

## 1.7 BROAD CHARACTER: MILITARY

### 1.7.2 CHARACTER TYPE: MILITARY FACILITY

#### REGIONAL PERSPECTIVE: EAST ANGLIA

#### INTRODUCTION: DEFINING/DISTINGUISHING ATTRIBUTES

The area has always been very significant militarily due to its proximity to continental Europe and its strategic location, particularly with regards to London (see also Military Defence and Fortification).

Installation of new military facilities has become less frequent in East Anglia with increasing European collaboration. Many earlier examples still exist, mostly in relict form. These include earlier post medieval facilities such as Landguard Fort in Felixstowe and the defunct naval yard at Harwich. More recent and unique facilities are still very much in evidence at the nuclear testing facility on Orfordness, Bawdsey Radar Station and Naval training centre HMS Ganges in Shotley.

During WWII East Anglia functioned as England's Airfield (Williamson 2006, 77). A number of airfields were located in the coastal area, the remnants of which can still be seen at Woodbridge and Rendlesham (RAF Woodbridge and Bentwaters respectively). Less survives at Leiston and Burgh Castle where airfields also existed albeit temporarily at the latter.

Much of the southern part of the offshore area is delineated as a series of military practice areas. These are named after the prominent sandbanks in their vicinity – Gunfleet, Kentish Knock, Galloper and Outer Gabbard. These areas are used by the navy for mine laying and mine counter measure exercises. The areas are permanently earmarked for military practice though access is only restricted during active exercises, notification of which is given by radio shortly before minelaying takes place. There is also an ordnance dump within the Gunfleet practice area.

#### HISTORICAL PROCESSES; COMPONENTS, FEATURES AND VARIABILITY

Perhaps the earliest large-scale military facility in the area was Harwich naval dock yard. Harwich, the best natural deep water harbour in the region, gained significance in the 16th and 17th centuries as a defensive area as a result of successive wars with France, Spain and Holland (see Military Defence and Fortification). During this period, warships began to muster in Harwich harbour and in 1650 it was appointed victualling station for the navy. This facility was subsequently transferred to Ipswich and a naval dockyard constructed in Harwich in 1657.

A survey in 1661 recorded the presence of storehouses, a dwelling house, sheds, pitch and tallow houses and 2 windlasses. The dockyard had a volatile existence, closing in 1672 and re-opening in 1689 with the advent of new hostilities. The dockyard remained in use as a base until 1713. It was leased to private shipbuilders, constructing civilian ships, in 1730 until it was sold by the Admiralty in 1827. In order to protect Harwich harbour Landguard peninsula was fortified from as

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early as 1540 (see Military Defence and Fortifications) but became a major facility at various times during its lifetime. New works were added in 1624-6, a new battery in 1716, and a completely new fort was built in 1745-1751. The current layout is the result of a major re-build during the 1870s, when the interior barracks were rebuilt to a keep-like design and the river frontage rebuilt with a new battery.

During the Napoleonic War Great Yarmouth became an important strategic position and naval base. A naval hospital was constructed there between 1809 and 1811 which was incorporated into the militia barracks, before becoming a civilian hospital.

Shotley also became a significant maritime centre in the 19<sup>th</sup> and 20<sup>th</sup> centuries, with the construction of a coastal battery in 1862 and later establishment of the naval training base, HMS Ganges. HMS Ganges was originally a three decker ship launched in 1821 at the Bombay Dockyard. She saw several decades of action, including spells in South America, the Mediterranean and the Pacific. In 1866 she began service as a training ship in Falmouth and was moved to Harwich harbour in 1899, where she was used until 1905. At this point HMS Ganges became a shore establishment in Shotley training boys, and later men, until it closed in 1976 (Edwards 1991, 16). The establishment is particularly famous for its 143 ft high ceremonial mast which all boys were expected to ascend. The mast remains in Shotley village and is a listed building.

The area again became important during World War I with Harwich once more established as a naval base. The port was declared a Class A fortress because of its strategic position and the harbour sheltered the destroyers of the Harwich Force. This included six cruisers, 50 destroyers, nearly 100 minesweepers, 18 submarines and a depot ship, four seaplane carriers and auxiliary vessels. Harwich was ultimately the location for the surrender of the German U-boats in WW1.

In 1915 the decision was made to utilise the remote and isolated Orfordness as a military facility. Initially the Royal Flying Corps had an airfield on the Ness alongside an experimental squadron who carried out research on machine guns, bombs and navigation. The site was also used as a WW1 prisoner of war camp. The Roman fort at Burgh Castle was used as a base and night landing airfield during WW1.



*Radio mast at Bawdsey*

While the other military facilities fell out of use at the end of the war Orfordness continued to be used by the Royal Flying Corps for experimental flying until 1921. From 1921 to 1939 the Ness functioned as an Aeroplane and Armaments experimental establishment, firing and bombing range. After 1936 experiments conducted included radar, rockets and radio navigation. Following some success with radar RAF Bawdsey was established in 1936 for the development of the first RADAR system. The team was headed by Robert Watson-Watt and the site saw the erection of four 360 ft high transmitter masts. This would become the first of a chain of radar stations around the coast of Britain by WWII. The Second World War saw the re-establishment of Harwich as a naval base and vital deep-water anchorage for allied shipping. The port was strengthened with casemates and towers for radar and observation. Orfordness became an

army training ground in 1940 and Landguard Fort was again used as a barracks and training ground. The latter was also used as a launch site for Operation Outward, a project to attack Germany by means of thousands of unmanned hydrogen balloons. Bawdsey continued as a radar station and was bombed on at least 12 occasions during WWII. Both Sudbourne Hall and Benacre hall were occupied by the military during the war years.

It was during WWII that the region also became important to the Royal Air Force and United States Air Force. In 1934 there were four active air bases in East Anglia as a whole, by 1945 there were 107 (Williamson 2006, 77). In this region the airfields included RAF Woodbridge, Bentwaters and Leiston. The runways for the former two were used by the USAF into the 1990s and are still features on the landscape.

After the war the facilities at Landguard, Bawdsey and Orfordness remained in military use. Landguard Fort became an anti-aircraft operations room for Harwich in the 1950s and was designated as a Scheduled Ancient Monument in 1961. Bawdsey was maintained by the RAF until 1991, when it was used to house the Bloodhound missile. A variety of military structures still survive within the base, including pillboxes, anti-tank obstacles, air-raid shelters, anti-aircraft gun emplacements, bomb stores, blockhouses and strongpoints.

However it is Orfordness which became the most significant facility in the region and the largest above ground monument to the Cold War in the UK (Countryside Agency 1999, 59). During this period the ness was used as an atomic research establishment and developed the firing mechanisms for nuclear devices. At this time a series of enigmatic pagoda structures were constructed on the ness. These were designed to absorb any accidental explosion, allowing gases and other material to vent and dissipate in a directed or contained manner (<http://en.wikipedia.org/>). In 1971 the base was used for development of COBRA, an over-the-horizon early warning system; this was abandoned in 1974 as a failure. The military establishment is now incorporated within a wider nature reserve and is accessible to the public, but the activities which took place remain undisclosed by the Ministry of Defence.

Orfordness is ecologically an extremely sensitive area, and although a variety of military uses over the years has had an adverse impact on some parts of the area, the military presence has effectively safeguarded the majority of the site from public access and potential damage to the fragile resource. It contains a variety of important habitats including shingle, tidal rivers, mud flats, sand flats, lagoons, salt marsh and grassland and is an important breeding area for the Little Tern. [http://www2.suffolkcoastal.gov.uk/planning/local\\_plan/ws/cpt10.html](http://www2.suffolkcoastal.gov.uk/planning/local_plan/ws/cpt10.html)



*Pagodas at Orfordness*

### VALUES AND PERCEPTIONS

This character type once dominated much of the landscape in this region and in the case of areas such as Orfordness, it still does to a large extent. The general public is mostly proud of the defensive role played by the region, particularly in the World Wars, and Harwich and Great Yarmouth still have deep naval associations. Much of the population of East Anglia was once very familiar with the continuous air exercises and the integration into the communities of British and American air-men and their families.

In addition, some of the more specialised military activities have taken place in the region which have given it an air of mystery. This is particularly true of Orfordness which was shrouded in secrecy for many years. Due to its history, stark appearance and closure to the public for so long, several stories have circulated about Orfordness. Best known is the suggestion that Nazi troops attempted to invade England and actually disembarked on the tip of the peninsula before being repelled by a wall of fire. This has now been dismissed as myth.



*Structures at Orfordness*

From a maritime point of view many of these facilities also functioned as navigation aids, including the masts and structures of Orfordness, the Bawdsey radar masts and the mast of HMS Ganges at Shotley.

### RESEARCH, AMENITY AND EDUCATION

The military facilities of the region have provided a basis for much local research, especially into the naval and air bases. On a professional level the facilities have been the subject of many studies recently including the Defence of Britain project, the Rapid Coastal Zone Assessment Surveys and the National Mapping Programme. All have mapped huge areas of military facilities.

Some of the older facilities have been taken out of military service and reused including the airfields for civilian air traffic. Others have been converted into museums or reserves with educational and tourism roles. Orfordness is now owned by the National Trust and is mostly open to the public, except some of the more secretive or unsafe structures. The ness proves to be a valuable amenity for studying intertidal landscapes and ecology as well as housing numerous displays relating to its military use.



*Orfordness looking towards the lighthouse*

A charity known simply as Bawdsey Radar has been established in order to restore the Transmitter Block at Bawdsey, 'to create a unique exhibition, educational facility and visitor attraction' (<http://www.bawdseyradar.org.uk/>). Currently the old facility is open to tours on a few days per year. The unusual nature of the station has led to its featuring in television programmes such as the BBC's 'Restoration' and 'Coast'.

## **CONDITION AND FORCES FOR CHANGE**

The military facilities of East Anglia have undergone extreme changes as a result of successive defensive reviews during the last few decades. Many closed during the 1990s and some have been abandoned whilst others have seen major reconstruction and re-use as outlined above.

The drive towards preservation of these facilities and their use, particularly for education, has led to a number of groups, such as the National Trust and local charities, taking on redundant military facilities. The former naval dockyard at Harwich is now under active conservation.

Modern active military facilities in the area only exist at sea currently: the military practice areas and are subject to changes associated with industries such as aggregate dredging and windfarms, however the military function will always take precedence when required.

## RARITY AND VULNERABILITY

RAF Bawdsey, HMS Ganges and Orfordness are considered to be some of the most important and unusual relict military facilities in the UK. All are being conserved and enhanced under current owners. However the natural processes of erosion may ultimately threaten the structures at Orfordness, particularly those such as the Black Beacon which are close to the current shoreline.



*The Black Beacon*

Landguard Fort has been designated as a Scheduled Ancient Monument due to its individuality and importance and is also located within an SSSI on Landguard Point. Similarly Orfordness as a whole is an National Nature Reserve (NNR) an SSSI and an SAC. The mast of HMS Ganges is also a Scheduled Ancient Monument.

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## **Websites**

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