



Director of
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The Korean Military Balance and Prospects for Hostilities on the Peninsula ☐

National Intelligence Estimate

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NIE 42/14.2-87
March 1987

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THE NATIONAL FOREIGN INTELLIGENCE BOARD CONCURS, EXCEPT AS NOTED IN THE TEXT.

The following intelligence organizations participated in the preparation of the Estimate:

The Central Intelligence Agency, the Defense Intelligence Agency, the National Security Agency, and the intelligence organization of the Departments of State.

Also Participating:

The Assistant Chief of Staff for Intelligence, Department of the Army

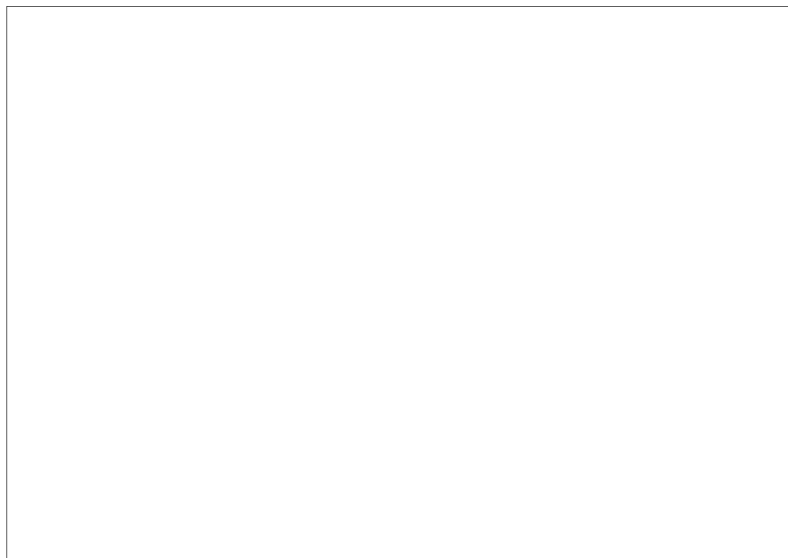
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NIE 42/14.2-87

THE KOREAN MILITARY BALANCE
AND PROSPECTS FOR HOSTILITIES
ON THE PENINSULA

Information available as of 26 March 1987 was used in the preparation of this Estimate, which was approved by the National Foreign Intelligence Board on that date.

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CONTENTS

	<i>Page</i>
SCOPE NOTE	1
KEY JUDGMENTS	3
PROLOGUE: ASSESSING THE NORTH KOREAN THREAT	5
DISCUSSION	7
The Current Balance	7
The Balance in 1990	12
Implications for the United States	13
ANNEX A: North Korean Special Operations Forces	17
ANNEX B: Present Force Comparison	19
ANNEX C: Current Equipment and Personnel	25
ANNEX D: Future Force Developments: 1987-90	27
ANNEX E: 1990 Projected Equipment and Personnel	33

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SCOPE NOTE

The Korean Peninsula represents an area where the direct interests of the United States, the Soviet Union, and China converge and, in the event of a major conflict, one in which US forces would quickly become exposed to hostile fire. Because of this, the security situation on the peninsula has been reviewed regularly by the Intelligence Community.

In NIE 42/14.2-5-81 and the subsequent Memorandum to Holders (March 1982) we concluded that North Korea had enhanced its overall military advantage. Since that time, both Koreas have strengthened their armed forces, both in terms of equipment quantity and quality and in overall capabilities. This Estimate examines the effect of these efforts on the military balance, discusses the projected balance in 1990, and addresses the implications of our findings for the United States.

This Estimate focuses only on the military forces of the two Koreas, recognizing that US forces and military assistance in the South and external aid to the North are factors in the military calculations of both sides. Comparisons of equipment inventories, manpower, and units measure only potential capabilities. While we rate the morale of the South's military as high and its leadership as good, [] make judgments about similar factors regarding the North's forces difficult. We have concentrated, therefore, on the strengths and weaknesses of both Koreas in terms of their military capability—potential to perform what we consider the most likely wartime missions—and, in terms of overall readiness, ability to perform the missions for which they were designed.

Although we highlight the economic and political factors that impact on force improvements, and therefore the military balance, full discussion of these factors is beyond the scope of this Estimate. Many of these economic and political factors affecting the South were examined in detail in SNIE 42-86: *Potential for Political Instability in South Korea*. A similar look at North Korea, including the potential for miscalculation by the North, an upcoming leadership transition, and the North's foreign policy rationale, is planned during 1987.

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KEY JUDGMENTS

On balance, North Korea's military forces remain superior to those of South Korea. P'yongyang's steady force improvements have created a large armed force whose offensive potential overshadows Seoul's defensive capabilities.

The North Korean Armed Forces continue to outnumber the forces of South Korea by an approximate ratio of 3 to 2. Because many of its forces are concentrated near the Demilitarized Zone (DMZ), the North can go to war with the important advantages of advance preparation and of choosing the time and place of attack. Although these advantages would be limited by South Korea's rugged and defensible terrain and by manmade fortifications, the South employs a forward defense north of Seoul that leaves it with little capability for flexible action.

Through the end of the decade, we anticipate relatively modest growth in the strength of the armed forces of each country with reserve forces and rapid mobilization assuming even greater importance. We project that in 1990 the overall military balance will still favor North Korea, although by a narrower margin than at present. By then, South Korea's investment in a relatively modern military production capability will begin to pay off as Seoul fields increasing amounts of more advanced equipment, partially compensating for the North's overall numerical advantage. A successful South Korean defense, however, will continue to depend on timely warning, mobilization, and reinforcement.

As critical as warning of attack is to a successful defense of South Korea, we are not confident that sufficient notice would be provided to allow extensive preparation time. Seoul is only 40 kilometers from the DMZ, so it has little maneuver space to trade for mobilization time. Moreover, surprise has been a basic tenet of North Korea's offensive doctrine since the Korean conflict. If the North chose surprise, any warning might be ambiguous at best. Warning of attack could easily prove to be less than 24 hours, and a clear persuasive judgment may not be issued. On the other hand, our ability to detect and warn of North Korean preparations for a prolonged war have improved over the past two years. Should the North decide to trade off surprise for extensive preparations for prolonged war, we believe that the economic and social disruptions resulting from these preparations would provide the time necessary to inform policymakers that North Korea is taking steps to prepare for war.

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Despite North Korea's advantages in military strength and its potential to achieve surprise, we believe several factors deter it from launching an attack. These include the US commitment to defend South Korea—including the North's perception of a US nuclear deterrent—the presence of US forces in the South, the strength of South Korea's military forces, the relative stability of the South, the dismal shape of the North's economy, and the desire of the Chinese and Soviets to maintain the status quo on the peninsula.

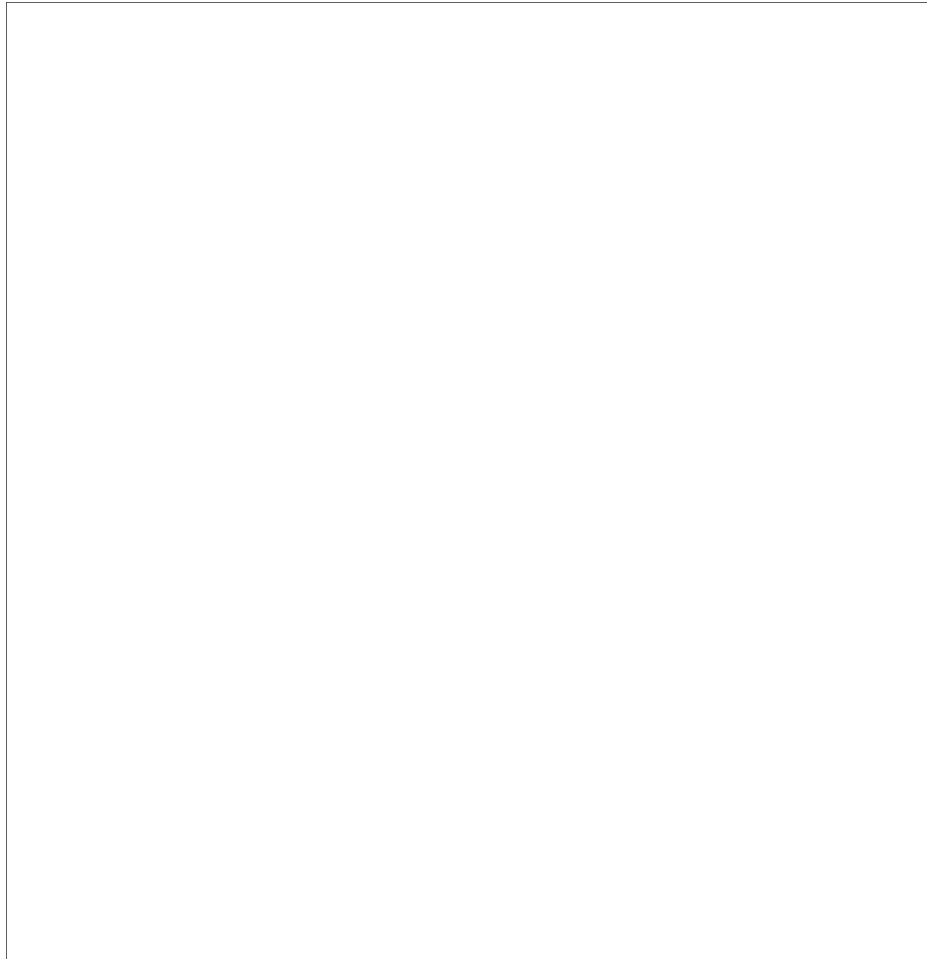
Undoubtedly, there are those in the North who advocate the use of the military option to reunify the Koreas sooner rather than later. They recognize that, as the South's military improves, the gap between the North and South is narrowing, and they realize that the window of opportunity to use their numerical and tactical advantages is closing. Should the United States' resolve, or ability, to honor its defense obligation be lessened—either by voluntarily withdrawing forces already on the peninsula or, because of a crisis elsewhere requires redeploying forces in the Pacific committed to Korea—we believe that the North's commitment to reunification on its own terms could tempt some in the leadership to advocate that P'yongyang immediately launch a strike against the South. However, so long as P'yongyang faces a cohesive ROK backed by the United States, we believe the likelihood of full-scale, unprovoked North Korean aggression will be low.

Neither the Soviet Union nor China is in a position to veto a North Korean attack—both would be loath to support a war not of their own choice on the peninsula. However, should the North attack and fail and, as a result, should either P'yongyang or the North Korean Government appear threatened, the Soviets and/or Chinese probably would intervene militarily in the North.

Although we cannot be certain how the many variables that can effect the military balance will develop in the next decade, we feel cautiously optimistic. From our vantage point at this time, overall trends appear favorable to the South. To the extent that these trends continue, Seoul could be strong enough to withstand successfully an unaided North Korean attack as early as the mid-1990s.

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DISCUSSION

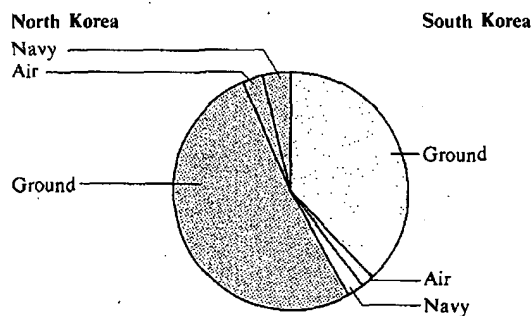
The Current Balance

1. During the past five years, North Korea has put considerable effort into maintaining a favorable military balance on the Korean Peninsula. P'yongyang's steady force improvements have created a large, relatively modern armed force whose offensive potential overshadows Seoul's defensive capabilities. The North Korean armed forces continue to outnumber the forces of South Korea by an overall ratio of about 3 to 2 (see figure 1):

- On the ground, over 700,000 active-duty personnel are organized and deployed to conduct combined-arms operations (see table 1).
- A key element of these armed forces is a large, highly trained Special Operations Force (SOF) designed for unconventional warfare in rear areas (see annex A).
- The North Korean Air Force, with over 700 jet fighters, trains in all phases of air operations. Also under Air Force control is a large air defense system of redundant radars, surface-to-air missiles, and anti-aircraft weapons deployed along the nation's borders and around key industrial, population, and military complexes.
- The North Korean Navy consists of more than 600 minor combatants, submarines, and landing craft. Defense of coastal waters is its primary mission. However, the Navy is capable of limited amphibious operations, and its submarine force is growing.
- Although the majority of the 5-million-man reserve force is lightly armed, North Korea's well-equipped reserve infantry divisions are available to immediately reinforce active operations or to provide coastal and strategic area defense. (See annexes B and C for a detailed comparison of the current forces.)

2. By pursuing cost-effective improvements in both offensive and defensive capabilities, P'yongyang has managed to improve its overall military posture despite a sluggish economy and limited foreign support. The North's efforts have had a substantial impact on the current military balance, partially because of the

Figure 1
Armed Forces: Active Duty Manpower



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large investment in force expansion and military production made in the 1970s and also because of military equipment development and modification efforts

3. Concurrently, North Korean reserve force equipment upgrades and organizational improvements have increased the North's national military readiness. Of North Korea's 25 known ready-reserve divisions, some nine to 12 now appear capable of quickly augmenting active forces in forward operations, thereby increasing overall ground force strength without enlarging the standing regular force. Of equal significance, P'yongyang's ability to transition to a wartime posture has been improved by the refinement of the mobilization system, which integrates active and reserve forces, the industrial sector, and the civil populace.

4. North Korea's reliance on production of proven, but older, systems to increase overall inventories, however, presents a force improvement problem in

Table 1
Comparison of Active Ground Forces

Unit	North Korea	South Korea
Infantry divisions	26	21 ^a
Mechanized divisions	0	2
Armor/tank brigades	15	2
Infantry brigades	4	2 ^a
Mechanized brigades ^b	23	0
SOF brigades	21	7
Nonorganic Fire Support		
Battalions ^c	228	55

^a Includes Marine units.

^b Many of these units include a mix of APC-equipped and truck-equipped infantry and towed, vice self-propelled fire-support weapon systems. None are fully equipped with APCs, tanks, and self-propelled artillery.

^c Nondivisional/brigade artillery, MRL, and rocket (FROG, Honest John) battalions are normally subordinate to corps or higher commands in peacetime.

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North Korea. The difficulty in acquiring newer, more sophisticated military equipment underscores a continuing dilemma vis-a-vis P'yongyang's principal allies, China and the Soviet Union. Historically, the North has sought to use Sino-Soviet competition for influence in P'yongyang to assist its force modernization efforts. While this tactic has often worked, we believe it has not satisfied North Korea's present needs; even attempts to capitalize on newly revitalized Soviet relations only have been partially successful. Despite repeated requests for modern equipment, Moscow has not shown a willingness—or Beijing the ability—to supply the amount or type of hardware desired by the North. In 1985, after a 10-year hiatus, Moscow resumed limited deliveries of major weapons to P'yongyang. So far, however, revitalized North Korean-Soviet relations have only yielded notable gains in the North's air and air defense capabilities. P'yongyang must view this situation with alarm. The MIG-23 fighters recently received have not changed the qualitative air balance, which still favors the South, nor have the limited numbers of SA-3 surface-to-air missiles delivered to P'yongyang satisfied the North's air defense needs. To the extent that this situation continues, Seoul's concentration on quality armaments could eventually pay off with a favorable shift in the military balance.

North Korean Force Improvements: 1981-86

Suffering from the economically debilitating military expansion programs of the 1970s, P'yongyang has—between 1981 and 1986—emphasized organizational improvements supported by continued facility hardening and supply stockpiling. By mating different weapon systems already in production, the North has upgraded active ground force mobility, ready reserve firepower, and airfield defenses without depending on either foreign acquisition or costly development of totally new systems.

Reorganization of conventional, mechanized, truck-mobile, and armored elements created a force structure better suited to exploitation and counteroffensive operations. The forward deployment of many of these mobile units and the expansion of underground storage facilities near the DMZ area have enhanced the North's ability to achieve surprise and to more quickly exploit any initial battlefield success.

A key element of P'yongyang's overall forces improvement has been the expansion, reorganization, and equipment upgrading of the reserve forces. For example, as the North equipped active forces with self-propelled weapons, many of the the older, towed systems were transferred to the ready reserves, significantly improving their combat potential. The creation of ready-reserve division and corps-level commands facilitates integration of these units into the regular force structure.

Although North Korea's most notable military developments have occurred in the ground forces, naval and Air Force improvements also have featured organizational refinement and equipment upgrades. Both services have undergone limited reorganizations designed to better control their forces and integrate their operations with national war plans. Increased air-sea, air-ground, and amphibious training exercises reflect P'yongyang's awareness of the importance of joint combat operations. Equipment increases, with the notable exceptions of air defense fighters, illegally acquired Hughes helicopters, and some surface-to-air missiles, generally have been the result of indigenous production of existing systems.

5. While the North has continued to concentrate on military improvements at the expense of the civilian economy, the South has tried to balance the need for steady domestic economic growth with the need for

major force improvements. The South Korean armed forces consist of:

- A ground force of nearly 550,000 personnel, 80 percent of which is deployed within 80 kilometers of the Demilitarized Zone. A growing helicopter force provides limited mobility for the ground forces and a good antitank/antipersonnel capability.
- The South's Air Force is smaller than the North Korean Air Force but contains more modern jet fighters. The primary mission is air defense, but increased training emphasis is being placed on ground attack, especially close air support operations.
- A large air defense radar system covers the entire country, and surface-to-air missiles and antiaircraft artillery (AAA) weapons provide limited area and point coverage of critical urban and military areas.
- Like the North, South Korea's primary naval mission is coastal defense. While P'yongyang has concentrated on acquiring or building submarines and light, fast combat craft, the ROK has developed a mixed force of destroyer/frigate-sized ships and smaller attack/patrol boats.
- South Korean reserves number over 4.5 million personnel, 12 divisions of which are designed to augment forward defense forces, while 13 lightly armed divisions provide rear area security.

6. In the South, emphasis has been placed on acquiring quality foreign hardware and on developing indigenous weapon systems. However, South Korea's capability to change the balance through force improvement programs has been restricted by Seoul's efforts to maintain economic growth. Austerity measures designed to ensure healthy economic expansion without stimulating inflation have limited increases in military spending and led to some funding reductions. Seoul, however, has sought to maintain defense spending at nearly 6-percent GNP, a heavy commitment compared to West European countries. South Korea's decision to develop its own modern arms industry offers several potential benefits—reduced reliance on imports, creation of jobs, and some international sales. However, volume production has been delayed and many initial production problems are as yet unresolved. As a result, Seoul's force improvements have lagged behind those in the North.

7. Although South Korea's improvement programs have not been implemented with the same sense of urgency as in the 1970s, when some US forces were

South Korean Force Improvements: 1981-86

South Korea, too, has made some structural changes designed to increase capabilities without requiring extensive manpower expansion. The mechanization of an additional division, and the formation of six ranger-type regiments and four corps headquarters, including a counteroffensive force headquarters in the forward corps, improve the South's ability to conduct an active defense north of Seoul. Reorganization and redeployment of naval forces afford increased potential to detect and challenge seaborne attacks. Additionally, reserve reorganization and the creation of counterinfiltration brigades in rear areas assist security against the North's Special Operations Forces. Operationally, increased reserve force training coupled with ongoing equipment upgrades address a somewhat neglected area that will be critical to a successful defense.

Qualitative hardware improvements in each service have increased overall capabilities, reflecting Seoul's determination to maintain a modern military force. Coproduction of F-5 fighters and ongoing acquisition of F-16 fighters permit the South to continue to lead in the qualitative air balance, while purchase of new surface-to-air missiles and continued coproduction of VULCAN antiaircraft gun systems further strengthen ROK air defenses. Ground forces firepower has increased with coproduction of self-propelled howitzers and the indigenous production of limited numbers of long-range towed howitzers and multiple rocket launchers. Manufacture of the K-1 tank and the K-200 infantry fighting vehicle should significantly upgrade Seoul's armor forces once initial defects are corrected and volume production begins.

sent home and it appeared additional units soon would be withdrawn, ROK force modernization efforts over the past five years have strengthened its armed forces and, perhaps more important, have laid a foundation for future defense improvements that North Korea may find difficult to counter. At present, however, the gap between North and South Korean military forces noted in the 1981 NIE has not been closed (see figure 2).

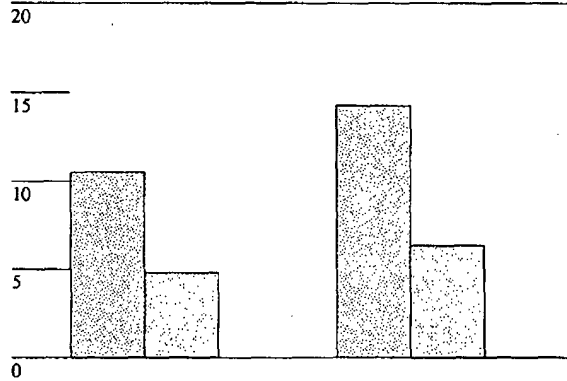
8. P'yongyang enjoys not only a quantitative superiority over Seoul but appears to have an edge in tactical options as well. Because many of its forces are concentrated near the DMZ, the North has the important advantages of choosing the time and place of attack and of massing superior forces in critical areas. Barring timely warning of attack and effective reinforcement by ROK reserves and US forces, North Korea would have a good chance of making significant initial gains of territory while neutralizing frontline ROK forces. South Korea has chosen a less flexible position. Because

Figure 2
Equipment and Personnel
Comparisons

Note scale change

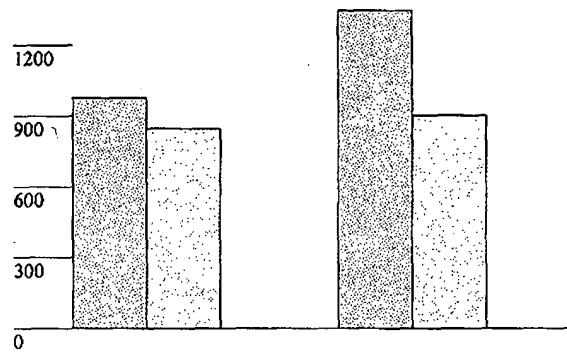
Ground Equipment ^a

Thousands



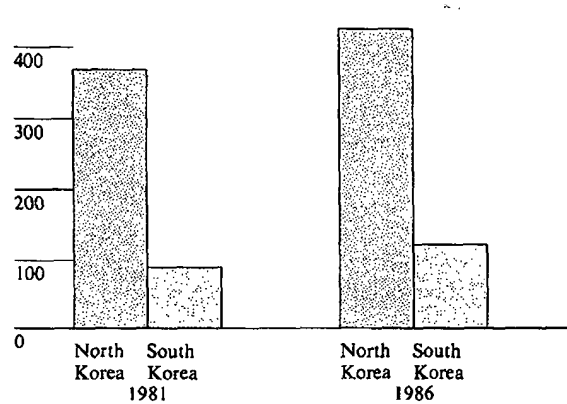
Air Equipment ^b

Thousands



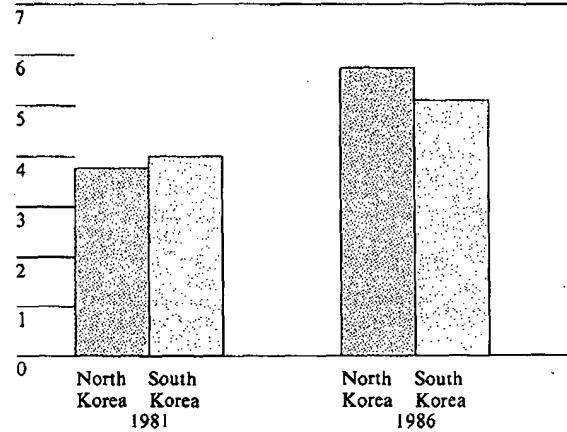
Naval Equipment ^c

Thousands



Military Manpower ^d

Millions



^a Artillery, MRLs, tanks, and APCs.

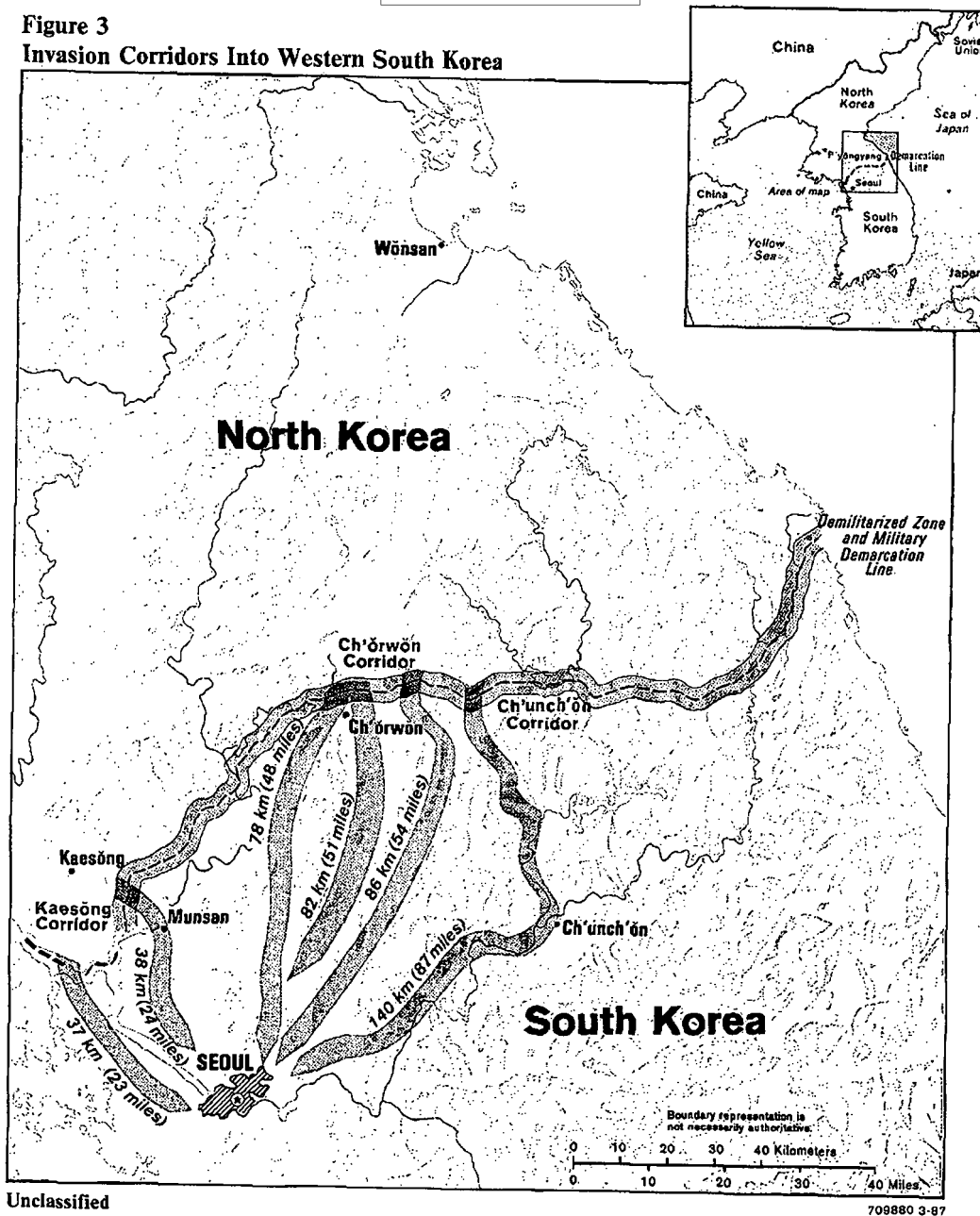
^b Fighters/bombers/ transports/helicopters.

^c Surface combat/missile/patrol/submarine.

^d Active and reserve forces.

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Figure 3
Invasion Corridors Into Western South Korea



Seoul is only 40 kilometers from the DMZ, the South has little space to trade for time. If defensive lines north of Seoul were not stabilized, the potential for widespread exploitation by the North's mobile forces would increase dramatically (see figure 3)

9. South Korea's dependence on adequate warning, sufficient firepower reinforcement, and reserve force deployment to counter P'yongyang's superiorities

could result in a critical situation in the early days of war. A successful defense would largely be determined by the South's ability to absorb successive assaults and contain any breakthroughs. The ROK has a well-prepared defense that is capable of inflicting heavy damage on an attacker, and that obviates the need for extensive preparation time—several days—to meet the initial ground attack. Three to five days are required to mobilize and deploy sufficient forces to blunt

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Table 2
US Forces in Korea, February 1987

	Number of Units	Personnel	Equipment
Infantry division	1		
Air Force squadrons	5		
Army		29,000	
Air Force		11,000	
Navy		450	
Equipment			
APCs			203
Tanks			116
Artillery			74
Helicopters			278
Jet aircraft			99

Note: Additional US forces in the Pacific Theater and CONUS are programmed for commitment to Korea in the event of hostilities.

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determined subsequent attacks and maintain rear area security. If the North could successfully destroy or isolate major ROKA forward elements and penetrate to the south, the ROK probably would have to choose between abandoning Seoul or losing the ability to maintain an effective defense. A successful defense of South Korea, in such a case, could be difficult, even with US assistance. (For a listing of US forces currently in South Korea, see table 2.)

10. As critical as the warning of an attack is to a successful defense of South Korea, we are not confident that sufficient notice would be provided to allow extensive reaction time. North Korea's forward deployment of forces, extensive use of underground facilities, stringent security procedures, and terrain masking combine to make the warning environment the most difficult in the world. Surprise has been a basic tenet of North Korea's offensive doctrine since the Korean conflict, and defectors and captured agents repeatedly cite its primacy. Thus, warning of attack could easily prove to be less than 24 hours, and a clear persuasive judgment may not be issued.

11. If, on the other hand, P'yongyang chose to emphasize maximum force and engaged in extensive preparations for a prolonged war, it is likely that these preparations would be detected well in advance of indicators of imminent attack. Initiatives within the Intelligence Community under way over the last two years have resulted in improvements in our ability to provide warning of war. We would recognize the major economic and social disruptions that would accompany preparations for prolonged conflict. Mobi-

lization of some 5 million workers, for example, would substantially disrupt the industrial and agricultural sectors before it produces a benefit to military capabilities. With existing collection resources and methods, we are confident of detecting and reporting these disruptions and of providing warning of war.

The Balance in 1990

12. Through the end of the decade, we anticipate that North and South Korea will continue recent force development patterns. In 1990 we project that the overall military balance will still favor North Korea, although by a narrower margin than at present. (See annexes D and E for more detailed discussion of the future forces.) In both countries, attempts to fully redress hardware and operational readiness weaknesses will remain limited by economic and political reality.¹ Relatively modest growth in the strength of the armed services of each country will be supplemented by organizational changes and training emphasis designed to optimize force effectiveness. Reserve force capabilities and rapid national mobilization will assume even greater importance to both nations.

¹ Both Koreas face leadership successions over the next few years. In the North, Kim Chong-il's transition to power appears well under way with probably little impact on the North's military situation. In the South, differences between ruling and opposition parties carry the potential for disruptive confrontation. If disturbances were severe and prolonged, P'yongyang would consider seeking reunification by force. SNIE 42-86 examines these issues in detail.

Warning Defined

- Warning of War* is defined as the communication of intelligence judgments to national policymakers that a state or alliance intends war, or is on a course that substantially increases the risk of war and is taking steps to prepare for war.
- Warning of Attack* is defined as the communication of an intelligence judgment to national policymakers that an adversary not only is preparing its armed forces for war but also intends to launch an attack in the near future.

13. Overall dependence on allies for advanced military technology will continue, especially in the North, despite growing research and development efforts. The Soviet Union will remain the North's primary source of modern military hardware, but P'yongyang will actively seek technology transfers from both Communist and non-Communist nations. We believe North Korea will have limited success. Moscow's apparent reluctance to supply significant amounts of relatively modern equipment probably will continue, and any assistance from other countries will be in limited quantities. North Korea will be compelled to concentrate on production of older, proven components supplemented with limited foreign-acquired technology. Although hindered by a sluggish economy, the North's well-established arms industry will produce sufficient weapon systems and military equipment to maintain P'yongyang's overall materiel lead.

14. Concern for domestic stability will continue to limit South Korea's military spending, but a growing GNP will permit defense budget increases in absolute terms. Seoul's dependence on US imports will lessen if current levels of force improvement funding are maintained and if the expanding military-industrial base resolves initial quality control and production problems. Annual production rates of relatively sophisticated ground and naval material, however, will probably continue to be less than those envisioned by ROK force planners. South Korea's investment in a modern military production capability, however, will begin to pay off as Seoul fields increasing amounts of more advanced equipment, partially compensating for P'yongyang's overall numerical advantage. As the ROK's defensive capabilities increase, the North's tactical options will diminish. A successful South Korean defense, however, will continue to depend on timely

warning, mobilization, and reinforcement—barring major increases in planned force development programs.

Implications for the United States

15. Despite North Korean advantages in military strength and its potential to achieve surprise, we believe the North's leaders are deterred from initiating hostilities by a complex mix of political, military, and economic factors. These include: the US commitment to defend South Korea—including the North's perception of a US nuclear deterrent; the presence of US forces in the South; the strength of South Korea's military forces; the relative stability of the South's government; the dismal shape of the North's economy; and the interests of the Chinese and the Soviets to avoid conflict on the Korean Peninsula.

16. Although perhaps to a lesser extent than in the past, North Korea's military options remain influenced by the attitude of its principal allies, China and the Soviet Union. Neither nation is in a position to veto a North Korean attack—both would be loath to support a war on the peninsula not of their own choice. However, should the North attack and fail and, as a result, should either P'yongyang or the North Korean Government appear threatened, the Soviets and/or Chinese probably would intervene militarily in the North.

17. Of more importance in P'yongyang's calculations are its perceptions of the United States' resolve and ability to meet its security commitment and of the relative stability of South Korea. Undoubtedly there are those in North Korea who advocate the use of the military option to reunify the Koreas sooner rather than later. They recognize that, as the South's military improves, the gap between the North and South is narrowing, and they realize that the window of opportunity to use their numerical and tactical advantages is closing. For those who advocate the near-term military solution, however, the presence of US forces in the South must be an important variable in their calculations.

18. While US combat forces in the South are an important element in Seoul's defenses, their primary contribution is as an earnest of Washington's dedication to uphold its treaty obligations. Should the United States' resolve, or ability, to honor its defense obligation be lessened—either by voluntarily withdrawing forces already on the peninsula or, because a crisis elsewhere requires redeploying forces in the Pacific committed to Korea—we believe that the North's desire for reunification on its own terms and its tactical, manpower, and equipment advantages could

Beyond 1990

We believe that overall trends appear favorable for an eventual balance between the forces on the peninsula. To the extent that these trends continue, Seoul could be strong enough to successfully withstand an unaided North Korean attack as early as the mid-1990s. However, we note several trends that will affect the military situation on the peninsula.

South Korea's growing military capabilities will be a source of friction and strength for US policies on the peninsula:

- Time is on Seoul's side. Shielded by the US presence, ROK military power will increase steadily without impeding domestic economic growth. Yet, should events threaten continued economic progress, Seoul will feel a need to reduce force improvement funding, thereby slowing military self-sufficiency.
- On the other hand, growing nationalism and an expectation that the United States will not sustain present force levels indefinitely will provide motivation to develop a unilateral deterrent ability.
- As ROK military improvements create a stronger, more modern armed force, rising nationalism will accelerate demands for a greater role in controlling the combined ROK/US forces on the peninsula.
- Improving military capabilities may lessen the perceived need for in-country US forces. Additionally, expanding defense industries and increasing materiel self-sufficiency may permit reduction in the size of the US assistance effort.
- Desire to capitalize on international arms sales will cause further conflict with US restrictions on sales to third countries. This may lead the ROK to prefer foreign sources of advanced weaponry.

North Korean reaction to the South's increasing military strength will continue to pose analytic and policy challenges for the United States:

- North Korea will view the South's growing strength and technological improvements with alarm. It is likely that domestic economic problems cannot be resolved, and P'yongyang may decide to seek large-scale Soviet assistance at some cost to its independence.

- The North will pursue development of additional combat force multipliers—for example, improved/guided munitions, surface-to-surface missiles, and, possibly, chemical agents/munitions—as improving ROK defensive capabilities lessen P'yongyang's quantitative advantage. (Although development of a nuclear weapon is constrained both by its signing of the NPT, and by the international safeguards we expect to be imposed soon by the IAEA, P'yongyang is developing an indigenous nuclear research reactor.)
- At the same time, the North has embarked on a longer-term, more diplomatic approach, aiming for an eventual US withdrawal through pursuit of tension-reduction measures and dialogue with the South. Present efforts at tension-reduction—establishing direct dialogue with the United States and use of Chinese officials to convey messages urging US exercise reduction—may increase. Additionally, the North may attempt to use its Soviet and Japanese connections as conduits for access to the United States. In this scenario, the North would concentrate on improving its economy and once industrial capabilities permit, again embark on a massive force modernization campaign.
- Determining North Korean policy intentions will remain difficult. We anticipate continued economic problems that Soviet assistance alone will not solve. Concurrent concern over inability to counter growing ROK military strength may cause the North to adopt a more open approach to foreign investment and technical assistance. This, in turn, may permit more access to the North and yield a better perspective from which to assess P'yongyang's intentions.

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tempt some in the leadership to advocate that P'yongyang immediately launch a strike against the South. The danger of such an event would be most serious if a change in the US deterrence equation coincided with prolonged and widespread instability in South Korea and/or a leadership transition in the North. ☐

19. Furthermore, in the event the United States should decide over the longer term to withdraw its forces at a point in time when the North-South balance favors the South—perhaps in the 1990s—we believe that the North would feel much less constrained than now in using its massed forces along the DMZ to attack the South—even though the window of opportunity may have been completely closed. ☐

20. The most important deterrent, therefore, now and in the foreseeable future, will be the US role on the peninsula. So long as P'yongyang faces a cohesive ROK backed by the United States, we believe the likelihood of full-scale, unprovoked North Korean aggression will be low. Although the Chinese or Soviet ability to restrain P'yongyang may lessen further as domestic development and production capabilities expand, and, although the growing combat strength of ROK forces will assume more importance in the North's calculations, we believe that the mix of political, economic, and military factors—particularly con-

siderations of the US resolve—that presently deter North Korean aggression will continue to operate through 1990. ☐

21. North Korea could consider a limited use of force. Firing incidents along the DMZ could become more frequent, and SOF infiltration attempts could occur. North Korea could also resort to terrorism in an attempt to promote instability in the South. If so, the North probably would choose violence that could be credited to either South Korean dissidents or third-country terrorists. Should P'yongyang orchestrate a prolonged campaign of violence, an aggressive South Korean reaction could escalate into major hostilities. (Although unlikely, such a scenario could offer the North the hope of activating its mutual defense treaties with Beijing and Moscow.) ☐

22. Although we cannot be certain how the many variables that can affect the military balance will develop in the next decade, we feel cautiously optimistic. From our vantage point at this time, overall trends appear favorable for an eventual balance between forces on the peninsula. To the extent that these trends continue, Seoul could be strong enough to successfully withstand an unaided North Korean attack as early as the mid-1990s. ☐

ANNEX A

North Korean Special Operations Forces

1. North Korean Special Operations Forces (SOF) are elite units trained to operate behind enemy lines during both peace and war. SOF units consist of highly trained independent reconnaissance battalions, sniper brigades, and light infantry brigades. During peacetime, SOF perform political assassinations and support international terrorism. Wartime missions include intelligence collection, sabotage, and limited-scale conventional attacks on key targets. []

2. Using insights gained from the recent North Korean reorganization, the Intelligence Community credits the North with approximately 55,000 SOF personnel organized into 21 brigades. These figures represent a reduction from previous estimates; detailed analysis of North Korean training designators and true unit designators has permitted us to eliminate several units that had been double counted. Also, no longer included within the SOF classification are mechanized brigades, district command brigades, conventional divisional and regimental reconnaissance, light infantry assets, and Korean Workers' Party agent elements. Finally, it appears that part of the North's overall force reorganization included reduction in the size of the average SOF brigade from nine battalions to six or seven battalions.² Even so, North Korea's SOF, the second-largest such force in the world, remains a significant, cost-effective combat force multiplier for P'yongyang and a formidable threat to Seoul's defensive plans. []

3. SOF personnel are highly motivated and enjoy benefits and prestige not accorded the average North Korean soldier. Their training is intensive and realistic. During operations in South Korea, SOF personnel seldom have been captured alive. The North's SOF have weaknesses, however, in several areas:

- Lack of organic heavy weapons limits offensive capabilities against alert, prepared defenses.
- Once inserted, limited sustainability will hamper the conduct of follow-on operations after initial targets have been attacked.

- Limited amounts of air and sea transports restrict the numbers of SOF that the North simultaneously can deploy against targets in both the forward battle area and in strategic rear areas in the South (see figure 4).

We calculate that P'yongyang could, at best, insert about 8,500 SOF troops in a single air/sea lift. This would force the North to limit the number of targets attacked initially and could result in smaller sized attack units for operations deep in the South. Also, we believe the success of those subsequent insertion attempts necessary to cover additional targets is likely to be lower because ROK defenses would be fully alert. Consequently, the North will have to rely on the use of tunnels under the DMZ and overland insertion for the majority of its SOF. This limits the number of targets that can be attacked south of Seoul and, in turn, will increase the risk of detection and, if conducted before the ground attack commences, could provide warning to ROK defenses. []

4. South Korea has enjoyed some success in improving counterinfiltration defenses and providing warning of peacetime attempts by the North to insert agents. Increased use of ground surveillance radars, night vision devices, and barriers have reduced the ability of infiltrators from the North to cross the DMZ overland without detection. At present, this has forced the North to rely increasingly on sea insertion of agents.³ Additionally, the South's air defense network provides good coverage of the most likely aerial infiltration routes, although gaps in low-altitude surveillance remain. Nevertheless, overall ROK defenses are spread thinly in some areas and could be saturated by an all-out attack. We believe Seoul would be hard pressed to stop initial penetration of significant numbers of SOF should North Korea make the concentrated air/land/sea assault that we would anticipate during an attack on South Korea. []

5. During an attack, the North's SOF would attempt to disrupt mobilization and command, control, and communications (C3) networks; to interdict trans-

³ For more information on sea infiltration, see the CIA's DI Intelligence Assessment EA 86-10010 [] March 1986, *North Korean Intelligence Operations Against the South: The Importance of Sea Infiltration*. []

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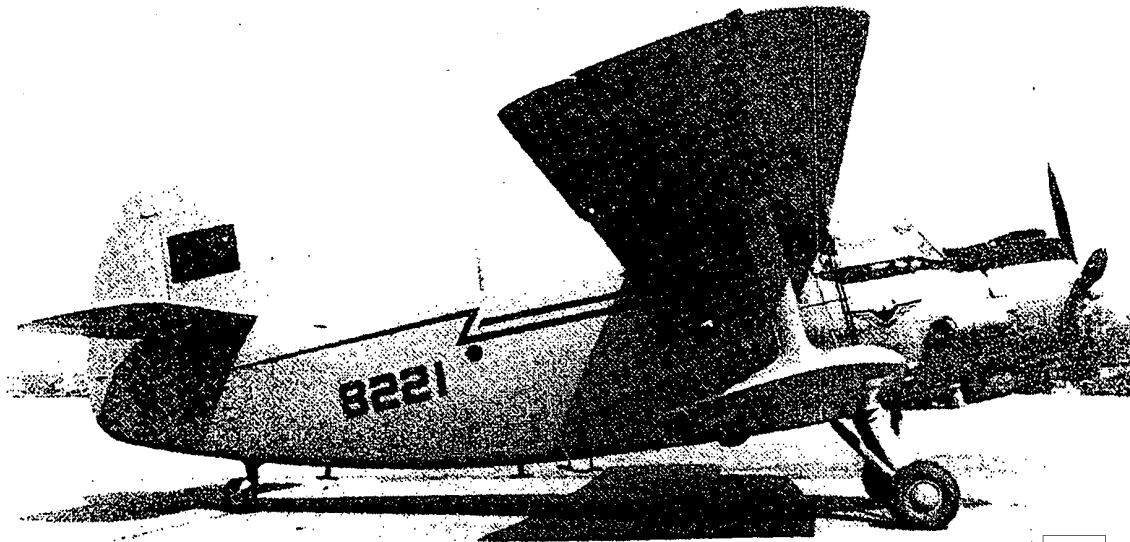


Figure 4. The AN-2 Colt can only carry eight soldiers and is not a modern aircraft. The North has about 270 of these aircraft. ☐

portation routes, and to attack key air defense, fire-support, and materiel assets. We believe SOF activities, even if only partially successful, could greatly assist the North's attack by hampering critical, initial ROK air, C3, and reinforcement operations. Attacks on ROK airfields, thereby degrading sortie generation capability, will hamper the ROKAF's ability to provide air defense to the ROK and timely ground support. Additionally, efforts to shift in-place forward reserves and key artillery and antitank assets will be difficult if C3 is disrupted and if road and rail routes are interdicted ☐

6. During the rest of the decade, we anticipate the situation will remain essentially the same. Seoul will continue to upgrade its counterinfiltration defenses and strengthen rear security. These measures will be counterbalanced by North Korean emphasis on production and acquisition of additional and more sophisticated insertion platforms and on refinement of SOF techniques. Despite weaknesses, P'yongyang's SOF will play an important role in any North-South hostilities with continued potential to disrupt critical aspects of Seoul's defensive plans. ☐

ANNEX B

Present Force Comparison

North Korean Plans and Military Capabilities

1. Should the North opt for war, we believe it would attempt to conduct a coordinated, surprise attack designed to overwhelm the South's war-fighting capability and to occupy the ROK as quickly as possible.⁴ The decisive battle would be fought on the ground with first-echelon infantry forces fixing ROK forward defenders in place and opening gaps for armored, mechanized, and motorized unit exploitation. Attacks would be supported by insertion of SOF troops overland, through tunnels under the Demilitarized Zone (DMZ), by sea, and by air (see figure 5).⁶ The North Korean Air Force (NKAF) would attempt to neutralize Seoul's ability to conduct air superiority and close-support operations by disrupting the ROK's air defense control network, by attacking selected airfields and logistic facilities, and by destroying as many of the South's jet fighters as possible. The North's Navy would insert SOF units along the coast-line, bombard high-priority targets, disrupt ROK shipping and port operations, protect North Korea's coast-line, and attrite ROK naval forces.

2. North Korean armed forces enjoy significant numerical and tactical advantages over those of the ROK (see figure 6). On the ground, the North's ability to mass at selected points of attack appears to be good, although recent analysis indicates ready reserve augmentation of active forces—a process that will take more than five days for full mobilization—may be necessary to ensure satisfactory overall attack ratios.⁶

⁴ P'yongyang's strategy is based on the need to rapidly defeat ROK forces and occupy key areas throughout South Korea before US reinforcements can decisively intervene and Seoul can mobilize its larger population base. Reports indicate the North envisions a successful short war would be over within about two weeks.

⁶ Members of the USFK Eighth US Army G-2 Tunnel Neutralization Team have identified 25 to 30 suspected new tunnels, and underground activity leads them to conclude that the North is still digging. Because they have not broken into tunnels at these locations, they are officially unconfirmed.

⁶ Despite the North's forward deployment of additional forces during the past several years, some preattack movement will still be necessary to achieve favorable force ratios. Ready reserve augmentation would permit more flexibility in assignment of active forces to the initial attack.



Figure 5. ROK soldier inside one of the North Korean infiltration tunnels under the DMZ.

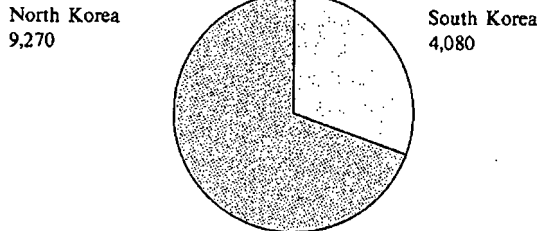
Large-scale deployment of key units could be made under the guise of an exercise with final forward movement conducted at night. Artillery and multiple rocket fire could have a devastating effect on ROK defenders because of the North's greater explosive delivery capability and larger number of long-range pieces. The North Korean Army's (NKA) mobile follow-on elements have the potential to exploit breakthroughs in the South's forward defenses, although the effectiveness of these units will be reduced somewhat because they have only limited numbers of armored vehicles.⁷ North Korea's well-trained SOF troops could compound the South's defensive problems, even though limited transportation for behind-the-lines insertion is available.

3. The North's advantages are lessened, however, by the ROK's prepared defenses. Furthermore, restric-

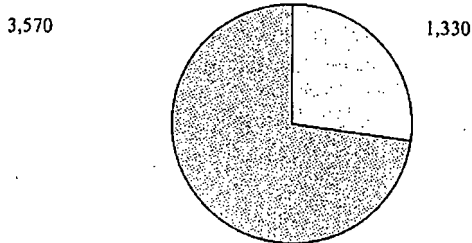
⁷ Currently, many of these forces are mechanized in name only. Numerous mechanized brigades include a mix of armored personnel carrier (APC) and truck-equipped infantry, supported by towed antitank and field artillery weapons. Some of these brigades do not have any armored vehicles, while none are fully equipped with APCs, tanks and self-propelled fire-support systems.

Figure 6
North-South Ground Force
Comparison

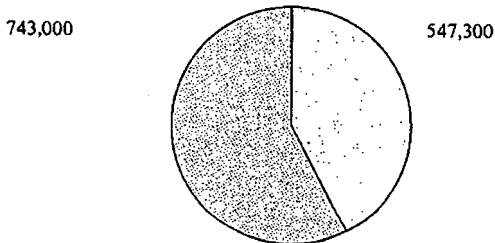
Fire Support ^a



Tanks ^b



Ground Personnel ^c



^a Artillery and MLRs.

^b Includes assault guns.

^c Active forces including ROK marines.

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tive terrain at the DMZ limits avenues for large-scale attacks, invites channelization, and could cause the

NKA to present a lucrative target of massed armored/mechanized forces. Extensive anti-aircraft artillery (AAA) forces, while equipped with older weapon systems, are capable of effective air defense of the North and the initial ground battle. However, a paucity of a mobile, radar-directed air defense system would hamper a North Korean advance. Weaknesses in range and mobility of tactical AAA units would be readily apparent during rapid advances.

4. With its advantage in total numbers of combat aircraft, the NKAF could expect to launch a large initial air attack while maintaining first priority homeland defense operations. Relatively restricted range/time-on-target and light payload capacity would limit the effectiveness of the NKAF against hardened targets, although success against soft or unwarned targets such as radars, unprotected aircraft, and flightlines could be high. Lack of precision munitions, limited electronic countermeasures capability, and a general dependence on clear weather for large-scale operations will hamper the NKAF. Although the NKAF can attack ground targets, a responsive close air support capability does not exist.

5. We estimate that the North Korean Navy (NKN) has enough vessels to conduct simultaneous offensive and defensive operations. The North has a strong antisurface ship capability within its coastal waters, a credible antishipping capability, and a limited antisubmarine warfare ability. Also, the NKN has sufficient amphibious and fire-support forces to land company-sized conventional or SOF units on undefended or lightly defended beaches. However, the North's ships, unit for unit, are smaller and less heavily armed than those of the South and possess only a limited conventional anti-aircraft capability.

6. North Korean reserve forces could significantly assist an attack by assuming responsibility for coastal and rear area security, thus freeing regular units for active employment. Of the North's estimated 5 million reserves, some 700,000 are believed in the ready reserves. At present, 23 to 25 ready reserve divisions are assessed to be organized and equipped along regular Army lines. Further, it appears that nine to 12 of these divisions would be available to augment forward operations while the remainder served as full-time rear security forces. Other reserve units would provide casualty replacements for the active forces and defend their workplaces if under immediate attack.

7. At present, we have no conclusive evidence indicating that North Korea has produced or is now

producing chemical warfare (CW) munitions/agents or that offensive CW employment is part of the North's war-fighting doctrine. North Korea has possession of weapon systems compatible with CW delivery and has conducted extensive field and garrison training in simulated CW environments. In addition, we believe the North has a limited CW capability based on its chemical production capabilities and on the resources it has applied to chemical warfare protection and defense. Chemical units appear to be well trained and adequately equipped, and combat forces are judged capable of operating in a nonpersistent CW environment. Therefore, we cannot rule out North Korean use of CW munitions/agents as a combat force multiplier against selected targets.⁸

8. The North's electronic warfare (EW) and signals intelligence (SIGINT) capabilities are limited.⁹ Even so, its strategic and tactical SIGINT equipment probably could be used quite successfully against unencrypted communications.

9. North Korean military materiel stockpiles are believed sufficient to support several months of combat operations without external assistance. Additionally, a significant portion of these supplies is positioned in forward areas that would assist offensive operations and partially compensate for the vulnerability of the North's transportation system to interdiction.

10. Reports of fuel shortages reveal part of an increasingly chaotic energy situation in North Korea. At present, P'yongyang appears unable to supply enough energy to operate simultaneously all sectors of the economy at full capacity and to meet all military training requirements. This does not mean the North lacks sufficient fuel to go to war, for if all known storage tanks were full, fuel capacity would permit several months of combat. We doubt that the North currently has adequate reserves to sustain a prolonged conflict, but estimate that P'yongyang maintains sufficient stocks to support its short war scenario.

⁸ For additional information on North Korean CBW capabilities see NI IIA 85-10001, 28 March 1985, *North Korea: Offensive Chemical Warfare Capability*.

⁹ All North Korean services possess a limited jamming capability. The NKAF and NKN rely on chaff for electronic countermeasures.

North Korean Readiness

11. Traditionally, the North's military readiness has been rated high, aided in part by a long—eight to 10 years—term of service. However, proficiency training levels in some areas—annual flight-hours per pilot or artillery crew live-firing, for example—habitually have been well below ROK and US standards. We have little information about operational ready rates but judge that maintenance of considerable numbers of old equipment probably creates spare part and repair problems for P'yongyang. Furthermore, the North's logistic support system appears ill equipped to sustain rapid operations. Recent reorganizations have created potentially more effective mobile regular units and ready reserves, but anticipated training emphasis with these forces has not occurred. In fact, since 1983, despite the recent upsurge in medium unit training rates, both overall major unit training rates and large-scale operational exercises generally have declined in all services.

12. The short-term result, we believe, is some reduction in force readiness, especially for major units and joint operations. Training in basic combat skills and low-level unit operations has continued. Except for the MKAF, proficiency of basic combat units—squad to battalion and individual naval vessel—should still be good. NKAF readiness, due to severely lower sortie rates, probably is only fair.¹⁰

13. During war, all units undergo an initial learning period when peacetime training is modified by the realities of combat. Commanders and staffs are constantly confronted with unforeseen, rapidly changing situations that threaten successful operations. Recent field practice for all echelons greatly aids efficient operations during this critical time. We believe the current lack of full-scale field training degrades the North's overall military readiness.

South Korean Plans and Military Capabilities

14. South Korea's defense plans aim to destroy the attacking force well north of Seoul.¹¹ Upon being alerted, ROK frontline units would fully man defen-

¹⁰ The North could reverse this situation by embarking on an intensive program of unit training and large exercises. Obviously, the longer P'yongyang allows readiness to suffer, the more resources and time will be needed to upgrade proficiency. Further, if exercise and training rates continue at present low levels, a notable increase in rates could provide warning of a possible change in North Korean policy.

¹¹ Current plans call for the defense of Seoul at all costs. Seoul contains over a fifth of the population of South Korea. Because it is the commercial, industrial, educational, political, and communications heart of the country, its loss would have a traumatic psychological impact on the people.

Reduced Military Exercises and Training

We believe the decline in training and large-scale exercises in the North over the last few years derives in part from P'yongyang's foreign policy initiatives and the North's growing economic problems. Viewing the pattern of major exercises over the past 10 years, we note an interesting (if circumstantial) correlation between levels of major exercise activity and North Korea's foreign policy tactics.

- In 1977 the United States announced its intention to withdraw gradually its forces from South Korea. The frequency of large exercises in the North dropped dramatically as, we believe, the North attempted to avoid any moves that would reverse US policy.
- Cancellation of withdrawal plans, announced in 1979, may have prompted P'yongyang to drop efforts to project a nonbelligerent image toward the United States and South Korea. A new round of major exercises was initiated in 1980-82.
- After 1983, as P'yongyang again sought to project a moderate image, exercise levels declined. Following declaration of a unilateral exercise moratorium in 1986, large field exercises ceased.

P'yongyang's latest decision to reduce exercise levels probably was made with full intent to continue normal military training. The North may have calculated that overall armed forces readiness would not suffer significantly if individual brigade and division tactical field training were supplemented by corps and higher echelon command post exercises (CPX). If conducted without large troop deployments, CPXs could be difficult to detect, yet could provide minimum essential training to high-level commanders and staffs. At the same time, P'yongyang could truthfully point to the lack of large-scale, multiunit field maneuvers as proof of its dedication to tension reduction.

Growing economic problems, however, probably derailed these plans. Energy shortfalls of unexpected magnitude, especially in refined fuel, combined with a continuing need to supplement the civilian labor force apparently compelled the North to shift some military resources to its ailing economy. As P'yongyang's economic malaise increased, reduction of brigade and division training offered at least a temporary, partial cure for the North's problems.

sive positions and activate barriers to channel attackers into preselected zones of fire. National mobilization would fill regular units to wartime strength, provide 12 additional infantry divisions, and activate 13 lightly

armed rear area security divisions. The South's air defense forces would detect and destroy or divert attacking aircraft and rapidly achieve air superiority over the ground battlefield. The ROK Navy initially would defend against amphibious raids and attempt to counterattack or neutralize the North's antiship operations in the waters surrounding South Korea.

15. The ROK Army has a well-prepared defense capable of inflicting heavy damage on an attacker. Natural and manmade barriers could slow or stall ground assaults, but total effectiveness would depend on timely warning. Several hours' notice is required for full manning of forward defenses and the installation of several key barriers. Artillery and antitank fire will be critical during initial operations, and the South has made significant increases in its weapons inventories, but acquisitions of artillery-enhancing systems such as counterbattery radars have not been fully implemented. The North's quantitative, range, and mobility advantages in artillery and multiple rocket launchers will hamper ROK fire-support and antitank operations while increasing the South's dependence on its outnumbered air force.

16. The ROK Air Force (ROKAF) is prepared to defend against a major air attack, given 12 to 24 hours' warning. Air defense command and control is highly centralized and effective but could be saturated during a large-scale attack. Although P'yongyang has more aircraft, in 1-on-1 combat ROK fighters and crews should be more than a match for the North. North Korean aircraft range and payload limitations and overall shortage of advanced electronic countermeasure equipment are factors that favor the South. Given the North's numerical superiority, however, the ROKAF could be hard pressed to gain needed air superiority quickly and provide timely close support to the initial ground battle.

17. South Korea's recent naval reorganization and redeployment affords increased potential to detect and challenge seaborne attacks, although widespread operations conducted at night and in small formations will be difficult to counter. Qualitative advantages in certain naval equipment (large ships and longer range ship-to-ship missiles, for example) are balanced by the larger North Korean vessel inventory. Limited anti-submarine capabilities will restrict the South's efforts to counter the North's attacks on port and shipping operations.

18. South Korean reserves number over 4.5 million personnel. The major ready reserve units are organized into 25 divisions, 12 of which would deploy



Figure 7. South Korean reservists occupy prepared defensive positions during a practice alert.

forward while the remainder provide rear security. While equipment upgrades have increased the capabilities of this crucial element in ROK defensive plans, shortages still limit full combat effectiveness. Moreover, successful reserve mobilization and deployment, which will take three to five days, remain dependent on adequate warning of attack (see figure 7). Under less than optimum conditions, the likelihood of complete reserve force deployment before a North Korean attack is questionable.

19. The South has no known offensive CW employment doctrine, but awareness of the North's potential chemical threat has led to an increased emphasis on protective training and to a growth in chemical defense organizations. Shortages of protective CW equipment in many chemical, combat support, and reserve units will severely hamper combat operations should the North employ chemical munitions or agents.

20. The EW and SIGINT capabilities of the ROK alone, like the North, are limited.¹⁴

¹⁴ Although the ROKAF has some electronic countermeasures pods, chaff and flares remain the primary defensive EW measures. The ROKN also relies on chaff. While the ROKA is in the process of fielding a total of six EW battalions, only one company currently has been formed, and the acquisition of jammers, receivers, and direction-finding equipment is progressing slowly due to limited funds.

21. South Korea's materiel stocks are considerably lower than those we estimate for the North, and external resupply would be needed much sooner. Efforts to increase critical ammunition and fuel stocks and storage facilities have been only partially successful, with serious shortages remaining, especially in supplies for the Air Force. Resupply, moreover, must come by airlift or sealoft, and then must be transported forward along vulnerable rail and road networks.

South Korean Readiness

22. We consider the overall combat capability of ROK forces as good. South Korean conscripts' higher education and technical skill levels compensate, to some extent, for a short—normally 30 months—minimum term of service. Individual and unit training standards are high and equipment operational ready rates are adequate. Regular major training exercises, such as Team Spirit, sustain large unit readiness and reinforce Seoul's ability to conduct joint and combined operations. On the other hand, combat support deficiencies, especially shortages in war reserves, restrict the South's ability to conduct sustained combat operations unaided. Further, South Korea's need for timely warning of war is a serious limitation to total readiness.

Conclusions

23. We believe that the present force comparison on the Korean Peninsula favors North Korea. P'yongyang enjoys a quantitative superiority over Seoul and can choose the time and place of attack. These advantages potentially allow the North to employ superior forces against critical air and naval targets and opposite key ground avenues of approach.

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24. Despite recent degradations in readiness, the North, with a minimum of preparation, maintains the ability to launch a formidable initial assault. So long as P'yongyang quickly penetrates forward defenses and disrupts ROK reinforcement operations, the North has a good chance of making significant short-term territorial gains. Potential weaknesses in command and control and logistic operations caused by lack of recent field training probably would be minimized if the North's operations proceeded according to plan.

25. The South's dependence on adequate warning, sufficient firepower reinforcement, and reserve force deployment to counter the North could result in a critical situation during the early days of war. South Korean defensive options are limited, with little capability for flexible action. Because Seoul is only 40 kilometers from the DMZ, the South has little maneuver space to trade for time. The ability of forward elements to maintain a cohesive defense by giving ground is restricted, yet, a do-or-die defense, while

slowing the North's advance, could invite defeat in detail by isolated elements.

26. A successful defense would largely be determined by the South's ability to absorb successive assaults and contain any breakthroughs. Forward deployment of the bulk of the ROKA obviates the need for extensive preparation time to meet the initial ground attack. At least three to five days, however, are required to mobilize and deploy sufficient forces in depth to ensure subsequent breakthrough attacks are defeated and ROK rear areas are secured.

27. Given sufficient reaction time, South Korea's chances of limiting the battle to the forward area and seizing the initiative appear reasonable. With limited warning, stabilization of the defenses north of Seoul would be less likely. If the North could successfully destroy or isolate major ROKA forward elements and penetrate to the south, the ROK would be forced to choose between abandoning Seoul or losing the ability to maintain an effective defense.

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ANNEX C

Current Equipment and Personnel ^a

	North Korea	South Korea
Ground Forces		
Personnel	743,000	547,300 ^b
Equipment		
Artillery	7,220	4,040
Multiple rocket launchers	2,050	40
Medium tanks	2,710	1,330
Light tanks	660	0
Assault guns	200	0
Armored personnel carriers	1,610	940
Air Forces		
Personnel	56,000	32,800
Equipment		
Jet fighters	711	425
	206 MIG-21/23	272 F-4/F-5E/F/F-16
	505 MIG-15/17/19/SU-7	153 F-86/F-5A/B
Bombers	83	0 ^c
Transports	295 (includes 263 AN-2s)	91
Helicopters ^d	260	388
Naval forces		
Personnel	40,500	25,500
Equipment		
Surface combat	3	27
Missile attack	36	11
Patrol	364	84
Amphibious	129 ^e	34
Submarine	23	0
Midget submarine	41	7
Mine warfare	23	8
Reserve forces		
Ready reserves ^f	717,000	315,000
Total reserves	4,900,000	4,500,000
Total active forces	839,500	605,600
Total armed forces ^g	5,739,500	5,105,000

^a Personnel figures rounded to the nearest 100 and equipment figures rounded to the nearest 10. Equipment figures include reserve force weapons.

^b Includes 25,000 Marines.

^c South Korean F-4 fighters carry bomb loads of up to 7,200 kilograms, as compared with 3,000 kg for the North's IL-28s.

^d All services. Of the total, the South has 56 aircraft equipped with antitank guided missiles. The North may be trying to develop a system based on its AT-2 and AT-3 ATGMs.

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^e Includes 22 landing craft converted for possible patrol use which are still capable of transporting troops.

^f North Korean Reserve Military Training Units and South Korean Homeland Reserve and Mobilization Reserve Divisions.

^g Both states have made efforts to overcome constraints posed by the size of their population base eligible for military service. The North utilizes women and has raised the upper age limit for military service. The South uses women to a lesser extent and employs limited duty personnel whenever possible. In a long war, the South's larger manpower pool—twice that of the North—would be a significant advantage.

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ANNEX D

Future Force Developments: 1987-90

Overview

1. Projections of future force developments on the Korean Peninsula are challenging because we have no information on North Korean plans and because South Korea's plans may be subject to significant modification. Equally important, both countries will be influenced by internal and external forces whose ultimate effect, at this time, is uncertain. Nonetheless, we believe that recent approaches to force improvement by the North and the South will provide clues to the direction of future developments.

2. Each country will seek to maintain an effective military capability, but economic considerations and continued dependence on allies for advanced equipment will hamper their ability to make more than modest improvements. The North will maintain its quantitative edge, but the South's growing capabilities will threaten P'yongyang's ability to maintain a favorable military balance in the next decade.¹³

North Korean Goals

3. The North will remain committed to a continual program of force improvement. Resource limitations will continue to place a premium on cost-effective measures, which will not disrupt further the ailing economy. Operationally, the North will concentrate on structural and tactical improvements designed to permit rapid, continuous operations. We anticipate P'yongyang's goals will include overall improvement in combined arms and joint operations; command, control, and communications (C3); rear area security, and sustainability.

4. P'yongyang will expect to extract maximum mileage from its large armaments industry by mating newer technology with proven production lines.

¹³ A healthy economy gives Seoul a distinct advantage over the North. The South's GNP is currently almost three times larger than the North's estimated GNP and this gap is continually widening. Thus, while the North devotes an estimated 20 to 25 percent of GNP to the defense sector and the South only 5.7 percent, in estimated real terms, Seoul is spending about as much now on defense as P'yongyang. By 1990, South Korean defense spending is projected to be higher—perhaps over 25 percent higher—than that of the North, although generally higher budgetary costs for procurement and personnel would lessen somewhat Seoul's advantage.

Equipment development efforts will aim to supplement and exploit foreign technology. Although markets are scarce, the North will try to expand its role as an international arms merchant—both as a middleman and weapons producer—in part to gain much needed foreign currency but also in hope of acquiring otherwise inaccessible advanced technology from its clients.

5. Equipment improvement goals will center on correction of weaknesses in the areas of tactical air defense, C3, electronic warfare (EW), and mobility. The North will also emphasize continuing antitank and fire-support hardware upgrades. Additionally, P'yongyang will be forced to address maintenance, repair parts, and replacement problems caused by an aging equipment inventory.

South Korean Goals

6. South Korea, too, will attempt to economically improve the capabilities of its armed forces. Organizational refinement, rather than manpower growth, will be used whenever possible to increase military effectiveness. Improvements will be sought in counteroffensive and rear security operations and in rapid reserve mobilization and deployment.

7. Like the North, the South will attempt to extract maximum efficiency from major equipment developments by creating families of systems with common chassis, powerpacks, and so forth and through sales in the international arms market. Seoul will attempt to capitalize on the South's technological edge over the North and apply this advantage to the weapons industry. The emphasis will be on fielding quality hardware whose superior performance compensates for North Korea's numbers (see figure 8). Sustainability, in terms of supply stockpiles and maintenance operations will also receive limited emphasis.

North Korea—Internal and External Factors

8. The pressures North Korea faces on the domestic front—ensuring the leadership succession and reviving the economy—will affect P'yongyang's ability to make large-scale force improvements. Kim Il-song and Kim Chong-il will seek to ensure the military's loyalty to the succession. On the other hand, shifting the priority

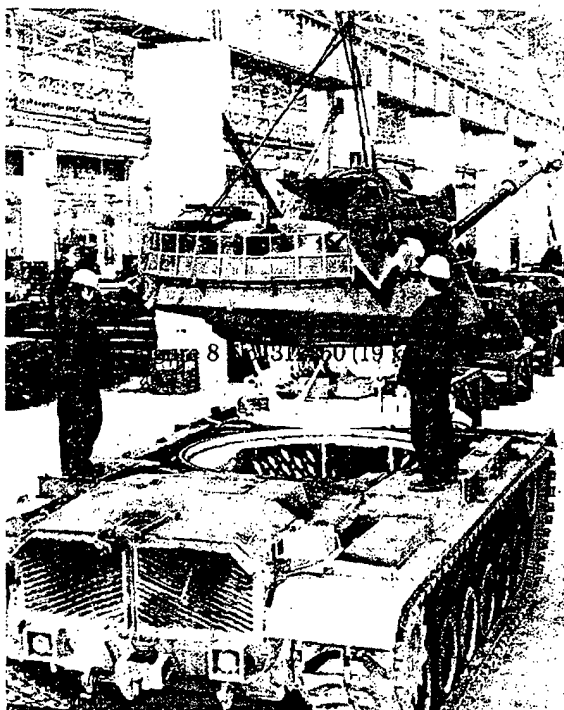


Figure 8. ROK workers reassemble an upgraded M-48 medium tank.

in allocation of resources to the civil economy probably will be necessary to correct deep-seated problems. Temporary reallocation of resources from the military to civil sectors has occurred in the past, although not perhaps on the present scale nor with the same effect on military readiness. To the extent that current trends continue, military production could begin to suffer. Even so, the North's present lead over the South is such that, were P'yongyang to cease military production and Seoul to achieve its planned force improvements, the North would still have the overall quantitative edge in 1990.

9. P'yongyang will continue attempts to supplement domestic force improvements with foreign military assistance. To varying extents, the Chinese and Soviets have the capability to provide both economic and military aid to the North. Lacking hard currency, the North will try to expand barter trade, especially raw materials, and services—small ship construction, for example—as part payment. However, P'yongyang's limited ability to fully and promptly repay its debts will continue to affect the amount and type of military assistance available.

10. Suspicions of North Korean unpredictability will continue to worry its potential patrons. Moscow,

North Korea: Economic Puzzle

Gauging the health of North Korea's economy and its ability to support further large-scale military improvements is extremely difficult. Over the past two decades, P'yongyang's ability to juggle conflicting economic and military priorities has appeared remarkable, but time may be running out for the North. P'yongyang continues to suffer from food, energy, and resource shortages that severely limit economic growth. Additionally, the North enjoys one of the worst credit ratings in the world.

Defense spending at past high levels appears suicidal, yet we note further growth in weapons inventories and see additional military materiel production facility expansion.

The renewed relationship with the Soviet Union probably was prompted in part by realization that the North lacked the economic and technological strength to sustain further large-scale military development. Moderate weapons deliveries in and of themselves probably will not solve P'yongyang's problems. Over the period of this Estimate, even if the Soviets provide increased assistance, North Korea's economic outlook appears bleak. At best, we believe P'yongyang faces continued problems and difficult economic decisions.

the North's primary source of modern military hardware, probably will remain hesitant to provide the types and amounts of newer equipment desired by P'yongyang. We believe the Soviets will weigh carefully the size and type of any future military assistance in order to avoid dramatically upsetting the regional balance, putting Sino-Soviet relations at risk, or encouraging North Korean adventurism.¹⁴

11. To offset this, the North will consider noneconomic concessions such as increased Soviet military access and North Korean support for Soviet policy positions. Additionally, P'yongyang may attempt to use Seoul's future military improvements as leverage for further support from its allies. North Korea may realize only limited success with either tactic:

- In the past, North Korea's xenophobia and concern for Chinese sensitivities have limited P'yongyang's ability to make meaningful concessions

¹⁴ Nonetheless, even nonmilitary, economic assistance could aid P'yongyang's defense efforts somewhat by relieving current resource shortages, improving industrial efficiency, and, possibly, by introduction of advanced technology. The immediate impact on the North's armed forces, however, would be less than direct military deliveries.

to the USSR. Future decisions to seek increased Soviet contacts will depend on P'yongyang's perception of a complex mix of factors that are beyond the scope of this Estimate. Recent unprecedented cooperation with the Soviets, however, may signal a North Korean willingness to risk additional Chinese displeasure in return for continued Soviet support.

- The extent to which the North may gain leverage from ROK force improvements appears limited. Given the nature of Seoul's planned improvements and Moscow's past reluctance to deliver offensive weapons such as ground-attack fighters, we judge that Soviet systems provided to offset ROK military improvements would also be primarily defensive.¹⁵

Moscow to the Rescue—Alternative Scenarios

While past patterns of Soviet military assistance and North Korean policy swings between Beijing and Moscow lead us to expect modest future USSR aid, alternative scenarios are possible:

- Soviet perception of how best to further its strategic aims in Northeast Asia, regardless of P'yongyang's inability to repay or reluctance to make diplomatic or sovereignty concessions, could lead to unexpected benefits for the North. Moscow might be willing to provide additional assistance in hopes of gaining increased influence in P'yongyang or as a counter to closer Sino-US relations.
- Alternatively, P'yongyang could feel compelled to seek increased Soviet aid, even at some cost to its independence. North Korean anxieties over continuing domestic economic problems or adverse external trends—Seoul's growing economic and military strength and international prestige, for example—might lead P'yongyang to accept a greater Soviet presence in return for increased assistance.

The end result, in either case, could include Soviet military equipment deliveries beyond recent moderate levels as well as technical assistance for P'yongyang's weapons development programs. Although we expect Moscow would be reluctant to provide its more advanced hardware or technology, the exact nature of such aid—in terms of quality and quantity—would be situation dependent.

¹⁵ As the South's equipment grows in sophistication, Moscow may become less reluctant to provide newer hardware or technology to P'yongyang. If so, development of the K-1 tank by Seoul, for example, could result in the North receiving T-72 tanks, newer antitank missiles, or assistance with reactive armor development.

12. The North will attempt to compensate for Soviet reluctance to supply newer systems by seeking military technology from other countries. International arms sales will provide opportunities to again acquire limited amounts of advanced equipment. Such a strategy, however, would degrade North Korea's military capability somewhat, because the acquisition of non-Soviet equipment would lead to the noninterchangeability of parts and to repair and maintenance problems.

South Korea—Internal and External Factors

13. Seoul, also, will face political succession and economic issues, which promise to affect future force improvements. Never a popular leader, President Chun realizes that continued economic prosperity is a necessary ingredient to successful perpetuation of his party's rule. The South has little or no control over external factors—the price of oil, access to markets, protectionism, and the availability of credit—which help determine economic performance. On the other hand, Seoul generally maintains tight control over such internal influences as the military budget. Should events cause a downturn in the economy and threaten Chun's succession plans, some cuts in the rate of growth of force development funding are most likely, although the influence of the ROK military will ensure that major programs continue.

14. South Korean dependence on imports has decreased as the domestic arms industry has grown. During the past decade, Seoul has gained invaluable experience in fighter aircraft and helicopter coassembly, and in the production of armored vehicles, artillery and air defense weapons, and capital ships. Nevertheless, Seoul will need foreign assistance in the areas of advanced electronics, aircraft and submarine production, and sophisticated design engineering. While the United States met most of these needs in the past, the situation is changing and we anticipate that future attempts to acquire foreign technology may meet with mixed results.

Future Developments

15. Despite constraints, North Korea will have some success in achieving its force improvement goals. We expect the North to maintain the overall quantitative advantage on the Peninsula. In some areas—firstline fighter aircraft and attack helicopters, for example—the North probably will not be able to overtake the South's lead. Also, as Seoul's arms industry overcomes initial production problems, South Korea will field increasing amounts of more advanced equipment,

Pursuing Foreign Technology

Seoul probably will continue to encounter funding, production, and technology transfer difficulties in its attempts to acquire and produce advanced military hardware.

- Foreign military sales credits from the United States have permitted the South to make steady qualitative improvements to its armed forces without impairing economic growth. These credits ended this year. In the future, Seoul may be hard pressed to locate foreign sources, which combine comparable equipment performance and favorable repayment terms. Foreign acquisitions would complicate US-ROK interoperability.
- Recent attempts to combine various pieces of foreign hardware into cost-effective, domestically produced equipment—the K-1 tank and the K-200 Infantry Fighting Vehicle, for example—have encountered production and reliability problems that underscore the South's continuing need for sophisticated foreign engineering and manufacturing expertise.
- Seoul has already run afoul of US restrictions on technology transfer to third parties. Sale of equipment incorporating low-technology items—power trains, basic suspensions, and so forth—may not raise objections from non-US sources, but we believe the South will meet resistance if it tries to sell advanced European or Japanese technology without paying for the necessary permission.

The combined effect of these factors will not stop the South from acquiring advanced technology. Rather, we anticipate that they will tend to prolong the acquisition and production processes. In turn, this probably will delay operational deployment to ROK forces.

partially compensating for P'yongyang's overall numerical advantage.

16. Even if North Korean military production rates decline in response to resource limitations, sufficient equipment should be produced to continue the increases in overall stocks of older-design, indigenously developed hardware. During the period of this Estimate, the North probably will begin field deployment of some of the new equipment displayed in P'yongyang last year. For example, we anticipate that the ground forces will receive self-propelled, radar-controlled antiaircraft gun systems and new light tanks. Additionally, initial production of a more modern medium tank may begin.

17. South Korea's armed forces will benefit from increased weapons production, although over the near term Seoul's reported annual production rate goals appear somewhat optimistic. By the end of the decade, however, the South's armament industry should be in a better position to satisfy both domestic and export needs. Development efforts should complement a growing production sophistication with continued emphasis on advanced missiles and aircraft and electronic components.

18. The North's development base also will grow in sophistication and product range, although dependence on foreign sources for advanced electronics, optics, and some design engineering will continue to hamper P'yongyang's efforts. Nevertheless, some relatively advanced prototypes may be produced including tube-launched antitank guided missiles, and, possibly, a jet aircraft. Recent successful launches of a surface-to-surface missile will most likely lead to a Scud-like weapon system before the end of the decade.

19. P'yongyang's operational improvements probably will include more sophisticated joint and combined arms operations, although foreign policy and economic considerations may continue to limit the size and frequency of such training.¹⁶ Aerial operations, especially support to ground units, probably will receive more emphasis. When resources permit, field training of maneuver forces will seek to fully integrate ground firepower and mobility operations with air and naval support. Structurally, the North may try to emulate the USSR by creating battalion-size tank and mechanized infantry units and, possibly, airmobile-type units.

20. South Korean operational improvements will increase ROK ability to limit any initial penetrations and strike subsequent echelons and logistic lines. Use of night vision devices will complement antiarmor and fire-support systems and aid around-the-clock operations. Emphasis on refinement of reserve force capabilities including mobilization and deployment should tighten rear area security operations and add depth to the forward defense.

21. Reserve force improvements will strengthen the North's rear area security and provide a significant number of ready reserve units that can augment active

¹⁶ As noted in annex D, recent North Korean large-scale training has declined, probably in response to economic and political factors. While this degrades short term readiness, the North could reverse the situation and rapidly increase combat proficiency by instituting intensive service-wide training.

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Command, Control, and Communications Challenges

Armed forces command, control, and communications (C3) will probably represent the North's greatest operational improvement challenge. We anticipate that current weaknesses involving span of control and joint operations planning eventually will be solved by reorganization, creation of additional headquarters, and emphasizing C3 procedures in training.

Control of rapidly moving combined arms forces on an integrated battlefield, however, will pose a challenge to the North's doctrinaire combat leaders. Reliance on strict adherence to higher level plans, regardless of the evolving tactical situation, may not assure success. We believe P'yongyang will need additional effort to create a solid corps of middle- and lower-level battlefield leaders who can react quickly to unforeseen tactical problems and initiate corrective action without awaiting the traditional direction from above. (This problem is mirrored, albeit to a lesser extent, in the ROK forces.)

ground elements. We anticipate continued upgrading of P'yongyang's reserves, with growing equipment inventories, structural sophistication, and further emphasis on rapid mobilization and combat training. As in the South, when newer hardware is issued to regular forces, older equipment will go to the reserves.

22. The North will continue to increase military stockpiles and hardened facilities. As armed forces equipment inventories increase in size and sophistication, maintenance operations will assume greater importance. We believe P'yongyang will continue to emphasize rear service transportation needs as well as road and rail network improvements. During the next few years, the North will approach six-months sustainability in most supply categories except those pertain-

ing to the newest equipment then being fielded, and, perhaps, refined fuel products.

23. Seoul will improve the sustainability of its forces by increasing supply stockpiles somewhat, upgrading forward lines of communication, and acquiring heavy maintenance equipment. The latter should be especially important in view of the new armored systems now being fielded. If the South diversifies its equipment inventory with foreign acquisitions, however, sustainability of these systems could suffer from limited spare parts and repair know-how.

The 1990 Military Balance

24. We believe that the overall military balance in 1990 will continue to favor the North, although probably by a narrower margin than at present. P'yongyang will still maintain larger forces and more equipment than Seoul, but the North's hardware inventory will heavily rely on dated technology, barring large-scale, quality Soviet equipment deliveries and technical assistance. On the other hand, South Korean equipment improvements, if carried out as now planned, promise to reduce P'yongyang's advantages. In some areas—improved/guided munitions and missiles, air-mobility, and modern fighters—the South should surpass the North in quality and quantity.

25. The margin by which P'yongyang could expect to achieve tactical success likely will decrease, as Seoul increases its military capabilities and sustains overall force readiness. Additionally, the North's combat readiness will decline, if P'yongyang does not reverse the recent downward trend in large-scale training.¹⁷

¹⁷ We doubt P'yongyang can permit overall readiness to continue to suffer due to lack of large-scale training. Future exercise and unit training rates may provide clues to both the extent of the North's economic troubles and the seriousness of P'yongyang's desire for tension reduction.

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ANNEX E

1990 Projected Equipment and Personnel ^a

	North Korea	South Korea
Ground forces		
Personnel	755,000	550,000 ^b
Equipment		
Artillery	7,830	4,600
Multiple rocket launchers	2,400	70
Medium tanks	2,910	1,530
Light tanks	660	0
Armored personnel carriers	1,880	1,140
Air Forces		
Personnel	58,000	33,800
Equipment		
Jet fighters	710	450
	226 MIG-21/23	300 F-4/F-5E/F/F-16
	484 MIG-15/17/19/SU-7	150 F-86/F-5A/B
Bombers	80	0 ^c
Transports	316 (includes 284 AN-2s)	85
Helicopters ^d	300	400
Naval Forces		
Personnel	41,500	26,500
Equipment		
Surface combat	3	45
Missile attack	43	15
Patrol	390	94
Amphibious	132 ^e	35
Submarine	26	0
Midget submarine	45	10
Mine warfare	30	14
Reserve forces		
Ready reserves ^f	745,000	325,000
Total reserves	4,950,000	4,540,000
Total active forces	854,500	610,300
Total armed forces	5,804,000	5,150,000

^a All personnel figures rounded to the nearest 100 and equipment figures rounded to the nearest 10. Equipment figures include reserve forces weapons.

^b Includes Marines.

^c South Korean F-4 fighters carry bomb loads of up to 7,200 kilograms, as compared with 3,000 kg for the North's IL-28s.

^d All services.

^e Includes landing craft converted for possible patrol use which are still capable of transporting troops.

^f These include North Korean Reserve Military Training Units and South Korean Homeland Reserve and Mobilization Reserve Divisions.

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