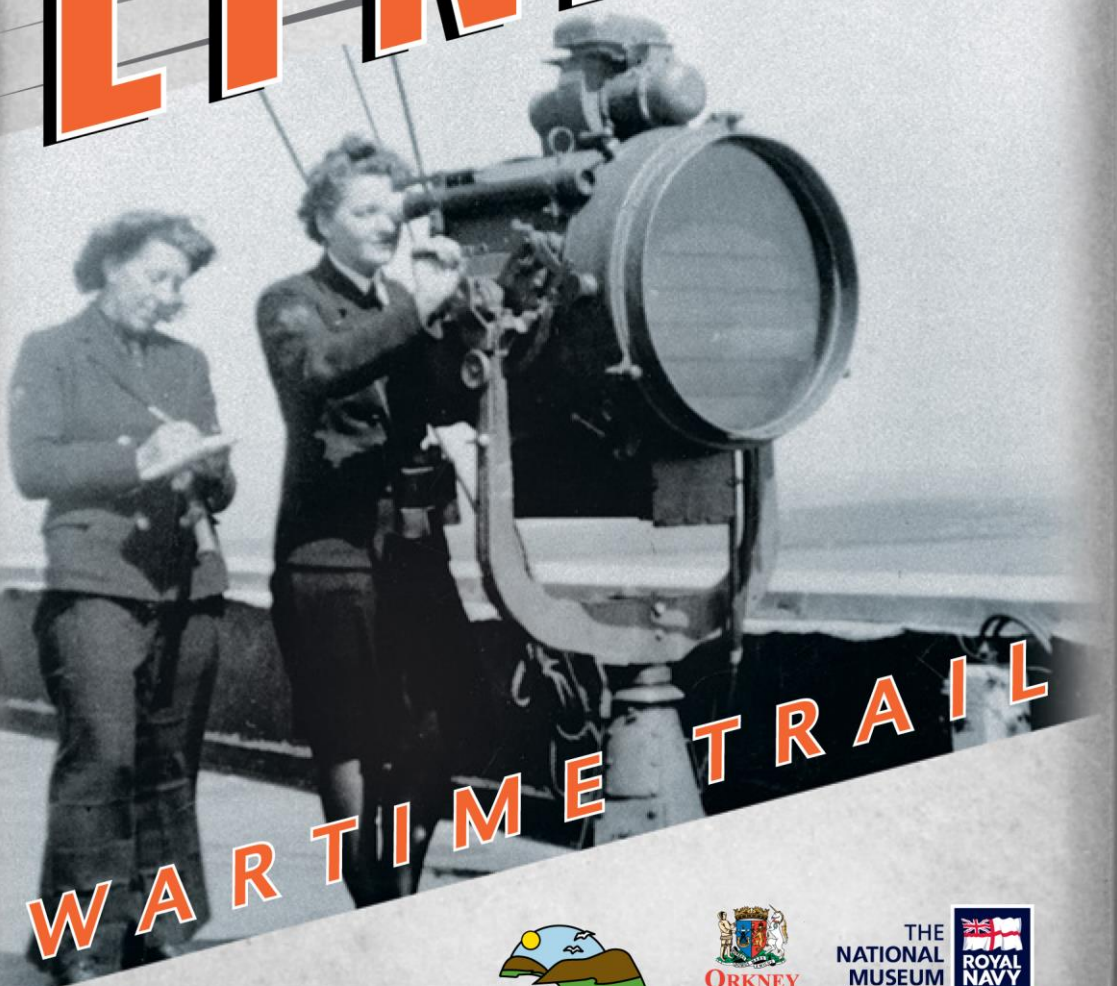




No 1

# LYNESSESS



# WARTIME TRAIL



ISLAND OF HOY DEVELOPMENT TRUST



ORKNEY ISLANDS COUNCIL

THE NATIONAL MUSEUM



ROYAL NAVY

**Welcome to Lyness** and the former Royal Navy base at the heart of Scapa Flow. This enormous natural harbour was used by the British Navy as a strategic anchorage during WW1 and WW2, providing an ideal location from which to support military and convoy operations across the North Sea and North Atlantic. The origins of Lyness as a base can be traced to WW1 when the Navy began constructing oil-fuelled warships that required land-based fuel reservoirs and associated supply depots. From these early beginnings, Lyness grew into a vast base during WW2 with a full range of administrative, repair and servicing facilities as well as accommodation, entertainment, education, welfare and sports provision (known as HMS *Proserpine*). Also based here were the boom defence depot, HMS *Pomona* (responsible for maintaining the steel nets and buoys used to protect the navigational entrances from attack by submarines or motor torpedo boats); and HMS *Pleiades*, which operated the large pool of steam drifters that ferried personnel and equipment around the anchorage. Lyness was also temporary home for many Army and RAF personnel as well as for civilian contractors.

## Photographs of Wartime Lyness

The letters in squares on these photographs are also marked on the map overleaf to indicate the photographer's viewpoint. They are from WW2 unless otherwise indicated.



**A.** An anti-submarine boom net being launched from the net runway alongside Lyness Wharf.



**B.** Two cranes that operated in and around Lyness pier. Some boom defence floats are stacked behind.



The base was scaled down after the war and closed in March 1957. Most of the buildings were demolished or sold at auction; those that remain along with earthworks and concrete structures have become enduring, if accidental, monuments to the military occupation. Perhaps traces of these will persist for as long as the Neolithic sites for which Orkney is better known.

**E.** The CCB&SO see Point No.11



**E**

Photograph from 1945, ADM 116/5790 The National Archives, Kew



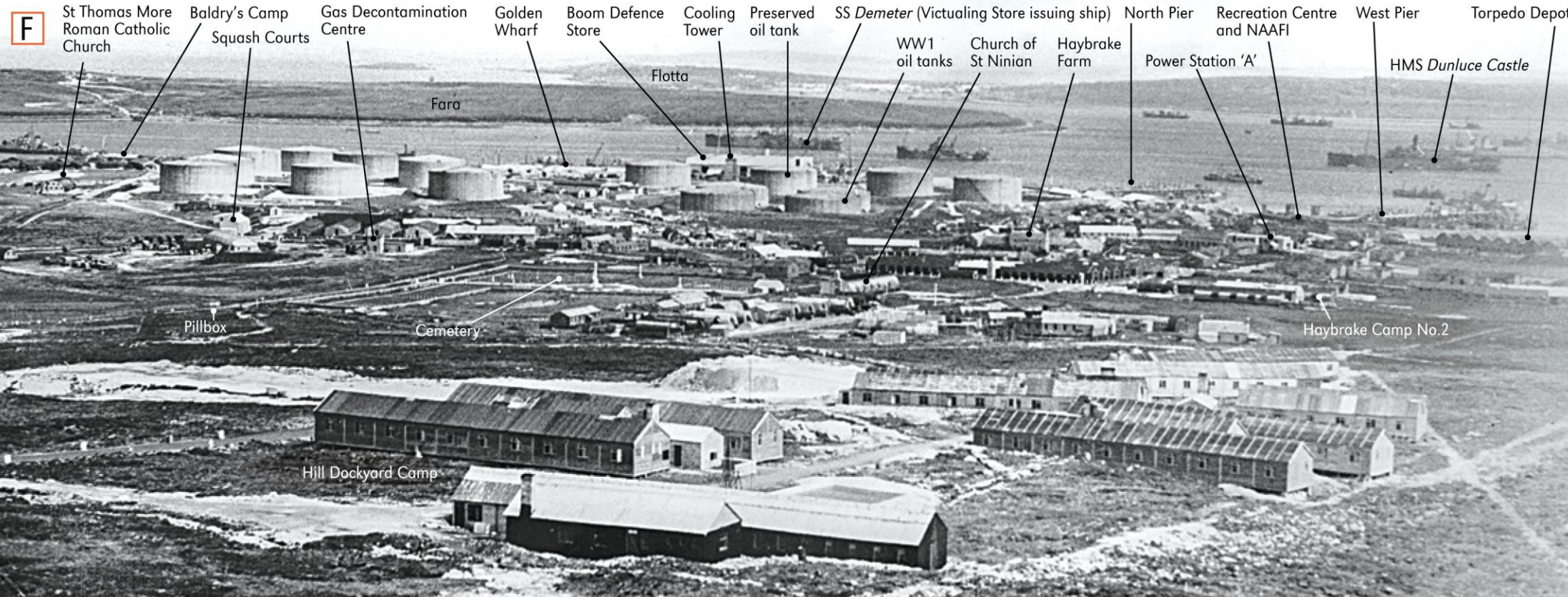
**G**

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**G.** The view from the roof of Power Station 'A' looking west down French Road.

**F**

**F.** Lyness Base during WW2, the view from Wee Fea.



- St Thomas More Roman Catholic Church
- Baldry's Camp
- Squash Courts
- Gas Decontamination Centre
- Golden Wharf
- Boom Defence Store
- Flotta
- Cooling Tower
- Preserved oil tank
- SS *Demeter* (Victualing Store issuing ship)
- WW1 oil tanks
- Church of St Ninian
- Haybrake Farm
- North Pier
- Recreation Centre and NAAFI
- West Pier
- Torpedo Depot
- Fara
- Hill Dockyard Camp
- Pillbox
- Cemetery
- Power Station 'A'
- Haybrake Camp No.2
- HMS *Dunluce Castle*

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## A Landscape Transformed

War, and the threat of war, has profoundly affected the physical and social landscape of Orkney. Before WW1, Lyness consisted of Haybrake Farm and a scattering of cottages and crofts. Construction of a depot for fuel, stores and ordnance started here c.1917. Work to expand the oil storage began c.1937 followed by a massive enlargement of the base at the outbreak of WW2 in 1939. Homes and farmland were requisitioned, and by 1940 over 12,000 military and civilian personnel were stationed here, accommodated in hundreds of huts grouped into camps. The loss of HMS *Royal Oak* in October 1939 and a series of air raids led to the islands becoming one of the most heavily defended parts of the UK. Beside all the military buildings, there were the facilities of a small town including a cinema, theatre, sports and several churches.

C. Construction of the wharf at Lyness during WW1; see point 1 overleaf.

Ministry of Defence



D. Royal Oak funeral party marching along Canteen Road to the Lyness Naval Cemetery. HMS *Royal Oak* was sunk in Scapa Flow on 14 October 1939 by torpedoes from the German submarine U-47. 833 of its crew of 1,234 were lost.







H

H. The drifter, *Flora Fraser* in 1941, one of many small boats that serviced the fleet and harbour. The skipper is WW1 veteran, Joe Watt VC. The large building is the Boom Defence Store.

I. WRNS on parade at Lyness. See point No.11



I

J. Upgraded in 1944, the drifter slipway allowed quick repair of up to 3 boats at a time. See point No.16.

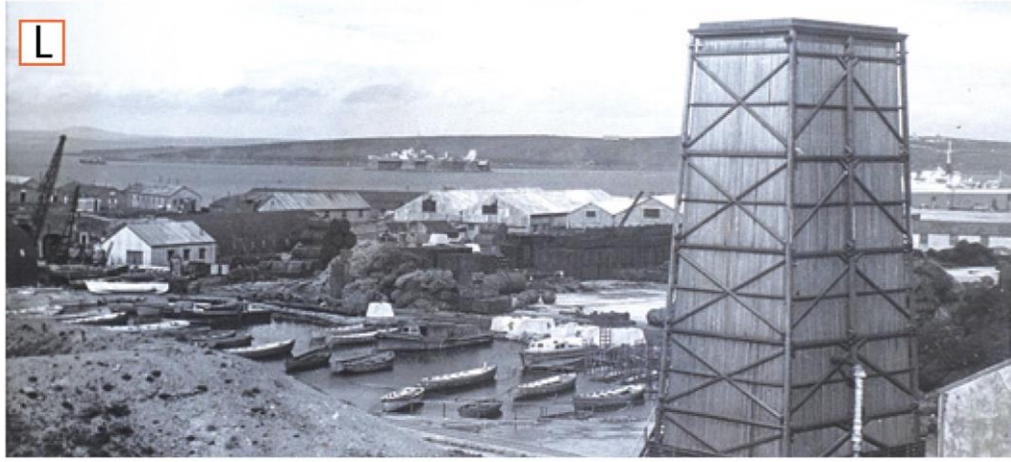
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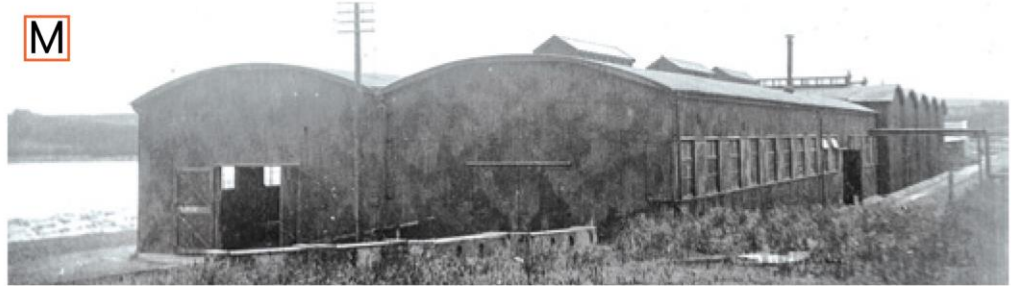
K. The entrance to the Boom Defence Depot, HMS Pomona. The original flagpole base remains in situ in the grass on the triangular traffic island.

L. The pump house cooling tower and the boat pond. See also photograph for Point No.6



L

M. The paravane depot during WW1. See Point No.15



M

N. Church of Scotland Hut during WW2



N

O. Catholic Church of St Thomas More



O





1

# Lyness Wartime Trail

The main trail (BLUE 2.6 miles) starts and ends at the ferry terminal though can be extended along Baldry's Road (GREEN 0.5 miles) or by the steep track up to the picnic bench, Communication Centre and Oil Reservoir portal on Wee Fea (PURPLE 2 miles return). The main trail is on quiet roads with some uneven surfaces and moderate gradients. Please note that the unsurfaced Canteen Road, which runs up from the Arctic Convoy Memorial, behind the museum and past the oil tank, is unlikely to be suitable for wheelchair users. The track up to Wee Fea has a cattle grid, is steep and unsurfaced.

**Please do not enter the wartime buildings, many are in very poor condition and in private ownership.**

## 1 Lyness Wharf

During WW1 a wooden pier was built at Lyness; this was followed by a concrete wharf on the site of the current ferry terminal. Work to extend this began at the start of WW2 though was not completed until 1944, with much of the construction material provided by excavation of the underground oil reservoirs. It became known as 'The Golden Wharf' on account of the time and money spent on the project. The guide channels for transferring the floats can still be seen alongside the railway tracks near the ferry car-park. See also photo A.

## 2 Scapa Flow Museum and Oil Tanks

Four oil fuel tanks were built here to serve the Grand Fleet in WW1. Each had a capacity of 12,000 tons. They were supplemented in 1937 by the construction of twelve more tanks (of which only one now survives) and pump house No.1. The latter houses the museum.

Even before WW2 it was recognised that these tanks were vulnerable to air attack, and in 1938 the construction of reservoirs beneath Wee Fea hill began. Miners were recruited from the English coalfields and were later joined by Norwegians who had been evacuated from Spitzbergen. By 1943, six reservoirs, each 237m long, 9m wide and 13.5m high had been hewn out of the rock, allowing the storage of more than 113 million litres of oil. The so-called 'furnace fuel oil' was pumped from tankers at Lyness Pier into the reservoirs via pump house No.2.

The underground reservoirs are not open to the public but the extended walk up Wee Fea will take you to one of the two entrance portals. The scale of this civil engineering project is illustrated by the fact that the other entrance portal is almost 1km to the south west.



## 3 Boom Slab, Base Repair Workshop and Boom Defence Workshop

The large concrete slab between the pump-house and the wharf was used to maintain the many miles of defensive booms and anti-submarine nets that protected the anchorage from attack by motor torpedo boats and submarines. The two workshop buildings at the north east corner of the boom slab housed shipwrights, metalworkers, electrical fitters, and gun repair workshops.

## 4 Romney Hut and Pond

To the north of the museum is a pond. Beside it is one of a pair of prefabricated Romney huts that were used for the repair and storage of small boats. The remains of the crane tracks that ran between the hut and the wharf are still visible. Four steam cranes operated along these tracks, transporting boats and anti-submarine netting to and from the pier. One of these cranes is on display outside the museum.

The pond was originally a quarry. During WW2 it was flooded and used to test and store small wooden boats awaiting repair in the Romney hut. The quarry has been partially infilled since the war and now provides a shallow freshwater habitat for wildlife.

## 5 Air-Raid Shelter (open to the public)

This large air-raid shelter was built for the use of personnel on the base in the event of an aerial attack - a regular occurrence during 1939-1940. Painted arrows, positioned several metres from the entrances, mark the limits of where it was safe to stand. **Please be aware that the entry/exit slopes may be slippery.**

## 6 A changing landscape

This photograph and its companion (L overleaf), both from WW2, show how busy the area once was and how much the built landscape has changed.

The patch of woodland opposite the remaining oil tank is on the site of tank number eight. The bund (protective earth banking) that once surrounded the tank remains largely intact.

## 7 Passive Defence Organisation (PDO) buildings and lookout tower

This WW2 building was the control centre and lookout for the PDO who were responsible for managing fire and gas emergencies. As most of the base was of timber construction there was a serious threat that bombs could ignite huts, or worse, the oil tanks. Next to the tower in the picture is Bungalow No57, the quarters reserved for the officer in charge of the naval base.

## 8 Decontamination Station and Communication Centre

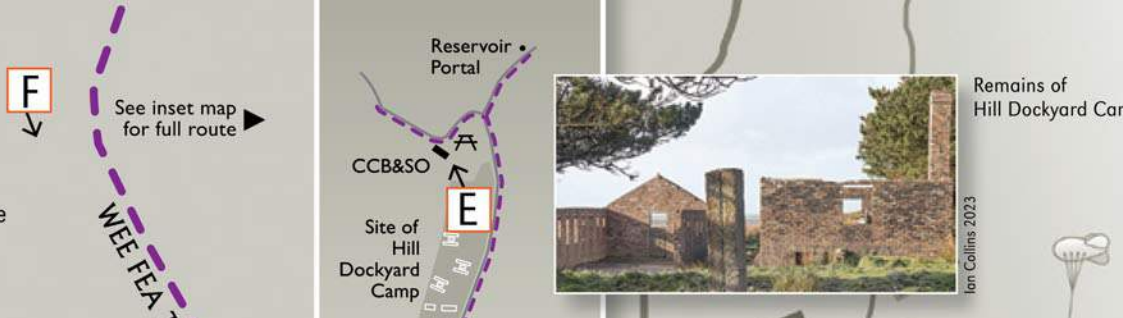
The remains of a gas decontamination station, one of three similar buildings at the base, can be seen here. It was purpose-built for cleansing personnel after gas attacks and had a one-way layout, including air-locks for the entrance and exit, an undressing room, decontamination showers, laundry chutes and drying rooms. There is a water-storage tank on the roof.

Surrounded by a blast wall lie the remains of the original communication centre. It was in operation from August 1939, until the CCB&SO opened in 1943. The centre provided landline telecommunication connections to ships moored in the harbour, local offices and installations as well as sites further afield such as Rosyth Naval Base near Edinburgh and the Admiralty in London. See also point No11

## 9 Squash Courts

Now used as a garage, these squash courts were constructed in 1942 as part of the wider recreational facilities provided for service personnel.

Remaining wartime buildings marked in red  
Structures from WW1



## 10 Lyness Naval Cemetery

The Lyness Royal Naval Cemetery was established in 1915. Many of the graves, some unidentified, are of sailors who died in major incidents, notably the loss of HMS *Hampshire*, *Vanguard*, *Narborough* and *Opal* during WW1, and HMS *Royal Oak* during WW2. The graves of German sailors killed during the scuttling of the German High Seas Fleet in 1919 and 4 aircrew lost when their JU88 was shot down and crashed at Pegal Burn on October 1939 can also be found here. There are memorial crosses for HMS *Hampshire* and HMS *Vanguard*. The centre of the carefully maintained site is marked by a Cross of Sacrifice. Across the road is a six-sided concrete Type-22 pillbox from WW2.

## 11 Life for the WRNS Haybrake Camp and the CCB&SO

The area behind the Hoy Hotel was once occupied by the huts of Haybrake Camp which provided accommodation and domestic facilities for Women's Royal Naval Service personnel, separate from their male colleagues. The hotel is probably built on the site of the WRNS Ratings' Mess. On the north side of the camp was a row of air-raid shelters. The WRNS initially arrived at Lyness in relatively small numbers, though by 1945 over 1500 were stationed here. The pair of brick-built ablutions blocks are the only standing remains of the camp.

On Wee Fea hill is the citadel-like Royal Navy Central Communication Building & Staff Office (CCB&SO) where many of the WRNS worked. It came into service in September 1943 and served to keep the base and fleet in touch with the outside world by radio, telephone, teleprinter and signal lamp. At its peak the Centre handled 8,800 telephone calls per day; there were telephone links to the main battleships by a submarine cables attached to the ships' mooring buoys. See photo E overleaf.

## 12 Church of St. Ninian

The concrete base of a large Romney type hut used by the Church of England during WW2 is just visible here.

## 13 Torpedoes, Football and Hockey

This area can be viewed from the power station at point 14. The Torpedo Depot was constructed during WW1 and reused during WW2, when it was known as HMS *Greenwich*.

13a The depot stored, maintained and issued torpedo and paravane armament for the Home Fleet. It also supplied torpedoes for attack aircraft of the Royal Naval Air Service. All that remains of this large building is the concrete base and some railway tracks.

13b North of point 13, and partially hidden by rough grass, are a pair of concrete railway platforms dating from WW1. They were used in both wars for loading ordnance onto narrow gauge wagons. To either side are the remains of a row of air-raid shelters. Beyond the platforms and slightly to the left are a pair of massive concrete blast walls, surrounded by earth banks and sheltering two Laboratory Examination Rooms where ordnance was tested. Behind this are more earth banks protecting a pair of small stores for explosives.

To the right, behind steep earth banks is the site of a Warhead Examination Room; beyond that is a magazine, buried under a mound of earth and protected by a concrete blast wall.

## 14 Power Station 'A'

This photograph was taken from the top of Power Station 'A', the large flat-roofed building on the north side of the road. It was in operation from 1941 and provided the main electricity supply for the base. Half a mile to the north, by the shore of Mill Bay, is Power Station 'B' which served as a reserve in case of emergency.

Opposite the power station is a small red-brick building with a concrete flat roof. It contains a mounting base for an engine and generator. The photograph also shows one of three gas decontamination stations, now demolished. See also Point No8.

## 15 Paravane Depot, Recreation Centre and NAAFI

For 100 years until its gradual destruction by fire, neglect and storms this site was dominated by a large building of timber and steel clad in corrugated iron. Completed toward the end of WW1, it was 92m long and 21m wide and originally used to store paravanes (a type of float used with a cable to trawl for mines and cut their mooring cables). It was used by Cox & Danks Co. as a base for their salvage operations between the wars and re-purposed as a recreation centre at the start of WW2. Facilities eventually included a stage, a 900 seat cinema, dance-hall, restaurant and shop (the NAAFI). Many wartime celebrities performed here. See photo M overleaf.

## 16 Wharves, Piers and Slipways

The shores, piers and wharves of Ore Bay were a hive of activity during both world wars. The steel North Pier was used for inter-island ferry services and the concrete West Pier used mainly by the torpedo and paravane depot for rearming warships. Both piers were served by narrow gauge railway tracks, remains of which can still be seen. In the distance, on the far side of Ore Bay, is the South Pier which was used by the RAF and Rinnigill gas plant to transfer stores and hydrogen bottles for barrage balloons.

Between the Wharf and North Pier is the drifter slipway which was used to haul up and quickly repair larger boats (Photo J). Other remains along the coastline here include the foundations of the WW1 pier.

## 17 Baldry's Camp and ACOS

There were once many buildings in this area, now all demolished except for a few houses by the shore, re-purposed for domestic use.

Baldry's Camp was set up at the beginning of WW2 to provide accommodation for construction workers employed on the base.

At the start of WW2, the headquarters of the Admiral Commanding Orkney and Shetland (ACOS) and his staff were based on the WW1 battleship HMS *Iron Duke*, moored nearby. The ship was badly damaged on 17 October 1939 during the first air raid on Scapa Flow. ACOS moved into new accommodation here in February 1940; note how part of the building is laid out like a ship's bridge. ACOS moved to the CCB&SO on Wee Fea in September 1943. Point No11.



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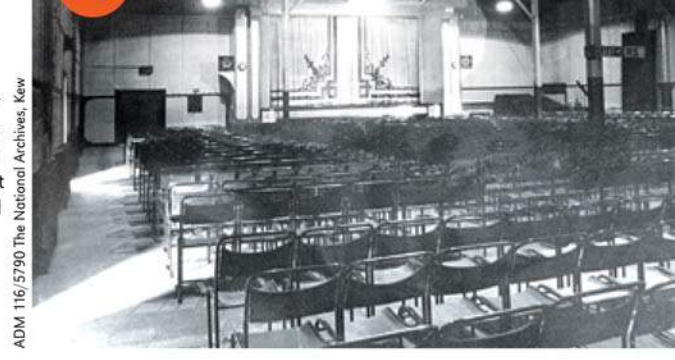
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14



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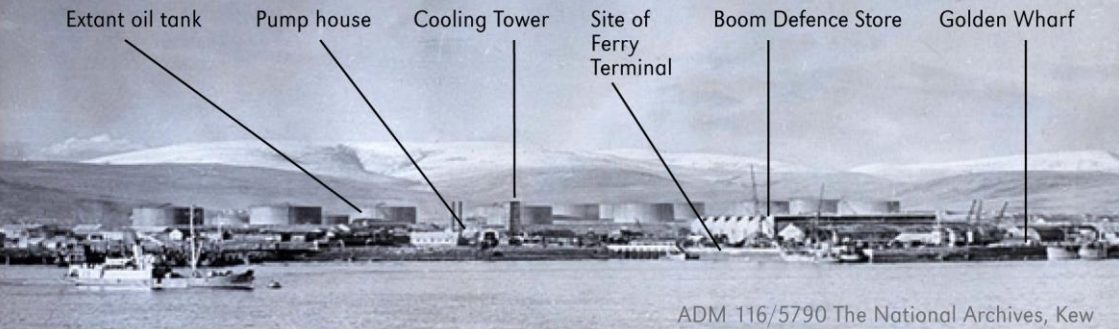
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17







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This leaflet is the companion to the **Hoy & Walls Wartime Trail** which covers sites further afield on the island and to the **Scapa Flow Eastern Defences** (Wartime Orkney Leaflets No.2 & No.3) **Free copies available at the Museum.**

**FLOTTA:** The orkney.com website has details of the Flotta Wartime Trail, a 13km way-marked circular route that includes the Flotta Heritage Centre. The quiet roads are good for cycling.

**SCAPA FLOW MUSEUM:** Located a few minutes' walk from the Lyness ferry terminal, the Museum occupies part of the former Lyness Royal Naval Base. Nearby is a tank that once held 12,000 tons of fuel oil, the last remaining example of the 16 that were on the site. The museum has a rich collection of artefacts that illustrate the military and social history of Scapa Flow. There is a shop, café and toilets. Admission is free. Tel. 01856 791300

Other exhibits and visits relating to the wartime heritage of Orkney:

**Stromness Museum** 01856 850025

**The Orkney Museum**, Kirkwall 01856 873191

**Ness Battery**, Stromness 07759 857298

**HMS Tern / RNAS Twatt** Birsay Heritage Trust 07470 381237  
[www.nessbattery.co.uk](http://www.nessbattery.co.uk) [www.hmstern.co.uk](http://www.hmstern.co.uk)

**Orkney Wireless Museum**, Kirkwall 01856 871400

**Hoy Kirk Heritage Centre**

**Orkney Fossil and Heritage Centre**, Burray 01856 731255

For further archaeological information and archive photographs visit:

[www.hoyorkney.com/](http://www.hoyorkney.com/)

<https://canmore.org.uk>

To discover more about the **National Museum of the Royal Navy** please visit: [www.nmrn.org.uk](http://www.nmrn.org.uk)

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