the open. They were billeted in Nissen huts, "an elongated igloo covered with corrugated iron roofing and lined with beaver board," the flimsy British equivalent of the more substantial American Quonset huts. Marines piled sod on the sides of the Nissen huts to improve insulation. Each battalion had a different camp in a different part of the island.

In many ways the deployment, as an opportunity for winter training, was a disappointment. Finnish success with ski troops in the Winter War with the Soviet Union in 1939 had been much publicized (and romanticized). But it did not get as cold in Iceland as it was supposed to get and there was not much snow, seldom as much as a foot.

Marine experiments with skis and more work-aday snowshoes did not come to much. Nine years later, the Marines at Chosin Reservoir did not have skis or snowshoes and it was just as well. They would not have been useful.

The brigade came back in February and March 1942 wearing the British Polar Bear shoulder patch—and were ordered to take it off. Most of the Marines would soon be on their way to Guadalcanal, and beyond that to Tarawa, and would earn another shoulder patch, either that of the 1st Marine Division or 2d Marine Division.

A larger percentage of Marines in the division than those few who had been in Iceland were those who had served in North China after the end of World War II, a now almost forgotten episode. It began with the 55,000-man deployment of the III Amphibious Corps at the end of September 1945 that included both the 1st and 6th Marine Division and the 1st Marine Aircraft Wing, and ended with the withdrawal of the last battalion in 1949, just a year before the Marines went to Korea. Like Iceland, it was largely a garrison experience, but the China Marines learned about the sub-zero temperatures and the arctic winds that came out of Manchuria and across the Gobi Desert. Marines guarding supply points or critical bridges or riding the coal trains knew how cold it could get.

The clothing they wore, including the Navy parka, was not much different than that which would be worn in Korea. Officially designated as the Marine Corps' 1943 cold weather uniform, it was predicated largely on the Iceland experience and consisted primarily, except for the parka, of U.S. Army components.

Other, older Marines in the division, including the chief of staff, Colonel Gregon A. Williams, the G-2,

Colonel Bankson T. Holcomb, Jr., and the commanding officer of the 1st Marines, Colonel Lewis "Chesty" Puller, had had substantial service in pre-World War II China, including a chance to observe operations by Chinese Communist forces in the cold. They knew about the padded Chinese winter uniforms. Some, including Chesty Puller who was much better read and more of a student of military history than his flamboyant reputation would suggest, had studied Japanese winter operations in northern Korea and Manchuria in the Russo-Japanese War of 1904-05.

The Quartermaster General of the Marine Corps, Major General William P. T. Hill, himself an old China hand and an explorer of the Gobi Desert, began shipping out cold-weather clothing, including Navy parkas, to Korea in October 1950. Beginning in November, the battalion-sized replacement drafts being sent to restore combat losses received rudimentary cold weather training, at least in the wearing of cold-weather clothing.

The Marines, and, for that matter, the U.S. Army, used the "layer principle" for winter clothing, which simply meant that the Marine or soldier piled on as many layers of clothing as he could find. From the skin out he might have on cotton underpants and shirt or "skivvies," winter underwear or "long johns," mustard-colored flannel shirt, utility trousers or green kersey service trousers if he had them, sweater, green sateen winter trousers, alpaca vest, utility coat, a woolen muffler, and perhaps an M1943 field jacket, all crammed under a long, hooded, pile-lined Navy parka. The parka was warm but heavy and clumsy. Some Marines managed to find the shorter anorak-type parka worn by the Army and liked it better. Also popular, when they could be found, were the Army's "trooper" style pile-lined winter hats with earflaps. Several styles of gloves were issued. The most common had a leather and fabric outer shell and an inner mitten of knitted wool.

On their feet, Marines, unless they could find a substitute, wore "shoe-pacs"—waterproof rubber bottoms with laced leather uppers. They were issued with two sets each of felt innersoles and heavy woolen boot socks. The Marines were told to keep one set of the socks and innersoles inside their clothing next to their body and to change them frequently. These instructions were good in theory but difficult to follow in practice. Excessive perspiration, generated by marching, soaked the



When possible, as here at Koto-ri, sleeping holes were dug behind fighting holes and frequently covered with ponchos or shelter halves. In this case, the occupants

innersoles and socks. When the Marine halted, the felt innersoles and stockings quickly froze and so did the wearer's feet.

The shoe-pacs were hated, but the sleeping bags that the Marines had carried ashore at Inchon, now had a heavier lining and were much loved and, indeed, were indispensable. Marines found the bags, which could be rolled and tied to the bottom of their haversacks, good for sleeping, for warming feet, and for keeping casualties from freezing to death. There was a problem, though, of Marines standing watch in foxholes being allowed to pull their sleeping bags up to their knees or waists, and then, giving into temptation, slipping further into the bag and falling asleep. A Chinese soldier suddenly upon him killed more than one Marine, caught in his sleeping bag.

In fighting the cold, the Marines learned or relearned certain principles including the impor-

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have managed to incorporate a stove. Most often the only relief from the cold for the infantry was in the form of warming tents set up to the rear of their position.

tance of keeping moving to generate body heat. The drawback to this was, of course, the sweat-soaked shoe-pacs that invited frostbite. The digging in of a foxhole, which could require six to eight hours of effort, often at the end of a long march, also generated heat, sometimes presenting the paradoxical sight of a Marine, stripped almost to the waist, hacking away at the frozen earth. In last analysis, the imposition of cold weather discipline depended upon the small-unit leadership of lieutenants, sergeants, and corporals. All things considered, they did amazingly well.

The Marines were still using their World War II pack; a well designed but complicated piece of equipment with a haversack, knapsack, a bedding roll, and many straps and buckles. Ordinarily, a Marine in combat carried nothing but his haversack and sleeping bag, and, of course, his rifle belt with its load of canteens, bayonet, first aid packet,

ammunition, and possibly a few grenades. Most Marines preferred a pack board whenever they could get one.

A Marine also had to find a place for his daily Cration when it was issued. It came in a clumsy cardboard box about the size of a shoe box, six cylindrical cans in all, three "heavies" and three "lights," plus an assortment of packets that included a day's supply of toilet paper and a neat little box with four cigarettes. The "heavies" were the meat components, much improved and with a much wider variety of items than the disliked World War II C-ration. The Army's Quartermaster Corps had worked hard on the improvements, basing them on regional favorites. Among the offerings were hamburgers (highly prized), chicken with vegetables, ham and lima beans, meat and beans, and sausage patties (the least favorite). The "lights" included at least one half-sized can of some kind of fruit, easily the best-liked element in the ration and one or more "bread units" which were biscuits of one sort or another, descended from Civil War hardtack, and something that passed for cake. Also to be found were different sorts of candy (disks of chocolate were preferred), salt, pepper, and packets of soluble coffee and cocoa. Most often a Marine took out what he liked or could trade and threw the rest away. What he retained he would fit into various pockets. He wondered why the ration could not be packed in flat cans that he could pocket more easily. His largest problem, though, was heating the meat component. Best method was to heat it in a bucket or G1 can of boiling water, but these were seldom available. Cooking fires made with available wood usually did more burning than cooking. Unused mortar increments and bits of C-3 plastic explosive, when they could be found, burned with a quick hot heat. Dirt in a larger can, doused with gasoline, gave an improvised stove. But such open fires did not do well, tending to scorch the meat closest to the can and leaving the interior still frozen. Jeep and truck drivers could wire a can to their engine and when their run was finished, have a hot meal.

C-ration meat components would begin to freeze as soon as their cans were removed from the heat. Drinking coffee from an aluminum mess cup could be a dangerous process, the drinker's lip or tongue freezing to the cup. On the march it was often impossible to heat the meat component. Consequently the bread unit and fruit component

were the first to be consumed.

Marines soon learned that keeping a thin coat of oil on their weapons, as taught to them emphatically by their drill instructors at boot camp, was not a good idea in sub-zero temperatures. Even a thin coat of oil tended to congeal and freeze the weapon's action. The word went out to wipe all weapons dry of oil. There was some argument over this. Some Marines thought that an infinitesimally thin coat of oil was best. There were arguments, pro and con, on the advisability of keeping personal weapons in sleeping bags or taking them into warming tents, or leaving them out in the cold.

By and large the weapons of the Marines worked well. A notable exception was the caliber .30 M1 and M2 carbine. Already suspect in World War II, it proved to be a miserable failure in sub-zero weather. Its weak action failed to feed rounds into the chamber, the bolt failed to close, and the piece often failed to fire. The release for its box magazine was a fraction of an inch from the safety. Mittened or cold-stiffened fingers sometimes pressed both, dropping the magazine into the snow. Even when a carbine did fire, the round had no stopping power. Most Marines carrying carbines replaced them as quickly as they could (and most often informally) with the prized M1 "Garand" rifle.

The Browning automatic rifle, M1918A2, continued to be a favorite Marine weapon. It functioned in proportion to the care it was given. Ice tended to form in the buffer group and inside the receiver.

As with all weapons with a recoil mechanism, machine guns, in general, were sluggish in their rate of fire. The old reliable Browning water-cooled M1917A1 fired well as long as there was antifreeze (not always easy to get) in the water jacket. Without liquid, the barrels quickly overheated. The barrels of the M1919A4 light machine gun tended to burn out and there were not enough spares. The 60mm and 81mm mortars fired reliably although there was considerable breakage of base plates and optical sights. It was remarked that the 81mm mortar shells looping across the sky left fiery tails more like rockets.

As to the cold, some units did claim nighttime temperatures of 35 degrees and even 40 degrees below zero. Best-documented temperatures, though, are the records kept by the battalions of the 11th Marines, the artillery regiment, that had to factor in the temperature as an element of gunnery. These battalions routinely recorded temperatures of 20 and 25



As shown in this photo of Marines marching out of Kotori on 8 December, each Marine carried what he considered necessary to live and fight, a considerable load of upwards of 60 pounds. Some got along with just their sleep-

below zero. Snow showers were frequent but not much snow accumulated. The winds of 35 and 40 miles per hour tended to blow the rock and frozen earth free of the thin snow. When morning came there would be ice crystals in the air, glinting in the sun like "diamond dust."

Water in five-gallon "Jerry" cans and individual canteens turned into blocks of ice. Some Marines carried a canteen inside their clothing to keep it thawed. Since World War II and the thirst of the Pacific War it had been the Marine Corps habit of having each man carry two canteens. This continued in the Korean War. Some Marine officers and senior noncommissioned officers carried whiskey in their left or "port side" canteen, which they doled out to their subordinates on a most-needed basis. The surgeons also had a carefully controlled supply of

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ing bag slung below their haversack. More carried a horseshoe-shaped bedding roll that could contain as much as a sleeping bag, a blanket, a poncho, and a shelter half.

two-ounce bottles of medicinal brandy. Those lucky enough to get a bottle might use it to thaw out a C-ration can of fruit and then comment wryly on the luxury of "dining on brandied peaches."

Immersion heaters seldom provided enough warmth to thaw the contents of a water trailer. All valves and piping froze solid. Fires built beneath the trailers were a sometime effective expedient. Some men ate snow. The favorite beverages, when the water for them could be heated, were the soluble coffee and cocoa to be found in the C-ration, or better yet, the more generous allowance in larger rations.

A-rations, the full garrison ration with fresh or frozen meat, fruits, and vegetables, was, of course, unavailable except in an extraordinary set of circumstances such as the celebrated Thanksgiving dinner. B-rations, where canned items replaced the fresh or frozen items, were available but hard to use. Indeed, most of them were wasted, as they required a field kitchen for preparation. Efforts were made in the defensive perimeters to set up consolidated field messes serving hot chow, but this seldom benefited the men actually serving in the frontline. An exception were the flapjacks or pancakes made around the clock by a battalion mess at Hagaru-ri and served to thousands of Marines and soldiers. Artillery batteries sometimes managed to set up their own small messes. Captain Andrew Strohmenger's battery, also at Hagaru-ri, was known for its doughnuts.

As the march continued south from Koto-ri, the Marines took an increasing number of Chinese prisoners. The Chinese, who had padded uniforms, but little protection Big square cans of ground coffee were a component of the B-ration. These, where space in a jeep trailer could be found, would be kept hoarded until circumstances permitted the boiling up of a batch of real coffee in a can or pail. Oatmeal, also to be found in the B-ration with the cooperation of a friendly mess sergeant, boiled in similar manner and flavored with sugar and powdered milk, was another favorite that riflemen, unfortunately, seldom enjoyed. Canned peanut butter, passed from Marine to Marine and dug out of the can by grimy fingers, was popular and more portable.

As a variant to the C-rations, there were sometimes the larger "five-in-ones" and "ten-in-ones," much

for their hands and feet, and no tentage, suffered much more from the cold than did the Americans.

National Archives Photo (USMC) 127-N-A5387



the same in content but with a more varied menu and intended for group consumption by a fire team or squad. For some reason these always seemed to be more available at the higher echelons and seldom at the rifle company level.

Post exchange supplies—cigarettes, candy, writing paper, and such—nominally there to be sold to the Marines, were given to them at no cost in the forward areas. Not many letters were being written, but the candy was a great favorite, particularly the chocolates and hard candies that gave quick energy. Brand-name choices were Tootsie Rolls and Charms.

Amidst a snowstorm, a 60mm mortar squad rests by the side of the road south of Koto-ri on 8 December. In general, the Marines' winter clothing was cumbersome but An enormous advantage that the Marines had over the Chinese was the availability of tentage. The standard tent was the same as used in World War II, four-sided or pyramidal in shape, 16 feet on a side, and with a center pole. A practiced crew could erect one in 15 or 20 minutes even in the cold. Heat was provided by an M1941 stove or space heater the size and shape of a quarter keg of beer. Diesel oil was the preferred fuel, but it thickened in the cold and was frequently—if dangerously—thinned with gasoline to make it flow through the stove's carburetor. The stove stood at the base of the center pole and was good for many things besides heating

effective—except for the shoe-pac. The two Marines in the foreground manage a grin for the cameraman. Note the mittens worn by these Marines.

