

# DEFENCE AREA 8

## HARTFORD END

### 1. **Area details:**

The defence area is 6 miles SE of Great Dunmow and 8 miles N of Chelmsford.

County: Essex.

Parish: Great Waltham.

NGR: centre of area, TL 689175.

### 1.1 **Area Description:** [see Map 1].

The defence area lies in the shallow valley of the River Chelmer, approximately mid-way between Great Dunmow and Chelmsford, overlooked by higher land to the west. East of the village of Ford End is Hartford End, a small settlement at a crossing of the river, dominated today, as it was in 1940, by the buildings of a brewery. Beyond Hartford End, the river turns south to cross the A130 road at a point some 1½ miles south-east of Ford End.

The defence area follows the course of the river from a point north of Ford End (beyond which the defence works do not survive) via Hartford End to the A130 crossing point, which provides a southern boundary. The defence works are all on the southern or western bank of the river, which flows through a landscape of broad arable fields interspersed with clumps of woodland, in particular on the river margins. The focal point of the area is Hartford End, from which the defence structures can be accessed both to the west and south-east by a network of public footpaths. The course of the valley allows viewsheds within which defence structures are almost continuously in view.

### 2. **Assessment.**

#### 2.1 **Defences:** [see Map 2]

*Defence overview -*

In the period June - August 1940, a General Headquarters Line (GHQ Line) was constructed as a continuous fortified anti-tank barrier from the North Somerset Coast, running south of London, and crossing the Thames to cut through Essex and Cambridgeshire on a course parallel with the east coast as far as Richmond in Yorkshire. The aim was the protection of London and the industrial cities of the Midlands from ground attack had the German army made a lodgement on the south or east coasts.

The GHQ Line was fortified with infantry and anti-tank gun emplacements (pillboxes) which often had wired, and sometimes mined, perimeter defences. It linked with a related system of defence in depth that incorporated roadblocks, and



A map of Great Britain illustrating the distribution of the British population in 1951. The map uses black dots of varying sizes to represent population density at various locations. A shaded area covers the central and southern regions, indicating higher population density. Key locations labeled include Glasgow, Belfast, Newcastle, Middlesbrough, Richmond, Preston, Leeds, Hull, Liverpool, Manchester, Sheffield, Crewe, Newark, Derby, Nottingham, Birmingham, Coventry, Northampton, Cambridge, Lowestoft, Milford Haven, Swansea, Newport, Cardiff, Bristol, Gloucester, London, Canary Island, Maidstone, Basingstoke, Aldershot, Southampton, Portsmouth, Plymouth, and Falmouth.

This is a detailed topographical map of the Great Dunmow area in Essex, England. The map shows a network of roads and railways connecting various villages and towns. Key locations include Little Bardfield, Lindsell, Stebbing, Great Dunmow, Braintree, and others. The River Chelmer is visible flowing through the landscape. The map also depicts smaller hamlets and specific landmarks like churches and farms. A scale bar at the bottom indicates distances in miles and feet.

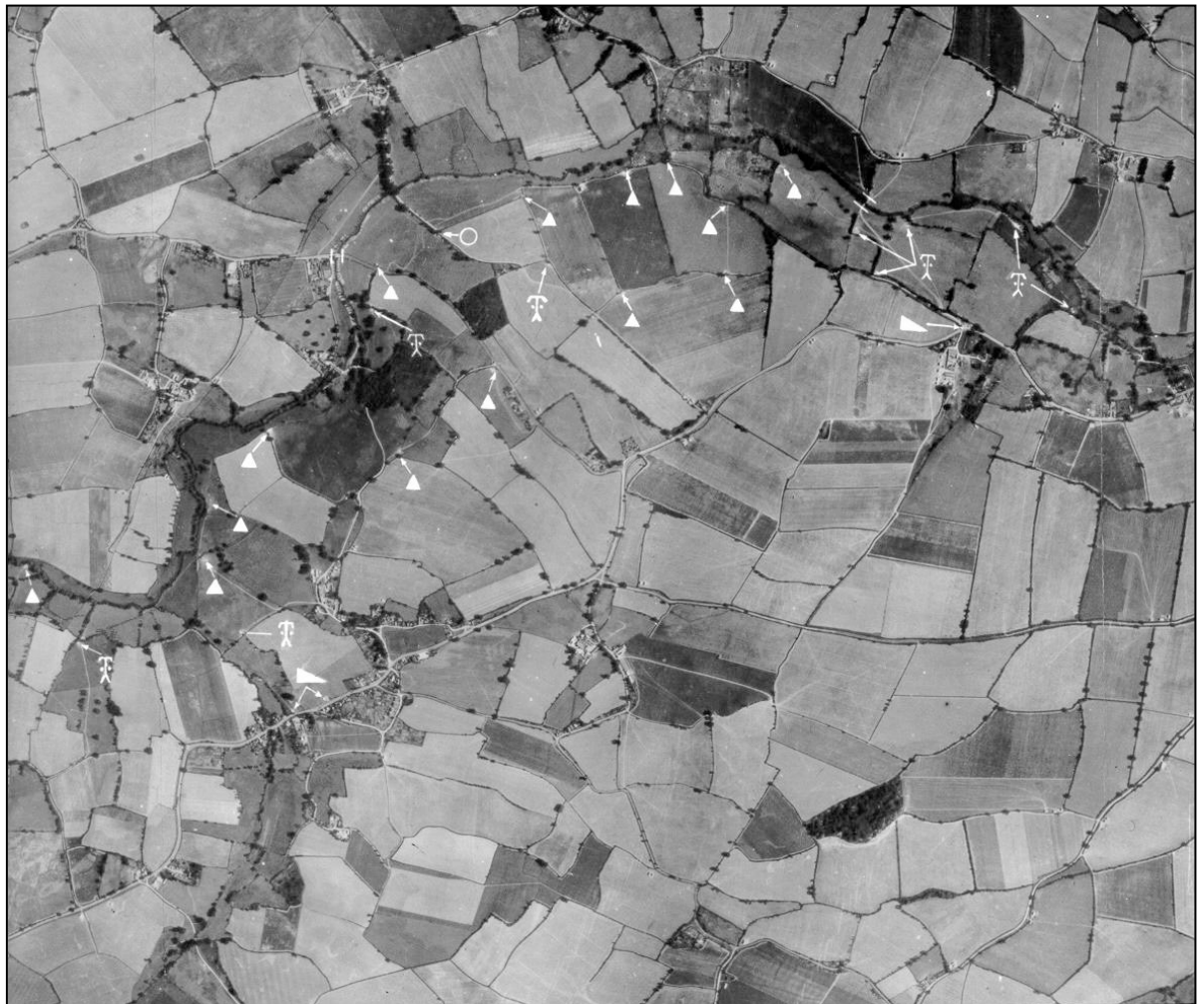
<sup>1</sup> A 'defended place' was the preferred term in this area of Eastern Command for what was elsewhere known as a 'nodal point', a 'focal point', or a 'defended locality'. It had an approved garrison of sufficient strength to hold its defences. The garrison could be troops of the Field Army or the Home Guard (sometimes both).

<sup>3</sup> TNA: PRO WO 166/329/1.

The study defence area was but one sector of this stop line whose defences were continuous following a natural or artificial anti-tank obstacle. The area has a particular importance because of the high percentage of hardened defence works that survive out of the total number that were built.

Hartford End was a Class 'C' defended place in North Essex Sub-District, having a minimum garrison of two battle platoons provided by the 11th Bn. Essex Home Guard.<sup>4</sup> It was set around a bridge over the River Chelmer, the bridge being mined for demolition and a Canadian pipe mine, designed to cause an anti-tank crater when blown, placed alongside.

An important source is an aerial photograph taken by the Luftwaffe on 31st August 1940. The great majority of defence sites shown on this photograph survive, and it enabled several, otherwise hidden by dense vegetation, to be located by subsequent fieldwork. The 1:50,000 map made by the Germans from information acquired by this aerial reconnaissance is Sheet 108 in the series 'Befestigungskarte Großbritannien'. This, however, only appears to survive at the German military archives in Freiburg, and it has not been possible to consult it.



*Fig. 3 - Portion of a German reconnaissance photograph taken on 31 August 1940. A high percentage of the defence works indicated by the symbols [triangles are kleinkampfanlage (fieldworks: primarily pillboxes)] survive. The village of Ford End is towards the bottom left and Hartford End, the upper left.*

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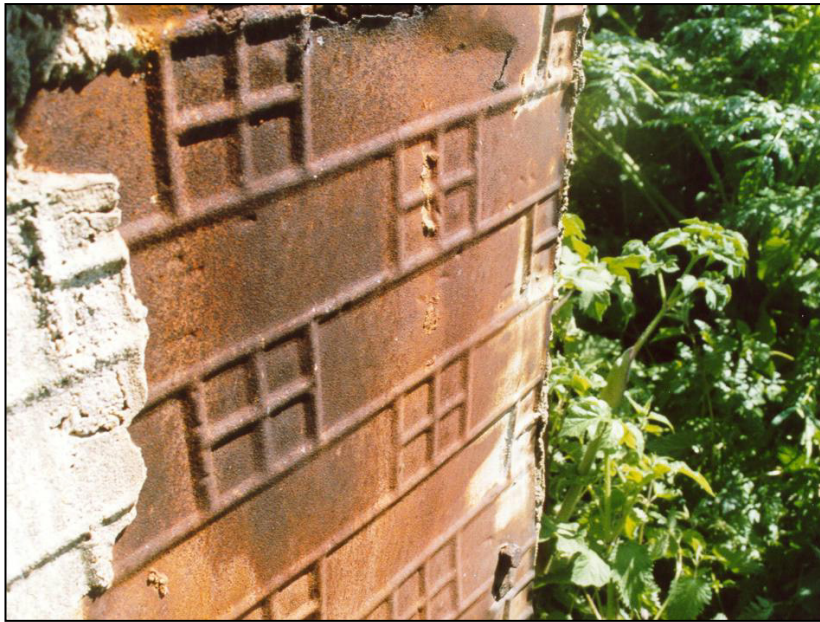
<sup>4</sup> TNA: PRO WO 166/14392.





### *The defence works -*

The surviving defence works provide excellent examples of the different types of light and heavier infantry pillboxes, some with anti-aircraft gun mounts, as well as the variant form of rectangular, shell-proof pillbox with detached blast wall that is particular to Eastern Command. In addition, an anti-tank gun emplacement defends the bridge at Hartford End, where spigot mortar pedestals can also be seen. All these defence works are concrete-faced, i.e. they were built with exterior wood-shuttering, although for the interior, corrugated-iron shuttering, as well as other forms of metal sheeting, were often used, much of which is still in situ.



*Fig. 4 - UORN 12995: an unusual pattern of iron sheeting used as shuttering for the interior of a type 24 pillbox*

Infantry pillboxes were located in forward positions on the south bank of the River Chelmer (this becomes the west bank with the turn of the river to the south). In the main, these were the heavier pillboxes - thick-walled, hexagonal type 24s and the square Eastern Command-type. Further back were lighter pillboxes, principally the hexagonal type 22, to provide a sweeping, inter-locking fire down the slope to the river. The effect of this carefully arranged fortification was to create a prepared killing ground that can still be visualised today.



*Fig. 5 - UORN 7571: Eastern Command type of heavy infantry pillbox with detached external blast wall.*





*Fig. 6 - UORN 12995: an excellent example of a shell-proof type 24 pillbox with chamfered roof edges dug into the bank of the River Chelmer west of Hartford End.*



*Fig. 7 - UORN 12997: a type 22 pillbox with a field of fire covering the slopes to the rear of the heavier front-line pillbox, UORN 7583, near Hartford End mill.*

The anti-tank gun emplacement [UORN 7186] at Hartford End is of the rare two chambered type 28A, and it can be viewed both externally and internally as it lies next to a public right of way. Its role in the defence of the bridge at Hartford End, together with spigot mortars and other pillboxes, can be seen clearly on the ground.







*Fig. 8 - UORN 7186: interior of the anti-tank gun emplacement commanding Hartford End bridge, with some of its corrugated-iron shuttering still in place.*

A further anti-tank gun emplacement stood near Warner's Farm in the south of the defence area, but was destroyed in road widening works in the 1970s.



*Fig. 9 - UORNs 7587 (top) and 7584: variants on an hexagonal pillbox with a central well for anti-aircraft fire. These pillboxes are now so overgrown that this feature is not easily seen on the ground.*



## 2.2 Landscape:

The evidence of aerial photographs shows that the arable fields to the west and south of Hartford End have been 'opened-up' considerably by the removal of hedgerows, causing some pillboxes to be isolated in the centre of fields where once they were positioned close to field boundaries. Nonetheless, the overall pattern of field and woodland remains largely unaltered, and there has been little development to impede on the Second World War landscape, although some widening and straightening of the A130 road that runs across the southern base of the area has taken place.

The defence area is crossed by a network of public footpaths that allow most of the defence works to be readily accessed. South-east of Hartford End, a footpath runs beside six pillboxes, in two instances passing between the blast wall and the main structure. The landscape towards the southern extent of the defence area is almost park-like, and there is little fencing to prevent the walker approaching the pillboxes that lie off the public footpaths. This is an excellent, accessible tract of countryside where the many defence works can be seen in relation to the topography that determined their siting.



*Fig. 10 - Aerial photograph taken in 1948 showing the southern extent of the defence area with many pillboxes visible to the left of the central sinuous course of the River Chelmer. The countryside was then more enclosed than today, and some pillboxes lie against hedgerows that have now disappeared.*







*Fig. 11 -. Today, the defence works seem to merge naturally with the colours of the landscape, and have become accepted as part of it rather than standing out as eye-sores [UORN 7575].*

### 2.3 Statement of Significance:

The defence area provides an excellent illustration of the heavily fortified nature of the GHQ Line as it crossed Essex on its course to the north. The hardened defence works survive almost in their entirety, and their siting in relation to the principal front-edge anti-tank obstacle of the River Chelmer can be understood. The locations of the defence works, where they form inter-locking fields of fire, can be readily appreciated. Differing types of structures and their methods of construction can be seen, from a large anti-tank gun emplacement to heavy infantry pillboxes near the river and their lighter counterparts set further away. In addition, the positioning of the defences of the 'defended place' of Hartford End, commanded by heavy emplacements and with spigot mortar pedestals surviving on the river banks, is of particular interest.

A 'pillbox walk' could be established using the existing public footpath system that crosses a large part of the defence area. In fact, two such walks could be described, one west of Hartford End and the other to its south, with Hartford End itself acting as a central point for the beginning and end of each walk. Car parking is possible in a lay-by south of Hartford End close to pillbox, UORN 7581.





### 3. **Recommendations:**

*Local Plan - presumption that the character and grain of the defence area will be retained by preserving existing field patterns, woodland, housing density. Consideration as a rural Conservation Area?*

1. That, within the more general constraint given above, the surviving anti-invasion defence works lying both to the west and south of Hartford End, be considered of national importance. They enable this sector of the GHQ Line to be interpreted, and provide evidence of the articulation of the defence and the inter-relationship of its functionally different components. Such interpretation is assisted by the documentary evidence provided in this report of defence structures that were built as part of the overall strategy, but which have now been removed.
2. That the anti-invasion defences of the 'defended place' of Hartford End also be considered of national importance. They enable the importance of this river crossing to be understood and the siting of the different components of its defence to be understood.
3. That, in a possible initiative with Essex County Council and the local authority, a 'pillbox walk' be established and that information boards about the anti-invasion defences of the GHQ Line, and of Hartford End in particular, be provided.

### 4. **Supporting material.**

#### 4.1 **Photographs:**

Fig. 3 - 'Taktisches Luftbildbuch', p61 (31.8.1940) - IWM, uncatalogued.  
Fig. 9 - TL 6717/2 (826/59) (7.7.1975) - NMR.  
Fig. 10 - CPE/UK/2467 fr.5257 (9.3.1948) - NMR.  
Figs. 4-8 and 11 - taken (AWF) during field survey, 14.5.2002 and 16.5.2002.

#### 4.2 **Documentary Sources:**

'Taktisches Luftbildbuch', 23.10.40 (IWM, uncatalogued).  
'Operation Instruction No.15', 24.7.1942 (from Essex Sub-Area War Diary) - TNA: PRO WO 166/6738.  
XI Corps 'G' HQ War Diary, 1940-1941 - TNA: PRO WO 166/329.  
'Essex and Suffolk Area Defence Scheme' (with map), 1942 (from Essex and Suffolk Area War Diary) - TNA: PRO WO 166/6700.  
'Operation Instruction No.12', 5.4.1944 (from Essex and Suffolk District War Diary) - TNA: PRO WO 166/14392.

#### 4.3 **Aerial Photographs:**

106G/UK/1367 frs. 5184, 7165, 7184, 7186 (3.4.1946) - NMR.  
CPE/UK/2361 fr.5298 (15.10.47) - NMR.  
CPE/UK/2467 fr.5257 (9.3.48) - NMR.  
TL 6717/2 (826/59) (7.7.75) - NMR.



- 4.4    **Ordnance Survey 1: 2500 Plans:**  
      TL 6816 (1976) - BLML  
      TL 6915 (1976) - BLML.
- 4.5    **Essex Sites and Monuments Record:**  
      Essex SMR records checked and SMR references added to 4.6 below.
- 4.6    **Defence of Britain Project Database:**  
      [see 5. 'Annex'].

