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AN AIR CAMPAIGN FOR A SECOND KOREAN WAR:

A STRATEGY FOR ATTACKING THE CENTERS OF GRAVITY

by

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18 May 92

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This paper proposes an operational air campaign for a Second Korean War. The author argues that North Korea has three concentric centers of gravity--one each at the strategic, operational, and tactical level. The strategic center is the national and military leadership; the operational center is the North Korean Integrated Air Defense System; the tactical center of gravity is the North Korean army in the field and the logistics system which supports it. The author proposes an air campaign to simultaneously attack and defeat each of them in support of the overall theater campaign, in order to conclude a future conflict on favorable terms.

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PREFACE

This paper is about applying air power in a campaign to support the overall theater campaign in a hypothetical Second Korean War. It is about using scarce air power resources to help the Commander in Chief, Combined Forces Command, to achieve those conditions which will lead to concluding the conflict on favorable terms.

This paper is not about using air power to win the war. I do not subscribe to the proposition that air power will be decisive by itself in winning the war. Rather, I search for the best way to apply scarce air power resources to help the theater commander achieve his overall strategic objectives.

Some will argue that this paper proposes an air operation and not an air campaign. I am comfortable with either term. I ask the reader to focus on the concepts and avoid getting hung up on semantics.

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"One must keep the dominant characteristics of both belligerents in mind. Out of these characteristics a certain center of gravity develops, the hub of all power and movement, on which everything depends. That is the point against which all our energies should be directed."

Clausewitz[1]

"Victory is the main object of war. If this is long delayed, weapons are blunted and morale depressed. When troops attack cities, their strength will be exhausted."

"For there has never been a protracted war from which a country has benefitted."

Sun Tzu [2]

INTRODUCTION. In the unhappy event of a Second Korean War, the Commander in Chief, Combined Forces Command (CINCCFC)[3] will likely have to fight the early stages of the conflict with the limited forces at hand in Korea and in Japan. Until reinforcements arrive from the US and other overseas locations, the air forces currently available in US Pacific Command will be hard pressed to attack and destroy the numbers and types of targets required by CINCCFC. In order to maximize the impact of these limited aerospace forces, they must devote their entire energies to attacking and destroying those targets--the center of gravity targets--which provide the most profound benefit to the overall campaign. I will argue that the Democratic People's Republic of Korea, hereafter North Korea, has three concentric centers of gravity--one each at the strategic, the operational, and the tactical level--upon which allied efforts must focus. Aerospace forces have unique speed, range, flexibility, accuracy and lethality to directly attack these centers of gravity in the opening phase of the war. The air campaign, which will be only a subset of the overall Korean campaign, must concentrate on these concentric centers of gravity in order to help create those military conditions--a defeated, leaderless nation and army subject to unopposed destruction from the air--which will precipitate the conclusion of the conflict on favorable terms.

The Korean peninsula is the location of great uncertainty and instability. The Korean War ended nearly 40 years ago with an uneasy and often-broken armistice agreement, but even today, four decades later, neither side has signed a peace treaty. North Korea remains hostile to the interests of the United States and the Republic of Korea, and North Korea is one of only three possible

threats specifically mentioned by name in the National Military Strategy of the United States.[4] The impending leadership change in North Korea following the death of the aging Kim Il Sung may intensify underlying tensions by triggering an internal political power struggle. The North Korean military could view this as opportunity to gain power, and they could use it as an excuse to launch military actions against the South. The Democratic People's Republic of Korea and the Republic of Korea (ROK) have recently taken the remarkable step of sitting down together at the negotiating table, but I do not view this as a harbinger of the outbreak of peace. As the economic and political fortunes of North Korea and the ROK go in opposite directions, I believe the potential for renewed conflict increases. North Korea may perceive the situation as irreversible. Hoping to force reunification before things get even worse, they could adopt a "now-or-never" mindset and strategy. History is replete with examples where nations with "now-or-never" perceptions made otherwise seemingly irrational decisions to achieve their objectives. "Despite a growing number of official and unofficial contacts between the two Koreas, the prospects for normalization remain questionable."[5] General Menetry, former Commander, US Forces Korea (COMUSFORK) and CINCCFC, stated in 1990 in testimony before Congress that North Korea remains a ". . . heavily armed, poverty-stricken, garrison state."[6] That same year, Paul Wolfowitz, Undersecretary of Defense for Policy, added that "The Korean Peninsula will remain one of the world's potential military flashpoints."[7] And in 1990, Secretary of Defense Cheney also testified before Congress that "If there is a place in the world where we might wake up tomorrow and find United States troops actively engaged in a combat situation, Korea is one of those places."[8]

ASSUMPTIONS. Throughout this paper, I make four assumptions. First, if open hostilities do break out in Korea again, the North Koreans will be the aggressor. Second, even if we get unambiguous warning of an imminent North Korean attack, domestic and international politics (in the form of the United Nations) will prevent us from preempting the communists. Third, allied forces will consist of only the military forces of the United States and the Republic of Korea (ROK).

Other nations may supply logistical support, sealift, and basing rights, as in the case of Japan, but only US and ROK forces will commit military forces to combat. While we would welcome United Nations (UN) condemnation and sanctions against North Korea, US and ROK forces must be prepared to go it alone. Fourth, national command authorities (NCA) and Commander in Chief, US Pacific Command (CINCPAC) will authorize cross-border offensive operations once North Korea has initiated hostilities.

THE CURRENT BALANCE OF POWER. I will briefly discuss the current balance of forces in Korea in order to set the stage. On paper, North Korea has a significant advantage in military forces. North Korea has over one million men in uniform versus 650,000 in the ROK, plus 43,000 US men and women in Korea. Both North Korea and the ROK possess very large reserves. The North Korean army fields 30 divisions and 3500 tanks versus 21 ROK divisions and one US division operating a total of about 1500 tanks. The North Koreans defend their skies with over 8000 anti-aircraft artillery (AAA) guns, while the US and ROK forces have about 600 AAA pieces. The North Korean Air Force (NKAF) operates about 750 fighters and attack jets, while the ROK Air Force (ROKAF) has 480 jets, and the USAF adds another 72 fighter and attack aircraft in the ROK. In addition, USAF and USMC fighter squadrons from Japan and Naval fighter squadrons from the USS Independence or another Seventh Fleet carrier battle group may reinforce Korea on short notice with about 100 additional aircraft.[9] Additional reinforcing fighter and attack aircraft will deploy from the continental US, but due to the vast distances in the Pacific, it will take these units several days to reach the Korean theater of operations. North Korean ground forces are deployed well forward and could launch offensive operations across the DMZ with as little as one day's warning.[10]

However, this quantitative comparison ignores qualitative differences. While North Korean numbers are impressive, some of their equipment is dated. For example, over half of their fighter and attack aircraft are obsolescent MiG-15/17/19/21 jets. But, they do have one regiment (about 48 aircraft) of MiG-23 Floggers and one squadron of modern MiG-29 Fulcrums. The USAF fighters opposing

the NKAF are top-of-the-line F-15, F-16, and F/A-18 fighters. The ROKAF operates several wings of F-16s, but they also have dated F-4s and obsolescent F-5s. US and ROK ground forces also cover the spectrum, operating equipment ranging from obsolete M-48 tanks to modern M-1s tanks and Bradley Fighting Vehicles backed up by AH-64 Apache attack helicopters.

To sum up the Korean balance of forces--North Korea has better numbers, but on balance, US and ROK forces probably have a qualitative edge.

KOREA WILL BE DIFFERENT. Korea will be fundamentally different from General Horner's air campaign in Desert Storm for four reasons.

First, US and ROK forces will not have the initiative at the outset. In Desert Storm, we kicked off the air war when we were ready and after the UN deadline expired. But, in a Second Korean War, North Korea will initiate hostilities at a place and time of its own choosing. Combined Forces Command (CFC) forces could have as little as 24 hours of warning before hostilities commence, and we will probably not have the luxury of a five-month buildup before commencing operations. As a result, the initial stages of a renewed conflict will be a "come-as-you-are" war. Except for the F-15 squadrons in Okinawa, the First Marine Air Wing at Iwakuni, Japan, and perhaps the Independence Air Wing, no other reinforcing fighter or attack units will be able to get to Korea for several days. The responsiveness of even these in-theater air assets will depend on warning and where the US forces are located when the NCA decides to react to any indications and warning.

Second, the air campaign and the ground campaign will begin simultaneously. Unlike Desert Storm, we will not be able to bomb North Korea for six weeks in a four-phased air campaign before beginning ground operations.[11] Since renewed hostilities will begin with a ground offensive by North Korea, US and ROK air forces will have to fly close air support and battlefield interdiction missions from the opening hours of the war in order to blunt the communist onslaught.

Third, the Korean topography and terrain are vastly different from the desert in Kuwait and Iraq. Central and eastern South Korea are predominantly covered by numerous mountains and ridges punctuated by narrow valleys, while the

western portion of the country is rolling hills and farmlands with an occasional mountain. Unlike the desert, the Korean topography strongly favors infantry over armor due to the narrow and steep valleys which channelize mechanized forces and restrict their lines of operations.

Fourth, the capital of the Republic of Korea, Seoul, is only about 25 miles from the Demilitarized Zone (DMZ), and it lies directly astride the Kaesong and Chorwon corridors, two valleys which are the traditional invasion routes into the South. Because of Seoul's proximity to the DMZ, there will be very little opportunity to maneuver in order to trade space for time. For political reasons, I think the ROK government will insist that its army stand and fight in place rather than retreat to more defensible positions while waiting for reinforcements to arrive. This politically imperative strategy will make the US Army's maneuver warfare doctrine difficult to execute in such limited space.

APPLYING SUN TZU. Sun Tzu, a Chinese warlord philosopher, wrote over 2000 years ago that the best strategy was to win without fighting--to maneuver your opponent into such a position that it was impossible for him to prevail and therefore futile to fight.[12] Sun Tzu advocated four sequential methods of defeating the foe. First, attack the enemy's strategy. Defeat his strategy, and you defeat him. Next, attack his alliances to weaken him. Third, attack his armies, and lastly, attack his cities.[13]

Attack the Enemy's Strategy. What will be North Korea's strategy, and how do we defeat it? I submit that the North Koreans will have only limited territorial objectives in a second assault on the ROK. They saw what happened to Iraqi forces in the desert, and they have first-hand experience, albeit over 40 years ago, of what happened when they stretched themselves too thin along extended logistic lines of communication. Therefore, I think that rather than trying to conquer the whole of the ROK, they will only try to take Seoul north of the Han River, and then stop and offer to negotiate reunification of the entire country. But, they will demand terms much more favorable to the North than they could have gotten through peaceful negotiations. Seoul north of the Han River includes the seat of the government and nearly all of the major centers

of commerce and wealth. Its loss would be devastating to the ROK and probably cause the collapse of the government. With the ROK government so weakened, the North Koreans could negotiate from a position of strength.

To counter this strategy, we must obviously stop any North Korean assault short of Seoul. The ROK military understands this well, and the vast majority of their army is positioned north of Seoul to block any communist advance. But because of the limited space and the lack of room to maneuver, any assault down the Kaesong and Chorwon corridors will result in bloody, pitched battles pitting massive amounts of armor, anti-armor, artillery, and especially infantry against each other.

Attack the Enemy's Alliances. North Korea has only two potential allies--China and the former Soviet Union or FSU. But, both of these allies have been recently distancing themselves from North Korea in an attempt to warm relations with the West.[14] In a blow to North Korean foreign policy, Gorbachev visited Seoul in 1990--the first for any communist leader--and he opened diplomatic relations with the ROK. China has also begun to talk with the ROK over trade issues, and China has actively encouraged negotiations between North Korea and the ROK.

Both of these events portend weakening allied support for North Korea, but at the same time, I view both events as potentially dangerous. First, North Korea could feel desperate to hold on to her communist or former communist sponsors. North Korea could embark on some radical military move in order to force China (and possibly the FSU) to back North Korea or else appear to the world as an untrustworthy ally. This didn't work for Saddam in the case of the FSU, but it might work with China, because China wishes to expand its influence and diplomatic stature in the Pacific.[15] Second, the ROK's economy has been growing rapidly, and it is becoming one of the economic powerhouses of Asia.[16] Meanwhile, North Korea's economy can best be described as a basket case.[17] And given present growth rates, the differences will only increase in the future. North Korea could view the course of events as being irreversible and adopt a

"now or never" attitude in order to force reunification with the South before the situation gets even worse.

To counter North Korea's potential alliances, the US, the ROK and the UN must use all facets of power--political and diplomatic, military, informational, and potentially the most effective, economic power--to insure that North Korea remains isolated. At the same time, we must convince North Korea that her only real hope of ever rising from the economic depths of the Third World lies in peaceful reunification with the ROK, whereby the North can participate and share in the ROK's economic growth and development. If North Korea invades the ROK, we must insure it is branded as an "aggressor nation" by the UN in order to keep it isolated from any outside support.

Attack the Enemy's Armies. Defeating North Korea's military is the next step. In the paragraphs that follow, I will propose three concentric centers of gravity which must be attacked and neutralized in order to engage and prevail over North Korean aggression.

Attack the Enemy's Cities. Lastly, Sun Tzu cautions against attacking or laying siege to cities, and I embrace his advice. In the aerial bombing campaign that I will propose, we will not target urban infrastructure such as power plants, water and sewer systems, and factories, except for bridges and transportation networks which support the flow of logistics and supplies to the army at the front. Destroying urban infrastructure is counterproductive for several reasons. First, it often serves to play into the hands of enemy propaganda and stiffens the populations's resolve. Second, pictures of suffering civilians and destroyed buildings (even though they may have been valid targets) tend to erode both domestic and international support. Much of the western world, and especially the United States, does not understand that war is about violence and destruction.[18] They want problems "surgically" removed with no unpleasant side effects.

> "Precision weapons used in Desert Storm created the option of conducting wars with far less collateral damage than was common in the past. And the expectation has been clearly established in both world and domestic opinion that this should be the case [in the future]."[19]

CFC forces must make every effort to avoid even the appearance of unnecessary collateral damage. I do not mean to imply that we will refrain from attacking valid military targets in urban areas just because of the risk of collateral damage. The laws of armed conflict make adequate allowances for attacking such targets based on military necessity, proportionality, and humanitarian needs.[20] But, we must avoid attacking any targets which are not directly related to the centers of gravity for reasons of public opinion and simple economy of effort.

CLAUSEWITZ AND THE CONCENTRIC CENTERS OF GRAVITY.

Clausewitz defined an opponent's center of gravity as the ". . . hub of all power and movement, on which everything depends," and he cautioned that a belligerent must focus all its efforts on attacking the center of gravity.[21] "Identification of the enemy's center of gravity, and the design of actions which will ultimately expose it to attack and destruction while protecting our own, are the essence of operational art." [22]

Strategists often speak of separate, multiple centers of gravity, but this is a contradiction. Implying the existence of separate centers of gravity means the strategist has been unable to locate the true center of gravity, and he will dilute his resources by attacking secondary targets. Colonel John Warden, in his book The Air Campaign, specifically cautions against trying to conduct multiple types of air operations simultaneously against multiple centers because one runs a risk of seriously diluting limited air assets. Rather, he argues forcefully for concentrating one's energies against the center or centers of gravity.[23]

Air Force Manual 1-1, Basic Aerospace Doctrine of the United States Air Force, defines center of gravity as "That characteristic, capability, or locality from which a force derives its freedom of action, physical strength, or will to fight. It exists at the strategic, operational, and tactical levels of war."[24] I take this definition one step further and argue that these centers of gravity at each level of war are concentric and inextricably linked. "If these [the centers of gravity] are damaged or destroyed, their loss unbalances the entire force structure, producing a cascading deterioration in cohesion and

effectiveness which may result in complete failure, and which will invariably leave the force vulnerable to further damage."[25] These concentric centers of gravity are different and distinct, but each is linked to the others and important to the entire enemy strategy. In my opinion, North Korea has three such concentric centers of gravity, one each at the strategic, the operational, and the tactical level of warfare.

THREE CONCENTRIC CENTERS OF GRAVITY.

The Strategic Center of Gravity. The North Korean strategic center is the leadership of the country--those communist and military strongmen who autocratically rule the nation. North Korea is one of the last bastions of communism in the world, and they have become a political outcast, even among their own communist and former communist allies. Their leaders maintain dominion over the population by controlling every aspect of their lives and by monopolizing all access to information through propaganda. They exercise absolute power through the Korean Communist Party network. The military leaders also hold key posts in the Communist Party leadership. Communist military forces are ideologically and doctrinally tied to centralized command and control. If we can cut off the head of the snake, the strategy, the operation, and the military will founder. "Command is the *sine qua non* of military operations. Without command, a military organization is nothing but a rabble."[26]

I do not imply that the strategic center of gravity is made up solely of individual leaders, although Kim Il Sung and Kim Jong Il, his son and heir apparent, are certainly the cornerstones of the national leadership, and as such, they should be primary and valid targets. Rather, I define "leadership" as the national political and military leaders, as well as their top deputies, and their system of command posts. Since North Korea is such a closed society, it may be difficult to gather the necessary intelligence to locate and target individual North Korean political and military leaders. If this proves to be the case, rather than wasting precious missions hunting for elusive targets, CFC air forces should strike the command, control and communications (C3) facilities which link the leadership with the people and the military. The C3 system supports the

strategic center of gravity. If we cannot attack the leadership directly, then we must attack it indirectly by destroying the North Korean C3 systems.

The Operational Center of Gravity.

> "The essence of operational art is the identification of the enemy's operational center of gravity--his source of strength or balance--and the concentration of superior combat power against that point to achieve decisive success."[27]

I argue that the North Korean operational center of gravity is their integrated air defense system or IADS. This integrated network of radar and C3 sites, surface-to-air missiles (SAMs), anti-aircraft artillery (AAA) batteries, and fighter bases is the key to their defense.

The skeptic will ask, "How can the IADS, a defensive system, be the operational center of gravity?" I answer that the IADS is the key to North Korean operational maneuver because if we can destroy or negate it, US and ROK fighter and attack aircraft and helicopters will achieve air superiority and enjoy freedom of action in the skies over North and South Korea. Once we achieve that, we can attack, interdict, and operationally paralyze the North Korean army by making it impossible for them to move and maneuver, both in the close and deep areas of the battlefield. Once they are fixed, they are vulnerable to systematic destruction by air and ground forces of the allies.

The IADS' C3 sites are buried deep underground at dozens of locations throughout the nation, but their eyes and ears are the early warning (EW) and ground controlled intercept (GCI) radars perched on mountaintops, supported by dozens of observation posts which fill in the gaps in the valleys. Most of these large radars are on elevators which can be rapidly lowered into hardened underground bunkers in the event of air attack.

The MiG bases are located primarily in the southern part of North Korea and around Pyongyang. Most bases are very well defended by SAMs and AAA, and they also have massive underground shelters for their airplanes. The North Koreans have literally hollowed out mountains into order to build cavernous underground hangars which will be nearly impervious to traditional methods of air attack with unguided or "dumb" bombs.

SAMs are the foundation of the North Korean air defense network, and the SA-5 is the cornerstone of that foundation. SAM sites protect the capital, the DMZ, and the flanks of the peninsula. Most are Vietnam-era SA-2s which operate from fixed sites, but North Korea has acquired a few more modern SAMs.

The Soviet-built SA-5 system, a very large, very long-range SAM, will be their most troublesome SAM. North Korea has several SA-5 sites perched on mountaintops, and like the other systems, key components are situated on elevators which can quickly be lowered beneath dozens of feet of rock and concrete. While these SA-5s are not a serious threat to fighters, the near 250-kilometer range of these missiles will allow the SA-5s to reach well into the skies of the ROK and threaten many US high value airborne assets (HVAA) such as the AWACS, JSTARS, the RC-135 Rivet Joint, the KC-135 and KC-10 tankers, and numerous other surveillance assets.[28] These HVAA are force multipliers for the allies, and they are absolutely critical to the effective execution of any CFC operational campaign. CFC forces must neutralize the SA-5 sites very early in the war, or these missiles will severely impair any air operations, and as a result, they threaten the entire Korean campaign. If we cannot or do not destroy the SA-5s, then AWACS, JSTARS, tankers, and the RC-135 will have to stand back so far from the DMZ, that they will be unable to effectively support the campaign.

The SA-5 is the nucleus of the operational center of gravity, and once we destroy it, we can attack the remainder of the North Korean IADS. With the IADS negated, the whole of the country and all of its economic, political, and military sources of power will be laid open to devastating air attacks. The whole world saw what happened to Saddam Hussein when he failed to maintain air superiority and coalition fighter bombers had free roam of the skies over Iraq. Operational maneuver by the North Korean armed forces will be open to interdiction, and the whole of the country will be vulnerable to destruction. With her IADS destroyed, North Korea will be operationally immobilized, and then CFC forces can prosecute the strategic and tactical campaigns at will. If the political leadership decides to pursue negotiations at that point, we can go to

the table and bargain from a position of strength--negotiate now and in good faith or face destruction similar to that visited upon Iraq.

The Tactical Center of Gravity. The tactical center of gravity is the army in the field and the logistics and lines of communication which support it. Clausewitz generally considered the destruction of the enemy's army as one of three acts most important for the defeat of an enemy.[29] If the North Korean army attacks, they must come out in the open, and as stated earlier, there are only two avenues of invasion into the South. Both of those routes will be subject to interdiction by aerial bombardment, and unlike in the Korean War in 1950-1953, modern weapon systems can attack the North Koreans both day and night. Once that army begins to move, they are subject to direct attack as well as to interdiction of their logistics by destroying the bridges along their lines of communication. By attacking, stopping, and then destroying the invading army, we directly counter North Korea's offensive strategy and its ability to defend against a counterattack into the North.

STRIKING THE CENTERS OF GRAVITY.

Objectives. I argue the objective of the overall campaign will be to create military conditions which will achieve the strategic objective of *status quo ante bellum*. These military conditions are:

1. Defeat and expulsion of the North Korean ground offensive.

2. Destruction of North Korea's offensive military capability.

3. Exposure of all of North Korea to the potential of devastating air attacks against its political, economic and military power bases. Such attacks will threaten North Korea with the loss of its defensive capability as well as offensive capability, and

4. If North Korea refuses to come to terms, execute air and ground attacks and destroy those political, economic and military targets until North Korea agrees to a negotiated settlement.

The objectives of the air campaign will be very similar to General Horner's objectives in Desert Storm.[30] US and ROK forces should seek to:

1. Destroy or neutralize the North Korean IADS.

2. Destroy or render ineffective North Korean political and military leadership and their means of commanding and controlling forces.

3. Defeat the initial North Korean army thrusts into the ROK and protect Seoul, the capital of the ROK.

4. Deny North Korean military maneuver, mobility and resupply, and

5. Destroy the North Korean army.

Note that these objectives do not include invasion and conquest of North Korea. Since North Korea has (or soon will have) nuclear weapons capability, any threatened or actual invasion of significant North Korean territory could result in escalation to theater nuclear war.[31] Rather, we should seek to render North Koran vulnerable to destruction from the air with no credible means of opposing it, just as coalition forces did to Iraq. We will execute said destruction if North Korea refuses to withdraw and negotiate.

Priorities. As stated in AFM 1-1, Basic Aerospace Doctrine of the United States Air Force, our highest priority must be to gain and maintain control of the air.[32] I do not imply that we should conduct only air superiority missions to the exclusion of all other missions. The ground campaign and the air campaign must be conducted simultaneously, and CFC forces will need close air support and interdiction to help blunt initial North Korean thrusts. But unless we gain control of the air early in the war, none of the other missions of the allied forces will be operationally acceptable, that is, we will not be able to accomplish them at an affordable cost. But, "As the degree of control increases, all aerospace and surface efforts gain effectiveness."[33]

I must also emphasize that, with exception of the SA-5 sites, we must attack the three centers of gravity simultaneously, not sequentially, even with the limited aerospace assets at hand during the early stages of the war. In order to be effective, the air phase of the campaign must simultaneously hold at risk and neutralize all three centers of gravity--the national and military leadership, the IADS, and the army. Attacking the three concentric centers of gravity are not competitive missions, they are complementary missions. Each supports and increases the effectiveness of the other. For example, destroying

the IADS--the operational center of gravity--will allow us to operate at medium altitudes, above the AAA, so we can more effectively strike the strategic and the tactical centers of gravity.

> "War is planned and executed at three levels: strategic, operational, and tactical. These levels are dynamically interrelated. There are no clearly defined boundaries between them. The strategic level of war incorporates the broadest concerns of national policy. . . The operational level of war focuses on campaigns. . . The tactical level of war focuses on battles and engagements."[34]

Attacking the Operational Center of Gravity. As I stated earlier, the key to North Korean operations, not only in the air but also on the ground, will be their integrated air defense system. Their IADS is the operational center of gravity, and neutralizing it must be our first priority. If we defeat the IADS, we can attack, counter and destroy any and all other North Korean military forces and ultimately defeat them.

The key to the North Korean IADS is their SA-5 system. We must neutralize or negate the SA-5s very early in the conflict so that we can get on with all the other air power missions--force application, force enhancement, and force support. But, the SA-5s will be a tough nut to crack. The sites are hardened, and key components can be lowered on elevators into the mountains. The SA-5 sites are also protected by other SAM systems and literally hundreds of AAA guns.

In Desert Storm, we took out key components of Saddam's air defense network at the outset using a combination of special forces and attack helicopters and F-117 stealth fighters using precision-guided munitions (PGMs). But there, surprise was on our side, because coalition forces had the initiative. In a Second Korean War, the situations will be reversed from Desert Storm. Surprise and initiative will be on the North Korean's side. In my opinion, operations similar to those in the opening phase of Desert Storm will not be possible in another Korean War.

The hardened SA-5 sites will be very difficult and costly to attack using conventional munitions and aircraft because of the numerous other SAM, AAA, and MiG defenses, and because the long range SA-5s will negate CFC force multipliers. It's nearly a Catch-22. We can't attack the North Korean IADS until we take out

the SA-5s, but we can't take out the SA-5s until we negate the rest of the IADS.

Three Options for Attacking the SA-5s. I see three possible ways of neutralizing the SA-5s: F-117 strikes which place PGMs right down the elevator shafts, special forces attacks, or large composite-force strike packages using dozens of fighters, strikers, and defense suppression aircraft. Of these, the F-117 option is most suitable and acceptable. Since the initiative will lie with North Korea, I doubt special forces will be able to penetrate their defenses to get close enough to do the job. A composite strike force might be able to suppress and overwhelm the SAMs, but they will still be subject to massive amounts of AAA, and it will be extremely difficult to obtain sufficiently accurate hits to neutralize the hardened SA-5 components. In addition, CINCPAC has only a handful of aircraft in theater which are capable of dropping laser-guided bombs. Conventional strikes aimed at destroying the SA-5 sites would be very costly in terms of level of effort and probable losses. Building large, multi-aircraft strikes to attack the SA-5s and the remainder of the IADS would pull precious resources away from the other centers of gravity. Since the IADS is the key, we must do whatever it takes to negate and destroy it. But we must also use the most efficient methods available in order to preserve assets for other important missions, because every aircraft which is attacking the IADS is one which is not directly supporting the outnumbered ground forces with close air support or interdiction.

The F-117 is the best option. But CINCPAC doesn't have any F-117s in theater, and it would likely take them at least three days to reach Korea from the CONUS and begin operations. Given the North Korean initiative and the short distances from the DMZ to Seoul, CINCCFC can't afford to wait three days. At the risk of sounding more like a force planning paper, I must propose a solution--base a squadron of F-117s at Kadena Air Base in Okinawa. Kadena is only two hours flying time from North Korea, and F-117s based there could respond to a North Korean invasion in a matter of hours--probably the very first night. But, if we begin to base F-117s outside the CONUS, every theater CINC will be clamoring for the stealth fighters to be based in his area of responsibility, and

we must resist this temptation to scatter this national asset throughout every theater. Since Korea is unique in terms of warning time before hostilities could begin, I think CINCPAC and CINCCFC need to have the stealth and PGM capability within easy reach.[35]

Once CFC forces have destroyed the SA-5s, USAF tankers, AWACS, and surveillance assets can move forward in order to bring their force multiplier capabilities to bear on the war. Then, CFC air forces will begin attacks on the strategic, operational, and tactical centers of gravity simultaneously. More about those later.

With the SA-5s destroyed, the next steps in the air campaign against the operational center of gravity are to attack the remainder of the IADs--the SAM sites, the EW/GCI sites, the C3 systems and the airfields. But, since most of these are hardened, allied air forces will need to use PGMs to get at them. Because they are heavily defended by guns, the best way to attack them will be at night. Night attacks pay double dividends. Since the North Korean Air Force (NKAF) has very little capability to operate effectively at night, and since AAA gunners can't see their targets in the darkness, US and ROK air forces will own the night. Conventional methods of active and passive defense suppression can help negate the SAMs and EW/GCI sites. The only fighters for the initial suppression of enemy air defenses (SEAD) missions will be USMC and USN EA-6B jamming aircraft and fighter-bombers employing the high-speed anti-radiation missile (HARM). There are no USAF defense suppression aircraft left in the Pacific Theater. The only readily available forces capable of dropping laser-guided PGMs of the type which will be required to penetrate the hardened bunkers are one or two squadrons of USMC and USN A-6Es stationed in Japan or with the US Seventh Fleet.[36] F-15Es from Alaska could be the next fighters to arrive, possibly by the end of day two.

Once CFC air forces neutralize those other SAM sites, A-6Es and F-15Es will be able to penetrate the night skies with relative impunity by remaining well above the AAA, as coalition air forces did in Desert Storm.[37] Follow-on attacks will target the MiG air bases and the EW/GCI sites. By accurately placing PGMs

at the openings of the underground hangars, we can close off the entrances and seal the MiGs inside their super-hardened aircraft shelters. Tomahawk and standoff land-attack missiles (SLAMs) should also be able to assist with suppressing the enemy defenses.

Attacking the Strategic Center of Gravity. As soon as the SA-5s are neutralized, US and ROK air forces can begin to target the strategic center of gravity, the North Korean political and military leadership and their means and methods of command and control.

Targeting the political and military leadership will have two results. As I stated earlier, the entire North Korean society, including the military, is heavily conditioned to and dependent upon centralized command and control. By disrupting the chain of strategic command, their operational and tactical effectiveness will be severely degraded. Strategic attacks on their leadership will have operational and tactical effects. Second, it tells the enemy leadership that they have a personal stake in the outcome of the war, and continued hostilities will result in personal costs.

US and ROKAF F-15s, F-16s, F-4s, F/A-18s, and A-6s operating around the clock will conduct strikes against strategic leadership targets. Special forces may also have a role to play here. Other weapons systems such as Tomahawks and SLAMs might also be useful against softer targets, but these weapons are not optimized for penetrating hardened targets. Only laser-guided bombs have the necessary precision and penetration capability to actually destroy the hardened C3 bunkers.[38] But, weapons platforms capable of dropping laser-guided PGMs will be scarce during the first three to five days. For this reason, planners must insure that the strikes are directed at only the most promising targets--the center of gravity targets--and avoid using these precious assets to attack peripheral targets.

For example, CFC air forces must avoid or deflect any pressure to go "Scud hunting" during the early stages of the war. The Scud has very little military value due to its poor accuracy. Rather, it is simply a terror weapon that has a potential political impact far greater than its explosive power. In Desert

Storm, Saddam attempted to split the fragile coalition by targeting Israel, and coalition air forces had to devote tremendous effort to locating and destroying the Scud missiles. But the US and ROK are bound together by a mutual defense treaty, not a fragile coalition. CINCCFC should not need to (and initially cannot afford to) divert already scarce aerospace forces to a secondary mission of Scud hunting. The limited CFC air forces which will be available until reinforcements arrive must concentrate on center of gravity targets.

Attacks on the strategic center of gravity should also include extensive psychological operations (psyops) directed at the North Korean people and the military. US special forces are specially trained and equipped for this type of warfare. Psyops will erode North Korean popular support and military fervor for their war of aggression.

Attacking the Tactical Center of Gravity.

> "No matter what the central feature of the enemy's power may be--the point on which all your efforts must converge--the defeat and destruction of his fighting forces remains the best way to begin, and in every case will be a very significant feature of the campaign."
>
> Clausewitz[29]

The tactical center of gravity--the army in the field and its means of resupply--must be engaged at the same time as the strategic and operational center of gravity for the simple reason that North Korea will have the initiative and launch the attack at the place and time of their choosing. Since CFC forces could have little warning--perhaps as little as 24 hours--the allied forces will have to fight hard with the forces at hand. North Korea's huge standing army could outnumber and overwhelm CFC ground forces at certain points, and the allies must apply airpower to help blunt and contain the attacks. Targets should be the massed infantry, armored columns, and logistics and transportation networks such as road and rail bridges and railroad marshalling yards.

This is the arena for classic Airland Battle close air support (CAS) and battlefield interdiction. USAF and ROKAF fighters must engage and attack the massed infantry and armored spearheads as they come down the Kaesong and Chorwon corridors. While dismounted infantry can and will proceed across country as the Chinese army in 1950, the terrain in the region will force the mechanized forces

to stay on or near the roads where they will be vulnerable to attack from the air.[40] CINCCFC has a limited number of A-10 and OA-10 CAS aircraft in theater, and the ROKAF also has a number of attack aircraft dedicated to the CAS mission. USAF and ROKAF F-5s and F-16s can swing to the CAS role, and they frequently practice this mission over familiar terrain. Once the SAMs are neutralized, even the venerable old B-52 and the modern B-1 can deliver deadly earth-shaking strikes against infantry and armored forces which are massing in the second echelon.

Interdiction missions must strike in both the close and deep areas to slow or interrupt the flow of additional men, equipment, and supplies to the front lines. The attacking North Korean army will consume large quantities of men and materiel, and they will need early and frequent resupply. Interdiction missions will attack the massed supplies directly as well as indirectly by interdicting the means of transport to the front. Road and rail bridges across the Imjin and Han River Estuary are well defined and vulnerable to attack. But, they are defended by the long range and shorter range SAMs as well as hundreds of AAA guns. For this reason, and because the North Koreans will undoubtedly try to move much of their logistics at night, the interdiction work must be done at night as well as during daylight. USAF F-16s have gained a night interdiction capability with the Low Altitude Navigation and Targeting Infrared for Night (LANTIRN) pods. The LANTIRN system, essentially a sophisticated forward looking infrared (FLIR) system, will allow USAF F-16s to operate in total darkness with nearly the same effectiveness as in broad daylight. While the currently fielded system cannot guide a laser-guided bomb of the type needed to destroy bridges, the LANTIRN F-16s at Osan Air Base, ROK, will gain this capability soon.[41] USAF aircraft can also use the AGM-65 Imaging Infrared Maverick missile to search for targets at night. This precision-guided missile is an excellent weapon for destroying armored as well as softer targets, both day and night.[42]

Synergistic Effects. Once the North Korean assault has been halted, CFC forces can begin operations to destroy the communist armed forces, to restore the border, and pursue offensive operations if desired. When North Korea realizes

that its IADS has been neutralized and that the army in the field has been defeated, the surviving leadership must reassess the situation and realize that they are in an extremely vulnerable position. With the IADS destroyed, the entire country will be open to systematic destruction from the air, and the army will be incapable of halting a CFC advance.

At this stage, the war will enter a new and very dangerous phase. North Korea is widely reported to be working on nuclear weapons.[43] North Korea either has now or soon will have nuclear warheads, and it already possesses the means to deliver them--indigenously produced Scud missiles. Just as General MacArthur's advance into North Korea in 1950 escalated the conflict and brought the Chinese into the war, if North Korea feels its very survival is threatened, it may use or threaten to use nuclear weapons against CFC forces or the ROK. Therefore, allied political and military leadership must proceed very cautiously before beginning any cross-border offensive ground operations into North Korea. At this point, the allied air campaign comes to a crossroads. If the national command authorities elect to pursue offensive operations, allied air forces must target a new strategic center of gravity and begin to attack North Korea's nuclear capabilities. But, while we can target suspected production facilities, it will be very difficult to locate and target any weapons which have already been produced. Targeting nuclear facilities also represents an escalation of its own, and this may force a "use or lose" strategy by the North Koreans.

CONCLUSION. North Korea has three concentric centers of gravity--strategic, operational, and tactical--which are the key to her military and political power. First, we must neutralize and destroy the nucleus of the operational center of gravity--the SA-5 systems. Once they are negated, we can attack the remainder of the operational center--the North Korean integrated air defense system--while we simultaneously target the strategic center--the North Korean political and military leadership. Concurrently, we must engage and destroy the tactical center of gravity--the army and its logistical support. If we concentrate our efforts on attacking these centers in any renewed conflict, we will maximize the

effectiveness of the entire Korean campaign and increase the likelihood of producing those military conditions which will likely lead to concluding the conflict on favorable terms--a defeated, leaderless nation and military subject to unopposed destruction from the air.

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25. FM 100-5, p. 179.

26. Warden, p. 44.

27. FM 100-5, p. 10.

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