Operation Galvanic, Part I: Operation Galvanic, the conquest of the Gilbert Islands, was the opening gambit of a seven month island hop from late November, 1943 until June, 1944 whose objective was the capture of the Marianas to place the Japanese homeland within range of Air Force B-29 bombers. To take the Marianas, naval bases and air fields had to be established at regular intervals to extend an unbroken supply chain across the Pacific. Japan's inability to construct a similar supply route was their undoing. The Gilbert Islands were chosen for the first leg of the relay, to be followed by the excellent anchorages of the Marshall Islands, where the attack on the Marianas could be staged. (Simultaneously, MacArthur would lead the Army on a parallel offensive from New Guinea to the Philippines.)

Admiral Ernest King, Navy Chief of Staff, was unafraid to take a calculated risk. A year earlier, King's successful but hastily-planned invasion of Guadalcanal was based on his correct observation that the rapid pace of the Japanese eastward advance left them unprepared to defend the island for some weeks. In summer of 1943, King concluded, that after Japanese naval and land losses in the Solomons campaign, Japan needed time to recover and he rapidly conceived the island hop campaign to keep the Japanese reeling. King ordered Operation Galvanic to commence in the fall with a coordinated air and amphibious operation to take the Gilberts with landings on Tarawa Atoll by the Marines and Makin Island by the Army. Major Japanese bases on other islands of the Gilbert chain, were to be bypassed but subjected to regular air attack. Japanese orders to all their outer garrisons were, "You are on your own, defend the Empire to the last man." Japanese soldiers on these bypassed islands starved and as the war went on and often resorted to cannibalism to survive. As with Guadalcanal, hasty battle plans were drawn up for Galvanic, frequently with little or questionable intelligence as to the terrain or enemy disposition, a gamble King was willing to take rather than allow Japan time to reinforce their defenses.

Betio Island, in the Tarawa Atoll, had perfect geography for a large airfield and was coveted by both sides. A Japanese Special Naval Landing Force, specially trained soldiers for amphibious operations (often referred to as Japanese Marines) held the island and fortified it heavily against air and sea bombardment as well as seaborne infantry invasion. Interestingly, the size of the Japanese garrison was determined by aerial photos of latrines built on piers over the lagoon. The Japanese army had strict rules requiring one "hole" per 20 troops. Intelligence officers were able to accurately guess that approximately 5,000 defenders were present by counting the latrines. Intelligence however, failed to understand the hydrology of the island - an error that would cost many lives. As in the Solomons campaign, few charts were available of the Gilbert islands, what charts existed often dated from time of Captain Cook. Invading from the lee (lagoon) beaches of the island was preferred to the windward (ocean) side because of calmer seas for the landing craft. New Zealand naval officers who knew the Tarawa lagoon advised against using the lagoon approach in November because of unpredictable currents and unusually low tides that occurred at that time of year. A coral reef, lying 700 yards offshore of the lee beaches had to be crossed by landing craft which required a minimum of three feet of water. Those who knew the island said the tide would be too low but their advice was discounted.

The invasion force arrived off the Betio coast on 20 November 1943 and commenced a concentrated naval and air bombardment. Young marines aboard the transports were convinced they would meet no resistance because "nothing could possibly survive that shelling." As eager young marines wolfed down a steak and eggs breakfast - much to the chagrin of the surgeons that would have to sew them up later - the "Old Breed" of Guadalcanal veterans were less optimistic. A year ago, they survived a similar bombardment by Japanese battleships with few casualties. Marines boarded landing craft and headed toward shore to a carnage that no modern writer can hope to describe. Nearly all the Japanese garrison survived the lengthy naval and air bombardment and they were ready to fight to the death.

The first wave rode Amtracs, half boat, half tracked vehicle that could climb over the shallow reef and continue to a seawall at the edge of the beach. As more and more Amtracs were knocked out, later waves had to come in on Higgins boats which could not float over the coral and were forced to unload their marines at the reef. Hundreds died in a hail of machine gun and mortar fire as they waded the 700 yards from the reef to the beach. A long pier jutted out from the beach to the reef and some were able to use it as protection from enemy fire. Many more hung lifeless from offshore barbed wire obstacles where they met their end. Navy Lt. (jg) Edward Heimberger commanded a landing craft that day. Knowing he could not traverse the reef, he bravely maneuvered along it's length, picking up wounded, shielding marines in the water and rescuing those he could. Lt. (jg) Heimberger, awarded the Bronze Star for his actions under fire, was known to most Americans as the actor Eddie Albert.

Surviving the wade ashore was a matter of luck, surviving the seawall was nearly impossible. Mutually supporting, interlocking machine gun positions destroyed anyone who lifted his head. A dozen marines would assault a gun pit in succession, one might survive to eliminate it. All along the front, courageous sacrifices allowed others to make small gains. Left of the pier, Japanese defences were a bit weaker allowing a small salient of perhaps 100 feet - of an island no more than 200 yards wide - to be held by the marines by the end of the first day of battle. On the right, the marines were still stuck at the seawall, their positions only yards from the enemy who never slackened fire.

The ensuing 3 days of battle consisted of individual assaults on pillboxes and larger bunkers, the details of which reveal the incomprehensible brutality of the Pacific War. A marine would find a spot out of view of the enemy gunner, although often in the sights of other supporting positions. He'd then creep up to the pillbox and poke his bayonet through the gun port. With the gunner's head impaled on his bayonet, a grenade was tossed in or the nozzle of a flame thrower to eliminate the position. This continued every few feet across the island. Often, pillboxes were reoccupied by infiltrators. Larger bomb-proofs were assaulted by teams who destroyed them with explosive charges, frequently after many bloody attempts. One remaining operational tank was instrumental in getting teams of marines into firing positions and across enemy trench lines. The large naval task force offshore, provided fire support and superbly coordinated close air support, amazing accuracy given the close proximity of opposing forces. Betio, whose defenders proclaimed could not be captured by 1 million men in 100 years, was secured on 23 November 1943 with the loss of over 1,000 marines killed and twice that wounded. Over 4,900 Japanese, nearly the entire garrison of Betio were killed, the 120 or so prisoners taken were mostly Korean slave laborers. Over the next few weeks, the entire Tarawa Atoll was cleared of Japanese soldiers. The marines raised both the American and British flags over Betio recognizing that the Gilberts, before their conquest by Japan, were British territory. The film record shot by combat cameraman SSG Norman Hatch, with its extremely rare shots of live Japanese soldiers - and dead marines - was viewed all over America in a documentary that brought the shock of the Pacific War home to Americans who until then, had little knowledge of the realities of the war. Later, many of the Tarawa scenes of "Sands of Iwo Jima" were composed of SSG Hatch's graphic footage.

The assault on Betio was the first amphibious assault on a heavily defended landing beach since the disaster at Gallipoli in the First World War. It's success, though costly, proved to skeptical Allied planners that such an amphibious invasion across the English Channel would be possible in Europe.

On the same day as the assault on Betio, a few hundred miles north, a more lightly defended Makin Island was invaded by units of the 27th Infantry division of the U.S. Army in the second part of Operation Galvanic. Here, a fundamental difference in Army infantry doctrine, would result in a

slower, but less deadly advance which kept Army casualties to a minimum, but resulted in tragic loss for the Navy. More on this in part two.	es