Charles Hill is a small, mushroom-shaped peninsula lying on the south Fife coast about one and a half miles south-west of Aberdour (Illus 1).

During the Second World War the peninsula was the site of the only example of a twin 6-pounder gun on the Scottish mainland, which formed part of a network of defences protecting Rosyth Naval Dockyard and particularly the anchorage for naval vessels below the rail bridge from bombardment by enemy ships and by torpedo attack.

By arrangement with the Fife Council Planning Service, the authors visited Charles Hill on several occasions between February 1996 and January 1997 in order to evaluate and record the remains of the military buildings. Also, some research documents were obtained so that a historical background to the site could be compiled.

General historical background (refs 2–6)

Over the last five centuries, the coastlines and islands in the Firth of Forth have periodically been fortified to resist threats of invasion from foreign powers including England, France and Germany (Illus 1).

After the defeat of Napoleon Bonaparte at Waterloo in 1815, the country enjoyed a period of peace on the home front which was to last until the outbreak of the First World War. However, during that period of peace, various power struggles developed on the continent which cast a shadow of uneasiness over the British populace, with both France and Germany showing signs of being potential adversaries.

At that time the Firth of Forth was completely undefended as all the gun batteries (Illus 1) had been dismantled following the defeat of Napoleon. This state of affairs caused alarm amongst the merchants at Leith, one of Scotland's main mercantile ports, who felt completely exposed to the depredations of an unfriendly power, and over a period of time they petitioned the British government to address their fears by providing armament for the Forth. The British government was slow moving on this subject, identifying its priorities elsewhere, but eventually they took steps to build forts at Kinghornness, and on the island of Inchkeith, which were mounted with armament in 1881. The construction of these forts marked the beginning of the more recent period of coast defence battery arrangements in the Forth estuary, and the subsequent building of the rail bridge (opened 1890) and Rosyth Naval Dockyard (early 20th century) heightened the importance of the estuary further, necessitating a large expansion of and various alterations to the battery arrangements during the ensuing years. As would be expected, the most significant changes took place just before and during the First and Second World War periods.

Some of these coast defence batteries remained in service until 1956, by which time the advances that had been made in military technology and armament had rendered these type of defences obsolete.

Until the outbreak of the Second World War Charles Hill had never featured in any of the previous battery arrangements, but during that conflict it became the northernmost site on an inner defence line of gun batteries and searchlights, which also incorporated Inchcolm Island, Inchmickery Island and Crandom Island, all coming under the control of Inchcolm Fire Command.

A boom defence also stretched across the river from Charles Hill to Crandom village, via Inchcolm and Crandom Island.

There were two other defence lines of gun batteries in the estuary at this time, namely the middle line, which was composed of batteries at Kinghorn, Pettycur, Inchkeith and Leith Docks, and the outer line, which consisted of batteries at Kincairn near Elie on the Fife shore, and Archerfield near Dirleton on the East Lothian coast. Both the outer and middle defence lines were armed with large calibre guns to engage any surface craft attempting to bombard or make an incursion into
the estuary. The inner defence line was armed with smaller calibre, guns such as 12-prs and twin QF 6-prs, to engage smaller and faster craft such as motor torpedo boats.

Development and description of the site (ref 1)

The only importance that Charles Hill appears to have had during the First World War was that it was the northern termination point for an anti-submarine boom defence, which stretched across the river via the islands of Inchcolm and Inchmickery, to Hound Point on the Lothian coast.

At the outbreak of the Second World War a militia camp was nearing completion at Charles Hill. A private road had been built over the peninsula and a huddled encampment was erected on both sides of the road at the peninsula neck (illus 2).

The camp office, guardhouse and stores were located in one long building (NT 1842 8379) on the
south side of the road at the camp entrance, with a
sentry post sited on the opposite side of the road.
A little way beyond the camp office, a second road
led from the main road, through the southern
half of the camp to the officers mess and quarters
(NT 1846 8374), miniature range and training hut
(NT 1849 8377), NAAFI and canteen (NT 1851
8375), before terminating at the main engine room
(NT 1852 8373). On the north side of the main road,
four living huts, the sergeant’s mess, ablution
block and cook house and dining-room (NT 1851
8381) were grouped together to form the main
accommodation site. The huddled camp provided
accommodation for 3 officers, 8 warrant officers
and sergeants, and 80 other ranks.

After hostilities had broken out it was decided
to convert Charles Hill into a Coast Defence Unit
and incorporate it into the planned inner defence
line of gun batteries and searchlights.

Originally, two 12-pr guns were erected on an
area of ground west of the encampment known as
the Football Field (NT 1834 8378) and the camp
became a training centre for personnel stationed on
the nearby islands. These 12-pr guns appear to
have been intended for training purposes only as
there is no trace of any fixed mountings in the
vicinity. When they were removed is unknown,
although it is now believed likely that their stay
was short-lived due to the national demand for all
types of weapon. During the early months of 1940,
a twin QF 6-pr 10cwt gun (NT 1863 8381), 3 search-
light emplacements (NT 1863 8376) and engines (at
the engine room) were installed by a detachment
from the Royal Engineers under the command of
Captain Smitheman, RA, who was the district
officer of the inner defence line. The Royal
Illus 3. Coast artillery search lights. Note the turf covering for camouflage.

Engineers undertook the gun manning duties until the beginning of May when they were relieved by gunners of 250 Coast Battery, a unit from 504 Coast Regiment RA (TA), who fired the first rounds from the twin QF 6-pr gun to test its mountings. All the ancillary emplacement connected with the gun were completed by the end of June, 1940.

The gun emplacement was built on a site partly excavated from the side of the hill and faced eastwards. It was strongly constructed with reinforced concrete, and besides the gun emplacement the layout included a duty watch room (south side), a gun store (north side) and ammunition magazine (west side). A protective steel shield enclosed the guns, and a reinforced concrete half canopy protected the area behind the gun from shrapnel or air attack.

About 10 yards west of the gun emplacement was a tower that housed the battery observation post (BOP) and the searchlight directing station (DS) and was connected to the gun emplacement by a flight of concrete steps on the north side.

The manpower attached to the twin QF 6-pr gun was the detachment commander and eleven men, with a similar number in reserve. The director for line and elevation was operated from the BOP and resulting data was electrically relayed to dials on the gun platform.

Twin QF 6-pr guns were also installed on the islands of Inchcolm (2), Inchmickery (2) and Cramond (1). These guns had a maximum range of about 5,000 yards using full charge standard projectiles at a gun elevation of 7½ degrees.

From about the middle of 1942 the area of the River Forth lying immediately east of the inner defence line was divided into four zones of fire, designated (south to north) Zone 1 – Zone 4. Each of the twin QF 6-pr guns along the line were assigned primary zones in which they were to engage any enemy craft, followed by secondary zones where they were only permitted to engage targets when there were none remaining within their primary zones. Targets moving from a primary zone into a secondary zone were to be disengaged if there were unengaged targets still within the primary zone. Charles Hill was assigned Zone 4 as its primary zone of fire, which was the area of water north of an imaginary line extending between Inchcolm and Burntisland. Its secondary zone was Zone 3 which was the area of water lying immediately south of Zone 4 but north of an imaginary line extending between Inchmickery and Inchkeith.

In order to illuminate any enemy craft attacking at night, all the batteries along the inner defence line were provided with coast artillery searchlights (Illus 3). Inchcolm Island, Inchmickery Island and Cramond Island were provided with fighting lights concentrated into a long narrow beam for the purpose of illuminating individual targets whereas the
main searchlights at all the battery sites were dispersed beams to illuminate a wide area of water of not less than 1,200 yards in depth. The performance of these equipments was, however, heavily influenced by weather conditions.

Three illuminated area lights (dispersed beams) were arranged at Charles Hill in rectangular emplacements. The degrees of dispersion were two at thirty degrees on the outside of one at sixteen degrees, all arranged with an overlap of five degrees, to cover the area immediately east of Charles Hill and encompassing the area to the east of Inchcolm Island.

Charles Hill’s three searchlights were sited on a small, low-lying shelf, a short distance south of the twin QF 6-pr battery, to which it was connected by a steep flight of concrete steps. The central searchlight was the dominant light in the arrangement with an effective range of 2,100 yards, whilst its counterparts had an effective range of 1,750 yards. Each searchlight was manned at night by a single lamp attendant and sergeant or NCO in charge of the searchlights on duty within the directing station which was contained within the BOP. Electric power for the searchlights came from the main engine room, where two 60kw Ruston Hornsby engines and a single 5kw Lister engine were housed. A second 5kw Lister engine was housed in an auxiliary engine room (NT 1852 8385) at the north side of the peninsula.

Landward defence resources (ref 1)

Sometime after the middle of 1942, Charles Hill employed a land defence scheme, the intention of which was to deny the battery position to the enemy, and maintain the twin QF 6-pr gun ready to destroy any enemy approaching from the sea.

Any enemy attacks on the battery were expected to be by:
(a) troops landed on the landward side of the battery, either airborne or paratroops;
(b) seaward, i.e. a direct attack on the battery by surface craft.

The main armament for resisting an assault was a 75mm French-made field gun, a 4.5" Howitzer, a Spigot mortar, 2 Hotchkiss machine guns, and a variety of small arms. The 75mm gun was the primary anti-tank defence weapon, which was to be held in reserve at a camouflaged position (approximately NT 1855 8383) for surprise effect. This gun arrived at the camp some time after the middle of 1941. It appears the 4.5" Howitzer had a more mobile defence role.

A number of slit trenches were dug to provide cover for the manpower, and the 2 Hotchkiss machine guns were positioned at strategic points at the north and south sides of the peninsula. At the camp entrance a triple barbed-wire fence cut off the peninsula from the rest of the mainland.

Close to the shoreline at the north side of the
peninsula, a Lyon 'beach defence' light (NT 1863 8386) was installed in a small, square, concrete structure (Illus 4).

The Spigot mortar (NT 1857 8373) was mounted on top of a concrete pedestal sunk into an excavated pit at the summit of the camp, towards the south end. Other than light arms, the twin QF 6-pr gun was the only weapon provided for the protection of the site against a direct attack by enemy ships.

Anti-aircraft defences (ref 1)

As with most coast battery sites in the Firth of Forth, Charles Hill was provided with few measures to reply to an attack from the air. During 1943 two unrotated projector (UP) rocket launchers were installed at the camp's summit and two surviving concrete bases with bolt rings at their centres (NT 1857 8376 and NT 1855 8372), one located either side of the Spigot mortar site, are presumed to be the mounts for these weapons.

At the south-east of the peninsula lies an ancient
vaulted stone cell known as The Monk's Cave (NT 1857 8369). This cell is thought to have been part of a ferry house once connected with the Abbey on Inchcolm, and is probably the reason behind Charles Hill's alternative name 'Vault Point'.

The Monk's Cell has been built close to the edge of a low cliff, the top of which has been partly excavated to accommodate it. Originally the cell was the lower storey of a larger building, but has long since been reduced to the level of the cell's upper surface.

During the Second World War the Monk's Cell (FSMR NO NT 18 SE 001) was used as a magazine to store the rockets for the UPs. A short flight of concrete steps was built at the south side of the cell for the easier conveyance of the ammunition, and it appears the close proximity of the cliff edge to the cell's entrance (east side) necessitated the removal of some of the original stonework from the southeast corner to make this operation less hazardous.

**Boom defence (refs 3–5)**

The northernmost point of the boom defence (NT 1855 8366) was at the high-water mark, a short distance south from the Monk's Cell (Illus 5). From here, the obstruction consisted of a series of concrete pillars linked by two rows of heavy steel bars, which extended southwards to a point about half way through its course, where it dog-legged towards the south-east before terminating at a large concrete pillar (NT 1859 8359) at the low water mark.

This large pillar was the northern anchorage point for the heavy anti-torpedo nets which stretched across Mortimer's Deep to Inchcolm. The fixed obstruction between the high and low water marks is believed to have been built during the First World War, but additional brickwork that has heightened the southernmost pillar is believed to be a feature from the Second World War.

During the latter conflict an anti-coastal motor boat (A/b) boom extended along the top of the anti-torpedo (A/t) nets. This consisted of a series of four-pronged metal spikes, joined by short lengths of heavy steel cable, designed to tear into the hulls of any small craft attempting to skip over the top of the A/t nets.

The A/t nets during the Second World War were constructed from interwoven circles of steel wire. At low tide some examples of both the A/t and A/b boom can still be seen in the vicinity of the southernmost pillar (Illus 6).

**Organisation of manpower (ref 1)**

It would appear from available documentary evidence that from 1942 Charles Hill's garrison was divided into 5 platoons, designated A-E, and the camp itself was divided into three platoon sectors,
namely North, South and Inner Sectors.

North Sector was the area of the camp on the north side of the main road, and was assigned to A Platoon, who were responsible for manning the 75mm field gun, no 2 UP and the north Hotchkiss machine gun.

South Sector was the area of the camp to the south of the main road and was assigned to B Platoon, who were responsible for manning the 4.5" Howitzer, no 1 UP, the south Hotchkiss machine gun as well as providing a mobile strike force.

The Inner Sector, which was in the immediate vicinity of the BOP and twin QF 6-pr gun was covered by C Platoon, who were responsible for manning the twin QF 6-pr, the BOP and the anti-aircraft light machine guns. If there was no seaward threat, they were to man the 4.5" Howitzer.

Platoon D was responsible for manning the searchlights, engine room and directing station, and also for providing manpower for patrol and listening post duties.

Platoon E was responsible for manning the Spigot mortar.

From May, 1942, Charles Hill provided accommodation for relieved personnel from the small island station of Inchmickery, where living conditions were becoming extremely cramped. Inchmickery personnel were divided into three sections, each spending two weeks on the island followed by a week at Charles Hill.

On 10th November, 1943, due to the change in fortunes in the war, it was decided that the defences at Inchncolm Fire Command would be progressively disbanded as part of an exercise known as 'Operation Floodtide'. By 11th December, 1943, the whole of the armament and equipment along the inner defence line was reduced to a care and maintenance basis only, with the exception of two searchlights at Inchncolm, and a further two at Crondon Island, which were required to illuminate the boom. With the consequent reduction in manpower, the regiments covering the Forth, ie 504, 505, 506 and 507 Coast Regiments RA were assimilated into one, the 505 (Forth) Coast Regiment RA (TA).

Throughout the war, Charles Hill never saw any seaborne or landward confrontation with the enemy. It is possible, however, that like other coast battery garrisons in the area, they may have attempted to engage enemy aircraft flying over the Forth, with their few anti-aircraft weapons, more to boost morale boosting than from any realistic chance of meeting with success.

Post-war period (ref 3)

After the war the twin QF 6-pr gun and the searchlights appear to have been maintained on a care and maintenance basis, and at some time the camp became the responsibility of 32nd (Minden) Coast Battery RA.

Following the abandonment of coast artillery as a means of defence, the gun and ammunition were returned to Royal Arsenal, Woolwich, on or about 23rd September, 1956.

The twin QF 6-pr guns provided for the inner defence line, along with 2 x 6" guns at Kincraig, were the only modern coast defence guns provided for the Firth of Forth during the Second World War.

Site remains and threats

Many of the huts and buildings at Charles Hill Camp have either been demolished or removed, but in most cases their foundations still remain, although overgrown.

The surviving structures of note are the twin QF 6-pr emplacement, the three searchlights, the main engine room, Lyon light emplacement, concrete pedestal for the Spigot mortar, the presumed bases for the UPs, the Monk's Cave, and the northern portion of the boom (Illus 2). All internal fittings, steel doors and window shutters etc have been removed from the gun emplacement, searchlights, engine room, and the Lyon light emplacement.

Charles Hill has only recently been recognised as a site of importance, in terms of military archaeology, and represents the only mainland example of this type of emplacement in Scotland. By virtue of this fact, Fife Council Planning Service and the landowners, Shell UK, undertook the restoration of the battery site to a standard suitable for public examination.

Although the observation tower has long since been demolished, the substantial gun emplacement, the three searchlight emplacements and the engine room remain and it is hoped that, safety considerations permitting, the battery may be considered suitable as a visitor attraction allied to the Fife Coastal Path.

Site access

Access to the site is gained from the junction of the A921(T) and A987(T) highways by following the service road to the Braefoot Bay Marine Terminal. Permission to park and visit the site must be sought from the security personnel at the gatehouse to the Braefoot Bay complex. An unmetalled track leads the short distance from the gatehouse down to and over the Charles Hill peninsula.

Acknowledgements

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Glossary
Coast artillery searchlight: A fixed equipment
housed within a protective concrete shelter
which, by means of three vertical embrasures
in the shelter wall, provides a dispersed
beam of light covering a wide area.
Illumination of each light is controlled
remotely from a detached directing station.

Battery observation post (BOP): A work situated in
a commanding position away from the gun
emplacement providing a good all-round
view of the battery’s selected field of fire.
Range-finding apparatus was housed there
with communication links centred on the
BOP for operational purposes.
In the case of Charles Hill, the BOP was
located on the top floor of a brick and
concrete tower about ten yards behind the
gun. The searchlight director’s station was
located on the floor below the BOP and the three
searchlights were operated from there.

Lyon Light: A short-range searchlight provided to
illuminate vulnerable areas in the vicinity of
the battery. These were generally deployed
as part of the defensive measures relating to
the battery site itself.

RA (TA): Royal Artillery (Territorial Army)

Spigot mortar: A Second World War adoption of
the trench mortar and originally produced
for Home Guard use, it was mounted horizon-
tally on a concrete ‘thimble’ within an
earth pit and was manned by a crew of
three. It had an anti-personnel role against
attack on the battery site itself.

Twin QF 6-pr: A quick-firing weapon employing
projectiles of six pounds in weight. It was in
many respects a large machine gun and
comprised two separate barrels and breech
mechanisms, mounted side by side within a
rotating metal turret. The turret was
mounted within a concrete emplacement
covered by a concrete part-canopy and the
effective traverse of the turret was con-
strained by the projecting side walls of the
emplacement. The weapon’s operational
role was against fast-moving surface craft
such as torpedo boats and was the only
coast defence weapon capable of under-
taking that function.

Unrotated projector (UP): Basically, a rocket
launcher deployed in an anti-aircraft role
and enjoying the benefits of being cheaper
and quicker to produce than conventional
anti-aircraft ordnance.

Abstract
This report is intended to introduce the subject of Fortified Fife in terms of coast defence, and the site chosen is the most
modern example in the area of the mainland works built under the auspices of National Coast Defence policy during the
period 1856–1956. The individual batteries were never considered operationally as isolated defences but each formed
part of a greater scheme operated as a fortress system. The report highlights the original layout, function and manning
of the battery and presents for consideration those parts of the work which remain, in addition to identifying further
sites that, taken as a whole, made the Forth one of the most heavily defended parts of the British Empire.

Key words: Second World War, coast battery, River Forth, coast defence