressing opponents—ruled out any organized popular opposition. Furthermore, the Hanoi regime had substantial credibility and popular support, a consequence in part of its effective proselytizing and propaganda efforts.

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[19]Guenter Lewy, *America in Vietnam*, New York: Oxford University Press, 1978, pp. 381–382.

While the bombing caused some civilian evacuations and probably depressed civilian morale in some areas, it did not endanger North Vietnam's basic agricultural economy. The Hanoi regime used the bombing to confirm its line that the war was a struggle to liberate the South from American imperialism and as fuel for its "Hate America" campaigns. However, this is not to say—as some have suggested—that the Hanoi regime welcomed the bombing for its utility in mobilizing popular support and sacrifice for the war effort. Whatever the propaganda value of the bombing, the Northern leaders obviously, on balance, wanted it stopped, and they exerted great effort to create U.S. domestic and international pressures on Washington to this end.

Finally, the impact of Rolling Thunder was limited by the significant constraints that U.S. leaders placed on it. The Johnson administration had an overriding concern to avoid acts that might provoke Soviet and/or Chinese counteraction and thus risk widening the war. This concern and the desire to minimize civilian casualties prompted Johnson administration policymakers to limit the geographic areas of the bombing and to place certain "sensitive" targets off limits to U.S. attack. The concerns also caused Washington to rule out several potentially escalatory options that would have brought increased pressure on the Hanoi regime. Among the rejected escalatory options were the systematic bombing of Hanoi and other major population centers, the closing of North Vietnam's ports through aerial mining, and the breaching of the Red River dike system to disrupt North Vietnam's rice production.[20]

The bombing effects were also attenuated by frequent bombing pauses or cutbacks instituted to promote various U.S. peace initiatives. These pauses and changes in bombing lines seriously diminished the impact of the Rolling Thunder air campaign by providing the North Vietnamese with respites to repair damaged bridges and LOCs and to reposition war supplies closer to South Vietnam.[21]

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[20]Hosmer (1987), pp. 27–35.

[21]Hosmer (1987), pp. 83–84. For criticisms of the bombing pauses and the various other constraints imposed on the bombing, see U. S. Grant Sharp (ADM, USN, Ret.), *Strategy for Defeat: Vietnam in Retrospect*, San Rafael, Calif.: Presidio Press, 1978, pp. 63–238; William C. Westmoreland (GEN, USA, Ret.), *A Soldier Reports*, Garden City,

Some observers believed that even with the constraints that had been imposed, the U.S. air campaign came close to producing its desired effect in late 1967. Senior American military commanders argued in summer 1967 that the air campaign was "on the verge of forcing the North Vietnamese to negotiate a settlement."[22] John Colvin, the British consul general in Hanoi during 1966 and 1967, observed that the U.S. bombing "had brought the DRV to manifest defeat by 1969." Colvin saw signs of widespread malnutrition and lethargy among the Hanoi population and believed that the DRV, by late September 1967, "was no longer capable of maintaining itself as an economic unit nor of mounting aggressive war against its neighbors."[23] However, the psychological effects of the Tet offensive on U.S. decisionmakers and U.S. public opinion, along with the Johnson administration's desire to begin negotiations, led Washington to truncate the bombing campaign against North Vietnam in March 1968.

The United States then halted the bombing of North Vietnam on October 31, 1968. Washington established three conditions, which Hanoi tacitly accepted, for maintaining the bombing halt: that the peace talks be prompt and serious, that Hanoi not violate the DMZ, and that there be no large-scale ground, rocket, or artillery attacks on South Vietnam's major cities. The communists began to violate

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N.J.: Doubleday & Company, Inc., 1976, pp. 112, 195–196, 384–385, 410; and Momyer (1978), pp. 175–177.

[22]Among the senior officers who believed the bombing, if continued, would produce a settlement were Generals Momyer, Wheeler, McConnell, and Ryan and Admiral Sharp. (Momyer, 1978, p. 237.)

[23]John Colvin, "Hanoi in My Time," *The Washington Quarterly*, Spring 1981, pp. 138–154. According to Colvin:

> The strength of the American bombing campaign of summer 1967 had rested not only on its weight but on its consistency, hour after hour, day after day. The strategy, as well as damaging or destroying—in ports, on railway lines, and on storage areas—the capacity of the DRV to feed itself and to maintain invasion, had also, for the first time, allowed the North Vietnamese no time to repair war-making facilities. No sooner were they repaired than they were struck again; Tonkinese ingenuity had been defeated and, by the remorseless persistence of the campaign, their will eroded to near-extinction. (Colvin, 1981, p. 153.)

General Westmoreland, who in retrospect attaches considerable credibility to Colvin's views, states that Colvin saw the bombing as "having a lot more impact than we dreamed was the case." (Gittinger, 1993, p. 76.)

these tacit understandings shortly after the peace negotiations opened—probably assuming that Washington would find it politically difficult to resume full-scale bombing or abandon negotiations.

THE LINEBACKER I BOMBING CAMPAIGN

In response to the massive North Vietnamese Easter offensive of 1972, the Nixon administration first resumed full-scale bombing of the North and subsequently mined Haiphong and other North Vietnamese harbors. The primary objectives of these operations were psychological: to reestablish Washington's depleted bargaining leverage with Hanoi by carrying the war to the North. As Kissinger described the administration's rationale:

> The mining would shake Hanoi's faith that time was on its side. It would strengthen morale in South Vietnam. It would give us an additional bargaining counter for the return of our prisoners. It might accelerate negotiations.[24]

Along with the bombing and mining, the Nixon administration offered the North Vietnamese peace terms that were the most forthcoming it had put forward:

> A standstill cease-fire, released prisoners, and total American withdrawal within four months .... The offer of a standstill cease-fire implied that American bombing would stop and that Hanoi could keep all the gains made in its offensive.[25]

The United States had dropped the requirement for a withdrawal of North Vietnamese forces from South Vietnam in May 1969, though it insisted that any peace settlement prohibit further reinforcement or replacement of those forces.[26]

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[24]Hosmer (1987), pp. 102–103.

[25]Henry Kissinger, *White House Years*, Boston: Little, Brown & Co., 1979, p. 1189.

[26]See Peter Rodman, "Some Lessons and Non-Lessons of Vietnam," conference report, Washington, D.C.: Woodrow Wilson International Center for Scholars, 1983, p. 16.

The PSYOP Campaign Supporting Linebacker I

To promote the U.S. objective to achieve a negotiated settlement with the North Vietnamese, a major PSYOP effort, code-named Field Goal, targeted the populace of North Vietnam and North Vietnamese troops in all of former Indochina. This ambitious operation sought "to persuade a tightly controlled nation of loyal people to stop supporting their government's war policies and objectives."[27] Its specific objectives were to

- degrade enemy combat effectiveness by fostering and encouraging dissension, doubt, defection, desertion, or surrender
- communicate selected factual information concerning events within the country and the world
- demoralize enemy troops by psychologically isolating them from the local population
- undermine the political stability of enemy armed forces and civil populations by creating rebellious attitudes and by fostering divisions between the enemy's ethnic, military, religious, and political groups
- limit the effectiveness of enemy PSYOP and political warfare (POLWAR)
- inform selected target audiences of U.S. policy and statements of high government officials (U.S. and allied) to obtain desired psychological objectives.[28]

The individual leaflets contained messages describing the reasons for the U.S. bombing and the mining, the strangling effect the interdiction would have on supplies for NVA combat forces, and the U.S. negotiatory offers for a cease-fire and a withdrawal of American troops. Other leaflet messages emphasized the need to end the fighting and begin serious political discussions to end the war. The

[27]Timies (1974), p. 21.

[28]Timies (1974), pp. 12–14.

blame for the continuation of the war and the continued NVA casualties was placed on the Lao Dong Party.[29]

Contribution of Linebacker I to Negotiations with Hanoi

By September, the North Vietnamese had begun with increasing seriousness to negotiate an agreement that would take the United States out of the war. Whereas Hanoi had previously been content to hold the United States in the war, particularly as Washington was progressively being forced to withdraw its ground troops, the North Vietnamese now saw that it was in their interest to negotiate the total withdrawal of U.S. forces.

As mentioned above, as early as May 1969, the United States had made clear that it was prepared to withdraw from Vietnam without a commensurate withdrawal of North Vietnamese troops from South Vietnam. One of the reasons for Hanoi's failure to accept this offer was its expectation that U.S. antiwar sentiment might, in time, reach sufficient proportions to force the United States to abandon South Vietnam under conditions that would allow an immediate communist takeover. Thus, Hanoi had continued to insist that the United States, in effect, overthrow the Thieu government.

On October 8, 1972, Hanoi's negotiators in Paris offered a peace plan that "accepted Nixon's May 8 proposal and conceded that the South Vietnam government need not be overthrown as the price of a cease-fire."[30] Probably the following factors motivated Hanoi's shift in negotiatory strategy:

- The failure of the North Vietnamese Easter offensive left no prospect for a quick end to the war. The invading North Vietnamese forces had been unable to hold their gains in the South—for example, they had been driven out of the key provincial capital of Quang Tri, and they required a protracted period of refitting and reconstitution. After a post-invasion inspection

[29]Timies (1974), pp. 30–31.

[30]Kissinger (1979), p. 1345.

trip, a four-star North Vietnamese general concluded that "there could be no new offensive for another three to five years."[31]

- Hanoi wanted U.S. airpower out of the war. The Easter offensive failed in large part because of U.S. airpower. The interdiction and close air support provided by U.S. B-52 and fighter attack aircraft proved critical to the successful GVN defense of An Loc, Kontum, and Hue—the three major battle sites where the Easter offensive had been repulsed. The interdiction attacks in North Vietnam had also contributed to the offensive's defeat, as they disrupted the supply of communist forces in the South. The leadership in Hanoi doubted, therefore, that their forces could defeat the GVN as long as the South Vietnamese still had the support of U.S. airpower.[32]
- American political opposition to the war had reached the point where Hanoi believed that the United States would not reenter the fighting once it had withdrawn from the war. Thus, in Hanoi's view, the United States would probably not attempt militarily to enforce the peace terms—such as those prohibiting the infiltration of men and nonreplacement supplies from the North—that Hanoi intended to violate.

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[31]Phillip B. Davidson, *Vietnam at War, The History: 1946–1975*, Novato, Calif.: Presidio Press, 1988, p. 706. General Tran Van Tra, a senior communist military leader in South Vietnam, writes that, following the Easter offensive:

> [O]ur cadres and men were fatigued, we had not had time to make up our losses, all units were in disarray, there was a lack of manpower, and there were shortages of food and ammunition, so it was very difficult to cope with the enemy attacks.

Tra reports that one communist headquarters (Military Region 9 Command) recommended an immediate cessation of hostilities because "the troops were no longer capable of fighting." See Tran Van Tra, *Vietnam: History of the Bulwark B2 Theater*, Volume 5: *Concluding the 30-Years War*, Foreign Broadcast Information Service, Southeast Asia Report, No. 1247, February 2, 1983, pp. 6–33. Former CIA director William Colby believes that, by the fall of 1972, "On the ground in South Vietnam the war had been won." See William Colby, *Lost Victory*, Chicago: Contemporary Books, 1989, p. 321.

[32]U.S. military observers usually credit three factors for the defeat of the Easter offensive: (1) mistakes made by the North Vietnamese commanders, (2) the fighting qualities of the South Vietnamese government troops, and (3) the contributions of U.S. airpower. (Davidson, 1988, pp. 706–710.) American logistic support and naval gunfire in coastal areas also helped stem the communist offensive.

- As long as Hanoi refused to negotiate a settlement, the U.S. bombing and mining of the North would continue.
- The U.S. presidential election was to take place in November, and Hanoi assumed that it would get more favorable U.S. concessions before rather than after the election.

THE LINEBACKER II BOMBING CAMPAIGN

By early December 1972, almost all the terms of the peace agreement had been settled. However, in a sudden reversal, the communist negotiators in Paris then began to stall, rejecting terms that they had previously agreed to and raising new demands. As Kissinger puts it: "Hanoi had, in effect, made a strategic decision to prolong the war, abort all negotiations, and at the last moment seek unconditional victory once again."[33] Apparently hoping to exploit the evident discord between Washington and Saigon over the terms of the peace agreement and believing that the incoming Congress might cut off all funds for the war in January, the North Vietnamese, according to Kissinger, "thought that they could take everything, make us cave in, and demoralize Saigon."[34]

To force Hanoi to abandon its stalling tactics and to settle the war on the terms it had already agreed to, Nixon ordered fighter-bomber and B-52 bombing attacks on targets in the Hanoi-Haiphong area. The 1972 December bombing was initiated for purely psychological reasons, to force the North Vietnamese leadership to end the war quickly.[35] The unprecedented employment of B-52s to conduct sustained attacks against targets near North Vietnam's key cities represented a major escalation. The B-52s were chosen partly for their shock effect, but also because they could operate in the poor weather conditions that prevailed over North Vietnam at that time of year.[36]

During the 11-day Christmas bombing campaign, 729 B-52 and around 640 fighter-bomber sorties were flown against military instal-

[33]Kissinger (1979), p. 1446.

[34]Kissinger (1979), p. 1447.

[35]See Davidson (1988), pp. 726–727, and Kissinger (1979), p. 1448.

[36]Hosmer (1987), p. 103, and Kissinger (1979), p. 1448.

lations in the Hanoi-Haiphong area and against other targets (including rail yards and rolling stock, petroleum stocks, bridges, roads, electric power production facilities, and steel works) that were thought to support the North Vietnamese war effort.[37] All told, some 20,000 tons of bombs were dropped, and much of North Vietnam's military potential and war-related industry was destroyed. North Vietnam's air defenses were progressively degraded to the point where U.S. B-52s were able to operate over Hanoi with virtual impunity. Had the war gone on, the United States probably could have continued to bomb the North without significant further losses.[38] By the time the bombing concluded, "there were no more legitimate military targets in North Vietnam to strike."[39]

By early January, the success of Linebacker II and the threat of further destruction had brought Hanoi's negotiators to accept again the peace terms that they had agreed to at the beginning of December. According to a former senior U.S. military intelligence official who had served in Vietnam, the Hanoi leadership may have feared that if the war continued, U.S. bombers would go after the dikes along the Red River. Apparently, a settlement seemed preferable to waiting for the next escalation.[40]

SIMILARITIES BETWEEN VIETNAM AND KOREA

The U.S. escalations and threatened escalations in the Korean and Vietnam wars shared a number of similar attributes and conditions:

- The escalations were an attempt by the United States to gain leverage to break out of a strategic bind. In both Korea and Vietnam, the United States (1) had already made what it considered to be the maximum feasible concessions in the negotiations, while the enemy stalled in hopes of securing better terms,

[37]Davidson (1988), p. 727.

[38]Hosmer (1987), p. 103.

[39]Davidson (1988), p. 727. See also James R. McCarthy (Brig Gen, USAF) and George B. Allison (Lt Col, USAF), *Linebacker II, A View from the Rock*, USAF Southeast Asia Monograph Series, Volume VI, Monograph 8, Air War College, Maxwell Air Force Base, Ala: Airpower Research Institute, 1979, p. 171.

[40]Davidson (1988), p. 728.

if not total victory; (2) had suffered over 40 percent of its total casualties after the negotiations to terminate the war had started; and (3) faced the option of either accepting the enemy's terms or continuing to fight, but under increasingly adverse conditions.[41]

- The escalations occurred in a changed and more benign international environment in which the threat of retaliatory escalation by external communist powers seemed reduced. In the case of Korea, the change in environment followed the death of Stalin. In the case of the Vietnam escalations, Nixon's 1971 visit to China and the détente with the USSR had reduced tensions between Washington and those powers and had lessened the risk of Soviet or Chinese military reaction to the mining and bombing of the North.
- Prior to agreeing to negotiated settlements in Korea and Vietnam, the communists had mounted major offensives that had been defeated, leaving them limited prospects for immediate further military gains.
- The escalations had limited objectives: to terminate exhausting conflicts under terms already demanded of the enemy. In neither case did the United States escalate to force its adversary to capitulate militarily or abandon fundamental policy objectives.[42]
- Severe U.S. escalation or threatened escalation was required to extract comparatively modest concessions. In Korea, the dual threats of a widened war and the U.S. use of nuclear weapons were needed to break the deadlock on the repatriation of POWs. In Vietnam, Washington had to employ massive B-52 and fighter-bomber strikes on Hanoi and Haiphong to force the communists to complete a peace agreement, the key provisions of which they had already agreed to. The Linebacker II escalation was required to enable the United States to extricate itself from the war under terms that were, at best, marginally acceptable from the standpoint of the future security of South Vietnam.[43]

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[41]Hosmer (1987), pp. 98–99.

[42]Hosmer (1987), pp. 98–99.

[43]Hosmer (1987), p. 104.

- We have no evidence that the PSYOP campaigns that accompanied the bombing of strategic targets in North Korea and North Vietnam had any significant effect. While we have little, if any, hard data with which to evaluate these PSYOP campaigns, there are no reports of antigovernment demonstrations, uprisings, attempted coups, or the like to suggest that the U.S. attempts to mobilize popular opposition to the communist governments and their policies had any success.

Chapter Five

PERSIAN GULF, 1991

The early concept for a strategic bombing campaign against Iraq—Instant Thunder—attached considerable importance to psychological operations. The initial briefings for Instant Thunder portrayed psychological operations as a "critical element" in the air campaign and proposed tasks (e.g., destroying the Iraqi TV and radio broadcast systems) that might reduce Iraqi military and popular support for the Saddam Hussein regime.[1]

While psychological operations were not explicitly emphasized in subsequent versions of the strategic air campaign, psychological objectives continued to underlie, at least in part, the decisions to attack particular targets.[2] The principal psychological objective of the attacks against strategic targets was to effect a change in Iraqi government policy. Coalition air campaign planners envisioned the bombing as possibly effecting such a change in one of two ways:

- It might cause the replacement of the Saddam Hussein regime, which, in turn, might result in a reversal of Iraqi policy toward the occupation of Kuwait.
- It might persuade Saddam to withdraw from Kuwait and to comply with the various other Security Council resolutions relating to Kuwait.

[1]Barry D. Watts et al., *Gulf War Air Power Survey (GWAPS)*, Volume II: *Operations and Effects and Effectiveness*, Part I: *Operations*, Washington, D.C.: U.S. Government Printing Office, 1993a, p. 30.

[2]The physical objectives of the strategic air campaign dictated the selection of most targets, including targets that served both physical and psychological objectives.

While Coalition planners may have hoped, and in some cases, even expected strategic attacks to prompt Iraq to withdraw from Kuwait, they did not count on this eventuality.[3] At the same time that it launched the strategic air campaign, the Coalition also mounted an air campaign against the Iraqi forces in the Kuwaiti theater of operations (KTO) to prepare the battlefield for an eventual Coalition ground assault.

ATTEMPTS TO CHANGE THE IRAQI GOVERNMENT

Coalition leaders apparently hoped that air attacks might force the replacement of Saddam's regime by (1) incapacitating and isolating Saddam and his senior aides, (2) encouraging Iraqi military and other regime officials to remove Saddam, or (3) inciting the Iraqi population to rise up and overthrow the Iraqi leader.

The leadership and telecommunications and C^3 became the essential target sets for producing change in the Iraqi government. In the view of the Coalition air campaign planners, these target sets constituted the key center of gravity or central nervous system of the Baghdad regime, enabling Saddam and his associates to govern and control Iraq and its population.[4] All told, there were 44 leadership and 146 telecommunications and C^3 targets in Baghdad and other areas of Iraq.[5]

The destruction and degradation of leadership and telecommunications and C^3 targets had an important physical objective: the decapitation and incapacitation of Iraq's military forces. These facilities enabled Saddam and the Baghdad military leadership to direct Iraqi military operations in the KTO and elsewhere. Because Iraq's rigid

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[3]See Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey: Summary Report*, Washington, D.C.: U.S. Government Printing Office, 1993, pp. 37, 44, 65; Watts et al. (1993a) p. 255; and Barry D. Watts et al., *Gulf War Air Power Survey (GWAPS)*, Volume II: *Operations and Effects and Effectiveness*, Part II: *Effects and Effectiveness*, Washington, D.C.: U.S. Government Printing Office, 1993b, p. 341.

[4]Alexander S. Cochran et al., *Gulf War Air Power Survey (GWAPS)*, Volume I: *Planning and Command Control*, Part I: *Planning*, Washington, D.C.: U.S. Government Printing Office, 1993, p. 155; Watts et al. (1993b), pp. 274–275; and Keaney and Cohen (1993), p. 36.

[5]Department of Defense, *Conduct of the Persian Gulf War: Final Report to Congress*, Washington, D.C.: U.S. Government Printing Office, April 1992, pp. 95–96.

decisionmaking practices had accustomed even Iraqi corps and division commanders to fine-grain management from above, Iraqi forces in the field were vulnerable to paralysis if their commanders were denied communication with their superiors.

The Coalition attacks against leadership, C^3, and other strategic targets failed to bring about the hoped-for change in the Baghdad government. Saddam and his senior aides survived the bombing, and neither his immediate subordinates nor his people moved to overthrow him, at least during the war.

Bombing Failed to Neutralize the Iraqi Leadership

According to the Commander in Chief, Central Command (CINCCENT) mission statement and operations order that governed Coalition offensive operations against Iraq, the objective of Coalition attacks on the Iraqi political-military leadership and command and control (C^2) was to "neutralize" the Iraqi National Command Authority (NCA).[6] To accomplish this neutralization, the Coalition's air campaign planners aimed to employ air attacks to "incapacitate" and "isolate" Iraq's senior decisionmaking authorities.[7]

The killing of Saddam, however, was not a declared aim of the air campaign. President Bush, even though he welcomed and would later publicly call for Saddam's removal, declined to endorse making the Iraqi leader's death a formal objective of the bombing. Recalling the embarrassment associated with the prolonged hunt for General Manuel Noriega during Operation Just Cause in Panama, U.S. military leaders also were reluctant to give explicit priority to an objective that might prove difficult to achieve.[8]

American military leaders also were reluctant to make the killing of Saddam an explicit objective of the bombing campaign because this might have contravened Executive Order 12333, which prohibits U.S. government involvement in "assassination." In addition, U.S. lead-

[6]See summaries of CINCCENT Mission Statement and CENTCOM Operations Order 91-001 in DoD (1992), pp. 73–74.

[7]DoD (1992), p. 96.

[8]See Keaney and Cohen (1993), pp. 45–46, and Watts et al. (1993b), pp. 76–77, 277.

ers also worried that setting such an objective might require "complex and possibly counterproductive negotiations" with U.S. allies, because any declared objective to eliminate Saddam would go beyond the objectives agreed to in the various UN Security Council resolutions regarding Iraq.[9]

Even though Saddam was not a declared target of the air campaign, Coalition planners nevertheless made a concerted effort to attack the facilities used by Saddam and other senior Iraqi officials. As GEN Norman Schwarzkopf, CINCCENT, put it: "At the very top of our target lists were the bunkers where we knew [Saddam] and his senior commanders were likely to be working."[10] Among the targets that were struck by Coalition aircraft were the facilities known or suspected to be personally used by Saddam, including the presidential residences and palace and the presidential and national command and control bunkers.

Not all the national leadership targets were struck at the opening of the air campaign on January 17, but the bulk of the most promising targets—those most likely to harbor Saddam and other high Iraqi officials—were hit on D-Day, usually with a single precision munition.[11]

Before the air campaign ended, the Coalition also struck other leadership targets, including some of those spared on D-Day and others that Coalition intelligence subsequently identified as leadership sites.[12]

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[9]Keaney and Cohen (1993), p. 45.

[10]General Schwarzkopf writes that his and the other assertions by U.S. officials that the United States was not trying to kill Saddam were only "true, to a point." See H. Norman Schwarzkopf (GEN, USA), *It Doesn't Take a Hero*, New York: Linda Grey Bantam Books, 1992, pp. 318–319. For other accounts of the purposes and conduct of Coalition air operations against leadership targets, see Rick Atkinson, *Crusade: The Untold Story of the Persian Gulf War*, New York: Houghton Mifflin Company, 1993, pp. 272–274, 473; Michael R. Gordon and Bernard B. Trainor (LtGen., USMC, Ret.), *The General's War: The Inside Story of the Conflict in the Gulf*, Boston: Little, Brown & Co., 1995, pp. 100, 137–138, 199, 313–314, 410–411; and DoD (1992), pp. 95–96, 150.

[11]Watts et al. (1993b), pp. 284–285.

[12]Watts et al. (1993b), p. 285.

In addition to bombing Saddam's known residences, Coalition aircraft also struck other residences whose connection with Saddam was only suspected. Attacks were also mounted against some of the American-made Wanderlodge recreational vehicles in which Saddam was known to occasionally travel and use for staff conferences.[13]

Several of the command bunkers that might have held senior Iraqi leaders and possibly even Saddam at one time or another were so hard that they could not be penetrated by the Coalition's best penetrating bomb, the 2,000-pound GBU-27.[14] One of these targets, a bunker more than 40 feet below ground at North Taji, northwest of Baghdad, was eventually destroyed on February 23, when a newly developed deep penetrating weapon, the GBU-28, became available.[15]

Without the testimony of Iraqis knowledgeable about the movements of Saddam and his senior aides during the war, it is difficult in hindsight to determine the Iraqi leadership's potential vulnerability to the air attacks that were mounted by the Coalition. Saddam reportedly exploited the sanctuary that the Coalition accorded to civilian residential areas by sleeping only in private houses and rarely in the same house for more than one night at a time.[16] Saddam's meetings with Yevgeni Primakov, the Soviet official whom Gorbachev sent to Baghdad to broker peace between Iraq and the Coalition, and with Peter Arnett, the CNN correspondent, all took place in houses located in Baghdad residential areas.[17] Realizing that

[13]One week after the air campaign started, Saddam was videotaped for television inside one of the Wanderlodge vehicles with other Iraqi officials. (Watts et al., 1993a, p. 241.)

[14]These command bunkers included two at North Taji, northwest of Baghdad, and one at Abu Ghurayb, west of Baghdad. The Abu Ghurayb bunker may have been associated with Saddam's large residence at Abu Ghurayb. A fourth bunker under the new presidential palace in Baghdad also might have been impenetrable to a GBU-27 because the steel beams in the roof of the palace might have knocked the GBU-27 off course before it could reach the bunker. (Watts et al., 1993a, pp. 240–241.)

[15]Watts et al. (1993a). Also see Atkinson (1993), p. 473, and Gordon and Trainor (1995), pp. 410–411, 511, fn. 10.

[16]Atkinson (1993), p. 274.

[17]Saddam met with Arnett on January 28 and with Primakov on February 12, 1991. See Yevgeni Primakov, "My Final Visit with Saddam Hussein," *Time*, March 11, 1991,

he would be a target for attack, Saddam may have taken refuge in Baghdad's residential areas even before the bombing began.[18]

The Coalition attacks on the Iraqi leadership command facilities and C^3 failed to incapacitate or isolate the Iraqi NCA. Saddam and his senior aides remained in control of Iraq and retained the capability to communicate with Iraqi military forces, including those in the KTO. The bombing, however, probably did degrade Iraqi C^2 by causing Saddam and other senior leaders to move frequently and to avoid the facilities best suited for C^3.

It is also possible that, at some point during the bombing campaign, Saddam occupied facilities that were later struck. He may even have experienced one or more near misses, but we have no evidence of this.

The constant danger of attack from the air may have caused Saddam considerable anguish and possibly a loss of appetite. When Primakov met with Saddam on February 12, 1990, he was startled by the Iraqi leader's appearance: Saddam "looked gaunt, as if he had lost 30 or 40 pounds since their last meeting, four months earlier."[19] The pressures caused by the Coalition's attacks on strategic targets may have increased Saddam's anxiety to bring a halt to the fighting and helped to move him closer to agreeing to withdraw from Kuwait.[20]

Until more direct evidence becomes available from credible Iraqi sources, however, we can only speculate about the effects of the bombing on Saddam's psyche and decisionmaking. What is clear is that the attacks did not incapacitate Saddam and the other senior Iraqi leaders. The Coalition apparently lacked the precise, near–real-time intelligence required to neutralize the cautious and elusive Iraqi leadership.

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p. 44, and Robert D. McFadden, "Hussein Hints Use of All His Weapons," *The New York Times*, January 29, 1991, p. A12.

[18]Even before the Persian Gulf war, Saddam is reported to have habitually stayed on the move, conducting state business from a variety of locations, and rarely sleeping in the same place more than a few nights in a row. (Watts et al., 1993b, p. 277.)

[19]Atkinson (1993), p. 283.

[20]See below, pp. 62–67.

Saddam Was Not Overthrown

A second objective of attacking the leadership and telecommunications and C^3 targets in Baghdad and other areas was to weaken the elements supporting Saddam in power and encourage potential rival Iraqi leaders or the population at large to overthrow his rule.[21] While Coalition air planners would have preferred that Saddam be removed before the ground campaign began—as this would probably have obviated the need for a ground assault—the planners expected that the attacks on strategic targets would also increase the odds of Saddam's overthrow after hostilities had ended.[22]

The Coalition's attacks on leadership and C^3 targets apparently were not designed to assist any specific, previously identified Iraqi military units or other elements to move against Saddam. Instead, the strategic air operations had the more general aim of creating conditions conducive to Saddam's overthrow by degrading the security system that protected his person and hold on power.[23] The Coalition planners knew that Saddam had been the target of previous coup attempts and hoped that some opposition element would seize the opportunity provided by the weakening of Saddam's security system to oust him.

Creating conditions that would facilitate a coup or other overthrow of Saddam through air attacks was no easy matter. As the target of frequent assassination attempts and other plots, Saddam devoted extraordinary attention and resources to his personal protection. Saddam ruled Iraq through a clique of longtime Ba'ath Party associates and family members, as well as more distant relatives from his Tikriti clan. This inner circle was closely tied to Saddam's policies

[21]See Keaney and Cohen (1993), pp. 44–45, 70.

[22]Coalition planners had no illusion that the bombing alone would, with certainty, cause the collapse of Saddam's regime. However, they did believe that the bombing would increase the probability of that occurrence. Information provided to author by Col David Deptula, USAF, Director of Iraq Target Planning during the Gulf War.

[23]General Charles Horner, the Coalition air component commander, described his goal as creating an environment in Iraq "where the current leadership cannot control and provide the opportunity for new leadership to emerge." (Watts et al., 1993a, p. 198.) Other than this type of general formulation, Coalition leaders and planners were "vague" as to just how such a change of government might happen. (Cochran et al., 1993, p. 157.)

and, as a consequence, to Saddam's own fate. Over the years, Saddam had purged all potential rivals and dealt harshly with any opposition.[24]

For his personal protection and for the protection of his regime, Saddam established a large and elaborate security system consisting of personal bodyguards, division-sized special security units, secret and other police forces, and several civilian and military intelligence services. The intelligence, police, and other internal security agencies had a multitude of informants in the armed forces, in government agencies, and among the civilian population. Backing up the more immediate protection forces were other units, including the Republican Guard armored and infantry divisions, that Saddam relied upon to squash attempted coups and uprisings.

The leaders and key staff members of the intelligence, internal security, and military units that protected Saddam's person and power were carefully selected for their reliability and loyalty. Because these officers and civilian officials were personally beholden to Saddam for their positions and were well rewarded by the Iraqi leader for their services, they had an enormous vested interest in his survival.[25]

In its attempt to weaken this security system, the Coalition attacked the Baghdad headquarters of the security system's major components. Among the targets struck were the headquarters of the secret police, Republican Guard, special security service, military and civilian intelligence services, Directorate of Internal Security, and Ba'ath Party. Key government ministries were also hit.[26]

In addition, by bombing the national command and control centers and VIP bunkers that were thought to house Saddam and other senior Iraqi leaders, the Coalition also intended to put at risk some of the military, internal security, and intelligence personnel who were most important to Saddam's survival in power.

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[24]Efraim Karsh and Inari Rautsi, *Saddam Hussein*, New York: The Free Press, 1991, pp. 180–190.

[25]Saddam, for example, selected only politically reliable officers to command his Republican Guard units and periodically gave them cars and other expensive gifts to maintain their loyalty.

[26]Watts et al. (1993a), pp. 176, 207, and 243, and Watts et al. (1993b), p. 271.

The Coalition singled out Iraqi Republican Guard armored and infantry divisions positioned along the periphery of Kuwait for particularly heavy attack, in part because they were thought to be among the most important forces sustaining Saddam's rule.[27]

Along with these leadership, security, and Republican Guard targets, attacks were also directed against key Iraqi telecommunications and C^3 facilities and nodes. The objective was to isolate Saddam and the other senior regime leaders and impair their command and control by destroying or disrupting the means by which the Iraqi leaders communicated with one another, the Iraqi military and government agencies, the Iraqi people, and the outside world. The telecommunications and C^3 target set included corps headquarters and other ground force command posts, microwave radio relays and associated switching facilities, telephone exchanges, fiber-optic landlines and repeater stations, satellite receiving stations, and television and radio stations.[28]

These Coalition attacks also did not produce the results the air campaign planners had hoped for. Not all Iraqi leadership sites or communication facilities that were targeted for attack during the air campaign were actually destroyed. According to a Joint Chiefs of Staff battle damage assessment (BDA), some 30 percent of the leadership, 25 percent of the military communications, and 70 percent of the national command telecommunications targets were still operational on February 23, 1991, the eve of the Coalition ground attack.[29]

One reason that more targets were not destroyed in Baghdad was the effect of the Al Firdos bunker hit on February 13, in which several hundred Iraqi civilians lost their lives. After that, the process for targeting changed. Targets in Baghdad had to be prebriefed and individually justified to General Norman Schwarzkopf, who took

[27]The Republican Guard forces were singled out for attack because they were also considered to be the best trained and armed and the most capable Iraqi combat units in the KTO.

[28]Watts et al. (1993b), p. 275.

[29]The Joint Chiefs of Staff BDA for February 22–23 credited the Coalition with having destroyed less than 20 percent and damaged less than 50 percent of the leadership sites. (Watts et al., 1993b, Figure 32, p. 289.)

considerable time in granting approval. Some targets were denied altogether.[30] During the week immediately following Al Firdos, no bombs were dropped on the capital.[31]

The Coalition attacks on Iraqi communication nodes degraded the Iraqi leadership's ability to command lower echelon military and secret police elements.[32] However, considerable redundancy had been built into the Iraqi communication system, and sufficient links apparently still existed to allow the centralized command and control of internal security elements and military forces.[33] Communications to the Iraqi military units deployed in the KTO were sufficient for Saddam to order the retreat of those forces once they were threatened with envelopment by Coalition ground forces.

Similarly, while the Iraqi regime's domestic radio broadcasts were frequently interrupted by the bombing of broadcast facilities, they were never permanently closed down.[34] On the eve of the ground campaign, Radio Baghdad was still broadcasting the Iraqi government's announcements and Saddam's speeches to domestic and international audiences.[35]

The large numbers of bodyguard, police, and special security troops protecting Saddam in Baghdad were not significantly reduced by the bombing of their headquarters. In the Baghdad area alone, the special security troops dedicated to Saddam's protection may have numbered as many as 15,000. The bombing of headquarters alone could not be expected to disable a military force of this size.

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[30]See Atkinson (1993), pp. 294–295.

[31]Watts et al. (1993a), p. 340, and Watts et al. (1993b), p. 367.

[32]DoD (1992), p. 151.

[33]Even though the Coalition attacked key nodes of the national telephone system at the outset of the air campaign, "the fact that the Iraqis made little use of their radio communications during the war indicated that they were probably still using landlines, however cumbersome the switching and routing of calls." (Watts et al., 1993a, p. 242.)

[34]Watts et al. (1993b), p. 278, fn. 17.

[35]See, for example, the text of Saddam's speech broadcast by Baghdad Radio on February 21, 1991, in "Test of Hussein's Radio Speech Dealing with War and Peace," *The New York Times*, February 22, 1991, p. A9.

The Coalition attacks on leadership targets probably killed or wounded some regime security and intelligence officials and no doubt forced others to relocate to sites less well equipped for C^3. Once the leaders understood the pattern of the Coalition attacks, they probably moved their operations to other governmental or civilian sites that they thought would be immune to air attack. Sufficient leaders and forces survived the bombing for Saddam's security apparatus to remain essentially intact.[36]

A Popular Uprising Did Not Occur

In addition to weakening Saddam's security structure, the attacks on strategic targets were also aimed at fomenting public discontent against the war and the continuation of Saddam's rule. The population of Baghdad received particular attention. Coalition air campaign planners hoped to generate popular opposition by

- destroying Iraq's electric power system so as to turn out the lights in Baghdad[37]
- dropping the bridges across the Tigris River in downtown Baghdad so as to cut the city in half and disrupt commerce[38]
- destroying TV, radio, and other communication facilities so as to sever Saddam's contact with the population and make the Iraqi people feel isolated[39]

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[36]See Nick B. Williams, Jr., "Hussein Down But Not Out as He Rebuilds Iraq Regime," *Los Angeles Times*, May 27, 1991, pp. A1, A21.

[37]According to Col David Deptula, the Coalition commanders hoped to send a message to the Iraqi population: "Hey, your lights will come back on as soon as you get rid of Saddam." Quoted in Gordon and Trainor (1995), p. 315. Also, see Watts et al. (1993b), pp. 291–292.

[38]The air campaign planners targeted the bridges in part to "bring home the war to the people in Baghdad without causing casualties." Information provided by Col David Deptula.

[39]According to Lt Gen Buster Glosson, the objective was to play on the Iraqi "psyche": by putting "every household in an autonomous mode and make them feel they were isolated." (Watts et al., 1993b, pp. 291–292; also see Cochran et al., 1993, pp. 156–157.) General Glosson served as Director of Campaign Plans and Commander of the 14th Air Division (P) during the Coalition air campaign.

- bombing other military targets in and near Baghdad so as to keep the psychological pressure on the leaders and citizens.[40]

As with the vast majority of strategic targets, the primary rationale for attacking Baghdad's power grid and bridges was to physically impair Iraqi military capabilities. The power grid was a source of electricity for Iraq's air defense systems and war-support industries, and the Baghdad bridges provided transportation links between key operating locations and were thought to carry fiber-optic cables connecting Baghdad to Scud launch sites.[41]

While these attacks no doubt disrupted and frightened the Baghdad civilian population, they hardly provided sufficient motivation for the people to rise up against Saddam's regime. The bombing simply increased the pressures on a population already suffering from the Coalition embargo and worrying about the fate of family members stationed in the KTO. The desire to minimize Iraqi civilian casualties and collateral damage prevented the Coalition from bringing more direct pressure on the Baghdad population. Coalition actions were also constrained by the desire to avoid creating undue, long-term hardships for the Iraqi people. The U.S. goal to maintain Iraq as a buffer against Iran also limited the nature and the amount of physical destruction that the Coalition was willing to inflict.[42]

Because of these humanitarian and political considerations, the air campaign did not include sustained or heavy attacks on Baghdad. Comparatively few strategic targets were struck in the city, and those were struck mainly at night. The single heaviest attack on the capital occurred during the night of February 12–13, when F-117s dropped 34 bombs on the Al Firdos bunker and 14 other targets.[43] After Al Firdos, strikes were permitted on only a few carefully selected targets in central Baghdad. Among its other consequences, the Al Firdos

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[40]Watts et al. (1993a), p. 341.

[41]Information provided by Col David Deptula. Also, see Watts et al. (1993b), pp. 287, 291–292.

[42]Stephen T. Hosmer, *Weapons of Mass Destruction and the Persian Gulf War*, Santa Monica, Calif.: RAND, MR-334-AF, 1994b, p. 19. Classified publication, not for public release.

[43]Watts et al. (1993a), pp. 340–341.

attack prompted a decision not to continue dropping the Tigris River bridges.[44]

The air campaign planners also sought to humiliate Saddam by destroying targets that would symbolize his impotence. The Ba'ath Party headquarters was bombed at least in part for the potential symbolic effect on the Iraqi people.[45] Permission to attack two other symbolic targets in Baghdad—an enormous statue of Saddam and an even larger pair of victory arches commemorating the Iran-Iraq war—was denied, apparently on the grounds that the potential psychological value of the attacks would not compensate for the potential political risks, given the adverse reaction to the Al Firdos bombing.[46]

Lack of Strategic PSYOP Support. If the bombing of targets in Baghdad to affect the civilian population produced only weak psychological pressure for an uprising, the PSYOP pressure was even weaker. The people of Baghdad received few PSYOP appeals during the course of the war, despite the fact that the coordinated PSYOP plan for the Gulf war included, among its objectives, encouraging the "Iraqi government, people, or military to remove their dictator."[47]

F-16s dropped fewer than one million leaflets on the capital, one batch near the beginning of the war (January 20) and one near its end (February 26). While some of the leaflets dropped on Baghdad were designed to generate hostility toward Saddam by blaming him for the war and the continued bombing, none explicitly called for the Iraqi leader's overthrow.[48]

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[44]Watts et al. (1993b), p. 287.

[45]Atkinson (1993), p. 362.

[46]Watts et al. (1993a), pp. 243–245.

[47]According to the 4th Psychological Operations Group (POG), "After Action Report," pp. 1–4, cited in Stanley Sandler, "U.S. Psychological Operations in Desert Shield/Storm," unpublished draft, March 25, 1993, p. 2.

[48]The leaflet dropped on Baghdad February 26 was in part aimed at countering the Iraqi government's domestic propaganda exploitation of the Al Firdos bunker bombing. Placing the blame for any innocent civilians killed in the bombing directly on Saddam, the leaflet read:

> Saddam is the only reason for the bombing of Iraq. It is the actions of Saddam Hussein which have forced the world to war with Iraq. The [Coalition] Air Forces are making a great effort to avoid injuring innocent

Air Force planners attributed the paucity of leaflet drops on Baghdad to General Schwarzkopf's staff, who vetoed such drops because they were hesitant to "encourage rebellion against Saddam's regime."[49] According to the *Gulf War Airpower Survey*, "CENTCOM's rationale was a mixture of deference to perceived Saudi uneasiness about seeking democratic upheaval in the Arab world along with the notion that encouraging the collapse of an enemy government at war was somehow illegal."[50] As a result, the Air Force planners' requests for leaflet drops on Baghdad that would support the psychological objectives of the strategic air campaign by explicitly calling for Saddam's overthrow were never approved.[51]

Aside from the leaflets, the only physical PSYOP materials that reached Baghdad were video and audio tapes. Before the bombing began, agents smuggled into Baghdad some 200 copies of a 15-minute video produced for the U.S. Information Agency (USIA) enti-

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> civilians. If Saddam puts Iraqi citizens in military headquarters to die instead of his thugs, then by this he shows he is ready to sacrifice all of you, the holy places and the history of Iraq for his survival.

One leaflet that was prepared by elements of the 4th POG in Riyadh, but apparently not disseminated during the war, came close to calling for an uprising to overthrow Saddam. Urging the citizens of Iraq to "unite against" and "stop" Saddam, the leaflet argued:

> Saddam is the cause of the war and its sorrows. He must be stopped. Join with your brothers and demonstrate rejection of Saddam's brutal policies. There will be no peace with Saddam.

The 500,000 copies of this "Dove of Peace" leaflet that were printed in late February were still in the 4th POG's inventory at the war's end. Copies of these leaflets can be found in 4th POG, *Leaflets of the Persian Gulf War*, Ft. Bragg, N.C.: n.d., pp. 26–27, and Richard Denis Johnson, *Propaganda Materials of the Persian Gulf War*, Salt Lake City, Utah, 1995a, leaflets C73 and C79.

[49]Watts et al. (1993a) p. 246.

[50]Watts et al. (1993a), p. 246.

[51]However, U.S. aircraft operating out of Turkey did conduct leaflet drops calling for Saddam's overthrow. Two of the leaflets disseminated by U.S. Joint Task Force (JTF) Proven Force aircraft over northern Iraq during the war expressly asked members of the Iraqi military and civilian population to revolt. The text of one leaflet addressed to both soldiers and civilians, called on the population to "rise up and flood the streets and alleys for the overthrow of Saddam and his supporters." A second leaflet concluded by exhorting its readers to "Act against Saddam now. Saddam's fall is inevitable." The messages of both leaflets were printed on the back of replicas of Iraqi 25 Dinar notes. The texts of the leaflets may have been written by members of the Psychological Operations Detachment of the U.S. European Command that operated in Turkey during the Gulf War. (Johnson, 1995a, leaflets E10 and E11.)

tled "Nations of the World Take a Stand."[52] Copies of an audiotape, "Iraq the Betrayed," designed to foment anti-Saddam sentiment, were also smuggled into the capital.[53]

The amount of broadcast PSYOP that reached Baghdad is uncertain. The U.S. military clandestine radio, the Voice of the Gulf, lacked sufficient range to reach Baghdad and other areas of central Iraq.[54] It is possible that the other clandestine radios operated by members of the Coalition also lacked the power to reach the Iraqi capital.[55]

Two "black" radio stations, the Voice of Free Iraq and Radio Free Iraq, which were presumably transmitting from Saudi Arabia, called upon the Kurds, Shias, and other Iraqis to rise up against Saddam Hussein.[56] After the Coalition ground offensive commenced, the Voice of Free Iraq stepped up its call for an uprising against Saddam, suggesting that Saddam had prepared to flee the country:

> As you can see, [Saddam] is unjustifiably and aimlessly pushing our sons into the deadly incinerator. He will inevitably lose this battle, as he has lost all previous battles. . . . Honourable sons of Iraq, do you know that Saddam has smuggled his family out of Iraq, and has smuggled out with them the remaining funds and wealth, so that he will leave Iraq in ruins and quite empty? . . . Stage a revolution now

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[52]Sandler (1993), p. 4.

[53]Jeffrey B. Jones (COL, USA), "Psychological Operations in Desert Shield, Desert Storm and Urban Freedom," *Special Warfare*, July 1994, p. 26.

[54]See U.S. Special Operations Command, *Psychological Operations During Desert Shield/Storm: A Post-Operational Analysis*, 2nd ed., MacDill Air Force Base, Fla., November 5, 1993, pp. 4–9.

[55]According to Gordon and Trainor (1995), p. 317, the CIA-supported radio stations in Saudi Arabia did not have the range to reach Baghdad but did reach the Shia areas of southern Iraq. Also see Michael Wines, "CIA Joins Military Move to Sap Iraqi Confidence," *The New York Times*, January 19, 1991, p. 9.

[56]Philip Taylor states that these radio stations were alleged to have been run by the CIA. The Voice of Free Iraq started broadcasting on January 1 and was monitored by the British Broadcasting Corporation (BBC) Monitoring Service at Caversham. The station claimed that its facilities had been donated by Egyptians, Syrians, Saudis, and other members of the Gulf Cooperation Council. On January 26, the radio began to identify itself as the "Radio of the Iraqi Republic from Baghdad, the Voice of Free Iraq." See Philip M. Taylor, *War and the Media; Propaganda and Persuasion in the Gulf War*, Manchester and New York: Manchester University Press, 1992, pp. 27, 151–153.

> before it is too late.... Hit the headquarters of the tyrant and save the homeland from destruction.[57]

International broadcast services, such as the BBC and Radio Monte Carlo, which had considerable credibility with Iraqi audiences, however, did reach Baghdad. While these services did not transmit Coalition PSYOP, they did report the news and may have carried President Bush's statement of February 15 urging the Iraqi military and people to "take matters into their own hands, to force Saddam Hussein the dictator to step aside and to comply with the [UN] resolutions."[58]

Whether or not the population of Baghdad heard these calls for Saddam's overthrow, we do know that they did not rise up. Indeed, there is no evidence of any organized attempt to unseat Saddam prior to the February 28 cease-fire. Even though a majority of the population of Baghdad probably would have been delighted to be rid of Saddam, they undoubtedly also recognized that any attempt by an unarmed and unorganized citizenry to overthrow him would likely prove futile and extremely dangerous. Saddam's internal security apparatus was still in place, and the regime had a well-earned reputation for dealing ruthlessly and decisively with any opposition.

Without direct evidence, we can only speculate about whether the bombing came close to triggering a coup or a more general uprising at some point during the war.[59] However, it seems clear that the

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[57]Quoted in Taylor (1992), p. 239.

[58]See President Bush's remarks to the American Association for the Advancement of Science, February 15, 1991, as reported in Office of the Federal Register, National Archives and Records Service, *Weekly Compilation of Presidential Documents*, Vol. 27, No. 7, Washington, D.C.: General Services Administration, February 18, 1991, p. 174.

[59]After the war, some Iraqis in Baghdad were unprecedentedly outspoken in their criticisms of Saddam to Western reporters. However, these statements occurred after the respondents realized the full measure of Iraq's defeat in the war, something that was not evident to the Baghdad citizenry prior to the rout of the Iraqi army in the KTO. Furthermore, the Iraqis critical of Saddam did not indicate a willingness to take an active part in his overthrow. Some simply were resigned to Saddam's continued rule or complained that the United States had let them down. As one Iraqi put it, the U.S. forces "should have come to Baghdad and finished the job." See Williams (1991), p. A21; William Drozdiak, "Armed Dissent in Baghdad, Saddam Retains His Grip," *The Washington Post*, May 2, 1991, p. A29; Alan Cowell, "Sanctions on Iraq Exact a High Price from Poor," *The New York Times*, June 9, 1991b, p. 14; Chris Hedges, "In Growing Disarray, Iraqis Fight Iraqis," *The New York Times*, March 10, 1991, pp. 1, 14; and

barriers to facilitating a successful overthrow of Saddam were formidable and that these barriers were not easily dissolved by bombing alone.

Postwar Shia and Kurd Uprisings. February 28, the day of the Coalition cease-fire, saw the first of a series of major, spontaneous uprisings that were soon to engulf the Shia population centers of southern Iraq and most of the Kurdish towns of northern Iraq. The revolts were precipitated by the evidence of Iraq's catastrophic military rout in the KTO, when troops from the Iraqi regular army units fleeing the battlefields joined with the civilian citizenry of Basra and other towns in southern Iraq to stage antigovernment demonstrations.[60] These demonstrations quickly turned into armed rebellion as the rebels used tanks and other armored vehicles to seize government and Ba'ath Party offices, as well as local security and military headquarters. Within two weeks, much of southern and northern Iraq was in rebel hands.

The relative absence of communication and synchronization between the groups conducting the southern uprisings severely limited their effectiveness, as did their general lack of organization and leadership. The uprising in Basra, for example, did not have a "well-forged leadership, an integrated organization, or a political or military program."[61] Apparently, the rebels also had no plan to move on Baghdad. Nor did the Baghdadis move to join the rebellion. Instead, they are reported to have passively "waited for the revolt to come to them." Information about the real situation at the front reached the capital's population slowly, and the delay contributed to their hesitant response. The main cause of their passivity, however, was the lack of an organized opposition structure inside the capital that could mobilize and lead an uprising.[62]

Caryle Murphy, "'Intermission' in Iraq: Fear, Loathing and $48 Beer . . . ," *The Washington Post*, September 8, 1991b, p. C3.

[60]Revolts also occurred in several Sunni population centers. See Faleh Abd al-Jabbar, "Why the Uprisings Failed," *Middle East Report*, May–June 1992, pp. 2–13. Members of the U.S. 101st Airborne Division reported hearing fighting between rebel and government forces in the southern Iraqi town of Al Khidr as early as February 27. For an account of the uprising in Al Khidr, see Richard Denis Johnson, *PSYOP—The Gulf War*, 2nd ed., Salt Lake City, Utah, 1995, pp. 57–60.

[61]al-Jabbar (1992), p. 10.

[62]al-Jabbar (1992), p. 12.

The Coalition air campaign directly influenced the uprisings, encouraging the antigovernment sentiments of the regular army forces in the KTO and contributing importantly to their catastrophic route.[63] In addition, the Coalition air attacks on the LOCs between Baghdad and Basra reduced the food and other resupply to southern Iraq, creating shortages that probably intensified the alienation of the southern population and contributed to their uprisings. While the uprisings did not affect Saddam's decision to withdraw from Kuwait, they probably contributed to the alacrity with which Saddam accepted the Coalition's cease-fire terms.

Because the United States and other Coalition partners declined to become bogged down in an internal Iraqi conflict and wanted to preserve a unified Iraq as a buffer against Iran, the Coalition offered no military assistance to the Shia or Kurdish rebels. Coalition leaders were probably also disinclined to offer assistance because they believed Saddam would shortly be overthrown in any event as a result of the disastrous defeat he had suffered.[64]

Left to their own devices, the rebellions faltered and were ruthlessly suppressed, partly by Republican Guard forces. Even though Republican Guard divisions suffered repeated attacks during the air campaign and were the principal target of the Coalition's ground campaign, most Republican Guard forces escaped to Iraqi-controlled territory and retained sufficient capability to suppress the Shia and Kurdish uprisings.[65]

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[63]See below in Part Two, Chapter Ten, "Other Psychological Effects of Bombing and PSYOP."

[64]According to a former member of the Bush administration's National Security Council staff, senior Bush administration officials expected the surviving Iraqi troops to return home and, "together with their fellow citizens, rise up against the government of Saddam Hussein." See Richard N. Haass, *Intervention: The Use of American Military Force in the Post–Cold War Period*, Washington, D.C.: Carnegie Endowment for International Peace, 1994, p. 35.

[65]About half the Republican Guard armored units and most of the Republican Guard infantry units deployed in the KTO survived both the bombing and the subsequent ground fighting. See CIA/OIA, *Operation Desert Storm: A Snapshot of the Battlefield*, 1A 93-10022, September 1993.

ATTEMPTS TO CHANGE IRAQI POLICY

Some air planners believed before the war that the bombing of strategic targets alone might suffice to persuade Saddam Hussein to pull out of Kuwait.[66] Indeed, General Glosson and his air planners decided to attack every strategic target in Iraq as quickly as possible because they feared that the war might end before the Coalition had sufficient opportunity to "cause major damage to the Iraqi military establishment."[67] They did so because:

> Glosson feared that the campaign might last no more than a few days, that "all of a sudden the war was going to stop and . . . we [would] have a hell of a lot more stuff to do." At the time, he believed that offensive air operations might be shut down prematurely by an Iraqi surrender, an offer by Saddam to negotiate a political settlement, or a unilateral bombing halt by the coalition.[68]

Even when Iraq did not quickly capitulate and the air campaign had gone on for some weeks, some still believed that an intensified strategic bombing campaign might obviate the need for a Coalition ground attack.[69] While all attacks on strategic targets constituted a form of pressure on Saddam, General Glosson made certain to attack the targets that he believed Saddam cared most about. These were facilities associated with Saddam's own well-being, the Ba'ath Party, and Saddam's hometown of Tikrit.[70] The large Ba'ath Party headquarters in Baghdad was struck on several occasions as were targets in and near Tikrit.[71]

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[66]See Keaney and Cohen (1993), p. 37; Watts et al. (1993a), pp. 255, 291; and DoD (1992), p. 72.

[67]Cochran et al. (1993) p. 164.

[68]Cochran et al. (1993), pp. 164–165.

[69]Watts et al. (1993a), p. 291.

[70]Interview with Lt Gen Buster Glosson, July 26, 1993.

[71]Even though there were no lucrative targets in downtown Tikrit, Coalition planners wanted to "make sure that people in Tikrit knew that the war had come to their [hometown]." (Cochran et al., 1993, pp. 155–156.)

Air Attacks Helped Change Saddam's Terms for Withdrawal

By mid-February, the Coalition's pressures on Saddam to accede to its demands for an unconditional withdrawal from Kuwait included (1) continued attacks on Iraqi strategic targets, which potentially threatened Saddam's personal survival; (2) devastating attacks on Iraqi forces deployed in the KTO, which were being progressively weakened by mass desertions and losses of equipment; and (3) the impending ground offensive, which was likely to overwhelm the Iraqi defenders in the KTO.[72] Despite these formidable pressures, Saddam in the end proved unwilling to withdraw unconditionally. He did, however, move significantly closer to accepting the Coalition's terms by agreeing to pull his troops out of Kuwait.

Saddam's initial negotiating position, announced in his "peace initiative" of August 12, 1990, had linked any resolution of the confrontation over Kuwait to the settlement of the Palestinian problem and other outstanding regional issues. He insisted on a "comprehensive solution of all issues of occupation" in the region, to include an Israeli withdrawal from the occupied Arab territories, Syrian withdrawal from Lebanon, and the "withdrawal of forces" between Iraq and Iran.[73]

In fact, the "peace initiative" was part of an extensive propaganda campaign to split the Coalition by manipulating Arab public opinion and destabilizing the Arab regimes supporting the Coalition.[74] The initiative contained no provisions for withdrawal from Kuwait. Saddam insisted that the status of Kuwait could be addressed only after all other issues in the region, including occupations, had been resolved, and then only after "taking into consideration the historical

[72]Given the propensity of Saddam's lieutenants to avoid becoming bearers of bad news, it is possible that Saddam did not fully comprehend the progressively weakening Iraqi position in the KTO. He also may not have believed that the Coalition would launch a ground attack. However, Saddam had ample warning that a ground attack was coming. The Soviet peace negotiator states that he told Saddam on February 12 in their Baghdad meeting that "the Americans are determined to launch a large-scale ground operation to crush Iraqi forces in Kuwait." (Primakov, 1991, p. 44.)

[73]Foreign Broadcast Information Service (FBIS), *Trends*, FB TM 90-033, August 15, 1990a, p. 2.

[74]FBIS, *Trends*, FB TM 90-035, August 29, 1990b, pp. 4–8.

rights of Iraq to its land and the choice of the Kuwaiti people."[75] Saddam began to back off from this initial position on February 12, 1991, when he met with Yevgeni Primakov, the Soviet foreign policy adviser, whom Mikhail Gorbachev had dispatched to Baghdad in one last attempt to broker peace between Iraq and the Coalition. At this meeting, Saddam did not flatly reject the proposal that Iraq agree to a total and unconditional withdrawal from Kuwait under the shortest deadline possible.[76] Nine days later, after further negotiations by Iraqi Foreign Secretary Aziz in Moscow, Iraq dropped its conditions for a resolution of the confrontation over Kuwait and accepted in principle a Soviet proposal for settling the crisis.

Under the Soviet formula, Iraq agreed to full and unconditional withdrawal from Kuwait as demanded by UN Resolution 660, in return for the cancellation of all other Security Council resolutions regarding Iraq, including those requiring Iraq to pay compensation for the damage it had done to Kuwait. Iraq also insisted on the cessation of UN-imposed economic sanctions when its withdrawal was two-thirds completed.[77] After first insisting on a six-week withdrawal period, Iraq informed the Soviets that they would agree to a complete pullout within three weeks.[78]

The United States refused to accept both this Soviet-brokered proposal and a subsequent six-point Soviet plan (announced on February 23 and also agreed to by Iraq) that dropped the condition that UN economic sanctions be lifted prior to a complete withdrawal.[79] The United States held that none of these proposals met the UN requirement for unconditional withdrawal.[80] The U.S. officials saw three major problems with the Soviet proposal.

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[75]FBIS (1990a), p. 2, and Karsh and Rautsi (1991), p. 228.

[76]Primakov (1991), p. 44.

[77]See Karsh and Rautsi (1991), p. 260.

[78]Primakov (1991), p. 45.

[79]For the Soviet seven-point proposal of February 21, see "Moscow's Statement on the Iraqis' Response," *The New York Times*, February 22, 1991, p. A6. The text of the subsequent six-point Soviet proposal is contained in "Transcript of Aziz's Comments in Moscow," *The New York Times*, February 24, 1991, p. 19.

[80]Maureen Dowd, "U.S. Says New Proposal Fails to Meet Crucial U.N. Resolutions," *The New York Times*, February 22, 1991, p. A1.

First, the United States, for both military and political reasons, wanted Iraq to complete its withdrawal in one week, rather than the three weeks specified in the Soviet-Iraqi formula. Politically, the United States wanted to strip Saddam of as much prestige as possible and to demonstrate that the Iraqi army had been defeated. Militarily, the United States wanted to deny Iraq sufficient time to withdraw much of the equipment it had positioned in Kuwait.[81]

Second, the United States opposed the Soviet-Iraqi condition that other Security Council resolutions be lifted. This would have required the nullification of 12 Security Council resolutions relating to Iraq, including those holding Iraq financially responsible for the damage its invasion had caused and demanding that Iraq formally rescind its annexation of Kuwait.[82]

Third, the United States objected to the Soviet-Iraqi condition that the UN embargo against Iraq be lifted after the withdrawal was complete. The United States wanted an open-ended military embargo against Iraq to prevent Saddam Hussein from rebuilding his army. A continued embargo would also provide leverage for ensuring that some of Iraq's oil earnings would pay for the damage inflicted on Kuwait.[83]

Thus, even though Iraq had moved a long way from its initial position, substantial differences still remained. To avoid becoming mired in protracted negotiations, President Bush laid down the ultimatum that if a ground war was to be avoided, Iraq had to formally agree to and begin an "immediate and unconditional withdrawal from Kuwait" by noon, February 23.[84] Iraq rejected the ultimatum

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[81]See Michael R. Gordon, "The Seven-Day Strategy," *The New York Times*, February 23, 1991, p. 1.

[82]See Security Council Resolutions 662 and 674 in U.S. News & World Report, *Triumph Without Victory*, New York: Times Books, 1992, pp. 418–419, 426–428.

[83]See Paul Lewis, "U.S. and Britain See U.N. Mandate to Maintain Curbs Against Iraq," *The New York Times*, February 22, 1991a, p. A7, and Paul Lewis, "Iraq's Shift in Position: Not Enough for the U.S.," *The New York Times*, February 24, 1991b, p. 19.

[84]Some Bush administration officials believed that the Iraqis were attempting to use the Soviet mediation to fracture the Coalition. (Atkinson, 1993, p. 350.)

several hours after its deadline passed.[85] The Coalition ground campaign began early the next day.

Why Saddam Refused to Withdraw Unconditionally

Saddam had two fundamental objectives in the Persian Gulf confrontation: to hold onto Kuwait, with its oil wealth, and to remain in power. As the latter objective took precedence over the former, Saddam was unwilling to risk his regime to hold Kuwait and was prepared to retreat if necessary.

To be confident that a withdrawal from Kuwait—including a retreat under fire—would not jeopardize his continuation in power, Saddam needed to ensure that the military and security forces that protected his regime, including the Republican Guard infantry and armored units, would survive any fighting. At the same time, Saddam also needed to avoid a humiliating political capitulation that might fatally undermine his legitimacy and prestige among those Iraqis who constituted his power base.[86]

Saddam's freedom to withdraw from Kuwait without a significant *quid pro quo* became more difficult on August 15, 1990, when he signed a peace agreement with Iran. While the peace agreement secured Iraq's northeastern flank and enabled Saddam to redeploy some of the Iraqi units that formerly had guarded the Iranian border, it also forfeited virtually all the gains that Iraq had made during its costly eight-year war with Iran.[87] After making such costly and politically embarrassing concessions to Iran, Saddam staked his

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[85]Alan Cowell, "As Deadline Passes, Iraqis Are Still Defiant," *The New York Times*, February 24, 1991a, p. 19.

[86]According to one psychologist, Saddam's highest priority was to survive in power "with dignity intact." See Jerrold M. Post, "Saddam Hussein of Iraq: A Political Psychology Profile," testimony prepared for hearings on the Gulf crisis, Washington, D.C.: House Armed Services Committee, December 5, 1990, and House Foreign Affairs Committee, December 11, 1990.

[87]Roland Dannreuther, *The Gulf Conflict: A Political and Strategic Analysis*, London: International Institute for Strategic Studies, Adelphi Paper 264, Winter 1991–1992, p. 31, and Stephen T. Hosmer, *Effects of the Coalition Air Campaign Against Iraqi Ground Forces in the Gulf War*, Santa Monica, Calif: RAND, MR-305-AF, 1994a, p. 9. Classified publication, not for public release.

prestige on holding Kuwait, or at least receiving some tangible rewards for agreeing to withdraw from the territory.[88]

Saddam's subsequent expressions of determination to retain Kuwait became "so frequent and firm that unless he could point to enormous compensating gains he could not reverse course on this issue without losing credibility within Iraq and among his supporters in the Arab world."[89] Without some compensating concessions, Saddam dared not submit to "a premature defeat which would result in his personal humiliation and fall from power."[90] This consideration made Saddam particularly loath to agree to the financial and political demands set forth in the various UN Security Council resolutions relating to Iraq or to accept a continued UN embargo after Iraq withdrew from Kuwait.[91]

Even when faced with an imminent Coalition ground offensive against his weakened forces in the KTO, Saddam still calculated that a ground battle with the Coalition would be "more conducive to his survival than an unconditional surrender."[92] He apparently believed that even if his forces were expelled from Kuwait, they might still be able to give the Coalition enough of a "bloody nose" to salvage his international and domestic prestige. Saddam may have hoped to replicate Nasser's performance in the 1956 Suez conflict, when the Egyptian president managed to turn Egypt's military defeat by the British-French-Israeli coalition into a political victory.[93]

While prepared to fight for a time, however, Saddam was unwilling to risk the survival of his regime in a last-ditch attempt to hold Kuwait. He was prepared to accept heavy losses in his regular army infantry forces, which were not crucial to maintaining his rule, but he would not sacrifice his Republican Guard and other high-value military forces that were important to regime survival. He apparently believed that he could control the risks to these high-value forces in

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[88]Hosmer (1994a), p. 9.

[89]FBIS, *Trends*, FB TM 91-002, January 10, 1991, p. 4.

[90]Dannreuther (1992), p. 45.

[91]Hosmer (1994a), p. 9.

[92]Karsh and Rautsi (1991), p. 262.

[93]Karsh and Rautsi (1991), pp. 241, 248, 261, and 263; and Hosmer (1994a), p. 10.

any ground battle. He seems to have assumed that the Coalition's political objective of liberating Kuwait would mandate that it conduct a terrain-oriented offensive centering on Kuwait. Thus, he did not anticipate the Coalition's force-oriented attack that aimed to destroy the Republican Guard units positioned outside Kuwait. He also apparently concluded that he would have sufficient time and opportunity to safely extract the bulk of his high-value units in the event the fighting went badly for his side.[94]

The placement of the main military supply depots and Republican Guard forces in Iraq rather than in Kuwait suggests that Saddam prepared for the contingency that he might have to withdraw from Kuwait. This is precisely the course of action he followed on February 25 (G+1), once he grasped the military peril confronting his units from the Coalition's fast-moving ground offensive. Saddam attempted to save what high-value units he could by ordering an immediate retreat and by announcing Iraq's decision to withdraw from Kuwait in compliance with UN Security Council Resolution 660.[95]

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[94]Hosmer (1994b), pp. 15–16. Even after ground hostilities were well under way, Saddam apparently calculated that a last-minute agreement to withdraw from Kuwait would forestall a Coalition advance into Iraqi territory. One of the first questions that Lt. Gen. Sultan Hashim Ahmad, the deputy chief of staff of the Iraqi Ministry of Defense, put to General Schwarzkopf during their meeting at Safwan to solidify the cease-fire, was why the Coalition had launched a ground attack into Iraq after Baghdad "had withdrawn from Kuwait and announced it on the television and radio." (Schwarzkopf, 1992, p. 488.)

[95]Around 8:00 p.m. on February 25, seismic devices used by Marine intelligence picked up indications of large-scale Iraqi troop movements. By 9:00 p.m., elements of the Kuwaiti resistance reported that the Iraqis were pulling out of Kuwait City. At the same time, U.S. intelligence intercepted Iraqi communications indicating that Baghdad had ordered a general withdrawal of forces. The withdrawal was confirmed by JSTARS and A-6E aircraft equipped with night-vision systems. (See Gordon and Trainor, 1995, pp. 369–370, and Schwarzkopf, 1992, p. 461.) Baghdad Radio announced that Iraq had ordered its forces to withdraw to the positions held prior to August 1, 1990, at 1:35 a.m. Iraq time, February 26. This withdrawal order was described "as practical compliance with Resolution 660." See Patrick E. Tyler, "Administration Says Hussein Must Declare Pullout Himself," *The New York Times*, February 26, 1991, p. A1.

Chapter Six

LESSONS FOR U.S. COMMANDERS

Because the United States is powerful and difficult to defeat on the battlefield, its enemies have traditionally adopted war-fighting strategies aimed at undermining its will to continue a struggle. Such enemy strategies have combined attrition with protracted warfare. Enemies have sought to prolong combat and increase the human costs of the fighting to the United States in the expectation that the American public would refuse to accept the casualties, turn against the involvement, and force the U.S. government to make otherwise unwarranted concessions to end the conflict.

To disabuse an enemy of the continued efficacy and wisdom of protracted warfare, the United States has employed strategic attacks or the threat of such attacks to increase the costs and risks of continued hostilities to the enemy. In the case of Japan in World War II, the added pressure was provided by the incendiary and nuclear bombing of Japanese cities; in Korea, it was the U.S. threat to use nuclear weapons and expand the war to China; and in Vietnam, it was the mining of Haiphong harbor and the B-52 bombing of Hanoi and Haiphong.

In future conflicts, enemies are likely to seek again to exploit the U.S. decisionmaker's sensitivity to continued American casualties by drawing out the fighting to wring concessions from the United States. In such situations, the United States will probably again turn to strategic attacks or the threat of such attacks as a means to create pressure on enemies for early war termination.

This analysis of the psychological effects of air operations against strategic targets in past wars has implications for how U.S. theater,

air component, and other commanders might prepare for, plan, and conduct strategic attacks in future conflicts. The experience to date suggests that U.S. commanders should

- expect limits on the coercive effects of strategic attacks
- assume that multiple pressures will be required to achieve war aims
- consider the enemy's deployed forces a strategic target
- improve U.S. capabilities to attack enemy high-value targets
- integrate PSYOP with strategic air attacks.

EXPECT LIMITS ON THE COERCIVE EFFECTS OF STRATEGIC ATTACKS

Experience suggests that the bombing of strategic targets alone is unlikely to secure U.S. war aims. Two factors have limited the psychological effects of operations against strategic targets: (1) enemy physical and psychological strengths and (2) allied self-imposed constraints.

Anticipate Enemy Physical and Psychological Strengths

The preceding analysis has identified enemy conditions and attitudes that have diluted the coercive effects of U.S. attacks on strategic targets in past conflicts. Enemy physical and psychological strengths have included the enemy's

- access to support and sanctuary from external powers—help that has allowed the enemy to continue fighting even when its indigenous war-related production facilities have been destroyed
- strong commitment to the objectives or "just cause" that gave rise to the conflict with the United States
- willingness and capacity to absorb enormous human and material losses
- ability to maintain domestic support for the war effort and/or sufficient internal security to suppress potential opposition

- conviction that the likely benefits of continued conflict would exceed the costs to them of continued U.S. bombing.

In Korea and Vietnam, U.S. decisionmakers and military commanders initially failed to estimate correctly the physical and psychological strengths of the enemy they opposed. As a result of these faulty estimates, the U.S. leaders adopted and adhered overly long to ineffectual war-fighting strategies and strategic bombing campaigns.

Expect Severe Constraints on U.S. Operations

The U.S. bombing of strategic targets has also been limited by self-imposed humanitarian and political constraints. These constraints have reduced the coercive leverage that the United States might derive from the threat or conduct of its air operations.

The U.S. concern to minimize civilian casualties and other collateral damage has increased over time and has progressively constrained both the methods and targets of air attacks. During World War II, a "total" war fought for the survival of a non-Axis world, the U.S. AAF was permitted to conduct massive incendiary and other attacks against German and Japanese population centers. Five years later in Korea, the first of the post-WWII "limited" wars, massed attacks against civilian populations were proscribed. However, massed attacks against military and military-related targets in urban areas were allowed, as were attacks on North Korea's irrigation dams.[1]

In the Vietnam War, military targets in urban centers were usually off limits to air attacks. Strikes against the Red River dikes were forbidden, even when they were used as platforms for air defense weapons.[2]

During the Gulf War, Coalition air planners exercised even greater care to hold down civilian casualties and collateral damage than had been the practice in Vietnam. Precision weapons were used against targets in urban areas to avoid collateral damage, and attacks on military-support targets, such as electric power and oil facilities,

[1]Hosmer (1987), pp. 59–60, 114.

[2]Hosmer (1987), pp. 60–64.

were carefully circumscribed to avoid causing long-term hardship for the Iraqi people.

The U.S. desire to maintain Iraq as a buffer against Iran also limited the amount of the physical damage that the United States was willing to inflict on Iraq. The Coalition, for example, intended to leave Iraq with sufficient ground forces to defend itself against its neighbors.[3]

The constraints on U.S. air operations in future conflicts are likely to equal or exceed those experienced in the Gulf War.[4] American decisionmakers will want U.S. military forces to avoid actions that might politically undermine the continued U.S. involvement in a conflict. Decisionmakers will be keenly sensitive to the capability of U.S. and international television news correspondents to provide instant coverage of events even in the hottest enemy war zone.

Constraints on U.S. air operations will be particularly severe in conflicts in which the sources of the aggression are ambiguous or in which the American public does not see a vital U.S. interest to be at stake. In such situations, U.S. air attacks against strategic targets might have to be conducted, if conducted at all, with the realization that the American public would have little tolerance for U.S.-caused civilian casualties.

Even in the case of Desert Storm, where U.S. national interests were evident and the source of the aggression was clear-cut, senior U.S. leaders limited attacks on targets in Baghdad after Iraqi civilians were killed in the bombing of the Al Firdos bunker.

Prepare for Enemy Exploitation of Humanitarian Concerns

Commanders should also expect future adversaries to attempt to constrain U.S. attacks on strategic targets by (1) repositioning war materiel and key personnel, including NCA leaders, in civilian areas that are expected to be off limits to U.S. air attack, (2) stimulating

[3]See DoD (1992) p. 75, and Sir Peter de la Billiere (General, Royal Army), *Storm Command: A Personal Account of the Gulf War*, London: HarperCollins Publishers, 1992, p. 305.

[4]Such constraints might not necessarily apply if enemy weapons of mass destruction caused significant harm to U.S. forces or to the U.S. homeland.

intense international television and other media coverage of any errant U.S. bombing that causes civilian casualties or collateral damage, and (3) manufacturing false evidence of errant bombing.

In the Gulf War, the Iraqi troops that were garrisoned near urban areas routinely moved from their barracks into local schools, which they knew would be secure from Coalition bombing. To evade U.S. air attacks on their military equipment and oil stocks in North Vietnam, the North Vietnamese routinely positioned their supply trucks, other military vehicles, and oil supplies in the middle of villages and urban residential areas.[5]

The Vietnam and Gulf wars are replete with examples of how enemy governments can exploit inadvertent U.S. bombing damage. Because of the enemy propaganda barrages that followed such incidents, U.S. leaders often imposed tighter restraints on U.S. bombing. The Vietnam and Iraq cases also demonstrate that, when actual incidents of errant bombing are lacking, the enemy is likely to manufacture such evidence.[6]

To limit the adverse political effects of U.S.-caused enemy civilian casualties or collateral damage, officials in Washington and U.S. commanders in the field must be ready to explain and justify U.S. air attacks to domestic and foreign audiences. Public affairs responses should be prompt and candid so as not to allow enemy accusations and distortions to fester in the public mind.[7]

Needless to say, commanders must also exercise care to avoid sanctioning attacks on targets that carry significant risks of producing civilian casualties or collateral damage. The negative political fallout from such errant attacks, including the incitement of anti-American

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[5]See W. Hays Parks, "Rolling Thunder and the Law of War," *Air University Review*, January–February 1982, pp. 12, 15, 18–19.

[6]See W. Hays Parks, "Linebacker and the Law of War," *Air University Review*, January–February 1983, pp. 13, 22–25.

[7]During the Linebacker II bombing in December 1972, the United States was castigated by the American and world press for what erroneously was believed to be the wanton level of destruction being wrought on Hanoi, the North Vietnamese capital. Responsibility for this misrepresentation lay with the Nixon White House, which had surrounded Linebacker II with a veil of secrecy. As a consequence, the North Vietnamese disinformation campaign about the bombing went unchallenged. (Parks, 1983, pp. 20–21.)

sentiment in the enemy population, is likely to outweigh the value of the targets destroyed and may limit the commander's freedom of action in future bombing.

PLAN ON MULTIPLE PRESSURES TO SECURE WAR AIMS

In past conflicts, a combination of military pressures and other conditions has been required to compel enemy leaders to capitulate or agree to a negotiated settlement acceptable to the United States.

Conditions Producing Enemy Concessions

Attacks or threatened attacks against enemy strategic targets have helped to persuade enemy leaders to terminate wars on terms acceptable to the United States only when the enemy leaders have perceived

- that they faced defeat or stalemate on the battlefield
- that they were unlikely to get better peace terms from the United States if they prolonged the fighting
- that the cost of the damage from the strategic attacks or threatened attacks was likely to outweigh significantly the cost of the concessions that the United States was demanding
- that they had no prospect of mounting an effective defense against the strategic attacks and saw no possibility of launching a credible counterattack that would cause the United States to terminate its coercive operations.

Conditions Producing Enemy Capitulation

The above four conditions have also been required to force enemy capitulation. However, the experience to date suggests that capitulation will probably also necessitate an additional condition: the removal from power of the leader or leaders who started the war.

The history of the past 50 years provides no instance in which the enemy leader or leaders who began a conflict with the United States have surrendered to end it. The bombing of strategic targets and

other military pressures have induced enemy capitulation only when the enemy leader or leaders who started the conflict have been deposed and persons opposed to continued conflict have gained control of the enemy government.[8]

When weighing the possible advantages and disadvantages of demanding total capitulation from enemy leaders responsible for the initiation of a war, U.S. decisionmakers and commanders should bear in mind the probable intractability of such leaders, even when they confront a seemingly hopeless military situation.

CONSIDER ENEMY DEPLOYED FORCES A STRATEGIC TARGET

Because battlefield prospects weigh heavily in the enemy decision-maker's calculations about war termination, U.S. commanders should consider the enemy's deployed forces a strategic target. In the Gulf War, General Horner categorized the Republican Guard Force divisions deployed in the KTO as a strategic target partly because these forces were thought to be a critical mainstay of Saddam Hussein's regime. However, the Iraqi regular army armored and infantry divisions in the KTO were not considered strategic targets.[9]

Experience shows that U.S. air attacks on enemy deployed forces can constitute an important source of pressure on an enemy government to terminate a conflict. In every major conflict from World War II on, enemies have capitulated or acceded to peace terms demanded by the United States only after their deployed forces have suffered serious battlefield defeats.

In future conflicts, enemy leaders are likely to prove equally reluctant to make concessions or terminate conflicts as long as they see a chance to prevail on the battlefield. To cause future enemy leaders to abandon the strategy of protracted warfare, the United States and

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[8]The two cases in which such changes of government occurred were Italy in 1943 and Japan in 1945. See Part One, Chapter Two, above, "Japan" and "Italy."

[9]Charles A. Horner (Lt Gen, USAF), "The Air Campaign," *Military Review*, September 1991.

its allies must be able to demonstrate that the balance of forces on the battlefield will progressively shift to the enemy's disadvantage as long as the fighting continues.

IMPROVE U.S. CAPABILITIES TO ATTACK HIGH-VALUE TARGETS

As noted above, attacks or threatened attacks against strategic targets to apply pressure in war-termination bargaining are likely to induce concessions from enemy leaders when the leaders perceive the potential cost of the attacks to significantly exceed the value of the concessions being demanded. This requires that coercive air attacks—to be maximally effective—focus on targets that the enemy leadership values highly.

Illustrative Psychological Objectives and How to Achieve Them

It is difficult to divine in the abstract the target sets that enemy leaders are likely to value the most. Different leaders may place different values on similar assets. However, almost all enemy leaders are likely to attach high value to their personal survival and the retention of power.

To create negotiating leverage from these fundamental enemy interests, a future U.S. air campaign might aim to persuade enemy leaders that they are likely to (1) die, (2) be overthrown by internal forces, or (3) be removed by external forces if they refuse to end a conflict rapidly on terms acceptable to the United States. The credibility that enemy leaders will attach to such risks will depend in large part on their perception of the U.S. will, capability, and freedom of action to turn such threats into reality.

Threatening Enemy Leaders with Destruction or Internal Overthrow

To attack effectively or to demonstrate credibly a capability to attack senior enemy leaders, air campaign planners will require accurate, up-to-date human (HUMINT) and other intelligence on the location

of these leaders at a given time. Because wary leaders like Saddam Hussein frequently change location to foil assassination plots or military attacks, the air planners will probably require near–real-time intelligence on the whereabouts of their leadership targets. Acquiring such information will prove difficult in the types of closed, security-conscious regimes that the United States is most likely to confront.

Air planners will also require accurate intelligence estimates on the likely consequences that would flow from the elimination of a particular leader or set of leaders. Among other consequences, the air planners would need to know who might replace the slain leader or leaders and how the new leadership might serve U.S. interests. In some instances, the elimination of a particular enemy leader could prove detrimental to the U.S. objective of securing early conflict termination.[10]

The Air Force also will require other improved capabilities to attack enemy leaders in some future conflict situations. In the case of another conflict with North Korea, for example, the Air Force will require a large inventory of penetrating weapons to attack effectively the numerous leadership and C^3 sites that are located deep underground throughout that country. In conflicts where enemy leaders seek refuge from the bombing in civilian residential and commercial areas, the Air Force will require munitions that will allow U.S. aircraft to attack such leadership sites without causing large-scale civilian casualties or collateral damage.

The intelligence required to use air attacks and other air operations to incite and/or pave the way for the internal overthrow of an enemy

[10]A case in point was General Lauris Norstad's proposal to General Hap Arnold in November 1944 that the AAF commemorate Pearl Harbor by launching a huge strike against Emperor Hirohito's palace in Tokyo. General Norstad believed that aerial attacks directed against the central institutions of Japanese society could shake the Japanese. Norstad consulted persons "expert in Japanese psychology" who told him that even the partial destruction of the palace would "directly attack the Emperor's position of the invulnerable deity." General Arnold considered Norstad's suggestion premature and decided to continue the bombing campaign already planned. (Schaffer, 1985, p. 123.) Inasmuch as Emperor Hirohito's intervention proved crucial to gaining agreement from Japan's military and civilian leaders to surrender in August 1945, his death in an air attack on his palace could have prolonged the war and made it necessary for U.S. forces to invade Japan.

regime is also likely to be difficult to obtain. Detailed information will be needed on the groups that might be prepared to move against the enemy regime; the assurances of support and other conditions that might prompt these groups to mount a coup; the internal security, intelligence, and military elements that are likely to impede an attempted coup or uprising; and how U.S. air interdiction, air support, and PSYOP might improve the chances for a successful overthrow. To increase the odds of bringing down an enemy regime, U.S. aircraft not only might have to conduct air strikes to degrade the regime's security apparatus, as was attempted in the Gulf War, but also might have to provide air support to the dissidents during their actual takeover attempt.

Even with good intelligence, the prospects for using air operations to promote and clear the way for an internal overthrow may be poor. The authoritarian regimes that the United States will most likely confront in future conflicts are likely to possess large and well-equipped security apparatuses that will be difficult to reduce by bombing. However, in situations in which the enemy's leadership—including its military and/or internal security leadership—was already divided about the wisdom of continuing a war, U.S. air operations might help to trigger and facilitate a successful coup.

Air operations to foment a popular uprising against a well-defended and as yet undefeated enemy government will rarely succeed. Experience shows that enemy populations have failed to move against their governments even when they have been directly subjected to massive bombing. Humanitarian considerations are likely to prohibit direct attacks on civilian populations in future conflicts, and such prohibitions will limit severely the pressure that U.S. airpower can place on a populace to rise against its rulers.[11]

[11]Even though the chances appear slight that air operations might actually produce the successful overthrow of an enemy regime in a future conflict, the U.S. air component commander might still consider allocating at least some sorties to that objective. Enemy leaders are often paranoid about the internal threats to their regime and may overestimate the potential dangers of U.S. air operations aimed at prompting their overthrow. As a result, such air operations might provide greater negotiating leverage than they actually merit.

Threatening Leaders with External Overthrow

A more promising approach may be to threaten the enemy leaders with external overthrow. Allied policy statements and military operations might be orchestrated to convince enemy leaders that their regime is likely to be ousted by U.S. or other external forces unless the leaders accede to an early negotiated settlement. Enemy leaders are likely to give credence to the threat of a possible external overthrow of their regime if the following apply:

- Statements of U.S. war aims allow for the possible total defeat of the enemy if a negotiated settlement cannot be rapidly achieved. At the minimum, senior U.S. officials must avoid categorical statements denying a U.S. intention to remove an enemy government forcibly.[12]
- American air, ground, and naval deployments and military operations against enemy deployed forces are consistent with an ultimate objective of achieving a total military victory and occupying the enemy's homeland.
- The pattern of air operations against strategic targets in the enemy's rear areas is also consistent with a possible march on the enemy's capital and a subsequent military occupation. By withholding attacks on certain targets, the United States might signal to the enemy that the United States was attempting to preserve assets that would be needed by a future American occupation force or for the U.S. military advance into enemy territory.

In situations in which U.S. ground forces are not involved in the fighting and an immediate invasion of the enemy's homeland by

[12]In some past conflicts, U.S. decisionmakers have reduced the potential U.S. leverage on an enemy regime by attempting to reassure enemy leaders about the limited and benign objectives of the U.S. military involvement. One such case was the Vietnam war, when the Johnson administration went out of its way (both publicly and privately) to assure the North Vietnamese and their Chinese and Soviet allies that the United States would not attempt to overthrow the Hanoi regime or to threaten the sovereignty or territorial integrity of North Vietnam. In the case of the Gulf war, General Schwarzkopf's declaration at a news conference on February 26 that the Coalition had no intention of going to Baghdad and the Bush administration's subsequent announcement of a cease-fire on February 28 probably reduced any concerns Saddam Hussein may have harbored about being overthrown by Coalition forces. (See Hosmer, 1987, p. 28, and Gordon and Trainor, 1995, pp. 418, 424.)

other friendly forces is not yet militarily feasible, the United States might attack strategic targets to threaten the enemy's capability to defend its territory from a future invasion by one or more of its neighbors. In this coercive variant, air attacks would be employed to reduce systematically the enemy's armored, artillery, and aircraft inventories, munitions stockpiles, and war production and repair facilities.

The aim would be to persuade the enemy government and its military leaders that the regional balance of military forces was likely to turn decisively against their country unless they halted their aggression and stopped supporting attacks on U.S. interests. To achieve the desired objective, such U.S. air attacks might have to be prolonged and intensive, and the operations would require sustained U.S. domestic support. The potential coercive effects of the attacks would, of course, be substantially reduced if the enemy received major military resupply from an outside power.

Attacking strategic targets in an enemy's capital and heartland may require the capability to conduct sustained air operations in high-threat air-defense environments. If the number of strategic targets in such environments is large, the United States will need a significant inventory of penetrating stealth bombers and other stealth attack aircraft and/or precision-guided standoff weapons.

INTEGRATE PSYOP WITH STRATEGIC AIR ATTACKS

To maximize the psychological effects of air operations against strategic targets, such operations must be closely integrated with a supporting PSYOP campaign. The thematic content of the PSYOP should directly or indirectly reinforce the psychological message or messages that the bombing is attempting to convey. This will require close coordination between the Air Force officers planning and conducting the air campaign and the U.S. Army personnel who will be mostly responsible for the design and dissemination of PSYOP appeals and other messages.[13]

[13]Part Two, Chapter Twelve, below, discusses the need for the Air Force to develop a cadre of PSYOP and psychologically oriented intelligence specialists to work with Army personnel in the design of PSYOP messages and in the assessment of the psychological effects of air and other military operations.

In past conflicts, such close integration has sometimes been lacking, in that both the content and the dissemination of PSYOP messages have failed to adequately support the psychological objectives of the strategic bombing operations.

During the Persian Gulf conflict, for example, the Coalition PSYOP focused mainly on deployed forces in the KTO. Few PSYOP were directed at strategic-level audiences. The U.S. military PSYOP radio station lacked sufficient power to reach Baghdad, and only two leaflet drops were made on the Iraqi capital. Requests by air campaign planners for leaflets that would exploit the Iraqi psychological vulnerabilities identified by HUMINT reporting from Baghdad remained unfulfilled.[14]

To ensure that the psychological effects of air attacks on strategic targets are maximized in future conflicts, the psychological objectives of the strategic air attacks should be an agreed, explicit part of the overall theater campaign strategy. This will help ensure that strategic attacks receive adequate leaflet and other PSYOP support. Because the PSYOP component of the air campaign may be important to its success, the air commander should be prepared to devote sufficient sorties to the dissemination of PSYOP leaflets, particularly over the enemy's capital.[15] Similarly, U.S. PSYOP radios must have adequate power to reach audiences in the enemy's capital and heartland.

Perhaps the most important media for reaching audiences in an enemy capital and heartland are the international broadcast services, such as the BBC, Radio Monte Carlo, and Voice of America. Because these services eschew propaganda and concentrate on delivering hard news, they often achieve a comparatively high credibility with their listeners. Thus, in conflict situations, news broadcast by these international services about such matters as the progress of the war, the nature of U.S. war aims, and the intended effects of U.S. air operations is likely to carry special weight with enemy audiences.

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[14]Information provided by Col David Deptula.

[15]In high-threat air-defense areas, leaflet dissemination will require the use of low-observable aircraft or standoff delivery modes.

Part Two

PSYCHOLOGICAL EFFECTS OF AIR OPERATIONS AGAINST DEPLOYED FORCES

Chapter Seven

HOW AIR OPERATIONS CAN INFLUENCE MORALE AND BATTLEFIELD BEHAVIOR

Part Two analyzes the reasons for the varying psychological effectiveness of air and other military operations against deployed enemy forces in the Korean, Vietnam, and Persian Gulf wars. The discussion of each conflict begins with an examination of the PSYOP campaign that the United States and other allied forces mounted to induce enemy troops to defect, surrender, desert, or fight less valiantly. The common factors that seem to have resulted in the collapse and large-scale surrenders in each of the three conflicts are then examined and compared. The section concludes by suggesting the implications of the study findings for U.S. commanders.

EXPERIENCE IN THE KOREAN, VIETNAM, AND GULF WARS

History demonstrates that air operations can produce significant, even decisive, psychological effects on the morale and battlefield behavior of deployed forces. Air attacks can severely reduce an enemy's capability to prosecute a war by (1) causing enemy troops to desert, defect, surrender, or flee the battlefield and (2) dissuading enemy troops from manning their weapons and otherwise carrying out their military duties.

To the extent they succeed in neutralizing or diminishing an enemy's battlefield capabilities, air operations against deployed forces can also contribute to the strategic objective of bringing about a negotiated settlement or other change in an enemy's fundamental war-fighting policies. In addition, they can help to deceive enemy com-

manders about the objectives and timing of allied military operations.

Finally, air attacks against enemy troops can bolster the morale of friendly forces and governments. On several occasions in both the Korean and Vietnam conflicts, U.S. air support was the critical factor that prevented a catastrophic collapse of morale among South Korean and South Vietnamese forces.

During the opening phases of the North Korean invasion of South Korea, U.S. FEAF air operations bolstered the sagging morale of the South Korean leaders and encouraged them to attempt to hold the Han River line and to conduct a fighting withdrawal to delay the North Korean advance until American ground forces could arrive.[1] The close air support provided by FEAF aircraft also stiffened the morale of the Republic of Korea (ROK) defenders in the Pusan perimeter and helped them hold the line north of Taegu.[2]

South Vietnamese military and civilian leaders credited U.S. air support, particularly the bombing by B-52s, with having played a decisive role in the containment of the enemy Easter (1972) offensive in South Vietnam.[3] The U.S. air support significantly stiffened the resistance of the Army of the Republic of Vietnam (ARVN) units defending the key GVN positions at An Loc, Kontum, and the approaches to Hue.

Conversely, the absence of air support can also have a severe demoralizing effect on forces conditioned to rely on it. According to the testimony of former South Vietnamese military and civilian officials, the failure of the United States to provide air support—particularly by B-52s—signified the American abandonment of South Vietnam and hastened the collapse of ARVN resistance in April 1975.

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[1]W. Phillips Davison, "Air Force Psychological Warfare in Korea," *The Air University Quarterly Review*, Vol. IV, No. 4, Summer 1951c, pp. 43–44.

[2]Futrell (1961), p. 132.

[3]Stephen T. Hosmer, Konrad Kellen, and Brian M. Jenkins, *The Fall of South Vietnam: Statements by Vietnamese Military and Civilian Leaders*, New York: Crane, Russak & Company, Inc., 1980, pp. 133, 146.

Many ARVN commanders believed almost up to the last weeks of the war that South Vietnam could be saved by the intervention of B-52s.[4]

In the Korean, Vietnam, and Gulf wars, air operations against deployed forces had a primarily military purpose. The principal objectives of the operations were to provide close air support to engaged allied troops; destroy enemy troops, equipment, and munitions; degrade enemy LOCs and C^3; and interdict the movement and resupply of enemy forces. The destruction of enemy morale was usually not an explicit objective or an expected consequence of these operations.[5]

Nevertheless, throughout the Gulf War and during two brief periods of the Korean conflict, air operations against deployed forces produced psychological effects that prompted the large-scale desertion and/or surrender of enemy troops. Indeed, the psychological effects of Coalition air operations in the Gulf and UN air and ground operations in Korea caused entire battalion-sized and larger enemy units to disintegrate. In contrast, allied air and other military operations in Vietnam failed to produce a similar disintegration in enemy cohesion and morale and resulted in comparatively few NVA and main force Viet Cong defections and surrenders.

While not a precise measure, the incidence of enemy desertions, defections, and surrenders can provide a valid and significant general indication of psychological effect. This is the case particularly when the reasons for the desertions, defections, and surrenders can be ascertained through line-crosser and POW interrogations.

CAVEATS ABOUT COMPARING THE KOREAN, VIETNAM, AND GULF WARS

Any comparison of the effects of U.S. and other friendly air operations on enemy morale in the Korean, Vietnam, and Gulf wars must be caveated by the recognition that these conflicts were fought

[4]The South Vietnamese sense of abandonment also resulted from the drastic reduction in U.S. military assistance that occurred following the signing of the 1973 Peace accords (Hosmer, Kellen, and Jenkins, 1980, pp. 32–35, 43, 133, 137–151, 235, 237, 257).

[5]A major exception to this generalization was the use of B-52 aircraft in the Gulf War. See below, Part Two, Chapter Ten, pp. 146–147, 160–162.

against different enemies, using different military styles, over different types of terrain, in different weather conditions, and over different lengths of time.

During the early offensive phases of the Korean War, the North Koreans and Chinese communists relied mainly on infantry envelopments and on more direct human-wave attacks lightly supported by mortars and artillery. Later, when the battle lines were largely static, the North Koreans and Chinese fought from a well-protected system of bunkers, tunnels, and trenches, heavily supported by mortars and artillery.

The Vietnam conflict involved two different types of warfare. Some Vietnamese communist units employed guerrilla-style tactics throughout the conflict. In this guerrilla-style warfare, there was never anything like a fixed front, except for the short-lived confrontations that took place at Khe San and other points following the 1968 Tet offensive. However, once U.S. ground units had largely withdrawn from Vietnam in 1972, the communists also began to rely on more conventional military operations involving NVA units equipped with tanks and heavy artillery.

In the Gulf War, the Iraqi forces took up positions on the Kuwait-Iraq border with Saudi Arabia and dug in. Here, the Iraqis constructed a barrier system of minefields, barbed wire, and fire trenches defended by numerous infantry divisions, supported by large numbers of artillery tubes and some tanks. Behind these first-echelon defenses, the Iraqis deployed a dozen armored and mechanized divisions in three echelons to cope with any Coalition breakthroughs. Most of this supporting Iraqi armor was well camouflaged, dispersed, and revetted.

Much of the fighting in Korea, particularly in the later stages of the war, took place in mountainous areas. Cloud cover is generally heavy there during the summer months, when fog and haze also often reduce the airman's visibility.[6]

Vietnam, too, is mountainous, but in contrast to those in Korea, the Vietnamese mountains are covered by dense rain forests, as are

[6]Futrell (1961), p. 62.

much of the country's other highland areas. Visibility in South Vietnam is particularly difficult from May until September, during the heavy rain and thunderstorms of the southwest monsoon.[7]

The terrain of Kuwait and southern Iraq is generally flat and sandy, although there are significant marshlands and seasonally flooded areas south of the Euphrates River and the Shatt al Arab and along the Kuwaiti coast. Visibility over the KTO is generally good, but in 1991 the Coalition air campaign encountered the worst weather recorded in 14 years. Some 15 percent of scheduled aircraft attack sorties during the first 10 days of the air campaign were canceled because of poor visibility.[8] However, visibility was far better in the Gulf conflict than in Vietnam and Korea.

The Korean War lasted a little over three years (1950–1953); the bulk of the U.S. air involvement in Vietnam covered an eight-year span (1965–1972). The 1991 Gulf War, in contrast, lasted seven weeks, including a 38-day air campaign followed by a 100-hour ground campaign.

Of these differences, the most important for operations against deployed forces were weather and terrain. The open cover and generally good weather conditions in the KTO enabled pilots to identify ground targets more easily in the Gulf War than in the Korean and Vietnam conflicts. While such differences must be taken into account in any examination, they by no means preclude a valid comparative analysis.

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[7]Momyer (1978), pp. 175–176.

[8]DoD (1992), p. 169.

Chapter Eight

KOREA

THE USE AND EFFECTS OF UN PSYOP

Throughout the course of the Korean War, which lasted from June 1950 to July 1953, U.S., South Korean, and other UN forces conducted an intense psychological warfare (as PSYOP were then called) effort to weaken the combat effectiveness and resistance of their communist adversaries.[1] The principal objective of the UN's tactical psychological operations was to induce North Korean People's Army (NKPA) and, once they had entered the war, troops of the Chinese People's Liberation Army (PLA) to surrender or desert.[2]

PSYOP Media

The media for PSYOP dissemination in Korea included leaflets, radio broadcasts, and loudspeakers, with the first by far the most important and widely used medium. Over two billion leaflets, or about 80 for each man, woman, and child in Korea, were distributed.[3] Most leaflets were delivered by aircraft, either in time-delayed leaflet bombs (which tended to malfunction during the early months of the

[1]Pease (1992), p. 18.

[2]Another principal objective of the UN's tactical PSYOP in Korea was to bolster the morale of the South Korean forces and civilian population. See W. Phillips Davison, "Psychological Warfare in Korea: An Interim Report," *Public Opinion Quarterly*, Spring 1951b, p. 67.

[3]Davison (1951c), p. 42; Pease (1992), p. 37. Dissemination began the day after President Truman decided to deploy U.S. troops to Korea.

war) or in reels and bundles hand-thrown from C-47 aircraft. Leaflets were also delivered by artillery, usually in modified smoke shells.[4]

Soon after the United States decided to deploy troops to Korea, a UN radio in Japan—called the Voice of the UN Command (VUNC)—began broadcasting Korean-language PSYOP messages. The VUNC eventually broadcast some three hours a day to the 200,000 radios then estimated to be in Korea.[5] After the Chinese intervened in the fighting, VUNC also broadcast in Mandarin and Cantonese dialects to PLA forces.[6] Tactical PSYOP were also disseminated through messages broadcast from loudspeakers mounted on two C-47s and a number of ground vehicles, particularly jeeps and tanks.[7]

PSYOP Themes

The leaflets were often based on information about enemy vulnerabilities and concerns derived from the interrogation of captured North Korean and Chinese prisoners.[8] Designed for troops with limited literacy skills, the leaflets used simple phrases and graphics, such as photos and cartoons.[9] Most PSYOP leaflets dealt with one or more of the following themes: the methods and advantages of sur-

[4]Pease (1992), p. 39; Davison (1951c), p. 46.

[5]This amounted to about one radio set to every 100 persons. The shortage of receivers and the frequent disruptions of the electric power supply limited the effectiveness of the radio operations. However, interviews with persons who had been behind communist lines indicated that at times even North Korean troops found ways to listen to the VUNC broadcasts despite the standing prohibition against such listening. (Davison, 1951b, p. 74.)

[6]Pease (1992), p. 101.

[7]Pease (1992), pp. 107–118.

[8]In conducting their leaflet operations, UN PSYOP planners targeted the enemy forces deployed within 40 miles of the front lines separately from the North Korean forces and civilians in the rear areas. Some leaflets, such as those dealing with surrender procedures for the front-line troops, were used in only one area, but most were delivered to both front-line and rear areas. The language and sometimes the thematic content of the leaflets differed according to whether the targets were Chinese troops or North Korean troops and civilians. (Pease, 1992, p. 23.)

[9]More than 30 percent of the surrendering troops could read only the simplest instructions, and most others could read only marginally better. (Pease, 1992, p. 40.)

render, the risks of continued resistance, the illegitimacy of communist objectives, and the UN objectives and peace terms.[10]

Safety, Benefits, and Ways of Surrender. The leaflets most widely used in front-line areas informed enemy troops about how to surrender and promised them safe conduct and humane treatment. The leaflets often depicted by photo or cartoon surrendered North Korean or Chinese troops receiving good food, warm clothing, and medical treatment from their UN captors. "How to surrender" leaflets urged enemy troops to try to escape at night and described how they should make their way to safety. Some provided simple maps that showed the easiest route to UN lines.[11]

Risks and Hardships of Continued Resistance. A second major category of leaflets played on the enemy soldier's fear of being killed or wounded and underlined the hardships of the combat in Korea. Leaflets emphasized the wounded soldier's problematic future and urged troops to surrender before they became casualties. PLA troops were bombarded with leaflets detailing the accumulating numbers of Chinese casualties in the war. Veteran PLA troops were warned that they would have to shoulder even more of the combat burden in the future because the replacements being sent to their units were inadequately trained. The replacements, on the other hand, were reminded that they were stand-ins for dead men.[12]

Other leaflets focused on the impossibility of a communist victory in Korea and the superiority of UN firepower and equipment. One leaflet contrasted the ample tank support provided to front-line UN infantry troops with the absence of tank support provided to communist troops. Surprisingly little attention was devoted in the leaflets to the UN's comparative advantages in aerial supremacy and firepower. UN Far East Command leaflet-drop records covering

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[10]The author's analysis of the thematic content of UN leaflets is based in part on the weekly leaflet airdrop schedules recorded in Memoranda for Record produced by the Psychological Warfare Section, General Headquarters, United Nations and Far East Command during the period September 8, 1951, to March 6, 1952. The Memoranda for Record specified the numbers and themes of the leaflets to be dropped on Chinese and Korean targets in both front-line and rear areas.

[11]Davison (1951b), pp. 67, 70, and Pease (1992), pp. 40–41, 80–81.

[12]Kenneth K. Hansen (COL, USA), *Psywar in Korea*, Washington, D.C.: Joint Subsidiary Activities Group, Office of the Joint Chiefs of Staff, 1960, p. 70.

September 1951 to March 1952, for example, do not indicate that any leaflets specifically devoted to UN airpower were dropped in the front-line area.[13] As winter approached, UN leaflets underscored the intensified hardships to be faced by the troops, including food shortages and the dangers of frostbite.

Illegitimacy of Communist Objectives. A third category of UN leaflets aimed to undermine the legitimacy of the communist cause and create dissension between the communist partners. Both North Korean and Chinese troops were told that they were being used by the USSR to fight a Soviet war of conquest.[14] Korean-language leaflets, however, also warned North Korean troops and civilians about China's intention to exploit and colonize Korea. Chinese-language flyers told PLA troops that North Korean desertions were forcing them to shoulder a disproportionate share of the fighting in a foreign war in which they had no interest.

UN Objectives and Peace Terms. As the truce negotiations dragged on, UN leaflets gave increasing attention to the limited and defensive UN objectives in Korea and its interest in reaching an early negotiated settlement. Leaflets, including the various UN "newspaper" flyers that were also dropped on communist positions, outlined the UN negotiating positions on such key issues as the demilitarized zone and emphasized the UN goal of a peaceful and reunified Korea. These and other leaflets placed the blame for the continued fighting and prolonged hardships suffered by the PLA and NKPA troops directly on the intransigence and unrealistic political demands of the various communist governments. Other leaflets aimed to exploit troop concerns about the prolongation of the fighting by attempting to intensify feelings of homesickness and worries about the welfare of their families.

UN radio broadcasts echoed many of the themes used in the leaflets. Radio broadcasts in Korean had to be appropriate for both a friendly

[13]However, the Psywar Division, EUSAK, did suggest in January 1952 that a leaflet addressing the lack of air support for enemy forces be produced. United Nations and Far East Command, General Headquarters, Psychological Warfare Section, Memorandum for Record, January 24, 1952.

[14]One leaflet, for example, stated that the USSR was tightening its control over China and North Korea while the Chinese and North Koreans were dissipating their strength in an aggressive war for Russian gains.

and an enemy audience, as both North and South Koreans could tune in. Loudspeaker broadcasts often attempted to elicit surrenders from specific enemy units. Nostalgic music and narration were sometimes also broadcast to make front-line enemy soldiers homesick and lonely.[15]

PSYOP Effects

Inducing communist desertions and surrenders in Korea through PSYOP appeals alone proved difficult for the following reasons:

- The North Korean and Chinese troops that entered the fighting in Korea initially possessed high morale.
- The communist units down to platoon level were commanded and stiffened by hard-core party cadres who were attentive to the morale of their units and practiced in restoring wavering morale before it became a serious problem. The cadres used criticism and self-criticism to identify and repair shortcomings in individual and unit morale.
- Communist commanders also frequently sought to limit their troops' exposure to UN PSYOP appeals by prohibiting the reading or retention of UN leaflets. Occasionally, they threatened severe sanctions to deter personnel from picking up leaflets. In some instances, cadres warned their troops that the possession of such materials might be grounds for execution.[16] Some cadres also warned their troops that they risked becoming diseased from the organisms with which the UN had impregnated the leaflets. In some units, however, the penalties for possessing and reading leaflets were relatively mild, rarely enforced, or nonexistent. As a result, many North Korean and Chinese troops were willing to read and retain leaflets.[17]

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[15]Pease (1992), pp. 107–116.

[16]North Korean cadres also used lectures and mass rallies to indoctrinate their troops against the leaflets. (Davison, 1951b, p. 69.)

[17]See Lessing A. Kahn and Florence K. Nierman, *A Study of Chinese and North Korean Surrenderers*, Chevy Chase, Md.: The Johns Hopkins University, Operations Research Office, September 5, 1952, pp. 88–89, and Pease (1992), pp. 77, 81.

- The hard-core cadres tended to maintain close surveillance over their troops at all times, providing little opportunity for escape. The soldiers in some North Korean and Chinese units were warned (1) that they would be severely punished if they attempted to desert their posts and (2) that their families back home would also be punished if they deserted or surrendered.[18]
- The cadres also routinely warned their troops that they would be killed or tortured if they fell into UN hands. Even if the would-be surrenderers discounted such warnings, as was frequently the case, they still faced the difficult task of surrendering without being shot in the process. Maneuvering a safe surrender or desertion was particularly difficult for Chinese soldiers, who were fighting in a foreign country against forces who spoke other languages.[19] The North Koreans could at least surrender to the ROK Army with a minimum of miscommunication and danger.

Despite these barriers, over 171,000 North Korean and Chinese troops surrendered or deserted to UN forces during the war (see Figure 8.1). More than 90 percent of these were prisoners who had surrendered to UN forces during the course of UN offensive operations. As the subsequent discussion will show, the surrenders resulted principally from the battlefield pressures and accumulated hardships inflicted on the North Korean and Chinese troops by UN military operations, particularly UN air operations.

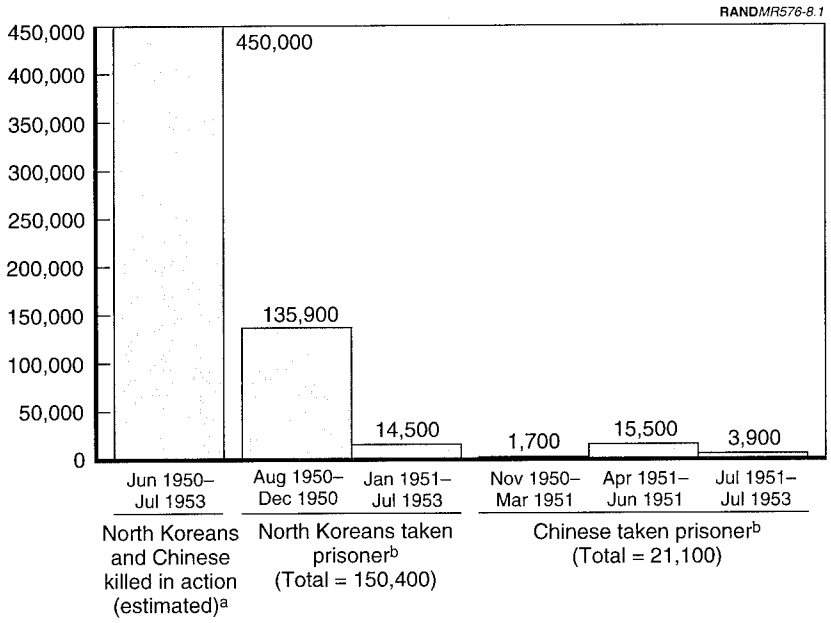
Although infrequently the primary cause of surrenders, UN PSYOP did help to induce and facilitate surrenders.[20] One analysis suggested that the surrender of about one in three enemy prisoners had been "in some degree" influenced by UN PSYOP leaflets.[21] Another analysis of prisoner interrogations, involving some 406 North Korean and Chinese prisoners captured through March 1951, suggested that UN leaflets and other PSYOP had influenced perhaps as many as 45

[18]Kahn and Nierman (1952), p. 45.

[19]Hansen (1960), pp. 59–60.

[20]Kahn and Nierman (1952), pp. 90–91.

[21]Davison (1951c), p. 42.



SOURCES: [a]Hermes (1966), p. 50.
[b]Meyers and Bradbury (1958), p. 29.

Figure 8.1—North Koreans and Chinese Killed in Action and Captured in Korea, 1950–1953

percent of surrender decisions. This included instances in which UN PSYOP messages (1) confirmed existing ideas about surrender; (2) contributed to the surrender decision, but not decisively; and (3) proved the decisive factor in the surrender decision. The "decisive" category included enemy soldiers who may have been predisposed to surrender because of the hardships of combat and who decided to act after reading leaflets describing the UN's good treatment of prisoners.[22] A third study of psychological warfare in Korea suggests that during the early stages of the war, the influence of PSYOP on sur-

[22]Of the prisoners interrogated in the study, 154 were Chinese and 252 North Koreans. Some 41 North Koreans were actually deserters who had been overtaken by UN forces while attempting to return to their homes. The prisoners surrendered between August 1950 and March 1951. (Kahn and Nierman, 1952, pp. 11–13, 90–91.)

renders may have been less than the 33 to 45 percent cited above because some prisoners may have been telling their interrogators what the latter wanted to hear about PSYOP effects.[23]

Leaflets were by far the most influential PSYOP media.[24] The most important PSYOP messages were those that assured safe conduct and humane treatment to surrendering troops. When enemy prisoners were asked to recall the content of UN PSYOP messages, the vast majority remembered promises of good treatment, particularly promises of food, clothing, and medical care.[25]

The most successful Chinese-language surrender leaflet was written in the style of an official government document bearing a traditional chop. The most effective Korean-language leaflet, in contrast, was a surrender pass printed on the back of a counterfeit North Korean 100-won note, which could be concealed among genuine notes.[26]

PSYOP conducted against retreating or otherwise hard-pressed enemy forces sometimes proved highly effective. In March 1951, a UN Regimental Combat Team paratroop operation in the Munsan area was supported by repeated drops of surrender leaflets from four C-47s.[27] Each of the more than 100 North Korean troops that surrendered at Munsan reportedly carried a UN safe conduct leaflet.[28]

At the time of the PLA collapse in May 1951, a loudspeaker-equipped C-47 spotted a group of 1,800 Chinese soldiers in an area that had been the target of an intense UN artillery and mortar barrage. The C-47 dropped leaflets and broadcast the message: "Life or death—it is your choice." The Chinese troops had been thoroughly battered and proved eager to surrender. Using its loudspeaker, the C-47's

[23]Pease (1992), pp. 46–47.

[24]A substantial majority of the 406 North Korean and Chinese prisoners in one study reported having seen or heard of UN leaflets, whereas relatively few had heard radio or aerial loudspeaker broadcasts. (Kahn and Nierman, 1952, p. 84.)

[25]Kahn and Nierman (1952), pp. 92–93, 95.

[26]Hansen (1960), p. 60.

[27]Some of these C-47s flew as many as six missions per day during the seven-day Munsan operation. (Pease, 1992, p. 55.)

[28]Pease (1992), p. 55, and Futrell (1961), p. 327.

crew directed the enemy troops to UN lines and alerted the UN forces that they were about to receive 1,800 surrendering Chinese.[29]

In October 1951, when UN forces were again on the attack, a UN Mosquito pilot flying northeast of Kunsan noticed a group of about 200 persons, some dressed in uniform and some in civilian clothes. Using improvised containers, the pilot dropped messages telling them that if they wanted to surrender they should discard their arms, move to a nearby hill to await UN troops, and wave flags to indicate their readiness to surrender. After seeing several flags waving on the hill, the pilot notified his ground controller in the area that troops should be sent forward to take the prisoners.[30]

Operation Moolah, a psychological operation that targeted enemy air forces, proved effective in a manner not anticipated by its planners. Begun in March 1953, Operation Moolah sought the defection of enemy pilots and the disruption of enemy air operations by publicly offering a $50,000 reward to any communist pilot who flew a combat-capable MiG to South Korea. The first enemy pilot to defect with his MiG was promised an additional $50,000.[31] While Operation Moolah led to no defections, it seems to have persuaded the Soviet Union to withdraw its pilots from the Korean air war. The Soviets apparently feared that one or more of their pilots might take the offer and thereby expose the USSR's covert involvement in the air war.[32] The Soviet withdrawal helped the UN air effort in that the non-Soviet MiG pilots who remained "were the worst—on their record—of the whole Korean war."[33]

UN MILITARY PRESSURES PRODUCED MOST SURRENDERS

While PSYOP helped facilitate surrenders, it was UN military pressure that actually produced the vast majority of enemy surrenders.

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[29]Pease (1992), p. 55.

[30]Davison (1951c), p. 43.

[31]See Mark W. Clark (GEN, USA, Ret.), *From the Danube to the Yalu*, New York: Harper & Brothers Publishers, 1954, pp. 205–208, and Pease (1992), pp. 66–77.

[32]Futrell (1961), p. 611.

[33]Clark (1954), p. 208.

The UN air interdiction and close support operations were crucial instruments of this pressure. During the Korean conflict, U.S. and other UN aircraft probably flew more than 300,000 interdiction and 100,000 close air support sorties against North Korean and Chinese targets on the peninsula. Of the some 873,156 sorties flown by FEAF, U.S. Marine Corps, and other land-based friendly air forces in Korea, some 255,813 (29 percent) were for interdiction and 96,210 (11 percent) were for close air support. In addition, U.S. Navy aircraft flew some 167,552 sorties.[34]

As a proportion of overall casualties, the number of surrenders in Korea was relatively small. The total number of Chinese and North Korean troops killed and wounded in Korea has been estimated at around 1.33 million. Of these, around 450,000 may have been killed.[35] Yet only about 171,000 were taken prisoner, including some 150,000 North Koreans and 21,000 Chinese (see Figure 8.2).[36]

Figure 8.2 displays the number of North Korean and Chinese prisoners captured by month during the 38-month-long war. Three aspects of the distribution of captured prisoners are of particular interest:

- Some 90 percent of all the North Korean prisoners (about 136,000) were taken during a five-month period from August to December 1950.

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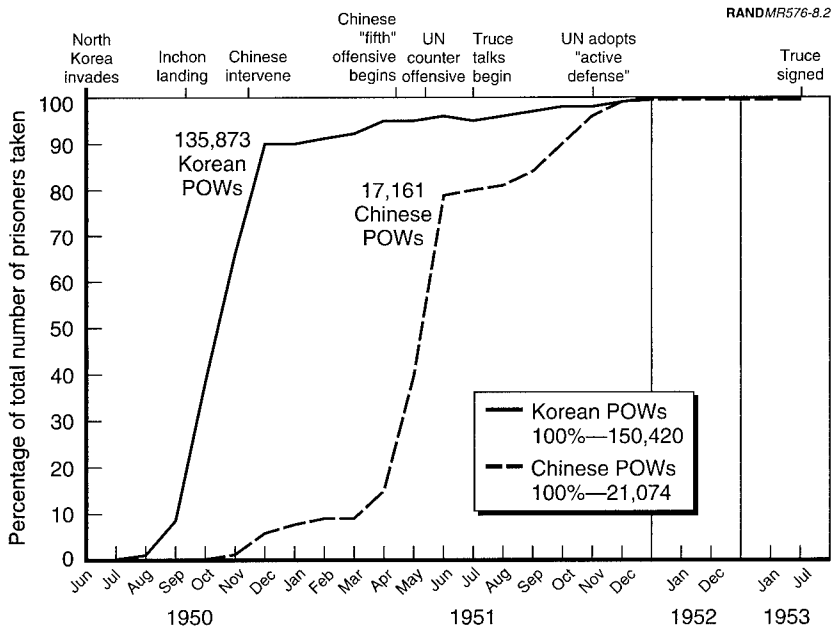
[34]Futrell (1961), p. 645.

[35]Walter Hermes, in his official account of the war, estimates the number of communists killed and wounded at around 1.33 million. Assuming a wounded to killed ratio of three to one, this puts the number of killed at around 450,000. The British historian Max Hastings sets the number of Chinese killed at "no less than half a million men." A Chinese communist source puts the number of Chinese killed and wounded in Korea at 360,000. See Hermes (1966), p. 501; Hastings (1987), p. 329; and Michael H. Hunt, "Beijing and the Korean Crises, June 1950–1951," *Political Science Quarterly*, Vol. 107, No. 3, 1992, p. 469.

[36]According to preliminary figures prepared by the Office of the Provost Marshal General, Department of the Army, in December 1955, the total number of communist prisoners taken during the Korean War was 171,494, including 150,420 Korean and 21,074 Chinese prisoners. See Samuel M. Meyers and William C. Bradbury, *The Political Behavior of Korean and Chinese Prisoners of War in the Korean Conflict: A Historical Analysis*, HumRRO Technical Report 50, Washington, D.C.: The George Washington University, Human Resources Research Office, August 1958, Figure 1, p. 29.



SOURCE: Meyers and Bradbury (1958), p. 29.

Figure 8.2—Total North Korean and Chinese Prisoners Taken

- Some 73 percent of all the Chinese communist prisoners (about 15,400) were captured during a three-month period from April to June 1951.
- Very few North Korean or Chinese prisoners were taken after November 1951, even though the war continued for another 20 months.

Each of these periods merits closer examination.

The North Korean Collapse in Fall 1950

The NPKA troops that invaded South Korea in June 1950 were well armed, well trained, and intensely motivated soldiers, possessing

high morale.[37] Many of the soldiers in this powerful invasion force were combat veterans who had fought with the Soviet and Chinese communist armies in World War II.[38] About one-third of the North Korean troops had served with victorious Chinese communist forces, an association that gave the NPKA "a combat-hardened quality and efficiency that it would not otherwise have had."[39]

After making rapid headway in the opening phases of the conflict, the invasion force's momentum slowed as the growing numbers of U.S. forces arriving in the country helped to stiffen ROK resistance. By the time UN forces had established a stable defensive perimeter around Pusan in August 1950, the invading North Korean forces may already have suffered several tens of thousands of battle casualties from U.S. air attacks and encounters with U.S. and ROK ground troops.[40] Enemy losses were also heavy during the first weeks of September, and by the time of the Inchon landing on September 15, the communist attempt to penetrate the Pusan perimeter had clearly run out of steam.[41]

On September 16, the UN forces launched their long-awaited breakout from the perimeter. Beginning sluggishly, the UN advance picked up speed when the threatened envelopment that the Inchon landing posed forced the communists to start withdrawing their troops northward and the weather cleared sufficiently to allow USAF bombers and attack aircraft to support the UN breakout.[42] Once broken open, the North Korean front collapsed with extraordinary speed. All along the front, North Korean troops began breaking in

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[37]All told, the NPKA probably numbered somewhere around 135,000 troops in June 1950. See James F. Schnabel, *United States Army in the Korean War: Policy and Direction, The First Year,* Washington, D.C.: Department of the Army, Office of the Chief of Military History, 1992, pp. 37–39; Hastings (1987), p. 52; Blair (1987), pp. 102–106, 120; and Roy E. Appleman, *United States Army in the Korean War: South to the Naktong, North to the Yalu,* Washington, D.C.: Office of the Chief of Military History, Department of the Army, 1961, pp. 8–11, 19.

[38]Appleman (1961), pp. 8–9.

[39]Appleman (1961), p. 9.

[40]Appleman (1961), p. 263.

[41]See Appleman (1961), p. 546, and Hastings (1987), p. 98.

[42]Appleman (1961), p. 572, and Hastings (1987), p. 111.

flight and surrendering in large numbers.[43] Although U.S. Marines pushing eastward from Inchon encountered some hard fighting, particularly in the bitter street battles to recapture Seoul, North Korean forces had ceased any large-scale, organized resistance by October 20.[44]

Two factors underlay the North Korean military collapse and massive surrenders: First, the Inchon landing unhinged the North Koreans both militarily and psychologically. Second, the UN forces were attacking troops whose morale had already been severely degraded even before the Inchon landing occurred.[45] Realizing that their LOCs to the north were about to be blocked, the North Koreans were forced into a retrograde movement that proved extremely difficult to execute given the continuous UN ground and air attacks. In addition, the news of the Inchon landing demoralized the North Korean forces, which also contributed to their rapid disintegration.[46]

Enemy prisoners reported that North Korean troop morale had been high at the time of the June invasion, but that it began to deteriorate soon thereafter and had reached a low ebb by mid-September.[47] By that point, the fighting had cost some North Korean divisions the loss

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[43]See Hastings (1987), p. 112.

[44]Hastings (1987), p. 124.

[45]According to Alexander George, there is evidence to indicate that UN airpower was the primary cause of defeatism among as many as one-half of the North Korean soldiers. As George puts it, "this significant development took place even *while* the North Korean army was driving UN forces into the Pusan perimeter and *well* before the UN offensive of September 15, 1950, set into motion the destruction of the bulk of the original North Korean army." See Alexander L. George, *Psychological Aspects of Tactical Air Operations (Korea)*, Santa Monica, Calif.: RAND, RM-3110-PR, 1962, pp. 7–8. Alexander George and W. Phillips Davison, whose work is also cited in this chapter, were among the RAND social scientists who went to Korea during the war to evaluate the impact of UN air operations on enemy forces and to study the composition, political organization, cohesion, and morale of the opposing communist forces. Their studies were based largely on interrogations of POWs and captured enemy documents. The first RAND social scientist went to Korea in October 1950 as a member of the USAF evaluation group studying the effects of UN airpower. The other RAND social scientists who later served in Korea were attached to the Operational Analysis Office, 5th Air Force. (George, 1962, p. iii.)

[46]Roy Appleman (1961, p. 571) contends that the landing at Inchon was "demoralizing in the extreme" to the North Korean forces fighting in the South and "was perhaps the greatest single factor in their rapid deterioration."

[47]Appleman (1961), p. 546, and Futrell (1961), p. 162.

of 70 percent of their original troops. To help replace these losses, the North Koreans forcibly impressed into their units South Koreans who had no will to fight. Extreme sanctions were used to maintain discipline: North Korean cadres regularly shot anyone who showed reluctance to advance when ordered or who tried to desert. Troops hesitated to surrender because they were "afraid the UN forces would kill them if they surrendered and their own officers would shoot them if they made the attempt."[48]

The principal causes of the low morale were the accumulated pressures and privations inflicted on the North Korean forces by UN ground and, most important, air attacks. A Far East Command G-2 analysis of some 2,000 POW interrogation reports, translated enemy documents, and other sources showed that the intensive and sustained UN air effort played a decisive role.[49] The unrelenting daylight attacks on North Korean ground forces inflicted heavy casualties and equipment losses and compelled communist units to operate mainly under the cover of darkness. These restrictions resulted in a sharp decline in the NKPA's *esprit de corps* and gave the lie to the North Korean leaders' promises of a quick and easy victory in the south. A North Korean medical officer observed that troop morale had been extremely high during the first month of the war, but that "the second month of fighting showed a noticeable decline in morale due to the intensity of enemy aerial activity and superior firepower." After the latter part of August, this medical officer believed that the men were driven forward only by the fear of being shot by their officers.[50]

Air attacks, in addition to creating confusion and frightening the North Korean troops, also caused them to disperse widely to seek cover. Dispersal contributed to the disorganization of the units, hindering surveillance and control by cadres and making desertion easier.[51] In one group of 200 North Korean prisoners interrogated during the first year of the war, some 43 percent reported that deser-

[48]Appleman (1961), p. 546.

[49]Futrell (1961), p. 159.

[50]Futrell (1961), pp. 162–163.

[51]George (1962), p. 9.

tions occurred in their units during UN air attacks. Some units lost more men to desertion than to air ordnance.[52]

The ability of UN aircraft to maintain air supremacy and to operate with minimal losses also had a demoralizing effect. The North Korean troops came to realize that the long-promised North Korean Air Force was not going to materialize and that their antiaircraft weapons (primarily heavy antiaircraft machine guns) were totally ineffective against modern aircraft.[53] According to POW interrogations, North Korean ground-combat troops had received scant training in ways to protect themselves against tactical aircraft and in the use of small arms against low-flying planes.[54] As a result, UN air activity often made enemy soldiers feel powerless and reluctant to fire their weapons or carry out their other military duties.[55]

An analysis of 825 POW interrogation reports containing specific references to morale showed that UN tactical airpower contributed importantly to the demoralization of North Korean troops (see Table 8.1). In fact, more than half of the reasons given for low morale related in some degree to UN air operations, including food shortages, tactical aircraft, lack of training, lack of arms and equipment, insufficient rest, and casualties. The direct effect solely attributable to UN air operations—the strafing, rocketing, and bombing by tactical aircraft—was cited by nearly 18 percent of the respondents as being the most detrimental to morale.[56] The POW analysis "indicated that the psychoneurosis engendered by UN air attack may actually have outweighed the actual physical destruction done by airpower."[57]

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[52]Davison (1951c), p. 44.

[53]Futrell (1961), p. 163.

[54]Futrell (1961), p. 160.

[55]Davison (1951c), p. 44.

[56]Futrell (1961), p. 160.

[57]Futrell (1961), p. 163.

Table 8.1

Reasons for Low North Korean Morale According to 825 POWs

Reason Given	Percentage
Food shortage	21.4
Tactical aircraft	17.9
Lack of training	11.3
Lack of arms and equipment	9.8
Insufficient rest	8.2
Forced induction	6.3
Casualties	6.2
No cause for fighting	4.9
Artillery	4.7
Desertion	3.3
Harsh treatment by officers	1.6
Lack of replacements	1.5
Inadequate clothing	1.2
All other causes	1.7
Total	100.0

SOURCE: Futrell (1961), p. 163.

The shortage of food—the leading reason the POWs gave for the low morale—resulted largely from UN air interdiction operations.[58] Air attacks against bridges, rail lines, and road networks reduced the logistic support of front-line units. An acute shortage of both transportation equipment and personnel occurred after the North Koreans had lost large numbers of their trucks and drivers to UN air attacks on resupply vehicles en route to the front.[59] Many drivers who survived UN air attacks reportedly attempted to desert at the first opportunity. The loss of truck drivers became so serious that the North Koreans were forced to use American POWs under armed guard to drive some of their supply vehicles.[60]

[58]Other analyses of North Korean morale confirm that food inadequacies posed a major problem for the troops. (Kahn and Nierman, 1952, p. 35.)

[59]POW interrogation reports indicated that more than 80 percent of the some 800 North Korean trucks that were killed on the way to the front were destroyed by UN air attacks. Replacement trucks were almost impossible to obtain. (See Futrell, 1961, p. 164, and Appleman, 1961, p. 393.)

[60]Futrell (1961), p. 164.

The aerial interdiction of resupply caused severe food shortages for the North Korean front-line troops:

> At best there were rations for only one or two meals a day. Most units had to live at least partially off the country. By 1 September, the food situation was so bad in the North Korean Army at the front that most of the soldiers showed a loss of stamina with resulting impaired combat effectiveness.[61]

As the above discussion suggests, the UN advance that had largely cleared the peninsula of North Korean troops during September and October 1950 was conducted in the main against units that had already been severely demoralized and weakened by the cumulative effect of earlier UN air and ground operations. The UN landing at Inchon and the breakout from the Pusan perimeter effectively exploited this weakness and produced the remarkable capture of 135,000 North Korean prisoners.

The Chinese Collapse in Spring 1951

A collapse of morale similar to that experienced by North Korean troops in fall 1950 occurred the following spring among the Chinese forces fighting in Korea. Following their intervention in Korea in November 1950, the PLA forces had launched a series of offensives aimed at driving the UN defenders off the peninsula.

Initially, Chinese troop morale was high. The Chinese units in Korea were among the best of the PLA.[62] Many of the troops had fought successfully against the better-equipped Chinese Nationalist Army in the recent civil war, and nearly all were led by senior officers who had fought the Japanese in World War II.[63] Former Nationalist Army prisoners with skills needed by the PLA had been reindoctrinated

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[61]Appleman (1961), pp. 393–394.

[62]See Alexander L. George, *The Chinese Communist Army in Action: The Korean War and Its Aftermath*, New York: Columbia University Press, 1967, p. 168.

[63]See Billy C. Mossman, *United States Army in the Korean War: Ebb and Flow, November 1950–July 1951*, Washington, D.C.: Center of Military History, United States Army, 1990, p. 56, and George (1967), p. 6.

and assimilated in the communist units.[64] Even though the PLA troops were, for the most part, poorly equipped, Chinese communist leaders believed their forces could prevail on the battlefield because of their guerrilla warfare tactics and superior morale.[65]

During the first five months of the PLA intervention, UN forces captured only about 1,700 Chinese prisoners. As Figure 8.2 shows, however, the number of Chinese surrenders started to rise during the PLA's fifth or "spring" offensive, which began on April 22, 1951, and escalated sharply following the UN's defeat of that offensive in mid-May. Previously, when PLA offensives had spent themselves, the communists had been permitted to withdraw beyond artillery range to reorganize and resupply.[66] In this case, however, the UN Eighth Army launched a vicious counterattack on May 22, which put the PLA troops to precipitous flight.[67]

All three UN corps commanders reported a noticeable deterioration in the fighting spirit of the PLA forces they were facing. In their withdrawal, Chinese units abandoned unprecedented amounts of ammunition, mortars, machine guns, and individual weapons.[68] Equally unprecedented, some 15,400 Chinese prisoners had surrendered by the end of June.

As the U.S. Marine Corps history described the situation:

> Only from the air could the effects of the UN counterstroke of May and June 1951 be fully appreciated. It was more than a [PLA] withdrawal; it was a flight of beaten troops under very little control in some instances. They were scourged with bullets, rockets, and napalm as planes swooped down upon them like hawks scattering chickens. And where it had been rare for a single Chinese soldier to surrender voluntarily, remnants of platoons, companies, and even battalions were now giving up after throwing down their arms. . . . There had been nothing like it before, and its like would never be seen in Korea again. The enemy was on the run! Remnants of

[64]George (1967), p. 6.

[65]Mossman (1990), p. 56.

[66]Futrell (1961), pp. 286, 341.

[67]Futrell (1961), p. 341.

[68]Blair (1987), p. 901.

> whole units surrendered, in some instances without striking a blow.[69]

General James A. Van Fleet, the Eighth Army commander, later testified that the enemy units in June 1951 were so badly hurt and out of supplies and in such a state of panic that he believed his forces could have won a decisive, if not a complete, victory had the Eighth Army been permitted to continue its offensive.[70] Some historians agree with Van Fleet's assessment. Max Hastings, for example, writes that the "Communist front now lay open. The morale of the Chinese armies in Korea was shattered."[71] Other historians are more cautious about the ease with which the UN forces might have driven farther north, suggesting that the communist forces might have recovered sufficiently to present some stiff resistance.[72]

But senior U.S. military and civilian officials, including General Ridgway, hesitated to press the offensive northward, as doing so would have risked additional casualties, extended the UN defensive front, and resulted in the acquisition of territory that would eventually have to be given back in a negotiated settlement.[73] Indeed, the prospect for a settlement appeared bright, as the success of the UN offensive, the continuing problems of supply, and the fragility of PLA

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[69]Lynn Montross, Hubard D. Kuokka (Maj., USMC), and Norman W. Hicks (Maj., USMC), *U.S. Marine Operations in Korea, 1950–1953,* Volume IV: *The East-Central Front,* Washington, D.C.: Historical Branch G-3, Headquarters, U.S. Marine Corps, 1962, pp. 127, 131; also see Blair (1987), p. 891.

[70]Mossman (1990), p. 497. In an article for *Life* magazine, General Van Fleet (1953) stated: "We met the attack and routed the enemy. We had him beaten and could have destroyed his armies." See J. A. Van Fleet (GEN, USA), "The Truth About Korea: Part I," *Life,* May 11, 1953. In a 1956 interview, General Van Fleet reiterated the claim that "in June 1951, we had the Chinese whipped. They were definitely gone. They were in awful shape." See Malcom W. Cagle and Frank A. Manson, *The Sea War in Korea,* Annapolis, Md.: United States Naval Institute, 1957, pp. 308–309.

[71]Hastings (1987), p. 229.

[72]See Mossman (1990), p. 497.

[73]See Matthew B. Ridgway (GEN, USA, Ret.), *Soldier: The Memoirs of Matthew B. Ridgway,* New York: Harper and Brothers, 1956, pp. 219–220. Ridgway wrote (p. 69) that "If we had been ordered to fight our way to the Yalu, we could have done it—if our government had been willing to pay the price in dead and wounded that action would have cost."

units induced the Chinese and North Korean leaders to seek a respite on the battlefield through the opening truce negotiations.[74]

The central cause for the collapse in communist morale was the accumulated effects of prolonged and intense combat and denial of adequate resupply. As early as the end of December 1950, Peng Dehuai, the PLA commander in Korea, had begun to concede that his army was facing serious supply and morale problems.[75] As the communist forces were called upon to mount successive offensives in winter and spring 1951, their supply and morale problems intensified.

According to UN interrogation reports, the Chinese and North Korean prisoners captured during the 1951 spring offensives attributed the low morale in their units to three causes: insufficient, improper, or poor food; UN artillery and air bombardment; and the fatigue of long marches, night marches, poor physical condition, lack of rest, and long hours of work.[76]

Severe Food Shortages Undermined Morale. Senior Chinese commanders acknowledged the serious food shortages within their units.[77] Over 65 percent of some 154 Chinese who surrendered prior to April 1951 told their interrogators that their food rations were inadequate.[78] The inadequacy of food rations was partly a conse-

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[74]On June 23, the Soviet ambassador to the UN publicly advocated the opening of talks. This proposal was immediately endorsed by an editorial in the Chinese daily, *Renmin ribao.* Negotiations between the parties opened in Kaesong on July 10. (Hunt, 1992, p. 468.)

[75]Hunt (1992), p. 467.

[76]Futrell (1961), p. 313. These findings were generally consistent with reasons for low morale offered by some 29 Chinese prisoners captured during the last three months of 1950. Of these, 14 mentioned fear of UN aircraft; 10, unwillingness to leave China and fight another country's war; 8, insufficient food; 5, superior enemy firepower and equipment; 5, surprise at finding themselves fighting Americans; 3, long marches and little rest; 2, lack of proper footwear and clothing; 2, conscription; 2, strict discipline; 2, previous knowledge of Americans; 2, feeling that they were expendable and were being written off; 2, discrimination against former Nationalist personnel; 1, heard airborne loudspeaker broadcast; and 1, did not want to be killed. The total adds to more than 29 because most respondents gave more than one reason. See W. Phillips Davison, *Morale of the Chinese Communist Armies in Korea,* Santa Monica, Calif.: RAND, RM-542-PR, 1951a, p. 8.

[77]Futrell (1961), p. 313, and Hunt (1992), pp. 466–467.

[78]Kahn and Nierman (1952), p. 35.

quence of the extended communist LOCs in Korea and the inability of rear logistic commands and depots to deliver needed supplies.[79]

The UN interdiction of communist resupply routes played a crucial role. UN aircraft conducted an intensive campaign to interdict the movement of communist supplies from the Yalu River southward, attacking numerous railway and highway bridges, tunnels, marshaling yards, and supply centers.[80] Communist supply caches in areas immediately behind the front lines were also attacked whenever UN aircraft could locate them.[81] In addition, low-flying UN attack aircraft frequently conducted armed reconnaissance along both the rear and forward communist supply routes, destroying and damaging large numbers of enemy supply vehicles.[82] According to General Ridgway, Chinese prisoners reported that their units were so desperately short of rations that the troops had to eat grass and roots.[83]

Sustained Ground Combat and Air Attacks Progressively Demoralized Chinese Troops. UN air and ground firepower inflicted heavy losses on attacking Chinese infantry forces.[84] UN intelligence estimated that the communists had suffered over 860,000 battle casualties in the first year of combat. The Chinese losses in April and May 1951 were thought to be particularly severe among assault echelons as a result of the rapid rate of UN artillery fire and round-the-clock air attacks.[85] But beyond these physical losses, the months

[79]Futrell (1961), pp. 286, 312.

[80]Futrell (1961), p. 286.

[81]Futrell (1961), p. 289.

[82]Futrell (1961), p. 307. The Fifth Air Force claimed that during April 1951 alone its night-and-day air strikes had destroyed some 2,336 enemy vehicles and damaged an additional 1,496. Most truck movement was attempted only at night. (See Futrell, 1961, p. 30; and Hastings, 1967, p. 171.)

[83]Blair (1987), p. 901.

[84]Futrell (1961), p. 656.

[85]See Mossman (1990), p. 469; Futrell (1961), p. 343, and Montross, Kuokka, and Hicks (1962), p. 127.

of continuous ground combat and UN air attacks had clearly sapped the morale of the Chinese fighting units.[86]

Alexander George's interviews of Chinese prisoners captured in early 1951 provided important insights into the process and effects of the progressive demoralization of troops who had entered Korea with a high fighting spirit.[87] George attributed the demoralization primarily to the "harsh, prolonged combat experience in the rugged terrain and winter climate of Korea."[88]

Once battlefield events had dashed their expectations of a quick and easy victory, the PLA rank and file began to question and reject the legitimacy and wisdom of China's intervention in Korea. Loss of confidence in victory was accompanied by a loss of confidence in PLA military doctrine, equipment, training, and combat leaders. This erosion of belief in matters that were the subject of constant indoctrination by the cadres helped to break down the group solidarity in the PLA's small combat units.[89]

The lower-ranking cadres also began to see the war as a senseless and grossly unequal contest with a foe that possessed superior weapons and modern equipment.[90] The UN's unchallenged air supremacy over the battlefield and the destructive air attacks had a particularly depressing effect on cadre morale. When 18 veteran PLA cadres (most of whom had served at the company level) were asked

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[86]Of some 154 Chinese troops who surrendered prior to April 1951, 81 percent reported having experienced heavy or moderate air attacks. (Kahn and Nierman, 1952, p. 26.)

[87]George (1967, pp. 14–24) interviewed some 300 Chinese prisoners between March and May 1951. Of these, 84 were given a basic questionnaire that provided much of the data George used in his analysis. Other, more specialized, questionnaires were also used with some of these 84 prisoners and other respondents, including some 18 prisoners who were hard-core communist cadres. About three-quarters of the prisoners given the basic questionnaire were privates, and most of these were former Nationalist soldiers. Relatively few of the prisoners were defectors.

[88]George (1967), p. 162.

[89]George (1967), pp. 162, 188. Asked why they thought the UN would win, over 80 percent of the 142 Chinese prisoners in another study gave as the reason "superior UN weapons." (Kahn and Nierman, 1952, p. 76.)

[90]George (1967), p. 189.

in the early spring of 1951 to evaluate the chief difficulties the PLA experienced in Korea, 14 cited UN airpower as the leading factor.[91]

The Chinese communists found that their traditional "human wave" and envelopment tactics would no longer work under conditions of UN air supremacy. UN air attacks forced the Chinese to restrict movement in rear areas and, increasingly, to restrict front-line combat to nighttime, a handicap unique in the PLA's experience.[92]

As with North Korean forces, UN air activity also inhibited Chinese troops from firing their weapons. At times, UN air strikes and even the simple presence of UN aircraft in the vicinity had three types of inhibiting effects on enemy ground fire:

- They induced communist cadres to instruct their troops not to fire at UN aircraft in order to avoid detection, and to fire only if brought under attack.
- They frightened communist troops to the extent that the enemy soldiers failed to carry out their instructions to fire.
- They produced a psychological shock of such a magnitude that the stunned enemy troops were unable to fire their artillery or other weapons until some time after the attack.[93]

UN Attacks Degraded the Capability to Reconstitute Morale and Prevent Surrenders. The intense combat and accurate UN bombing and artillery fire, particularly during the UN counterattack in May and June 1951, degraded the PLA's mechanisms for maintaining and reconstituting combat morale and for preventing surrenders. The PLA employed various methods for motivating and enforcing combat. These included the use of written group oaths to induce squad members to fight bravely and the reliance on combat propaganda and continuous indoctrination to motivate both the political hard core and the rank and file in the units.[94] To catch and eradicate

[91]George (1967), p. 165. The next most frequently mentioned difficulties were the PLA's lack of mobility and firepower.

[92]See Alexander L. George, *Political Organization and Morale in the Chinese Communist Forces*, Santa Monica, Calif.: RAND, RM-902-PR, 1952, pp. 123–124.

[93]George (1962), pp. 12–13.

[94]George (1967), pp. 35–36, 42.

minor morale problems before they became serious, the PLA instituted a never-ceasing process of surveillance, self-examination, mutual criticism, and self-criticism among the cadres and soldiers. During intensive ground combat or air attacks, however, the platoon, squad, and company criticism and self-criticism meetings could take place only irregularly.[95]

More important, sustained UN bombing, artillery fire, and intense ground counterattacks increased the physical difficulty for the hard-core cadres of maintaining close surveillance over their troops and preventing surrenders. Prisoner interviews indicated that the constant surveillance within PLA units, more than anything else, deterred desertion to the rear or voluntary surrender. While the death penalty was not the usual punishment for first-time deserters, the likelihood of summary execution was greater for those caught attempting to desert in combat. The PLA set up special units to catch deserters fleeing the front and to pick them up in rear areas. Not knowing the Korean language or geography, or where to go, also discouraged some soldiers from deserting. Others feared being shot or abused if captured by UN forces.[96]

As the solidarity and positive combat motivation of their units weakened, the PLA command had to rely increasingly on hard-core cadres and surveillance to enforce combat. However, the party members who constituted the hard-core cadres suffered heavy casualties, particularly at the company and lower levels. Many of the surviving cadres themselves became demoralized and lost their ideological fervor and along with it their capacity to enforce combat.[97] In sum, the Chinese offensive collapsed in spring 1951 because

> The counteroffensive on the ground and heavy blows from the air imposed a severe strain on the ability of the already weakened and demoralized cadres to maintain control over their units. That the

[95]Sometimes criticism meetings had to be deferred until the unit was pulled out of the line or until a definite pause in combat occurred. The problems most frequently addressed in these meetings were demoralization, fear of death, and lack of bravery in battle. (George, 1967, pp. 88–97.)

[96]George (1967), pp. 136–138.

[97]George (1967), pp. 167, 194.

remaining cadres were unequal to this task was clear from the precipitous, disorganized flight of the Chinese communist forces.[98]

Surrenders Stopped When Effective UN Combat Pressure Ended

After truce negotiations opened at Kaesong on July 10, 1951, UN forces passively held their positions during the first five weeks of talks. This provided the Chinese forces with a much needed breathing space and allowed them to reinforce their units strongly with additional personnel and artillery.[99] On August 22, the communists broke off the talks, and soon thereafter, the UN resumed limited offensive operations. The purpose of the UN attacks was to seize dominant terrain that would eliminate sags in the UN line or reduce threats to UN LOCs.[100]

The communists resisted the UN's "elbowing forward" operations, and bitter fighting resulted. The PLA again suffered heavy casualties, including an estimated 80,000 in October alone.[101] In addition, close to 3,900 PLA troops surrendered. Faced once more with a deteriorating military situation, the communists proposed a resumption of negotiations, which began in Panmunjom on October 25.[102]

Because of Washington's concern about mounting American casualties, U.S. and other UN forces on November 12 adopted an "active defense." UN forces were to desist from major offensive action and to restrict their operations to the defense of the existing front.[103] On November 27, the communists accepted a UN proposal that the

[98]George (1967), p. 195.

[99]Hunt (1992), p. 232.

[100]Hermes (1966), pp. 81, 97.

[101]Hermes (1966), p. 508.

[102]Hermes (1966), p. 175.

[103]Hermes (1966), p. 232. While local attacks were still permitted, no attack or counterattack of greater than battalion strength could be mounted without General Ridgway's advance approval.

existing front be frozen into a final demarcation line between the two sides, if an armistice were agreed to within 30 days.[104]

The communists used this 30-day lull in the fighting to continue the rapid construction of a massive defensive belt along the 155 miles of line held by their forces. This fortified belt, which varied in depth from 15 to 25 miles, comprised an interlocking web of trenches, bunkers, and tunnels that was "almost impregnable to artillery fire and assault." [105]

As Figure 8.2 shows, very few additional Chinese and North Korean prisoners were taken from the end of November 1951 until the cessation of hostilities in July 1953. Indeed, the trickle of Chinese and North Korean deserters and captives taken in the occasional flurries of intensive ground fighting that occurred during the period roughly balanced the small number of prisoners who died or escaped from UN holding camps.[106]

This minuscule prisoner yield occurred over a 20-month period when communist forces were subjected to hundreds of millions of UN leaflets and thousands of hours of front-line loudspeaker broadcasts aimed at inducing their surrender. Indeed, the number of UN PSYOP leaflets disseminated to enemy troops during the last year and a half of the war was greater than the number disseminated during the first year and a half.[107] Nor is there evidence that the quality of the UN PSYOP surrender appeals during the last half of the war was in any way inferior to that of those during the first half. If anything, the quality of UN leaflets and radio broadcasts probably improved with time, as UN PSYOP practitioners became more experienced and polished in their craft.

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[104]Hermes (1966), p. 232. Admiral C. Turner Joy, the chief UN negotiator in Korea, believed that the decisions to go over to the active defense in Korea and to accept the existing battle line as a provisional demarcation line were serious errors in that they deprived the UN of the military leverage to pry concessions from the communists and bring closure to the truce talks. See C. Turner Joy (ADM, USN, Ret.), *Negotiating While Fighting*, Stanford, Calif.: Hoover Institution Press, 1978, p. 5.

[105]Hastings (1987), pp. 232–233, and Hermes (1966), p. 181.

[106]See Meyers and Bradbury (1958), p. 28.

[107]UN forces disseminated about one-half billion leaflets during the first 13 months of the war, but more than a billion and a half during the final 24 months of the war. (See Davison, 1951c, p. 42, and Pease, 1992, p. 37.)

The low prisoner yield also occurred during a period when UN aircraft continued to maintain air supremacy over the communist front-line positions and conduct a relatively high volume of close support attacks against front-line targets. During the six-month period from June through November 1952, for example, UN close support sorties averaged about 2,785 per month, which approximated the monthly average for the entire war.[108] The communist front-line forces were also subjected to intense UN artillery attacks. During one relatively inactive month of fighting in 1953, for example, UN artillery fired over a million and a quarter rounds at communist positions.[109]

Rather than being a function of lessened PSYOP appeals or air and artillery attacks, the dramatic falloff in enemy prisoners in 1952 and 1953 must be attributed to the absence of the extreme conditions, vulnerabilities, and effective battlefield pressures that had caused the demoralization and disintegration of North Korean units in fall 1950 and of Chinese units in spring 1951.

First, the communist troops were now adequately fed.[110] Even though interdiction remained a principal focus of UN air operations, the curtailment of communist resupply proved more difficult and less successful than it had in the past. The communist retreat northward had shortened their LOCs to the Yalu, and these roads and rail lines were increasingly well protected by antiaircraft weapons. The communists proved adept at repairing damage to their logistic system and rerouting traffic around temporary choke points. Moreover, the static battlefield situation and absence of sustained combat allowed the communists to maintain sufficient food stockpiles for their troops at the front.[111] However, the UN interdiction effort succeeded in limiting the buildup of artillery

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[108]The more than 16,700 close support missions flown during the six-month period (June–November 1952) accounted for about one-sixth of the estimated 100,000 or so close support missions flown during the entire 38-month war. (Futrell, 1961, pp. 500–503, 645.)

[109]Hermes (1966), p. 509.

[110]Hermes (1966), p. 478.

[111]See Futrell (1961), pp. 297, 657–658; Hunt (1992), p. 267; and Hermes (1966), pp. 193–196.

ammunition and other munitions and thus prevented the communists from mounting and sustaining large-scale offensives.[112]

Second, UN bombing and artillery fire, while heavy, no longer proved as physically and psychologically damaging to PLA troops who, except when on patrol or attack, remained well camouflaged and sheltered deeply underground. Only extremely accurate flat-trajectory fire or direct hits by bombs affected these well-dug-in positions.[113]

When enemy forces were observed in the open, and most particularly when attacking communist units employed "human-wave" tactics, UN artillery and close air support could be effective. However, the UN firepower seldom could be directed against truly lucrative targets. Communist forces almost always preferred to fight under cover of darkness. After night attacks against UN outposts, for example, they would return to their elaborate honeycombs of tunnels, caves, and bunkers well before dawn, so that they would be secure from air and artillery attacks.[114]

The personnel and artillery reinforcements that the enemy units received, combined with their ability to sortie and fight from well-fortified positions, no longer made the war appear so unequal or futile. Many communist cadres and rank-and-file forces who had been previously demoralized by the UN's enormous firepower superiority probably came to see this advantage as at least partly neutralized.

Third, through rotation and reinforcement, the PLA had largely been able to correct the problems caused by the previous demoralization and depletion of hard-core cadres in its lower combat echelons.

Fourth, with UN forces on the active defense, the communist ground forces generally held the initiative of deciding when and where to

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[112]Hermes (1966), p. 205.

[113]Hermes (1966), p. 193, and Futrell (1961), p. 500.

[114]Futrell (1961), p. 502. Experience had taught the communist troops that any movement that could be observed would invite a devastating barrage of UN bombs or artillery. Also see Hastings (1987), pp. 272, 275–276.

fight.[115] Moreover, both UN and communist attacks were limited and usually short-lived. No longer under constant combat pressure, the communist cadres now had adequate time to address shortcomings in troop morale before attacks occurred and, even more important, had the opportunity to restore morale once the fighting had subsided. Moreover, with the battlefield no longer fluid, the hard-core cadres could more easily control the behavior of their troops and prevent surrenders.[116]

Even though a relatively small amount of territory changed hands, the fighting was often fierce, and it produced significant casualties on both sides.[117] During the last 15 months of the war alone, the North Koreans and Chinese are estimated to have suffered more than 250,000 killed and wounded.[118] Despite such losses, the communist troops continued to exhibit tenacity and courage in battle and their morale seems to have remained high throughout the period.[119]

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[115]Futrell (1961), p. 657.

[116]See Hansen (1960), p. 61.

[117]Some 45 percent of the U.S. casualties in Korea occurred after the truce negotiations had started. (Hosmer, 1987, p. 98, fn. 17.)

[118]Hermes (1966), p. 500.

[119]Hastings (1987, p. 275) writes that UN soldiers were "impressed by the dedication with which Chinese troops would fight and the lengths to which they would go to avoid being taken prisoner. Wounded communists sometimes struggled to resist the attentions of British and American medical orderlies." Also see Hermes (1966), p. 111.

Chapter Nine

VIETNAM

THE USE AND EFFECTS OF PSYOP

During the course of the Vietnam war, the United States and its South Vietnamese ally devoted major efforts to inducing Viet Cong and NVA forces and their civilian supporters to defect, desert, or surrender. Tens of billions of leaflets were dropped over the South Vietnamese countryside and along the Ho Chi Minh Trail in Laos and Cambodia.[1] In addition, tens of thousands of hours of loudspeaker broadcasts were directed at suspected or known enemy locations. These and myriad other operations constituted the most massive psychological campaign in the history of warfare.

PSYOP Media and the *Chieu Hoi* Program

Some idea of the scope of the effort can be gleaned from the leaflet and loudspeaker broadcast statistics for 1966 through 1968 (see Table 9.1).

The central focus of psychological operations in South Vietnam was the *Chieu Hoi* (Open Arms) program, which was organized to persuade enemy soldiers to defect to the GVN. The *Chieu Hoi* program promised forgiveness and good treatment to individuals who had served in the enemy's military, paramilitary, political, or administra-

[1]According to one estimate, some 50 billion leaflets were dropped in South and North Vietnam, Laos, and Cambodia during the course of the war. (Chandler, 1981, p. 3.)

Table 9.1

PSYOP in South Vietnam and Laos, 1966–1968

	South Vietnam			Laos
	Leaflets (millions)	Loudspeaker (air hours)	PSYOP Sorties	Leaflets (millions)
1966[a]	1,404.0	6,487.5	NA	142.5
1967[a]	5,806.7	16,269.0	35,381	191.5
1968[b]	7,699.6	24,889.0	44,314	297.8
Total	14,910.3	47,645.5	79,695	631.8

[a] Smith (1968), pp. 59–63.
[b] U.S. Military Assistance Command (1968), p. 603.

tive organizations and who voluntarily defected to the GVN while they still possessed the capability to resist.[2]

The *Chieu Hoi* defector, or rallier, was treated differently from enemy deserters who returned to their homes or went into hiding and from enemy prisoners who surrendered or were captured in battle. The rallier was provided vocational training and, in some cases, given housing and land to farm in special *Chieu Hoi* hamlets. Ralliers bringing weapons with them were given cash awards.

All able-bodied ralliers were subject to the GVN draft after a six-month exemption; some, seeking the protection of an armed group or needing immediate employment, volunteered to join a unit of their own choice. In addition to the ARVN and Regional Forces/Popular Forces (RF/PF), some ralliers volunteered for service in armed propaganda teams that went into Viet Cong–controlled or contested areas, presenting themselves to the people as ex-VC who had come to recognize that the communist cause was unjust. They related their own experiences, explained the policies and aims of the government, and publicized the *Chieu Hoi* program.[3] Others joined the Kit Carson Scout Program and were assigned to work with U.S.

[2] MACV Directive No. 381-50, February 22, 1969 (Appendix 3), quoted in J. A. Koch, *The Chieu Hoi Program in South Vietnam, 1963–1971*, Santa Monica, Calif.: RAND, R-1172-ARPA, 1973, p. xix.

[3] Koch (1973), p. 94.

combat units in Vietnam. The scouts participated in broadcasting; helped locate mines, booby traps, and weapon and ammunition caches; trained U.S. and GVN troops in Viet Cong tactics and techniques; and assisted in the field interrogation of known or suspected VC and NVA.[4]

PSYOP Themes

While efforts were made to persuade enemy troops to surrender, the vast majority of American and South Vietnamese PSYOP leaflets and broadcasts were directed at inducing communist defections.[5] In addition to emphasizing the better life and specific rewards that a rallier could expect under the GVN, the thematic content of this PSYOP effort included the following:

- "Fear" appeals designed to convince individuals serving in the NVA and the Viet Cong military and civilian infrastructure that they faced an overwhelming danger of being killed if they remained with the communists
- "Hardship" appeals that exploited the personal hardships and loneliness suffered by the Viet Cong and NVA fighters; communist troops were informed that "Saigon was aware of their hardships, was sympathetic, and wished to provide them a means of escape from the severity of their life through the *Chieu Hoi* Program"[6]
- "Defeatist" appeals aimed to erode NVA and Viet Cong faith in an eventual communist victory

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[4]Koch (1973), p. 104.

[5]Chandler (1981), p. 40. The U.S. PSYOP activities in South Vietnam, Laos, and Cambodia were designed to support four broad objectives: (1) promote the morale, loyalty, and support of the South Vietnamese citizenry for the Republic of Vietnam (RVN) and its government; (2) generate disaffection and apprehension of enemy personnel during their infiltration into South Vietnam, lower enemy morale, and reduce enemy combat effectiveness; (3) deny the enemy the support of the South Vietnamese populace; and (4) convince the South Vietnamese people that U.S. and other allied personnel were interested only in helping them to defeat "aggression and achieve an improved and more stable economy," and that U.S. and other foreign forces would be removed when these aims were accomplished. See U.S. Military Assistance Command, Vietnam, *1971 Command History Supplement*, April 22, 1972, p. TSS-5.

[6]U.S. Military Assistance Command (1972), p. 52.

- "Concern for family" appeals that attempted to heighten Viet Cong concerns about the safety and well-being of their families and motivate them to surrender or defect so that they could return home, care for their families, and if possible, move them into GVN-controlled areas
- "Disillusionment" appeals that sought to undermine the enemy soldier's faith in the justness of Hanoi's aims and convince him that he was being duped and used by his leaders.[7]

The most widely disseminated leaflet—billions were reportedly dropped to "blanket" South Vietnam—was the safe-conduct leaflet guaranteeing humane treatment and safety to those who surrendered or defected. According to interviews with communist defectors, the safe-conduct leaflets were the most effective of thousands of different leaflets dropped by the United States and the GVN during the course of the Vietnam war. The ralliers described the safe-conduct leaflet as the one most seen and most conducive to rallying.[8]

Because southerners constituted the bulk of the communist combat forces through the mid-1960s, the initial *Chieu Hoi* efforts were targeted mainly on the Viet Cong. However, with the buildup of northern troops in 1967 and the heavy losses to Viet Cong forces during Tet in early 1968, the concentration of NVA troops in the enemy forces became so great that the PSYOP effort in South Vietnam eventually focused mainly on the NVA.[9]

In addition to operations in South Vietnam, a major PSYOP out-country campaign targeted NVA infiltrators. The campaign consisted principally of leaflet and loudspeaker operations directed at the communist way stations, the supply and staging areas, and the roads and trails connecting these areas in North Vietnam, the Laotian panhandle, and the border areas between South Vietnam and Laos and Cambodia. The campaign sought to create fear, anxiety, and insecu-

[7]Chandler (1981), pp. 44–66, and Smith (1968), pp. 7–10.

[8]Koch (1973), p. 66.

[9]Smith (1968), pp. 10–12.

rity in NVA troops that were about to infiltrate South Vietnam and to cause their defection, desertion, or loss of combat effectiveness.[10]

American and GVN psychological operations made little mention of allied air operations other than those involving B-52s. The ARC LIGHT B-52 strikes, both in-country and out-country, were thought to have had a major psychological effect on enemy troops. Within hours after B-52 missions, leaflets were dropped and loudspeaker broadcasts were delivered from psywar aircraft in the target area and in surrounding areas where the bomb blast noise would have been clearly heard. These messages warned the communist survivors that additional B-52 strikes were coming and could be avoided only if the troops surrendered or defected to the GVN.[11]

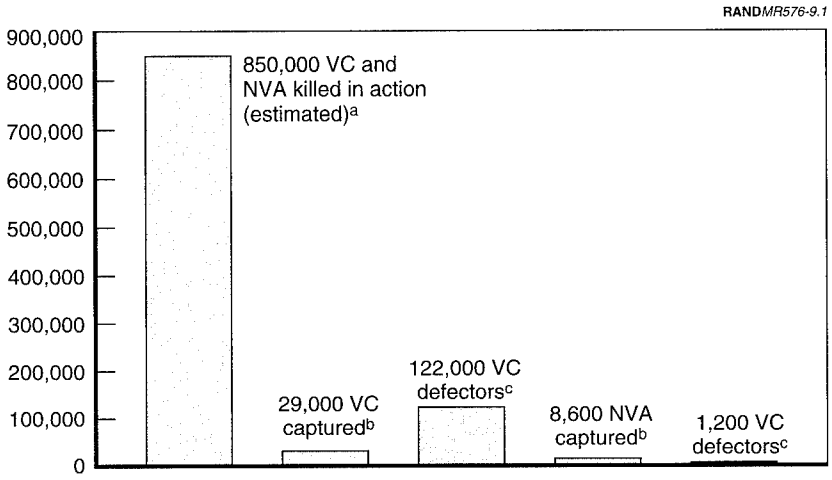
PSYOP Effects

Many Low-Level Viet Cong Rallied. In terms of number of surrenderers and defectors, the psychological effectiveness of the U.S. and GVN tactical military operations and PSYOP during the Vietnam War was at best mixed. As Figure 9.1 shows, some 122,000 Viet Cong military personnel rallied to the GVN during the course of the war, and an additional 29,000 became POWs.[12] The *Chieu Hoi* and POW figures, however, do not reflect the total impact of the military and psychological operations on Viet Cong morale as large numbers of Viet

[10]Smith (1968), p. 13. Aside from the safe-conduct pass, the most effective PSYOP message used against NVA infiltrators was the "Born in the North to Die in the South" leaflet. See U.S. Military Assistance Command, Vietnam, *Command History*, Volume 11: *1967*, September 16, 1968b, p. 661.

[11]U.S. Military Assistance Command (1968b), p. 12.

[12]In addition to the 122,000 military ralliers, some 79,000 civilians defected from the Viet Cong administrative infrastructure. These included persons from the Viet Cong political infrastructure, as well as dissidents, followers, draft dodgers, deserters, porters, etc., who had actively supported the Viet Cong. (Koch, 1973, p. 11.) As of mid-1971, some 37,978 communist POWs were under detention in South Vietnam. This included 8,614 NVA prisoners and 29,364 Viet Cong prisoners. Among the Viet Cong prisoners were 633 South Vietnamese who had regrouped to North Vietnam in 1954 and who had subsequently infiltrated South Vietnam. South Vietnamese prisoner holdings were reported in the MACV, Prisoner of War Statistical Accountability System. See Stephen T. Hosmer, "Profiles of Communist Prisoners of War in South Vietnam," unpublished paper, December 22, 1971, pp. 1, 3.



SOURCES: aThayer (1985), p. 104. Does not include KIA for 1963–1964.
bHosmer (1971), prisoners held as of mid-1971.
cAuthor's calculations based on Koch (1973), p. 11; Chandler (1981), p. 93.

Figure 9.1—Vietnamese Communist Forces Killed in Action, Captured, and Defected, 1963–1972

Cong military personnel are believed to have deserted back to their home villages during the course of the war.

The vast majority of the Viet Cong ralliers were among the lowest-ranking and least ideologically motivated individuals serving the communists. Less than 1 percent of the ralliers were high- or middle-echelon cadres.[13] While some main and local force Viet Cong rallied, the vast majority of military defectors were low-echelon cadres and rank and file who had served in Viet Cong village and hamlet guerrilla and militia units. These included many persons who had somehow been caught up in the communist web without fully embracing its cause and for whom the *Chieu Hoi* program

[13]Of the some 183,000 military and civilians who rallied to the GVN through the end of May 1971, only 171 were high-echelon personnel (division-level commanders, district party chiefs, physicians, etc.) and only 1,055 were middle-echelon personnel (company-level commanders, instructors, nurses, district party members, etc.). (Chandler, 1981, pp. 92–93.)

offered a way to escape the hardships and risks of further service with the Viet Cong.[14]

When asked why they had rallied, most of the Viet Cong Hoi Chanh interviewed in one RAND study offered several reasons; the great majority indicated personal motives:

> The reasons most frequently mentioned were the physical hardships, the economic needs of the family back home, the desire to evade criticism and punishment, fear of death, and homesickness. Less frequently, ralliers said that they had never wanted to serve the Viet Cong but had been forced to join and had taken the first opportunity to escape. Some interviewees mentioned as their reasons for rallying the desire to escape from GVN/U.S. air attacks, their loss of faith in a VC victory, resentment because a relative had been killed by the Viet Cong, and revulsion against VC terrorism. Still other motives were such grievances as being denied leave, quarrels with superiors, objections to the Viet Cong's puritanical controls over the individual's behavior, restrictions on personal freedom, and failure to be promoted.[15]

> Surprisingly few individuals specifically mentioned military defeats or losses as a reason for their *own* defection from the VC, although many mentioned desertions and rallying by others as a consequence of such events. It is apparent that military pressures enhance the disposition to rally by fostering hardships, fears, and loss of hope.[16]

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[14]Chandler (1981), p. 93, and Koch (1973), p. 10.

[15]J. M. Carrier and C. A. H. Thomson, *Vietcong Motivation and Morale: The Special Case of Chieu Hoi*, Santa Monica, Calif.: RAND, RM-4830-2-ISA/ARPA, 1966, p. xi. Between 1964 and 1969, RAND, under contract to the U.S. DoD, conducted approximately 2,400 interviews with Vietnamese who were familiar with the activities and attitudes of the Viet Cong and NVA. The persons interviewed included prisoners captured by South Vietnamese or U.S. forces, defectors who voluntarily left the VC or the NVA, refugees from battle areas, and a few others. The interviews were analyzed by RAND staff members both in Vietnam and in the United States and a number of RAND studies based on the interviews were published. For a discussion of the interview process and the reliability and validity of information it provided, see W. Phillips Davison, *User's Guide to the RAND Interviews in Vietnam*, Santa Monica, Calif.: RAND, R-1024-ARPA, 1972, pp. 23–39.

[16]Carrier and Thomson (1966), p. 34.

Few NVA Rallied or Were Taken Prisoner. Only about 8,600 North Vietnamese troops were taken prisoner during the war; as of mid-1971, a minuscule 1,200 had defected through the *Chieu Hoi* program to the GVN side (see Figure 9.1).[17] When interviewed as to why they had defected, the former NVA soldiers offered reasons similar to those of their Viet Cong allies. The reasons given in order of priority were "hardships; dissatisfaction—especially with their treatment by the cadres; fear of death; bombing and shelling; tired of war; lack of medicine and medical care; lost confidence in final victory; lost confidence in just cause" and wanting to reunite with their families in the South.[18]

The number of NVA military defectors amounted to less than 1 percent of all military ralliers despite the fact that, from early 1968 on, the NVA made up the bulk of the communist main force units in South Vietnam. Even more significant, the combined total of less than 10,000 NVA prisoners and defectors probably amounted to only about 3 percent of the total number of NVA troops killed during the war.

As Figure 9.1 shows, the total number of communist combat deaths in and around South Vietnam was estimated by DoD analysts to have been around 851,000.[19] Possibly around half of the number killed—420,000 or so—were NVA.[20] Another analyst puts the number of NVA killed at around one-third of the million or so NVA that he estimates traveled down the Ho Chi Minh Trail during the course of the war.[21]

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[17]Hosmer (1971), p. 3, and Koch (1973), p. 11.

[18]Anders Sweetland, *Rallying Potential Among the North Vietnamese Armed Forces*, Santa Monica, Calif.: RAND, RM-6375-1-ARPA, 1970, p. 24.

[19]About 5 percent of these casualties occurred in 1970 and 1971, during allied ground operations in Cambodia and the panhandle of Laos. (Thayer, 1985, p. 104.)

[20]This estimate assumes that the percentage of NVA dead mirrored the percentage of NVA in communist combat units. Of the 360,000 communists killed between 1965 and 1968, 72,000 (20 percent) were NVA; of the 359,000 killed between 1969 and 1971, 240,000 (67 percent) were NVA; and of the 132,000 killed in 1972, 106,000 (80 percent) were NVA. (Thayer, 1985, pp. 32, 104.)

[21]Douglas Pike, *PAVN: People's Army of Vietnam*, Novato, Calif.: Presidio Press, 1986, p. 47. While the great majority of these infiltrators were NVA troops, a portion of them were native South Vietnamese regroupees and civilian North Vietnamese personnel. According to figures recently released by the Ministry of Defense in Hanoi, the North Vietnamese government sent some 713,158 of its soldiers into South Vietnam between

The estimate of 851,000 communist dead may understate the actual number killed. A recent report issued by the Vietnamese government's Ministry of Labor, War Invalids, and Social Welfare claims that no less than 3 million Vietnamese soldiers and civilians died during the two decades of fighting. About 1 million of the war dead were reportedly North Vietnamese soldiers, and the remaining 2 million were soldiers and civilians of the South.[22]

Whatever the total number, the Viet Cong and NVA forces fighting in Vietnam clearly took extremely heavy casualties. According to the DoD analysis, more than 40 percent of the communist forces in the field were killed each year from 1965 to 1972. During 1968, the year of the Tet offensive, the figure was more than 60 percent.[23]

At the same time, there was never a catastrophic break in communist morale. No communist main force units of any significant size ever surrendered *en masse*. Indeed, the number of prisoners and defectors from NVA and Viet Cong main force units was minuscule compared with the number of communist troops engaged and killed. And this despite a massive PSYOP campaign involving billions of leaflets and tens of thousands of hours of aero broadcasts to induce enemy surrenders and defections.

REASONS FOR LOW DEFECTIONS AND SURRENDERS

Positive Factors Buttressing Troop Morale

Commitment to the Cause. One reason that NVA and Viet Cong troops rarely defected was that they believed that they were fighting for a just cause, the "liberation" of South Vietnam. Many North Vietnamese and VC from main force units believed that the Americans had come to take over South Vietnam, and after achieving

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1959 and 1972. An additional 263,691 NVA troops moved into South Vietnam during 1973, 1974, and 1975. See Stephen B. Young, "Vietnam War: Washington Was Right," *The Wall Street Journal*, November 7, 1995, p. A22.

[22]"Vietnam Sets War's Toll at 3 Million Dead," *Washington Times*, June 23, 1994, p. A15.

[23]These estimates were based on an average communist force size of 245,000 for the period and an average annual combat death rate of 106,000 per year. (Thayer, 1985, p. 104.)

that objective, would move to take over North Vietnam. Thus, in the view of many NVA troops, they were not fighting in the South for altruistic reasons only, but also to defend their homeland in the North. Many of the VC and NVA prisoners expressed strong hostility toward Americans in their interviews. Some cited the bombing of North Vietnam as proof of America's warlike behavior and aggressive intentions.[24]

Belief That They Would Not Lose the War. Despite the ground firepower, air supremacy, and logistic superiority of the U.S. and GVN forces, many NVA and VC main force troops apparently believed that their side could deny victory to their vastly more powerful enemy. While most of the enemy fighters apparently did not expect a victory for their side, at least while American forces were present in large numbers, they did not expect the GVN and United States to win the war either. Instead, they expected the fighting to go on for a long time—perhaps 10 or even 20 years. This confidence in the VC and NVA ability to wage a protracted conflict allowed the communist troops to escape the corroding effects of defeatism, which so often paralyzes the fighting spirit and erodes the cohesion of fighting units.[25]

The communist cadres took strong and sustained measures to counteract potential defeatism and to sustain faith in ultimate victory. They carefully sought to isolate VC and NVA units from outside sources of information about communist defeats or setbacks and to propagandize these same units about "liberation front" success and GVN/U.S. defeats.[26]

Faith in Leaders and Support of the People. The Vietnamese communist fighters, both VC and NVA, generally viewed their military and political cadres with respect and confidence. The rank and file

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[24]Konrad Kellen, *A View of the VC: Elements of Cohesion in the Enemy Camp in 1966–1967*, Santa Monica, Calif.: RAND, RM-5462-1-ISA/ARPA, 1969, pp. 16–23, and Sweetland (1970), pp. 2–4. For example, when asked why he thought the Americans were bombing North Vietnam, a captured main force senior lieutenant told his interviewer, "You should know that better than I do—the Americans are a warlike people. They bomb North Vietnam because they like to." (Kellen, 1969, p. 21.)

[25]Kellen (1969), pp. 56–62.

[26]Carrier and Thomson (1966), p. 40.

tended to see their combat leaders as reliable in battle and fair to their men. The fighters also tended to trust and like their unit's political officer, whose task was to maintain unit morale by mobilizing the "spirit" of the men through word and example.[27] Many of the VC and NVA troops also were encouraged by the conviction that they enjoyed the unalterable support and sympathy of the Vietnamese people.[28] The revolution's "great" support among the population was a constant topic of troop indoctrination and few of the fighters had evidence with which to gainsay that propaganda claim, as they had virtually no contact with the population outside communist-controlled areas.

Attention to Morale-Building and Maintenance. Communist cadres devoted enormous attention to troop indoctrination and to evaluating and bolstering the morale of the troops in their units. Every NVA and VC main force company had a political officer whose authority was second only to that of the company commander and whose responsibility it was to ensure that each man entered battle in the proper fighting spirit. Criticism and self-criticism sessions were conducted regularly in all units as a means of ferreting out and correcting the poor morale of individual fighters.[29]

The three-man cells that were the basic organizational entity of the VC and NVA squad served to preserve troop morale. When a cell member showed a lack of enthusiasm, lowered spirit, homesickness, fear of death, or discouragement, the other members of the cell made every effort to overcome these attitudes, and if these efforts proved unsuccessful, sought help from higher authorities.[30]

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[27]See Konrad Kellen, *Conversations with Enemy Soldiers in Late 1968/Early 1969: A Study of Motivation and Morale*, Santa Monica, Calif.: RAND, RM-6131-1-ISA/ARPA, 1970, pp. 21–27.

[28]Kellen (1970), pp. 82–90, 102.

[29]These criticism and self-criticism sessions also served as a form of group therapy in which the fighters could ventilate their fears, resentments, and other negative attitudes.

[30]Sweetland (1970), pp. 2–3. In those rare cases where the morale problems of an individual proved intractable, the individual was removed from the fighting unit so that he would not infect the others.

Negative Appeals and Control Deterring Surrender or Defection

Close Surveillance. All VC and NVA troops were closely watched. As Konrad Kellen described it, surveillance began with a careful investigation of an individual's "class" background and included minute details of all his suspect actions and attitudes during the course of his service (such as "escapism," "vaingloriousness," "fear of death"). Surveillance operated around the clock in the form of the three-man cell, reinforced by such physical and psychological devices as the criticism and self-criticism sessions that acted as a break on potential surrender, defection, or other nonperformance.[31] In addition to having to elude the close surveillance of his two cellmates and cadres, the would-be defector also had to find a safe way around the various checkpoints that the communists established to control movement in their areas.[32] If caught attempting to surrender or defect, the NVA or Viet Cong soldier could expect severe punishment, perhaps even death.[33]

When asked why they had not rallied to the GVN sooner, most defecting NVA troops responded that they previously had lacked the opportunity to do so. The vast majority indicated that they were able to defect only under particular circumstances, for example, while carrying out duty assignments (such as getting food), during combat, at the beginning of a campaign, while ill or wounded, or after having lost contact with their unit.[34] Most mentioned the fear of being caught and punished by their own forces as a major factor deterring defections.[35]

Fear of Mistreatment of Family. Another major deterrent to surrender or defection was the threat of retaliation against the families of those who allowed themselves to fall into allied hands. Many NVA troops reported having personally known of families in the North

[31]Kellen (1969), p. 71. Also see Konrad Kellen, *A Profile of the PAVN Soldier in South Vietnam*, Santa Monica, Calif.: RAND, RM-5013-1-ISA/ARPA, 1966, pp. 35–38.

[32]Sweetland (1970), p. 3, and Carrier and Thomson (1966), p. 50.

[33]Sweetland (1970), pp. 3, 25.

[34]Sweetland (1970), p. 23.

[35]Sweetland (1970), p. 25.

that had been punished for the defection or surrender of their sons or husbands in the South. Such families suffered reduction or elimination of their food rations, ostracism, or loss of employment. In some instances, a sign would be hung in front of the family's house proclaiming it the home of a traitor.[36]

For those Viet Cong members whose families remained in VC-controlled territory, the threat of a family punishment was an equally strong deterrent. The relatives of VC defectors and surrenders might be placed under house arrest, have their movements about the village limited, have a part of their property confiscated, or be isolated. Along with these more severe punishments, they would also be subjected to reeducation—an indeterminate sentence consisting of ceaseless indoctrination and sometimes additional labor service.[37]

Fear of Mistreatment by GVN. The fear of being beaten, tortured, and eventually killed by the GVN further deterred defection or surrender.[38] Enemy indoctrination attempted to systematically instill and reinforce the fear of GVN mistreatment. NVA and VC troops were told that the GVN might treat the prisoner or rallier well at first, but that it more likely would "beat or torture him; then extract all possible intelligence from him; and then kill him and dump his body into the sea."[39] The communist cadres warned of equally severe treatment for those who fell into American hands.[40]

Even without the prospect of mistreatment, the outlook for the NVA prisoner or defector was particularly melancholy in that he faced a separation from his family of open-ended duration.[41]

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[36]Sweetland (1970), p. 3.

[37]W. Phillips Davison, *Some Observations on Viet Cong Operations in the Villages*, Santa Monica, Calif.: RAND, RM-5267-2-ISA/ARPA, 1968, pp. 140–141.

[38]Sweetland (1970), p. 3.

[39]Carrier and Thomson (1966), pp. 49, 57. Unfortunately, GVN forces, at times, gave validity to this propaganda by mistreating communist prisoners and even ralliers. (Carrier and Thomson, 1966, p. 50.)

[40]Carrier and Thomson (1966), p. 49.

[41]The NVA prisoner or defector also faced the prospect of incarceration or other punishment in the event he should return eventually to the North again. (Kellen, 1966, p. 33.)

Communist cadres also made a concerted effort to deny the troops under their command information about the GVN and U.S. surrender policies or the *Chieu Hoi* program. When allied leaflets or safe-conduct passes were dropped, they were quickly gathered up and burned. Vigorous efforts were made to interfere with or drown out broadcasts from aircraft. Soldiers were punished for listening to forbidden radio stations and for picking up and reading leaflets.[42]

Would-be ralliers were also deterred from defecting by their ignorance of the terrain and of local GVN installations. Some also feared that they would be arrested or shot before they could make it known to the GVN authorities that they were defecting.[43]

Availability of Sufficient Food

Rice was the staple food of the VC and NVA soldiers, and allied forces worked hard to disrupt rice production and distribution in enemy-controlled areas. During sweep operations, allied forces captured and destroyed hundreds of thousands of tons of cached rice. When rice fields were identified in communist base areas, they were destroyed by aerial spraying of herbicides. As a consequence of these denial measures, some VC and NVA troops experienced food shortages at times.[44]

We have no evidence, however, that hunger was a serious problem or that it ever played a role in reducing the combat effectiveness of VC and NVA units. Communist prisoners and defectors rarely reported a reduction in their daily rice ration.[45] The abundance of the food sources available in South Vietnam made it possible for communist combat units to acquire adequate food rations. Indeed, the most common complaint of the VC and NVA troops was not the amount of food available, but rather the poor quality of some of their rations.[46]

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[42]Kellen (1969), p. 19, and Carrier and Thomson (1966), p. 58.

[43]Carrier and Thomson (1966), pp. 50–52.

[44]Michael Lee Lanning and Dan Craff, *Inside the VC and the NVA*, New York: Fawcett Columbine, 1992, p. 147.

[45]Even when the "population was short of rice, the *soldiers* still ate." Emphasis in the original. (Kellen, 1970, pp. 16–17.)

[46]Lanning and Craff (1992), pp. 147, 112–114.

Absence of Sustained Allied Attack

NVA and VC main force units were able to sustain adequate morale despite enormous casualties and a lack of battlefield victories—at least while U.S. forces were present in South Vietnam—because these communist troops were rarely, if ever, subjected to *sustained* allied attack.

Communists Controlled Their Own Casualties. During the Vietnam war, VC and NVA forces, for the most part, held the initiative. They, rather than the allies, for the most part, decided when and where large-scale combat would occur. As a practice, communist units did not attempt to hold or defend any territory, including their own key base areas. They routinely attempted to evade combat when confronted by numerically superior forces, choosing instead to retreat to preselected safe areas in South Vietnam's rain forests, or to sanctuaries in North Vietnam, Laos, and Cambodia.[47]

Through such tactics, the communist forces were able to exercise considerable control over their own casualties and to limit their battlefield losses to a rate that they could bear indefinitely. This key factor allowed them to survive the allied strategy of attrition.[48] Before 1968, some 85 percent of VC and NVA combat deaths were estimated to have resulted from communist-initiated attacks.[49] After June 1968, the communist control over the fluctuations in their own combat deaths dropped somewhat, to about 75 percent. Thus, throughout the war, communist casualties were fundamentally determined by communist decisions to attack or otherwise give battle.[50]

Communist Units Seldom Fought. On average, NVA and VC main force units engaged in full-scale action only a few times a year, perhaps once or twice every six months.[51] According to the testimony of VC and NVA interviewees, communist units moved frequently and fought rarely. Their strategy was to remain undetected, to inflict

[47]Such sanctuaries were off limits to allied ground operations until 1970–1971. (Thayer, 1985, pp. 90–91.)

[48]Thayer (1985), pp. 90–91.

[49]Attacks included all attacks—large, small, and by fire. (Thayer, 1985, p. 98, fn. 11.)

[50]Thayer (1985), pp. 91–92.

[51]Kellen (1969), p. 24; Kellen (1970), pp. 8–9; and Thayer (1985), p. 104.

damage sporadically by ambushes and other hit-and-run attacks, to interfere with GVN pacification efforts, and to keep control, by their presence, over the "liberated" regions and a minimum grip on contested areas.[52]

After engagements, the soldiers were withdrawn to rear areas to rest. Units that had suffered heavy casualties received replacements and underwent a process of intensive morale building. Each cadre, in his capacity "as consoler, comforter, propagandist, leader," worked to rekindle his men's fighting spirit. According to some accounts, the cadres sometimes needed as little as 15 days to restore their units' morale after a defeat.[53]

This process of recuperation, along with the low incidence and short duration of combat for most VC and NVA troops, goes far to explain why communist units were able to maintain their morale and cohesion even after suffering devastating defeats and high personnel losses.[54]

Communist Units Seldom Experienced Sustained Air or Artillery Attacks. Even though the U.S. and GVN enjoyed unchallenged air supremacy over South Vietnam and flew hundreds of attack sorties each day against known or suspected communist targets, NVA and VC units rarely suffered air attacks for prolonged periods.

During the eight years from 1965 through 1972, U.S. and VNAF tactical aircraft flew some 2,677,000 combat sorties in South Vietnam, Laos, and Cambodia, including over 105,000 B-52 sorties.[55] Of the some 1,573,000 combat sorties flown in South Vietnam, about 1,206,000 (77 percent) were attack sorties.[56] The attack sorties included some 65,000 B-52 sorties.[57]

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[52]Kellen (1969), p. 24.

[53]Kellen (1969), p. 33.

[54]Kellen (1969), pp. 26, 31.

[55]The highest number of combat sorties (307,000) occurred in 1968, the year of the communist Tet offensive. See Thayer (1985), Table 8.2, p. 82, and Table 8.5, p. 84.

[56]Thayer (1985), Table 8.3, p. 82. Other sorties included combat air patrol, escort, reconnaissance, and other nonattack sorties. (Thayer, 1985, Table 8.1, p. 80.)

[57]Thayer (1985), Table 8.5, p. 84.

About 25 percent of the attack sorties flown in Southeast Asia were closely linked to combat engagements taking place on the ground, or to freshly sighted targets.[58] However, only a portion of these strikes were close air support. Less than 10 percent of the tactical air strikes in South Vietnam supported allied troops in contact with the enemy.[59] Since most of the ground engagements between allied and communist troops in South Vietnam were of brief duration, VC and NVA units participating in such combat were generally not subjected to sustained air attack.[60]

Most of the remaining tactical sorties flown in Southeast Asia, including two-thirds of those flown in South Vietnam, were preplanned 24 hours or more in advance. These sorties concentrated mainly on interdicting communist supplies, and occasionally, personnel movements, by striking known or suspected VC and NVA locations, roads, and supply storage areas.[61]

Locating targets in the triple-canopied rain forests that covered most enemy base areas proved a most difficult task. To reduce their vulnerability to air attack, large communist units dispersed into small groups that hid among the nearly inaccessible hills and valleys of the dense jungle. For further protection, VC and NVA detachments moved almost daily, "so that intelligence on their location became outdated and useless within a few hours."[62] Needless to say, such moving targets could rarely be subjected to sustained bombing. Indeed, hitting troop locations was often a matter of luck.

Much the same situation prevailed with respect to allied artillery fire. With the exception of the fighting during the 1968 communist Tet offensive, about 70 percent of U.S. artillery rounds were fired in situ-

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[58]Thayer (1985), p. 83.

[59]Thayer (1985), Table 8.6, p. 85. About 21 percent of the air attacks were "immediate strikes" against known or suspected VC and NVA locations. These percentages reflect monthly attack sorties from July 1969 to March 1970.

[60]The communists often retreated from combat engagements after less than an hour of fighting so as to avoid prolonged exposure to allied air attacks. The major exceptions to the short engagements were the prolonged NVA siege of Khe Sanh in early 1968 and the sustained communist attempts to seize An Loc, Hue, and Kontum during the Easter offensive of 1972.

[61]Thayer (1985), pp. 83–84.

[62]Davidson (1988), pp. 404–405, and Kellen (1970), pp. 12–13, 18.

ations of inactive or light combat intensity.[63] Much of the fire was of the harassing-and-interdiction variety aimed at harassing any communist units in suspected locations.

When attacking fixed positions, such as the U.S. Marine base at Khe San, the Vietnamese communists also constructed elaborate defensive positions to minimize the effect of U.S. air and artillery attacks. Many of the bunkers in these redoubts could be destroyed only by direct bomb hits.[64] The communists also established elaborate tunnel and bunker systems in other areas to help troops avoid detection and safeguard them from effective air and/or ground attack if discovered.

Failure to Pursue Communist Units. Finally, VC and NVA forces were not subjected to sustained attack because they were rarely, if ever, pursued on the battlefield. The initial American combat tactic in Vietnam was to find, fix, and then destroy the enemy by combined air, artillery, and ground assault. When it became imperative to hold down U.S. casualties, U.S. infantry found and fixed the enemy, but American air and artillery firepower were used to fight and finish him.[65] However, even when U.S. infantry units did attempt to close with the enemy, they often could not prevent the communists from slipping away. As one former U.S. general put it: "The jungle was just too thick and too widespread to keep him from getting away."[66]

South Vietnamese troops proved generally reluctant to pursue VC or NVA forces after overcoming their initial attacks.[67] ARVN infantry units were consumed in static defensive operations and were for the most part immobile—an unsuitable situation for offensive operations or counterattack.[68] When ARVN troops made contact with the

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[63]Thayer (1985), p. 57.

[64]For a description of the elaborate defensive systems at Khe San, see U.S. Military Assistance Command, Vietnam, *Khe San, Analysis of Enemy Positions and Evaluation of the Effectiveness of Weapons Systems Against Enemy Fortifications,* Lessons Learned No. 69, September 10, 1968a.

[65]Davidson (1988), pp. 428, 454.

[66]Davidson (1988), p. 428.

[67]Jeffrey J. Clarke, *Advice and Support: The Final Years, The U.S. Army in Vietnam,* Washington, D.C.: United States Army, Center of Military History, 1988, p. 327.

[68]Davidson (1988), pp. 606, 631.

communists, they sat down and called for air or artillery support instead of maneuvering and attacking.[69]

As a result of the difficult terrain and the combat tactics employed by both American and South Vietnamese ground forces, communist units defeated in battle were allowed to escape to rest and refit. Given the casualties they suffered, many VC and NVA troops must have been severely demoralized and ripe for disintegration and collapse when they departed the field of battle. However, there was no allied follow-up to exploit such opportunities, and in the absence of such follow-up, the communists' system of rebuilding morale worked well for them.

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[69]Davidson (1988), p. 654.

Chapter Ten

THE PERSIAN GULF

The Coalition military strategy in the Gulf War depended on an intensive air campaign against (1) the armor, artillery, and other targets in the KTO that sustained Iraq's occupation of Kuwait and (2) the military facilities and other targets outside the KTO that magnified Iraq's military threat to the region. If the air campaign failed to force the Iraqis to withdraw from Kuwait, the Coalition planned to launch a ground offensive to destroy the Republican Guard and other Iraqi heavy divisions in the KTO and to eject the Iraqi force from Kuwait. To minimize the risk of high Coalition casualties, the air campaign was given sufficient time to reduce Iraqi combat forces and otherwise prepare the battlefield before the ground campaign began.

As a result of this strategy, the Iraqi forces in the KTO were subjected to 38 days of continuous air attacks prior to the initiation of the Coalition ground offensive on February 24, 1991 (G-Day).[1] As discussed below, this air campaign greatly diminished the capability and will of the Iraqi forces in the KTO to resist the Coalition ground offensive. Coalition PSYOP reinforced and exploited the effects of the air campaign.

[1]The Coalition air campaign began during the night of January 17 and continued until the cease-fire on the morning of February 28.

THE USE AND EFFECTS OF PSYOP

PSYOP Objectives

Among other objectives, the Coalition's operational and tactical PSYOP sought to

- encourage the defection, desertion, and surrender of the soldiers and leaders of specific Iraqi units
- induce discord, alienation, malingering, and loss of confidence within Iraqi units
- demonstrate to the Iraqi soldiers and unit leaders the overwhelming superiority of U.S. and other Coalition forces
- intimidate Iraqi chemical and air defense units
- convince Iraqi soldiers and unit leaders that the Coalition's quarrel was not with them but with Saddam Hussein and his regime
- deter Iraqi soldiers and unit leaders from committing war crimes or engaging in wanton destruction.[2]

PSYOP Media

PSYOP during the Gulf War involved mainly leaflet drops and radio broadcasts. All told, nearly 29 million leaflets were dropped in Kuwait and southern Iraq: MC-130s dropped 19 million leaflets from high altitude; F-16s and B-52s disseminated almost all of the remainder using M129A1 leaflet bombs (see Table 10.1).[3] Nearly 3 million additional leaflets were dropped over northern Iraq from Proven Force aircraft based in Turkey.[4]

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[2]Sandler (1993), p. 2; 4th POG briefing, "Psychological Operations in Desert Shield/Desert Storm," April 16, 1991; and Stanley Sandler, *"Cease Resistance: It's Good For You," A History of U.S. Army Combat PSYOP*, Fort Bragg, N.C.: U.S. Army Special Operations Command, Directorate of History and Museums, 1995, p. 383.

[3]Some 36 F-16 and 20 B-52 leaflet missions were flown during Desert Storm. A few M129A1 leaflet bombs were also dropped by F/A-18 aircraft. Another 342,000 leaflets were disseminated by balloon, waterborne, and manpack operations. (Jones, 1994, p. 26.)

[4]Johnson (1995b), p. 64.

American forces also used six radio broadcast platforms during the Gulf War: two EC-130E VOLANT SOLO aircraft (one operating from Saudi Arabia and one from Turkey) and four ground radio stations (two in Saudi Arabia and two in Turkey).[5] The VOLANT SOLO aircraft were flown by the 193rd Special Operations Group, Pennsylvania Air National Guard. Because of the atmospheric and geological characteristics of the desert, the ground stations in Saudi Arabia could reach only the Iraqi forces in southern Kuwait and along the Iraqi/Saudi border.[6] The VOLANT SOLO airborne broadcast platforms, which could reach southern Iraq with their 10-KW transmitters, were used to rebroadcast programs from the main ground station at Quaysumah. However, the broadcast ranges of these aircraft were also limited by the need to orbit outside the range of Iraqi air defense weapons.[7]

Table 10.1

Leaflet Themes, Delivery Methods, and Numbers Delivered in Gulf War, 1990–1991 (millions)

Leaflet Theme	Balloon	MC-130	F-16	B-52	Total
Surrender appeals and/or instructions	0.054	11.5	0.810		12.4
Inevitability of Iraqi defeat		4.3	2.300		6.6
Saddam's fault	0.098	1.8	0.835	2	4.7
Abandon equipment and/or flee		1.3	0.585		1.9
Other	0.186		3.300		3.5
Total	0.300	18.9	7.800	2	29.1

NOTE: Total columns are rounded to the first decimal.
SOURCE: 4th POG briefing.

[5]Jones (1994), p. 26.

[6]The 4th PSYOP Group's principal broadcast radio was a 50-KW transmitter, backed up by mobile 10-KW stations. The 50-KW station had a range of about 140 miles or less; the 10-KW transmitters could reach about 40 miles or less. (U.S. Special Operations Command, 1993, p. 4-9.)

[7]U.S. Special Operations Command (1993), p. 4-9.

Initially, the VOLANT SOLO aircraft were used to monitor Iraqi radio transmissions and to retransmit Voice of America broadcasts to support U.S. information programs and to establish an Iraqi listening audience. The clandestine "Voice of the Gulf," a U.S. military PSYOP effort, began transmitting on January 19, two days after the Coalition air campaign began. Transmitting on four AM and two FM frequencies, the "Voice of the Gulf" broadcast 18 hours a day for 40 days. All told, some 189 PSYOP messages; 3,250 news items; and 40 press releases and interviews were broadcast.[8] Throughout its operations, the "Voice of the Gulf" maintained the fiction that it was an indigenous Arab station.[9]

During the ground campaign, loudspeaker surrender messages were broadcast over tactical manpack, vehicle, and helicopter-mounted equipment. Sixty-six loudspeaker teams were assigned to directly support Coalition ground maneuver units.[10]

PSYOP Themes

As Table 10.1 shows, some 25.6 million (88 percent) of the 29.1 million leaflets disseminated by the Coalition in the Gulf War emphasized one or more of the following major themes: (1) why and how to surrender, (2) the inevitability of Iraq's defeat, (3) the responsibility of Saddam Hussein for the war, and (4) warnings to the troops to abandon their equipment and flee.

Why and How to Surrender. Surrender appeals and instructions accounted for over 40 percent (12.4 million) of the leaflets used. These were, without question, the most effective PSYOP appeals—helping to reduce Iraqi anxieties about their treatment should they fall into Coalition hands. The leaflets took several different forms: Some were "safe passage passes," promising the bearer a safe crossing into Coalition lines and good treatment thereafter. Others, like the one using a cartoon showing the plentiful food and water awaiting the line crosser, were invitations to "join the Joint Forces and enjoy full Arab hospitality, security, safety, and medical care" and

[8]Jones (1994), pp. 26–27.

[9]Sandler (1993), p. 5.

[10]4th POG (1991).

"return to your homes as soon as the situation Saddam has placed us in has ended." Still others contained cartoons and instructions on how to prepare and sling weapons to signal an intention to surrender.[11]

"Voice of the Gulf" broadcasts also focused on inducing desertions and surrenders. Radio messages pointed out that "many Iraqi units are as close to the border as 15 kilometers, a three-hour walk in the direction of Mecca" and that "Iraqi soldiers who surrender to the Joint Forces are immediately given food and water and removed from the combat zone."[12] Interviews with 13 Iraqi line crossers and POWs who attested to their good treatment in Coalition hands were also broadcast.[13]

Once the ground campaign commenced and Iraqi air defenses were neutralized, the VOLANT SOLO intruded further into Iraqi tactical radio nets with a radio transmission directed to specific Iraqi commanders, giving them a frequency to call if they wanted to surrender. This "Surrender Hotline" ploy (also called "1-800-SURRENDER")—used late in the war—drew only a few "nibbles."[14] However, it had objectives beyond inducing surrenders:

> The true objective of this effort was to demonstrate to Iraqi officers that their communications were vulnerable, to force them to use alternate channels, to slow down responsiveness, to increase suspicion, and cause tighter control of commanders by security forces. Any surrenders generated, and there is no documentation that any were, would be a side benefit.[15]

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[11]This and subsequent discussions of PSYOP leaflets are based on 4th POG (n.d.) and copies of other Coalition leaflets in the author's possession.

[12]4th POG (1991).

[13]Interview with Jeffrey B. Jones (COL, USA). COL Jones commanded the 8th PSYOP Battalion during the Gulf War.

[14]Transcriptions of Dr. Stanley Sandler's interviews with H. W. Parry (MAJ, USA) on February 4, 1992 and with Robert Graves (CPT, USA) on December 5, 1991. During Desert Shield/Storm, both Parry and Graves were members of the 4th PSYOP Group in Riyadh, Saudi Arabia.

[15]U.S. Special Operations Command (1993), p. 4-9.

Inevitability of Iraq's Defeat. About 20 percent (6.6 million) of the leaflets conveyed the message that Iraq was certain to lose the war. One such leaflet depicted the flags of the many Coalition states arrayed against Iraq; it also showed Coalition aircraft, helicopters, and tanks that possessed "Supreme Firepower, Long Range and Lethal Weapons" with which to destroy Iraqi armor. Several of the leaflet cartoons portrayed attacks on Iraqi armor and other equipment by F-117 stealth aircraft to emphasize the Coalition's technological superiority.

Blaming Saddam. Some 15 percent (4.7 million) of the KTO leaflets focused on Saddam Hussein's responsibility for the war and the destruction it had wrought. Several versions of these leaflets stressed that it was Saddam Hussein who had "forced the world to war with Iraq" and that Saddam was "the only reason for the bombing of Iraq." Others emphasized Saddam's treachery, his willingness to sell out all the Iraqi gains from the eight years of war with Iran which caused "500,000 needless deaths," and his life of luxury "while you and your family starve." The latter message was one of several printed on the back of a leaflet containing a facsimile of the face of an Iraqi 25-dinar note.

While not saying so directly, the implied message of some of these leaflets was that Saddam should be overthrown. One leaflet, for example, called on the Iraqi people to stop Saddam and to join with their brothers to "demonstrate rejection of Saddam's brutal policies. There will be no peace with Saddam."

Abandonment of Equipment and Fleeing. Finally, about 7 percent (1.9 million) of the leaflets used in the KTO urged Iraqi troops to abandon their weapons and flee their positions. The most effective of these leaflet drops and associated radio broadcasts were closely integrated with Coalition air strikes.

Six Iraqi infantry divisions were specifically targeted for coordinated PSYOP and B-52 strikes. Leaflets carrying a picture of a B-52 on a bombing run, and also radio broadcasts, warned the personnel of the division selected for attack that it would be heavily bombed the next day. The Iraqi troops were advised to save themselves by heading toward the Saudi border, where they would be welcomed as brothers. The day following the bombing, additional leaflet drops and radio

broadcasts reminded the division's personnel that the Coalition had kept its promise of bombing them the day before. The personnel were then advised that the bombing would be repeated the next day and that they could either stay and face death or leave and save themselves.[16]

Leaflet drops also followed each of the eleven BLU-84 "Daisy Cutter" bombings of front-line Iraqi positions that occurred during the war. The leaflets informed the surviving troops in the target area that they had "just experienced the most powerful conventional bomb dropped in the war . . . with more explosive power than 20 SCUD missiles" and warned that they would be bombed again soon. They were told to flee south and live or to stay and die.

Other leaflets warned front-line units that their location was about to be shelled and that they should leave their equipment and save themselves. "Voice of the Gulf" radio spots also called on Iraqi units to abandon their equipment. During the 100-hour ground campaign, retreating Iraqi troops were told: "By leaving your weapons behind as you leave Kuwait, you guarantee yourself safe passage back to Iraq."[17]

In addition to the above four major themes, written and electronic PSYOP messages also

- stressed Arab brotherhood and the desire of the Coalition's Arab partners to enjoy peace with their Arab neighbors
- exploited the Iraqi soldier's concern as to whether he would return home alive
- warned Iraqi commanders that they would be held personally responsible for any war crimes that were committed against Kuwaiti persons or property
- attempted to deter the Iraqi use of chemical weapons by pointing out that Iraqi units were poorly equipped with chemical protec-

[16]Similar warning leaflets were employed during bombing raids against Japan in World War II and against communist targets during the Korean and Vietnam wars.

[17]4th POG (1991).

tion gear and warning that commanders who employed such weapons would be punished

- sought to clog and disrupt the Iraqi main lines of communication by urging civilians to flee Basra.

PSYOP Effects

According to the testimony of Iraqi POWs and line crossers, the Coalition's PSYOP campaign against Iraqi deployed forces was effective. The Coalition PSYOP messages were disseminated widely and were generally accorded a high degree of credibility. PSYOP appeals helped influence Iraqi desertions and surrenders.

PSYOP Coverage Was Extensive. Coalition PSYOP messages seem to have reached a significant percentage of the Iraqi troops in the KTO, including most of the personnel in the Iraqi front-line infantry divisions. The vast majority of the Iraqi POWs and line crossers who were interrogated about Coalition PSYOP reported having been exposed to one or more Coalition PSYOP messages. One postwar survey of some 250 Iraqi POWs showed that 98 percent had been exposed to PSYOP leaflets, 58 percent to PSYOP radio, and 34 percent to PSYOP loudspeaker broadcasts.[18] However, these statistics should be treated with caution in that the prisoner population surveyed was undoubtedly weighted heavily with personnel from the Iraqi front-line infantry divisions where the density of Coalition leaflets was greater and thus was not representative of all the Iraqi troops in the KTO.[19] The front-line infantry divisions were the principal target of Coalition leaflet drops and loudspeaker broadcasts.

In an attempt to counter Coalition PSYOP, Iraqi commanders and security personnel prohibited troops from reading or holding leaflets. Some soldiers reported that those caught with leaflets would be buried up to their necks in the sand for one hour, after which they

[18]The results of the survey were summarized in "Operation Desert Storm," POW report, dated March 14, 1991, cited in VII Corps, G2, *The 100-Hour Ground War: How the Iraqi Plan Failed*, April 15, 1992, pp. 60–61. Also see 4th POG (1991).

[19]See VII Corps (1992), pp. 3–6. Most of the POWs captured during the ground campaign came from front-line infantry units, as the troops from those units had least opportunity to withdraw to Iraqi-controlled territory.

would be beaten. Such sanctions were apparently sufficiently rare, however, that many troops retained Coalition surrender instruction and "safe passage" leaflets and had them on their persons when they surrendered to Coalition forces.

Iraqi officials also attempted to control radio listening. In some instances, the personal radios of the troops were confiscated. In other instances, Iraqi commanders issued orders forbidding soldiers who owned radios from listening to them. However, few Iraqi officers apparently attempted to enforce such orders, and even fewer soldiers are thought to have obeyed them.[20]

PSYOP Had Credibility. Iraqi troops attached considerable credibility to Coalition PSYOP messages, particularly those delivered by leaflets and radio broadcasts. The previously cited survey of 250 Iraqi POWs showed that 88 percent believed the PSYOP messages in leaflets, 46 percent believed the PSYOP messages in radio broadcasts, and 18 percent believed the PSYOP messages in loudspeaker broadcasts.[21]

One reason for the high credibility accorded Coalition messages was that Coalition military actions confirmed the veracity of the Coalition's PSYOP messages. The Iraqi troops perceived that the Coalition threats about B-52 bombings were fulfilled and that the pattern of Coalition air attacks was consistent with the avowed Coalition objectives in the Gulf. Iraqi troops, for example, reported that they were prepared to believe President Bush's statements that the United States had nothing against the Iraqi people or the ordinary Iraqi soldier because Coalition air attacks were directed mainly against Iraqi armor and artillery and because the Coalition PSYOP messages warned Iraqi troops to stay away from such equipment.

The believability of Coalition PSYOP was apparently also enhanced by the low credibility the Iraqi troops accorded their own media and PSYOP. Radio Baghdad, which was frequently jammed by the Coalition, was not considered a reliable source of information even when its broadcasts could be heard. Ninety percent of the 250 POWs who were interviewed stated that Radio Baghdad was "neither reli-

[20]VII Corps (1992), p. 61.

[21]4th POG (1991).

able nor believable."[22] Instead, Iraqi rank and file, as well as officers, relied on Arabic-language broadcasts from the BBC, Radio Monte Carlo, and the "Voice of the Gulf" for their news. The Iraqi POWs rated the believability of the U.S.-operated radio, "Voice of the Gulf," immediately below that of the first-ranked BBC and second-ranked Radio Monte Carlo.[23] Many POWs stated that they had depended upon these non-Iraqi news sources to keep track of the Gulf crisis and negotiations to resolve it.[24]

Iraq's own propaganda aimed at boosting troop morale was sometimes counterproductive. One example was Saddam's boast on Radio Baghdad that Iraq would defeat the United States because Americans would not be able to stand the loss of even hundreds of soldiers, whereas the Iraqis were prepared to sacrifice thousands. When Iraqi soldiers in the KTO heard this statement, it reportedly had a very bad effect, as the troops realized that Saddam was talking about sacrificing them![25]

PSYOP Influenced Desertions and Surrenders. Many Iraqi POWs and line crossers reported that Coalition PSYOP had to some degree influenced their decisions to surrender or desert. Seventy percent of the 250 POWs interviewed about PSYOP effects reported that their surrender or desertion had been influenced by leaflets; 34 percent reported being influenced by radio broadcasts; and 16 percent reported being influenced by loudspeaker broadcasts.[26] In many instances, PSYOP appeals helped to trigger the desertion or surrender of soldiers who were already thinking about abandoning their positions. An Iraqi brigadier general, captured by United Kingdom forces on February 27, 1991, stated that "Second to the allied bombing campaign, PSYOP leaflets were the highest threat to the morale of the troops."[27]

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[22]VII Corps (1992), p. 61.

[23]4th POG (1991).

[24]VII Corps (1992), pp. 60–61.

[25]VII Corps (1992), pp. 10–11.

[26]VII Corps (1992), p. 61, and 4th POG (1991).

[27]U.S. Special Operations Command (1993), p. 4-14.

Claims about the direct effects of Coalition PSYOP on Iraqi behavior must be tempered somewhat by the fact that Coalition desertion appeals did not urge Iraqi troops to desert home. When they specified a destination, Coalition desertion appeals called on the Iraqi soldiers to cross the front lines into Saudi Arabia. Several thousand Iraqis did desert to Saudi Arabia prior to the start of the ground war. However, during the same time period, as many as *160,000* Iraqis may have deserted home.[28]

During the final days of the war, Coalition PSYOP helped to encourage Iraqi troops to abandon their armor and artillery and flee the battlefield. Loudspeaker broadcasts encouraged pockets of Iraqi resisters to throw down their arms and even helped to produce the mass surrender of several large Iraqi units. On February 20, 1991, a three-man PSYOP loudspeaker team attached to the XVIII Airborne Corps set in motion a surrender process in an isolated Iraqi infantry battalion that eventually produced 435 enemy prisoners.[29] Late in the ground war, a helicopter loudspeaker broadcast prompted the surrender of 1,405 Iraqi soldiers on Faylaka Island.[30]

In designing PSYOP messages, Coalition planners took care not to denigrate the Iraqi rank and file, who were always depicted as brave men who had been led astray by the "evil" Saddam and who would be received with dignity upon leaving the battle. The Coalition leaflets that "invited" Iraqis to surrender proved more effective than the leaflets that communicated the threat of destruction or total annihilation in the event of continued resistance. Among the most effective leaflets were those that apprised the Iraqi troops that they would be fed and allowed to bathe, and that they would be well cared for by their Islamic brethren.[31] To ensure authenticity and cultural acceptability, many of the leaflets were composed only after close

[28]The magnitude of the Iraqi desertion home became clear only after the war ended.

[29]U.S. Special Operations Command (1993), pp. 4-12, 4-14.

[30]Jones (1994), p. 10.

[31]"Operation Desert Storm, prisoner of war report," dated March 14, 1991, p. 3, cited in VII Corps (1992), p. 60.

consultation with Saudi authorities and were drawn by Arab illustrators.[32]

Finally, as the following discussion will reveal, the PSYOP themes that the Coalition adopted closely tracked the predispositions, concerns, and attitudes of the bulk of the Iraqi troops in the KTO. The POWs reported that the Coalition leaflets and broadcasts effectively exploited the real problems of the Iraqi soldiers in the trenches, most particularly the hardships inflicted by the Coalition air campaign. Coalition PSYOP practitioners obviously made good use of Iraqi line crosser and POW interrogations and other HUMINT sources in designing their attacks on Iraqi motivation and morale.

EFFECTS OF BOMBING ON IRAQI BATTLEFIELD BEHAVIOR

The Coalition air campaign and the PSYOP had a devastating effect on Iraqi troop morale and fighting performance.[33] By the time the ground offensive began, Iraqi ranks had been substantially thinned by massive desertions, and most of the remaining troops in the KTO were prepared to surrender after little or no resistance—despite the

[32]Sandler (1993), pp. 5, and Khaled bin Sultan (General), *Desert Warrior*, New York: Harper Collins Publishers, 1995, p. 396.

[33]Unless otherwise noted, the following discussion of the effects of the Coalition air campaign on Iraqi motivation and morale and battlefield behavior is drawn from Hosmer (1994a), *passim.*

Many of the insights relating to Iraqi troop motivation and morale presented below are based on reports that summarize and, in some instances, record the statements of Iraqi POWs and line crossers. Most of the Coalition POW interrogations were conducted at two Joint Intelligence Facilities (JIF-East and JIF-West). Of the more than 48,000 Iraqi prisoners that were processed in these centers, some 16,000 were screened by U.S. and Arab interrogators and 526 were actually interrogated. High-ranking and particularly knowledgeable prisoners were subsequently evacuated to a Joint Debriefing Center where they were interrogated more extensively.

The interrogations providing the basis for this study represent POWs and line crossers from 25 of the 43 or so Iraqi divisions in the KTO. Of the 25 divisions, three were part of the Republican Guard Forces Command, four were regular army armored and mechanized divisions, and 18 were regular army infantry divisions. The vast majority of the sources were enlisted personnel, noncommissioned officers (NCOs), and junior officers from front-line Iraqi infantry divisions. However, a number of senior officers were also among the sources, including eight brigadier generals and six colonels. For profiles of the POWs interrogated at JIF-West and the Joint Debriefing Center, see VII Corps (1992), pp. 3–6.

fact that comparatively few Iraqi troops had been killed as a result of the air campaign.

Large-Scale Desertions and Surrenders, Few Killed in Action

Based on POW reporting, the author estimates that at most no more than 400,000 Iraqi forces were deployed in the KTO.[34] Of these 400,000 troops, the author believes—again based on the testimony of knowledgeable POWs—that no fewer than 160,000 (40 percent of those deployed) deserted before G-Day (see Figure 10.1).[35] Some 85,251 more Iraqi officers and enlisted men surrendered to Coalition forces during the course of the 100-hour ground campaign.[36]

In contrast to the large numbers of deserters and POWs, the Iraqi forces in the KTO apparently suffered relatively few casualties. The author estimates that only about 10,000 Iraqis were killed in the KTO during the war (Figure 10.1). Some 5,000 may have been killed during the 38-day air campaign, and an additional 5,000 may have lost their lives during the 100-hour ground campaign. According to POW testimony, on average, as few as 100 Iraqis may have been killed per division during the air campaign. By the completion of the ground campaign, U.S. burial teams had found and buried only 577 Iraqi dead. Saudi burial teams also buried an apparently small number of Iraqi dead. Some Iraqis were probably incinerated in their vehicles or were buried in their foxholes, trenches, and bunkers during the ground fighting.[37] The propensity of Iraqi troops to remain in their foxholes and away from their vehicles and artillery while Coalition aircraft were overhead and the general absence of serious fighting during the ground campaign kept the number of Iraqi losses down.

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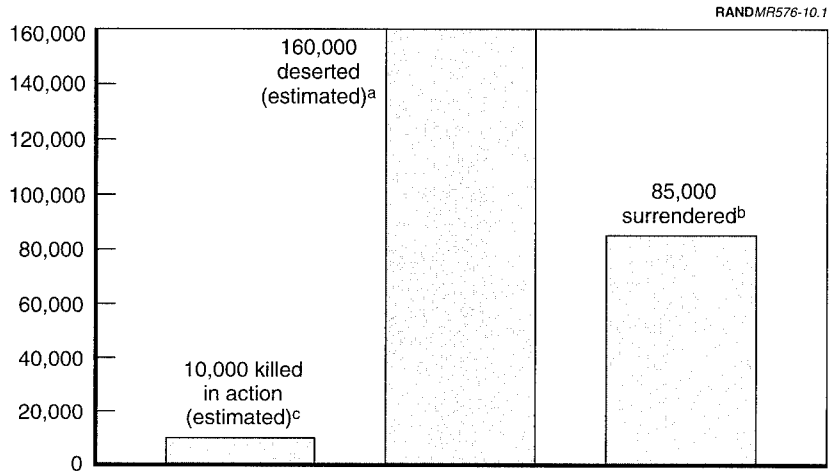
[34]The 400,000 figure is less than 75 percent of the 547,000 troops U.S. intelligence estimated were deployed in the KTO. A House Armed Services Committee estimate, also based on POW reporting, put the latest number of deployed forces at 361,000. See Les Aspin (Rep.) and William Dickinson (Rep.), *Defense for a New Era: Lessons of the Persian Gulf War*, Washington, D.C.: U.S. Government Printing Office, 1992, pp. 32–33.

[35]The House Armed Services Committee estimate puts the number of pre-G-Day Iraqi deserters at 153,000. (Aspin and Dickinson, 1992, p. 32.)

[36]DoD (1992), p. 578.

[37]For the number of Iraqi buried, see Caryle Murphy, "Iraqi Death Toll Remains Clouded," *Washington Post*, June 23, 1991a, pp. A1, A17.



SOURCES: aAuthor's estimate. Some desertions occurred prior to January 1991.
bDoD (1992), p. 578.
cAuthor's estimate.

Figure 10.1—Iraqi Deaths, Desertions, and Surrenders in the KTO, January–February 1991

A surprisingly small number of Iraqis were wounded during the ground campaign. Even though U.S. forces engaged the Iraqi units that are reputed to have fought the hardest during the ground campaign and captured the vast majority of the Iraqi POWs (more than 62,000), only some 640 wounded Iraqi prisoners required treatment in U.S. medical facilities.[38] We have no evidence, moreover, that large numbers of Iraqi war wounded were treated in Iraqi medical facilities. Even the two main Iraqi hospitals in Basra, near the front, saw few wounded.[39]

[38]Thomas Kelly (LTG, USA), 3:00 p.m. DoD News Briefing, March 4, 1991. Kelly stated that about 80 percent of the 800 Iraqi POWs that were in U.S. medical facilities had been wounded in action. Only five Iraqis died from previous combat injuries while in U.S. custody. (DoD, 1992, pp. 462, 578.)

[39]See Patrick Cockburn, "Lower Death Toll Helped Saddam," *The Independent*, February 5, 1992, p. 11.

Weak Iraqi Opposition to the Coalition Ground Campaign

Many of the Iraqi troops that remained in the KTO on G-Day offered, at best, only token resistance. The front-line infantry divisions hardly fought at all, and the fighting by the Iraqi armored and mechanized reserve divisions in the rear areas, while heavier than that of the infantry divisions, was still limited.

Aside from the low Iraqi casualties and high Iraqi surrenders, evidence of the lack of Iraqi resistance can be found in the low U.S. personnel and equipment losses from the ground campaign. Excluding the 28 U.S. military personnel killed in the February 25 Scud attack on the U.S. barracks in Dhahran, Saudi Arabia, only 63 U.S. Army and Marine personnel died as a result of hostile action in the ground campaign. The fact that only three American troops were killed by hostile action on G-Day and only four on G+1 attested to the extremely light opposition from the Iraqi infantry, artillery, and armored units in the more forward areas.[40]

American tank and fighting-vehicle losses during the ground offensive were also extremely low. Of the 1,848 Abrams (M1A1) tanks and 2,200 Bradley fighting vehicles that took part in the ground campaign, not a single Abrams and only three Bradleys were destroyed by hostile action.[41] In addition, Iraqi mines or other hostile action destroyed a half-dozen or so M60A1 tanks.[42]

Idle Tanks and Armored Personnel Carriers, Abandoned Equipment

Much of the Iraqi armor and artillery deployed in the KTO neither fought nor fled in the 100-hour ground campaign. A comprehensive postwar survey of the battlefield conducted by the Central Intelligence Agency's Office of Imagery Analysis (CIA/OIA) disclosed

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[40]Data provided to the author by the DoD, Washington Headquarters Services, Directorate for Information Operations and Reports, November 13, 1991.

[41]See U.S. General Accounting Office, *Operation Desert Storm: Early Performance Assessment of Bradley and Abrams*, GAO/NSIAD-92-94, January 1992, pp. 16, 24.

[42]According to General Schwarzkopf's count, the Coalition lost only four tanks to hostile action during the ground campaign. See H. Norman Schwarzkopf (GEN, USA), testimony before the House Armed Services Committee, June 12, 1991.

that, among the heavy divisions, some 43 percent of the tanks, 32 percent of the armored personnel carriers (APCs), and 44 percent of the towed and self-propelled artillery remained in their prewar deployment areas.[43] The vast majority of the more than 800 tanks in the independent Iraqi tank units in the KTO also failed to move. While much of this equipment had been destroyed during the air campaign or had become inoperable over time, a significant portion appeared to have escaped the bombing unscathed and to have been abandoned in place during the pre-G-Day air campaign, at the outset of the ground offensive, or after Saddam had ordered a general withdrawal from Kuwait on G+1.[44]

Of the Republican Guard and other heavy division armor that did move, most did so to flee rather than to fight. The CIA/OIA postwar battle damage assessment could identify only some 519 tanks and 255 APCs that showed signs of having been destroyed or abandoned either while attempting to redeploy to fight or after having been repositioned to face a Coalition attack.[45] The heavy division armor that *attempted to resist* constituted less than 20 percent of the 2,665 tanks and less than 10 percent of the 2,624 APCs that the CIA/OIA believes to have been deployed.[46]

The Joint Intelligence Survey Team, which conducted a postwar physical inspection of Iraqi armored vehicles that remained in accessible areas of Kuwait and southeast Iraq, found evidence that the Iraqi troops had abandoned the vast majority of the fighting vehicles that the survey team examined. Of the 163 tanks that the team was able to inspect, 78 had not been hit by Coalition fire but had been abandoned by the Iraqis.[47] Furthermore, only a few of the 85 tanks that had been hit by Coalition ground fire or air attack were

[43]See CIA/OIA (1993).

[44]CIA/OIA (1993).

[45]Some 842 tanks and 1412 APCs escaped to Iraqi-controlled territory by the time of the February 28 cease-fire. (CIA/OIA, 1993.)

[46]CIA/OIA (1993).

[47]Because of the small number of tanks examined (163 out of some 2,600 remaining in Coalition-controlled territory) and the restricted geographic area of the survey, the findings of the Joint Intelligence Survey Team do not necessarily reflect the status of other Iraqi tanks in the KTO. (Watts et al., 1993a, p. 316, fn. 58.)

estimated to have been occupied by Iraqi crews at the time they were hit.

As a consequence of this lack of resistance, a ground campaign that U.S. planners had initially estimated might require two weeks was actually completed in little more than four days. The decisiveness of the Coalition ground campaign reflected the effects of superior planning, leadership, and execution. Exploiting their speed, maneuverability, training, intelligence, logistics, and high-technology weapon systems, Coalition ground units were able to penetrate Iraq's front-line barrier system quickly and to flank its principal defensive forces.

The high desertions and surrenders and the poor fighting spirit of the Iraqi troops in the KTO resulted largely from (1) the poor prewar motivation and morale of the Iraqi troops and (2) the devastating psychological effects of the Coalition air campaign.

INITIAL MOTIVATION AND MORALE OF THE IRAQI MILITARY

Poor motivation and morale prevailed among Iraqi ground forces in the KTO even before the Coalition air campaign began on January 17, 1991. Iraqi line crossers and POWs, as well as other sources, reported that most of the Iraqi officers and enlisted personnel deployed in the KTO had little or no appetite for fighting a war over Kuwait.

Factors Affecting Prewar Motivation and Morale

War Weariness. To man the more than 43 divisions deployed in the KTO, the Baghdad government had to call back to active duty large numbers of veterans who had fought in the eight-year Iran-Iraq war. Many of these veterans, who felt fortunate to have survived one war, were tired of fighting and resented being forced to serve again. As a result, these recalled veterans often had the lowest morale in their units and were the first to desert when the opportunity presented.

Some career army personnel, including both officers and NCOs, also suffered from war weariness. For many of the veterans, the Iran-Iraq war had cost every home at least one family member and produced

little that was positive. As one Iraqi soldier put it to his Armored Brigade commander:

> Sir, I am now 37 years old, and still unmarried. I have fought for eight years against Iran, and two years against the Kurds. Now I am here in the desert to fight the Americans and their Arab allies. Sir, will I ever have the chance to marry and lead a normal life, or do you have another target in mind?[48]

Given these perceptions, the Iraqi army that the Coalition faced in the KTO appears to have been more war weary than battle hardened.

Harsh Conditions of Service in the KTO. Inadequate food, abuse by officers, and the harsh living conditions in the desert were also cited as factors contributing to the low morale in some units. Because the Iraqi infantry divisions were accorded the lowest priority for support, their resupply of fresh food was less regular and abundant than that of the higher-priority Republican Guard and heavy divisions. Supply problems were particularly acute for front-line divisions that were located at some distance from LOCs.

Concerns About Iraq's Military Inferiority. Many Iraqi officers and enlisted personnel knew that U.S. military forces had technologically advanced aircraft, tanks, and munitions and that U.S. weapon systems were far more capable than their own obsolete and often poorly maintained equipment.[49] They were thus convinced that these advanced U.S. weapon systems would provide the Coalition with such a marked combat edge that it would be impossible for Iraq to prevail in any conflict.

Absence of a Just Cause. Along with their doubts about the prospects for ultimate victory, the Iraqi forces serving in the KTO also harbored serious misgivings about the justice and, even more important, the necessity of the cause for which they would be fighting. According to the testimony of line crossers and POWs, most Iraqi officers and enlisted personnel considered a war with the Coalition to preserve Iraq's control of Kuwait to be neither essential nor wise.

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[48]VII Corps (1992), p. 11.

[49]VII Corps (1992), p. 45.

Many Iraqis blamed the invasion of Kuwait and the subsequent Coalition military response totally on Saddam Hussein. While they probably would have welcomed Iraq's absorption of Kuwait at an acceptably low price, few saw Kuwait as vital to Iraq's national interest. Iraqis discerned an important difference between the stakes at risk during the Iran-Iraq war and those of the 1990–1991 Gulf crisis. Whereas the earlier conflict had been justified by the need to maintain Iraq's sovereignty and to fend off a mad ayatollah intent on installing militant Islamic fundamentalism in Iraq, there was no comparable threat from the United States and its Coalition partners. The Coalition aim was to liberate Kuwait, not to occupy Baghdad.

Prewar Desertions and Readiness to Surrender

The low motivation and morale largely stemming from the factors discussed above led to large-scale desertion and preparations for surrender among Iraqi units even before the air war started. According to documents captured during the liberation of Kuwait, Iraqi commanders were concerned about the desertion rates in their units as early as September 1990.[50] POWs and line crossers also confirm a high prewar desertion rate in some units, particularly among Kurds and recalled veterans.

The vast majority of Iraqi deserters went home rather than across the front lines into Saudi Arabia. Many deserted during the home leave periodically granted to each serviceman. Desertion home was considered far less risky for both the individual soldier and his family than was desertion to Saudi Arabia. Uncertainty about the direction and distance to the Saudi border and the reception they would receive once in Saudi Arabia deterred some Iraqi troops from attempting to cross the line. They also feared the antipersonnel mines emplaced along the front lines and the patrols sent out to intercept would-be deserters.

But it was mainly the fear of retaliation against the family that deterred line crossing, During the Iran-Iraq war, the Baghdad regime had routinely arrested and often executed the family members of

[50]Caryle Murphy, "Papers Left in Kuwait Offer Glimpse of Iraqi Occupiers," *Washington Post*, October 6, 1991c, pp. A29–A30.

troops who deserted into Iran. To deter line crossing in the Gulf confrontation, the Iraqi regime resurrected this earlier practice by directing that the police "detain the family member whose detention will [most] affect the family of the deserter" who crossed into Saudi Arabia.[51]

Some of the Iraqi troops in Kuwait had apparently decided to surrender as soon as possible after the outbreak of hostilities. The most frequently reported indications of this disposition to surrender were the numerous white flags that some Iraqi troops had prepared and secreted for this purpose.

EFFECTS OF THE AIR CAMPAIGN ON MOTIVATION AND MORALE

To prepare the battlefield for the ground assault, the Coalition air campaign planners sought to

- destroy 50 percent of the armor and artillery in the Republican Guard and regular army units in the KTO
- deny resupply to Iraqi forces in the KTO
- render ineffective national and military C^3
- destroy minefields and fire-trench systems in the breach areas.[52]

The destruction of Iraqi tanks, APCs, and artillery tubes served as the principal focus of the air campaign and the key metric for measuring its progress toward the preparation of the battlefield. The killing of Iraqi troops in the KTO was an ancillary aim of the air campaign, but this objective apparently received far less emphasis than the destruction of armor and artillery as the campaign evolved.

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[51]This directive was found in a captured Iraqi document dated September 29, 1990. (Murphy, 1991c, pp. A29–A30.)

[52]DoD (1992), pp. 95–98, 146–147.

An Unplanned Dividend

The degradation of Iraqi morale, while an expected by-product of the air campaign, was not identified as an explicit objective. Iraqi morale is not mentioned on any of the graphic materials of the key briefings prepared by the Air Component Commander and his staff. With the exception of a few individuals, the extent and magnitude of the collapse of Iraqi morale that occurred as a result of the air campaign somewhat surprised the air campaign planners. Most apparently assumed, as did other Coalition planners, that the most important degradation in Iraqi combat effectiveness would result from the physical destruction of Iraqi weaponry.

Several facets of the air campaign, however, were designed, at least in part, for psychological effect. The Republican Guard heavy divisions were selected as priority targets for air attack partly because the degradation of these elite forces—if perceived by other troops—might deal a psychological blow to the morale of regular army units. General Schwarzkopf intended to "destroy Iraqi morale by physically annihilating one of the Republican Guard divisions."[53] Morale considerations, however, were only one of several strategic and tactical reasons for focusing attacks on the Republican Guard. The CINCCENT's concept of operations identified the Republican Guard forces as a key Iraqi "center of gravity." The Republican Guard forces were considered (1) the best trained and most effective Iraqi units in the KTO, (2) the Baghdad regime's most reliable and loyal troops, and (3) the most important element of Iraq's conventional offensive threat to the future security of the Persian Gulf region.

The psychological impact, however, was the principal reason for the extensive use of B-52 aircraft against the Republican Guard and other Iraqi units in the KTO. General Schwarzkopf, among others, believed that round-the-clock B-52 bombing would demoralize Iraqi troops as it had temporarily stunned Vietnamese communist soldiers during the Vietnam War.[54] Similarly, the dropping of 11 BLU-82, 15,000-lb fuel air explosive weapons during the Gulf war was also aimed pri-

[53]According to postbriefing comments by General Horner on January 27, 1991. (Watts et al., 1993a, p. 268.)

[54]See Schwarzkopf (1992), pp. 320, 430.

marily to affect Iraqi morale. However, some of the B-52 and BLU-82 attacks were also aimed at neutralizing Iraqi mine and other defenses in the front-line breach areas and at deceiving the Iraqis about the locations of the Coalition's ground attack.

Finally, the decision to attack Iraqi ground units at night as well as during daylight was also, at least in part, motivated by psychological considerations. Round-the-clock bombing would keep the targeted units awake and add to their cumulative stress.[55]

As it turned out, the 38-day Coalition air campaign that preceded the start of the ground campaign on February 24, 1991, decisively reduced the morale of the Iraqi troops whose fighting spirit had already faltered. In addition, the bombing eroded the motivation and morale of many Iraqis in the KTO who, up to that point, had retained the will to resist. By greatly intensifying the attitudes, concerns, and logistic problems that had lowered morale prior to January 17, the air campaign

- convinced Iraqi officers and enlisted personnel of Coalition air supremacy and interdiction effectiveness
- proved the inadequacy of Iraqi air defense
- confirmed the inevitability of Iraqi defeat
- intensified the hardship of the troops in the KTO
- magnified soldiers' fears about their personal survival and the safety of their families back home.

Convinced Iraqis of Coalition Air Supremacy

The Coalition's ability to maintain air supremacy and to strike ground targets with relative impunity validated the Iraqis' preconflict concerns about the technological superiority of Coalition forces. According to Iraqi line crossers and POWs, three attributes of Coalition air operations particularly impressed Iraqi ground forces: the ubiquity of Coalition aircraft, the intensity of the attacks, and the accuracy of the bombardment.

[55]Interview with Lt Gen Glosson, July 26, 1993.

Ubiquity of Coalition Aircraft. Iraqi officers and enlisted personnel alike mentioned the omnipresence of the Coalition aircraft as a key factor depressing their morale. Their impression was a function of both the large number of sorties flown in the KTO and way in which the KTO attacks were orchestrated.

During the air campaign, more than 35,000 attack sorties were flown against targets in the KTO, including some 5,600 sorties against Republican Guard units.[56] In addition, thousands of other Coalition aircraft constantly overflew the KTO on the way to or returning from other missions. All told, Coalition aircraft flew more than 112,000 sorties during the course of Desert Storm.[57] The large numbers of U.S. and other Coalition combat and support aircraft that were available during the Gulf War made this high operational level possible. Some 1,671 Coalition attack and force-protection aircraft flew missions in the KTO campaign.[58]

To deconflict Coalition air strikes in the KTO and to control the weight and distribution of operations against Iraqi ground forces, the KTO was divided into kill boxes of 30 miles on each side. These were subdivided into four quadrants to which a flight might be assigned for a specified period. Airborne forward air controllers (AFACs) or two-ship "killer scout" flights patrolled each kill box to provide battle control.[59] The dozen or so kill boxes that contained the vast majority of the Iraqi troops had strike and/or AFAC aircraft operating in them virtually continuously.[60]

Thus, for the Iraqi troops in the KTO, airplanes "always seemed to be overhead." Iraqi POWs commented on the psychological stress of

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[56]DoD (1992), p. 135.

[57]DoD (1992) p. 164.

[58]This total included 976 U.S. attack and 310 support aircraft and 385 other Coalition support and attack aircraft. Of the 976 U.S. attack aircraft, 583 were USAF, 207 USN, and 186 USMC. Fred Frostic, *Air Campaign Against the Iraqi Army in the Kuwaiti Theater of Operations*, Santa Monica, Calif.: RAND, MR-357-AF, 1994, Table 2.1, p. 11.

[59]The AFACs flew OA-10 and OV-10 aircraft and had responsibility for the kill boxes south of 29 30 N. The Killer Scouts or "Pointers," as they were sometimes called, flew F-16 or F/A-18D aircraft and operated in the kill boxes located between 29'30" N and 30'30" N. The OA-10s and OV-10s operated around the clock, whereas the Killer Scouts operated during daylight hours. (Frostic, 1994, pp. 28–29, 35–36.)

[60]Frostic (1994), pp. 29, 34–36.

knowing that aircraft were constantly orbiting overhead but not knowing if and when the aircraft might strike their unit. The psychological stress was magnified by the Iraqi conviction that the Coalition's superior intelligence and target-designation systems enabled Coalition aircraft to respond promptly to any Iraqi vehicular movement, artillery or antiaircraft firing, or the employment of radios, radar, or other emitters.

Intensity of Air Attacks. The Iraqi POWs and line crossers reported being demoralized also by both the frequency and magnitude of the Coalition air attacks. Because the Coalition objective was to destroy 50 percent of the tanks, APCs, and artillery in each Iraqi division in the KTO and to strike numerous other targets related to the softening of the battlefield, many Iraqi divisions suffered frequent attack.[61] Each of the kill boxes that contained the vast majority of the Iraqi infantry and heavy divisions in the KTO received at the minimum between 700 and 2,800 strikes during the course of the air campaign.[62]

Even Iraqis who had foreseen heavy air attacks commented that the Coalition bombing was more continuous, devastating, and wide-scale than what they had expected. The round-the-clock bombing experienced by some units during portions of the air campaign proved particularly stressful for both officers and enlisted personnel because it deprived them of sleep and allowed them little opportunity to perform their duties. One senior officer reported that he could rarely sleep more than two hours at a time and that the constant pounding shattered the soldiers' nerves, causing some men, as he put it, nearly to go mad. The bombing produced this strong psychological effect even though it caused the Iraqi officer's division relatively light casualties: perhaps 100 men killed and another 150 wounded.

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[61]After a division was assessed to have been attrited below 50 percent, A-10s, F-111s, F-15Es, and A-6s were targeted elsewhere. However, other Coalition aircraft continued to attack any targets requested for destruction in units already degraded to 50 percent. (Frostic, 1994, p. 29.)

[62]The actual number of strikes may have been significantly higher, as about half the strikes (19,336) were not recorded by individual kill box. See David Tretler et al., *Gulf War Air Power Survey,* Volume V: *A Statistical Compendium and Chronology,* Part I: *A Statistical Compendium,* Washington, D.C.: U.S. Government Printing Office, 1993, pp. 466–467.

The magnitude of the B-52 bomb loads had a tremendous psychological effect on the Iraqi troops.[63] Even though few Iraqi POWs or line crossers reported that their units were actually hit in B-52 strikes, many had seen B-52s attacking other units in the distance and had felt the ground tremors from B-52 bomb detonations. The sound and vibrations of the B-52 bomb detonations—even when the actual strike zone was as far away as 40 kilometers—spawned suspense and fear because the soldiers imagined that they would be the next target of attack, and they realized that their bunkers were neither sufficiently deep nor sufficiently hard to protect them.

An Iraqi officer told his interrogator that he had surrendered because of B-52 strikes. "But your position was never attacked by B-52s," his interrogator exclaimed. "That is true," the Iraqi officer replied, "but I saw one that had been attacked."[64]

Accuracy of Bombardment. Through most of the bombing campaign, Coalition aircraft operated at medium altitude so as to minimize losses. But because of their altitude, they often missed their targets. Nevertheless, many Iraqis both respected and were demoralized by the accuracy of the Coalition bombing.

Indeed, in the view of some Iraqis, Coalition aircraft seemed capable of hitting any target that they could detect on the battlefield.[65] Troops serving in Iraqi units deployed in the two Iraqi defense echelons closest to the front lines were particularly impressed by the strike accuracy achieved by A-10s from high altitudes.[66] They

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[63]One Iraqi brigade commander stated that "he and his men feared the B-52 more. These aircraft . . . came every evening at sunset and were able to drop huge amounts of bombs." (VII Corps, 1992, p. 51.)

[64]DoD (1992), p. 145.

[65]According to an Iraqi brigade commander, some of his troops "believed the Americans had put up a space station in which three astronauts were hovering over the battlefield reporting on every move made by Iraqi forces." (VII Corps, 1992, p. 122.)

[66]In the view of some Iraqi soldiers, "the A-10 never missed." The commander of an Iraqi armored brigade that had been attacked by A-10s on frequent occasions told his interrogator: "Sometimes I would look up at the A-10 as he made his run and ask aloud, 'Why don't you visit the division or [another] brigade?'" (VII Corps, 1992, pp. 56, 86.)

reported that most of the hits on their tanks, field artillery, and supply depots came from A-10s operating just outside AAA range.

One senior Iraqi POW expressed amazement that the Coalition aircraft could destroy equipment while seldom hitting the bunkers in which the troops were hiding. In this respect at least, the Coalition's bombing accuracy tended to be viewed as more of a blessing than a bane by the rank and file.

Proved the Inadequacy of Iraqi Defenses

According to the testimony of POWs and line crossers, the Iraqi soldiers in the KTO realized soon after the bombing began that none of the active defense measures that they usually relied on would protect them from Coalition air strikes. Their only hope for protection, they believed, was to depend instead on passive defense measures, including dispersal, camouflage to avoid detection, and deep revetment.

Iraqi troops on the ground learned early on in the air campaign that their air force would not defend them. Most of the POWs and line crossers were surprisingly uncritical of the Iraqi air force, believing that the Iraqi pilots would have tried to help them had they been able to but assuming that they could not cope with the Coalition's technological superiority.

The Iraqi troops also rapidly learned that their ground units' organic air defense weapons could not fend off Coalition strikes. As previously noted, Coalition aircraft operated beyond the range of the Iraqi AAA guns during most of the air campaign.[67] Iraqi SAMs, while downing an occasional aircraft, were usually defeated by altitude, speed, maneuver, flares, or jamming and/or suppression in the case of radar-controlled SAMs.

The Coalition's ability to operate with virtual impunity over the KTO battlefield demoralized the Iraqi ground troops deployed there. Troop morale was also adversely affected by the seeming ease with

[67]During the final days before the start of the ground campaign, Coalition aircraft were authorized to operate at lower altitudes to improve the chances of destroying targets that might threaten the lives of the Coalition ground forces.

which Coalition aircraft could attack targets deep in Iraq—including targets in Baghdad, which possessed the best air defenses in all Iraq—without significant losses. As the air campaign wore on, some Iraqi air defense units stopped firing on Coalition aircraft because of the perceived futility of the exercise and the danger of being seen and struck in retaliation.

An Iraqi commander told his interrogator that he had ordered his tanks not to fire indiscriminately at the A-10s because such action would give away their positions. The commander "remarked wryly that he did not have difficulty in enforcing this order."[68]

Confirmed the Inevitability of Iraqi Defeat

The Coalition's intense attacks on Iraqi ground units and unchallenged air supremacy convinced Iraqi officers and enlisted men alike that their defeat was inevitable. The absence of faith in their ability to win the war deprived the Iraqi combat forces of an important motivation to fight and lowered their morale still further.

Even officers in the elite Republican Guard and regular army heavy divisions believed that the Coalition's dominance of the air greatly reduced Iraq's fighting capability. Because the desert terrain provided little or no cover, maneuvering forces were highly vulnerable to air attack.

One Republican Guard officer felt that the destruction of Iraq's airfields and aircraft had reduced Iraqi fighting capability by 50 percent. He added that "many officers [in his Republican Guard division] felt that negotiations and withdrawal were necessary; offensive action was impossible and only a small counterattack capability remained." Defensive measures available were limited to (1) reliance on camouflage and deception; (2) the use of air-defense weapons, which were of only limited effectiveness; and (3) digging in more deeply.

When asked why Iraqi forces had put up so little resistance during the ground campaign, one senior POW responded that the air campaign had devastated their morale and eroded their will to fight.

[68]VII Corps (1992), p. 97.

Officers and enlisted men considered resistance futile because of the Coalition's manifest superiority. Once the bombing commenced, the troops quickly realized that the balance of power was against them—it was Iraq against the world. Stating that he was not ashamed that he and his men had surrendered, the senior officer explained that the bombing had made any resistance useless and that he saw no reason to urge his men to fight. This reluctance to order men to fight in what was seen to be a grossly unequal conflict was not an uncommon behavior pattern among the Iraqi officers in the KTO.

Thus, the air campaign confirmed the Iraqi soldiers' prewar concerns about their country's technological inferiority: The troops knew that they could not defeat the Coalition's technological superiority. Many of the Iraqis who felt duty-bound to fight the Coalition quickly changed their minds. Even those POWs who averred that Iraqi forces could have put up a more telling resistance, had they been motivated to fight for Kuwait, readily admitted that Iraq's eventual defeat was foreordained because of the Coalition's air supremacy.

Intensified Hardships

The Coalition air campaign severely intensified the deprivations suffered by many Iraqi soldiers in the KTO. As noted above, even before the bombing began, the Iraqi logistic system in the KTO managed to provide only Spartan rations and other resupply to most forward-deployed units. The air campaign seriously stressed this already marginal logistic system, and it could no longer adequately resupply many Iraqi units, particularly in the forward areas. The resulting shortages severely demoralized the affected troops and prompted numerous soldiers to desert.

The logistic squeeze in the KTO apparently came about in a manner not fully anticipated by Coalition air campaign planners. The Coalition plan to cut off support to Republican Guard and regular army forces in the KTO gave primary emphasis to the interdiction of the LOCs between Baghdad and Basra through attacks on bridges and other transportation targets. These LOCs, while severely degraded, were not severed completely prior to G-Day. Moreover, significant stocks of food, fuel, and other supplies still existed at rear-area depots in the KTO despite Coalition air attacks on these targets.

The principal problem for the Iraqis was not a lack of supplies in the KTO, but the distribution of those supplies to deployed units after Coalition aircraft had destroyed many supply vehicles and interdicted the LOCs between the main supply depots and the forward-deployed Iraqi units. Iraqi fuel and water tankers and supply trucks proved particularly vulnerable to air attack and were destroyed in large numbers. Some Iraqi front-line infantry divisions lost their entire complement of tankers and other thin-skinned supply vehicles.[69] Furthermore, the round-the-clock presence and night-attack capability of Coalition strike aircraft deterred drivers in some Iraqi units from even attempting to make supply runs.

Serious food, fuel, and water shortages resulted for many Iraqi units, including virtually all the front-line infantry divisions, which suffered the most. The supply situation worsened as the air campaign progressed. Many units were eventually reduced from a prebombing level of three meals a day to only one, and they lacked fresh water. Malnutrition became a serious problem. Morale in such units plummeted. Some Iraqi officers believed that, had the air campaign continued for a fortnight longer, the Iraqi high command might have had to withdraw its front-line units in the KTO because of logistic strangulation.[70]

Magnified Fears About Personal Survival and Family Safety

According to the POWs and line crossers, the air campaign caused many Iraqi troops to become frightened and depressed about their personal safety. As might be expected, the anxiety levels of Iraqi troops increased markedly in units that had suffered significant casualties from Coalition air attacks. Surprisingly, even troops in units that had escaped bombing losses also experienced intense fears about survival. This conclusion tends to support the importance of expectations on fighting morale: Troops are demoralized not only by

[69]As one senior Iraqi officer recalled the situation: "My division commander kept demanding that I provide supplies, and I told him that out of eighty trucks, I had only ten left. He told me to do it anyway." (VII Corps, 1992, p. 58.)

[70]VII Corps (1992), p. 4.

the actual losses they have already experienced but also by the losses they expect to suffer.[71]

Along with fears about their own safety, the Iraqi troops worried about the safety of their families back home. They tended to transfer the dangers they were experiencing from air attacks to their family members, particularly as Iraqi government propaganda alleged that the Coalition was bombing innocent civilians. As one POW put it: "Soldiers were horrified of the B-52 bombings and they imagined the terror that was cascading upon the civilian population."

Because Coalition air attacks seriously degraded Iraq's civilian, as well as military, communication nets, there was often no telephone, mail service, or other means available for the soldiers to receive news about their relatives. As a result, concern about the safety of family members became an added spur for Iraqi troops to desert home.

As previously noted, some 160,000 Iraqis are estimated to have deserted their units in the KTO. The vast majority of the troops deserted to their homes in Iraq after the air campaign began. Indeed, in many Iraqi units, the "genuine footrace north really commenced when the bombs began to fall."[72]

OTHER PSYCHOLOGICAL EFFECTS OF BOMBING AND PSYOP

The poor troop motivation and low morale that resulted from the Coalition air and PSYOP campaigns seriously degraded Iraqi battlefield performance and, in many instances, caused the disintegration of entire divisions as viable combat forces. Contributing to the dismal Iraqi performance was the fact that the social and organizational systems that often help to maintain the cohesion and resistance of military units in adverse situations failed in this case to buttress Iraqi fighting resolve.

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[71]S. L. A. Marshall quoting British Colonel G. F. R. Henderson. See S. L. A. Marshall, *Men Against Fire: The Problem of Battle Command in Future War,* New York: William Morrow & Company, 1947, p. 170.

[72]VII Corps (1992), p. 52.

Small-Unit Cohesion Operated Against Iraqi Interests

In combat, interpersonal relationships within the primary group (squad, section, platoon, or company) often act to sustain effective battlefield performance. The primary group serves two principal functions in maintaining combat cohesion: It establishes and emphasizes group standards of behavior, and it supports and sustains the individual to overcome stresses he would otherwise not be able to withstand.[73]

In the Persian Gulf War, primary group solidarity, rather than buttressing Iraqi combat performance, actually served to undermine it. This phenomenon was manifest in the mass surrenders of numerous Iraqi front-line infantry units—squads, platoons, companies, and even battalions—and the passive behavior of many Iraqi armored and mechanized units during the ground campaign.

Most Iraqi junior and noncommissioned officers, as well as enlisted personnel, shared similar negative views about the justice and wisdom of the war: They believed that Iraq would lose the war, and they suffered the common stresses and hardships created by the bombing. As a result, officers and men often reacted in the same way: They deserted or surrendered at the first opportunity. Interrogations of POWs and line crossers revealed that Iraqi soldiers often discussed their negative attitudes toward the war with others; thus, the commonality of openly shared views had a reinforcing effect within the units.

Kurdish troops, who constituted about 20 percent of the front-line forces, manifested a primary group cohesion that proved to be consistently detrimental to Baghdad's interests. Believing themselves to be discriminated against and used as cannon fodder, the Kurds felt little loyalty to their Iraqi leaders. As a consequence, the Kurds,

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[73]See Edward A. Shils, "The Primary Groups in the American Army," in Robert L. Merton and Paul F. Lazarfeld, eds., *Continuities in Social Research: Studies in the Scope and Method of "The American Soldier,"* Glencoe, Ill.: The Free Press, 1950, p. 25. See also Edward A. Shils and Morris Janowitz, "Cohesion and Disintegration in the Wehrmacht in World War II," *Public Opinion Quarterly*, Summer 1948, pp. 280–315. In the Korean war, "buddy relationships" were the basic element of social organization and a key source of cohesion in U.S. infantry units. See Roger W. Little, "Buddy Relations and Combat Performance," in Morris Janowitz, ed., *The New Military*, New York: Russell Sage Foundation, 1965, pp. 195–223.

despite their renowned martial qualities, were among the first troops to desert or surrender.

In certain Republican Guard and regular army heavy division and commando units, the bonds of primary-group solidarity probably induced some Iraqi troops to resist during the ground fighting. However, the sustaining effect of such bonds apparently dissolved rapidly under the devastating bombardment and hopeless tactical situation facing these units.

Discouraged Enforcement of Discipline

Because they agreed with their men about the lack of merit and futility of the war, many senior and junior officers did not attempt to enforce the usual discipline. Traditionally, Iraqi officers closely supervised and maintained absolute control over their troops. Military discipline, especially with regard to enlisted soldiers, was based largely on fear, and even slight infractions tended to be punished severely. During the Gulf War, the supervisory mechanism that enforced discipline in Iraqi military units often dissolved.

Acts that routinely would have drawn execution or other severe punishment in the Iran-Iraq War, such as open insubordination or attempted desertion, often drew no serious punishment or went unpunished entirely.[74] Despite strict orders against allowing troops to be contaminated by Coalition propaganda, even soldiers in some Republican Guard heavy division units were permitted to openly carry Coalition leaflets.

Such attitudes among the officer ranks seriously eroded the organic instruments of Iraqi combat units that might have been used to force troops to remain with their units and to resist Coalition attacks actively. Instead, the Gulf War produced instances in which even senior Iraqi officers explicitly advised their men not to fight but to keep their heads down during the initial Coalition assault, and then to surrender at the first opportunity.[75]

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[74]A few captured deserters, however, were executed in some of the infantry divisions as an object lesson for other troops.

[75]Even the senior officers of some divisions might have deserted along with their troops had such action not cost them their honor. As one senior Iraqi officer put it:

While every division undoubtedly contained some hard-line loyalists to Saddam Hussein—such as the division's morale officer—who were committed to fight and willing to maintain discipline by force, their numbers apparently were limited. The Republican Guard units probably contained the highest numbers of strongly committed personnel, but even some of those units gave up without firing a single round. The Republican Guard and intelligence troops that manned the "death squads" emplaced behind Iraqi front-line infantry units to prevent desertions presumably contained a significant core of committed personnel.

By forcing Iraqi troops to keep their heads down, the bombing discouraged or prevented the conduct of training, maintenance, and other routine military activities. Most important, the air campaign impeded command and control within the units. Because the troops spent the entire day in their bunkers, some unit leaders could not account for their soldiers.

Because the unit leaders were themselves hunkered down, they could not have controlled desertions even if they had wanted to do so. As one senior Iraqi officer described the problem:

> First, the junior officers sided with the soldiers and many ran away themselves. Second, the bombing was so bad that most officers had a difficult time just doing their jobs. They could not effectively deal with desertion problems when they were simply trying to survive.[76]

Some Iraqi officers reportedly lost face with their men because they were so intimidated by the bombing, needlessly diving into their bunkers each time an aircraft flew overhead.

Conditioned Troops to Abandon Weapons and Equipment

In one of its most telling effects, the bombing conditioned Iraqi soldiers to abandon, or at least not to operate, their weapons and other equipment. Early in the air campaign, Iraqi troops learned that the

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"Our men were unconvinced of the cause, worried about their families due to the bombing, suffering terrible hardships. They could desert, but we senior officers could not lose our honor." (VII Corps, 1992, pp. 52, 62.)

[76]VII Corps (1992), p. 64.

Coalition was targeting principally Iraqi equipment and that if they attempted to man or stay close to their equipment they would risk death. As a consequence, when Coalition aircraft were about—which was most of the time—the troops remained in their foxholes and bunkers at some distance from their armored and supply vehicles, artillery pieces, and in many instances, their air defense weapons.

As previously noted, Iraqi air defense units, sometimes at the direction of their officers, often did not fire their handheld SAMs and their AAA guns at Coalition aircraft because they considered their weapons to be ineffective and feared inviting a Coalition attack. Similarly, some Iraqi artillery crew members, when ordered to shoot, would blindly fire and then hide because experience had shown them that firing revealed their location and brought on air attacks.

The Iraqis were frequently also reluctant to operate their radars and their radios for fear of Coalition attack. Some Iraqis believed the Coalition could rapidly identify and destroy any emitter. Because of this and the concern that the Coalition would be able to read their radio traffic, the Iraqis eschewed the use of radios at least in their forward units.[77]

As noted above, Coalition PSYOP sought to reinforce the perception that the bombing targeted Iraqi equipment and not Iraqi troops. This PSYOP effort, combined with a pattern of bombing that, in the main, did target weapons and other equipment, convinced many Iraqis that the Coalition did not want to cause needless casualties. This belief reassured and encouraged the Iraqi troops who were considering desertion or surrender to the Coalition.

Most significantly, the Iraqi behavior pattern of staying away from and abandoning weapons carried over into the ground campaign. During the Coalition breaching and other ground operations, the vast majority of Iraqi artillerymen apparently either fired blindly or never used their weapons. Similarly, many Iraqi armored crews

[77]Many Iraqi troops were convinced that the Coalition could "hear, see, detect, and destroy any Iraqi positions through the use of computers, satellites, and other sophisticated equipment." (VII Corps, 1992, p. 110.)

either failed to man their tanks and APCs or rapidly surrendered them once Coalition ground forces fired on them.[78]

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[78]Many Iraqi soldiers quit fighting after offering only token resistance. Some Iraqi troops may have felt the need to fire a few shots at Coalition forces to save face or to confirm their view that resistance was futile against an overwhelming enemy. Other Iraqis may have engaged in such token resistance to fend off possible punishment for their subsequent surrender. General Keys, Commander of the 2nd Marine Division, described the pattern of token resistance his division encountered:

> They [the Iraqis] would take us under fire. We would return fire with effect—killing a few—and then they would just quit. That proved to be the pattern for the entire 100-hour war. Once we took them under heavy fire, they'd fire a few more rounds, then quit.

See William Keys (LtGen., USMC), "Rolling with the 2d Marine Division," *Naval Institute Proceedings*, November 1991, p. 79.

Chapter Eleven

SUMMARY OF THE KOREAN, VIETNAM, AND GULF EXPERIENCES

The preceding discussion examined five distinct conflict periods that provide important insights about the battlefield conditions that have both produced and failed to produce the collapse of resistance and large-scale surrender and desertions among enemy deployed forces:

- September–December 1950 in Korea, when North Korean resistance collapsed and the vast majority of North Korean prisoners were taken
- April–June 1951 in Korea when Chinese resistance significantly weakened and units surrendered *en masse*
- December 1951–July 1953 in Korea, when no breakdowns in communist resistance occurred and when few North Korean and Chinese surrendered or deserted
- 1963–1972 in Vietnam, when communist resistance never faltered decisively and when only a small number of NVA and VC main force troops defected or surrendered
- January 17–February 28, 1991, in the KTO, when the morale of Iraqi defenders collapsed and vast numbers of Iraqi troops deserted home or surrendered.

The testimony of enemy prisoners and deserters, along with evidence deduced from enemy and friendly performance on the battlefield during these periods, enables us to identify the military pressures and other common conditions that have caused catastrophic collapses in an enemy's will to fight and produced large-scale deser-

tions and surrenders. We have evidence also that, in the absence of these pressures and other common conditions, enemy morale has not collapsed and POW and deserter takes have been modest.

CONDITIONS THAT DID NOT NECESSARILY LEAD TO LARGE-SCALE SURRENDER AND DESERTION

Before examining the conditions that most consistently produced large-scale surrender and desertion, it is useful to discuss some of the conditions that clearly contributed to poor morale but not necessarily to large-scale surrenders and desertions.

Initial Morale

The status of enemy morale at the beginning of a conflict can heavily influence the pace and scale of enemy demoralization once the fighting begins. The magnitude of the Iraqi military collapse in the KTO may be ascribed in part to the fact that Iraqi troop morale was poor from the outset. Most of the Iraqi troops had little faith in their cause or their prospects for victory. As a result, the Iraqi forces were peculiarly vulnerable to the stresses and deprivations caused by the Coalition air campaign.

In contrast, the South Vietnamese communist main force personnel who conducted the early insurgency against the Saigon government, as well as the North Vietnamese troops that later infiltrated the South to take over the fighting, possessed high morale at the outset. As a rule, both the NVA and Viet Cong forces entered the conflict believing in their cause and in their ability to avoid defeat. The vast majority of the Viet Cong who subsequently defected to the GVN through the *Chieu Hoi* program belonged to militia and other low-level units. Many of these ralliers were only weakly committed to the "national liberation" cause and had low morale from the outset.

These differences in starting morale help to explain why the Iraqi forces collapsed so completely and why the VC main force and NVA forces never collapsed. Starting morale, however, does not explain the collapse of North Korean forces in fall 1950 or the collapse of Chinese communist units in spring 1951. According to the testimony of communist prisoners and deserters, both the North Korean and

the Chinese forces involved in these collapses possessed high morale when they first entered the fighting. Many of the North Korean forces were battle-hardened veterans who had fought with the Chinese communist and Soviet armies in World War II. Similarly, the Chinese troops routed in spring 1951 were veterans of the war against the Chinese nationalists and were considered to be among the best combat forces in the PLA. Because of their past battlefield victories and the indoctrination that they subsequently had received, both the North Korean and the Chinese communist troops entered the war with high confidence in their capabilities and prospects for success.

Thus, initial morale is not a sufficient explanation for why troops surrender or desert in large numbers during some conflict situations while they do not in others.

Casualties

High casualties can adversely affect morale in several ways. The loss of comrades is dispiriting to the surviving troops and increases their concerns about their own safety and survival. The loss of officers and NCOs, who often suffer disproportionately high casualties in combat units, may particularly demoralize the rank and file, who depend on their leadership.[1] Finally, troops who have been wounded or killed in battle are frequently replaced by less-experienced and less-well-trained personnel, who at least initially may be considered by their more veteran peers to be less useful and reliable in combat.[2]

However, while high casualties undoubtedly demoralize enemy troops, they do not necessarily produce large numbers of enemy surrenderers or deserters. Figures 8.1, 9.1, and 10.1 indicate that the number of enemy forces killed does not correlate with the number of enemy surrenderers and deserters. The Gulf conflict, which produced the *smallest* number of enemy killed both in absolute terms and as a proportion of the number of forces deployed, produced the largest number of deserters and prisoners. In contrast, the Vietnam

[1]See Leonard Wainstein, *The Relationship of Battle Damage to Unit Combat Performance*, Alexandria, Va.: Institute for Defense Analyses, P-1903, April 1986, p. 16.

[2]Wainstein (1986), p. 3.

War, which saw the largest number of enemy killed, produced only a small number of NVA and VC main force prisoners and defectors.

Even though North Korean and Chinese communist units continued to take significant casualties during the last year and one-half of the Korean War, very few Chinese or North Koreans surrendered or deserted to UN forces. Yet, during two earlier periods of the war, fall 1950 and spring 1951, high enemy casualties were associated with large-scale surrenders.

Other research, based on data derived from World Wars I and II, as well as the Korean War, supports the finding that there is not necessarily a direct correlation between casualties and unit combat performance. Some units have continued to fight effectively even after having suffered casualties of up to 90 percent, whereas other units have ceased effective resistance after taking only very light losses.[3] Indeed, for every example that illustrates an apparent direct relationship between casualties and unit combat performance there is another that refutes it.[4]

Intensity and Quality of PSYOP

The intensity of PSYOP in the various conflicts also does not explain the difference in the number of surrenderers and deserters. Allied PSYOP in Vietnam were more intensive than those in the other two wars, involving the dissemination of an estimated 50 billion leaflets mostly targeted on Viet Cong and NVA troops. Yet they caused no decisive erosion of enemy resistance in Vietnam, and only a modest number of NVA and main force Viet Cong troops surrendered or defected. Similarly, most of the two billion or so leaflets dropped by the UN during the 38-month Korean conflict were dropped during the last half of the war, when North Korean and Chinese communist surrenderers and deserters were rare.

Based on the number of leaflets dropped over time, Coalition PSYOP in the Gulf War were the least intensive of any of the conflicts. During the seven-week Gulf War, the Coalition dropped some

[3]Wainstein (1986), pp. 78–86.

[4]Wainstein (1986), p. 5.

29 million leaflets over the KTO and central Iraq. During a similar period of the Vietnam conflict, some 670 million leaflets were dropped. Close to 90 million leaflets were dropped during a seven-week period in Korea. Yet massive numbers of Iraqi troops deserted or surrendered in the Gulf War.

Neither does the quality of the PSYOP effort seem to explain the difference. While the Coalition's PSYOP campaign against the Iraqi forces deployed in the KTO appears to have been particularly well designed and executed, the allied PSYOP in Korea and Vietnam were also competent operations, particularly with respect to offering assurances of good treatment to prisoners and deserters.

CONDITIONS THAT CONSISTENTLY PRODUCED LARGE-SCALE SURRENDER AND DESERTION

Our examination of the Korean, Vietnam, and Gulf wars suggests three conditions that have consistently produced a catastrophic disintegration of enemy resistance and large-scale enemy surrenderers and deserters. These conditions were when friendly military operations (1) subjected enemy forces to sustained, effective air and other attacks; (2) deprived enemy troops of adequate food; and (3) exploited the loss of enemy morale caused by (1) and (2) through timely ground operations. Our analysis further suggests that when these conditions were absent, catastrophic disintegration and large-scale surrenders and desertions were absent as well.

Sustained, Effective Air and Other Attacks

Sustained, Effective Air Attacks in Korea (First Year) and in the Gulf. The Gulf and Korean cases demonstrate that sustained air attacks on deployed forces can prompt and facilitate large-scale enemy surrenders and desertions by (1) demoralizing enemy soldiers and giving them a reason to surrender or desert, (2) degrading the enemy combat leader's capability to reconstitute troop morale, and (3) providing the troops with the opportunity to surrender or desert. The communist forces that were routed in Korea in fall 1950 and spring 1951 and the Iraqi units that disintegrated in the KTO in February 1991 had been subjected to sustained allied military attacks prior to their collapse.

In the case of the Iraqis, virtually all of the military pressure came from the round-the-clock strike and other air operations that the Coalition conducted during the 38-day air campaign that preceded the ground campaign. Iraqi POWs of all ranks cited Coalition air operations as a key reason for their low morale and failure to resist during the 100-hour Coalition ground offensive.

In the two Korean cases, the military pressure resulted from UN air and artillery attacks and ground combat with UN forces. At the time of their respective collapses in 1950 and 1951, both the North Korean and Chinese forces had been on the offensive for several months and had suffered heavy casualties in their repeated attempts to drive the UN defenders from Korea. According to the testimony of North Korean and Chinese prisoners and deserters, a principal cause of the deterioration in morale that preceded each of these precipitous collapses was the cumulative effect of sustained UN air attacks.

Ineffective Attacks Later in Korea. In the conflict situations in which enemy troops were not subjected to sustained attacks, their resistance did not collapse and they did not surrender and desert *en masse.*

The last 20 months of the Korean War saw few North Korean and Chinese surrenders or desertions. During this period, UN ground forces remained on active defense along the provisionally agreed-on demarcation line awaiting the finalization of the truce negotiations. As a result, the military initiative in Korea rested largely with the communist forces, which mounted periodic attacks (conducted almost always at night) against UN positions. Between attacks, communist troops mainly remained holed up in the elaborate defensive system of bunkers, trenches, and tunnels that they had created along the line of contact. These defensive positions, dug deep and reinforced overhead, were largely impregnable to air and artillery attack.

Thus, even though the UN allies probably flew more attack sorties in Korea during the last half of the war than during the first half, the later attacks proved far less damaging psychologically and physically to the deployed forces. In the absence of the effective air attacks and the other military pressures that had eroded the communist will to fight early in the war, communist morale improved significantly and

remained intact for the remainder of the Korean conflict. Because their forces held the initiative and were able to rest and refit in their defensive sanctuaries between attacks, North Korean and Chinese communist cadres had ample opportunity to repair any shortcomings in troop morale before the units were again committed to battle.

Sustained Attacks Rare in Vietnam. Communist forces in Vietnam were rarely subjected to sustained air, artillery, or other military attack. Communist forces did not attempt to defend territory and avoided extended combat against numerically superior forces. Communist commanders largely retained the initiative about where and when their units would fight; as a consequence, they were able, for the most part, to control their own casualties.

Most communist units fought only a few times a year, perhaps once or twice every six months. The communist strategy was to remain undetected and inflict damage sporadically through ambushes and other brief hit-and-run attacks, while husbanding their resources for the major offensives they launched at Tet 1968 and Easter 1972. The latter offensives did temporarily expose the attacking communist forces to periods of air and artillery attacks that inflicted heavy losses. The communists, however, retained the initiative and were able to break off these attacks without compromising their ability to continue the conflict.

Because most ground engagements against U.S. and GVN forces were brief, VC and NVA troops were generally not exposed to sustained air attack. When attacking fixed positions, such as the U.S. Marine base at Khe San, the Vietnamese communists also constructed elaborate defensive positions to minimize the effect of U.S. air attacks.

After engagements with allied forces, communist troops withdrew to rear areas, where they could evade further air attack by frequently changing locations under the protective cover of the triple-canopied rain forest. Here, they rested, received replacements, and underwent a process of intensive morale building. This practice enabled the communists to reconstitute units that had suffered battle casualties averaging an estimated 40 percent killed each year.

The strategies and tactics employed by the various combatants in Vietnam in combination with the protective cover that made the

identification of targets difficult prevented U.S. and RVNAF aircraft from effectively attacking deployed communist forces over sustained periods. This lack of sustained air pressure persisted despite the fact that over the eight-year period from 1965 to 1972 the United States conducted over a million attack sorties in South Vietnam alone. Hundreds of thousands of additional attack sorties were flown against NVA forces moving down the Ho Chi Minh Trail in Laos and against suspected communist troop locations in North Vietnam and Cambodia.

The Gulf War demonstrated that a sustained air campaign can greatly demoralize enemy ground troops and produce large-scale surrenders and desertions.[5] However, to achieve such an impact, the air campaign must effectively attack enemy troops over a protracted period. When aircraft cannot attack ground forces effectively over an extended period, or when the demoralization that occurs as a result of the air attacks is not exploited, even massive bombing may not produce significant desertions or surrenders. As previously noted above, comparatively few communist troops defected or surrendered in the Vietnam War.

Resulting Food Shortage

A second condition that seems to have prompted the collapse of enemy resistance and large-scale surrenders is the food shortage resulting from sustained and effective bombing.

Many of the enemy forces that collapsed in Korea in fall 1950 and spring 1951 and in the Gulf in early 1991 suffered from a severe shortage of food. Prisoners and deserters in both conflicts cited food shortages as a leading reason for the low morale in their units. The lack of food was so severe in many front-line units that the North Korean troops had little stamina and the Chinese soldiers resorted to eating grass and roots. The front-line Iraqi troops in the KTO frequently suffered from severe shortages of food and drinking water.

[5]It should be kept in mind that the air campaign in the KTO was conducted under conditions highly favorable to the attacking Coalition air forces: The cover was open; the visibility was generally good; and the deployed Iraqi forces were mostly separated from the civilian population. Similar conditions would not pertain in some other potential conflict arenas.

The food shortages in both Korea and the KTO resulted from friendly air operations that prevented the enemy from moving food and other sustenance to forward-deployed units. The interdiction of food supplies in Korea resulted partly from air attacks on bridges, rail lines, roads, and supply depots. However, in both Korea and the Gulf, the food and other shortages suffered by the enemy front-line troops resulted to a large extent from air attacks on their thin-skinned transport vehicles.

In combat situations in which food was adequate, morale did not significantly disintegrate, and few troops surrendered. Once the battle lines in Korea had stabilized in late 1951, communist troops began to get adequate food. Their retreat northward had shortened their LOCs, and the rail and road lines from the Yalu were increasingly well protected by antiaircraft weapons.

While some VC and NVA units experienced temporary food shortages, we have no evidence that hunger became a serious problem or that it reduced the combat effectiveness of VC and NVA units. The abundance of food sources throughout South Vietnam enabled communist troops to enjoy adequate food rations in most areas nearly all the time.

Timely Ground Attacks to Exploit Collapsing Morale

Ground offensives to exploit the deterioration in enemy morale have proved to be the final condition common to the situations in which collapsing enemy resistance has led to large-scale surrenders. The erosion of North Korean morale that occurred as a result of sustained UN air and other attacks in summer 1950 was exploited in September 1950 by the Inchon landing and the UN breakout from the Pusan perimeter. Similarly, the serious deterioration in Chinese fighting morale that existed prior to the defeat of the Chinese offensive in May 1951 was immediately exploited by a UN counterattack.

Among other effects, the UN offensives demoralized the North Korean and Chinese forces even further and gave the communist cadres little, if any, opportunity to reconstitute the morale of their retreating troops. From December 1951 onward, however, UN forces failed to exploit the communist forces' periodic battlefield setbacks.

In the case of the Iraqi forces in the KTO, the Coalition's 100-hour ground offensive in February 1991 exploited the widespread demoralization of Iraqi ground troops that had resulted from the Coalition air campaign.

The Vietnam War saw little, if any, battlefield exploitation of enemy defeats or presumed losses of morale. Once U.S. forces had found and fixed the enemy, they relied on air and artillery, rather than ground forces, to finish him. Even when U.S. troops attempted to close with the enemy, the jungle terrain usually made it extremely difficult to prevent his escape.

When ARVN troops made contact with the enemy, they usually did not attack but instead waited for air or artillery support to dislodge him. ARVN forces virtually never attempted to pursue a defeated enemy force.

Given the numerous defeats and enormous casualties suffered by communist forces in Vietnam over the years, it seems likely that both NVA and VC troops at times must have been severely demoralized and vulnerable to disintegration and collapse when they left the battlefield. This would seem to have been particularly true following the failure of the communist Easter offensive in 1972, when attacking communist units suffered huge casualties from U.S. B-52 and other air attacks during their vain attempts to overrun South Vietnamese defenders at An Loc, Kontum, and Hue.

However, there was no attempt by friendly troops to exploit such communist defeats. Even the U.S. incursion into Cambodia, the largest American offensive operation of the war, was halted after a penetration of little more than 20 miles, which allowed most communist forces to escape safely. As a result of the political constraints on U.S. offensive operations, the difficult terrain of the battle zone, and the combat tactics employed by friendly ground forces, communist units mauled by friendly air attacks and defeated in battle were invariably able to withdraw to rear areas where they could rest, refit, and rebuild their morale.

CONSISTENCY WITH GERMAN BEHAVIOR IN WORLD WAR II

An analysis of cohesion and disintegration in the German army in World War II, based on interviews with German POWs, seems broadly consistent with the findings presented above about the causes of large-scale surrenders in the Korean, Vietnam, and Gulf wars. Because of the strength of primary group solidarity in *Wehrmacht* units, the German army was able to maintain a high degree of organizational integrity and combat effectiveness until almost the very last weeks of the war.

As a rule, the primary bonds of group solidarity that inhibited German troops from surrendering dissolved only under the most extreme threat to the individual soldier. According to the testimony of German POWs, the cohesion of *Wehrmacht* units was most likely to disintegrate when "the tactical prospects were utterly hopeless, under devastating artillery and air bombardment, or where the basic food and medical requirements were not being met."[6]

Just as Coalition attacks on Iraqi rear-area targets in the Gulf War served to undermine Iraqi troop morale, Allied air attacks on German cities in World War II also served to depress the morale of forward-deployed Wehrmacht soldiers who worried greatly about the safety of their families.[7] Other research on German troop behavior underlines the importance of timely ground operations to exploit the demoralization caused by bombing. While this research did not focus on the psychological effects of protracted air attacks, it did examine the psychological effects of short, intense, preparatory bombardments prior to ground attacks.

An analysis of intense heavy and medium bombing in close support of various Allied landing and breakout operations in 1944 (including the attempted breakouts in Cassino, Italy, and at the Normandy

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[6]Shils and Janowitz (1948), p. 291. Special care was observed in the *Wehrmacht* to see that German troops were adequately fed and, as a result, few German soldiers felt that their food supplies were inadequate.

[7]USSBS, *The Effects of Strategic Bombing on German Morale,* Volume II, Washington, D.C., December 1946, in David MacIsaac, ed., *The United States Strategic Bombing Survey,* Volume IV, New York: Garland Publishing, Inc., 1976d, pp. 40–41.

beachhead in France) suggested that the principal advantage of such bombing had been "in rendering German troops and equipment temporarily incapable of functioning as a result of vibratory shock and also, temporarily at least, in reducing the morale and will to fight of troops subjected to intense and prolonged bombardment."[8]

The analysis also suggested, however, that such preparatory bombing could prove valuable in saving both time and casualties only when its disruptive and morale effects could be rapidly exploited by assault troops.[9] When the exploitation was delayed or slow, the enemy had an opportunity to recover.

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[8]Ian Gooderson, "Heavy and Medium Bombers: How Successful Were They in the Tactical Close Air Support Role During World War II?" *The Journal of Strategic Studies*, Vol. 15, No. 3, September 1992, p. 393.

[9]Gooderson (1992), p. 394.

Chapter Twelve

LESSONS FOR U.S. COMMANDERS

The preceding analysis of PSYOP and the psychological effects of air and other military operations against deployed forces in the Korean, Vietnam, and Gulf wars suggests the following objectives for U.S. theater air component and other commanders:

- Emphasize the psychological dimensions of warfare in military education and training and in the planning and conduct of military operations.
- Adopt an overall campaign strategy that will subject enemy forces to psychologically effective attack.
- Make enemy demoralization a priority air campaign objective.
- Employ concepts of operations that maximize psychological impact.
- Develop and acquire weapon systems that increase airpower's psychological impact.
- Exploit psychological effects of air operations with timely ground operations.
- Closely integrate military operations with PSYOP.
- Maintain a capability to assess enemy psychological strengths and vulnerabilities.
- Begin the psychological conditioning of potential adversaries in peacetime.

EMPHASIZE PSYCHOLOGICAL ASPECTS IN TRAINING, PLANNING, AND OPERATIONS

To exploit fully the potential of U.S. military operations against deployed enemy forces, U.S. commanders will need to devote increased attention to the psychological dimensions of warfare in the planning and conduct of their military operations. Commanders should avoid the bifurcated approach often evident in the past, when combat operations were used mainly to produce physical effects on the enemy and PSYOP messages were used to produce any desired psychological effects.

Commanders should understand that military operations, rather than PSYOP messages, produce the most important psychological effects. Commanders should also realize that combat operations can inflict psychological damage to an enemy deployed force that can equal or even exceed the physical damage suffered by that force. The psychological effect of combat operations applies especially to sustained air attacks, which have proved capable of decisively undermining the cohesion and fighting will of enemy ground forces. As the Korean and Gulf wars have demonstrated, enemy demoralization opens the way for rapid and low-cost battlefield victories.

The recognition that military operations produce decisive psychological effects does not lessen the importance of PSYOP. The surrender appeals and other messages disseminated by leaflets and radio and loudspeaker broadcasts exploit and reinforce the psychological effects created by military pressure. PSYOP cost little and, if conducted professionally and integrated closely with military operations, can be a significant force multiplier.[1]

In addition to focusing on how to maximize the psychological damage to the enemy, American commanders must also seek to mini-

[1]The cost for PSYOP during the Gulf crisis approximated $16,100,000. (U.S. Special Operations Command, 1993, p. 1-4.) According to U.S. Army analyses of the lessons learned from the Gulf War, "there was a fundamental lack of appreciation and understanding of PSYOP as a force multiplier during Operation Desert Shield and the onset of Operation Desert Storm." The analysis concludes that "battle planners must understand the capabilities and limitations of PSYOP units." See Center for Army Lessons Learned, *Special Operations Forces Newsletter*, Fort Leavenworth, Kan.: U.S. Army Combined Arms Command, 1992, p. 17.

mize the potential adverse psychological effects of their military operations. In particular, commanders must be prepared to justify their operations to the U.S. and international publics and must exercise care to avoid actions that might generate popular support for the enemy and/or restrict future U.S. military options. This psychological dimension of warfare is likely to grow in importance as the capabilities for instant television and other media coverage from the battlefield increase and as U.S. enemies become more sophisticated in extracting propaganda advantage from alleged, as well as real, American military missteps.

In rural and urban guerrilla conflicts, the air component commander must restrict and carefully control air attacks to avoid causing civilian casualties and collateral damage that would create additional recruits and popular support for the enemy side. During the Vietnam War, the Viet Cong routinely shot at U.S. fixed-wing aircraft and helicopters from hamlets and other areas inhabited by noncombatants in the hopes of drawing American retaliatory fire that would kill or maim innocent civilians. The Viet Cong political cadres used the civilian casualties as a means to fan anti-American sentiments among the local population and entice additional volunteers into the Viet Cong.

To ensure that future combat leaders and planners understand the psychological dimensions of warfare, the psychological effects of military operations and PSYOP should receive increased coverage in military training and in the curricula of the service war colleges and command and staff schools.[2]

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[2]Some training is now offered in Air Force schools and other educational institutions. The USAF Special Operations School, for example, offered a 5-day Joint Psychological Operations course and a 2.5-day Senior Psychological Operations course in FY94. Both courses focused in the main on PSYOP rather than on the psychological effects of air operations. "Psychological operations" is also among the topics covered in the air campaign block of the Air Command and Staff College's air campaign course. See U.S. Air Force, *USAF Special Operations School Catalog for Fiscal Year 94*, pp. 16–17 and 33–34, and P. Mason Carpenter (Maj, USAF) and George T. McClain (Maj, USAF), "Air Command and Staff College Air Campaign Course," *Air Power Journal*, Fall 1993, p. 81.

ADOPT AN OVERALL CAMPAIGN STRATEGY THAT PROMOTES PSYCHOLOGICALLY EFFECTIVE ATTACK

The war-fighting commander should adopt an overall campaign strategy that will force enemy ground units to react in a manner that will expose them to prolonged and psychologically effective aerial and other attack. To erode decisively an enemy's will to fight, friendly aircraft may have to attack over a period of several weeks or more. The air operations and ground fighting that preceded the collapse of enemy forces in Korea in 1950 and 1951 lasted several months; the air campaign that so demoralized Iraqi troops in the KTO required 38 days.

Even in the Vietnam War, an opportunity could have been created to expose North Vietnamese ground forces to prolonged and effective air and ground attacks had the United States adopted a different strategy. If the United States had inserted several divisions into the narrow waist of the Laos panhandle to block the Ho Chi Minh Trail, the NVA would either have had to mount a major counteroffensive to break the U.S. hold on this vital artery or see its forces in South Vietnam atrophy from a lack of supplies and replacements.[3] The NVA might have attempted to outflank the blocking position via Thailand, but this would have brought the NVA into more open terrain (far easier to defend than most of South Vietnam), where U.S. air-ground operations and air interdiction would have been more effective.[4]

Any communist counteroffensive to dislodge the blocking force would have committed a large number of NVA units to a prolonged, set-piece battle under conditions that would have greatly favored the Americans.[5] Among other advantages, U.S. B-52s and other aircraft would have been able to attack intensively NVA troop concentrations

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[3]See Davidson (1988), p. 436. For a discussion of what such a campaign might have entailed, see William E. DePuy (GEN, USA, Ret.), "What We Might Have Done and Why We Didn't Do It," *Army*, February 1986, pp. 23–40.

[4]See Bruce Palmer, Jr. (GEN, USA, Ret.), *The 25-Year War: America's Military Role in Vietnam*, Lexington, Ky.: The University Press of Kentucky, 1984, p. 183.

[5]Davidson (1988), p. 436.

and the LOCs that supported them over an extended period of time.[6] The cumulative effects of such attacks probably would have seriously demoralized and weakened the attacking NVA troops and contributed to their eventual decisive defeat.[7]

MAKE DEMORALIZATION AN AIR CAMPAIGN OBJECTIVE

Because inducing enemy troops to desert, surrender, and abandon their weapons can be as important to a favorable battlefield outcome as the destruction of enemy armor and artillery, air campaigns should be designed to maximize the psychological, as well as the physical, effects of airpower. To ensure that adequate attention will be given to psychological targets,

- The air component commander should make the destruction of enemy morale a priority air campaign objective.
- Personnel expert in psychological effects should be included on air campaign planning staffs.

In past conflicts, the psychological effects of air operations have largely been a matter of serendipity. Air operations against deployed forces in the main have been designed to support friendly ground forces and to destroy enemy installations, LOCs, C^3, equipment, and manpower. When enemy morale has disintegrated, it has done so largely as an unexpected but welcome by-product of such attacks.

The psychological effects of air operations in Korea were largely unplanned and unanticipated. Individual Air Force officers and NCOs were aware of them, but few systematic attempts were made to

[6]Because the NVA forces would have been heavily engaged, attacks on their LOCs would have deprived them of needed equipment replacements, ammunition, and other consumables.

[7]General Davidson believes that such a communist counteroffensive would have resulted in the destruction of the communist units engaged in the attack. The U.S. air support to the ARVN forces defending An Loc, Kontum, and the approaches to Hue during the communist 1972 Easter offensive demonstrated how decisive U.S. airpower could be to the successful defense of positions held even by numerically inferior South Vietnamese forces. (Davidson, 1988, pp. 436, 698, 705, and 708.)

maximize the beneficial psychological effects.[8] Yet air attacks on Chinese and North Korean troops had psychological effects almost as important as their physical effects.[9]

While some air operations against deployed forces in the Gulf War were conducted at least in part for psychological effect, Iraqi morale was not one of General Horner's air campaign objectives. The principal objective of the Coalition air campaign in the KTO was to destroy 50 percent of the Iraqi armor and artillery. The air campaign did not achieve this goal, at least as far as armor is concerned, but the devastating effect of the Coalition bombing on Iraqi troop morale more than made up for the shortfall of physical destruction. Probably more Iraqi armor escaped to Iraqi-controlled territory or was abandoned on the battlefield by dispirited and fleeing Iraqis than was destroyed by Coalition ground engagements and air action combined. The psychological effect of the bombing was unanticipated by the Coalition air campaign planners.

EMPLOY CONCEPTS OF OPERATIONS THAT MAXIMIZE PSYCHOLOGICAL EFFECTS

Keep Enemy Under Sustained Attack

Experience shows that sustained air attacks can seriously erode morale. Air operations should be designed to keep enemy forces under attack or at least under the threat of attack, around the clock, for a protracted period. The uncertainty as to when and where orbiting aircraft may attack next can be as demoralizing to the enemy soldier as an actual attack.

Maintaining attack aircraft day and night over all sectors of the battlefield may require a large force. Because the ubiquity of the U.S. air presence is likely to have a demoralizing effect on enemy forces,

[8]Davison (1951c), p. 47. In Davison's view, the U.S. Air Force achieved remarkable success in psychological warfare in Korea. The fact that these successes were largely unexpected by the Air Force command did not detract from their significance or from the harm that they did to the communist cause.

[9]Davison (1951c), p. 40.

flights to and from deeper targets should be vectored over enemy troop concentrations whenever possible.

Enemy troops should be attacked along their line of march, in forward assembly areas, and along the front line of engagement. Enemy forces in the front lines should also be subject to sustained artillery and other attacks. Sustained attacks and the threat of attacks would accomplish the following:

- Undermine the motivation and morale of enemy troops b y magnifying their fears about their safety and survival, by denying them sleep and otherwise intensifying their battlefield hardships, and by eroding their belief in their leaders, military doctrine, weapons, and prospects for victory. The ultimate aim would be to destroy the fighting will of the enemy soldiers and provide them with reasons to desert, surrender, and otherwise fail to carry out their military duties.
- Impede the combat leaders' ability to bolster or restore the morale of their troops through face-to-face indoctrination and other unit morale-building activities by forcing enemy officers and the rank and file to remain constantly dispersed and under cover. Air operations should also be used to gain information dominance and, in particular, to degrade enemy capabilities to disseminate propaganda to their troops by destroying and jamming their communications.
- Provide the enemy troops with the opportunity to desert or surrender by making it dangerous and difficult for enemy combat leaders and internal security elements to observe and control troop behavior on the battlefield.

Any prolonged interruption in the pressure from air and artillery attacks would provide enemy leaders with an opportunity to reconstitute the morale of their troops. Thus, temporary cease-fires or other respites on the battlefield should be avoided.

Deny Food to Enemy Forces

Hunger destroys enemy morale. In both the Korean and Gulf wars, the lack of food was a principal cause of large-scale surrenders.

Food denial may not be a feasible objective in all conflict situations. But where it is feasible, it should be pursued with vigor. This will involve concerted attacks on the enemy's food supply depots, the interdiction of his LOCs, and destruction of his thin-skinned supply vehicles. Experience shows that round-the-clock armed reconnaissance flights along enemy supply routes can prove sufficiently intimidating to enemy drivers that they will refuse to drive resupply missions.

Use Heavy Bombers for Surprise and Shock Effect

The use of heavy bombers significantly increases the enemy's perception of the intensity of air attacks. In the Vietnam and Gulf wars, the B-52s were often the aircraft most feared by enemy troops, even though they frequently failed to hit their intended targets. The B-52s flew high and often announced their presence to the enemy soldiers only when their bombs began to hit. Their heavy loads of general-purpose bombs proved devastating to forces caught in the open and caused shocks that could be felt at considerable distance from the actual target area.

The advent of GPS targeting should make heavy bomber attacks with general-purpose bombs more accurate and allow heavy bombers to be employed in closer proximity to friendly lines. Attacks by heavy bombers equipped with precision weapons would undoubtedly have devastating psychological effects in that they would permit the sudden devastation of bunkers and other hardened emplacements immune to destruction except by direct hit.

Make Enemy Air Defenses Appear Impotent

Enemy forces are demoralized when aircraft can attack them with virtual impunity. The air supremacy that U.S. aircraft maintained over the battlefields of the Korean, Vietnam, and Persian Gulf wars was a continuing source of concern to the enemy troops who fought in those conflicts.

The inability of Iraqi ground-based air defenses to shoot down high-flying and maneuvering Coalition attack aircraft greatly depressed the Iraqi ground troops. North Korean and Chinese forces were simi-

larly demoralized when they found that their air defense training and their air defense weapons were wholly inadequate during the early months of the Korean War. In contrast, the morale of at least some of the North Vietnamese forces fighting in South Vietnam was bolstered by the knowledge that their air-defense units were exacting a toll for U.S. air attacks.

This experience suggests that, in addition to the obvious traditional reasons an air commander has for holding down his combat losses, there is a psychological reason as well. To convince the enemy that his resistance is futile, U.S. aircraft should attack him with near zero losses. Fortunately, the advent of new sensors, stealth, standoff, and precision-strike capabilities should make it possible for U.S. forces to more closely approach the achievement of this demanding objective.

Condition the Enemy to Desert His Equipment

The Coalition air campaign in the Gulf War was highly successful in conditioning Iraqi soldiers not to operate their weapons and other equipment. This behavior pattern stemmed in part from the Iraqi belief that the Coalition's intelligence and target designation systems could direct Coalition aircraft to respond promptly to any vehicular movement, artillery or antiaircraft firing, or the use of radios, radars, and other emitters. Furthermore, even though Coalition aircraft mostly operated from medium altitude and, as a consequence, often missed their targets, many Iraqis believed Coalition aircraft could hit any target they could detect on the battlefield.

These perceptions—along with the Iraqi realization that their equipment, and not Iraqi troops, was the Coalition aircraft's principal target—led Iraqi soldiers to remain in their foxholes and bunkers, away from their armored vehicles, artillery tubes, and in many instances, their air defense weapons when Coalition aircraft were about. Most significantly for the Coalition, this behavior pattern carried over into the ground campaign, when Iraqi forces routinely deserted their fighting vehicles as Coalition aircraft flew over and abandoned much of their armor and artillery without firing a shot.[10]

[10]Even such formidable armored forces as the *Wehrmacht* in World War II could be demoralized and decisively disrupted by repeated air attacks. During the Allied cam-

The pattern of bombing that targeted weapons and equipment convinced many Iraqis that the Coalition did not want to cause needless casualties and made them more amenable to surrender to Coalition forces.

In future conflicts, an opportunity may arise to tailor air operations to produce results similar to those achieved in the Gulf War. The objective of these conditioning operations would be to convince enemy forces of the following:

- If you fly, you die.
- If you fire, you die.
- If you communicate, you die.
- If you radiate, you die.
- If you move with your vehicles, you die.
- If you remain with your weapons, you die.

To reap the psychological benefits of airpower, it is also important to avoid adverse conditioning. The enemy must not see your air attacks as weak or impotent. The hesitant, heavily constrained, and slowly escalating bombing campaign against North Vietnam in 1965 is a prime example of adverse conditioning. The hesitant use of NATO airpower in the former Yugoslavia prior to mid-1995 is another example of adverse conditioning.

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paign in Northwest Europe in 1944 and 1945, the constant threat of Allied air attacks often paralyzed German movement and had a profound effect on morale. When brought under air attack, German tank crews would sometimes evacuate their vehicles and run for cover regardless of whether the tanks they had abandoned were blocking the movement of the remainder of their column. Many German crews apparently chose to abandon intact or to destroy their armored vehicles rather than invite further air attacks. Thus, even though fighter-bomber attacks on German armor in 1944 and 1945 resulted in a comparatively low level of direct destruction, the disruption, demoralization, and other functional damage that resulted from the air attacks often proved decisive in rendering the enemy armor impotent. An analysis of German armored and motor vehicle losses in the Falaise pocket area showed that nearly 60 percent of the armored and transport vehicles had been abandoned or destroyed by their crews. See Ian Gooderson, "Allied Fighter-Bombers versus German Armour in North-West Europe 1944–1945: Myths and Realities," *The Journal of Strategic Studies*, June 1991, pp. 210–231.

DEVELOP WEAPONS THAT INCREASE AIRPOWER'S PSYCHOLOGICAL IMPACT

In preparing for future conflict, the Air Force should seek to develop and acquire sensors and weapon systems that will magnify the potential enemy's perception of American air prowess. Among the capabilities that might have particularly strong psychological effects would be sensors and weapons that could deny enemy ground troops sanctuary from air attack. Examples of such capabilities might include the ability to detect and attack effectively (1) enemy artillery and mortars immediately upon their firing and (2) enemy personnel and equipment positioned in camouflaged, hardened emplacements, or under heavy foliage.

EXPLOIT PSYCHOLOGICAL EFFECTS OF AIR WITH TIMELY GROUND OPERATIONS

Experience shows that weaknesses in the cohesion and morale of enemy ground forces are likely to be temporary and subject to repair. After air attacks and other sustained military pressures have eroded the cohesion and fighting will of an enemy force, a ground offensive should be mounted promptly to exploit the psychological vulnerabilities that have been created. Timely ground attacks enable U.S. forces to reap the maximum battlefield benefits of the cumulative psychological softening.

The Korean and Gulf wars provide examples of ground offensives decisively exploiting the degraded will to resist of enemy ground forces. In the Vietnam War, allied forces rarely pursued the enemy after engagements and therefore were unable to exploit temporary losses of cohesion and morale. Effective follow-up by ground forces must be particularly rapid when one is attempting to exploit the shock effects of a particular, massive bombing attack.

INTEGRATE PSYOP WITH AIR ATTACKS

PSYOP messages help to break down two key barriers to surrender and desertion: (1) enemy concerns about how to surrender or desert safely and (2) enemy fears about treatment after capture. It is impor-

tant to allay such fears because of the adverse indoctrination enemy troops will have received.

Every enemy that the United States has fought since 1941 has attempted to motivate its soldiers to fight hard and to deter them from surrendering by holding out the specter of torture and/or execution should the troops fall into American hands. According to the testimony of some of the few Japanese troops who were taken prisoner in World War II, the Japanese soldier almost invariably spurned surrender not only because he had been taught to believe that he and his family would be irreparably disgraced if he allowed himself to be taken prisoner, but also because he expected to be "killed, tortured, or reduced to slavery" by his captors.[11]

In addition to helping to quell enemy fears about surrender, PSYOP messages can also help to reinforce the enemy demoralization and passive battlefield behavior caused by U.S. and allied air and other military operations. Tactical PSYOP can be particularly important to facilitating the prompt surrender of enemy troops during ground offensives.

Air planners should work closely with their PSYOP counterparts to integrate and coordinate military operations and PSYOP messages. PSYOP should be taken into account in air campaign planning, and planned air operations should be taken into account in the design and dissemination of PSYOP messages. Such integration has been lacking in the past.

During the Gulf War, the planning of air operations and PSYOP do not appear to have been closely integrated. Indeed, there seems to have been a fundamental incongruity in the planning of Coalition air operations and the planning of PSYOP. The air operations that had specific psychological objectives—the air campaign against Iraqi strategic targets—received minimal PSYOP support. In contrast, the

[11]The vast majority of Japanese troops fought to the death or chose suicide over capture because they considered capture the ultimate disgrace of a Japanese soldier. This belief was enshrined in *bushido*, the traditional way of *samurai* and was also mandated in the Soldier's Code (*Senjin Kun*). See John K. Emmerson, *A View from Yenan*, Washington, D.C.: Georgetown University, Institute for the Study of Diplomacy, 1979, and Dennis Warner and Peggy Warner, *The Sacred Warriors: Japan's Suicide Legions*, New York: Van Nostrand Reinhold Company, 1982.

Coalition air operations that were conducted with less attention to psychological objectives—the air campaign against Iraqi deployed forces—received heavy PSYOP support.

Differences obviously existed between some Army and Air Force personnel about the level, content, and priority of PSYOP. Some Army PSYOP personnel, on the one hand, complain that they had trouble at times convincing the Air Force planners to include leaflet drops in the Air Tasking Order. Army PSYOP personnel also complained that the Air Force planners were not sufficiently conversant with effective PSYOP and, as a result, pushed for leaflet content that was inappropriate. Air Force planners, on the other hand, were critical of the lack of PSYOP support for the strategic air attacks.[12]

Air operations can enhance the credibility and receptivity of PSYOP messages. We have evidence, for example, that the enemy soldier's willingness to accept the promises of good treatment contained in friendly PSYOP messages may depend, at least in part, on the magnitude of the peril he perceives for himself from future air and other attacks and how desperate he considers the overall military situation to be.[13]

The Iraqi reactions to the leaflet drops that preceded and followed B-52 strikes against certain Iraqi divisions provide another example. Iraqi POWs reported that, because the B-52s actually carried out the attacks on the dates promised in the leaflets, the Iraqi troops gave credibility to other Coalition PSYOP messages.

PSYOP can also be used to solidify and exploit perceptions created by air attacks. An important example was the Coalition's PSYOP effort to persuade Iraqi forces to abandon their armor and other equipment during the ground campaign. Coalition leaflets and broadcasts told the Iraqi troops that they would not be attacked if they abandoned their fighting vehicles and other military equipment: The

[12]This information is derived from interviews conducted by the author and Dr. Stanley Sandler. For accounts of the tensions between Army PSYOP personnel and Air Force planners, see Sandler (1995), p. 397, and Robert H. Scales, Jr. (BG, USA), *Certain Victory: The U.S. Army in the Gulf War*, Washington, D.C.: Brassey's, 1994, pp. 196–197.

[13]George, while unable to verify this hypothesis, found support for it in his interviews of PLA prisoners in Korea. (George, 1967, p. 139.)

Iraqis were disposed to believe this promise because of the conditioning they had received during the 38-day air campaign.

KNOW ENEMY PSYCHOLOGICAL STRENGTHS AND VULNERABILITIES

Effective military operations and PSYOP require accurate and timely assessments of enemy psychological strengths and vulnerabilities. Such assessments will come largely from the interrogation of enemy prisoners and deserters, as well as other HUMINT sources. In recent conflicts, psychologically oriented HUMINT support for U.S. air and other military operations, including PSYOP, has been less than optimum.

Experience shows that war-fighting commanders, operational planners, and in some cases PSYOP personnel have a tendency to allow themselves to be guided by unverified assumptions about their enemy's morale.[14] Such assumptions can be quite wrong and can lead to poor strategic and tactical decisions and to inappropriate psychological appeals. Therefore, there is a need to improve, systematize, and deepen the intelligence available to U.S. war-fighters regarding the psychological strengths and weaknesses of the enemies they confront.

To produce valid battle damage assessments, U.S. forces must know the initial status of enemy morale, how it changes over time, and how particular military operations affect it. It is also important to understand and evaluate the processes by which an enemy attempts to rebuild morale, once it becomes depressed and attempts to control the behavior of would-be surrenderers and deserters on the battlefield. Finally, U.S. forces should know how to gauge the likely degree of enemy resistance to determine when a battlefield has been properly prepared for a ground assault.

The design and evaluation of PSYOP leaflets and broadcasts depends particularly on the interrogation and cooperation of former enemy personnel:

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[14]The author is indebted to Konrad Kellen for this important insight.

- Information supplied by prisoners and deserters provides a basis for the selection and design of PSYOP themes for different enemy audiences.[15]
- Candidate PSYOP leaflets and broadcast messages may be pretested for clarity, credibility, and likely effectiveness on panels of enemy prisoners and deserters.
- The efficacy of the various PSYOP leaflets and broadcasts actually used can be tested afterward through the recall, perceptions, and evaluations of prisoners and deserters who were exposed to the messages.

Because information from former enemy personnel is so vital to the assessment of the effects of military operations on enemy morale and to the design and evaluation of PSYOP messages, commanders must ensure that enemy motivation and morale receive adequate priority in prisoner and deserter interrogations. In the Persian Gulf War, issues relating to Iraqi morale sometimes received comparatively short shrift in the interrogations.[16]

In particular, the commander must ensure that (1) prisoners and other sources knowledgeable about enemy morale are made available for timely interview, (2) interview schedules are designed to extract valid and significant information about morale, and (3) sufficient numbers of language-qualified and otherwise trained personnel are available to conduct the interrogations and analyze their results.

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[15]Psychological appeals need to be tailored to target different audiences. As Konrad Kellen has observed:

> The closer a soldier is to the fighting front, the more he is primarily interested in his own safety and welfare: food, for example, is more important to him than war aims or other global issues. For enemy commanders or civilian war leaders, the opposite is, of course, true: they suffer no hunger, cold, or immediate danger, and are more concerned with the big picture.

Private communication from Konrad Kellen.

[16]Until the beginning of February 1991, U.S. personnel generally were not permitted to interrogate Iraqi line crossers or prisoners. Among other reasons, the Saudis purportedly did not want Americans to interview their Iraqi detainees because the Saudis considered the detainees "guests" and "Arab brothers." See Eric Schmitt, with Michael R. Gordon, "A Lot of Hurdles on the Way to Winning the War," *The New York Times*, March 24, 1991, p. 18.

Even though the interrogation of enemy prisoners and deserters and the design and production of PSYOP messages are primarily the responsibilities of U.S. Army units, U.S. Air Force personnel should develop a greater role in these activities. This will ensure the closer integration of PSYOP with air operations.

Air component commanders and air campaign planners need the capability to both assess the psychological effects of air operations and assist with the design and evaluation of PSYOP messages. The Air Force should develop a cohort of PSYOP specialists and psychologically oriented intelligence specialists to work with Army personnel in conducting and evaluating prisoner and deserter interrogations, in designing PSYOP messages, and in assessing the psychological impact of air and other military operations.[17]

BEGIN PSYCHOLOGICAL CONDITIONING IN PEACETIME

Two principal reasons exist for advertising U.S. military power to a potential military opponent prior to the outbreak of conflict: to deter the potential adversary from attacking U.S. interests and to begin the psychological softening of the adversary in the event war does occur.

As discussed above, many Iraqi officers and enlisted personnel suffered from low morale even before the start of the Coalition air campaign. One reason for their low morale was the widespread awareness that U.S. aircraft, tanks, and other weapons were far more capable than their own obsolete military weapons. The Iraqis believed that the technological superiority of U.S. weapons foreordained Iraq's defeat in any conflict. The Coalition air campaign subsequently strongly reinforced the Iraqi view that resistance was futile.

The Air Force and other U.S military services have an interest in advertising their capabilities to would-be aggressors. For the Air

[17]Gaining support for the notion that the Air Force needs persons expert in PSYOP and psychologically oriented intelligence may not be easy, as some Air Force officers believe such specialties to be within the purview of the Army exclusively. This attitude was reflected in the response of a senior Air Force officer during the early air campaign planning for Desert Storm. When told that it was important that PSYOP be conducted in conjunction with strategic air attacks, the officer remarked: "PSYOP is the Army's job." (Personal communication.)

Force, much of this advertising will be a natural by-product of fire-power demonstrations, air shows, and peacetime training and deployment exercises. These and other opportunities should be used where appropriate to demonstrate the superior capabilities of technologically advanced U.S. aircraft and weapon systems.

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