Lossie Forest

WWII Coastal Defences

Matt Ritchie
FCS Archaeologist

Images and plans by Drew Smith, AOC Archaeology, Dr Gordon Barclay and Caledonian Air Surveys. Translation by Dr Monika Maleszka-Ritchie
Defending the coast

In the late summer of 1940, under threat from German invasion, sections of the British coast where the enemy could easily land were fortified with a series of defences built along them forming a ‘crust’. The Moray coastal defences ran between Cullen Bay and Findhorn Bay, through today's Lossie and Roseisle Forests. Within Lossie Forest, you can still discover evidence of the variety of defences constructed: an unbroken line of anti-tank cubes interspersed with pillboxes and road blocks; and a coastal gun battery at Innes Links, complete with Battery Observation Post, generator houses, searchlights and the concrete foundations of the barrack blocks.

A Polish Army Engineer Corps constructed some of these defences. Wieslaw Szczygiel, a Polish soldier in that unit, recalls briefly working on them before moving to a unit at Tentsmuir in Fife. The defences were completed on the 28th of May 1941 and were manned by the 227th battery of the 501 Coastal Regiment.

Polish troops constructing the defences at Lossie in 1940

On the 27th of May 1940, General 'Tiny' Ironside took charge of the anti-invasion defence plan for Britain. At this time, nearly the entire army, known as the British Expeditionary Force, was fighting against the Germans in Europe. As Commander in Chief of Britain's Home Forces, Ironside had only one badly equipped armoured division and fifteen undermanned infantry divisions to protect all of Britain. Before May 1940, defence measures were minimal and mainly located in the South of England. There was, however, over 400 miles of British coastline thought suitable for landing enemy troops and tanks – and on the 10th of May 1940, the Admiralty warned of a “concentration of flat bottomed ships in Norway.” With so few men at his disposal, Ironside concentrated on building a large scheme of coastal and inland anti-invasion. The purpose of these defences was to slow down an enemy invasion, giving time for his overstretched army to position and counter-attack. Another key threat to the defence of Britain was attack from the air. Anti-aircraft defences were established, including specialised artillery and radar for tracking enemy planes. The Home Guard took the role of defending their local area and often manned anti invasion defences.
The focus of General Ironside’s defence plan for Britain was the construction of land defences during 1940 and 1941. The main aim was to combat the movement of tanks by using a combination of natural and man-made obstacles. Natural defences included rivers, with bridges were marked for destruction if an invasion occurred.

Sections of coastline, where the enemy could easily land, had a series of defences built along them forming a ‘crust’. Coastal crust defences are evident all along the Moray coast. Man-made obstacles include lines of concrete anti-tank blocks forming a barrier between regularly placed pillboxes. Some blocks had pebbles set into the concrete while they were still wet to provide camouflage on a pebble beach. Many cubes had steel rings in the centre of their tops, to anchor the complex pattern of barbed wire that covered them. Ditches, minefields, walls of scaffolding and barbed wire fences also supported these defences. Ports and coastal airfields were major enemy targets and so coastal gun batteries were placed nearby to protect them. If the enemy moved past the coastal defences, the inland stop-lines formed a second line of defence.

In the summer of 1940, General Alan Brookes took over from General Ironside. Although defence construction continued, plans changed. Fewer defences inland were built, as they would be an obstacle to British troops as well as to the enemy. Brookes focused on developing a mobile military force in Britain to respond to any attack.
At over 8km in length, the coastal defences in Lossie Forest comprise the longest and best-preserved length of anti-invasion cubes and pillboxes in Scotland.

The construction of the defences along the vulnerable coasts of Scotland was a major task. Personal accounts from Polish soldiers provide some detail about the troops tasked with building them. Dr Kazimierz Piotr Durkacz was a medical student in Poland when Germany invaded in 1939. He joined the Polish Forces and was stationed in Scotland. Durkacz worked north of Tentsmuir on the coastal defences from Broughty Ferry to Arbroath. He describes building the anti-tank blocks: "At first we used wood to make the mould for the large concrete blocks and then a combination of corrugated iron and wood. I can remember mixing the concrete with a shovel." Once the concrete set, they removed the wooden mould. The soldiers worked in squads of ten men and each squad had a target of blocks to complete in a week.

Krzystof Madejski describes working at Lossie Forest: "On Friday the 16th August 1940 we arrived in the small seaside town of Lossiemouth. They loaded us onto trucks and – to our great indignation – took us out of the town and into the forest to the camp. We went to sleep listening to the whisper of the forest and the roar of the low-flying British planes... On Sunday, some of us went for 'reconnaissance' to the nearest town (Elgin) – others went to the forest to pick mushrooms... [Later] a big tent was put up and a club with canteen was created. This proved very popular, specifically because of the cigarettes, beer, biscuits and chocolate.” He describes constructing the anti-tank cubes: “[Building the concrete blocks] is very zmudne (tedious) and unpleasant because of the continuously blowing wind, which covers the workers with sand and cement... They return to camp white with dust and complain about the concrete mixers that regularly break down.”
Pillboxes

Several World War II pillboxes survive on the beach at Lossie Forest. These small gun stations formed an important part of the coastal and inland defences and protected important military targets such as airfields. Pillboxes are small concrete structures in which soldiers could stand and open fire on the enemy at close range. From 1940, over 28,000 were constructed all over Britain. In June 1940, branch FW3 of the War Office Directorate of Fortifications and Works issued twelve ‘Standard Design Drawings’ for building pillboxes. In practice, designs were often adapted to suit local tactical needs and availability of materials. The Lossie pillboxes are mainly Type 24, an irregular hexagonal shape. A small concrete wall often protected the back entrance of the pillbox while small rectangular windows (called firing loops) face outwards. The size and shape of these openings allowed the guns inside to cover the area between this pillbox and the next. At the same time, they limited how much enemy gun fire could get in, protecting the soldiers. Some pillboxes were cleverly camouflaged as buildings; others were painted and covered in netting. The pillboxes would have slowed down an enemy invasion. During battle, this could have proven vital in allowing the Home Forces time to organise a counter-attack.

Inside a pillbox
Lossie Forest

The Coastal Battery

At the front of the battery were two gun emplacements, armed with large 6” Mark II guns. These were old World War I guns removed from naval ships and recycled. However, they were powerful and could fire long distances – and were excellent for keeping enemy ships at bay. There is a series of other buildings behind the gun emplacements. A large magazine housed the shells, which were brought forward and prepared in the forward magazine. A vital building was the Battery Observation Post (BOP), hidden on a knoll overlooking the beach. As command control, this was where the calculations for aiming and firing the big guns were made. Two searchlight stations provided light to see an enemy attack at night. Machine gun emplacements would provide firepower to defend the beach if enemy troops landed. To prevent detection from enemy planes the buildings were painted and hidden with web netting – and have irregular roofs to disguise their shape. Keep an eye out for corrugated edges – and several of the buildings still boast painted camouflage designs. The battery went out of operation in April 1945, followed by the removal of the guns two months later (although you can still see the circular iron fixtures).
Inside the coastal gun emplacement

A searchlight
The Innes Links Emergency Coastal Gun Battery (above); and the initial point cloud resulting from the terrestrial laser scanning of a rectangular pillbox and stretch of anti-tank cubes, with real colour captured at the time of survey.