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Operation CHROMITE: Power Projection ...*From The Sea*

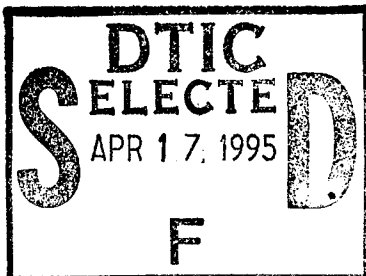
by

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Major, USA

A paper submitted to the faculty of the Naval War College in partial satisfaction of the requirements of the Department of Operations.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.



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13 February 1995

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Abstract of

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CHROMITE: Introduction

Operation CHROMITE was General MacArthur's amphibious assault at Inchon and ensuing operational envelopment and defeat of North Korean forces in September, 1950. A concise analysis of CHROMITE's conception, planning, and execution provides insight applicable to future power projections launched *from the sea*.

The advent of the Cold War in the 1950's caused the United States to necessarily focus its strategy on the blue-water challenges of maintaining sea lines-of-communication and combatting the Soviet maritime threat. The changed world order of the 1990s has refocused the U.S. strategic direction, and specifically the naval strategic course, to one of projecting power *from the sea* and onto land.

In peacetime, our recognized and credible capacity to project power *from the sea* enables us to influence world events, deter potential aggressors, promote regional stability, and in concert with our friends and allies, provides a means of collective security. In war, our capacity to project lethal and sustained power from the sea enables us to concentrate our combat power at the time and place of our choosing.¹

In the future, this will become particularly significant when viewed in concert with our increasingly limited military resources and reductions of forward-based forces around the globe. Moreover, persisting threats in both Korea and the Persian

¹Department of the Navy, Naval Doctrine Publication 1, Naval Warfare (Washington: Department of the Navy, 1994), p.64.

Gulf and our recent intervention in Haiti and planned evacuations in Bosnia and Somalia demonstrate anew what history has shown and current scenarios suggest: future conflicts will occur within 150 miles of coastal waters.²

Favorable resolution of future regional contingencies will necessarily include a projection of power *from the sea*. These operations will be conducted against increasingly capable adversaries under extreme operational challenges. Many aspects of Operation CHROMITE illustrate what U.S. forces will confront in future scenarios. Consider the following:

- * Forced to trade space for time and therefore unable to generate sufficient combat power on land, the operational situation mandated power projection *from the sea*. This severed North Korean lines-of-communication, enveloped their positions, and annihilated their forces.

- * Operation CHROMITE demonstrated some of the operational challenges particularly relevant to a projection of joint power *from the sea*. These considerations include such diverse concerns as naturally occurring obstacles, command and control arrangements, and the ability to achieve surprise and therefore gain the initiative.

- * Contrast Operation CHROMITE, without significant North Korean air, submarine or surface naval opposition, with those capabilities our potential adversaries maintain and likely will employ during future confrontations in the littoral regions of the world. These threats include diesel submarines and coastal

²John J. Kelly, "Beyond the Cold War: The Future of U.S. Amphibious Operations", Sea Power, May 1992, p.37.

patrol boats, both with a mine-laying capability, silkworm anti-ship missiles, and wake-homing torpedoes.

The principal lesson of CHROMITE is the flexibility obtained in projecting power *from the sea*; it permits the operational commander to concentrate combat power at a particular time and location of his choosing.

CHROMITE: Conception

"I believe that it represents the only hope of wresting the initiative away from the enemy and thereby presenting an opportunity for a decisive blow." General MacArthur

Operation CHROMITE commenced on 15 September, 1950--a product of MacArthur's intent to immediately commit U.S. ground forces to the land battle in Korea and seize the initiative from the North Koreans. The North Korean People's Army (NKPA) had abruptly and unexpectedly assaulted south across the 38th parallel on 25 June, nearly three months prior, in an attempt to unify the Korean peninsula under Kim Il Sung.

The United Nations (UN) Security Council convened that very same day in New York and called on the NKPA to cease fire and withdraw north across the 38th parallel. The Security Council met once again on 27 June and called on all member states to render support to the Republic of Korea. President Truman immediately ordered the U.S. Navy into Korean waters and authorized U.S. Air Force combat missions north of the 38th parallel.

Five days into the communist offensive, MacArthur both received authority from Truman to commit additional ground troops to the land battle and conducted a brief reconnaissance of the front lines. This visit convinced MacArthur that only a rapid and massive intervention of American forces would prevent a communist domination of the entire Korean peninsula.

During this aerial reconnaissance he envisioned the vulnerability of the over-extended lines-of-supply and communication the NKPA was committing itself to. MacArthur considered Seoul, the South Korean capital, and the NKPA lines-of-communication as the strategic and operational centers-of-gravity, respectively.

MacArthur's theory of victory was simply to "strike behind the mass of the enemy."³ He envisioned peninsular operations consisting of three phases:⁴ first, a halt to the NKPA advance and a stabilization of the forward lines; second, reinforcement of U.N. ground forces to permit offensive action; and third, a powerful counterstroke in the form of an operational envelopment into the exposed flanks of the NKPA, seizing Seoul, severing their 200-250 mile supply lines, and trapping NKPA forces south of the 38th parallel.

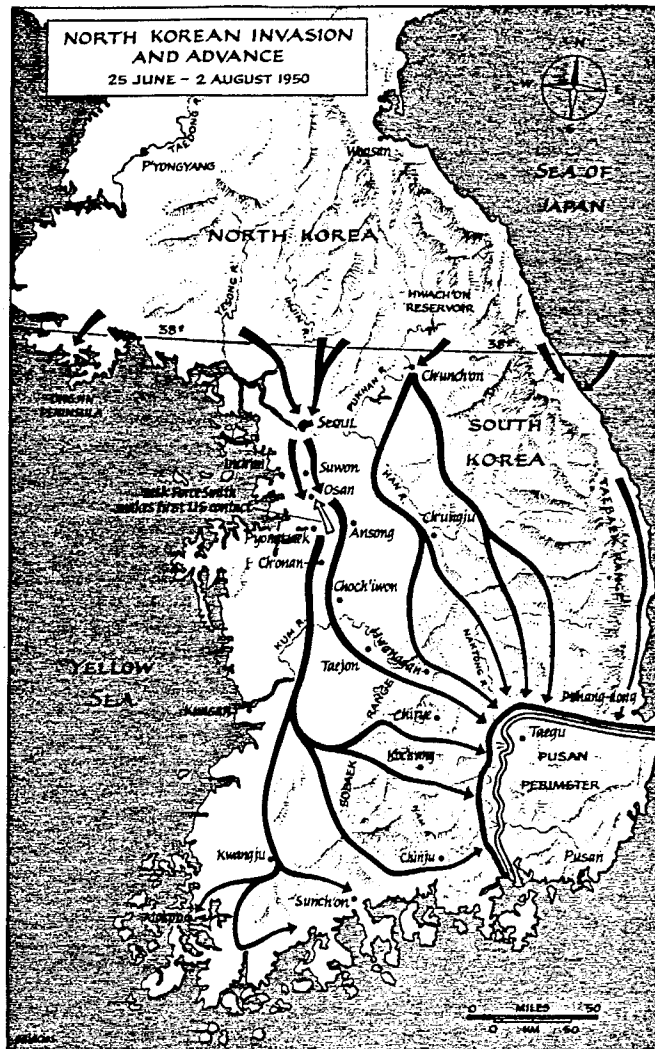
The UN Command had both air superiority and complete control of sea-lines-of-communication. While this provided UN forces complete freedom of movement in the skies and on the ocean, UN ground forces continued their forced withdrawal

³Robert Debs Heinl, Jr., Colonel, USMC (Ret.), Victory at High Tide: The Inchon-Seoul Campaign (Philadelphia and N.Y.: J.B. Lippincott Co., 1968), p.18.

⁴James A. Field, Jr., History of United States Naval Operations: Korea (Washington: U.S. Government Printing Office, 1962), p.172.

southward, under constant pressure from the NKPA. LTG Walker, dual-hatted as both the Eighth U.S. Army and UN Forces in Korea commander, ultimately managed to stop the NKPA advance along the Seoul-Taejon axis and stabilize the UN withdrawal along the "Pusan Perimeter". Phase I of MacArthur's theory of victory was in place.

FIGURE 1



North Korean Invasion and Advance: 25 June-2 August 1950⁵

⁵Donald Knox, The Korean War, Pusan to Chosin: An Oral History (San Diego: Harcourt Brace Jovanovich, Publishers, 1985), p.2.

The inability to generate sufficient combat power on land to achieve a decisive victory consequently led MacArthur to his first concept of an amphibious counterstroke into the NKPA flank on the west coast of the Korean peninsula. He initially considered Chumunjin on the east coast; Inchon; and Kunsan, a port city 130 miles south of Inchon. MacArthur deferred to Inchon and ordered Operation BLUEHEARTS, the proposed landing of the 1st Cavalry Division on 22 July.

MacArthur was convinced of the feasibility of landing at Inchon vice Kunsan, a course of action he had dismissed as "ineffective" and "indecisive". His case to the Joint Chiefs on behalf of his selection is instructive. He argued that an amphibious envelopment directed at Kunsan, 130 miles south of Inchon

...would be an attempted envelopment which would not envelop. It would not sever or destroy the enemy's supply lines or distribution center, and would therefore serve little purpose. It would be a "short envelopment" and nothing in war is more futile. Better no flank movement than one such as this. The only result would be a hookup with (Eighth Army Commander LTG) Walker's troops on his left. It would be better to send the troops directly to Walker than by such an indirect and costly process....⁶

Furthermore, MacArthur believed, retaking Seoul would not only reverse the perilous operational situation manifested in the battle along the Pusan Perimeter, but, in a strategic sense, would improve Western prestige and halt the expansion of communism throughout the Orient. Operationally, Seoul was the hub of all north-south road and rail traffic with the best Korean airfield, Kimpo, located nearby. Significantly, Seoul was only 18 miles east of a major seaport--Inchon.

⁶Clay Blair, The Forgotten War: America in Korea 1950-1953 (New York: Times Books, 1987), p.231.

Convinced of his operational concept, MacArthur reasoned "The history of war proves that nine times out of ten an army has been destroyed because its supply lines have been cut off...We shall land at Inchon and I shall crush them."⁷

CHROMITE: Planning

"...a bold plan worthy of a master strategist." Harry S. Truman

Operation BLUEHEARTS was cancelled almost immediately after planning for it had begun. This was a consequence of the deteriorating military situation along the central Korean front. Indicative of the gravity of the situation, the 1st Marine Provisional Brigade, intended to spearhead the Inchon landing under the BLUEHEART concept, was diverted to reinforce Eighth Army in the Pusan Perimeter. They were soon followed by what was to have been the bulk of the BLUEHEART forces--the 1st Cavalry Division--which landed at Pohang to take up its position in the Perimeter. Phase II of MacArthur's theory of victory gained strength.

Meanwhile, Far East Command (FECOM) issued operation plan 100-B (code-named CHROMITE) on August 12, 1950. As planning continued and intensified on the amphibious envelopment aimed at Inchon, numerous disadvantages to this course-of-action surfaced. These concerned naturally occurring obstacles to the

⁷Roy E. Appleman, *U.S. Army in the Korean War: South to the Naktong, North to the Yalu* (Washington: Office of the Chief of Military History, Department of the Army, 1961), p.488.

landing, the difficulty in maintaining the element of surprise, and the controversial command and control structure established by MacArthur.

Natural Obstacles

First, and foremost amongst the landing hazards was the frightening tidal variations of Inchon harbor which ranged up to 33 feet within the span of six hours, producing a five knot current.⁸ Furthermore, "Flying Fish Channel", the first obstacle to be navigated, was narrow, winding, and without navigational lights.

The exposed and difficult hydrography of the channel increased vulnerability to enemy fires or mines and heightened the possibility of an invasion ship running aground and blocking the channel to follow-on forces. Additionally, at low tide the channel mud flats extended some 6000 yards seaward.⁹

Secondly, the harbor itself was dominated by Wolmi-Do Island¹⁰, approximately 1000 yards in diameter, raising 335 feet out of the water, and connected to the city of Inchon by a causeway. Entrenched enemy forces on Wolmi-Do would control the entire bay, all the landing zones, and would therefore have to be eliminated by air strikes and naval gunfire.

⁸Malcolm W. Cagle, Commander, U.S. Navy and Frank A. Manson, Commander, U.S. Navy, The Sea War in Korea (Annapolis, MD: The U.S. Naval Institute, 1957), p.78.

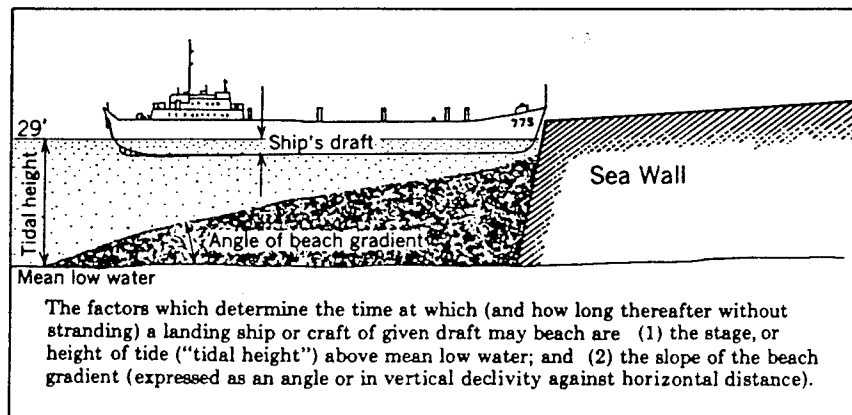
⁹Ibid.

¹⁰Korean for "Moon Tip Island", Appleman, p.504.

The invasion "beaches" were in reality silt mud flats abruptly ending at 16 foot high seawalls. Since the landing was planned for a time just short of high tide, the Marines would require some sort of scaling device such as ladders. Grappling hooks and lines were also prepared to hold the LSTs against the seawalls.¹¹

The challenging underwater typography and tidal variations dictated the date and timing of the operation. An amphibious assault at Inchon required at least 29 feet of water to insure the landing craft would reach the landing sites and keep from running aground. Moreover, only on 15 September, with a high tide of 31.2 feet, would an amphibious assault be possible. Just 12 days later the tides would be two feet less than that required for the LSTs and their corresponding draft. October 11th offered the next adequate tides but this date did not support MacArthur's intent to not only land at Inchon, but to do it as soon as possible.

Figure 2



The Effect of Tides on the Landing Craft¹²

¹¹Ibid., p.499.

¹²Heinl, p.26.

The Element of Surprise

Planners feared the limited choice of possible landing dates, the necessary preparatory bombardment of Wolmi-Do, and potential security leaks might have the effect of negating an element essential to a successful projection of power *from the sea*: surprise. However, MacArthur forcefully submitted that operational surprise would be achieved and the Inchon landing would succeed precisely because of the perceived difficulties and the improbability of it all; i.e. the problems were so great that the NKPA would never expect an attack at Inchon and furthermore could never react in time to stop it.¹³

Nevertheless, security concerns did have some basis. The Tokyo Press Club's nickname for the upcoming landing was "Operation Common Knowledge"¹⁴ and the New York Times even remarked on 14 September that "an amphibious landing on the Korean coast well behind enemy front lines is an obvious and possible strategy."¹⁵ Nine months after the Inchon landing the U.S. Army was to open the prosecution of the leader of a North Korean-Japanese spy ring. He was apprehended with the CHROMITE plans one week before the landing.¹⁶

With the date set, the organization of the operation took shape around the plan which was, simply stated: to neutralize enemy forces on Wolmi-Do, invade Inchon,

¹³Heinl, p.79.

¹⁴Ibid.

¹⁵Ibid.

¹⁶Cagle, p.80.

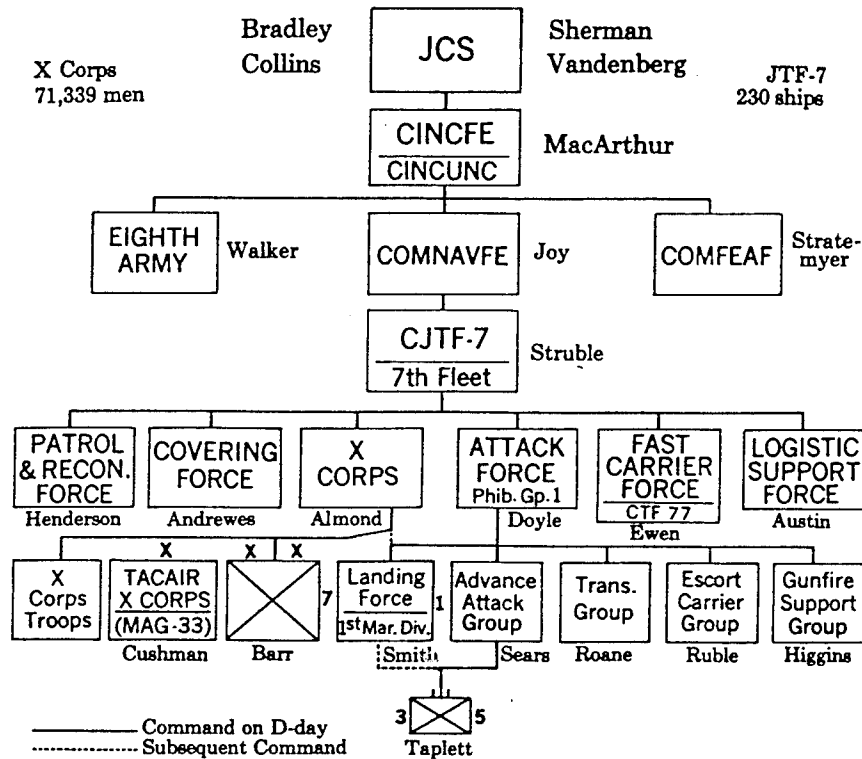
seize Kimpo airfield, and liberate Seoul; thereby controlling all road, rail, and air communication, trapping 70,000 NPKA soldiers south of the 38th parallel, and returning the capital to Syngman Rhee and the South Korean government.

Command and Control

The command structure for Operation CHROMITE is shown in figure 3. Admiral Joy, commander FECOM Naval Forces, was overall responsible for the operation. Joint Task Force 7, formed from the U.S. Navy's Seventh Fleet with Admiral Struble as commander, was responsible for conducting the Inchon landing. This included the maintenance of a naval blockade, conducting pre-D-Day bombardments; conducting the amphibious assault to secure beachheads; transport, land, and support follow-on forces; and provide close air support. JTF-7 consisted of over 230 ships. During the amphibious assault 1st Marine Division, as the Landing Force, was under the command of Admiral Doyle, the commander of the Attack Force. Once established ashore, 1st Marine Division would then revert to X Corp control.

The controversial arrangement of this command structure was MacArthur's appointment of MG Almond, USA, as X Corp commander while Almond simultaneously maintained his position and corresponding power as MacArthur's FECOM chief of staff. MacArthur supposedly made this decision out of his belief that the Inchon assault would result in the termination of the war within a month. Almond could then simply return to his post as FECOM Chief of Staff.

Figure 3



Command Structure for Operation CHROMITE¹⁷

Army chief of staff GEN Collins was "furious" upon learning of this unorthodox arrangement. All concerned with Inchon planning had assumed LTG Shepherd, Commander, Fleet Marine Forces Pacific, would command the predominately Marine landing. Shepherd had amphibious combat experience and led a staff with similar expertise. By contrast, neither MG Almond nor his newly-formed X Corp staff had any amphibious combat experience.

¹⁷Heinl, p. 53.

General Collins also disapproved of the independent status of X Corps, commanded by the FECOM chief of staff. Collins believed it probable that X Corp would command priority in both manpower and personnel over Eighth Army and as the two forces linked up at Seoul, MG Almond would not willingly assimilate X Corps into Eighth Army as would routinely be expected. Collins feared this could lead to a division of U.S. forces in Korea.¹⁸ Ironically, this ultimately occurred on the drive to the Yalu.

CHROMITE: Execution

"...First phase landing successful with losses slight. Surprise apparently complete.

All goes well and on schedule..." General MacArthur to the Joint Chiefs of Staff

The UN projection of power against the NKPA began on 4 September with 65 Marine air sorties of predominately napalm attacks against Wolmi-Do.¹⁹ The Naval Gunfire Support Group blasted Wolmi-Do on the 13th and 14th thus eliminating the enemy batteries guarding the inner Inchon harbor.

On 15 September at 0200, the Advance Attack Group began transporting elements of 5th Marine Regiment to their landing zones on Green Beach. They landed unopposed at 0633 (See fig. 4). Marines quickly secured both Wolmi-Do and So Wolmi-Do and then waited for the next high tide in the afternoon, permitting the landing of subsequent waves of Marines and equipment.

¹⁸Blair, p.229.

¹⁹Appleman, p.502.

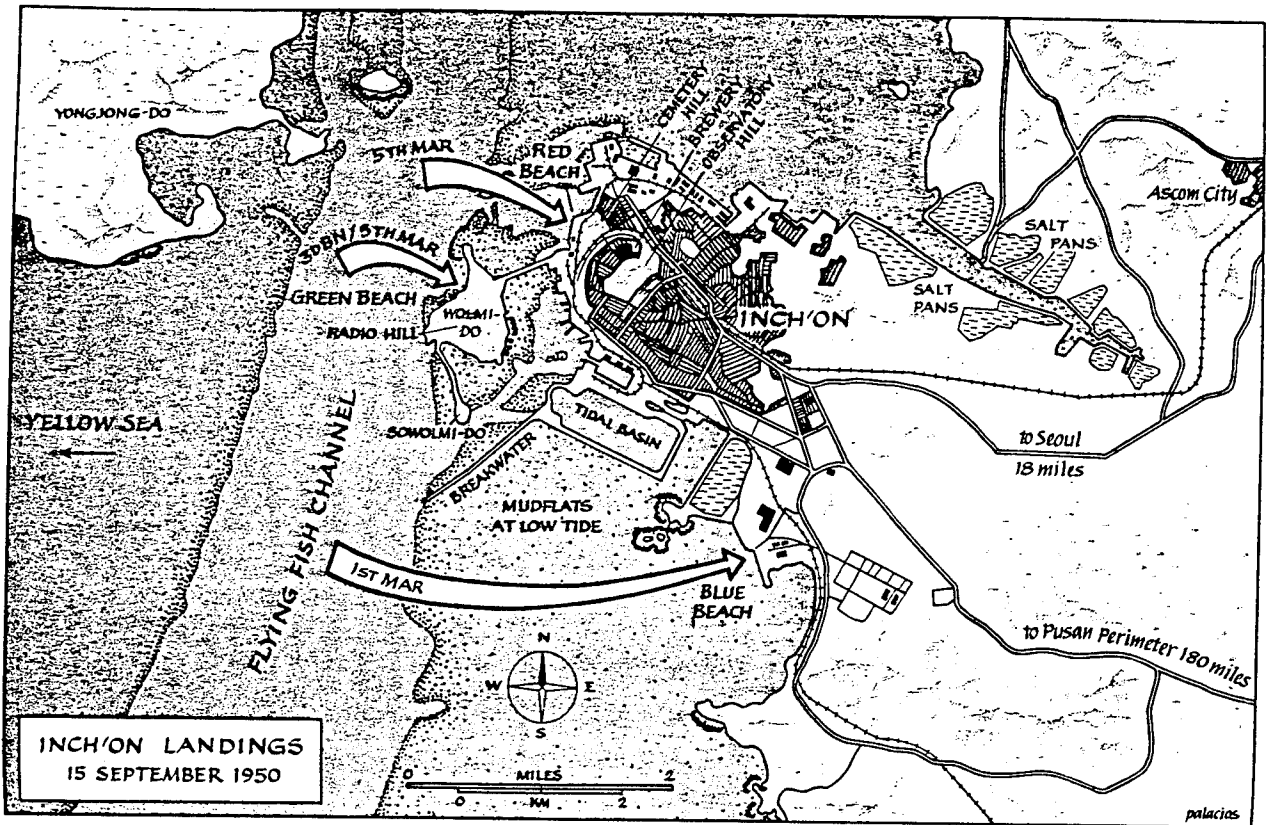
During this time, Marine and naval air isolated the Inchon port area to a depth of 25 miles while naval gunfire barraged the close-in approaches. Marines landed simultaneously on Red and Blue Beaches, facing relatively insignificant enemy resistance. The principal difficulty the Marines encountered was not enemy combatants rather the "blackness of the night".²⁰ 5th Marines continued the assault and seized Cemetery and Observatory Hills while 1st Marines moved inland and secured the roads and railroads connecting Inchon and Seoul. Within 24 hours of landing, the 1st Marine Division had secured the key terrain east of Inchon thereby preventing enemy artillery fire upon the beachhead while providing a good jump-off point for its ensuing attack to liberate Seoul.

Additionally, the capture of the 6000 foot long, 150 foot wide Kimpo Airfield with a weight capacity of 120,000 pounds²¹ on 18 September achieved one of the UN Command's critical objectives. This seizure enabled increased air operations in the subsequent attacks on Seoul and the NKPA lines-of-communication. Additional elements of X Corp joined the battle; 7th Infantry Division landed on 16-18 September and relieved Marine units blocking a possible NKPA thrust from south of Seoul (see fig. 5). One strategic objective of CHROMITE and the first turning point in the war was symbolized as General MacArthur, on behalf of the United Nations, officially restored President Rhee and his government to domicile in Seoul on 29 September, 1950.

²⁰Ibid., p.507.

²¹Ibid., p.511.

Figure 4



Inchon Landings: 15 September 1950²²

Notwithstanding the decisive results of the Inchon landing, one mitigating factor warrants further examination. Characteristic of the landing was the inept and disorganized NKPA resistance and plain good fortune enjoyed by the assaulting forces. Had the NKPA organized and planned for such a contingency, the lone Inchon commemorative marker would have told another story.

²²Knox, p.196.

For example, as the Gunfire Support Group maneuvered up Flying Fish Channel in the early morning hours of 13 September to pulverize Wolmi-Do, a recently placed NKPA minefield was identified. Subsequent reconnaissance indicated the field was composed of approximately two dozen obsolescent contact mines. Breaching required nothing more than small-arms fire. Had the mines been the more sophisticated and deadly influence or magnetic mines, movement up the channel and the whole invasion might have been stopped. Here MacArthur and his forces were lucky. It was later discovered that the Russians had advised the NKPA to mine potential invasion approaches. Owing simply to a logistical or bureaucratic error, the more effective magnetic mines were shipped lacking vital components. Therefore, the less effective and out-dated contact mines were deployed as a temporary measure.

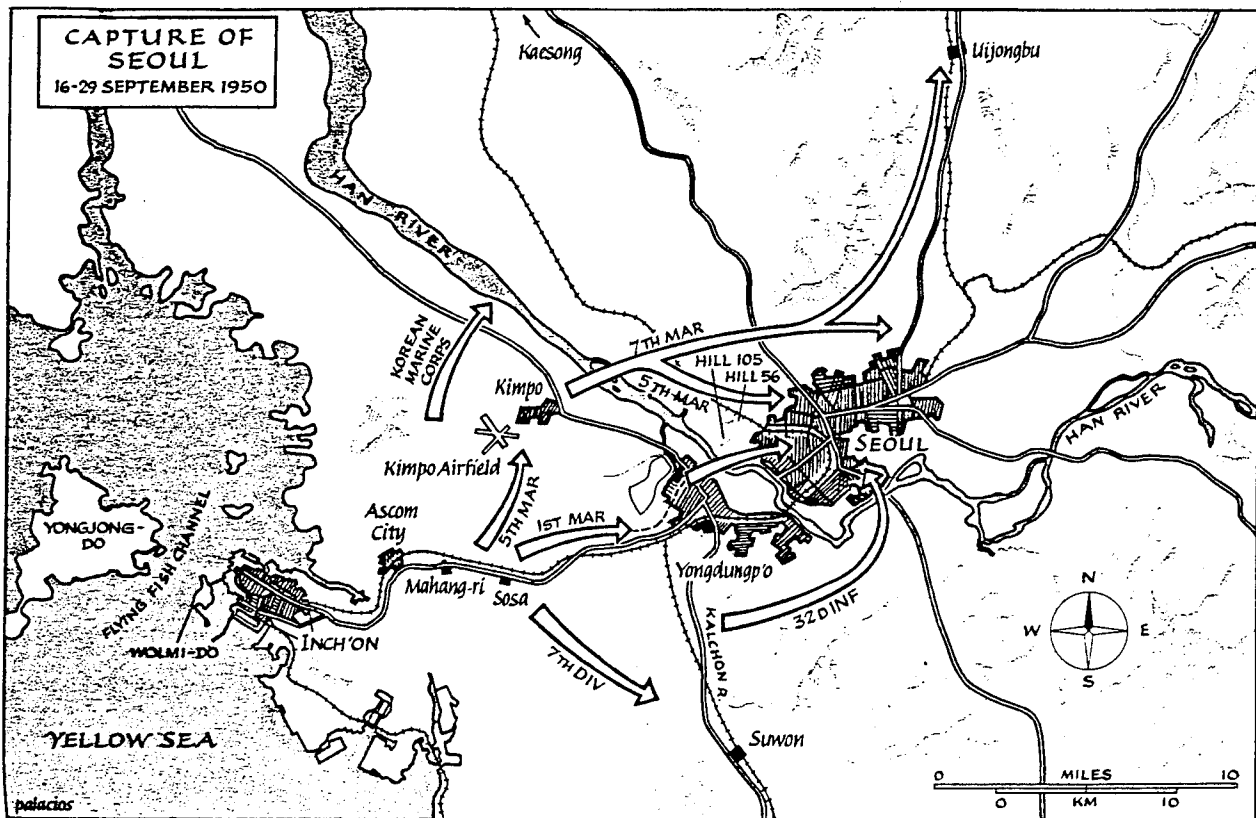
Yet another example occurred as Fifth Marines assaulted Wolmi-Do at 0633 on 15 September. Inept NKPA troops offered little resistance against the Marines who were quite isolated until further reinforcements could land at the next high tide. A competent enemy would have seized the opportunity to counter-attack.

Moreover, Wolmi-Do was well-equipped with artillery pieces which were interconnected by a maze of trenches and tunnels. Perhaps by the "grace of a merciful Providence"²³, the NKPA did not man these weapons nor these positions with well-trained and disciplined soldiers. If they had, Green Beach assaults aimed at the

²³Words spoken by MacArthur as he reinstated Syngman Rhee and his government to power in Seoul; referring to all help the UN Command received in liberating Seoul.

control of Wolmi-Do and its domination of the inner harbor might well have proved disastrous. In another case, as Fifth Marines continued their advance on Seoul and assaulted Kimpo, they found the largest and most modern airfield in Korea, a key operational objective of Operation CHROMITE, largely undefended. Only a 400-500 man contingent of NKPA rear area troops occupied the area and they did not even bother to mine the runway.²⁴

FIGURE 5



Capture of Seoul: 16-29 September 1950²⁵

²⁴Appleman, p.511.

²⁵Knox, p.258.

CHROMITE: Discussion and Lessons

As perhaps the most instructive case of joint power projection *from the sea* since World War II, Operation CHROMITE offers many lessons that bear on the success or failure of a projection of power *from the sea* and therefore are applicable to our future expeditionary direction.

First, owing to various restrictions on the deployment of our forces, now and in the future we will have to project power *from the sea*. MacArthur was unable to conduct operational maneuver on land due to the necessity of trading space for time. Therefore, he had to conduct operational maneuver, one form of power projection, *from the sea*. I suggest that it is not likely future U.S. forces will engage in operational maneuver on land without a predominate "...*from the sea*" component of the joint power projection.

Some of the restrictions that will limit our ability to project power from the land include increasingly limited military resources that cannot be tied to one theater; reductions in forward-basing of U.S. forces; and the political difficulties and costs of obtaining these same basing and overflight rights.

Second, CHROMITE illustrates the myriad of operational challenges that are the ballast of a power projection *from the sea*. Some of the challenges that confronted MacArthur and will face future commanders are naturally occurring obstacles, command and control arrangements, and the necessity of surprise. For example, shallow and uncharted waters, treacherous tides, typhoons, seawalls, shallow

beach gradients, reefs, and operating under the cover of darkness are but a few of the natural impediments to littoral operations.

In addition, future command and control relationships must match expertise with the mission, irrespective of parochial concerns. General Collins surmised that MacArthur placed MG Almond in command of X Corp simply to enable him to be promoted to lieutenant general.²⁶ This was in spite of the fact he had no combat amphibious experience and a more senior and experienced Marine General with an existing staff was available. Future Joint Task Force commanders must match capabilities to missions and maintain clear and common-sense command and control relationships.

In the age of CNN and satellites, achieving operational surprise has become progressively more difficult. A principal lesson of CHROMITE is the range of options made available to a commander projecting power from the sea; options contingent upon surprise to succeed. Joint staff officers, joint task force commanders and our political leaders must understand the importance of surprise to expeditionary forces when they are most vulnerable: traversing the littoral environment.

Third, the Inchon assault could have been significantly more complicated and costly had there been a disciplined and organized foe as previously detailed. This is a study in contrasts, for we can expect and must anticipate very capable threats and no such lack of opposition in future littoral operations. For example, Iran

²⁶Blair, p.229.

currently presents a viable littoral threat as they strive to increase their anti-ship capability. This is in concert with their long-term strategic aim to develop a capability to close the Strait of Hormuz thereby controlling the flow of oil and gaining control of the Persian Gulf. This capability now includes silkworm anti-ship missiles, mines, and submarines. By the end of the 1990's Iran is expected to have the strongest navy in the Persian Gulf equipped with mine-laying Kilo class submarines, wake-homing torpedoes with a range of 12 miles, and a wide assortment of seabed, sound, floating, and rocket powered mines.²⁷

Forces coming *from the sea* are both "non-intrusive" and self-sustaining.²⁸ This increases their flexibility both politically and operationally. Furthermore, the fact that the high seas are international waters is not lost. In the future our joint operations will necessarily be through and from a medium in which we have virtually unrestricted access, require no permission, and enables us to project power at the time and place of our choosing--that is *the sea*.

²⁷U.S. Naval Institute, "Nations/Armed Forces/Organization/Order of Battle--Iran--Navy/Marines". USNI Military Database, January 1994.

²⁸Kelly, p.38.

Bibliography

Books

- Appleman, Roy E. The U.S. Army in the Korean War: South to the Naktong, North to the Yalu. Washington: Office of the Chief of Military History, Department of the Army, 1961.
- Blair, Clay. The Forgotten War: America in Korea 1950-1953. New York: Times Books, 1987.
- Cagle, Malcolm W., and Munson, Frank A. The Sea War in Korea. Annapolis, MD: United States Naval Institute, 1957.
- Field, James A., Jr. History of United States Naval Operations Korea. Washington: U.S. Government Printing Office, 1962.
- Foot, Rosemary. A Substitute for Victory. Ithaca, NY: Cornell University Press, 1990.
- Heinl, Robert Debs, Jr. Victory at High Tide. Philadelphia and New York: J.B. Lippincott Co., 1968.
- Knox, Donald. The Korean War, Pusan to Chosin: An Oral History. San Diego: Harcourt Brace Jovanovich, Publishers, 1985.
- Langley, Michael. Inchon Landing: MacArthur's Last Triumph. New York: Times Books, 1979.
- MacArthur, Douglas. A Soldier Speaks. New York: Frederick A. Praeger, Publishers, 1965.
- MacDonald, Callum A. Korea: The War Before Vietnam. New York: The Free Press, 1986.
- Rees, David. Korea: The Limited War. New York: St. Martin's Press, 1964.
- Rees, David, et al. The Korean War: History and Tactics. New York: Crescent Books, 1984.
- Rongeron, Camille. Lessons of the Korean War. n.p.: n.p., U.S. Naval War College Library: DS 918.R6, 1957.

Schnabel, James F. U.S. Army in the Korean War: Policy and Direction; The First Year. Washington: Office of the Chief of Military History, Department of the Army, 1972.

Ward, Orlando. Korea-1950. Washington: Office of the Chief of Military History, Department of the Army, 1952.

Willoughby, Charles A. and John Chamberlain. MacArthur: 1941-1951. New York: McGraw-Hill Book Company, Inc., 1954.

Articles

Boorda, J.M., Admiral, USN. "Time for a '...Sea' Change", Proceedings, August 1994, pp. 9-10.

Kelly, John J. "Beyond the Cold War: The Future of U.S. Amphibious Operations", Sea Power, May 1992, pp. 36-38.

LaPlante, J.B., Rear Admiral, USN. "It's Time for the 'Gators'", Proceedings, May 1993, pp. 49-50; 52.

Office of the Secretary of the Navy. "...From the Sea: Preparing the Naval Service for the 21st Century.", Navy White Paper, September 1992.

Office of the Secretary of the Navy. "Forward...From the Sea", Navy White Paper, 1994.

Owens, William A., Admiral, USN. "Naval Voyage to an Uncharted World", Proceedings, December 1994. pp. 30-34.

Rivero, Horacio, Admiral, USN (Ret.) "From the Sea...But Not On the Sea?", Proceedings, October 1993, pp. 10; 13.

Strasser, Joseph C., Rear Admiral, USN. "The Role of Naval Forces in Combat" in Naval Forward Presence and the National Military Strategy, ed. Robert L. Pfaltzgraff, Jr. and Richard H. Schultz, Jr., Fletcher School of Law and Diplomacy, Naval Institute Press, 1993, pp. 251-263.

Databases

U.S. Naval Institute. "Nations/Armed Forces/Organization/Order of Battle--Iran--Navy/Marines." USNI Military Database. Rockville, MD: Periscope/USNI Military Database, January 1994.