Hindcasting the Japanese Military Base on Midway Atoll (Central Pacific)

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Abstract
The Battle of Midway was the turning point of World War II in the Pacific. Not only did the battle cost the Japanese Navy four of its fleet carriers, it also thwarted Japanese hopes of establishing a seaplane base there. Midway, in conjunction with another in the Aleutians, was to be the anchor of Japan’s eastern defence perimeter. Drawing on an analysis of the Japanese military base on Kiska (Aleutians) this paper reconstructs what equipment the Japanese had destined to be placed on Midway. A comparison with the well-documented Japanese bases on Micronesian atolls allows us to hindcast the appearance of a base that never was.

Introduction
The Battle of Midway had been widely acclaimed at the turning point in the Pacific theatre of World War II. With the loss of four of the fleet aircraft carriers the Japanese Navy not only lost a major strategic asset but also lost its cachet as an invincible force. The planned occupation of Midway had to be abandoned and with it the control of the northern Central Pacific. But what if the Battle of Midway had gone right for the Japanese?

This is not an essay in speculative history, attempting to outline how the Pacific War would have unfolded if the Japanese had won the Battle of Midway. That kind of history, while entertaining, is quickly based on too much conjecture and far too many assumptions—even if we base the scenario developments on sound principles of future studies and strategic foresight. Rather, this paper will explore what kind of base the Japanese would have established on Midway. We are on much firmer footing for this aspect. The following reconstruction relies on data drawn from the Japanese base on Kiska in the Aleutian Islands and the various Japanese bases in the Central Pacific.

The Battle of Midway
On 7 December 1941 (U.S. date) the Empire of Japan carried out a surprise aircraft carrier strike on the U.S. naval base of Pearl Harbor, Hawai‘i. Prior to the outbreak of the War, Japan controlled all of Micronesia with the exception of Guam and Wake Islands, both of which were U.S. possessions. Rapid advances by forces saw the Japanese occupation of large sections of the Western Pacific, with the fall of Guam (8 December 1941), Wake (23 December), Hong Kong (25 December); Singapore (15 February 1942); the Philippines (Bataan 13 February 1942; Corregidor 5 May); Dutch West Indies (now Indonesia; 9 March); and Rabaul (then Australian Territory of New Guinea, 23 January 1942). In addition, Japanese carrier forces attacked Darwin (Australia, 19 February 1942) as well as Trincomalee (Sri Lanka; 9 April 1942) and land-based fighters raided Broome (Australia, 3 March 1942).

U.S. counter strikes in the southern Marshall Islands on 1 February 1942 and against Wake Island on 24 February were largely ineffectual and only highlighted to the Japanese any shortcomings in their defensive strategies—shortcomings which were soon rectified. These U.S. Navy operations demonstrated to the Japanese that the U.S. fast carriers posed a considerable threat, but a threat that appeared contained to the periphery of the Japanese interests. The U.S. raid on Marcus Island on 4 March signalled that U.S. carriers could penetrate what was believed to be ‘safe’ Japanese waters.

Strategic Considerations
The Japanese Combined Fleet staff predicted that the U.S. would eventually attempt to strike the Japanese home islands. To counteract this, the Combined Fleet began preparatory plans for an occupation of and base development on Midway Atoll as early as mid-March 1942, culminating in preliminary plans by end of that month. At the level of the Japanese Naval General Staff the Midway plans competed with the school of thought that wished to occupy New Guinea as well as parts of Australia to negate the Allies the opportunity to use these areas as a springboard from
which to launch a counter offensive. The Imperial Japanese Army (IJA) too was keen to continue the southward advance (Fuchida and Okumiya 1955, pp. 54-55).

This completely changed with the Doolittle Raid of 18 April 1942. A U.S. strike force sailed undetected within 650 nautical miles of Japan launching sixteen B-25 medium-range bombers from USS Hornet. The planes attacked Tokyo and other Japanese centers. While the actual damage exacted by the Doolittle Raid was low, the raid proved to Japanese planners that the North Pacific posed an area of vulnerability which U.S. carrier forces could exploit. That gap could be closed by occupying Midway Atoll, at the northwestern end of the Hawaiian Chain, and by erecting a base on one of the Aleutian Islands. Combined with Wake Atoll, which had been in Japanese hands since late December 1941, these bases would allow for a barrier patrol and continual surveillance of the sea-lanes by sea/float planes and long-range flying boats as well as by submarines (Fig. 1) (Fukudome 1945; Ito 1945; Watanabe 1945; see also Takahashi 1995).

Common mythology has it that the Doolittle Raid was the cause of the Midway Operation, a comment that has been repeated many times over. While the Doolittle raid may have been the catalyst to ensure concurrence by the IJA which had competed for resources to achieve their own objectives in the SW Pacific, the Midway operation had been in planning long before the Doolittle raid by the IJN (Parshall & Tully 2005). Midway was of utmost strategic importance to the U.S. but especially to the Japanese. Control of Midway, after all, meant to control a sizeable sector of the airspace in the central Pacific. At the start of the war the Japanese envisaged an eastern defence perimeter that ran from the Kurile Islands to Wake, Kiribati (then the Gilbert Islands) and on to Rabaul (Fukudome 1945; Toyoda 1945). In the face of the running success enjoyed by the Imperial Japanese Navy (IJN) as well as the IJA, that perimeter was later conceptualised to include Midway and the Solomon Islands, as well as the Aleutians (Fukudome 1945). In Japanese hands, Midway would serve as an anchor of that expanded eastern defense perimeter and would provide a base from which to carry out long-range missions against Pearl Harbor (Fukudome 1945; Watanabe 1945; Parshall & Tully 2005, pp. 41-42).

The plan to occupy Midway then developed into a larger naval engagement, where the Japanese Navy hoped to lure the U.S. fleet into battle where it would be trapped between two carrier forces and annihilated, thus forcing the USA to a negotiated peace.

**The Aleutian Operation—A diversion?**

The Battle of Midway was not confined to the Central Pacific: there was also a North Pacific dimension: the Aleutians. It is a commonly advanced argument that the Aleutians operation was a mere diversionary attack, aimed at confusing the U.S. command and timed to draw any U.S. carriers to the Aleutians and away from the Central Pacific area (Johnson 1977). While that view was the canon for much of the post-war years (Hailey 1944, p.21ff; Morison 1949, pp. 77-78; Fuchida & Okumiya 1955, p. 17; Stephan 1974, p. 138) and was still *en courant* in the 1990s (e.g. Allard 1995), the diversion theory has lost some traction in recent years (e.g. Lenihan 1992), with the myth being exploded by Parshall and Tully’s recent work *Shattered Sword*.

While there can be no doubt that the Midway operation was the main game, the Aleutian component was an essential part of the entire Japanese defense strategy. That point was not lost on several contemporary commentators, but was in subsequent years overlooked in the myth developing around the Battle of Midway. The diversion myth had been born, in part, by the interrogations of low-level IJN personnel that were not fully briefed on the larger strategic picture (e.g. Amagi 1945), while statements by other, higher ranking staff were misinterpreted to conform with the flanking and diversion hypothesis (e.g. statement by Okumiya 1945). The problem rests in the fact that two issues were conflated early on: a diversionary attack on Dutch Harbor to distract U.S. planners, and a planned occupation of one or more islands in the Aleutians (Ito 1945; Okumiya 1945).

The idea that the entire Aleutian operation was diversionary makes no sense at all if we consider that Yamamoto detailed two of his six carriers, the *Ryūjō* and the *Junyō* to that operation. Given that his main objective was to take Midway and to lure the U.S. carriers into battle, every additional flight deck was going to strengthen his hand. After all, the *Ryūjō* and *Junyō* could have served as flight decks to attack Midway, while the four larger and faster fleet carriers could have been positioned to intercept the U.S. carriers. Why sacrifice strength for more diversion (Lenihan 1992)? Moreover, if this had been a mere diversion, then a single carrier would have sufficed to
project air power and engage any enemy air forces in the Aleutians, coupled with a well composed battle fleet capable of wide-ranging shelling and onshore destruction. Moreover, in a diversion scenario there was no real need for any landings let alone occupation to occur. If landings were seen as desirable for the psychological impact, then all that was required was to land shock troops, cause mayhem with concomitant destruction/demolition of shore facilities and to withdraw before the enemy could react.

Instead, the Japanese committed almost 6,000 troops to the occupation of Attu and Kiska. Indeed, Vice Admiral Fukudome, Chief of Staff to Admiral Koga, CiC Combined Fleet after Yamamoto’s death, made the point that Yamamoto believed that eastern bases, such as Midway and the Aleutians, were “critical to an overall success of the IJN’s plans” (Fukudome 1945).

The Japanese planners had three main strategic concerns (in no particular order) (Allard 1995; Johnson 1977; Takahashi 1995; U.S. Army 1959): i) control of the expanse of ocean north of Wake and south of the Aleutians (as described earlier); ii) prevent the U.S.A. from using the Aleutians as a route to launch an invasion of the Japanese homeland via the Kurile Islands; and iii) prevent the U.S.A. from using the Aleutians as a supply route to the Soviet Union, should the USSR enter the war (all concerns discussed in more depth by Spennemann 2011, p. 59ff.).

**Midway**

To the Commander of the Combined Fleet, Admiral Yamamoto, the presence of the fast U.S. Fleet carriers was a major concern. Their destruction would ensure, at least temporarily, the unfettered supremacy of the IJN in the Western and Central Pacific; would make Hawai‘i, and thus Pearl Harbor, vulnerable to Japanese attacks, possibly even an invasion; and would allow Japan to project forces against shipping along the west coast of the USA. On a political front it was argued that stripping the USA of its effective means of defense might force the U.S. to a negotiated peace a settlement favorable to the Japanese interests.

Much has been written on the topic, and this is not the place to revisit the genesis, execution and subsequent failure of the overall Japanese Midway Operation (e.g. Morison 1949; Fuchida and Okumiya 1955, Parshall and Tully 2005). Suffice to say, though, that while the removal of the threats posed by the U.S. carriers was the prime strategic objective, of equal importance to the Japanese Navy command was to establish a firm defensive eastern perimeter that consolidated the gains thus made. Given the limitations posed by transport shipping, naval combat units afloat, and the availability of garrison forces (both IJA and IJN), Yamamoto’s Midway Operation had to compete with the IJA’s continued objective to capture Port Moresby, which had temporarily been put on hold following the Battle of the Coral Sea, and the IJA’s expansion plans in the Solomons. The rivalry between the IJA and the IJN is legendary, and it seems that considerable horse-trading went on in the planning stages to ensure the IJA’s concurrence. As has been noted by a number of historians, what had once been a simple and elegant plan of trapping the U.S. carriers had become not only the largest, but also the single most complex naval operation in the entire Pacific War, involving the coordination of nearly 200 vessels (Parshall and Tully 2005). A system failure at some point was almost inevitable.

On 5 May 1942 the Imperial High Command issued Naval Order Number 18, the actual order for the Aleutian-Midway Operation, which directed Admiral Yamamoto, Commander of the Combined Fleet, to execute the operation in coordination with the Imperial Army. The joint operations order stated *inter alia* that the “[o]bject of this operation is to capture or demolish points of strategic value on western Aleutian Islands in order to check the enemy’s air and ship maneuvers in this area” and that “the Army troops and Navy Special Landing Forces will capture Attu and Kiska Islands respectively. They shall hold these two islands until the coming winter.”

**The Battle of Midway and the Landings in the Aleutians**

Code breaking of intercepts of Japanese communications made the U.S. planners fully cognizant by not only of the overall Japanese intentions but also of the general order of battle (Parker 1993). Crucially, this allowed them to preposition their carriers. The Battle of Midway commenced on 4 June 1942 when planes attacked Midway itself with the aim of neutralizing its air capability in advance of the landings. When the first wave fell short of achieving the objective, a second strike had to be prepared. At the same time, failures in the Japanese reconnaissance screening
efforts (including the fatal delay in launching a reconnaissance plane in the cruiser *Tone*) left VAdm. Nagumo Chūichi (CiC First Mobile Force) critically blindsided and unaware of the presence of the U.S. carriers to the northeast. While Nagumo’s force was recovering the planes from the Midway strike, U.S. carrier aircraft were on their way to attack the Japanese carriers. By the end of the battle, all four Japanese carriers were sunk at the expense of one U.S. carrier (the *Yorktown*). As a result of the destruction of the Japanese carrier force, and being unable to locate and engage the U.S. carriers with his capital ships, Yamamoto abandoned the Midway landing and ordered the invasion fleet to return to Japan.

While Yamamoto was commanding the Midway Invasion forces, the command of the Aleutian force (Second Task Force) centered on the aircraft carriers *Ryūjō* and *Jun'yō* was entrusted to VAdm. Hosogaya Moshiro. His carriers reached a position approximately 180 miles southwest of Dutch Harbor, Unalaska, and on 3 June 1942 launched air strikes against the U.S. naval base there as well as at Fort Mears. Overall damage to the U.S. installations was small. Limited intelligence by the Japanese meant that they were unaware of the recently constructed airfield on Unnak, some 80 miles to the southwest, thus missing the most critical target in the region. The carriers were then withdrawn to a point 600 miles south of Kiska, where they met up with the carrier *Zuikaku* and other vessels that had survived the Battle of Midway. Their task was to provide screening for the landings on Attu and Kiska, and intercept any U.S. carriers that might be sent to interfere with the Japanese landings (Okumiya 1945).

**Kiska**

The Kiska Invasion force, under the command of Capt. Ono Takeji, comprised two cruisers (*Kiso*, *Tama*), four destroyers *Hibiki*, *Akatsuki*, *Hokaze*, *Shiokaze*), three minesweepers, three transports and two troopships. It arrived off Kiska in the night of 5 June 1942 (U.S. dates given). Rather than carrying out the more common dawn attacks, the landing by the Japanese Naval Forces on Kiska occurred almost leisurely at 10 am on the 6th of June 1942. Given the limited knowledge of the island, of course, a daytime landing was the safer, and more sensible proposition, especially as the U.S. presence, and hence anticipated opposition, was known to be minimal (Mukai 1945, Kobayashi 1963).

At the time of the Japanese landings the only inhabitants of the island were the ten U.S. personnel staffing the weather station located at Kiska Harbor (cf. Spennemann 2011, p. 139 endnote 117 for details). The Japanese captured all except five men on the first day; ten days later, four others surrendered. They were transported to a POW camp in Japan around late June. The final U.S. personnel still at large on the island, William Charles House, finally surrendered on 29 July 1942 after almost 50 days on the run.

**Attu**

In executing Operation AQ, Japanese forces, commanded by Major Hosumi Masatochi, and spearheaded by the 103rd Regiment (*Hosumi Troop*), successfully landed unopposed at Holtz Bay, Attu on June 7, 1942, and then moved to Chichagof Harbor to occupy the village. The 301st Independent Infantry Battalion (*7th Division*) of about 1,100 men eventually established a base there. The Attu garrison was moved to Kiska in late August (move completed by 16 September). At the same time, all Attuans were also evacuated aboard the *Osada Maru* and, via Kiska, moved on to Japan (Nishijima 1995; Stewart 1995). Only a small Japanese naval communication unit remained behind on Attu (Omori & Arachika 1945), presumably to staff a weather station and to act as a communications relay.

Six weeks after the 301st Independent Infantry Battalion had been moved to Kiska, the Japanese Command decided to resurrect Attu as a base, moving further troops of the 7th Division to Holtz Bay, under the command of Lt. Col. Hiroshi Yanekawa. Starting off with 900 troops on 22 October 1942, the garrison finally reached almost 2,300 men. Interdiction by U.S. vessels commencing with the Battle of the Komandorskis on 26 March 1943 terminated further reinforcements, with the exception of submarines.

**Aftermath**

Questions have been asked why the Japanese held on to the Aleutian conquests after the Midway operation had failed. After all, when the battle of Midway went against the Japanese, the overall strategy of control of the North
Pacific was no longer viable (Yamamoto, cited in Taisuke 1995). VAdm Hosogaya convinced Tokyo that the Aleutian landings were to be carried out as planned in order to occupy that area and to prevent U.S. advances down the Aleutian Chain towards Japan (Ito 1945). Both Attu and Kiska were to be occupied at least until the autumn of the year (given that the Aleutian winters were known to be bad). That plan was later amended to allow for a prolonged occupation, and by July 1942 Japanese planners envisaged airfields on both Attu and Kiska (Ito 1945). Moreover, the Japanese government could exploit a successful occupation of Kiska and Attu in the domestic political arena (Johnson 1997): the occupation of parts of ‘real’ America (as opposed to Guam and Wake which too had been American soil) yielded much propaganda value. At the same time, the losses at Midway were kept secret (until after the war) and only the highest echelons of the military were aware of them (U.S. Army 1945).

Other arguments brought forward have been that the Japanese domestic economy was heavily reliant on fishing, and that the North Pacific waters had been significant fishing grounds for the Japanese fishing fleets. Control of the Aleutians would safeguard some of the food supply (Clausen 1943; Johnson 1977). While this is correct to some degree (Stephan 1974), we need to consider that Japan was solely not reliant on the North Pacific fishery, as all of the Mandated Territory of Micronesia (Japanese: *Nanyô*) has been a longstanding source of marine produce.

**Japanese Development of Kiska**

From the moment the Japanese forces landed on Kiska on 6 June 1942, until about a week before their evacuation on 28 July 1943, the Japanese developed Kiska into a base from which to operate seaplanes and submarines. Based on what we know from U.S. photographic intelligence, the majority of that construction was completed by late October 1942. The two bases, seaplane and submarine, formed the core, while the rest of the development was merely a defensive perimeter (Fig. 2). Immediately after the landings on the morning of June 6th, 1942, the Japanese lost no time, bringing in the rest of the invasion fleet, landing the remainder of the Japanese Maizuru No. 3 Special Landing Party, weapons and supplies, as well as the 700 laborers and construction equipment. Tent camps were erected and gun positions set up as retaliation by U.S. forces was expected.

U.S. bombing indeed commenced on the June 10th, as soon as the presence of the Japanese on Kiska had been discovered. The first bombing runs were carried out by B-17 and B-24 operating out of from Cold Bay via Umnak (on Kodiak) necessitating long distance flights which were hard on crews and aircraft. Additional bombing runs were flown by USN flying boats, serviced by the seaplane tender USS *Casco* anchored at Nazan Bay, Atka.

The Japanese placed their tactical seaplane base along the beach in the northwestern sector of Kiska harbor, right next to the U.S. weather station which was converted into a radio station. The Japanese were well versed in setting up such temporary sea-plane bases at short notice. Fuel was landed in 200-litre (=53 U. S. gallon) drums, a row of buoys was laid just offshore for the use of the small planes (Miura 1945), and a maintenance facility established in temporary accommodation. The following day the first six Japanese flying boats arrived (Mukai 1945). A U.S. intelligence photographic plane accompanying a bombing run on 18 June noted four Kawanishi Type 97 ‘Mavis’ flying boats as well as at least two smaller float planes. In short, less than a week after the landings, Kiska was an operational seaplane base.

That base development comprised shore installations, namely tents, fuel and material dumps and some personnel trenches. To repel any attack, the Japanese forces immediately set up two antiaircraft and one coastal defense gun battery. An anti-aircraft battery, consisting of four 13.2mm light AA, was emplaced on the rise just to the east of the encampment area, while a battery of four 75mm Type 88 medium AA was on a rise to the west of the camp area. A small caliber coastal defense gun battery, consisting of four 4.7-inch guns of mixed pre-WW I era Japanese and British manufacture (Spennemann 2008; see Spennemann 1995 for origin of British guns in Japanese service), was set up on the eastern shore of North Head. From a strategic perspective, these gun positions, which were under construction as soon as the forces landed, provided a protective umbrella right over the centre of the fledgling base (Spennemann 2011).

Even though U.S. aerial photography was limited, an aerial reconnaissance mission could obtain the first good aerial imagery on 18 June 1942. Analyzed separately by both the U.S. Army Air Force and the U.S. Navy, it noted that Japanese base development had been brisk. Unloading of materiel was well progressed at that stage, with "a
considerable quantity of stores...on the beach near the landing point." At least 15 storage buildings and 35 revetted / store buildings were in various states of completion. The construction of roads had been started connecting the landing beach area with the main valley as well with North Head. In addition to the already mentioned major gun batteries (the 4.7” was still being erected), an array of other small developments were noted, all of which these developments were interpreted as light AA.

It needs be stressed that the landing of the 4.7-inch coastal defense guns demonstrates that from the outset of occupation Kiska was not meant to be a temporary hit-and-run occupation. The assembly and emplacement of the coastal defense battery implies an objective of permanency—once emplaced, the guns could not be removed on short notice. The difference in the early occupation forces on Attu and Kiska is very apparent. While the IJA developed temporary encampments on Attu, based on the doctrine of mobility, the IJN established a permanent, fortress-style base on Kiska.

In the normal course of events, the Kiska base would have been completed with equipment landed and thereafter functioned as scheduled. Given Japan’s other commitments in the South Pacific, Indochina and China, it is rather unlikely that any major contribution of additional men and material could have been sourced from Japanese arsenals to expand that base. The historic reality, however, was quite different.

**New Equipment arrived**

The Kiska base received sudden major boost on 15 June 1942, when the seaplane carrier Kamikawa Maru arrived bringing with her a detachment of fourteen Mitsubishi F1M2 ‘Pete’, two Aichi D13A1 ‘Jake’ and two Nakajima E8N2. Although the Mitsubishi F1M2 was designed as an observation plane, it fulfilled a wide range of additional roles in the Pacific War, ranging from makeshift fighter to dive bomber. Their arrival on Kiska changed the equation of air power over the island. Immediately after their arrival, the F1M2 began to fly combat air patrols over Kiska.

Two weeks later, on July 6th another convoy brought a full complement of military might: two six-inch coastal defence batteries, four heavy anti-aircraft guns (120mm DP), several medium AA (25mm and 75mm), as well as smaller weapons. With that convoy arrived IJN Chiyoda, a floatplane and midget submarine carrier, which brought eight midget submarines and the equipment and personnel for an entire midget submarine base (Hackett & Kinsepp 2006a). This was established at the southwestern beach of Kiska Harbor and completed by October 1942 (Hackett & Kinsepp 2006b).

It can be surmised that the materiel was dispatched in response to the decision that the occupation of Kiska should not merely be temporary until the onset of winter, but be for the longer run. It is also important to understand that this materiel was not merely a reinforcement of the Kiska base but a substantial extension of base infrastructure. The materiel shipped was almost double that which had been shipped at the time of the initial landings — to which the self-contained midget submarine base has to be added.

An allocation of such quantities of materiel, drawn from at least two naval arsenals, requires detailed logistical planning and is unlikely to occur ad hoc. This is further emphasized by the time frame available. The landing on Kiska occurred on 6 June 1942 and the main convoy bringing the material arrived four weeks later on 6 July. We do not know the exact date when the Japanese headquarters decided to make the occupation on Kiska permanent, but it seems to have occurred in mid June, probably around the time the Kimikawa Maru brought the planes. Thus the timeframe available to the Japanese planners would have been two, at most three weeks within which they had to allocate and source the guns, ammunition, and midget submarines; the construction material for the submarine base and gun emplacements, as well as for the associated barracks structures; to identify and direct associated personnel, including the construction troops; source the supplies required to maintain such a force (food, clothing etc.); and then ship what essentially amounts to a complete base to Kiska—if that shipping could be obtained.

As has been alluded to earlier, the Midway operation was a very complex logistical enterprise that had drawn on all available shipping not essential for operations elsewhere. By the same token, we can safely assume that all vessels, especially the cargo hulls involved with the Midway operation, had been allocated to tasks once that operation was completed. This is of relevance as the expansion of the Kiska base was not a matter of sending one or two vessels, but a larger convoy replete with a protective screen of destroyers. Records show that one light cruiser
(CL-13 Abukuma), five destroyers (DD-85 Kasumi, DD-84 Arare, DD-18 Shiranubi, DD-56 Inazuma, DD-57 Ikauchi), the sea-plane and submarine transport AV Chiyoda, as well as an unspecified number of transports were involved, among them the 12,755 BRT AP Argentina Maru (Spennemann 2011, Appendix 2).  

Depending on the weather, round-trip shipping from Japan to Kiska took between ten and fourteen days. To this we have to add the loading and unloading of the ships, which in the pre-containerised era would have taken about two days each—keeping in mind that among the cargo were half a dozen six-inch guns, each barrel weighing over ten tons. Thus the Kiska reinforcement would have tied up seven warships as well as several transports for two to three weeks—a major commitment that cannot be made on two week’s notice or less. Thus the origin of that material from Japan is highly unlikely.

**Where did it come from?**

The question then arises, where did all that equipment suddenly materialise from? We can expect that if it had been part of the initial base development allocated to Kiska, it would have either been shipped with the original landing force, or arrived as a staged delivery the week after. It is highly unlikely that the material would have sat in Japanese waters for three to four weeks.

To understand this, we have go back to the Battle of Midway. Once the Japanese carriers had been sunk, Yamamoto was forced to abandon the Midway landing and ordered the invasion fleet to return to Japan. That invasion fleet had consisted of a number of troop ships, as well as transports that carried the aircraft and equipment necessary to establish a sea plane base on Midway (carried aboard the Chitose and the Kamikawa Maru) (Inouye 1945), as well as a number of troops and boats necessary to establish a submarine base on Kure Atoll (aboard APD 35 Tsuta) (Inouye 1945). The construction troops of the 12th Construction Batallion and associated cargo loaded on the transports of the invasion fleet had been committed to Midway and Kure, and all that gear had been de-accessioned in the respective warehouses. While the cargo was no longer needed for Midway, it was already afloat and could, at short notice, be shipped to another location in need. Initially, it seems, much of the transport group had been routed to Chuuk, with the exception of the Kamikawa Maru, which brought to Kiska the Mitsubishi F1M2 that had initially been intended to be based on Midway Atoll. That initial rerouting was merely a strengthening of the seaplane base and in itself did not constitute the enlargement of the Kiska operations.

Following the defeat at Midway, there seems to have been a short period of indecision among the Japanese planners as to how to proceed. In the later part of June 1942 the decision was made to consolidate the gains in the Aleutians beyond the onset of winter (Ito 1945). To this effect, the material afloat was routed to Kiska. Indeed, we know that the two torpedo boats that had been shipped by the fleet oiler AO Nissbin, and which had also been destined for Kure Atoll, were returned to Japan (Alden 1989, Tully 2003). Clearly, the IJN was well aware that the Aleutian waters were rough and not conducive to operate small patrol boats.

We can compare the ships known to have been part of the Kiska convoy of 6 July with the 2nd Fleet Transport Group involved in the Midway operation. Small discrepancies in the number of destroyers suggest that not all transports were rerouted to Kiska. Indeed, we know that the two torpedo boats that had been shipped by the fleet oiler AO Nissbin, and which had also been destined for Kure Atoll, were returned to Japan (Alden 1989, Tully 2003). Clearly, the IJN was well aware that the Aleutian waters were rough and not conducive to operate small patrol boats.

What arrived were not merely some pieces of equipment, however, but the *entire* sea-plane base that had been envisaged for Midway as well as the *entire* midget submarine base that had been destined for Kure Atoll. But it was not merely the planes and boats that had been initially dispatched for Midway, but also the defense systems (coastal defense and anti-aircraft guns) and the supplies and construction material for a permanent base. As elsewhere in the tropical Pacific, these buildings were wholly prefabricated in Japan and shipped in disassembled form (JICPOA 1944b). Thus they could be erected rather swiftly. In addition to the materiel, Kiska received troops from the 12th Construction Battalion as well as additional naval personnel.
The two six-inch coastal defence gun batteries were emplaced commanding the entrance to the harbor, one on North Head and one on the rise in the western part of Little Kiska. Additional AA were distributed as needed. Chiefly among them were four 120mm dual purpose guns (Spennemann 2008e). Although they had been destined for Midway as two under-strength heavy anti-aircraft gun batteries, a local command decision was made to concentrate the guns in one location on the highest point of North Head and set them up, as per military manual, as a four-gun battery. The reasoning that these were intended as two under-strength batteries is based on observations made on the Japanese bases on the coral islands of Micronesia where the IJN set up their heavy AA batteries, 127mm DP guns in these cases, as a triangle of three emplacements—the central one of which was left empty, to be filled at a later date (Spennemann 1994).

**Guns and U-Boats – the projected base**

This unique situation now allows us to reconstruct what the Japanese had in mind for Midway and, to some extent, for Kure. The shipment comprised, in addition to the sea-planes and mini subs of the following major weapons: 6 x 150mm coastal defense guns; 4 x 120mm dual purpose and an array of smaller anti-aircraft guns, namely 4 x 75mm, 4 x 25mm and 12 x 13.2mm (Mukai 1945).

**Other bases in Micronesia as evidence**

In preparation for the Pacific War, the Japanese established a number of air bases in the eastern part of the Mandated Territory of Micronesia. While Jaluit had been the civilian administrative center, first of the German colonial authorities and then of the Japanese administration of the Mandated Territory, the military nerve center was placed on Kwajalein Atoll, with an airbase and sea-plane base on Kwajalein Island in the south and an air base on Roi-Namur in the north. An outer screen of bases was established on the eastern atolls of Wotje, Maloelap, Majuro, and Jaluit, of which the most formidable was the airbase on Taroa Island on Maloelap Atoll (Table 2).

After Pearl Harbor, Japanese forces took the U.S. installations on Wake Atoll on 23 December 1941 and converted them into their own base for sea-planes and land-based aircraft. In response to U.S. carrier strikes on the Marshalls in February 1942, the development of the sea-plane base on Majuro Atoll was abandoned and a base for land-based aircraft developed further south, on Mile Island (Mile Atoll) instead. Again in response to a U.S. raid on Tarawa Atoll (Kiribati), the Japanese decided to strengthen their southern perimeter and established an airbase on Betio, Tarawa. Likewise, the U.S raids on Wake Atoll in early 1942 resulted in a strengthening of the northern perimeter, with Enewetak Atoll developed into an fall-back airbase (on Engebii) and a seaplane base (on 'Parry').

The defense systems of these bases have been examined in detail as part of post-war intelligence assessments (IS2MD 1943; JICPOA 1944a-b; USSBS 1947a-b) and in the course of historic preservation studies (Adams et al 1997; Christiansen 1994a-d; Kuttruff et al. 1994; Look & Spennemann 1993; Spennemann 1992; 1995).

The geography of the small sand islands that make up an atoll circumscribes the location of all facilities. On any given atoll, the majority of islands are very small and unsuitable for any major development. Each atoll, however, has at least one larger island, usually about 1.5 x 2km in size. The islands are dominated by a lagoon-side and an ocean side, with all harbour and also sea-plane activities restricted to the (sheltered) lagoon side. The islands commonly are more or less crescent shaped, with some exhibiting a more triangular shape. Midway Atoll is no exception.

With the exception of Chuuk (Truk) Lagoon, which was developed into a naval base as well as set of airbases, the Japanese used these Micronesian atolls only as bases for land-based and seaplanes as well as for submarines. Strategically, the value of these islands was akin to unsinkable, albeit immobile aircraft carriers.

The airfields were constructed where the island was the widest. If feasible, two runways were erected, intersecting at as close to 90° as possible. In some instances that was not feasible, and thus only a single strip was erected, often with a taxiway running parallel. All defences were placed to primarily protect these airfield assets. In addition, a number of bases were built on the high islands of Micronesia, most notably the complex of naval and air facilities on the various islands of Chuuk (Truk), but also on places such as Pohnpei, Nauru, Palau and Saipan. The
defense systems of these islands are very much subject to local environmental conditions and consequently vary widely. Thus these are not suited for comparative purposes.

There are a number of common traits among the Japanese bases constructed on the atolls: the heavy anti-aircraft was provided by the, usually electrically-driven, 127mm twin-barrelled guns, which were emplaced in elaborate concrete emplacements in groups of two, with a third emplacement constructed but not filled. This Type 89 127mm dual purpose gun was a modern, 1937 design of a ship-board gun and thus was in high demand not only for the installation on land, but especially for retrofitting some of the warships afloat and fitting out those under construction. It would appear that the capabilities and capacities of the naval armouries were stretched to fill the demand for such weapons and thus the allocation for the island bases was below ‘establishment.’

Most Micronesian Atoll bases have two such batteries, set up at opposing ends of the island, thereby placing the airfield under a protective umbrella of heavy AA (Fig. 3, Fig. 4). In addition, lesser calibre AA, such as 25mm and 13.2mm were also deployed, providing a cordon around the airfield. While these calibres had a lower ceiling and thus were ineffective in reaching high-level bombers, their high rates of fire provided additional protection against medium-level bombing and, to some degree, against strafing fighter aircraft.

The island was defended from sea-borne attacks by 150mm (6-inch) or 140mm (4.7-inch) coastal defense gun batteries. These guns were commonly emplaced in batteries of three, facing the ocean side and sited so that they had an overlapping field of fire. The lagoon side, on the other hand, was commonly left unprotected by the large weapons, unless the island was oblong with the batteries sited near the ends. In these cases (e.g. Kwajalein or Betio), the guns could fire in either direction (Fig. 3, Fig. 4).

Midway

Midway Atoll, located near the northwestern end of the Hawaiian Chain, is near circular atoll. The flatter southern side is dominated by two large islands, Sand Island and Eastern Island. By the time of the Battle of Midway, the U.S. had constructed an airbase with three intersecting runways on Eastern Island and a seaplane base and garrison on Sand Island (Fig. 5). The Japanese objective, of course, was to reuse both facilities, with the airfield on Eastern Island having the greatest priority.

If the Battle of Midway had gone the other way, and the atoll had been successfully taken, then we can assume that the airfield would have been made fully operational within two days. Until then protection would have been provided by Mitsubishi F1M2 sea-planes as well as by ship-based AA (from several destroyers). Once the airfield was operational, and-based aircraft would have been moved in, coming from Chuuk and first staged through Roi or Taroa and then through Wake.

Based on the known patterns of Japanese base development in Micronesia (Fig. 3, Fig. 4) we can make some educated guesses how the Japanese would have deployed the anti-aircraft and coastal defense guns (Fig. 6).

The six 150mm coastal defence guns would have been deployed in two batteries, one comprised of three British-built guns and the other of the three Japanese-built guns. One battery would have been erected in the south of Sand Island and the other in the southeast of Eastern Island. The four 120mm dual purpose guns would have been emplaced as two batteries of two guns each, one on the eastern side of Sand Island and the other on the southern side of Eastern Island. The placement would have been on the ocean side so that their dual purpose function was not impeded. At the same time their dispersed nature with overlapping firing cones provided a protective umbrella over both islands. The four twin-barrelled 25mm Type 96 antiaircraft guns would have been deployed as two batteries of two, possibly one on Eastern Island and one guarding the seaplane base. The remaining medium AA, the dozen 13.2mm guns would have been dispersed as three groups of three.

Today

Today there are, of course, no Japanese military sites on Midway Atoll. The only Japanese material culture to be encountered there are the glass and plastic net floats. Much of the Japanese infrastructure destined for Midway, however, still exists on Kiska.
The cultural landscape of the Kiska Battlefield is an object- and feature-rich palimpsest of Japanese and U.S developments, replete with guns, aircraft wrecks, tent sites, bomb craters and unexploded ammunition (Spennemann 2011). Among the Japanese developments are three sets of military infrastructure which form an integrated whole, but which had initially been intended as discrete and geographically separated bases (IJN on Kiska and Midway, IJA on Attu).

Today, almost all the guns ever emplaced on Kiska still survive in situ, with the exception of a few type specimens that had been removed by U.S. intelligence for performance testing on the U.S. mainland. Ironically, the fact that the guns had been shipped to Kiska rather than being emplaced on Midway has aided their preservation. One of the midget submarines still rests in situ on the former Japanese slipway, while others are yet to be located on the bottom of Kiska Harbor where they had been scuttled when the Japanese withdrew. There is also evidence of the seaplanes that had been destined of Midway: the remains of a Mitsubishi F1M2 rest on the shore, broken up by a combination of war action and subsequent wave impacts (Spennemann 2009; 2011)—an evocative reminder of Kiska’s connection with Midway, of the IJN’s dreams of military supremacy in the Central Pacific that fell apart in June 1942 (Fig. 7).
Acknowledgements

The fieldwork on Kiska, underlying some of the research discussed in this paper, was funded through an American Battlefield Protection Program Grant by the U.S. National Park Service. I am indebted to Janet Clemens, NHL Historian, NPS Alaska Regional Office Anchorage, for support throughout the Kiska project.

Endnotes

i. e.g. 'Japs Attu Move is Defensive. 'The Courier (Brisbane, Australia) 30 June 1942, p. 4 col. 6.—On the other hand, during the war some authors tried to paint the 'Japanese menace' in darker colors and attributed a different motive to the Aleutian occupation: the aim of attacking and conquering Alaska and from there the naval base at Bremerton, WA (near Seattle)(e.g. Ford 1943, pp. 2-3).

ii. Aerial Photo Interpretation Report nº 40, Kiska Harbor, Rat Islands, op. cit.—Photographic Interpretation Kiska Island, Aleutian Islands 13 July 1942, op. cit.

iii. Kiska Harbor, Rat Islands. Photo Interpretation Section Report nº 40. 6 July 1942. Washington, DC: Headquarters Army Air Forces. Directorate of Intelligence Section A-2, Operational Intelligence Division, Photo Interpretation Section.—Photographic Interpretation Kiska Island, Aleutian Islands 13 July 1942, op. cit.

iv. Aerial Photo Interpretation Report nº 40, Kiska Harbor, Rat Islands, op. cit.

v. The American submarine USS Growler (SS-215), commanded by Howard W. Gilmore, on its first war patrol and prowling off Kiska, caused carnage among that convoy, but as per doctrine, focused on the warships rather than the transports: IJN Arare was torpedoed and sank off Kiska Harbor entrance; IJN Shiranuhi was heavily damaged but could be braced in Kiska Harbor and towed back to Japan for repairs (by IJN Kagero). Likewise, IJN Kasumi was torpedoed with damage to the bow, which was cut off at Kiska and the vessel towed back to Japan for repairs (by IJN Ikazuchi)(Sentaro and Rokui 1945).

vi. Even the rapidly carried out final evacuation of the Kiska garrison, Operation KE, took 12 days, from 22 July to 1 August 1943.

vii. The material was sent to Chuuk possibly for temporary storage at the naval base and then for onwards distribution to the Micronesian bases.

viii. On 22 November 1941 the Kamikawa Maru was reissued with new aircraft and now carried 14 Aichi Type 0 E13A1 ‘Jake’ reconnaissance seaplanes and Mitsubishi F1M2 ‘Pete’ observation seaplanes. In preparation for the Midway invasion, the Kamikawa Maru was loaded fourteen F1M2 ‘Pete’ to be based at Midway, in addition to her own tactical complement of two E8N2 ‘Dave’ and two Aichi/Watanabe E13A1 ‘Jake’. The Kamikawa Maru sailed from Saipan on 28 May 1942 as part of 11th Seaplane Tender Group with seaplane carrier Chitose. Surviving attacks from B-17s as part of the Battle of Midway she was redirected to Kiska (Hackett, Bob, Kingsepp, Sander and Alsleben, Allan (2006) IJN Seaplane Tender Kamikawa Maru: Tabular Record of Movement. <www.combinedfleet.com/Kamikawa%20Maru _t.htm!, henceforth cited as ‘TROM Kamikawa Maru’).

ix. But, a cautionary note needs to be inserted here. In part the decision not to route the Midway materiel to Attu may also find its cause in the inter-service rivalry that riddled Japanese military planning: Attu was occupied by the IJA, while Kiska was run by the IJN. And all material enshipped en route to Midway, as well as the garrison destined for Midway, was controlled by the IJN.

x. Sketch outlining the disposition and equipment for the 45 cal. 10th Year Type 12 cm DP gun, Model C. Blueprint issued by the Ordnance Manufacturing Department of the Yokosuka Navy Yard. Dated Yokosuka 9 October 1944. CinCPac-CinCPOA Translation nº B-7598 (item captured on Iwo Jima). Heavy Dual Purpose Gun Emplacements. Special Translation Nº 59. CinCPac-CinCPOA Bulletin Nº 97-45, 7 May 1945. Commander in Chief U.S. Pacific Fleet and Pacific Ocean Areas
The remaining weaponry, the four-gun 75mm AA battery as well as at least one 13.2mm battery would have been sent to Kure Atoll. This composition can be surmised based on the type of defenses the Japanese emplaced to protect the submarine base on Kiska (Spennemann 2011 for details).

While corrosion occurs on Kiska, the high levels of fog result in the guns being continually moist, keeping the salt concentrations in the electrolyte low (Spennemann 2008d). Thus the guns decay at a much slower rate than their counterparts in the tropical Pacific (Look and Spennemann 1993; 1996). The fog and cloud cover also reduces the levels of ultra-violet radiation, which aids the preservation of the organic components (wooden handles, rubberised fabric etc)(Spennemann 2008d).
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Ito Taisuke(1945) Interrogation of Captain Ito Taisuke, IJN, Tokyo 11 October 1945. Interrogation by Captain J.S. Russell, USN. Interrogation USSBS nº 101, NAV-24. On the Aleutian Campaign, Planning and


**JICPOA (1944b)** Joint Intelligence Center, Pacific Ocean Areas. Japanese Military Installations. Joint Intelligence Center Pacific Ocean Areas. *JICPOA Bulletin* 71-44.


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*) air-airfield for land-based aircraft; sea-seaplane base with formal ramp and apron.—T-Twin mount.
### Table 2. Major weapons on some of the Japanese bases constructed prior to the outbreak of World War II in the Pacific

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Codes: B—British manufacture, J—Japanese manufacture, S—salvaged from wrecked merchant vessels/transport

### Table 3. Major weapons on some of the Japanese bases constructed after the outbreak of World War II in the Pacific

<table>
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Fig. 1. Projection of the Western Pacific Ocean, centered on Wake Island as the northeastern-most Japanese base (as of early 1942), showing the strategic location of the Aleutians and Midway as part of a (schematic) flying boat patrol network, blocking the sea-lanes to Japan.
Fig. 2. Broad areas of responsibility on Japanese-held Kiska. Note that the dotted line does not constitute a formal Japanese administrative boundary.
Fig. 3. Defense patterns of major weapons on some Japanese bases on atolls in Micronesia erected prior to Pearl Harbor. (Schematic representation only, not to the same scale).
Fig. 4. Defense patterns of major weapons on some Japanese bases on atolls in Micronesia erected after Pearl Harbor. (Schematic representation only, not to the same scale)
Fig. 5. Aerial view of Midway on 24 November 1941.  
(NARA RG 80G-451086)

Fig. 6. Defense patterns of major weapons on the hypothetical Japanese base on Midway Atoll.  
(Schematic representation only)
Fig. 7. Section of the fuselage of a Mitsubishi F1M2 at Salmon Lagoon, Kiska. This aircraft had been intended for Midway.
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