



SECOND WORLD WAR AIRFIELDS AT TAIN AND FEARN, EASTER ROSS

A Report to Highland Council by the ASH Consulting Group



**SECOND WORLD WAR AIRFIELDS
AT TAIN AND FEARN, EASTER ROSS**

A Report to

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INTRODUCTION

1 INTRODUCTION

1.1. The ASH Consulting Group (ASH) was commissioned by Highland Council Archaeological Services (HCAS) in January 1999 to undertake a study of the Fearn and Tain Second World War Airfields in Easter Ross

1.2. The objectives of the study, as set out in the Specification for Technical Survey Assessment and Report, are as follows:

- ◆ To research the airfields and their associated structures, and identify any key features of historical, archaeological or architectural interest;
- ◆ To make a rapid assessment of the current condition of all Second World War Structures and Buildings in the survey area;
- ◆ To propose a strategy for the future development of the survey area, indicating any areas or buildings which should be retained and consolidated and any which should be demolished and removed and proposals for possible development of educational and cultural tourism uses of the Easter Ross Airfields;
- ◆ To identify and hazards, including hazardous building materials and dumped waste, which need to be considered and dealt with; and
- ◆ To record, to professional standards, any features and objects of archaeological importance that will be damaged or destroyed by this development.

1.3. To meet these objectives, ASH assembled a team of specialist subconsultants as follows:

Alan Cruden Associates (ACS)

ACS has undertaken the identification of potential hazardous material and contamination and has carried out an assessment of the current condition of the buildings and structures.

Wordswoth Archaeological Services (WAS)

WAS has undertaken the archaeological recording of the buildings and structures.

Dalcairn Consultants (DC)

DC has undertaken work associated with formulating an interpretation strategy.

1.4. In the course of this study, the following organisations and individuals have been consulted and have provided useful information which has assisted in the preparation of this report:

- ◆ Commander Hobbs, The Fleet Air Arm Museum;
- ◆ Gerry Shaw, the Fleet air Arm Museum;
- ◆ Will Aitken, Seaboard community Development Group;
- ◆ Scottish Natural Heritage;
- ◆ The Royal Commission on Ancient and Historic Monuments Scotland
- ◆ Defence of Britain Project
- ◆ Mr J Paterson
- ◆ Mr J Stone
- ◆ Airfields Research Group
- ◆ Mr PB Symonds
- ◆ Mr Budge (landowner)
- ◆ Mrs Sutherland (landowner)
- ◆ Mr Scott (landowner)

1.5 This report is divided into five sections:

- Part 1: Background information
- Part 2: Site Descriptions
- Part 3: Site survey – Fearn Airfield
- Part 4: Site Survey – Tain Airfield
- Part 5: Recommendations

1.6 With the exception of the Engineer's survey photographs, all of the survey photographs have been provided in hard copy original photographs annexed to this report. These photographs have been catalogued in accordance with the numbering system in the report and are cross referenced to location plans.

PART 1: BACKGROUND INFORMATION

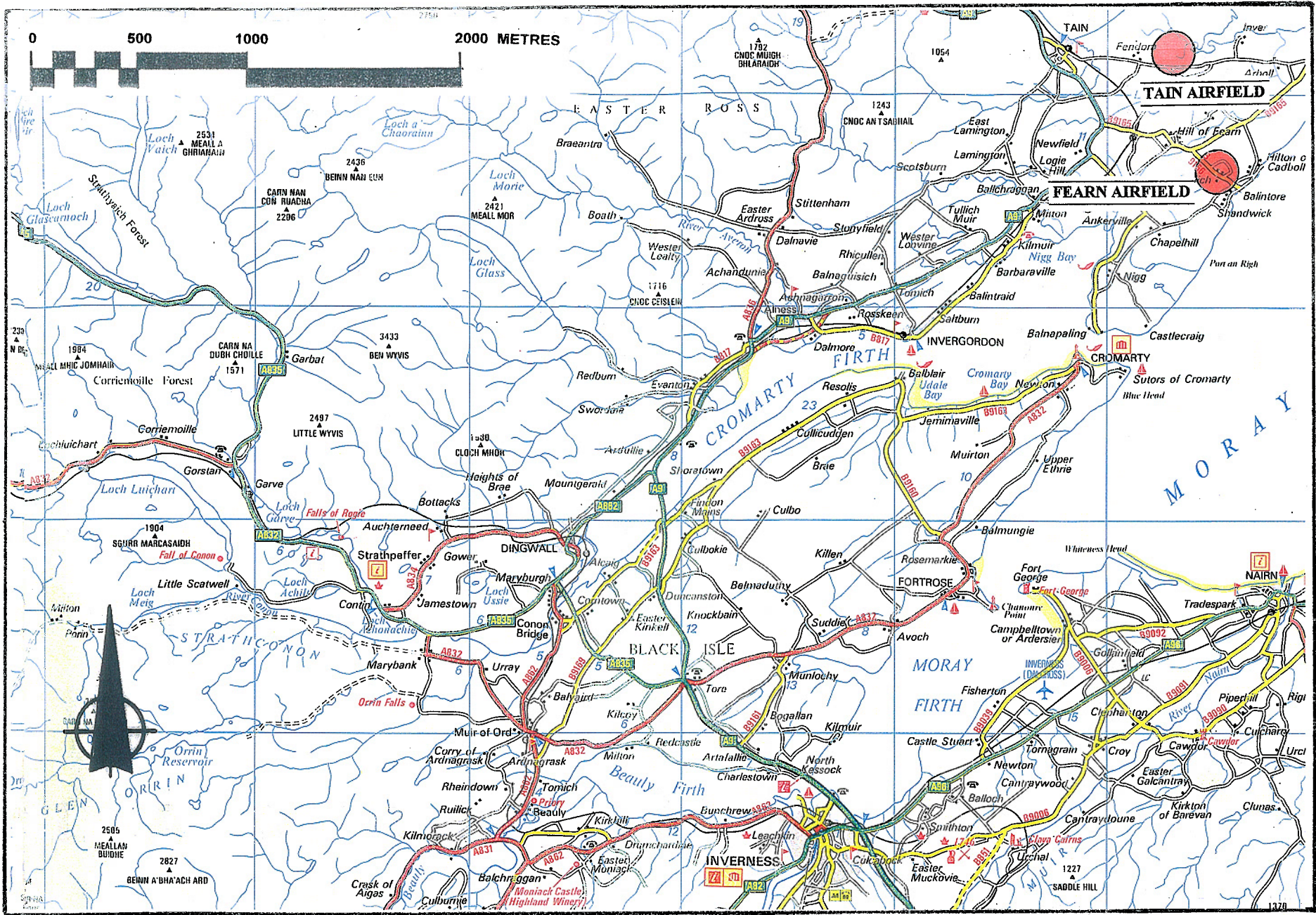
PART 1: BACKGROUND INFORMATION

2 LOCATION

- 2.1 The airfields are located on the Fearn Peninsula which lies between the Dornoch and Moray Firths (see figure no. 1).
- 2.2 Fearn Airfield lies to the west of the Seaboard Villages of Shandwick, Balintore and Hilton of Cadboll (see figure no. 2) and occupies an area which is largely in agricultural use. The airfield can be reached from the A9 trunk road, which is approximately 5km distant, via the B9165 and a minor road between Fearn and Balintore.
- 2.3 Tain airfield lies to the east of, and some 2km distant from, the town of Tain (see figure no. 3). It occupies an area which is mainly in agricultural use. Access to the airfield is gained from the A9 trunk road, which is approximately 3km distant, via Tain and the minor road between Tain and Portmahomack.

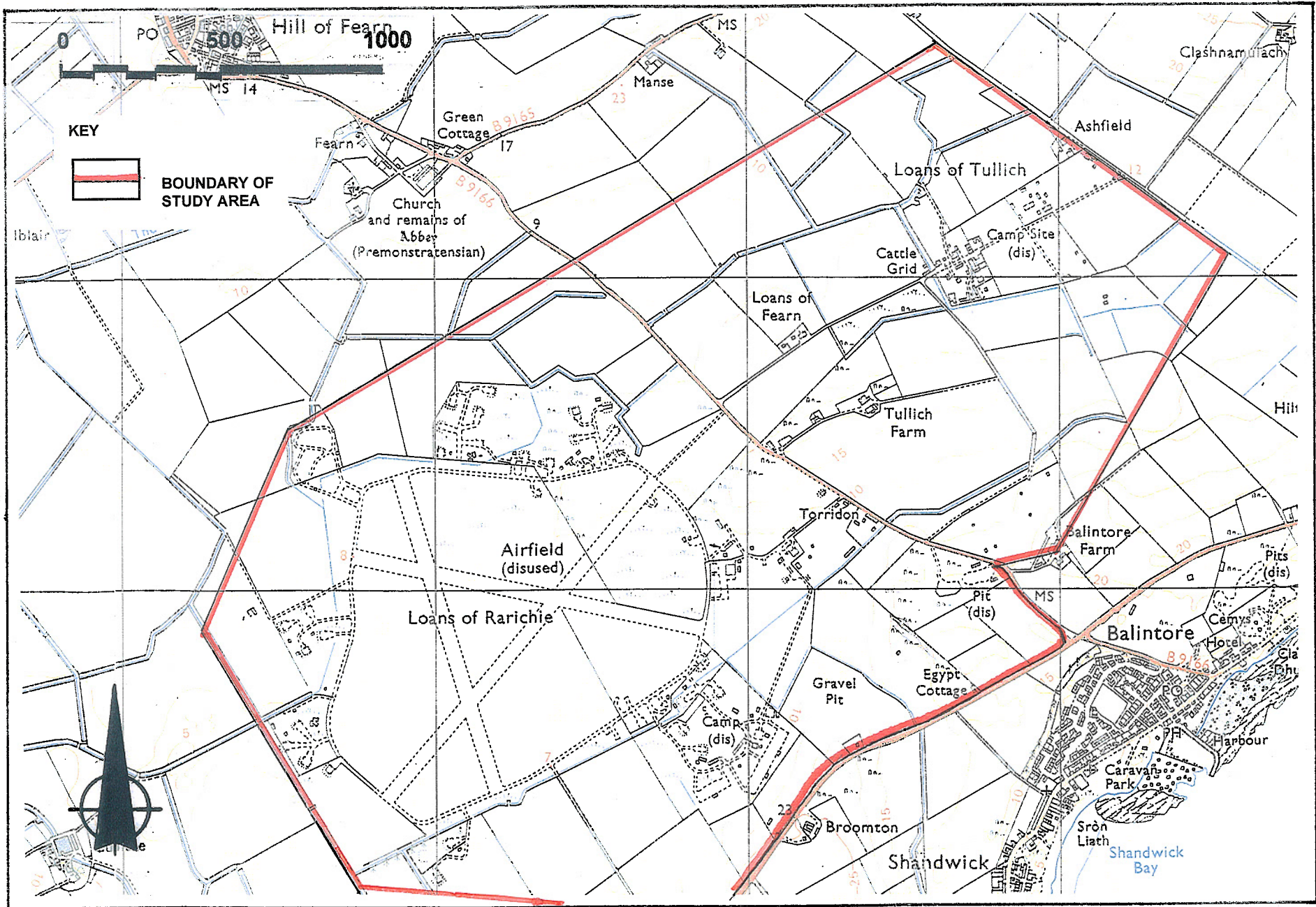
3 LANDUSE

- 3.1 A detailed survey of landuse in the area has not been undertaken as part of this study but the main land uses on both of the airfields is agricultural. Part of the original airfield area at Tain has been transferred to industrial use with the remainder of the Technical Area being under grazing. Areas which accommodated remote camps and domestic facilities are either grazed or in arable production. At Fearn, the areas between the runways are in arable production with the exception of a site in the south west of the area which is in industrial use. Light industrial businesses occupy parts of the site adjacent to the main entrance and the remaining areas are grazed. At the remote Fearn Campsite, or Wrennery, land use is restricted to grazing. SNH's report 'Hedges and Hedgerows of Easter Ross' confirms that as early as 1791 land in this area was under cultivation. New farming techniques and tools and the war with France introduced a period of rapid and sustained expansion with vast amounts of new and sometimes marginal land brought into cultivation. Crops of oats barley, peas, rye, potatoes and wheat are mentioned in the Statistical Accounts of Scotland 1791-1845. By the end of the 19 century land drainage and field consolidation resulted in the pattern of field enclosures which predated the airfield development and, at that time, extensive planting of trees and hedges took place.
- 3.2 When the land was requisitioned for military use, agricultural production ceased and resumed on those areas returned to the original landowners after the war. It is understood that the landowners were offered the option of the sites being cleared or a lump sum compensatory payment. Without the benefit of factual information relating to the choices made by the various land owners, it can be surmised that the owners of those areas which now show no obvious evidence of the remains of buildings and structures opted for demolition and clearance. The majority of these areas are campsites or parts of camp sites and it can be further assumed that these areas housed buildings of a very temporary

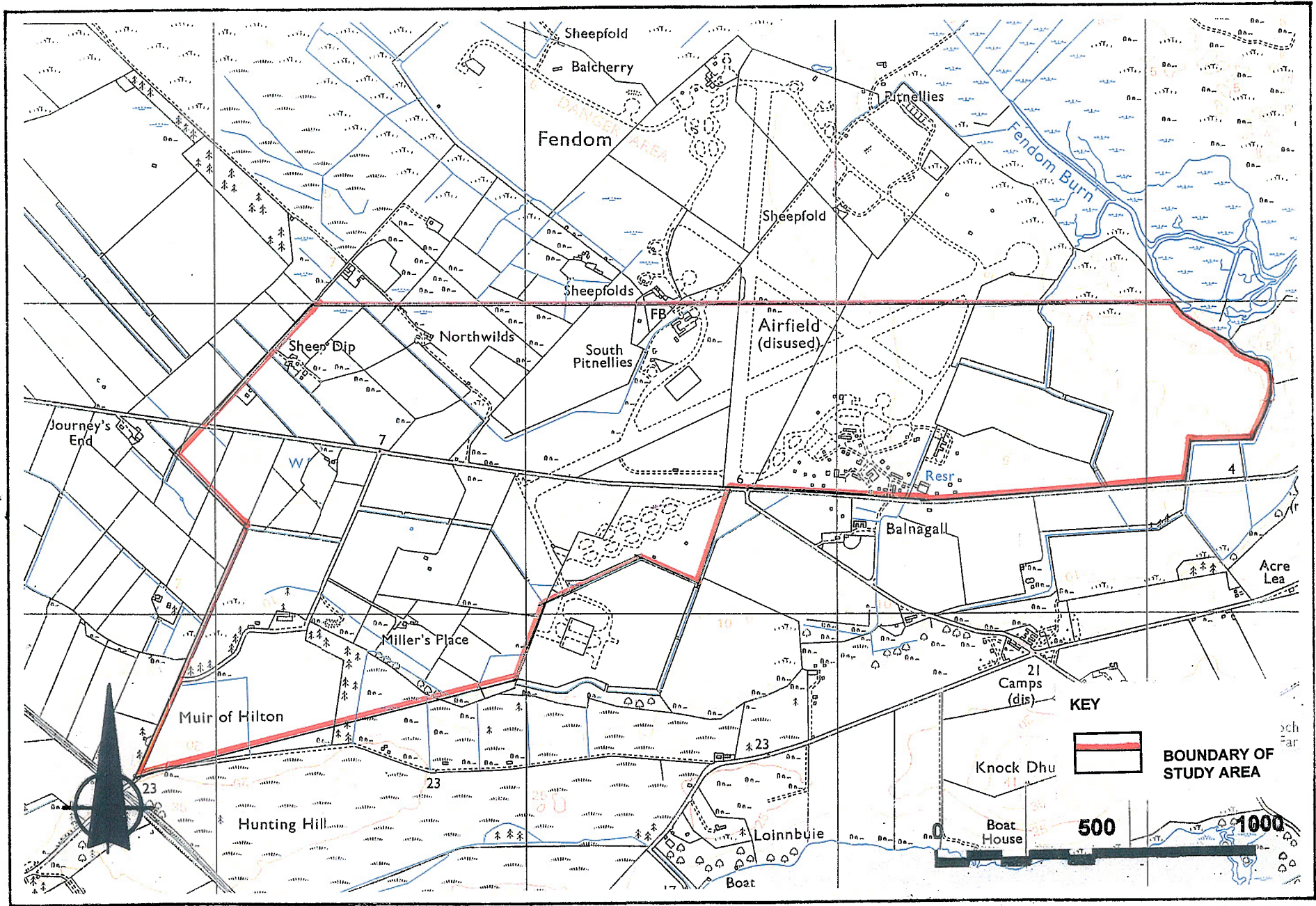


SITE CONTEXT

FIGURE 1



SITE LOCATION - FEARN AIRFIELD **FIGURE 2**



SITE LOCATION - TAIN AIRFIELD

FIGURE 3

nature which made demolition and clearance a relatively straight forward operation

4 VEGETATION

- 4.1 The ‘Hedges and Hedgerows of Easter Ross’ report notes that in the late 18th century trees grown in the area at the time included scots pine, elm, beech, oak, hornbeam, sycamore, hawthorn, alder, poplar and willow.
- 4.2 A comparison of four maps within the report dated 1894, 1904, 1958 and 1991 indicate a moderate increase in woodlands between 1894 and 1904 but a substantial general decrease between 1904 and 1958. This might have been due to World War II with its need for timber or due to a consolidation of farms and certainly on the two airfields sites would have been a result of felling required to construct the runways and associated buildings and structures. A small increase in woodland cover is seen between 1958 and 1991 with additional planting of small patches and narrow strips of woodland either as plantations or shelter belts. Such new planting includes deciduous woodland near the western and northern perimeters of the airfield.
- 4.3 No detailed survey of vegetation cover has been undertaken as part of this study but principal areas of woodland cover are limited to small areas of predominantly coniferous woodland and isolated groups of deciduous trees remote from the areas of runways, aircraft dispersal and technical areas.

5 LANDSCAPE CHARACTER

- 5.1 SNH’s ‘Inner Moray Firth Landscape Character Assessment’, which is intended to *‘help people and organisations whose decisions are likely to have an effect on the landscape of the Moray Firth to assess probable impacts of change’*, describes the character of the area in which the two airfields are located as straddling ‘Open Farmed Slopes’ and ‘Intensive Farming’.

Open Farmed Slopes

- 5.2 The Key Characteristics of this area are described as being:
- ◆ gently undulating lowlands with strong overriding fall of slope and convex profile;
 - ◆ strong geometric pattern of small to medium fields superimposed on the slope. Field boundaries are made more prominent where there are stone dykes, gorse or turf;
 - ◆ delineation of farm holdings by shelterbelts creates a second, stronger pattern overlying the pattern of field boundaries;
 - ◆ smooth textured fields and dispersed point settlements give a diverse but well ordered landscape with a strong repeating geometry, where prominent field enclosures emphasise the underlying topography;
 - ◆ main roads tend to follow the break of slope giving extensive panoramic views over this landscape towards distant mountains and coastline;

- ◆ open landscape, emphasised by the views from the slopes. The strong intervisibility between urban and rural areas in this type increases the awareness of this farmed landscape;
- ◆ rhythm of repeating shelterbelts emphasises the fall of the slope and draws the eye down into the valley;
- ◆ features such as buildings on the crest of the hill are emphasised, due to their position on the skyline and the smooth profile of fields;
- ◆ typical settlements are farm holdings; tightly grouped mixtures of old and newer architectural forms which create point features in the landscape;
- ◆ farm holdings are often found mid way down the convex slope ;
- ◆ single small houses, often abandoned, or in ruins sit conspicuously within the smooth textured fields;
- ◆ larger urban settlements often contrast with blocks of uniform houses separated by trees/woodland, seen from a distance as a random mix of hard and soft forms; and
- ◆ strong landscape structure is lost as shelterbelts following the field layout become dispersed at the urban periphery which leads to visual confusion.

5.3 The forces for change and associated guidance identified in the report are:

- ◆ **Rural housing:** follow the existing settlement pattern and build on the character of the landscape as a prosperous farming landscape;
- ◆ **Urban expansion:** size and scale should make reference to the shape and size of the fields and the rhythm of shelterbelts, transition between the built and countryside forms could be achieved by extending the lines of trees or scrub into the housing;
- ◆ **Industrial expansion:** scale of industrial buildings could act as a transition of size and density between the urban areas and the point features of farm holdings, if the layout were geometric and corresponding with the abutting farmland with new access roads following tree boundaries, this would preclude the need for industrial estates to sprawl along the roads;
- ◆ **Tourism:** visitor centres should have good access to the coast and views without impinging on the ecological or visual qualities, ideally linking to an existing building;
- ◆ **Road infrastructure:** maintain a road layout which respects the underlying field pattern; and
- ◆ **Loss of Historic Landscapes and Buildings:** repair and replace dominant features of the farming landscape, further tree planting will help to retain the shelterbelts, repair of derelict crofts housing would retain the historic links and reduce the need for new housing in the rural landscape.

5.4 In addition, agricultural change is identified as a force for change but only pig farming issues are addressed; the recent demise of pig farming renders the guidance provided for such development, at least temporarily, redundant.

Intensive Farming

5.5 The key characteristics of this landscape type are described in the report as follows:

- ◆ Little variation in landform this is a flat to gently undulating landscape with fluvio glacial features;
- ◆ Simple, wide horizontal compositions of large, smooth arable fields interspersed with coniferous forestry plantations;
- ◆ Height of vertical elements is absorbed by the large scale of the horizontal landscape but, as points of interest in low diversity farmland, they draw the eye;
- ◆ Lack of prominent structural elements gives an overriding expansive scale;
- ◆ Low angle views of a pattern of interlocking bands of fields and forestry;
- ◆ Easily accessible with a network of roads;
- ◆ Little visual diversity;
- ◆ Lack of prominent vertical features;
- ◆ Farm holdings accessed by straight roads perpendicular to main roads;
- ◆ Large farm holdings, clusters of buildings, silage towers;
- ◆ Small pockets of farm settlements associated with mature trees;
- ◆ Occasional 18th century farm steadings; and
- ◆ Larger urban settlements tend to have uniform built edge.

5.6 The forces for change and associated guidance described in the report are as follows:

- ◆ **Rural housing:** group together and reflect indigenous farm steadings with bold tree structure. Integrate with existing small settlements or woodlands;
- ◆ **Urban expansion:** exploit positive aspects of location, utilise woodlands as settings;
- ◆ **Industrial expansion:** utilise existing and new woodland to link development with open farmland and reflect the scale and size of existing industrial units. Colours of materials should complement farmland colours;
- ◆ **Recreation:** creation of woodlands on the periphery of settlements;
- ◆ **Roads infrastructure:** avoid emphasising roads by planting in areas where trees are not already a feature in the landscape;
- ◆ **Loss of historic landscapes:** assess visual and historical importance of policy woods to justify a programme of maintenance, management and replanting;
- ◆ **Forestry:** link into existing forest structure and take account of views from key routes and residential areas;
- ◆ **Renewable energy:** placing of single turbines should complement the existing human elements.

5.7 The Landscape Character Assessment is at a sub-regional scale and, consequently, does not address issues specific to either of the two airfields. It is, however, surprising that the issue of dereliction is not addressed for either of the two character areas described above as the effect of the condition of the

buildings and structures on the two airfields affects the character of much of the Fearn Peninsula.

6 NATURE CONSERVATION

- 6.1 Consultation with SNH has confirmed that there are no known areas of nature conservation interest in either of the study areas. Tain Airfield, however, lies close to the Dornoch Firth National Scenic Areas (NSA) (see Appendix 4) and adjacent to the Morrich More Site of Special Scientific Interest (SSSI) (see Appendix 3).

Dornoch Firth NSA

- 6.2 An area of 7,500 hectares which includes Morrich More SSSI, lies immediately adjacent to the site of Tain Airfield. The NSA citation describes the Dornoch Firth as a narrow and sinuous exhibiting a surprising variety of landscapes within its compass. The lower wooded slopes situated beneath the granitic hills of heather moors and scree are often of oak but with plantations of other deciduous and coniferous species. Lower alluvial land supports areas of arable and pasture with whin and broom common in hedgerows both here and on the sandy links of the outer firth.
- 6.3 The Firth, with innumerable bays, sand flats, shallows and promontories, presents a constantly changing scene not only due to its tidal nature but due to the passage of migratory birds around its shores.

Morrich More SSSI

- 6.4 This SSSI citation describes this as being one of the outstanding coastal sites in Britain. Morrich More is noted for the variety and scale of its coastal land forms, including machair, free-moving yellow parabolic dunes, stabilised grey dunes and developing foredune succession, salt marshes and sand flats. The salt marsh and brackish pool system is the best example of this habitat in the Moray Firth and it supports a great and diverse range of maritime, brackish and nutrient demanding plants.
- 6.5 The range of coastal habitats support a wide range of plants and animals among which several flowering plants are national rarities. No other British dune system supports the abundance of juniper here and the area is also noted for its mosses and lichens.
- 6.6 There is a breeding bird community here of national importance together with a site of major importance for migratory birds. It is also the site of a rich invertebrate community including nationally rare species.
- 6.7 Morrich More is outstanding for the complete morphological and stratigraphic record it contains of the shoreline changes of the last seven thousand years.

7 THE LOCAL PLAN

- 7.1 Both Tain and Fearn Airfields are covered by the Easter Ross Local Plan. Only Fearn is marked as an airfield on the two maps accompanying the written statement. Both these maps, Proposals Map and Analysis Map, are dated November 1989.
- 7.2 The site of the Tain airfield, which lies adjacent to a National Scenic Area and to the key defence site at Morrich More, is within the Dornoch Air Traffic Zone (ATZ). The Tain airfield map shows the area is without conservation interest and has no significant rural land use. It is free of services and any major industry although part of the airfield outwith the study area boundary are now in industrial use.
- 7.3 Part of the Fearn airfield also falls within the ATZ of Dornoch. The Fearn Airfield has no major services, industrial designation or significant rural land use shown on either of the maps accompanying the written statement.
- 7.4 Both Tain and Fern airfields are described as providing basic facilities for numerous small businesses. Forty hectares of land at Fearn Airfield have been identified for light and general industrial uses although, as yet (1989), largely undeveloped. Some basic services are available and a phased development is envisaged incorporating derelict wartime emplacements (See figure 4).
- 7.5 Within the written statement the airfields and their Wartime emplacements are mentioned in connection with a number of proposals:

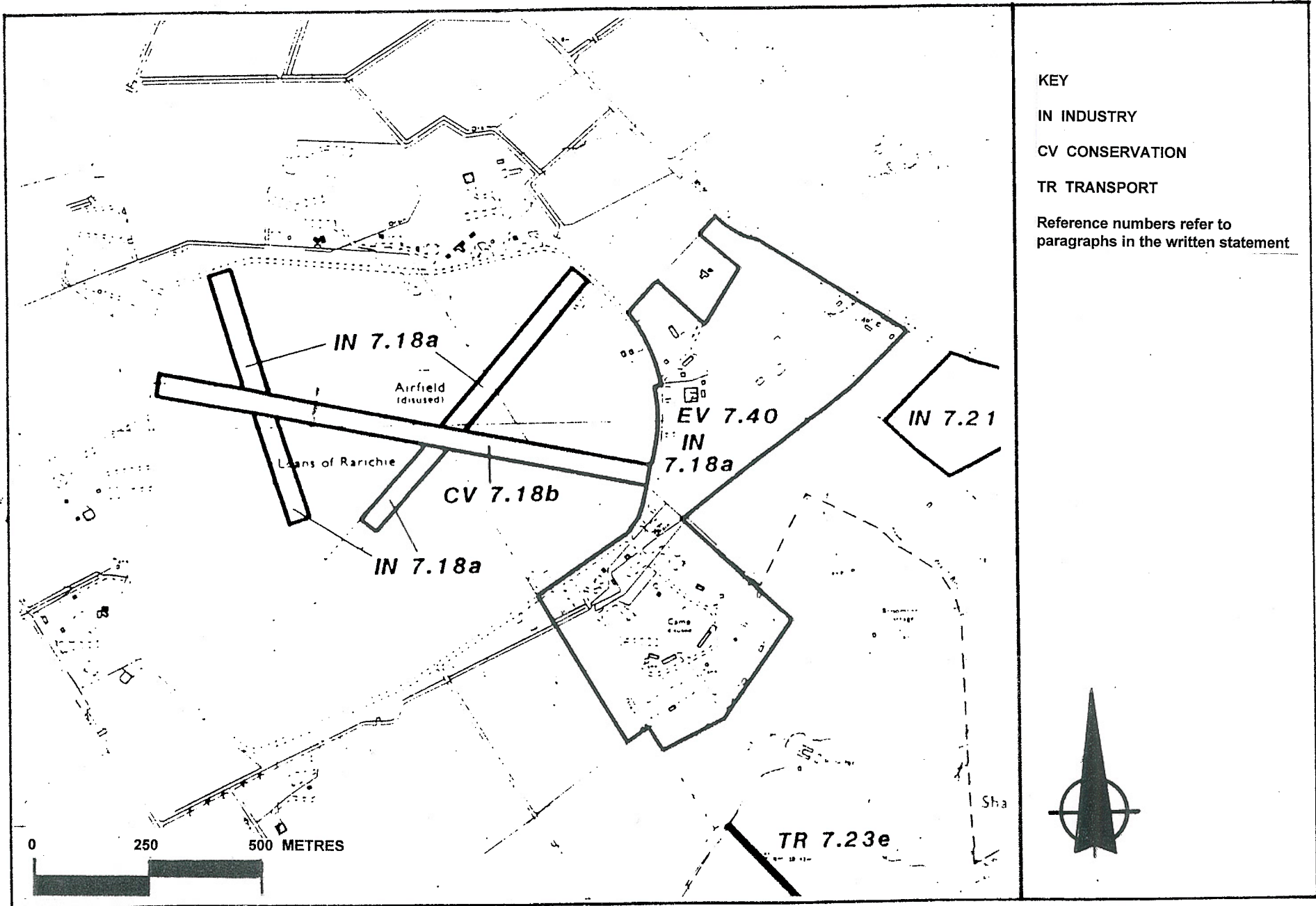
◆ **Tourist Trails**

To be based on local attractions designed to help generate tourism within the area. Among the themed trails suggested was the *Military Trail* covering Evanton, Alness, Tain, Fearn Airfields and associated air defences. This trail would be an expansion of the existing *Council Naval Trail* (see pamphlet contained in Appendix 1)

◆ **Derelict Land**

Under the section Amenity and Environment the legacy of Wartime installations is again mentioned in connection with an historic military trail. The council suggest priority should be given to the rehabilitation of derelict land which threatens public safety or is detrimental to the amenity of adjoining areas.

Under Section 7.40 Wartime dereliction and the demise of former RAF and defence buildings are mentioned and the tourist trail is put forward again. The detrimental effect of the derelict buildings on the landscape is acknowledged (particularly those outside the confines of the airfields). Pitcalnie is singled out for priority treatment perhaps as an OPMAL (Operations of Military Assistance to the Community)



KEY

IN INDUSTRY

CV CONSERVATION

TR TRANSPORT

Reference numbers refer to paragraphs in the written statement

EASTER ROSS LOCAL PLAN - PROPOSALS MAP

FIGURE 4

8 OTHER RELATED STUDIES

- 8.1 The study area has been subject of two main studies in recent years. These are The War Time Dereliction in Easter Ross Report and the Sea 2000 Report and the findings of these reports are presented below.

War Time Dereliction In Easter Ross

- 8.2 Ross and Cromarty Enterprise (RACE) prepared a report which examined eleven sites of war time dereliction in Easter Ross. The main findings of this report are as follows:

- ◆ All the sites contain buildings of a similar style, generally constructed of brick, concrete or corrugated iron with roofs of either iron or asbestos;
- ◆ The buildings are generally in very poor condition and, in some cases, have almost disintegrated;
- ◆ Some of the buildings are an eyesore and are highly visible to passing traffic;
- ◆ Present uses are mainly as storage spaces and livestock shelters;
- ◆ Most owners would like at least some of the buildings removed if the money becomes available;
- ◆ As all of the sites contain buildings with asbestos roofs, any dismantling operation would have to be carried out by a licensed operator because of the hazardous nature of the material. This could be a potentially costly exercise. It also seems likely that some of the structures will have been built to withstand bomb damage. Hence removal of concrete bases, for example, is likely to be expensive; and
- ◆ There has been some interest from Ross and Cromarty District Council in including the South Souter buildings as part of a 'Naval Trail'.

- 8.3 The Ross and Cromarty report includes a site by site guide which is included in Appendix 2 of this report and presents the following recommendations which were considered under RACE's various budgetary headings as follows:

- ◆ Environmental Renewal: the criteria for funding of environmental renewal projects includes the requirement, among others, to bring derelict land or buildings into economic use. By and large the economic after use is for agricultural purposes and the costs incurred are likely to far exceed the economic returns. Accordingly, funding of clearance of buildings from this source is unlikely;
- ◆ Projects: although it could be argued that the continuing decay of wartime buildings has a detrimental effect on tourism in the area, it is considered that any correlation between the two is at best limited. Given that the current projects budget for tourism is limited to £75000, removal of dereliction cannot be considered to be a priority under this programme;
- ◆ Finance for Business: as little, or no, development would arise from removal of derelict buildings, there is no justification for support under this heading;

- 8.4 The report observed that although none of the RACE budgets appear to be able to support a demolition programme, other sources of funding, such as Objective 1, may be worth pursuing. If a funding source can be identified then, with the owners consent, a priority list should be drawn up to identify those buildings creating the greatest environmental hazard/visual offence. The work required to demolish the buildings in question and to reinstate the sites should be costed.
- 8.5 In the event that a priority list is drawn up it should be recognised that some owners will wish to retain certain buildings which continue to serve a use. Accordingly, the visual impact of a demolition programme is likely to be limited as some decaying wartime buildings will continue to scar the landscape.

SEA 2000

- 8.6 This report, prepared for the Seaboard Development Group in June 1995 has relevance to the Fearn Airfield. The study, centred around the coastal communities of Hilton, Balintore, and Shandwick, which lie to the east of Fearn Airfield. The report presented an action plan and provided a framework, based on the natural, cultural and built environment, for the effective involvement of local voluntary bodies, private sector businesses, interested individuals and external agencies.
- 8.7 The aim of the report was to improve the economic opportunities of the Seaboard Villages by developing their environmental resources. These communities, whose economic prosperity relied originally on farming and fishing had, since the collapse of the fishing industry in the 1960s, relied on employment from the growth of the oil industry. During the last fifteen years, with the decline of oil platform fabrication in the area, employment opportunities had significantly reduced. The result being an ageing population of 1533 (1991 Census) with young people moving away being replaced by retirees moving into the area. In 1995:
- ◆ Unemployment among the economically active was 15.8%
 - ◆ Non-earners, 39% of the population of working age, were economically inactive.
 - ◆ Over 30% of households had no car.
 - ◆ Over 40% of households with dependent children had no adult earners.
- 8.8 This resulted in a seaboard community being ranked the second most deprived in Ross-shire.
- 8.9 The report documented the extensive community consultation and workshops which identified 72 potential projects within the area. These ideas were then consolidated to 38 projects and finally refined and regrouped into 15 action areas.

- 8.10 The project proposals were prioritised and an analysis of the proposed developments was undertaken. During the consultation exercise a number of points were raised by the community:
- ◆ A high value was placed on the natural environmental assets.
 - ◆ the development of these assets could lead to economic diversification and the creation of employment through tourism.
 - ◆ The community identify tourism as the major benefit from the proposals.
 - ◆ A strong relationship between tourism, culture and environmental benefits was identified.
- 8.11 The report noted the Highlands and Islands attracts over two million visitors annually. Tourism is the single most important industry employing approximately 20% of the workforce and contributing 20% of the regions GDP. It remains a sector with significant development potential and provides an opportunity for the creation of employment. The report raised the possibility of promoting the area for day trips from Inverness and as an area for specialist activity holidays. The suggestions for holidays were both water based, e.g. windsurfing, fishing etc. and countryside based, e.g. walking ornithology, cycling etc.
- 8.12 The Fearn Airfield fell into Action Area 7 of the report and the following findings and recommendations are made in respect of this area:
- ◆ restoration and associated tree planting at Fearn airfield, shore clean up and the creation of wildlife ponds;
 - ◆ Proposals for Fearn were classified as low priority;
 - ◆ ‘Anta’, based on part of the former Airfield, was mentioned as the only significant inward investor of recent years.

PART 2: SITE DESCRIPTIONS

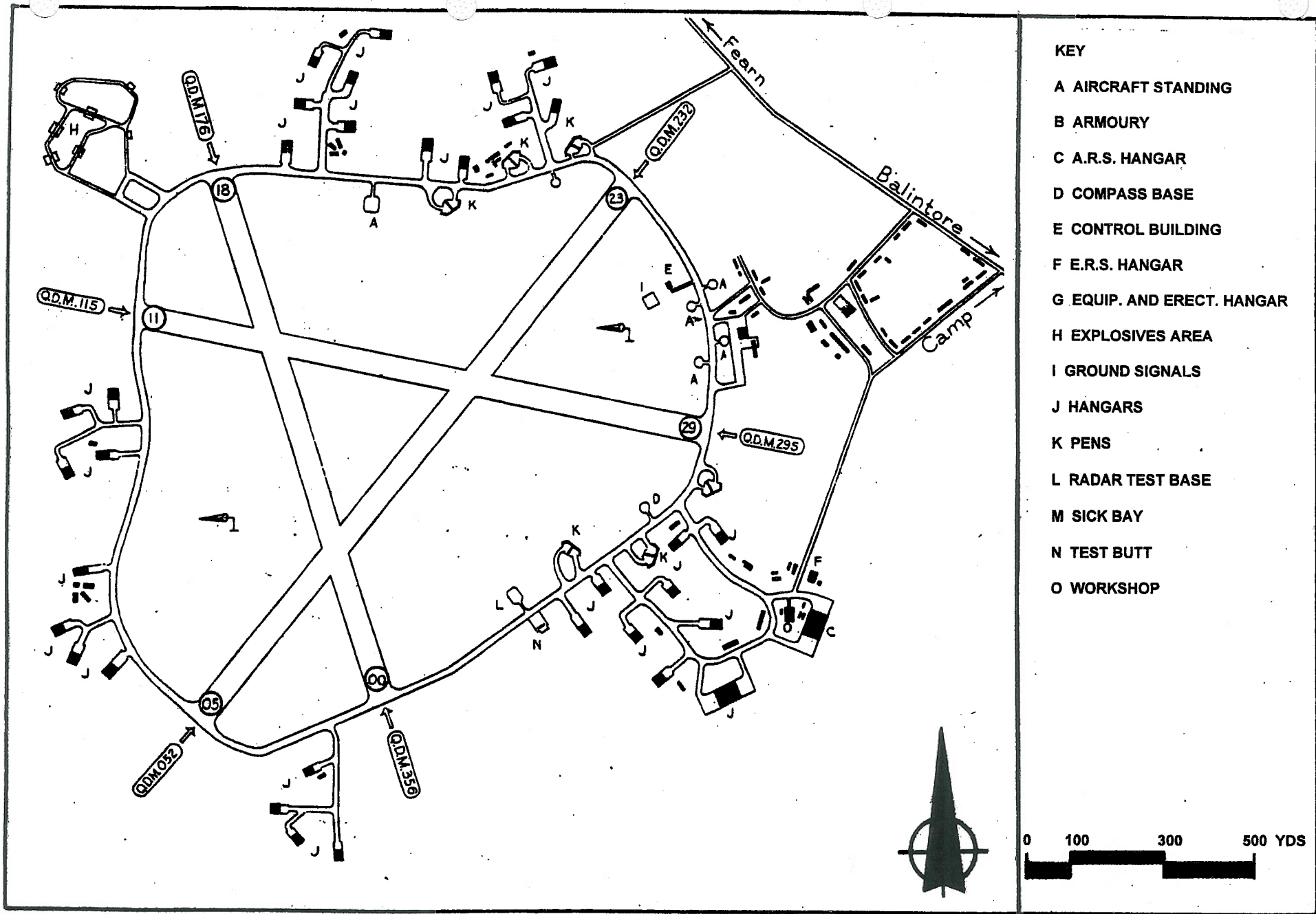
PART 2: SITE DESCRIPTIONS

9 AIRFIELD DEVELOPMENT AND SITE OVERVIEWS

Fearn

- 9.1 Fearn Airfield, originally known as Clays of Allen after a local farm, was built as a satellite for Tain and opened in late 1941. Tain was not being extensively used and, as Fearn was hardly used by the RAF it was transferred to the Navy and commissioned as HMS Owl in July 1942.
- 9.2 Although Naval airfields usually had four runways there were only three at Fearn; 000°/230° which was 1180 yards in length; 050°/230° which was 1475 yards long; and 110°/290° which was 12600 yards in length. These runways were connected by a 40ft wide perimeter track and the Navy added five hardstandings and groups of Belman Hangars around the perimeter. The navy also replaced the original Tower, a small single storey building with a blast wall, with a standard naval three storey building. It is understood that the Naval design catered for hand signalling from the Tower to pilots on the runways prior to the introduction of radio communications. There were also two larger 'S' hangars and domestic accommodation was in four sites to the NE of the airfield in the Tulloch area.
- 9.3 The first naval aircraft to use the airfield were the Swordfishes of 825 squadron which arrived in September 1942.
- 9.4 From 1943 Fearn served as a torpedo training unit for the new Fairy Barracudas and used the Tain range and surrounding waters for practice.
- 9.5 After the war, Fearn was used as SLG for Dalcross when the unit was an FTS in 1952 and 1953. The land was later sold to a farmer and was reportedly used for motor racing in the 1960s. In 1974 the Cromarty Firth development Company purchased the land and plans were prepared for its development as the Cromarty Firth Airport. These were never implemented due to fluctuations in the oil market and the increasing use of helicopters in the oil industry although it is reported that light aircraft occasionally land at Fearn.
- 9.6 Figure no. 5 shows a diagrammatic layout of the airfield with the distribution of buildings which existed in 1944. This type of diagram would have been provided to pilots to assist in their identification of the main structures and buildings on the airfield. Comparison of this diagram with current Ordnance Survey maps shows that the majority of the airfield layout remains as existed in 1944. Although many of the more temporary structures such as the Belman Hangars no longer exist and only 4 of the 'S' sheds remain, most of the buildings and structures in the main technical area (area I), explosives area (area D) and secondary technical area (area E/F) Notable exceptions to this are the Radar Test Base, Compas Base, aircraft standings and pens which lay inside the perimeter track.

- 9.7 Fearn airfield occupies an area of virtually level land at, or near 10m AOD. The Hill of Fearn to Ballintore road, the B916, bisects the site running north west to south east with the main area of buildings and the runway lying to the west of the road and the Campsite and the Wrennery to the east. The Wrennery at Loans of Tulloch is a self contained unit approximately 800 metres from the public road in the north east corner of the study area. It marks the most easterly development of the site, the eastern boundary of which is fragmented and distributed over a wide area. The southern boundary of the site lies close to a minor road running from the seaboard villages in a south westerly direction. The northern and western boundaries are delineated by field boundaries. The most northerly tip of the site lies within 800 metres of a church and remains of an abbey, at a distance of approximately one kilometre from the village of Hill of Fearn.
- 9.8 The historical diagrammatic plan (see Figure no. 5) shows three runways at Fearn all set within a perimeter airfield road which circumnavigates the area. The main group of buildings, including the control building, are located between the perimeter road and the public road to the east of the runways. Other developments, including hangars, aircraft hard standings and an explosives area, form satellite developments off the circular perimeter road.
- 9.9 Fearn Airfield is used occasionally by light aircraft although the runway is in poor condition and its use by, for example learner drivers, and the fact that the public can gain access to the airfield, means that it is less than ideal in terms of safety. If the airfield were to be developed, or at least improved, for use by light aircraft, it would require to be fenced to exclude the public, some remedial works would be required to improve a minimum area of 800m x 40-50m of the main runway and a functioning control tower with manned radio facilities would be required. It is likely that any such development for more than very occasional use would not meet with the approval of the RAF as potential conflicts could arise with their low flying aircraft. The owners of light aircraft who make use of Fearn also utilise the grass runway at Dornoch, flying out from Dalcross where costs of hangar space are between £40 - £50 per month and landing tickets are priced at £10-£15 per landing.
- 9.10 The local flying association has used Fearn from time to time for its annual gathering (held in the control tower, despite its poor state of repair) and members of this club would wish to be kept apprised of any development proposals so that continued occasional use could be made of the airfield if this were compatible with other developments.



- KEY**
- A AIRCRAFT STANDING
 - B ARMOURY
 - C A.R.S. HANGAR
 - D COMPASS BASE
 - E CONTROL BUILDING
 - F E.R.S. HANGAR
 - G EQUIP. AND ERECT. HANGAR
 - H EXPLOSIVES AREA
 - I GROUND SIGNALS
 - J HANGARS
 - K PENS
 - L RADAR TEST BASE
 - M SICK BAY
 - N TEST BUTT
 - O WORKSHOP

FEARN AIRFIELD

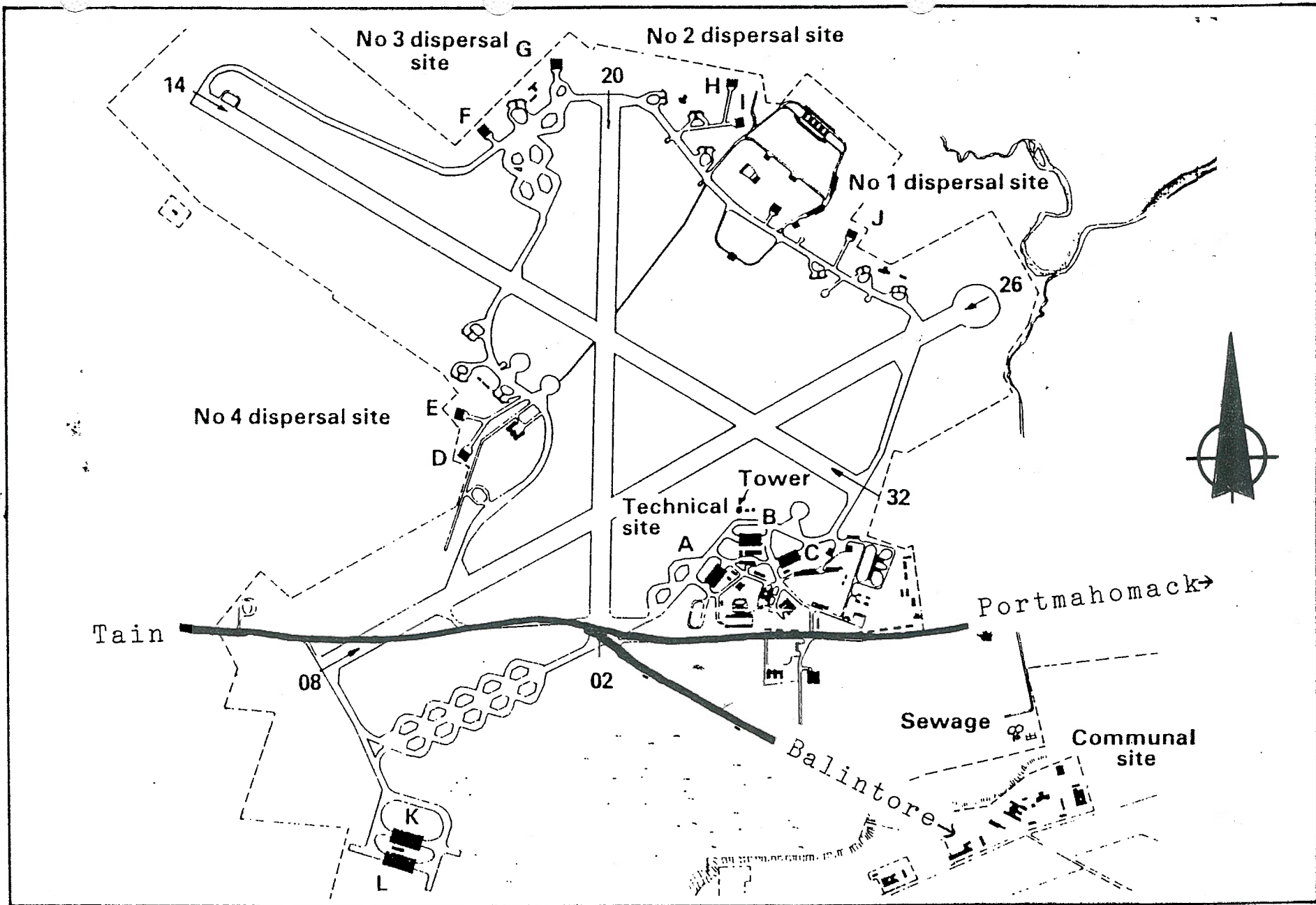
FIGURE 5

Tain

- 9.11 In 1913 the War Office undertook a survey of a site at Tain for potential use as an aerial Naval base but development of the site did not occur until 1940 when an airfield with three runways was constructed. The airfield, which served as a Sector station to bridge the gap between Scapa Flow and Turnhouse sectors, was officially opened on 16 September 1941 and the first aircraft were Hurricanes of 17 Squadron.
- 9.12 Tain, similar to many war time airfields, became operational as soon as construction of the runways was completed and before many of buildings were finished. Figure no. 6 shows a diagrammatic layout of the airfield.
- 9.13 Tain, together with Lossiemouth, was designated as a forward base for bombers attacking the battleship Turpitz when it was based at Trondheim Norway and bombing raids were undertaken during the spring of 1942.
- 9.14 In June 1942 Coastal Command Development Unit arrived with a collection of aircraft to undertake extensive trials of equipment necessary to the coastal role.
- 9.15 Later that year the USAAF, which had an interest in Tain as an advanced strike base, arrived with 144 personnel to extend the runways with metal plating. By this time the FAA were using the airfield for night flying and servicing.
- 9.16 In February 1943, the station was transferred to Coastal Command and the airfield was used as an advanced base for attacking shipping in the Norwegian area although no squadrons were permanently stationed at Tain at that time. Throughout 1943, various squadrons were detached for torpedo training.
- 9.17 In May 1944, an Airfield Construction Flight from Oban extended the NE/SW runway with reinforced steel plating and constructed diamond shaped hardstandings in preparation for the arrival of Liberators. In June 1944 the 070°/250° runway was extended to 5900ft. The other runways at that time were the 020°/20° which was 4300ft and the 130°/3100° which was 330ft. In August 1944 it was decided to build two T2 hangars on the south side of the airfield.
- 9.18 In November 1946, Tain reverted to a C and M basis and post war was used on an occasional basis by various coastal squadrons on exercises and also by FAA aircraft from Lossiemouth and Fearn.
- 9.19 Although Tain had appeared to have great potential as a war time base for some reason it was utilised only as a temporary home for many different squadrons and types of aircraft. The scale of the Operations block suggests that Tain had been intended for large scale operations but this was never the case.
- 9.20 Tain airfield occupies a generally level area of land lying at or near the 5m AOD contour. The study area site boundary to the north is formed by the Tain

bombing range which remains in use and which occupies the northern portion of the former airfield. The southern boundary approximately follows field boundaries between Hunting Hill and Balnagall and the Inverness to Wick/Thurso railway line passes close to the south west tip of the study area. The western boundary is formed by a minor road and field boundaries between hunting Hill and the Tain to Portmahomack minor road and the eastern boundary by field divisions to the north east of Newton.. The Tain to Potrmahomack minor road passes through the centre of the study area and it is to the north of this road that the main components of the airfield were developed.

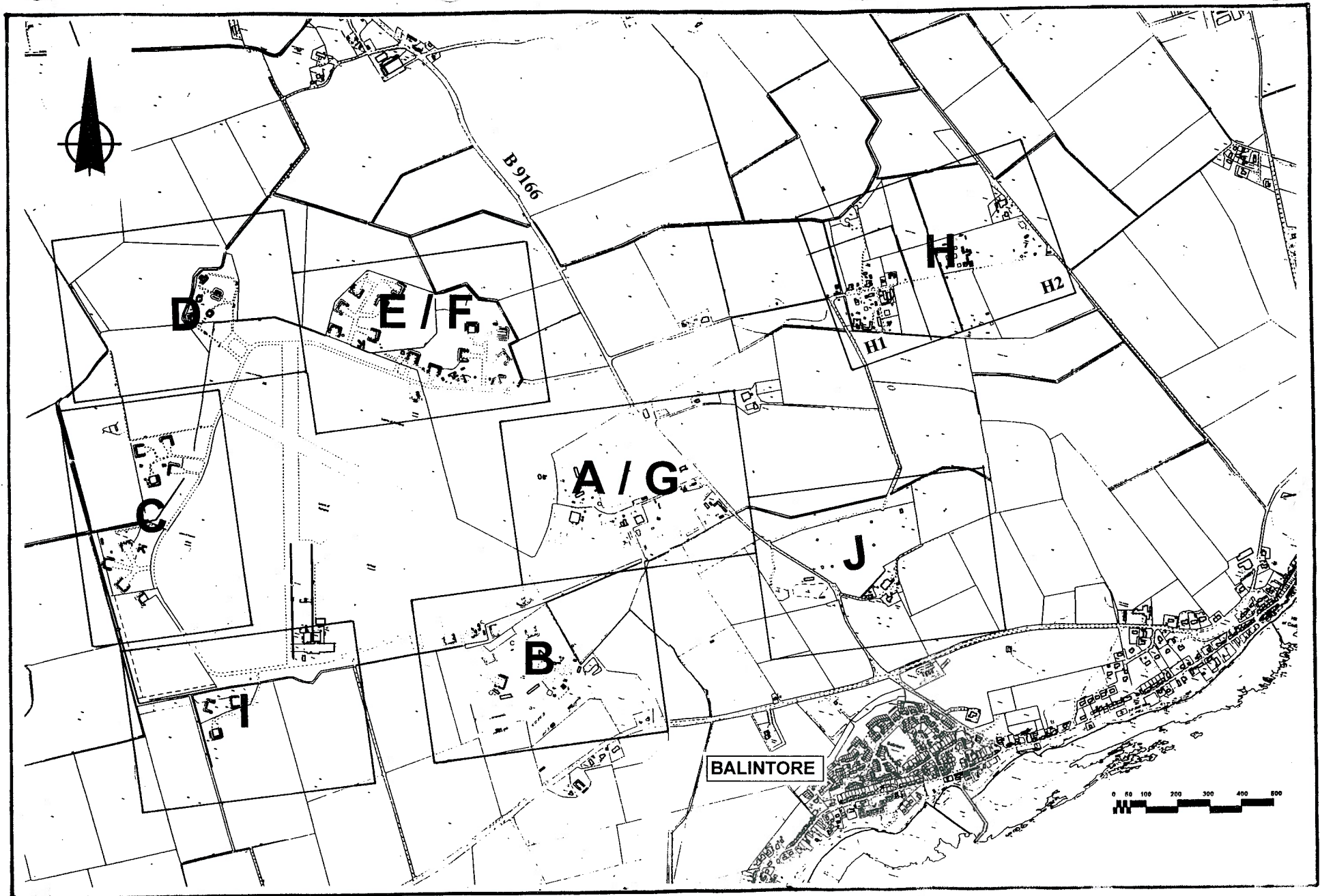
- 9.21 A historical diagrammatic plan (see figure no. 6) shows three runways with the main building group being located at Balnagall and other buildings, including a camp located to the north of the Balintore road, distributed over a wide area.



TAIN AIRFIELD

FIGURE 6

PART 3: SITE SURVEY – FEARN AIRFIELD



FEARN AIRFIELD -KEY TO AREAS OF THE SITE PHOTOGRAPHED

FIGURE 7

PART 3: SITE SURVEY – FEARN AIRFIELD

10 AREA A/G: OPERATIONS AREA/TECHNICAL AREA

- 10.1 This area comprises the Airfield Entrance and main operations area. The locations of principal buildings which remain are shown on Figure A/G 1 and photographic records of the key buildings and structures are shown on the Engineer's survey Photographs 1 to 7 inclusive and on Figures A/G2 to A/G7. These buildings and structures are described below. Archaeological Record Sheets for the buildings which have not been surveyed as part of the Engineer's report are provided following Figure A/G7.

Operations Block

- 10.1 This building is located at OS Reference NH 852763 and was subject of a structural survey by A.F. Cruden Associates in April 1999 is illustrated on photographs numbers 1 and G59. The operations block has been recorded by NMRS and is described as being of concrete and brick construction with two external corridors created in the space between a revetted bank to the north and south. Internally there is a central corridor with a series of offices and rooms set off at right angles. Toilets exist at each end of the corridor. This building is similar to the operations block found at Arbroath (OS ref. NO 64 SW 29). A representative of the Fleet Air Arm Museum has assessed this building as being of significance in the national context but has confirmed that a similar building exists at Arbroath. The FAAM recommendation is that this building should be conserved if possible.

Description

- 10.2 A single storey, flat roofed building approximately 17 metres long by 9.5 metres wide. The floor level is set approximately 1 metre below the adjacent ground level with the upper walls protected on the front and rear by revetted earth banks some 1.5 metres from the external walls. Access is at both ends via covered and semi-buried concrete stairways.

Construction

- 10.3 The external walls are of 350 (14") thick brickwork which continues above the roof to form a low upstand. The roof appears to be a 450 (18") thick cast insitu concrete slab protected on its upper face by a bitumen felt d.p.m. which extends up the inner face of the upstand. This is protected with a layer of gravel and is sealed under a mortar cope on the perimeter upstand. Drainage was provided via holes in the upstand and rainwater pipes.
- 10.4 The brickwork walls are generally in very good structural condition with only isolated bricks exhibiting weathered surfaces. The upstand is in much poorer condition however, with the cement cope badly broken and missing in many areas. This has exposed the edge of the roof d.p.m. which is brittle and leaking. The flat roof area is otherwise reasonably sound apart from some bushes and a small tree growing in the gravel layer.

- 10.5 The windows are of metal casement type, some of which are missing. Rainwater goods and other fittings are all broken or missing.
- 10.6 Internally there are two loadbearing walls which run lengthwise along each side of a central corridor. These are of plastered 225mm (9") brickwork. Other internal partition walls are generally of plastered single brick, 100mm (4") thick. Internal plasterwork is in very poor condition with moisture penetration and vandalism having removed large areas. The floor was extremely wet but this appeared due to blockage of the drainage system rather than any obvious ingress.

Dilapidations

- 10.7 We found no evidence of any settlement or movement of the building. Both external and internal blockwork walls are structurally sound but plaster finishes are in very bad condition. The concrete floor and roof slab are generally sound but damp proof membranes have probably significantly deteriorated. Windows, door, rainwater goods and other fittings and fixtures are missing or smashed.

Hazards

- 10.8 The following hazards were evident from non intrusive site investigation:
- ◆ Broken drain cover in the floor create a significant tripping hazard.
 - ◆ Asbestos insulation on the boiler installation presents a serious asbestos hazard.
 - ◆ Asbestos cement shelves in several rooms presents a low risk asbestos hazard.

Recommendations

- 10.9 This building appears to be in a relatively sound state of repair and could be restored without major structural repairs being required. If the airfield were to be developed as an interpretation centre, this building would be an important feature and could provide a walk through exhibit with the offices on each side of the corridor being restored to their former condition.
- 10.10 It is unlikely that any non interpretation use could be made of this building without the removal of the revetted earth banks which obscure both light and views from the windows. However, if the north and south facades were opened up this building could potentially attract interest as a workshop facility, given its proximity to the main road and the services associated with the light industrial businesses which have already been developed around the entrance to the airfield.
- 10.11 In the short term, it is recommended that minor works be undertaken to ensure that the internal and external fabric of the building does not deteriorate further. Such work is likely to include the removal of vegetation from the roof, re proofing of the roof, minor repairs to the roof coping, repairs to drainage runs to clear standing water and securely boarding up window and door openings to prohibit access and to make the building generally wind and watertight.

Control Tower

10.12 This building is located at OS Reference NH 848761 and was subject of a structural survey by A.F. Cruden Associates in April. This building is illustrated on photographs numbers 2,3, A1, A2 and A6 – A8 inclusive. The control tower has been recorded by NMRS (Ref NH 87 NW 21.01) and is described as being of a type found on RN Stations. It is thought to be the only one of its type to survive in Scotland and to be one of only three extant in Britain. The NMRS describes the building as having been damaged deliberately internally with holes punched through interior walls to discourage its use as a living space. Little survives internally apart from some benches and the remains of the roof partitions. The stumps of the balcony rail are still in place and on the roof, the remains of a wind sock are still insitu, though whether this is original is not known. Immediately to the rear of the tower are the remains of a nissen hut and small generator house along with one or two other buildings one of which may have been the ablutions block. The tower must have been constructed in 1942 when the Airfield was transferred from the RAF to the RN. The majority of towers of this type were constructed by Royal Marine Engineers to standard designs and the construction of the walls was in a mixture of solid brick, and reinforced concrete, with the air watch office being built of reinforced concrete or timber. The Fleet Air Arm Museum recognises this building as being of national importance and has confirmed that every attempt should be made to conserve the control tower.

Description

10.13 This is a four storey building some 11 metres by 9 metres externally. To its rear there are the ruins of several smaller buildings. On the ground floor the building is divided by a central passage with rooms opening off both sides. On the first and second floors there are observation and control rooms to the front with separate rooms to the rear. Access was not available to inspect the top storey.

Construction

10.14 The walls are generally constructed of 350 (14") brickwork which supports the cast insitu concrete floor slabs. However, at second floor level where there are very large window openings in the walls, the structure changes to a reinforced concrete frame with blockwork or blockwork infill panels. There are balconies at first and second floor level along the front elevation and these are cantilevered extensions of the concrete floor slabs.

Dilapidations

10.15 There are no cracks or other evidence of subsidence or movement of the main walls. The most obvious defect in the walls being the large holes knocked through the blockwork partition walls at first and second floor level.

10.16 The reinforced concrete however, is in poorer structural condition with considerable spalling of concrete having exposed areas of reinforcement. (see photographs) This has been caused by carbonation of the concrete (a natural occurrence where carbon dioxide penetrates the concrete and eventually causes corrosion of the reinforcement), and will become progressively much more widespread with time.

- 10.17 Internally the plaster finishes to the walls are in very poor order and again much of the soffit of the concrete floor slabs is affected by spalling concrete.
- 10.18 All window frames and most of the window cills have disappeared from this building, together with most of the other fittings and fitments.

Hazards

- 10.19 Apart from the obvious risks of falling from unprotected openings in the building, the principal risk is from spalling concrete falling from the balconies or frame.
- 10.20 Some asbestos cement sheets are incorporated into the internal tables and workbenches, and the remains of asbestos cement rainwater pipes lie scattered around the area. These present a low risk asbestos hazard.

Recommendations

- 10.21 This building lends itself to being the focus of any proposals for interpretation of the Airfield heritage; it offers views over the whole airfield and beyond and is within easy reach of the main road. It is also visible from some distance around. Full restoration to provide a museum facility would be a costly exercise but grant aid could be expected from a variety of sources. The land owner and most of the local people who have expressed an interest in the project are enthusiastic about a new use being found for the building which would ensure its survival.
- 10.22 If an interpretation centre proved to be an unfeasible development option, it is recommended that other potential uses for this building be explored. It has potential for redevelopment as a private dwelling or as a restaurant and café if an adequate market exists.
- 10.23 In the short term, it is recommended that all window and door openings be secured to prevent public access and to render the interior of the building wind and watertight.

Torpedo Sheds

- 10.24 This building is located at OS Reference NH 849761 and was subject of a structural survey by A.F. Cruden Associates in April and is illustrated on photographs numbers 4 to 7 and A9 and A11 to 14 inclusive. The torpedo shed has been recorded by NMRS (ref NH 87 NW 21.02) and is described as being formed by three large nissen huts joined together. During the period when the RN occupied the Airfield Fearn was the torpedo school with Tain Airfield being used for bombing practice. The FAAM has confirmed that this building is of some significance in the national context and has confirmed that its conservation is desirable.

Description

- 10.25 This building consists of three Nissan huts joined together with valley gutters formed between them. The overall floor area of each unit is approximately 28 metres long by

10 metres span. This building has been extensively modified and extended over the years and appears to be currently in use as a warehouse/workshop.

Construction

- 10.26 The original construction consisted of corrugated iron cladding over a lightweight tubular framework. The ends of the circular frames were cast into the insitu concrete floor slab and horizontal bracing tubes were built into 9" brickwork gable walls. Diagonal bracing tubes were provided between the frames at various points and also horizontal ties at a high level across the roof.
- 10.27 Between the three units there were brickwork walls which appeared to have originally provided storage. These provide support for the valley gutters which run longitudinally between the units. These walls were discontinued at the west end of the building to provide open access between the units.
- 10.28 Access to each unit was provided by a large opening in the west gable which was originally fitted with a large sliding door supported by a cast insitu concrete lintel beam.
- 10.29 The cladding on all three units has been replaced with new corrugated iron. However this has not been carried down to ground level on the outer units, but has been stopped 1800 above floor level and this area closed with a blockwork wall. This was presumably to provide a dado type wall to limit damage caused by post war operations within the units. Along the south elevation several large open lean to units have been added in blockwork.

Dilapidations

- 10.30 Where the scaffold tubes have been cast into the concrete floor slab they are very badly affected by corrosion. A number of tubes have corroded right through, but all those on the two outer walls are badly affected. Similarly the horizontal tubes are also quite badly affected where they emerge from the brickwork gable walls. The lowest horizontal rail along the outer units is exposed and partially covered in debris and consequently has been also badly affected by corrosion.
- 10.31 Internally the scaffold tube skeleton is in much better condition, but many of the tubes have been damaged through impact. Many of the high level ties have also been bent or broken.
- 10.32 The brickwork is generally sound although there is significant cracking evident at the junctions between the three units. One of the openings in the west gable has been enlarged up to the roofline, and the original doors are missing from all three units.

Hazards

- 10.33 The most significant defect in this property is the corrosion of the tubular frames at ground level. This will progressively lead to the building becoming insecure and potentially unstable.

10.34 No hazardous materials were found in or around this building.

Recommendations

10.35 This building is currently used for agricultural storage and is being maintained by the landowner. If the airfield were to be developed as an interpretation facility, this building would contribute to the overall picture of the airfield and could be interpreted by exhibition material rather than by establishing any public access.

10.36 As this building is being maintained in a fair condition by the landowner, no immediate repairs are required.

Other buildings and Structures

10.37 A number of other buildings and structures exist in this area. These include the pre navy period watch tower which lies to the rear of the RN tower, a Mainhill 'S' type hangar which has been substantially repaired and is in use, and the remains of brick built munitions stores, workshops, ablutions blocks and air raid shelters. These are in a varied state of repair; many have been repaired for use as workshops, offices and agricultural stores; some are derelict or semi derelict with portions of the buildings in a state of collapse or near collapse; and others, generally the more solidly built munitions stores and generator housings, remain in a fair condition.

10.38 The representative from the FAAM has confirmed that, while the group of buildings is of general interest, only the operations block, control tower and torpedo shed are of significant merit.

Recommendations

10.39 If the airfield were to be developed as an interpretation facility, the cluster of buildings between the entrance and the control tower would, if restored, present a clear picture of the appearance of the airfield as it existed during the war. Restoration of so many buildings and structures would be an expensive operation and probably could not be warranted as the buildings individually are not of any inherent value; there are many examples of similar buildings elsewhere on the airfield and at other locations throughout the country.

10.40 Where buildings are in a sound state of repair (generally small brick built structures with reinforced concrete roofs), it is recommended that these be subject to minor repairs if use can be made of these for storage. In other cases, particularly the air raid shelters, it is recommended that a demolition and site clearance operation be undertaken to restore the area to agricultural use or at least, to remove the hazards associated with these buildings.



Photo 1
Operations block viewed from the south



Photo 2
Control Tower viewed from the south



Photo 3
Control Tower
concrete deterioration of 2nd floor structure viewed from the south



Photo 4
Torpedo sheds viewed from the south



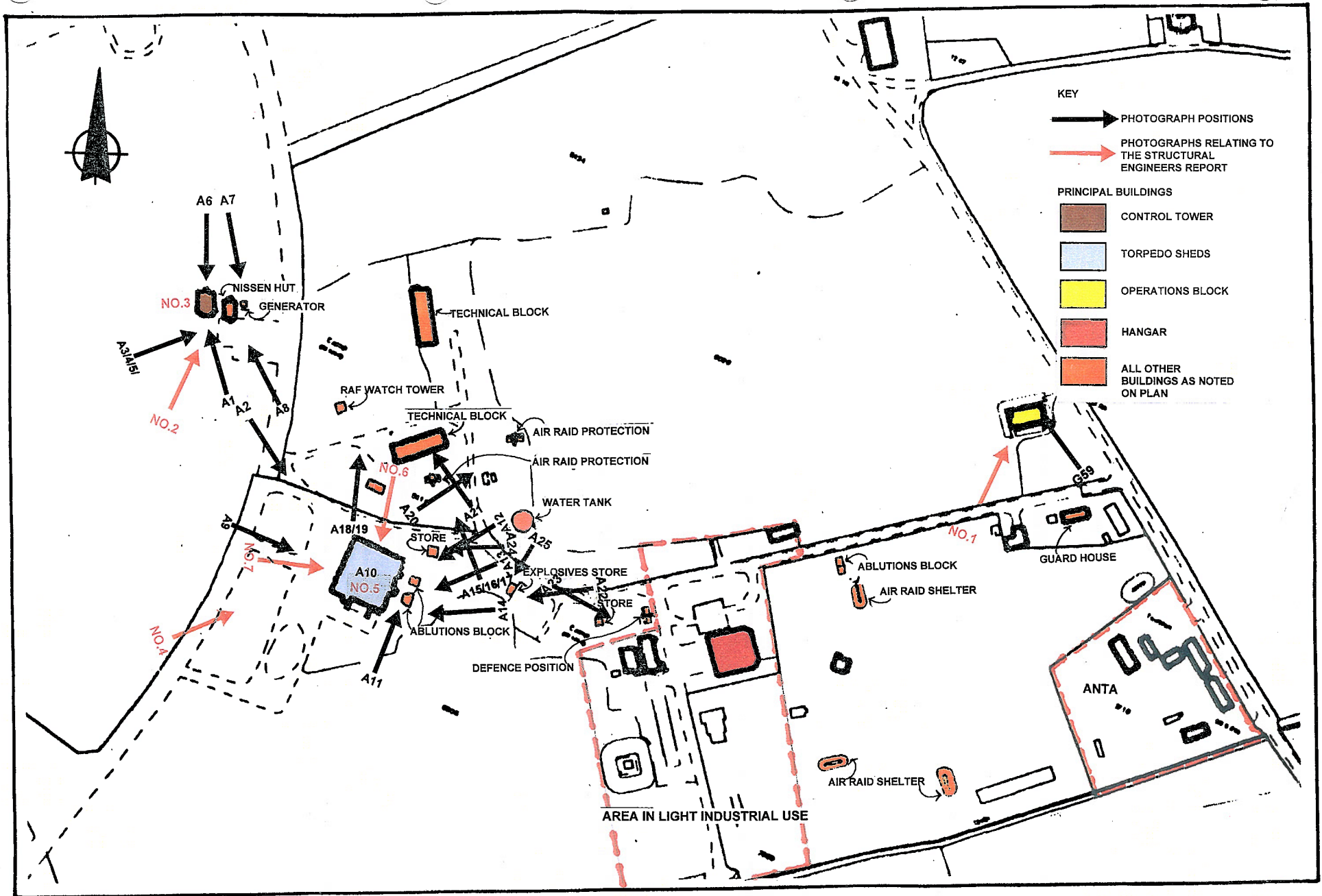
Photo 5
Torpedo sheds interior showing valley gutter



Photo 6
Torpedo sheds
exposed framework on north wall and non original blockwork walls



Photo 7
Torpedo sheds
Cracked brickwork on west gable wall at junction with nissen nuts

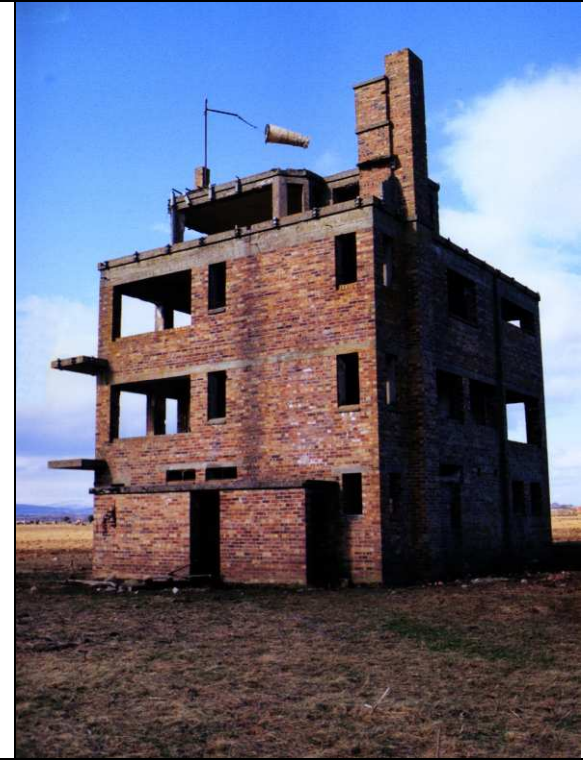


FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA A/G - OPERATIONS AND TECHNICAL AREA

FIGURE A/G1



Photograph G59: Operations block



Photograph A1: Control Tower south elevation



Panorama A3/A4/A5: Control Tower and adjacent buildings
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA A/G

FIGURE A/G 2



Photograph A6: Control Tower: north elevation



Photograph A7: buildings adjacent to Control Tower – north elevation



Photograph A8: Control Tower west elevation



Photograph A9: Torpedo shed



Photograph A9: Torpedo shed west elevation



Photograph A10: Interior of Torpedo shed



Photograph A11: Ablutions blocks adjacent to torpedo shed
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA A/G



Photograph A12: Torpedo shed from access road



Photograph A13: Torpedo shed with ablutions blocks in foreground



Photograph A14: munitions store



Panorama A15/A16/A17: General view over technical area from east of torpedo shed
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA A/G



Panorama A18/A19: General view over technical; area from north of torpedo shed



Photograph A20: view of technical building from the west
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA A/G



Photograph A21: View of technical building from the south



Photograph A22: munitions store



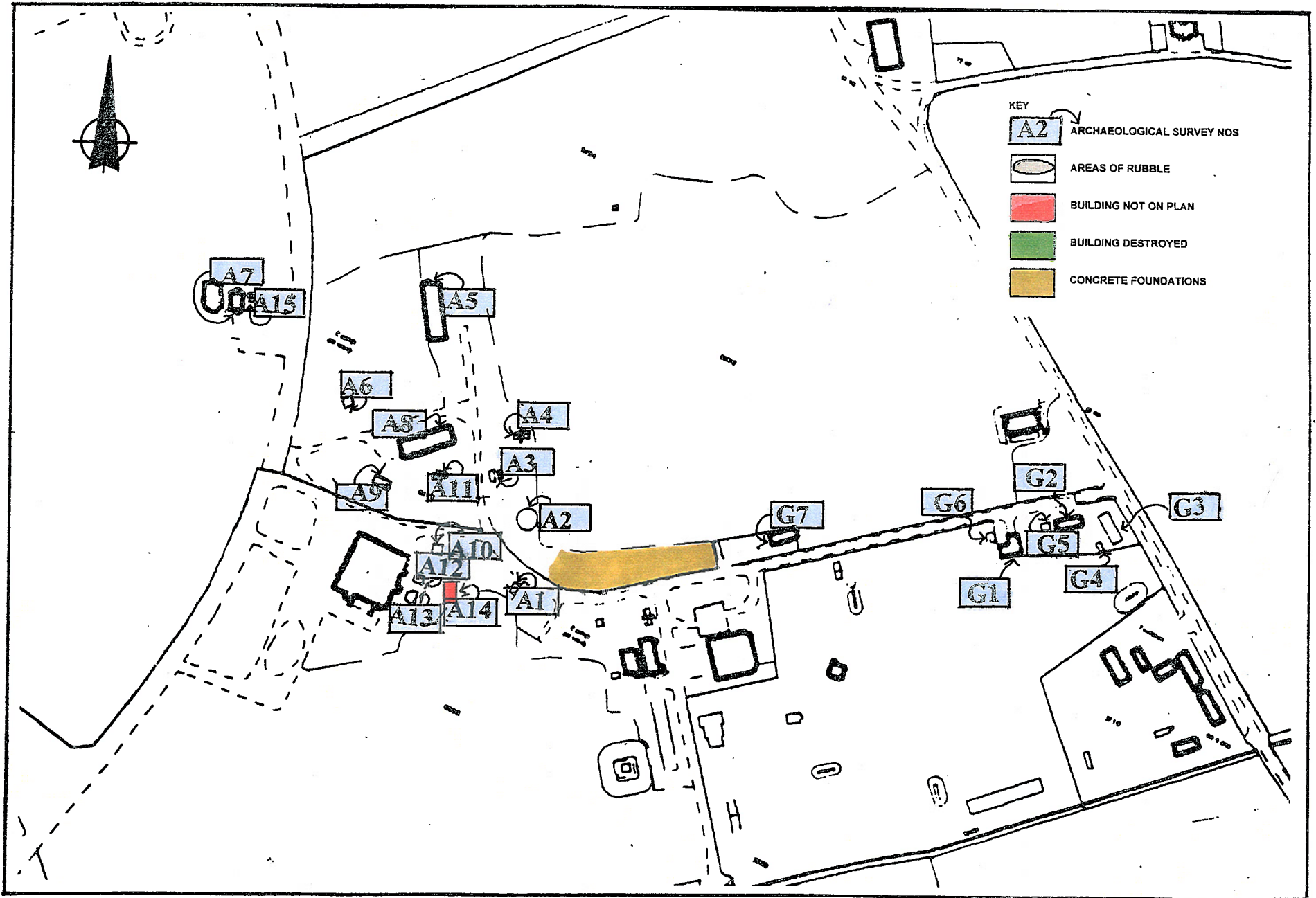
Photograph A23: hangar in use



Photograph A24: Torpedo shed



Photograph A25: Munitions store



FEARN AIRFIELD**Building Record****No. A.1****NGR NH*****Dimensions***

5.7m by 3.7m and c2.4m high

Description

A brick-built structure with a flat concrete roof cast in situ. The building was divided into 2 rooms with doorways on the NE and SE sides. Cast iron doors, thought to be original, still survive to seal these doorways.

The building has been used in recent times as a store.

Condition

Good

Interpretation

This has been interpreted as an explosives store.

Importance

Low but could be included as part of a general interpretation of this area.

***Photograph No.***
Looking16A
W***Date*** 1/7/99

FEARN AIRFIELD

Building Record

No. A.1

NGR NH

Dimensions

Description

Interior photograph of store.

Condition

Interpretation

Importance



Photograph No.
Looking

17A
WNW

Date 1/7/99

FEARN AIRFIELD

Building Record

No. A.3

NGR NH

Dimensions

6.5m by 3.5m and c2m high.
A low foundation 4.2m by 2.7 lies on the same axis to the E.

Description

Brick structure aligned NNW/SSE with entrance on the E. This was not roofed.

The interior is filled with vegetation obscuring any details.

Condition

Good with walls largely intact,

Interpretation

Bomb shelter

Importance

Low

**Photograph No.**

18A

Date 1/7/99**Looking**

W

FEARN AIRFIELD**Building Record****No. A.2****NGR NH*****Dimensions***

12.5m diameter

Description

Reinforced corrugated concrete water tank of standard form.

It has been damaged on the E and has a quantity of rubbish within

Condition

Poor because of damage

Interpretation

Water tank

Importance

Low

***Photograph No.***

17A

Date 1/7/99***Looking***

N from road

FEARN AIRFIELD**Building Record****No. A.4****NGR NH*****Dimensions***

9.32m by 4m externally for main structure with walls 1.4m high

Description

Bomb shelter aligned ENE/WSW with unroofed walls. It has two opposing entrances separated by a staggered central division wall.

The interior and entrances are partially obscured by vegetation

Condition

Good

Interpretation

Bomb shelter of standard form

Importance

Low

***Photograph No.***

19A

Date 1/7/99***Looking***

E partial shot of interior

FEARN AIRFIELD**Building Record****No. A.5****NGR NH*****Dimensions***

33m by 8m

Description

A long single storey hut aligned NNW/SSE, with a pitched roof originally of asbestos. The S end has been partially repaired with breeze blocks, a wooden door and some areas of cladding. The windows have been mostly filled in with breeze blocks and the roof repaired with sterling board sheets. At the N end a small portion has not had its windows filled in and the original asbestos roof survives. In this area a mortar render is visible up the walls for c1m.

Condition

Poor and this structure is potentially dangerous
An area of broken asbestos roofing sheets lie to the E of the building at the SE.

Interpretation

This has been interpreted as part of the general maintenance area.

Importance

Low

***Photograph No.***

20A

Date 1/7/99***Looking***

NW

FEARN AIRFIELD**Building Record****No. A.5****NGR NH****Dimensions**

6.2m by 5.6m with long axis NE/SW

Description

A brick structure with a mortar rendered exterior with an entry from the SE. The building has its main window facing SW onto the airfield. The roof is of flat concrete poured in situ. A mortar render extends 1.2m up the walls.

The iron stanchions to support a ?flagpole lie on the SW corner. A small fragment of wood held here may be original.

The window frames have been removed.

Condition

Stable but poor

Interpretation

This has been interpreted as the original control room before the construction of the substantial surviving tower to the S.

Importance

If the main control tower is being preserved it may be relevant to retain this structure to demonstrate the development of the airfield.

**Photograph No.**

21A

Date 1/7/99**Looking**

NW

FEARN AIRFIELD**Building Record****No. A.7****NGR NH*****Dimensions***

10m by 5.9m aligned N/S.

Description

A semicircular nissen hut with a concrete floor and a corrugated asbestos roof supported by 3 cast iron hoops on brick. Brick porches originally were built to the N and S.

Condition

Largely demolished and in a poor condition.

Interpretation

Nissen hut, function unknown.

Importance

Low

***Photograph No.***

22A

Date 1/7/99***Looking***

NNE

FEARN AIRFIELD**Building Record****No. A.8****NGR NH*****Dimensions***

29m by 10m aligned NE/SW

Description

A large hut with a pitched roof of asbestos supported on cantilevered iron struts. The walls are of brick construction.

The majority of the structure from the E end has been demolished, though the last 9m has been partially maintained and wooden doors inserted to form a store.

Condition

The building is in poor condition and even in the part that has been maintained there are holes in the roof.

Interpretation

Not known

Importance

Low

***Photograph No.***

24A

Date 1/7/99***Looking***

SW

FEARN AIRFIELD**Building Record****No. A.9****NGR NH*****Dimensions***

5.3m by 9.5m

Description

A rectangular brick structure with an entrance on the S 2.5m wide. The interior has been rendered on the inside to the height of the roof. The roof is supported by iron girders

There are 2 small high windows on the W.

Condition

Good

Interpretation

Machine repair store?

Importance

Low

***Photograph No.*** 25A
Looking N***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. A.10****NGR NH****Dimensions**

5.9m by 5.8m

Description

Brick building with a flat concrete slab roof. There are 2 internal rooms and both have a mortar render to roof height. There are doorways to the W and E.

Condition

Good

Interpretation

Store

Importance

Low

**Photograph No.**
Looking26A
E**Date** 1/7/99

FEARN AIRFIELD**Building Record****No. A.11****NGR NH*****Dimensions***

9.4m by 4m external measurement for central portion. Walls 1.3m+ high

Description

Unroofed bomb shelter similar to A.4 though more obscured by vegetation and the interior has been partially infilled with corrugated iron

Condition

Good, though some of the brickwork is beginning to decay

Interpretation

Bomb shelter of standard form

Importance***Photograph No.***

27A

Date 1/7/99***Looking***

WNW

FEARN AIRFIELD**Building Record****No. A.12****NGR NH****Dimensions**

6.2m by 5.2m aligned NE/SW

Description

A rectangular brick building with a pitched roof of asbestos. Internal mortar rendered divisions and drains show this to have been a toilet block.

Condition

Poor

Interpretation

Toilet block

Importance

Low

**Photograph No.**

28A

Looking

SE

Date 1/7/99

FEARN AIRFIELD**Building Record****No. A.13****NGR NH****Dimensions** 7.8m by 5.2m aligned NE/SW**Description** Rectangular brick built structure with a ridged asbestos roof and porches at either end. It is similar to A.12 in both design and layout.**Condition** Poor**Interpretation** Toilet block**Importance** Low**Photograph No.** 29A
Looking NE**Date** 1/7/99

FEARN AIRFIELD**Building Record****No. A.14****NGR NH*****Dimensions***

32m by 7.5m

Description

The concrete foundations survive of a building lying to the E of structures A.12 and A.13 on the same NE/SW alignment.

Condition

Demolished to foundation level

Interpretation

Not known

Importance

None

Photograph No.*None taken****Date*** 1/7/99***Looking***

FEARN AIRFIELD

Building Record

No. A.15

NGR NH

Dimensions

2.9m square x c2.4m high

Description

A brick built structure with a flat concrete roof lies to the NE of A.7
The entrance lies on the S and this filled most of this side.

Condition

Stable though some cracks.

Interpretation

Vehicle store adjacent to control tower (?fire engine)

Importance

Low



Photograph No.
Looking

23A
NW

Date 1/7/99

FEARN AIRFIELD**Building Record****No. G.1****NGR NH*****Dimensions******Description***

A modern structure with a new roof stands on this spot. It is unclear if this a refurbishment of an older building dating to the WWII airfield or is a new build. Access to this building was not possible.

Brick walling visible at the base of the wall below the modern harling suggest it may well be formed from an original structure.

Condition

Good

Interpretation

If this is original the height of the structure suggests it may have been a vehicle store.

Importance***Photograph No.***
Looking*See 10A*
NE***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. G.2****NGR NH****Dimensions**

14m by 2.6m aligned ENE/WSW

Description

Partially converted store with a ridged roof of asbestos. The guttering is missing.

Condition

Stable but poor

Interpretation

Store

Importance

Low

**Photograph No.**

9A

Date 1/7/99**Looking**

SW

FEARN AIRFIELD**Building Record****No. G.3****NGR NH*****Dimensions***

18.5 by 5.8m aligned NW/SE

Description

A demolished structure only surviving as a concrete foundation. Some asbestos roofing survives at the N end.

Condition***Interpretation******Importance*****Photograph No.
Looking**

None taken

Date 1/7/99

FEARN AIRFIELD

Building Record

No. G.4

NGR NH

Dimensions

5m by 3m by c2m high aligned NW/SE

Description

The internal fittings suggest this was a small toilet block.

Condition

Poor

Interpretation

Toilet block

Importance

Low

**Photograph No.**

9A

Date 1/7/99**Looking**

SW

FEARN AIRFIELD**Building Record****No. G.5****NGR NH****Dimensions**

5.1m by 4.1m

Description

A modern harled building possibly a conversion of an original brick WWII structure. Access was not possible to this building.

Condition

Good

Interpretation

Store

Importance

Low

**Photograph No.**

10A

Date 1/7/99**Looking**

SW

FEARN AIRFIELD**Building Record****No. G.6****NGR NH**

Dimensions 6m by 4.8m by 2m high aligned NNW/SSE

Description An unroofed brick-built shelter with an entrance from the SE as shown. A concrete slab with a central groove or drain aligned NNW/SSE along the main axis lies inside.

A root cutter sits in the centre of the E side.

Condition Good

Interpretation Bomb shelter?

Importance Low



Photograph No. 11A
Looking NE

Date 1/7/99

FEARN AIRFIELD**Building Record****No. G.7****NGR NH*****Dimensions***

Not measured because access restricted

Description

The modern industrial unit here appears to incorporate an original brick built structure similar to others forming part of the airfield.

Concrete foundations of other structures may lie to the W of this structure.

Condition

Good

Interpretation

Store/workshop

Importance

Low

***Photograph No.***

15A

Date 1/7/99***Looking***

NW

11 AREA B: TECHNICAL AREA

- 11.1 This area lies to the west of the airfield entrance and to the south of the runways. The majority of the technical area was developed when the Navy took over the airfield and represents an expansion zone outwith the original airfield perimeter which is defined by a ditch shown on figure no. B1. Photographic records of the key buildings and structures are illustrated on the engineer's Survey photographs 8 and 9 and on figures B2 to B4. These buildings and structures are described below. Buildings and structures which have not been surveyed by the Engineer are illustrated and described on the Archaeological Record Sheets which follow figure B4.

Engine Test House

- 11.2 This building, illustrated on Photograph no. 9, is located at O.S. Ref: NH 849756 and was subject of a structural survey by A.F. Cruden Associates in April 1999.

Description

- 11.3 A 2-storey flat roofed building approximately 21 metres long by 11 metres deep. The main part of the building is full height with a large doorway in the front wall, and two smaller arched openings in the rear wall. These smaller opening have external baffle walls which suggests they were the outlet for the airstream from the engines being tested. The west leg of the building comprises smaller rooms on two floors. An infilled viewing window can be seen in one room on the upper floor. Externally in the angle formed by the main building and the office wing, is a walled compound accessed by step irons set into the wall.

Construction

- 11.4 The walls are of 350 (14") thick brickwork with single leaf internal partition walls in the two storey section. The roof of the engine test room is of insitu concrete supported by a grillage of large steel beams. No access was available to measure the beams or the roof dimensions. Within the 2 storey section, both the first floor and the roof slab were of insitu concrete supported off the partition walls. A steel staircase gives access to the upper floor.

Dilapidations

- 11.5 The brickwork was generally in good condition with only local weathering of individual bricks. There was a vertical crack from one of the arched openings in the rear wall to a window above, and also a horizontal crack near the wallhead level in the west corner.
- 11.6 The steelwork in the roof beams and staircase was in sound structural order but heavily rusted in parts. The soffit of the concrete roof and floor slabs was spalled, with reinforcement visible in a number of areas.

Hazards

- 11.7 The building is structurally in reasonable order and could be made wind and watertight relatively easily. The spalling concrete on the underside of the roof slabs is a potential safety hazard and will progressively become worse over the next few years.

Recommendations

- 11.8 This building is in a reasonable state of repair and is currently used for agricultural storage. If the airfield were to be developed for interpretation, this building would form an important component of such a development set within its context of the technical area with a variety of other buildings and structures including aircraft pens and hardstandings.
- 11.9 The building could be made wind and water tight relatively easily and continued use for agricultural storage would not be incompatible with interpretation if, for example public access were to be limited to the upper viewing room on the northern side of the building.

Underground Shelters

- 11.10 There are some 5 or 6 of these scattered around the airfield. Two were inspected at O.S. ref. points NH 847756 and NH 843763 and one of these is shown on photograph no. 8.

Description

- 11.11 These are located within the earth banks which form the protective barriers around the aircraft tie down areas. These banks consist of three legs, with the underground shelter located at the confluence of the three legs. There is an access passage from each of the two aircraft parking bays and in some of the shelters a third access from the rear of the banks.
- 11.12 The passages all have 90° bends in them to protect against blast damage and are constructed of 350mm (14") thick brickwork walls with insitu concrete roof slab. They lead to an underground shelter chamber some 5 metres long by 2.1 metres wide, which is constructed of precast concrete sections. There are doorways in either end and also a ventilation shaft from the roof to the surface.

Construction

- 11.13 The shelter is constructed using 450 (18") wide precast concrete segments. Each segment is comprised of 3 units, 2 wall units and 1 roof unit. It was noted however that alternate segments are made up of different units. In one segment the wall units curve around the wallhead junction to meet a straight roof unit. In the others the roof unit curves round the wallhead junction to join onto straight wall units. The units are bolted and mortared together and appear to be cast into the concrete floor slab.

Dilapidations

- 11.14 The precast concrete units are in very poor condition with extensive spalling of the concrete. They are of thin construction with little or no cover to the reinforcement. Hence carbonation has penetrated to the reinforcement causing widespread corrosion and consequent spalling of the concrete.
- 11.15 The brickwork and concrete of the entrance passageways are in good order with no evident defects.

Hazards

- 11.16 The precast panels are in very poor condition and will continue to deteriorate due to the effects of carbonation. It is unlikely they will collapse, but they will eventually become unsafe.
- 11.17 The ventilation shafts in the roof are uncovered and present a risk to any person or animal climbing on the bank.

Recommendations

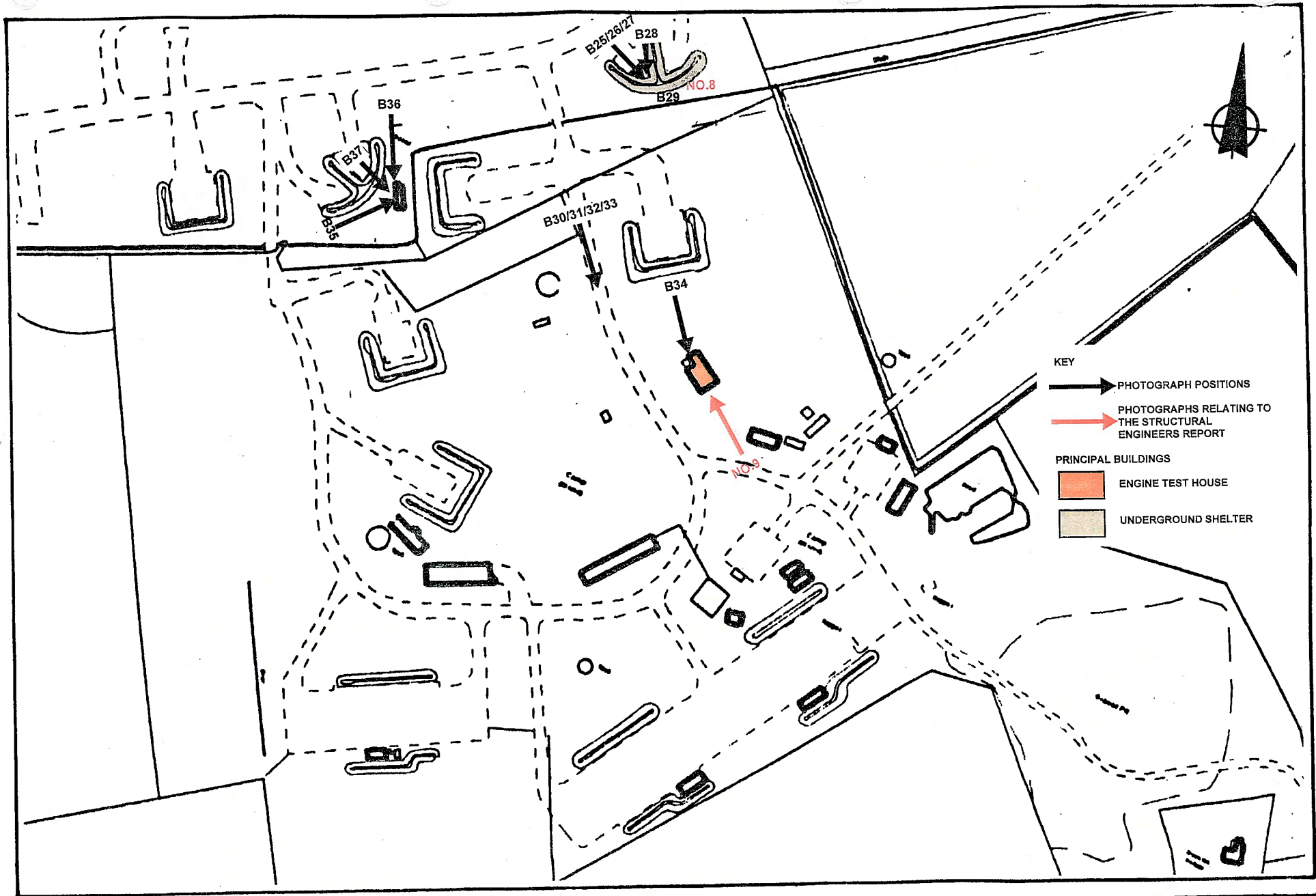
- 11.18 These underground shelters within the earth mounds surrounding aircraft hardstandings would, if made structurally safe for public access, form interesting features for public access and interpretation. Development of at least one of these should be considered as part of any interpretation development and it is recommended that the remainder be secured to prevent public access. Securing of these structures would require to include the capping of ceiling vents which currently pose a potential hazard to members of the public and to animals.
- 11.19 The underground shelter illustrated in photograph no. 8 is probably the most appropriate for development as it lies close to the control tower area and within the Technical Area which has several other buildings and structures of potential interest.



Photograph 8
Underground shelter - interior



Photograph 9
Engine Test House – view from south west



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA B

FIGURE B1



Panorama B25/B26/B27 showing aircraft pen



Photograph B28 showing entrance to underground shelter



Photograph B29 showing interior of underground shelter



Panorama B30B/B31/B32/B33 showing technical area



Photograph B34 showing engine test house



Photograph B35 munitions store



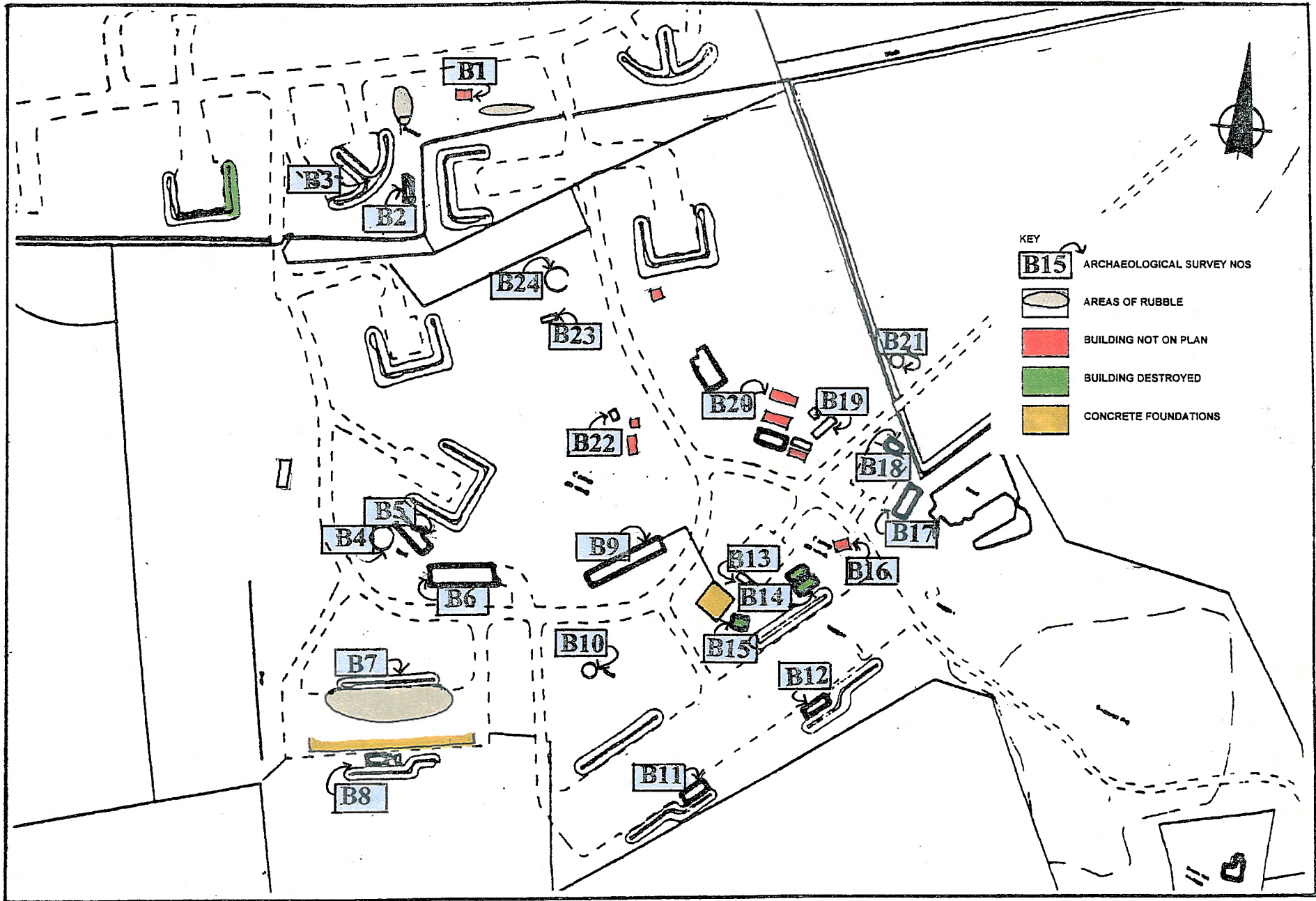
Photograph B36 munitions store



Photograph B37 munitions store

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA B

FIGURE B4



FEARN AIRFIELD - ARCHAEOLOGICAL RECORDS -

KEY PLAN - AREA B

FEARN AIRFIELD**Building Record****No. B.1****NGR NH**

Dimensions	4.75m by 3.1m by c2m high aligned N/S
Description	<p>An unroofed brick blast shelter of standard form with an entrance on the E blocked by a free-standing blast wall</p> <p>A linear pile of brick rubble to the SE probably marks the site of a demolished building WNW/ESE and shown on the 1944 plan of the airfield.</p>
Condition	Good but disturbed by rabbits and vegetation.
Interpretation	Blast shelter
Importance	Low

**Photograph No.** 30A**Date** 1/7/99**Looking** W

FEARN AIRFIELD**Building Record****No. B.2****NGR NH*****Dimensions***

14m by 5m aligned N/S

Description

A brick structure with reinforced external concrete buttresses similar in construction to F.5. The flat concrete roof has been cast in situ. Porches were placed at either end and internally there are remains of wooden shelving extending to over 1.5m high.

To the N a linear spread of brick rubble may mark the site of a demolished building as marked.

Condition

Mostly good but there has been some collapse at the N end.

Interpretation

Store

Importance

Low

***Photograph No.***

31A

Date 1/7/99***Looking***

S

FEARN AIRFIELD**Building Record****No. B.3****NGR NH****Dimensions**

4.8 by 2.1m aligned NE/SW

Description

Buried beneath the earth banks of the pen at this point are the remains of a reinforced concrete blast shelter of standard design.

Condition

Fair. Some cracking of the reinforced concrete has occurred

Interpretation

Blast shelter

Importance

Low

**Photograph No.**

33A

Date 1/7/99**Looking**

SW

FEARN AIRFIELD**Building Record****No. B.4****NGR NH****Dimensions**

12.5m diameter by 1.4m deep

Description

Circular reinforced concrete water tank with a corrugated form.

Water is still held in this tank

Condition

Good

Interpretation

Water tank

Importance

Low

**Photograph No.**
Looking34A
NE**Date** 1/7/99

FEARN AIRFIELD

Building Record

No. B.5

NGR NH

Dimensions

25m by 6m aligned NW/SE

Description

Grey brick building with a pitched asbestos roof supported on precast concrete joists. The ceiling was formerly of plasterboard and the building was painted internally cream and blue. There was a porch in the centre of the E side. The gable was open at the N end and the building has been used as an animal shelter.

Condition

Poor with the roof unsafe and missing in places.

Interpretation

?workshop

Importance

Low

**Photograph No.**

35A

Date 1/7/99**Looking**

SE

FEARN AIRFIELD**Building Record****No. B.6****NGR NH****Dimensions**

35m by 11m aligned E/W

Description

Corrugated iron hangar or store supported on tubular hoops. The W end was brick-walled while the E end has been left open to allow access for the building to be used as a feed store. This entrance is now 3.3m wide but it is not clear what was the original width of this building.

The building is not shown on the 1944 plan of the base and is therefore likely to have been built after that date.

Condition

Fair. E end is insecure and some sheets of corrugated iron have rusted or been partially displaced.

Interpretation

As the size of the original doorways is not known, it is unclear if this was a hangar or a store.

Importance

?

**Photograph No.**
Looking36A
E**Date** 1/7/99

FEARN AIRFIELD

Building Record

No. B.6

NGR NH

Dimensions

Description

See previous sheet

Condition

Interpretation

Importance



Photograph No. 37B
Looking W

Date 1/7/99

FEARN AIRFIELD**Building Record****No. B.7****NGR NH*****Dimensions***

56m by 34m? aligned WSW/ENE

Description

The foundations of a large hangar recorded in this piston in 1944 are marked by concrete foundations and the remains of corrugations in concrete at the edge. There is a large linear pile of rubble along the N side.

Condition

Demolished. Foundations only

Interpretation

Hangar as marked in 1944. Date of demolition not known

Importance***Photograph No.***
Looking1B
ENE***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. B.8****NGR NH*****Dimensions***

20m by 5m aligned NE/SW

Description

Ruinous remains of a nissen hut. The W end only survives as foundations while 2 walls remain at the E end but no roof survives except for a small fragment of asbestos roofing in the centre.

Condition

Poor and potentially dangerous

Interpretation

Storeroom/workshop adjacent to hangar site B.7.

Importance

Low

Photograph No.

1B

Date 1/7/99***Looking***

ENE

FEARN AIRFIELD**Building Record****No. B.9****NGR NH*****Dimensions***

?47m (disappears into rough vegetation and rubble) by 7m aligned NE/SW

Description

Nissen hut with circular corrugated roof and brick end walls. 6 wooden dormer windows have been built out of the N and S sides.

Condition

Ruinous and unsafe

Interpretation

Nissen hut probably used as a workshop.

Importance

Low

***Photograph No.***
Looking4B
SW***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. B.10****NGR NH*****Dimensions***

Not measured

Description

Circular corrugated reinforced concrete water tank

Condition

Fair

Interpretation

Water tank

Importance

Low

***Photograph No.***
Looking2B
SSW***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. B.11****NGR NH*****Dimensions***

15m by 6m aligned NE/SW

Description

A brick building built around a precast concrete frame with a pitched roof. The inside wall is built of bricks roughly set on edge while the outer edge is formed from large hollow brick box tiles. The roof is of asbestos.

Inside are several metal fuse or junction boxes. There is a chimney or vent in the centre of the building.

Condition

It is still roofed but is not complete and is generally unsound.

Interpretation

This is almost certainly a generator house with the hole bricks possibly being used to deaden the sound of the generator.

Importance

Not known.

***Photograph No.***

5B

Date 1/7/99***Looking***

S

FEARN AIRFIELD

Building Record

No. B.11

NGR NH



Photograph No.
Looking

6B
SW at detail of wall construction



Photograph No.
Looking

7B
NE at fuse boxes mounted on the wall

Date 1/7/99

FEARN AIRFIELD**Building Record****No. B.12****NGR NH*****Dimensions***

Aligned NE/SW

Description

Cast concrete roof supports and frame with brick infill. Partially repaired with breeze blocks at SW end. The original asbestos roof has been replaced on the NW side with corrugated iron. The roof is now incomplete.

Condition

Sound basic structure but reinforced concrete frame is beginning to perish.

Interpretation

Not known

Importance***Photograph No.***

8B

Date 1/7/99***Looking***

SE

FEARN AIRFIELD**Building Record****No. B.13****NGR NH*****Dimensions***

7.2m by 4.1m

Description

A tall brick building with a flat concrete roof with the entrance facing SW and the backing onto a large flat concrete area, possibly the site of a hangar. There is a circular foundation 1.5m diameter in the centre of the building and a brick structure 0.93m square has been built in the centre of the NE wall probably to act as a support. A series of cast iron pipes extend from this building through the NE wall.

Condition

Good

Interpretation

This was probably the site of a boiler room to heat the possible hangar to the NE.

Importance***Photograph No.***

9B

Date 1/7/99***Looking***

NE

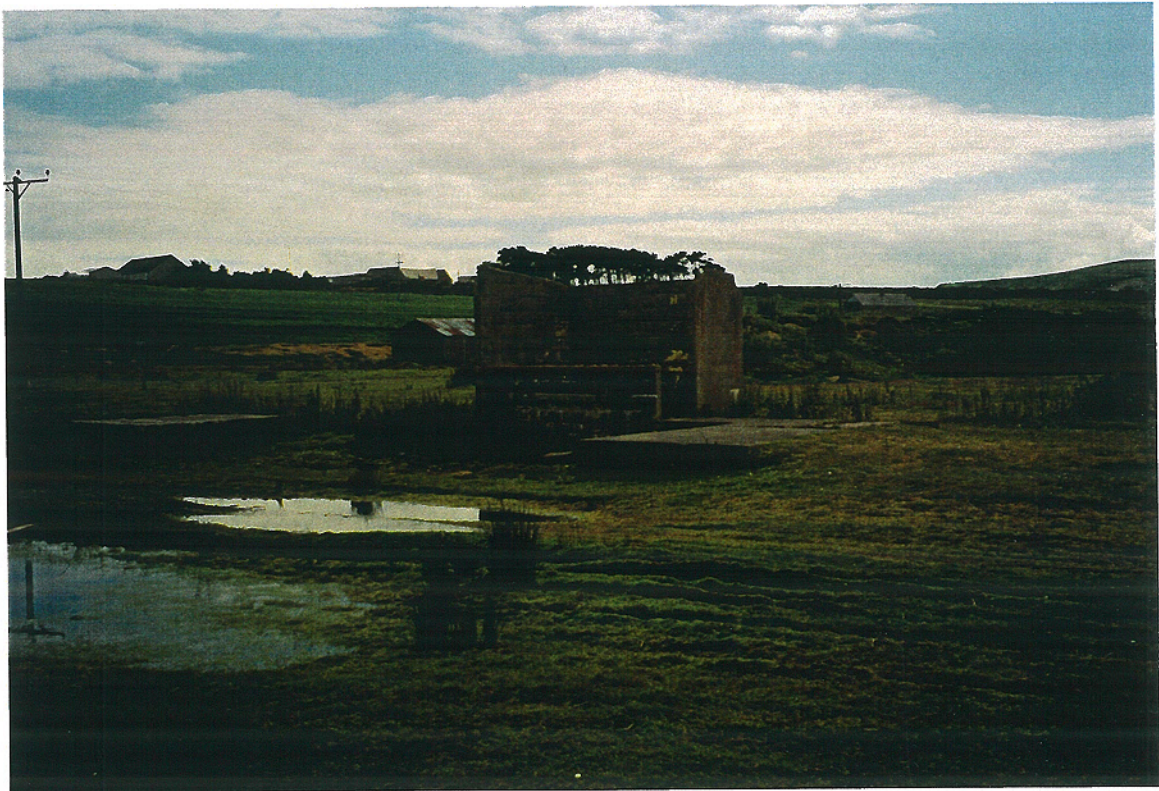
FEARN AIRFIELD**Building Record****No. B.14, B.15****NGR NH*****Dimensions******Description***

These buildings though marked on plan can no longer be seen. Their foundations also appear to have been removed, though they may be hidden by vegetation.

Condition***Interpretation******Importance******Photograph No.***
Looking***Date***

FEARN AIRFIELD**Building Record****No. B.16****NGR NH***Dimensions**Description*

This is a modern breeze block and concrete structure not recorded on the site plan. It was not further recorded as part of this survey.

*Condition**Interpretation**Importance**Photograph No.* 10B*Date* 1/7/99*Looking* S

FEARN AIRFIELD**Building Record****No. B.17****NGR NH*****Dimensions***

18.5m by 7.8m

Description

The frame of a precast concrete structure with a pitched roof of asbestos survives here. The walls have been deliberately removed to make this an open shelter for stock. Traces of hollow red tile/brick survive from this walling.

Condition

The roof is broken in places and the building is generally unsafe.

Interpretation

The hollow brick suggests that this may have been used as a generator house like B.11.

Importance***Photograph No.***
Looking11B
NE***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. B.18****NGR NH****Dimensions** 8.7m by 5m**Description** Tall brick building similar in construction and interior to B.13. It has a large doorway to the NE and piping extends SW through the wall to a large concrete foundation.**Condition** Good**Interpretation** A probable boiler room to serve a presumed removed hangar to the SW.**Importance****Photograph No.** 12B
Looking NE**Date** 1/7/99

FEARN AIRFIELD

Building Record

No. B.18

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.
Looking

13B
SE

Date 1/7/99

FEARN AIRFIELD**Building Record****No. B.19****NGR NH*****Dimensions******Description***

4 nissen huts in ruinous condition, the largest measuring 18m by 5m. 3 are recorded on plan but an additional structure survives immediately to the S and parallel to the structure at the S.

Condition

Some end walls remaining otherwise completely ruinous and potentially dangerous.

Interpretation

Nissen huts

Importance

Low

***Photograph No.***

14B

Date 1/7/99***Looking***

N

FEARN AIRFIELD**Building Record****No. B.20****NGR NH*****Dimensions***

11m by 4m

Description

One standing nissen hut with a corrugated iron roof and wooden dormers as drawn. The foundations of 2 other huts lie to the NE on the same alignment, though possibly up to 15m long.

The internal walls have been plastered.

Unlike the other bricks observed which are stamped AUCHINLEA, the bricks in this building are stamped NIDDRIE.

Condition

Ruinous and unsafe.

Interpretation

Nissen huts

Importance

Low

***Photograph No.***

17B

Date 1/7/99***Looking***

SE

FEARN AIRFIELD

Building Record

No. B.21

NGR NH

Dimensions

.Not measured

Description

Corrugated concrete water tank of standard form. Not examined in detail

Condition

Interpretation

Water tank of standard design

Importance

Low



Photograph No.
Looking

16B
NE

Date 1/7/99

FEARN AIRFIELD**Building Record****No. B.22****NGR NH*****Dimensions***

6.2m by 4.75m as surviving, aligned NW/SE

Description

A brick water tank, originally 4.35m long on its NW/SE axis, was extended to the SE to make it 6.2m long. Cast iron steps enter the tank in the centre of the W side of the original structure.

The foundations of 2 structures on the same alignment lie to the SE measuring 6m by 5m and 10m by 5m respectively from the NW.

Condition

The extension is poorly bonded with the original and the 2 structures have cracked apart. Rabbit burrowing at the N has also undermined this end cause serious cracks to appear.

Interpretation

Water tank either extended for greater capacity or adapted to another use.

Importance

Low

***Photograph No.***
Looking18B
WSW***Date*** 1/7/99

FEARN AIRFIELD**Building Record****No. B.23****NGR NH*****Dimensions***

9.2m by 2.9m aligned NE/SW

Description

Brick building with a pitched roof supported on timber joists and roof supports. A doorway fills the whole of the NE end.

Condition

Brickwork in good condition but timber roof is quite rotten.

Interpretation

Vehicle shed

Importance

Low

***Photograph No.***

19B

Date 1/7/99***Looking***

SW

FEARN AIRFIELD

Building Record

No. B.24

NGR NH

Dimensions 12.5m diameter**Description** Corrugated concrete water tank of standard form. It has been deliberately damaged on the SE as drawn.**Condition** Good, apart from damaged area**Interpretation** Water tank of standard form**Importance****Photograph No.** 20B
Looking W**Date** 1/7/99

FEARN AIRFIELD**Building Record****No. B.25****NGR NH*****Dimensions***

12m by 5m aligned NW/SE

Description

The foundations of a building lie on the same alignment as the Engine Test House, just to the S of the SW corner of the bank around the hardstanding to the N.

Condition***Interpretation******Importance******Photograph No.***
Looking

Not photographed

Date

12 AREA C: MAIN CLUSTER OF HANGARS PENS AND AIRCRAFT HARDSTANDINGS

- 12.1 This area comprises the main hangar area lying due west of the Control Tower on the western boundary of the Airfield. The locations of principal buildings which remain are shown on Figure C1 and photographic records of the aircraft hangar are shown on photographs 11 and on Figure C3. The hangar and the other remaining building are described below. Buildings and structures not surveyed by the engineer are illustrated and described on the Archaeological Record sheets following figure C3.
- 12.2 This area contained several aircraft hard standings and hangars of which only one Mainhill 'S' shed remains. Also located in this area is a small fire engine garage. The hangar (OS ref NH 840 751) which is in poor condition, was surveyed by A.F. Cruden Associates in April 1999 together with one of the other hangars (located in area I at NH 836 754).
- 12.3 The hangars comprise a lightweight steel framework which supports corrugated metal sheeting. The aircraft access opening in one gable is covered by four large sliding doors running on overhead beams which extend beyond the building, and are supported on independent steel frames. The internal clear dimensions are 21.3 metres (70 ft.) long, by 18.3 metres (60 ft) wide, and 5.0m (16'6") high. Externally the hangars are protected on 3 sides by blast banks of soil.
- 12.4 These hangars are of a type known as Mainhill type "S".

Construction

- 12.5 Both side walls are formed of framed portals at 2.13 (7'0") centres. The internal vertical members are 2½" x 2½" angles and the external slightly curved vertical member is a 3" x 3" angle. The horizontal and diagonal members are also angles of various slightly smaller sizes. These side frames support a lightweight angle, 10 bay, roof truss with a horizontal lower chord and a slightly curved upper member. No access was possible to measure the members of the roof trusses.
- 12.6 The side frames and roof trusses are at 2.13 m (7'0") centres and are linked by one horizontal angle on the internal face and 4 horizontal angles on the external face. These external angles provide support to the corrugated metal cladding.
- 12.7 The frames have riveted connections but with bolts used for the on-site connections between frames. The ends of the vertical legs are cast into the insitu concrete floor slab.

Dilapidations

- 12.7 The hangar is in very poor condition with much of the cladding missing and evidence of a fire in one corner. The framework is locally damaged and twisted, and there is considerable corrosion of the vertical members where they enter the concrete floor slab.

Hazards

- 12.8 No evidence of hazardous material was found in the construction of this hangar. However, the very dilapidated condition makes it a potential hazard, particularly in strong winds when the remaining cladding sheets could become airborne.

Other buildings and structures

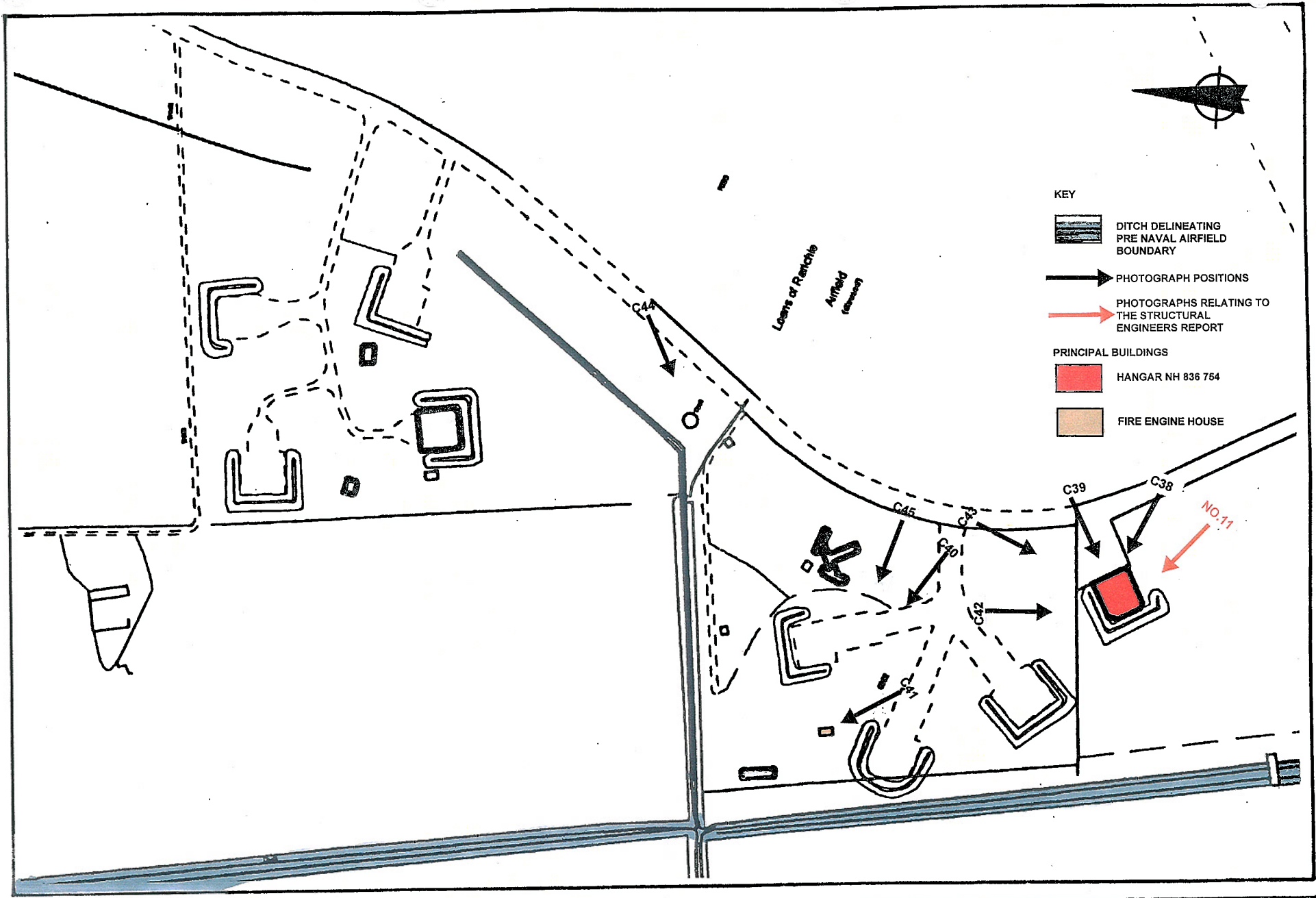
- 12.9 The remaining evidence of the areas history is limited to the hard standings and access roads which are buried in places and the single remaining brick built building which lies within an area which has been ploughed and planted with tree species. This building was one of several fire engine houses which would have been distributed over the airfield. It is understood that the duty fire officer for the vehicle stored at this location would have returned with his vehicle to the accommodation site, operating a relief service with other duty fire officers. This building is in a fair state of repair and appears to have been used for agricultural storage. It is now inaccessible for vehicular traffic.

Recommendations

- 12.10 The hangar has been sold by the present landowner to an individual who intends to arrange for it to be dismantled and re-erected elsewhere and it cannot therefore be included in any plans to develop the airfield for airfield interpretation. Other examples of this type of hangar exist elsewhere on the site and these could be viewed by visiting public although access would not be possible as all are in use.
- 12.11 The fire station building is one of two existing over the airfield and campsite areas and as virtually all other evidence of the former use of this area has, or will, disappear, the inclusion of this building for any interpretation purposes would not make a significant contribution.
- 12.12 In the short term, it is recommended that the new doors which have been added to this building be secured and the windows securely boarded up to prohibit public access and to protect the interior from the elements.



Photograph 11
Hangar NH 837 754 – view from east



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA C - MAIN CLUSTER OF HANGARS, PENS AND AIRCRAFT HARD STANDING FIGURE C1



Photograph C38: Hangar 'E'



Photograph C39: Hangar 'E'



Photograph C40

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA C

FIGURE C 2



Photograph C41: northern gable of fire engine garage



Photograph C42: Hangar E



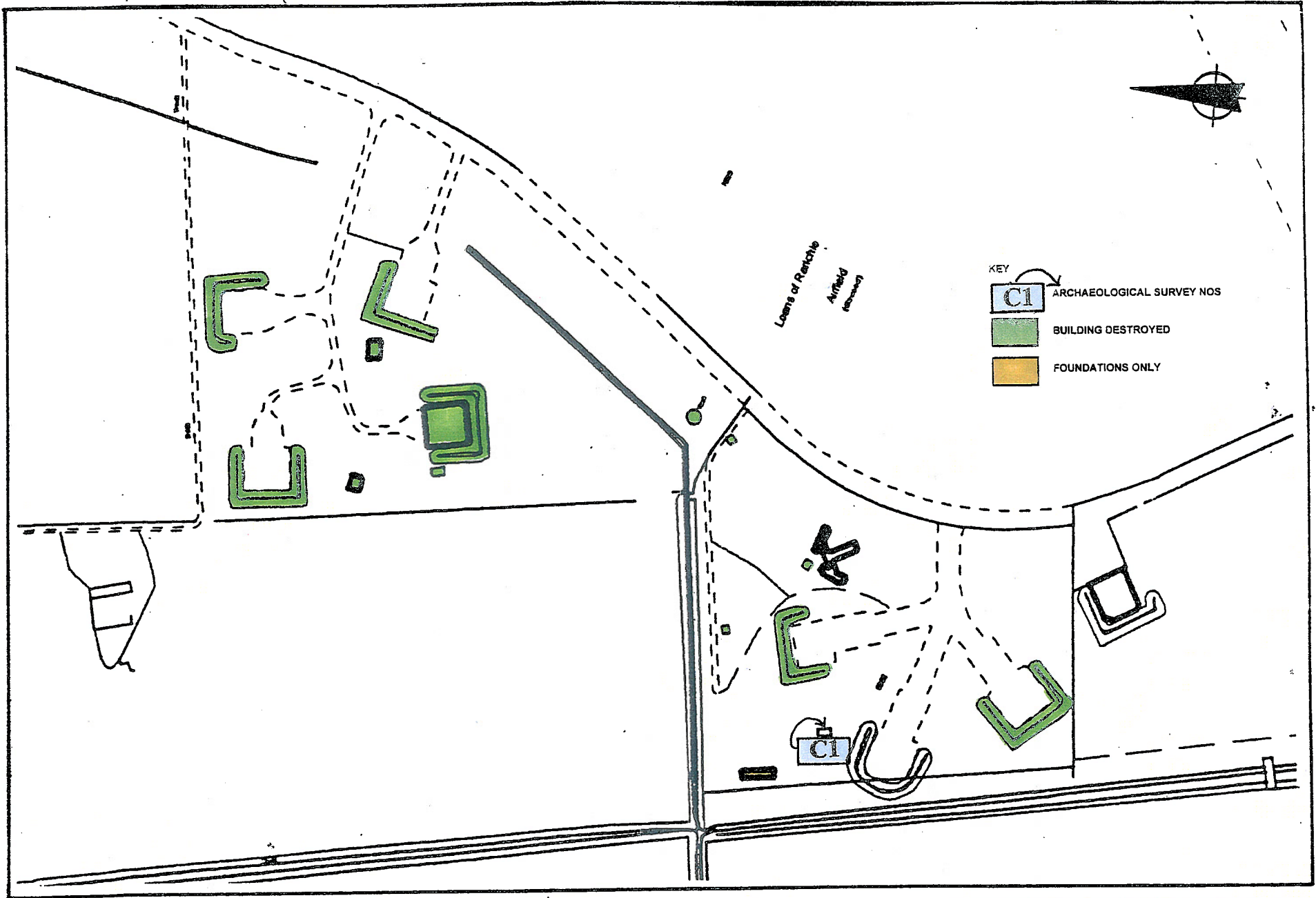
Photograph C43: Hangar E from perimeter track

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA C



Photograph C44: long view towards fire engine building

FIGURE C 3



FEARN AIRFIELD

Building Record

Area C

NGR NH

General Description

Apart from the hangar building described separately very little survives of this former dispersal area

The only building to survive is a brick building with a ^{pitched} ~~flat~~ concrete roof measuring 8m by 4m and is aligned E/W. This is in good condition and has had a new door fitted. It is unclear if it is still in use because it lies in an area of modern tree plantation.

The longer building to the SW only survives as a foundation.

This central area of Area C is obscured by a modern tree plantation and by rank vegetation. Only the building described above and the U-shaped bank to the SE survive in this central area. All the other features recorded have now disappeared.

In the section of Area C to the NW where 4 hard standings are shown on plan, no buildings or banks are visible. 2 large piles of soil show that these have been destroyed and the remains dumped into these piles.



Photograph No.

31B

Date 1/7/99

Looking

S at surviving brick building

13 AREA D: EXPLOSIVES AREA

- 13.1 This area comprises the bomb storage, or explosives storage area which lies in the north western corner of the Airfield. The locations of principal structures which remain are shown on Figure D1 and photographic records of the key buildings and structures are shown on photographs 14 and 15 and on Figures D2 to D3. These buildings and structures are described below. Archaeological Record sheets following Figure D3 describe and illustrate those buildings and structures not surveyed by the Engineer.
- 13.2 The explosives store is located as far away from the operational areas of the airfield (O.S. Ref: NH 836764) and is also remote from neighbouring farms. Some reclamation of the land has been undertaken and, in places, the earth mounds behind blast walls have been removed. The different types of storage facility indicate the types of explosives which would have been kept in these buildings. The type 1 store is likely to have held the largest 500lb bombs and torpedo heads and the brick built stores would have contained smaller ammunition, such as gun cartridges, or detonators.

Type 1 and 2 Explosives Stores

- 13.3 Three of these remain in existence within the explosives storage area and it is likely that only three type 1 stores existed during the war period. The bomb stores were surveyed by A.F. Cruden Associates in April 1999 and is illustrated on photographs no 14 and 15 and D42 – D43 inclusive.

Description

- 13.4 The bomb stores comprise a square, brick built storage building equipped with an overhead runway beam and hoist which extended beyond the front wall of the building to a brick column. This allowed the bombs to be lifted onto trailer units parked in front of the store for transport to the aircraft.
- 13.5 A "U" shaped earth blast bank surrounds the sides and rear of the bomb store with the ends retained by brickwork walls where they meet the access road along the front of the store. The open side of the U is closed by a separate blast bank parallel to the front of the store.
- 13.6 It was noted that all the stores and buildings in this area were fitted with wire rope earthing circuits to which all metal fittings were attached. It also appeared that lightning conductors had been fitted to the roofs and connected to this earthing circuit.

Construction

- 13.7 Two sizes of store were identified, one was 9'6" wide by 15'0" deep, with a 6'0" wide door opening in the front wall. It was 12'0" high. The other was 13'6" wide by 15'6" deep with a 4'6" wide door, but only 10'0" high.

- 13.8 Both were constructed of 350 (14") thick brickwork walls with a 125 (5") thick concrete roof slab. The hoist beam was supported on a brickwork pier in the rear wall and was bolted to the underside of a steel lintel over the door opening. It extended beyond the front wall for approximately 5 metres onto a brickwork column on the opposite side of the access roadway. The steel lintel beam over the door opening was surrounded by a concrete beam across the full width of the front of the store.

Dilapidations

- 13.9 The brickwork walls were all in sound condition. Some minor spalling of the concrete roof slab was evident.
- 13.10 Most damage had been caused by removal of the steel overhead hoist beams for use elsewhere, and also by removal of the earth banks for use as fill. Only one store of each type remains in reasonably complete condition.

Hazards

- 13.11 No hazardous materials were found in or around these buildings.

Other buildings and Structures

- 13.12 Two brick built stores with reinforced concrete roofs exist on the eastern side of the bomb store area. These are in a fair state or repair and have, in the past been used for agricultural storage. On the remains of two tracks which run between the Type 1 and 2 bomb stores are two areas comprising 'U' shaped earth mounds with low brick retaining walls on the track side. These are likely to have been the blast walls for smaller storage facilities which have long since been removed.

Recommendations

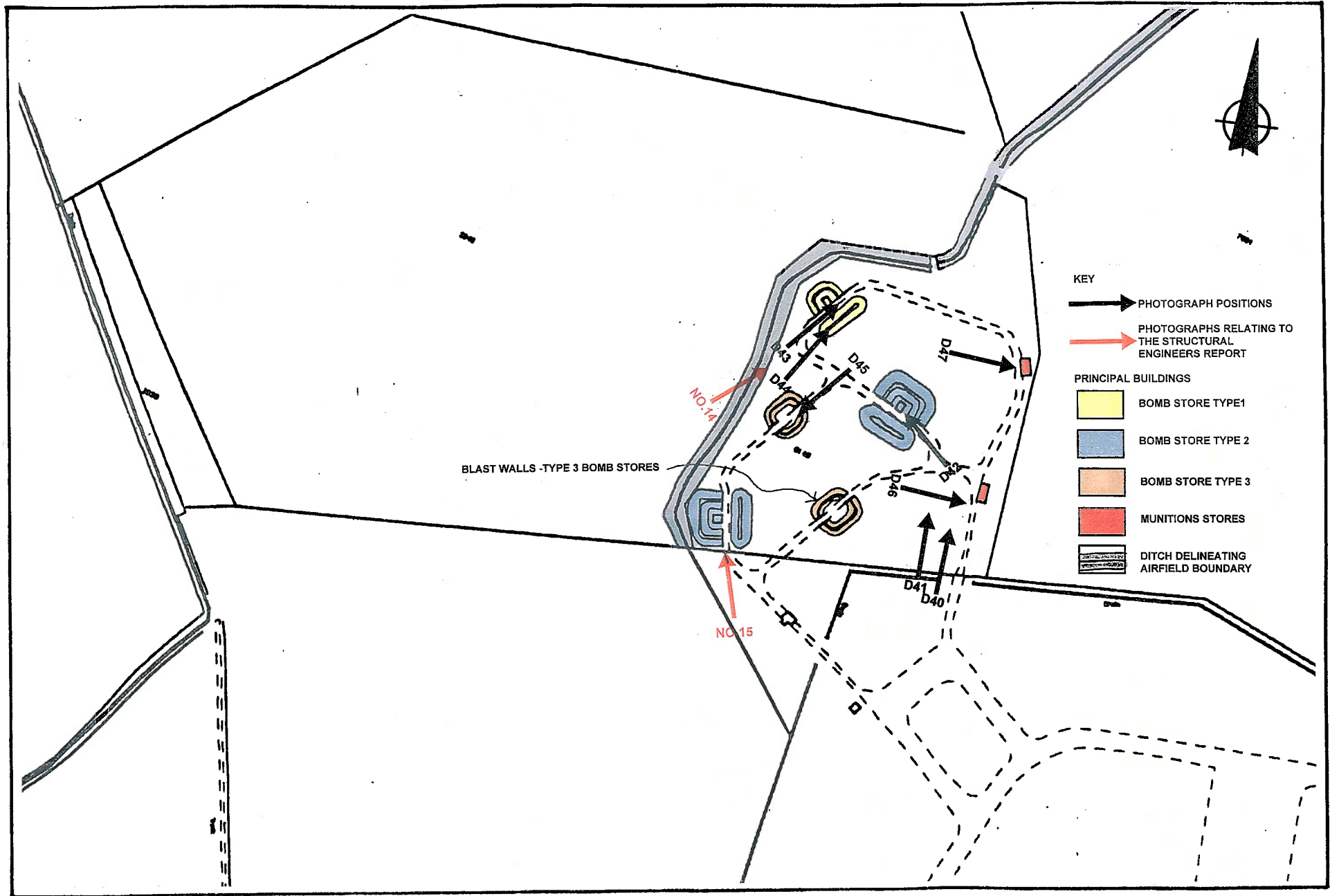
- 13.13 If the Airfield is to be developed for wartime interpretation, the bomb store area would form a feature of interest to visitors and could be developed as a working exhibit if the gantries were to be replaced. Restoration of perhaps one of the stores, with access prohibited to the others, would be adequate. The buildings and structures are, however, typical of those found elsewhere in the country and the representative of the FAAM has confirmed that they are not, in themselves, of national heritage significance.
- 13.14 If only limited parts of the airfield are to be developed for visitor access, the bomb store area could be demolished and the land returned to agricultural use.
- 13.15 In the short term, it is recommended that the blast walls behind which soil has been removed be either backfilled with new material or demolished in the interests of safety. No other works are anticipated as being required to make the area safe for authorised public access. The two brick built stores are in fair condition and should be boarded up to ensure that they are wind and water tight until a future use can be determined.



Photograph 14
Bomb store type 1



Photograph 15
Bomb store type 2



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA D - BOMB STORES

FIGURE D1



Photograph D40: long view to munitions stores



Photograph D41: long view to bomb store area



Photograph D42: bomb store with soil removed from behind blast walls
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA D



Photograph D43: bomb store type 1

FIGURE D2



Photograph D44: bomb store type 1



Photograph D45: remains of low level blast walls



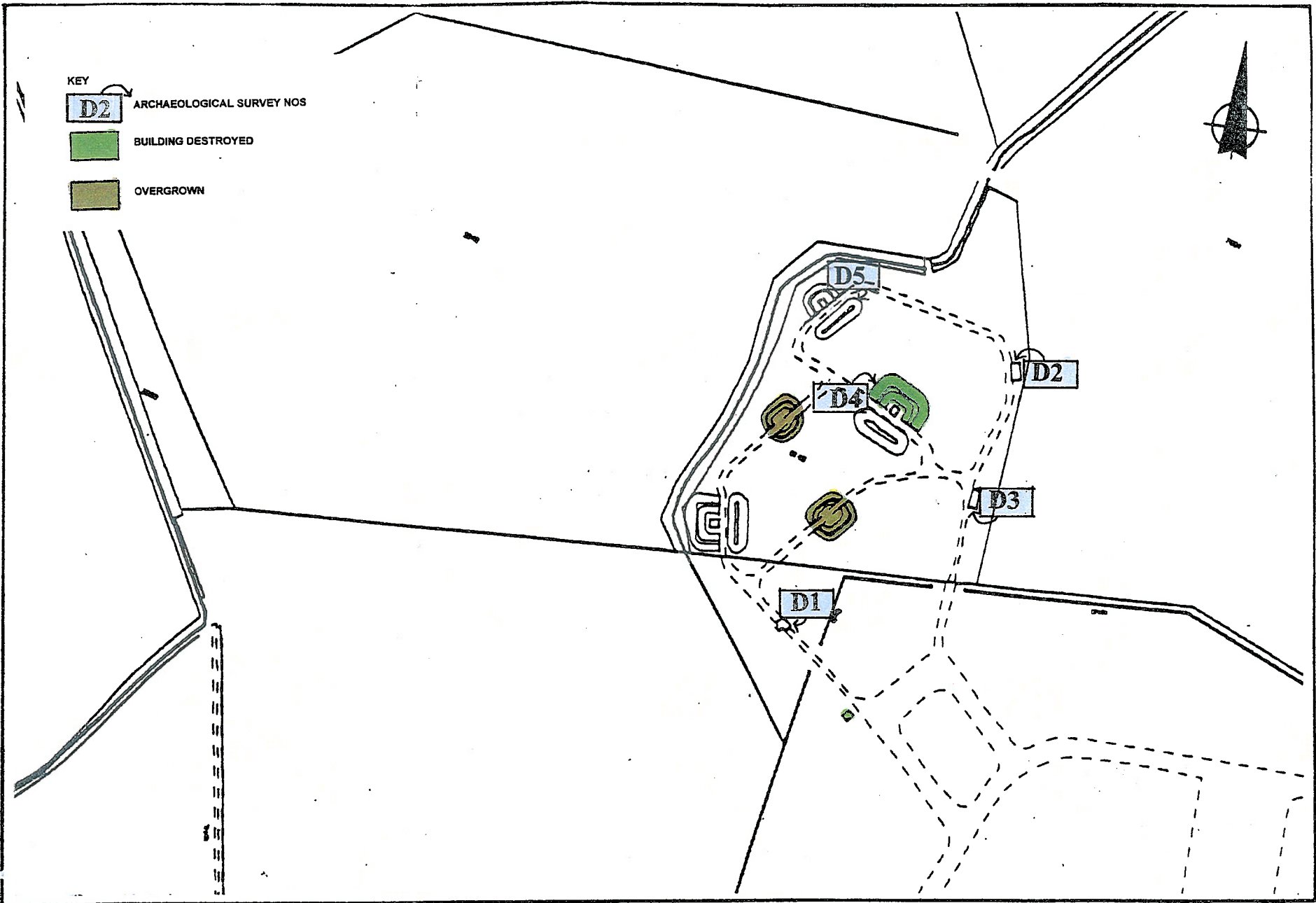
Photograph D46: munitions store/detonator storage



Photograph D47: munitions store/detonator storage

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA D

FIGURE D3



FEARN AIRFIELD**Building Record****No. D.1****NGR NH*****Dimensions***

Not measured for safety reasons

Description

Derelict brick structure with flat roof lying across one of the tracks to the bomb stores.

The building to the SE marked on plan is no longer visible.

Condition

It has been partially demolished and is potentially hazardous

Interpretation

Vehicle store

Importance

Low

***Photograph No.*** 3A***Date*** 30/6/99***Looking*** SE

FEARN AIRFIELD**Building Record****No. D.2****NGR NH****Dimensions**

9.65m by 5.65m externally aligned NNW/SSE. Internal chambers 6m and 1.9m wide.

Description

Flat concrete roofed building of 2 chambers. Wire rope is coiled around the base of the building to link with a probable lightning conductor.

Within the smaller chamber to the S are mortar traces of shelves 0.25m apart and with supports 0.6m apart. By the doorway are painted the following markings:-

Condition

Good

DETONATORS
PERCUSSION
MK VI

.....
?

ELEC....
.....

Interpretation

Detonator store

.....ORS

Importance

If bomb stores are being preserved then both this and D.3 should be preserved with them.

**Photograph No.**

5A

Date 30/6/99**Looking**

WSW to Bomb store

FEARN AIRFIELD**Building Record****No. D.3****NGR NH*****Dimensions***

10.8m by 4.6m aligned NNE/SSW

Description

Substantial brick building with flat concrete roof divided into 2 equal chambers with no internal features visible

Condition

Good

Interpretation

Detonator store

Importance

If bomb stores are being preserved then both this and D2 should be preserved with them.

***Photograph No.
Looking******See photograph D47******Date***

FEARN AIRFIELD

Building Record

No. D.4

NGR NH

*Dimensions**Description*

Bomb store similar to recorded example. The earthen banks to the N of this have been removed. There has been some cattle poaching at the SE end of the bank to the SW of this store.

The 2 smaller stores between this and the recorded example, are obscured by a recent tree plantation.

Condition

Store survives in reasonable and stable condition but banks have been removed as described.

Interpretation

Bomb store

Importance*Photograph No.*

4A

Date 30/6/99*Looking*

NE

FEARN AIRFIELD

Building Record

No. D.5

NGR NH

Dimensions

Description

Bomb store similar to recorded example

Condition

Good,, though partially obscured by vegetation

Interpretation

Bomb store

Importance



Photograph No.

6A

Date 30/6/99

Looking

NW

14 AREA E/F: SECONDARY TECHNICAL AREA

14.1 This area comprises the secondary technical area which includes the ‘Stop Butt’, or ‘Test Butt’, building and various workshops, pens and aircraft hardstandings. The locations of principal buildings and structures which remain are shown on Figure E/F 1 and photographic records of the Key buildings and structures are shown Photograph no 16 and on Figures E/F2 to E/F4. These buildings and structures are described below. Archaeological Record sheets following Figure E/F4 illustrate and describe the buildings and structures not included in the Engineer’s survey.

Stop Butt

14.2 This building is located at OS reference NH 842 764 and is illustrated on photograph no. 16.

14.3 A 9 metre square flat roofed building used for range testing aircraft cannon. The front wall has a full width opening for the aircraft to fire into the building which was probably filled with sand to stop the shells. The side and rear walls are consequently buttressed to resist the pressure from the sand. The front wall above the opening is of reinforced concrete to form a deep lintel beam across the opening. There is a small lean-to storeroom built externally onto the east wall.

Construction

14.3 The buttressed brickwork walls are of 450 (18") thick brickwork. The front elevation has a 1 metre high low level wall and above the opening a 300 (12") thick by 12 feet deep reinforced concrete wall. The in-situ concrete roof slab is supported on 3 large concrete beams spanning from the front to rear of the building. These are unnecessarily large to support just the roof and so presumably were also used to suspend targets from.

Dilapidations

14.4 The brickwork external walls are in very good structural condition with only some local weathering of individual bricks. An opening has been formed in the front 1 metre high wall to allow the shell to be used for agricultural purposes. The concrete wall above the front opening has several areas of impact damage from cannon shells. The impact has been sufficient to cause bursting of the concrete on the interior face of this wall.

14.5 The soffit of the concrete roof slab and the sides of the supporting beams have been affected by concrete carbonation with areas of exposed reinforcement where the concrete has spalled off.

Hazards

14.6 No hazardous materials were evident in the construction of this building.

- 14.6 Areas of spalling, loose concrete present a hazard from falling concrete.

Recommendations

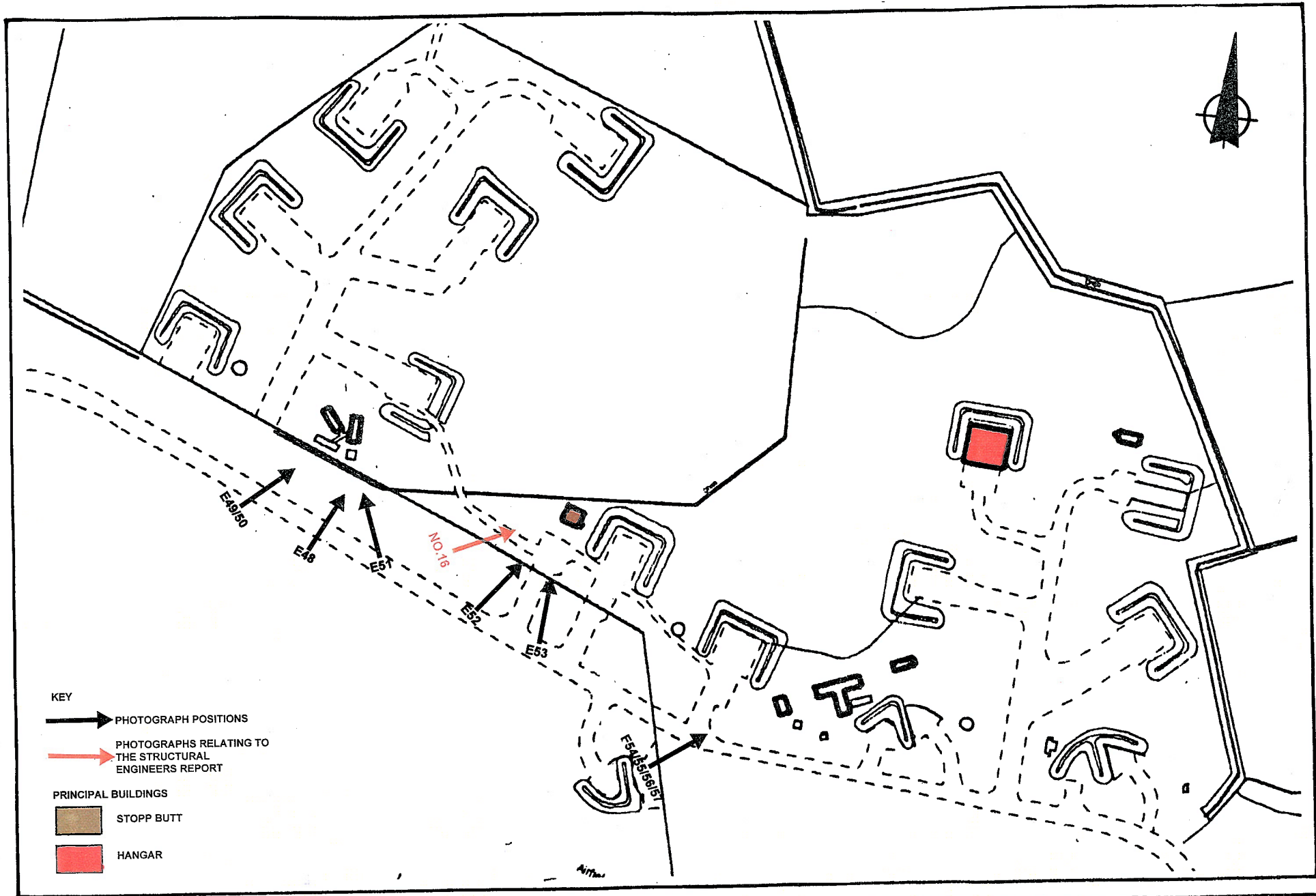
- 14.7 This building would be of considerable interest as a feature of any interpretation development at Fearn. It would be possible, at little cost, to create a feature of considerable interest and interpretation value by reproducing the targets which would have been used in the calibration of aircraft guns.
- 14.8 The building is currently in agricultural use and lies in a field which is used for grazing. Any development would require the permission of the landowner and access to this building would require to be negotiated.

Other Buildings and Structures

- 14.9 This technical area features a large number of other buildings and structures which include ground defence positions, aircraft pens, nissen huts and hangars. There is potential for interpretation of these buildings and structures but most lie within areas which are grazed and many are in agricultural use. Any encouragement of public access would require to be agreed with the land owner.
- 14.10 Some of the more temporary buildings such as the nissen huts are in a poor and potentially dangerous state of repair with only the brick gable and partition walls remaining. While these are of interest and have the potential to be integrated into a public art feature, it may be advisable for these buildings to be examined more closely with a view to establishing whether they are beyond salvaging and should be demolished to allow the land to be returned to agricultural use.



Photograph 16
Stop Butt - view from south west



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA E/F

FIGURE E/F1



Photograph E 48 – remains of nissen huts



Photograph E51 – remains of nissen huts



PANORAMA E/F49/50 – remains of nissen huts





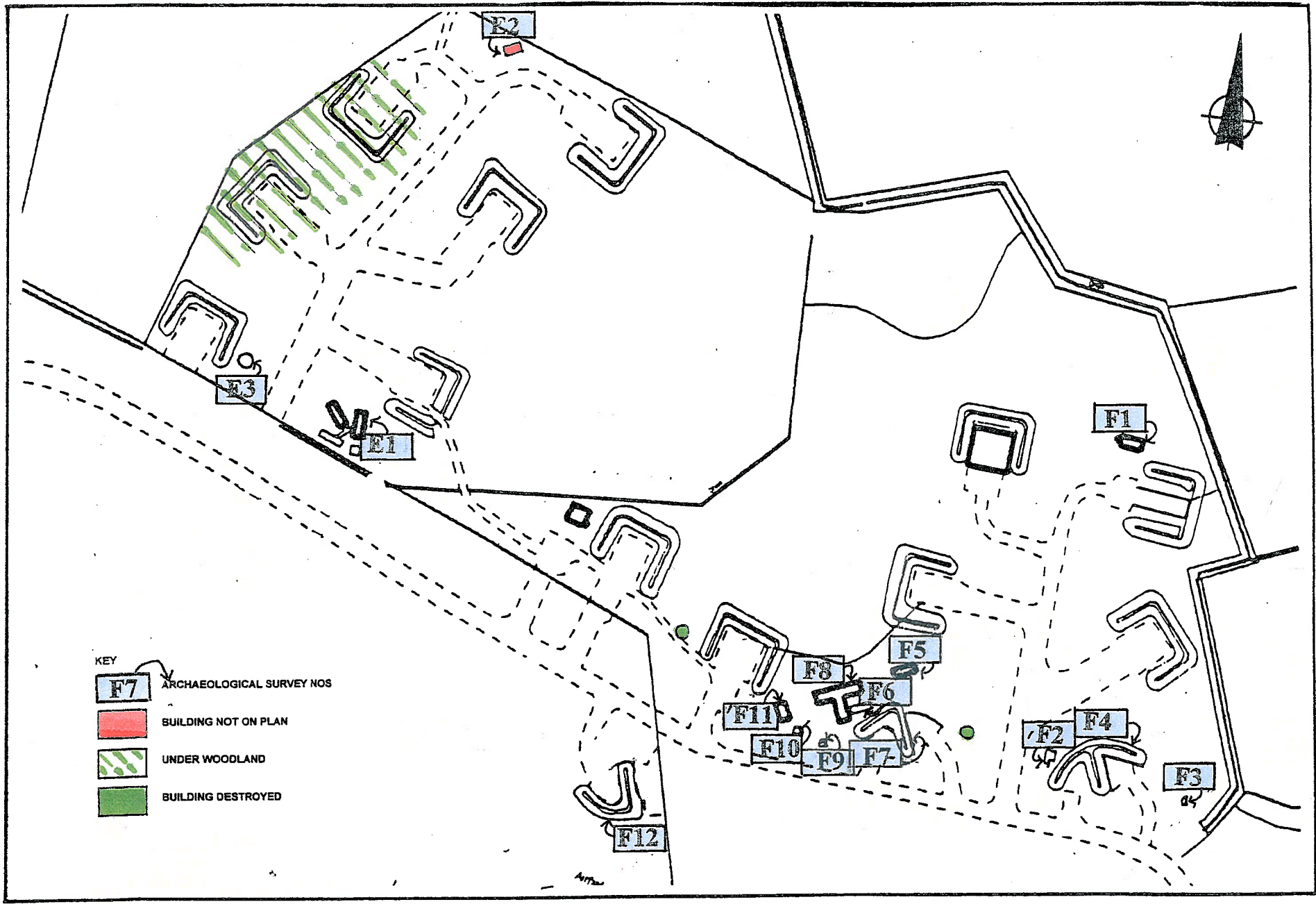
Photograph E52 – Stop Butt



Photograph E53 – Stop Butt



Panorama F54- F57 – general view over technical area



FEARN AIRFIELD - ARCHAEOLOGICAL RECORDS -

KEY PLAN - AREA E/F

FEARN AIRFIELD**Building Record****Area E***General Description*

The 1944 plan shows 6 hangars in this dispersal area. None of these now survive, though the majority of the surrounding banks are still visible and generally well-preserved. The 2 to the NW are now hidden by a modern tree plantation. The banks to the E are obscured by gorse which has probably been sprayed as it all appears to be dead. Where there is no gorse present the banks are subject to slight cattle poaching and there is also some evidence for rabbit infestation.

The area to the SE is partially obscured by more recent developments.

FEARN AIRFIELD

Building Record

No. E.1

NGR NH

*Dimensions**Description*

A complex of ruinous nissen huts lie as shown on plan and photograph. They were not recorded in detail

Condition

Poor and potentially dangerous.

Interpretation

?maintenance support for aircraft parked here

Importance

Low

*Photograph No.*

23

Date

30/6/99

Looking

SE

FEARN AIRFIELD**Building Record****No. E.1****NGR NH*****Dimensions******Description***

As described overleaf

See also photographs E48-51 from Structural Engineers Report

Condition***Interpretation******Importance******Photograph No.***

24

Date 30/6/99***Looking***

SW

FEARN AIRFIELD

Building Record

No. E.2

NGR NH

Dimensions

11.35m by 7.6m aligned SW/NE

Description

The foundations of a demolished building are visible here but are not shown on the current plan.

This building was recorded on the 1944 airfield plan.

Condition***Interpretation******Importance******Photograph No.***

1A

Date 30/6/99***Looking***

SW

FEARN AIRFIELD

Building Record

No. E.3

NGR NH

Dimensions 7.7m diameter by c1m high and 18mm thick

Description Corrugated concrete water tank filled with rubbish

Condition Stable

Interpretation Water tank of standard form

Importance Low



Photograph No. 2A

Date 30/6/99

Looking SE

FEARN AIRFIELD**Building Record****No. F.1****NGR NH*****Dimensions***

11.4m by 7.5m aligned NW/SE. Estimated gable height 3.5m.

Description

Nissen hut with 6 of 7 iron roof supports surviving. The E gable and central division survive but the W gable has collapsed or been demolished into the structure. The interior has a mortar render.

The roof only survives on part of the SE side where traces of a wooden dormer can also be seen.

Within the building are the remains of concrete shelving

Condition

Poor and potentially dangerous

Interpretation

Probable workshop

Importance

Low

***Photograph No.***

6

Date 30/6/99***Looking***

SW

FEARN AIRFIELD
Building Record

No. F.1

NGR NH



Photograph No.
Looking

7
SE

Date 30/6/99



Photograph No.
Looking

8
S (Interior view)

Date 30/6/99

FEARN AIRFIELD**Building Record****No. F.2****NGR NH*****Dimensions***

7.5m by 5.4m aligned NNE/SSW. Roof height estimated as 2.6m

Description

A brick built building with porches at either end and a pitched asbestos roof supported on the internal brick divisions, including a central brick wall that runs down the centre of the building.

The roof only survives on the E side

Within the building are a series of mortar rendered cubicles 1.6m long by 0.8m average width. A drain runs along the inner edge of these cubicles draining to the S. The cubicles have a central opening 0.52m wide by 0.56m high at the base of the outside wall.

Condition

The brickwork is in good condition but the roof is poorly preserved.

Interpretation

Probably a toilet block, though the purpose of the external openings near the floor is not clear.

Importance

Low

***Photograph No.***

9

Date 30/6/99***Looking***

NNW

FEARN AIRFIELD

Building Record

No. F.2

NGR NH

Dimensions

Description

See previous sheet

Condition

Interpretation

Importance



Photograph No.

10

Date 30/6/99

Looking

ESE

FEARN AIRFIELD

Building Record

No. F.3

NGR NH

Dimensions

3.18m by 3.3m by 2.6m high aligned NW/SE

Description

A rectangular blast shelter with external blast wall (2.18m long)

Within the structure is a concrete plinth 1.83m wide containing 2 central drain pipes.

Condition

Good

Interpretation

Blast shelter, though it is unclear why the central drains were required.

Importance

Low

**Photograph No.**

11

Date 30/6/99**Looking**

SSW

FEARN AIRFIELD

Building Record

No. F.3

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

12

Date 30/6/99

Looking

SE at internal drain pipes

FEARN AIRFIELD

Building Record

No. F.4

NGR NH

Dimensions

Not measured

Description

A bomb shelter lies in the centre of the pen as shown, aligned NW/SE.

Condition

The reinforced concrete of the shelter is beginning to perish and the floor is flooded and partially rubble-strewn. The area of the pen, especially on the SW, is largely filled in with rubble. 2 swallows nest within.

Interpretation

Bomb shelter

Importance

Low

**Photograph No.**

13

Date 30/6/99**Looking**

SW

FEARN AIRFIELD

Building Record

No. F.5

NGR NH

Dimensions

12.75m by 3.5m aligned NE/SW

Description

Rectangular brick structure with a porch at the SW. It is buttressed by reinforced concrete supports and has a flat concrete roof cast in situ. Within the building are a series of wooden supports for shelving that line both sides of the building.

Condition

Good stable. It is now used as a shelter for stock and the floor is covered with dung.

Interpretation

Store

Importance***Photograph No.***

14

Date 30/6/99***Looking***

NW (interior view)

FEARN AIRFIELD

Building Record

No. F.5

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

15

Date 30/6/99

Looking

NW

FEARN AIRFIELD

Building Record

No. F.6

NGR NH

Dimensions

11.35m by 5m aligned NE/SW

Description

Nissen hut as shown and photographed with no roofing surviving. Porches roofed with asbestos sit at either end against the surviving brick gables.

Condition

Poor

Interpretation

Store/workshop?

Importance

Low

**Photograph No.**

16

Date 30/6/99**Looking**

SE from F.5

FEARN AIRFIELD

Building Record

No. F.7

NGR NH

Dimensions

Not measured. Aligned NE/SW

Description

Reinforced concrete bomb shelter of standard form.
It has been partially infilled with soil and rubble

The NE wing of this pen has been removed as has the water tank drawn to the E.

Condition

Stable but reinforced concrete is beginning to decay.

Interpretation

Bomb shelter

Importance

Low

***Photograph No.***

17

Date 30/6/99***Looking***

SE

FEARN AIRFIELD**Building Record**

No. F.8

NGR NH

Dimensions

T-shaped complex 26m long by 6m NE/SW and 13.7m long NW/SE

Description

A brick building with a pitched roof of asbestos supported on a cantilevered iron frame.

The NE/SW building contains 6 rooms entered from a corridor running down the S side. The interior has a mortar render to a height of c1m, the exact height being obscured by extensive deposits of cow dung. Remains of shelves or tables are evident where there is no mortar render. Some of the iron window frames survive.

The NW/SE building has an entry from the SE and a corridor on the W side leading to the main building the rest of this building is taken up with a toilet block.

Condition

The roof is unsound and potentially dangerous, though the brick work seems stable. The building is used as stabling for stock and there are considerable quantities of dung sealing the floors.

Interpretation

Workshops with attached toilet block

Importance

Low

**Photograph No.**
Looking18
NE at W end of main structure**Date** 30/6/99

FEARN AIRFIELD

Building Record

No. F.8

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

19

Date 30/6/99

Looking

N from room behind toilet block. Note sockets on wall and probable bench site.

FEARN AIRFIELD**Building Record****No. F.9****NGR NH****Dimensions**

4.8m by 3.2m with an entrance facing NNW

Description

A brick blast shelter with a concrete plinth internally and metal frame as partly photographed.

A blast wall 2m long faces the entrance.

Condition

Good

Interpretation

Blast shelter

Importance

Low

**Photograph No.**

20

Date 30/6/99**Looking**

S through the entrance

FEARN AIRFIELD

Building Record

No. F.10

NGR NH

Dimensions

4.7m by 4.4m aligned NNW/SSE

Description

Brick structure with cast iron steps on the NE leading inside.

Condition

Good but a large hawthorn grows out of the centre and some rubbish has been dumped inside.

Interpretation

Water tank

Importance

Low



Photograph No. 21
Looking S

Date 30/6/99

FEARN AIRFIELD

Building Record

No. F.11

NGR NH

Dimensions

9.35m by 6.25m aligned NW/SE

Description

A brick building with a pitched roof formed of asbestos. The building is divided into 4 compartments with a central division running down the middle. The room to the NW contained 3 cubicles and that to the NE 4 cubicles. The room on the SE had nozzles built into the wall (only partly visible on photograph) that were interpreted as showerheads. A similar arrangement may apply to the room on the SW.

Condition

Fair but roof partly damaged especially on the SW

Interpretation

Shower and toilet block

Importance

Low

**Photograph No.**

22

Date 30/6/99**Looking**

NW

FEARN AIRFIELD

Building Record

No. F.11

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

23

Date 30/6/99

Looking

NW through window at out of focus probable shower heads.

FEARN AIRFIELD

Building Record

No. F.12

NGR NH

*Dimensions**Description*

Bomb shelter of standard form

The E arm of the pen within which this shelter was contained has been removed

Condition

Fair. As elsewhere the reinforced concrete is beginning to decay

Interpretation

Bomb shelter

Importance

Low

*Photograph No.*

7A

Date 30/6/99*Looking*

SW

15 AREA H: THE WRENNERY

15.1 This area lies to the north east of the airfield and comprises the accommodation area with recreational domestic and medical facilities. The locations of principal buildings and structures which remain are shown on Figure H1 and photographic records of the key buildings and structures are shown on photographs 17 to 32 and on Figures H2 to Hxx. These buildings and structures which have been identified with the assistance of a representative of the Fleet Air Arm Museum are described below. No archaeological records have been prepared for this area as the major buildings have been subject of an engineer's survey.

Archaeological Records from RCAHMS

15.2 This site, NMRS no. NH 87 NE 34 is situated at Loans of Tulloch and occupies an area of some 700m by 300m, occupying four distinct fields between the Loans of Tulloch and the abandoned house at Ashfield.

15.3 Many of the buildings are still roofed and the camp surrounds the existing farmhouse and steading which were utilised during the war for accommodation. The hal 'H' shaped stone steading with a small doocot on one gable end dated to 1889, has been altered internally and shows evidence of military occupation in the form of corrugated iron roofs, metal window frames, breeze block walls and brickwork incorporated into various parts of the building. Other buildings include a gas decontamination centre (NH 87 NE 34.03 NH 8567 7703), hospital block (NH 87 NE 34.04 NH 8572 7695) with a seated areas for the wounded and a mess hall (??NH 8566 7707) still retaining painted murals depicting two rural scenes and the RNAS badge above the fireplace.

15.4 The camp still retains most of the concrete perimeter fence posts including three of the steel camp gates which are insitu.

15.5 Situated near the South perimeter fence is the brick built hospital. The building is notable for having the water tank set on a small tower at the southern end and retaining many of the internal divisions. Despite having been used as an animal byre, the seating for the wounded servicemen and the overhead shower facilities are still insitu along with a painted 'red cross' set high on the wall at the northern end. It is likely that this building may also have been used in connection with the gas decontamination centre for showering down wounded airmen.

Overview of the key buildings and structures

Officers Messes

15.6 There are two officers' mess buildings, or Mess Halls, extant in the camp site. These lie close to each other near the entrance to the camp with an ablutions block situated between the two buildings. These are brick built buildings with asbestos roofs which are in poor repair and have collapsed in places. Both

buildings include a mess room with a brick built fireplace over which some murals remain visible in the eastern most mess. It is thought that this mess was utilised by male officers and that the westernmost building was therefore occupied by female officers. These buildings include small rooms, or officers' cabins' which would have been heated by pot bellied stoves, the flues of which can still be seen in some rooms.

Ablutions block

- 15.7 This brick built building with asbestos roof is situated between the two mess buildings and comprises a boiler room with chimney stack and various ablutions facilities.

Cinema

- 15.8 The cinema is situated to the north of the easternmost mess building and is a concrete clad brick structure of a typical naval design. The projection room, which is accessed via a flight of external steps on the western elevation, is situated above the main entrance with a cloakroom vestibule. The eastern gable has been largely demolished and the roof of the building has collapsed.

Decontamination Centre

- 15.9 This building is constructed from reinforced concrete and has a reinforced concrete roof. Most of the structure is intact although much of the interior has been damaged. The incinerator stack is situated on the south west corner of the building and the building interior is subdivided into a series of rooms of varying sizes. Two rooms (one of which has no access from the main building) are located at the eastern end of the building and these have metal 'chutes' leading out to an area of concrete hard standing. This building stands out from the surrounding brick built structures due to both the materials employed and the form of the building; it was built to a Ministry, rather than Admiralty pattern.

Hospital block

- 15.10 This building is situated to the south of the farmhouse and to the east of the decontamination centre. It comprises three interlinked structures which are further subdivided. The building is currently in use as a vehicle and general storage area and has been secured in part by the addition of concrete block walls and sections of infill.

Generator Building

- 15.11 This is a brick built rectangular building with a large opening on the northern elevation. This opening is concealed by a brick wall which extends along the northern and eastern sides and enclosed an elevated concrete hard standing on the eastern side which would have housed the fuel supply for the generator.

Accommodation and ablutions block

- 15.12 Situated to the west of the generator building, this is a partially brick built, partially ‘nissen’ hut style building which would have provided sleeping quarters with associated ablutions facilities.

Stores

- 15.13 This ‘L’ shaped building, which is situated to the west of the Accommodation and Ablutions block, is thought to have housed stores. At the western end a room is partially shelved with concrete benches at various heights.

Cookhouse/Dining Area

- 15.14 This brick built building is located in the south western corner of the site and comprises

Other buildings and notable structures

- 15.15 Although the majority of surviving buildings and structures are located in a core area to the south and west of Loans of Tulloch, a small number of scattered buildings and structures exist to the east. It is thought that the camp probably included many temporary buildings such as timber barracks and Nissen huts which have since been demolished and removed. It is likely that the camp site accommodated both Navy and Army personnel as the latter would have been required for ground defence. It may be that the camp was divided into two distinct areas with the Naval staff being accommodated in the western area and the Army staff in the area to the east. It is also possible that a parade ground may have been located between these two areas .
- 15.16 In the ‘core area’ ground defence positions and air raid shelters remain.

Hospital Block

- 15.17 This building is located at NH 8570 7705 and was surveyed by AF Cruden associates in June 1999. Photographs 17,18,19.
- 15.18 Three single storey, pitched roofed buildings aligned parallel to each other and linked by flat roofed sections. All the buildings are 28’0” wide internally with the central and eastern units 70’0” long and the western one 80’0” long. The northern gable of the western unit has been demolished and this unit is currently in use as a garage/workshop area. There are several lean-to extensions on the gables and external walls of the buildings and an 8 metre high water tower above the north end of the central building.

Construction

- 15.19 The external walls are all of single skin brickwork (4½“ thick) with piers at 3000 (10’0”) centres. The piers are 450 (18”) wide and project 115 (4½“) on the internal face of the wall and 240 (9½“) on the external face. The external

walls and internal brickwork partition walls are all supported off a concrete floor slab.

- 15.20 The roof on the three buildings is of lightweight open metal trusses of approximately 22½° pitch, which are supported on the piers at 10'0" centres and span 28'0" across each building. The top chord is 3" x 2½" angle section, with 2½" flat bar for the bottom chord and 2" x 2" angles for the diagonal members. These metal trusses support 4" x 2" timber purlins which are lined internally with flat asbestos cement sheets and clad externally with ridged asbestos cement sheets.

Dilapidations

- 15.30 The brickwork walls are generally in sound structural condition with no significant cracks evident. Several openings have been enlarged or blocked up and the north end of the western unit has been partially demolished.
- 15.31 The metal roof trusses are corroded but not seriously, and are still perfectly adequate to support a lightweight roof cladding. However, the asbestos cement linings, timber purlins and ridged cladding are generally in poor order with many large openings and broken areas.
- 15.32 The concrete floor slabs and in-situ concrete flat roofed areas were all in generally good condition with no significant cracks or spalled areas evident.

Hazards

- 15.33 The structure of the buildings does not present any structural hazard but there are many loose areas of asbestos cement sheeting on the roof which could fall at any time. There is also a very large number of asbestos cement fragments littered throughout the buildings which will in time weather to produce a potential health hazard.

Recommendations

- 15.34 This building is currently used at least in part for storage of vehicles. Part of the building has been repaired but the remainder is littered with rubbish. If the Wrennery area were to be developed for interpretation, this building would form an important feature even if public access could not be obtained. In the short term, some clearance of the building interior (removal of asbestos cement and other debris) should be undertaken and areas of the roof should be assessed for stability. Retention of this building should be considered with the roof being removed removed and replaced.

Gas Decontamination Centre

- 15.35 This building which was surveyed by AF Cruden Associates in June 1999 is located at NH 8565 7705 and is illustrated on photograph 20.

- 15.36 This is a single storey, flat roofed building roughly rectangular in plan. It is 27.25m (89'6") long by 8.0m (26'0") wide by 2.75m (9'0") high externally. There is a water tower centrally located on the roof, and two chimney flues.

Construction

- 15.37 The external walls are of 380 (15") thick blockwork with smooth rendered finishes both internally and externally. There are no window openings in the walls and only two contaminated entrances at the eastern end and one clean entrance at the west. The roof is 100mm (4") thick cast in-situ concrete slab which is supported on the external walls and a central longitudinal wall. Internal partition walls are also of rendered brickwork and are generally 9" thick. The floor slab is a concrete raft which supports both the external and internal walls.

Dilapidations

- 15.38 The building is structurally in very good order with no significant cracks or other evidence of movement. The roof slab is protected by bitumen felt and this is in rather poor condition.

Hazards

- 15.39 There are no significant health hazards associated with the materials employed in this building but there are several open drainage sumps within the building which present a tripping hazard.

Recommendations

- 15.40 This building would form an interesting feature of any interpretation facility and consideration should be given to allowing public access, utilising the decontamination centre as a walk through exhibit. In the short term, the building should be secured to preclude public access.

Canteen

- 15.40 This building is situated at O.S. Ref: NH 8563 7694, is illustrated on photograph no 21 and was surveyed by AF Cruden Associates in June 1999.
- 15.41 This building consists of two single storey, pitched roofed buildings parallel to each other, linked by a central flat roofed section. A third staff accommodation building lies to the rear of the canteen with its axis at 90° to the main building.
- 15.42 The principal buildings are both 28'0" wide internally with the eastern unit being 70'0" long and the western one 85'0" long, and projecting 15'0" behind the eastern one. They are separated by a 12'0" wide gap in which the flat roofed linking section is centrally located.

- 15.43 The accommodation unit to the rear abuts the S.E. corner of the 85'0" long unit and is itself 18'0" wide by 35'6" long. All buildings are internally 8'0" to the wallhead and have pitched roofs of approximately 22½° slope. There is a brickwork water tower in the S.E. corner of the eastern block and also a brickwork chimney stack above the kitchen area of this same block.

Construction

- 15.43 All three buildings have single skin brickwork walls 4½" thick with piers at 10'0" centres. On the 28'0" wide units the piers are 18" wide and project 4½" internally and 9½" externally. On the smaller 18'0" span building, the piers are on the external face only and are 4½" wide by 9½" projection. The brickwork is pointed externally but internally is smooth rendered on the lower half and pointed on the upper half. These walls are all supported off a concrete floor slab.
- 15.44 The roof construction uses the standard 22½° pitch lightweight steel trusses at 10'0" centres spanning between the wall piers (see hospital survey for member details). The trusses support timber purlins at 3'9" centres with internal smooth asbestos cement lining sheets and external ridged asbestos cement sheets.
- 15.45 The flat roof on the connecting area is of insitu concrete construction with downstanding lintels over the wide serving openings in the side walls of the dining halls.

Dilapidations

- 15.46 The concrete floor slab is in sound condition as is the brickwork walls and partitions. The doorways in the gable walls have been enlarged to allow access for agricultural use of the main dining areas. The roof trusses are corroded but structurally in reasonable order but much of the asbestos cement lining and cladding is broken and scattered everywhere. The concrete flat roofed area has localised spalling but the downstanding lintels are not well compacted and have consequently allowed the reinforcement to corrode with resultant spalling of areas of concrete.

Hazards

- 15.47 The buildings are littered with broken fragments of asbestos cement sheeting which will weather in time to present an asbestos fibre risk. There are also several small sections of asbestos fibre lagging still present on the water pipes.
- 15.48 The buildings themselves do not present any structural hazard but the spalled areas of reinforced concrete could loosen and fall at any time.

Recommendations

- 15.49 Site clearance within and adjacent to the building should be undertaken to remove asbestos cement refuse. This building would form an important part of

the interpretation of the Wrennery site and should be included in any plans for preservation and development.

Stores

- 15.50 The stores were surveyed by AF Cruden Associates in June 1999, are located at O.S. Ref: NH 8568 7694 and illustrated on photographs 22 and 23
- 15.51 The stores comprise two buildings linked to form an L shape. One lying W-E is a single storey pitched roof building 18'0" wide by 78'6" long - this is internally subdivided into various storerooms and offices. Linked to its east gable but lying on a N-S axis, the second building is a semi-circular Nissen hut originally 142'0" long by 24'0" wide. This Nissen hut section was divided into two sections by a central brickbuilt section which appeared to have been a garage for a large vehicle (fire engine?). The Nissen hut to the north of this brickwork section has been removed from site leaving only the concrete base slab extant.

Construction

- 15.52 The pitched roof building has external walls of single skin brickwork 4½" thick with external piers 4½" wide by 9" deep at 10'0" centres. The westernmost 13'0" length of this building appears to have been constructed after the main section of the building but still utilising the same materials and style of construction. These walls and the internal brickwork partition walls all sit on a concrete floor slab.
- 15.53 The roof construction is of lightweight steelwork trusses at 10.0" centres supported by the brickwork wall piers. The trusses are of 22½° pitch with 3" x 2½" angle top chords, 2½" flat bar bottom chords and 2" x 2" diagonals. They support timber purlins which are lined internally with flat asbestos cement sheeting and clad externally with ridged asbestos cement sheets.
- 15.54 The Nissen hut workshop sections are of semi-circular cross-section 24'0" wide at the base by 12'0" high at mid span. The ribs are formed from 2" x 2" tee-section at 6'0" centres. These are bolted to the concrete floor slab using angle cleats pre-welded to the ends of the ribs. The ribs support horizontal 3" x 2" rails which are held onto the ribs by hookbolts. There are 9 No. rails in total, including the floor rail, with the spacing increasing with height towards the apex. Radiused sheets of corrugated iron are nailed to the horizontal rails with window and door openings framed out between the ribs. The gables and cross walls of the Nissen huts are of cavity wall construction with a brickwork outer leaf and blockwork internal leaf.
- 15.55 The cross walls for the garage section are also of this cavity wall construction, but they extend above the curved Nissen hut profile and there both leaves are of brickwork. The pitched roof of this section is of corrugated asbestos cement sheeting supported by timber purlins spanning the 10'0" between the cross walls.

Dilapidations

- 15.56 The northern 60'0" long section of the Nissen hut is gone, with only the concrete base left. The southern 72'0" long section is still intact but most of the corrugated iron sheeting is gone as are many of the door and window dormers. The brickwork cross walls and gable are still in good order however, as are the concrete floors.
- 15.57 The brickwork stores building is in good structural order apart from the asbestos cement roof sheeting which has many broken areas and holes.

Hazards

- 15.58 Asbestos cement fragments are littered throughout the stores area and will present an asbestos fibre hazard in time. The bracing originally provided to the brickwork gable wall by the steel framework of the Nissen hut has largely been removed and without it the gable wall will be unstable. This should be demolished before it reaches this unsafe stage.

Recommendations

- 15.59 At least part of this building (the main stores area) is of interpretation interest in the context of the camp site and should be retained if possible. The nissen hut workshop area is in poor condition and should be demolished at an early date. Asbestos cement litter should be removed from within and around the building.

Air Raid Shelter

- 15.60 This structure is located at O.S. Ref: NH 8565 7695 and is illustrated on photographs 24 and 25. The survey by AF Cruden Associates was undertaken in June 1999.
- 15.61 A semi-buried reinforced concrete shelter some 30'0" long with a brickwork shielded entrance in the West gable. Internally the arched cross-section is 7'0" wide at the base and 7'0" high at the apex. There is a 2'0" square vent and emergency exit located in the roof at the end opposite the access doorway.

Construction

- 15.62 The shelter is constructed of precast concrete units which rest on a cast in-situ concrete floor slab and are butt jointed at the apex. The units are 8" wide x 3½" thick and appear to be simply butt jointed although we suspect there may be half lapped joints. They appear to be lightly reinforced with 2 or 3 bars per unit. The entrance is shielded by a 15" thick brickwork approach at right angles to the doorway and with a precast concrete roof slab.

Dilapidations

- 15.63 The bunker is in sound structural order with only localised spalling of the concrete where the cover to the reinforcement is too shallow. The structure is only partially buried as surveyed, but would most probably have been completely covered when built.

Hazards

- 15.64 The construction presents no health and safety risks but the open vent shaft and doorway are obvious hazards to young children.

Recommendations

- 15.65 This structure is typical of many which would have existed on the airfield and within the campsite at Fearn and is in reasonable condition. Given its proximity to other buildings of interest, this structure should be considered as an integral part of any interpretation development. In the short term this structure should be sealed to prevent public access, with the air vent being closed off to preclude any possibility of accidents.

Cinema Building

- 15.66 This building is located at O.S. Ref: NH 8562 7711, is illustrated on photographs 26 and 27 and was surveyed by AF Cruden Associates in June 1999.
- 15.67 This pitched roofed building is 22'0" wide by 34'0" long and is 15'9" high from floor to wallhead level.
- 15.68 Onto its western gable there is a flat roofed, two storey, full width extension some 5'6" long which provided an entrance foyer on the ground floor and a small balcony/projection area at first floor level. Access to the first floor was via a flight of external concrete steps. A very large opening has been knocked through the east gable wall to provide access to store a large vehicle (probably a combine harvester) within the building.

Construction

- 15.69 The gable walls are of 9" thick brickwork and the longitudinal walls of 4½" brickwork with 20" x 9" external piers at 10'6" centres. These walls sit on strip concrete footings with a separate concrete floor slab formed within the external walls. The lean-to on the western gable has its 4½" thick brickwork walls supported directly off the floor slab however.
- 15.70 The pitched roof of corrugated asbestos cement sheeting was supported on timber purlins spanning between timber scissors trusses at 10'6" centres (see photo No. 13). Most of the roof structure is missing from the building.

Dilapidations

- 15.71 The very large hole knocked through the east gable has resulted in cracking at the corners of the gable with the longitudinal walls. There has also been no attempt made to lintel over the opening with the brickwork relying on its natural arching for support. The internal concrete floor slab has a central longitudinal crack running the full length of the building which indicates a degree of settlement of the upfilling underneath. Part of the western wall of the projection room extension has collapsed and most of the roof is missing.
- 15.71 The building is in a very dilapidated condition and requires action either to make it stable or to demolish it.

Hazards and Recommendations

- 15.72 We are of the opinion that the building is in a dangerous condition and requires prompt action to make it safe. The east gable is unstable above the slapped out opening and we also consider the unpropped east gable above the balcony area to be unstable in high winds. These could be removed but this will then remove their propping action to the longitudinal walls which in turn will become unstable. In our opinion the building would be safest demolished to ground level.

Officers Messes

- 15.73 There are 2 mess buildings illustrated on photographs 28 and 29.

O.S. Ref: NH 8564 7708 Eastern mess
O.S. Ref: NH 8558 7705 Western mess

- 15.74 Both mess buildings are very similar in layout and construction although they appear to differ in purpose. The most western building is equipped with a large kitchen and stores area to the rear with the front areas forming the mess rooms. The eastern building has no kitchen area but has a bar area to the rear with two large open rooms to the front.
- 15.75 The buildings are both made up of single storey, pitched roofed units of 18'0" internal width. The main building lies parallel to the road in each case with the entrance central. The western mess is 70'0" long with the eastern one 80'0" long, and with a small lean-to entrance lobby over the original entrance. To the rear of both are 40'0" long by 18'0" wide legs with 25'0" long by 18'0" wide legs built off the east side of these and lying parallel to the front section. The open area between the front and rear sections forms a small open yard which in both cases is closed off by a wall and gate.
- 15.76 Both buildings have a brick built water tower above the rear section with the western mess also having a large brick built chimney above the kitchen area.

Construction

- 15.77 The buildings are all made up of the standard 18'0" wide units. These incorporate external walls of single leaf 4½" thick brickwork with external piers at 10'0" centres. These, and the internal brickwork partition walls, are all built off a simple concrete floor slab.
- 15.78 The 22½° pitched roofs use lightweight metal trusses at 10'0" centres to support timber purlins which are internally lined with smooth asbestos cement panels and externally clad with ridged asbestos cement sheets.

Dilapidations

- 15.79 The concrete floor and brickwork walls of these buildings are in generally good structural condition with no significant cracks or other defects. The asbestos cement roof sheeting has many holes and broken areas with the timber purlins in poor conditions, but the steel trusses are still serviceable.

Hazards

- 15.80 Many fragments of asbestos cement sheeting are scattered throughout the building and will in time present an asbestos fibre hazard. Structurally the buildings do not present any significant hazard although their dilapidated condition does present some health and safety risk to people entering them.

Recommendations

- 15.81 Retention of these buildings is recommended, ideally with remedial action being undertaken to replace the roofing material and to seal up door and window openings.

Ablutions Block

- 15.82 This building was surveyed in June 1999 and is located at O.S. Ref. No. NH 8560 7707 and illustrated on photographs 30 and 31.
- 15.83 Of the two ablution blocks identified at this camp, this one is in the best condition. The second block, some 50 metres to the east, is mostly demolished, with only the water tower still standing.
- 15.84 This is a single storey, pitched roof building measuring 18'0" long x 19'0" wide externally. It has a brick built water tower approximately 25'0" high at its southern end together with a brickwork chimney for the boiler. There is also a large vent built up from the centre of the roof above the showers area.
- 15.85 Internally the building provides 3 individual bathrooms, 4 shower cubicles and 2 toilets, together with a boiler room.

Construction

- 15.86 The building is the standard 18'0" internal span construction using single skin 4½" thick brickwork walls with small external piers at 10'0" centres. The internal partition walls are also of 4½" brickwork and these and the external walls are built off a concrete floor slab. While the roof of this building is of similar construction to other 18'0" wide units, namely internal asbestos cement sheet lining and external ridged asbestos cement cladding on 4" x 2" timber purlins, the internal support is provided by the numerous partition walls rather than the usual lightweight metal trusses.

Dilapidations

- 15.87 The concrete floor and brickwork walls of this building are all in good condition but the asbestos cement cladding and timber supports to the roof are in poor condition.

Hazards

- 15.88 Fragments of asbestos cement are scattered throughout the building and some small sections of asbestos lagging are still evident on the pipework within the building. These all present a low risk asbestos hazard.

Recommendations

- 15.89 This building should be retained if possible, with asbestos cement litter being removed from within and around the building and any unstable roofing materials and supports being taken down.



Photo No. 17
Hospital Building NH 8570 7705
View of front elevation facing N.W.



Photo No 18
Hospital Building NH8570 7705
View of western block from the S.W.



Photo No 19
Hospital Building NH 8570 7705
Typical 28'0" span roof construction



Photo No 20
Gas Decontamination Centre NH 8565 7705
N.W. elevation from the north



Photo No 21
Canteen Building NH 8563 7694
General view from the north



Photo No 22
Stores Building NH 8568 7694
West gable and south elevation



Photo No 23
Stores/Workshop Building NH 8568 7694
Nissen Hut section viewed from the N.E.



Photo No 24
Air Raid Shelter NH 8565 7695
View from the N.E.



Photo No 25
Air Raid Shelter NH 8565 7695
View from the N.W.



Photo No 26
Officers Mess (East) NH 8564 7708
General view from the S.W.



Photo No 27
Officers Mess (West) NH 8558 7705
General view from the S.E.



Photo No 28
Cinema Building NH 8562 7711
General view from the West



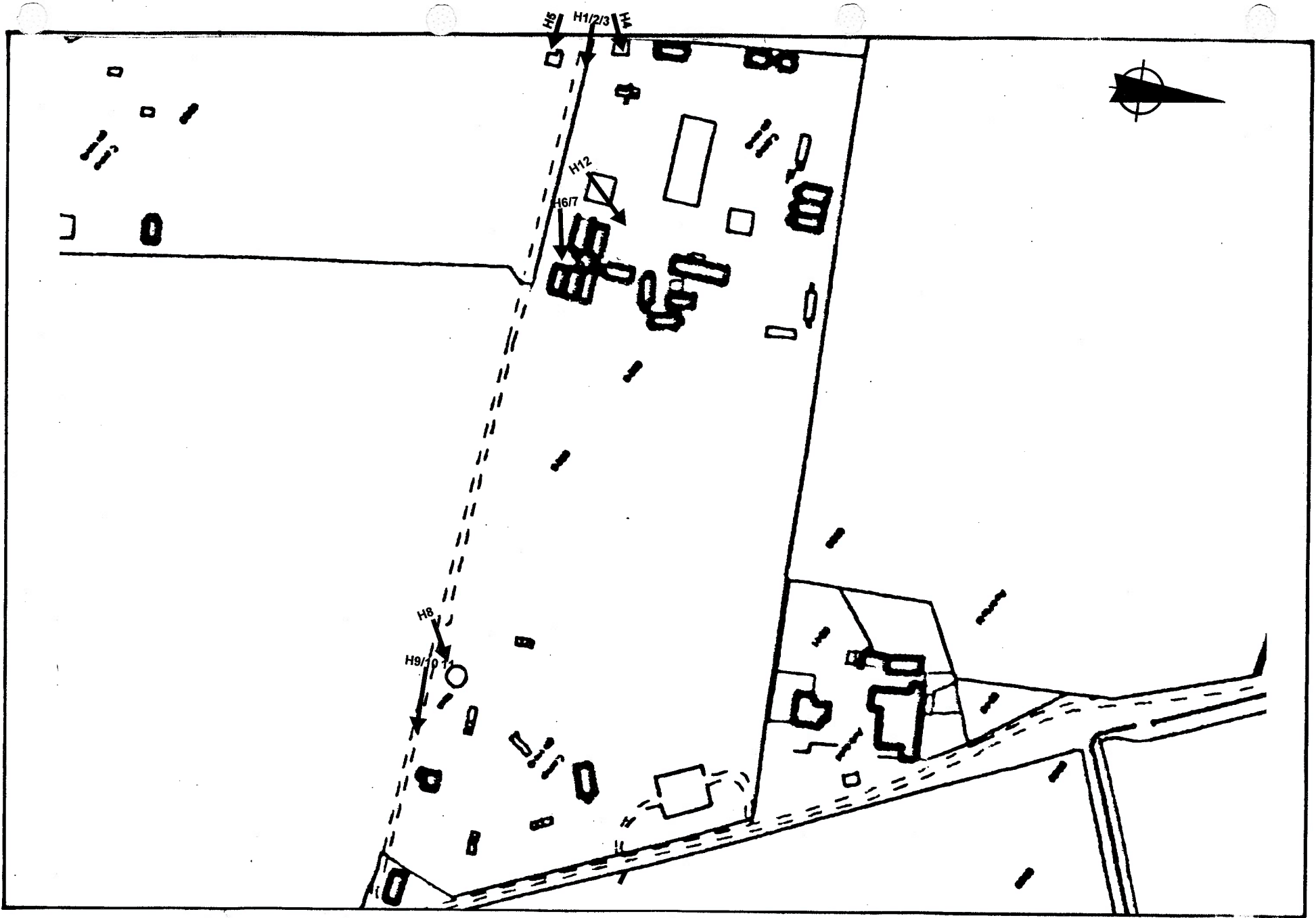
Photo No 29
Cinema Building NH 8562 7711
Roof Construction



Photo No 30
Ablutions Block NH 8560 7707
View from the West

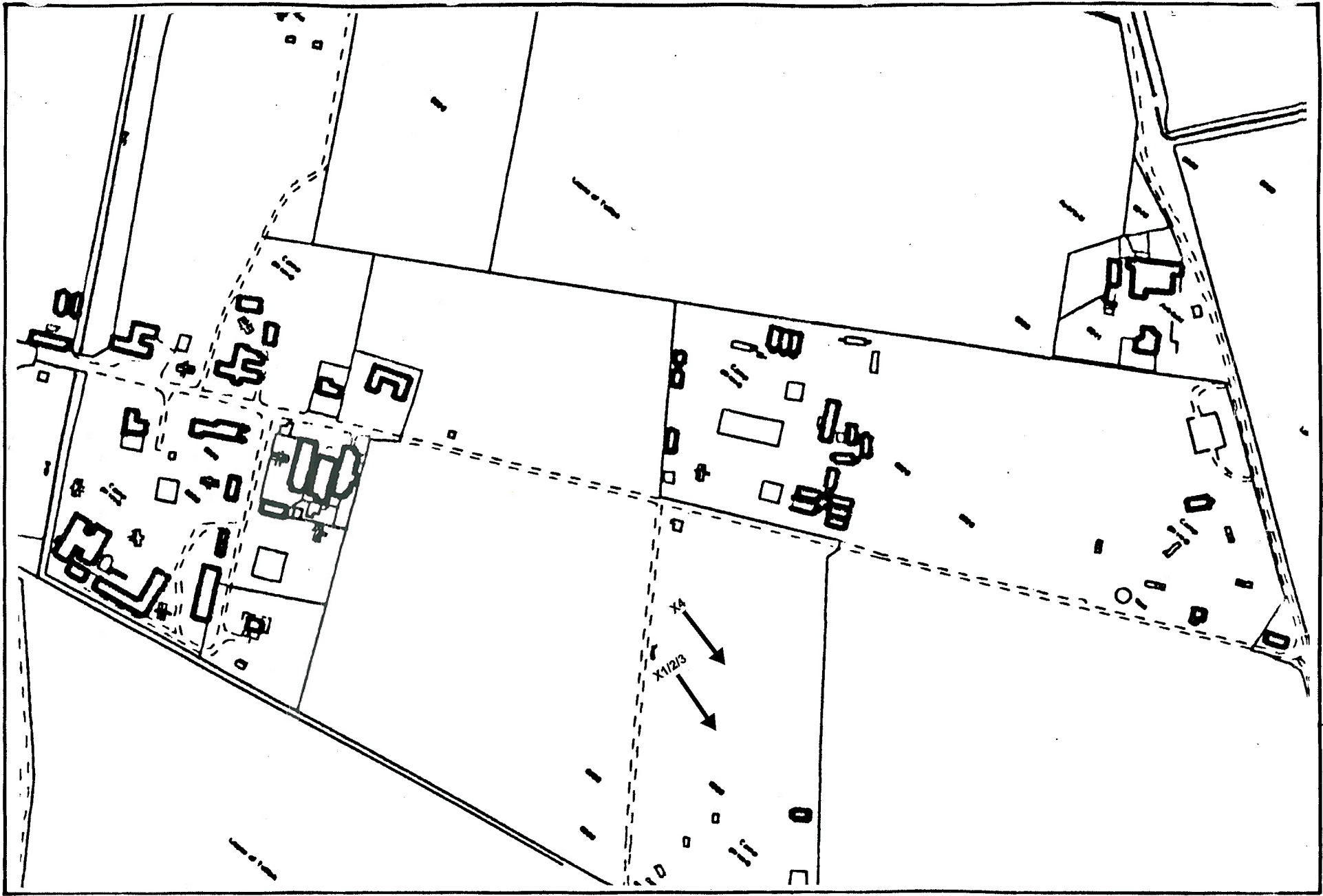


Photo No 31
Ablutions Block NH 8560 7707



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA H 2

FIGURE H/1B



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA H

FIGURE H/1C



Panorama W1/W2: the entrance and guardroom/gatehouses



Panorama W3/W4: officers mess south elevation

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H2



Photograph W5: air raid enclosure



Photograph W6: interior of air raid shelter



Panorama W7/W8/W9 general view over the camp towards the decontamination centre, stores and officers' mess

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H3



Photograph W10: cookhouse and dining area east elevation



Photograph W11: view along southern boundary showing rear of stores building



Panorama w12/W13/W15 of accommodation and ablutions block and stores east elevation

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H4



Panorama W14a/W14b showing the rear of the hospital block south elevation



Photograph W16: Decontamination Centre east elevation



Photograph W17: Interior view of chutes in decontamination centre



Panorama W18/W19: officers' mess south elevation



Photograph W20: interior of officers' mess showing wall murals
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H



Photograph W21: cinema west and south elevations



Photograph W22: cinema west elevation



Photograph W23: ablutions block north elevation



Photograph W24: officers mess north and east elevations
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H



Photograph W27: Ablutions block south elevation

FIGURE H7



Panorama W25/W26: officers' mess (east elevation)



Panorama W28/W29: ablutions block and officers mess west and north elevations
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H8



Panorama W30/W31: decontamination centre north and west elevations



Photograph W32: officers' mess east and south elevations

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H9



Panorama W33a/W33b/W34



Panorama W35/W36/W37: general view along main entrance road
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H10



Panorama W37/W39: officers mess and ablutions block south elevation



Panorama W41/W42/W43 remains of nissen structure

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H11



Photograph W40 Interior of Store showing concrete shelving



Photograph W44: Brick gable end to former nissen hut



Photograph W45: interior view of nissen structure



Photograph W46: derelict farm building adjacent to Loans of Tulloch



Photograph W47: interior view of store showing concrete shelving



Photograph W48: interior view of store showing concrete shelving

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H13



Panorama W49/W50 showing general view over campsite looking east



Photograph W51: internal view of hospital block



Photograph W52: view towards hospital block from the east



Panorma W53/W54/W55: internal view of hospital block
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H15



W56: Interior view in hospital block



W57: Interior view in hospital block



W58: Interior view in hospital block



W59: interior view of hospital block



W60: interior view of hospital block



Panorama W61/W62: interior view of hospital block



Panorama W63/W64/W65: interior view of hospital block
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H17



Panorama H1/H2/H3 – general view over campsite looking east



Photograph H4: building close western side of eastern portion of Wrennery
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H



Photograph H5: building close western side of eastern portion of Wrennery

FIGURE H18



Panorama H6/H7– asbestos roofed building partially demolished



Photograph H8: watertank, the Wrennery



Photograph H12: building on eastern portion of the Wrennery site



Panorama H9/H10/H11: buildings close to the eastern boundary of the Wrennery
FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA H

FIGURE H20



Panorama X1/X2/X3: General view over eastern portion of Wrennery site



Photograph X4: general view over eastern portion of the Wrennery site looking south east

16 AREA I: HANGARS AND AIRCRAFT HARDSTANDINGS

- 16.1 This area comprises a secondary hangar area in the south west corner of the airfield. It lies outwith the original perimeter of the airfield and is screened from the runway area by a stand of Scots Pine. Only one hangar of the three which stood on this site during the war remains and it is now in use for agricultural storage and has been repaired in part. The location of this hangar is shown on Figure I 1 and photographic records are shown on photographs 10, 12 and 13.
- 16.2 The hangar (OS ref NH 836 754) was surveyed by A.F. Cruden Associates in April 1999 and is one of four in existence on the airfield.
- 16.3 The hangars comprise a lightweight steel framework which supports corrugated metal sheeting. The aircraft access opening in one gable is covered by four large sliding doors running on overhead beams which extend beyond the building, and are supported on independent steel frames. The internal clear dimensions are 21.3 metres (70 ft.) long, by 18.3 metres (60 ft) wide, and 5.0m (16'6") high. Externally the hangars are protected on 3 sides by blast banks of soil.
- 16.4 These hangars are of a type known as Mainhill type "S".

Construction

- 16.5 Both side walls are formed of framed portals at 2.13 (7'0") centres. The internal vertical members are 2½" x 2½" angles and the external slightly curved vertical member is a 3" x 3" angle. The horizontal and diagonal members are also angles of various slightly smaller sizes. These side frames support a lightweight angle, 10 bay, roof truss with a horizontal lower chord and a slightly curved upper member. No access was possible to measure the members of the roof trusses.
- 16.6 The side frames and roof trusses are at 2.13 m (7'0") centres and are linked by one horizontal angle on the internal face and 4 horizontal angles on the external face. These external angles provide support to the corrugated metal cladding.
- 16.7 The frames have riveted connections but with bolts used for the on-site connections between frames. The ends of the vertical legs are cast into the insitu concrete floor slab.

Dilapidations

- 16.8 This hangar is in much better condition than the one in area C and is currently being used for agricultural storage. The original cladding is virtually intact apart from the two central doors which have had new cladding fitted. There is some distorted members in the space frames but the damage is relatively minor. As the cladding is still intact, the base of the vertical members has been protected from water and consequently corrosion at this level is only

slight. This hangar could be restored relatively easily to a satisfactory condition.

Hazards

- 16.9 No evidence of hazardous material was found in the construction of this hangar.

Recommendations

- 16.10 The hangar is used by the landowner and this fact, in combination with its relatively remote location means it does not lend itself to forming a significant part of any war time interpretation strategy for the airfield. It is in reasonable condition and is maintained by the present owner and no repair work or other action is recommended. The remains of the earth mounds surrounding the hard standings on which two other hangars were located could be removed along with the hard standings to allow a return of this area to agricultural use but it is considered that the costs involved in such an operation would outweigh any benefits.

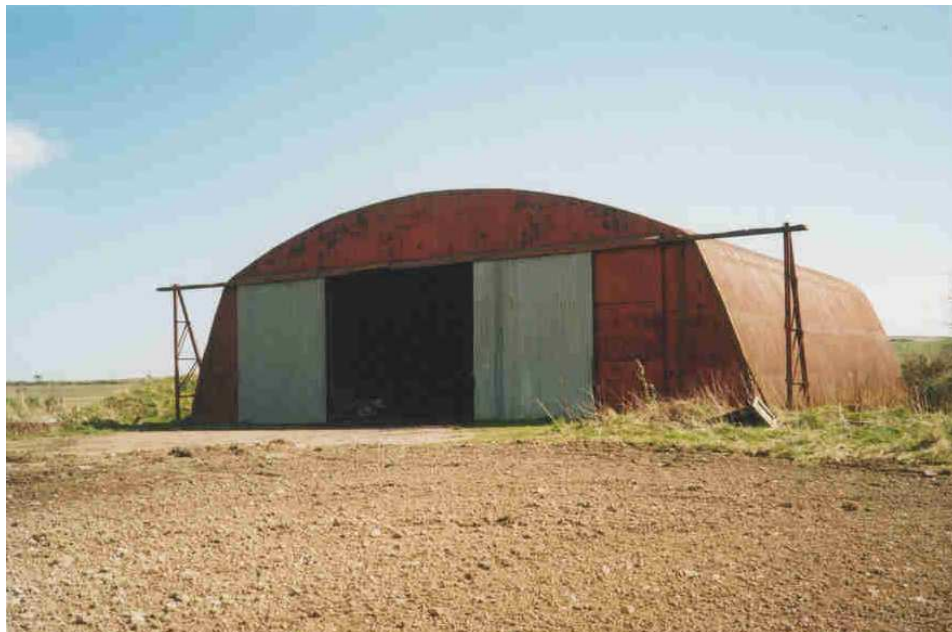
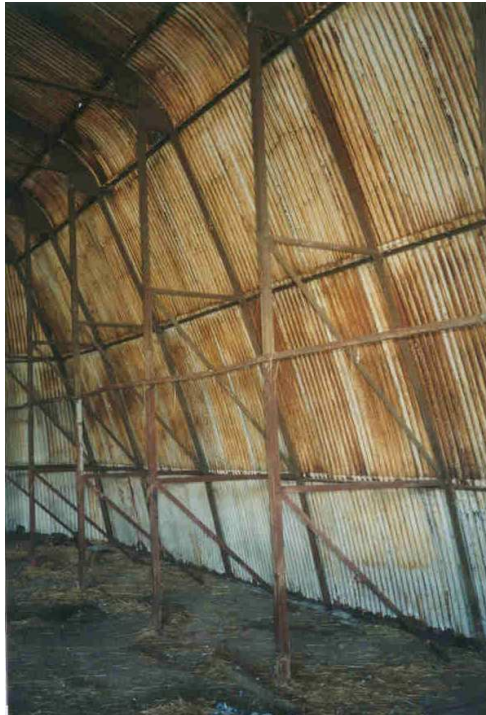


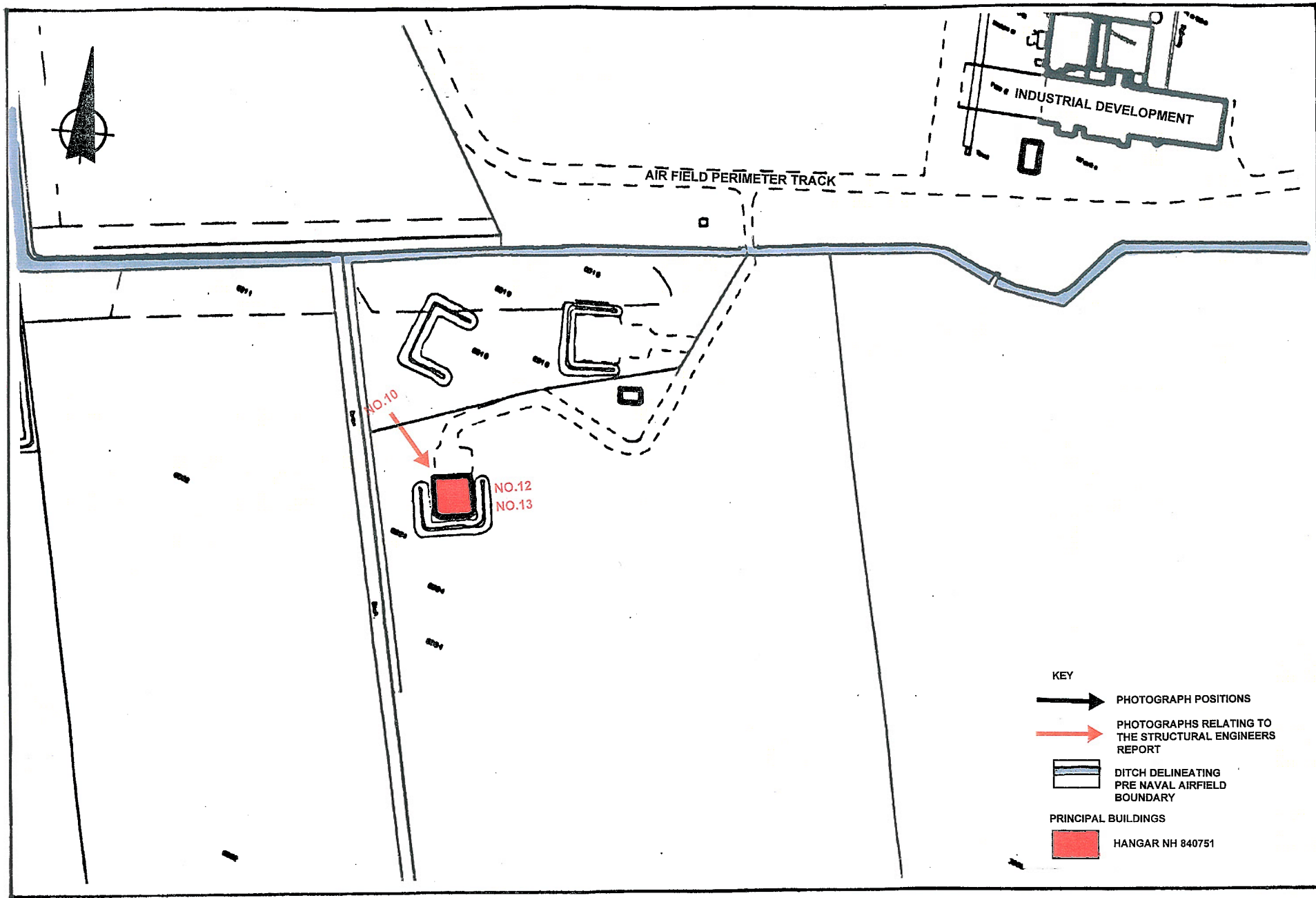
Photo No 11
Hangar NH 840 751 – view from NW



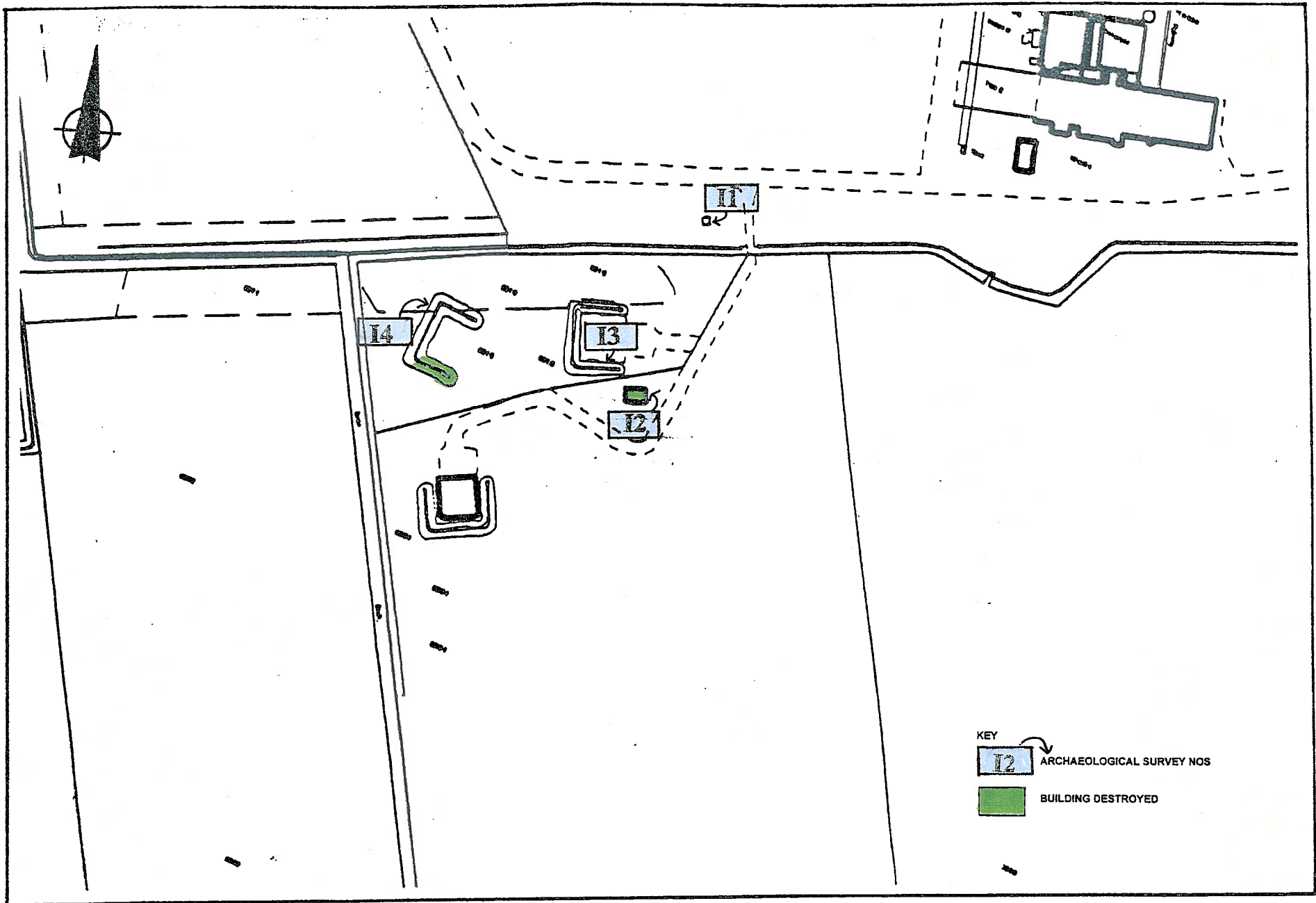
Photograph 12
Hangar NH 840 751- interior



Photograph 13
Hangar NH 840 751- side wall frames



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA I - HANGARS AND AIRCRAFT HARD STANDING FIGURE II



FEARN AIRFIELD - ARCHAEOLOGICAL RECORDS -

KEY PLAN - AREA I

FEARN AIRFIELD

Building Record

Area I

NGR NH

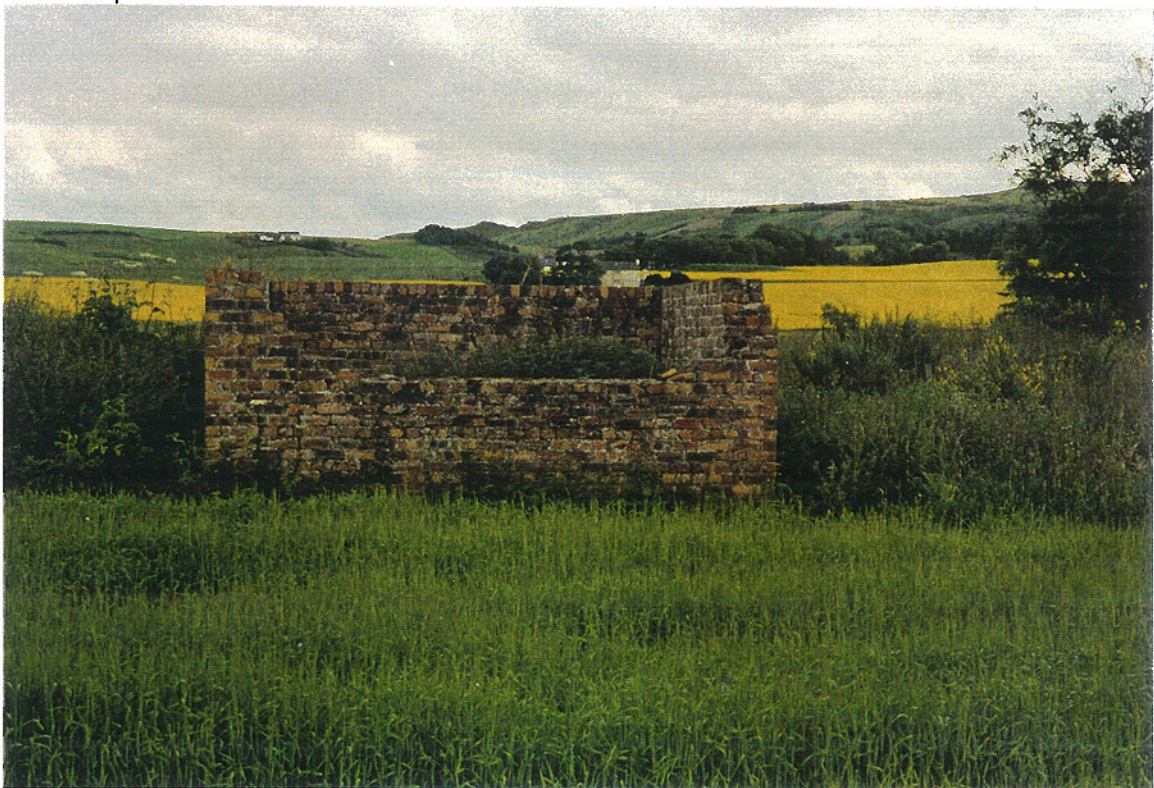
General Description

Apart from the separately recorded hangar the only surviving structure is at the N of the area adjacent to the main track. It measures 4.7m by 4.4 by 2.2m high and is of brick construction. It was clearly used as a water tank, as there is no entrance and there are cast iron steps built in to enter the tank. The tank is cracked and partially collapsed on its N side.

The larger building shown on plan no longer survives, though its position can be seen from rubble largely obscured by rank vegetation.

The banks around the hard standing to the W of this building survive in good condition.

The SE bank around the hard standing further to the W has been demolished.



Photograph No.

30B

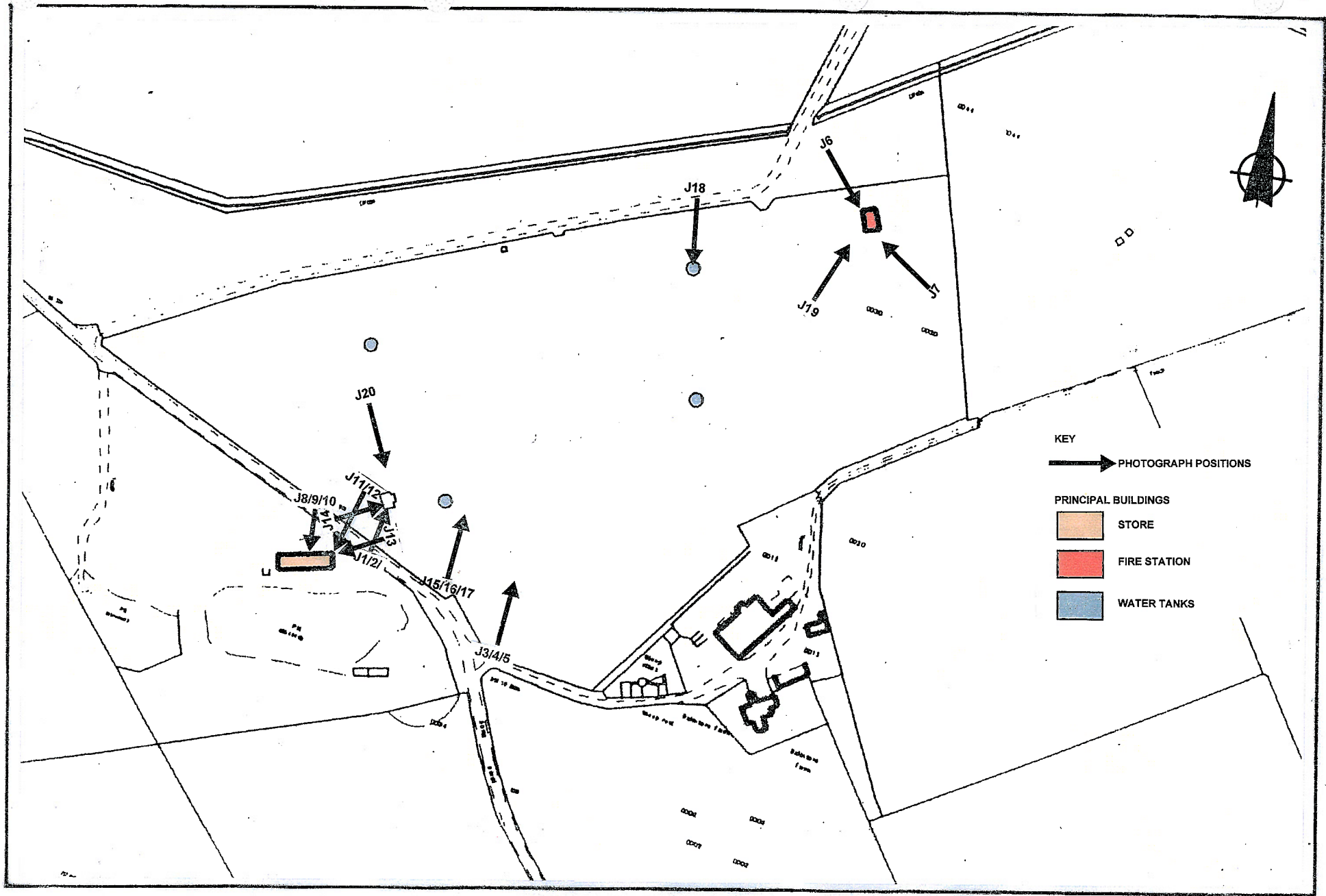
Date 1/7/99

Looking

S at water tank

17 AREA J: Campsite

- 17.1 This lies to the south east of the airfield entrance and is located mainly on the eastern side of the B9166. Evidence of occupation during the wartime period is limited to two buildings and a number of circular water storage tanks. The location of the principal buildings remaining are shown on Figure J1 and these are illustrated on Figures nos. J2 to J6. Archaeological Survey Record sheets for this area follow figure no. J6
- 17.2 One of the two buildings which survive are a brick built fire engine house which lies near the access track which runs between this camp and the camp at Loans of Tulloch. This building is in a reasonable state of repair and is similar, although slightly larger than the one in area C.
- 17.3 The other building is a long single storey brick storeroom which may have housed offices. The asbestos roof is in a poor state of repair and the building is surrounded by gorse and other vegetation. Part of the site on which this building sits has been quarried for sand and gravel and it can be assumed that the remains of other buildings and structures were demolished prior to or during quarrying operations.
- 17.4 At least four circular water tanks survive on the former camp site and it is likely that the accommodation buildings in this area were of timber construction; these would have been easy to remove and restoration to agricultural use would have been straightforward.



FEARN AIRFIELD-PHOTOGRAPHIC SURVEY AREA J

FIGURE J1



Panorama J1/J2 view from store building over campsite



Panorama J3/J4/J5: looking north over campsite area

FEARN AIRFIELD – PHOTOGRAPHIC SURVEY AREA J

FIGURE J2



Photograph J6: fire engine building view from north west



Photograph J7: fire engine building view from north west



Panorama J8/J9/J10: stores building northern elevation



Panorama J11/J12: stores



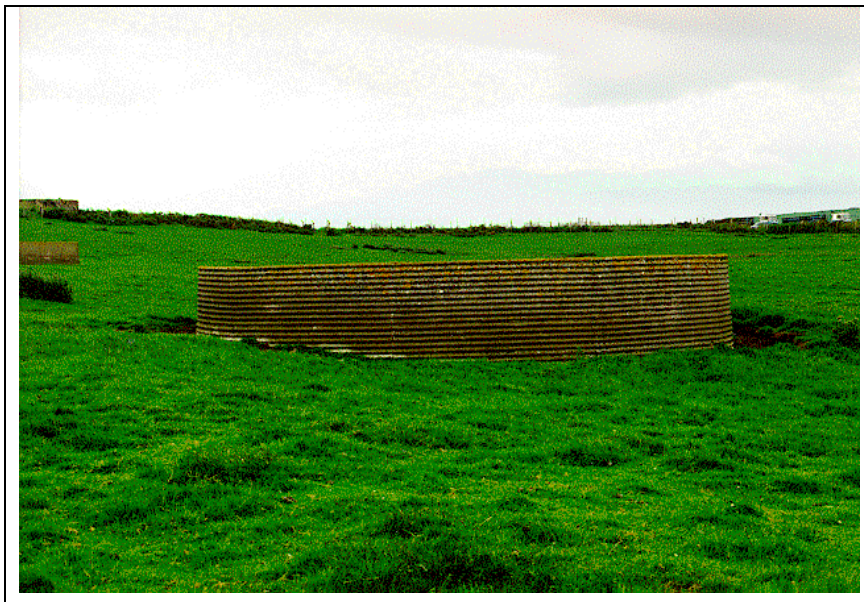
Photograph J13: stores building – east elevation



Photograph J14: building opposite stores



Panorama J15/J16/J17



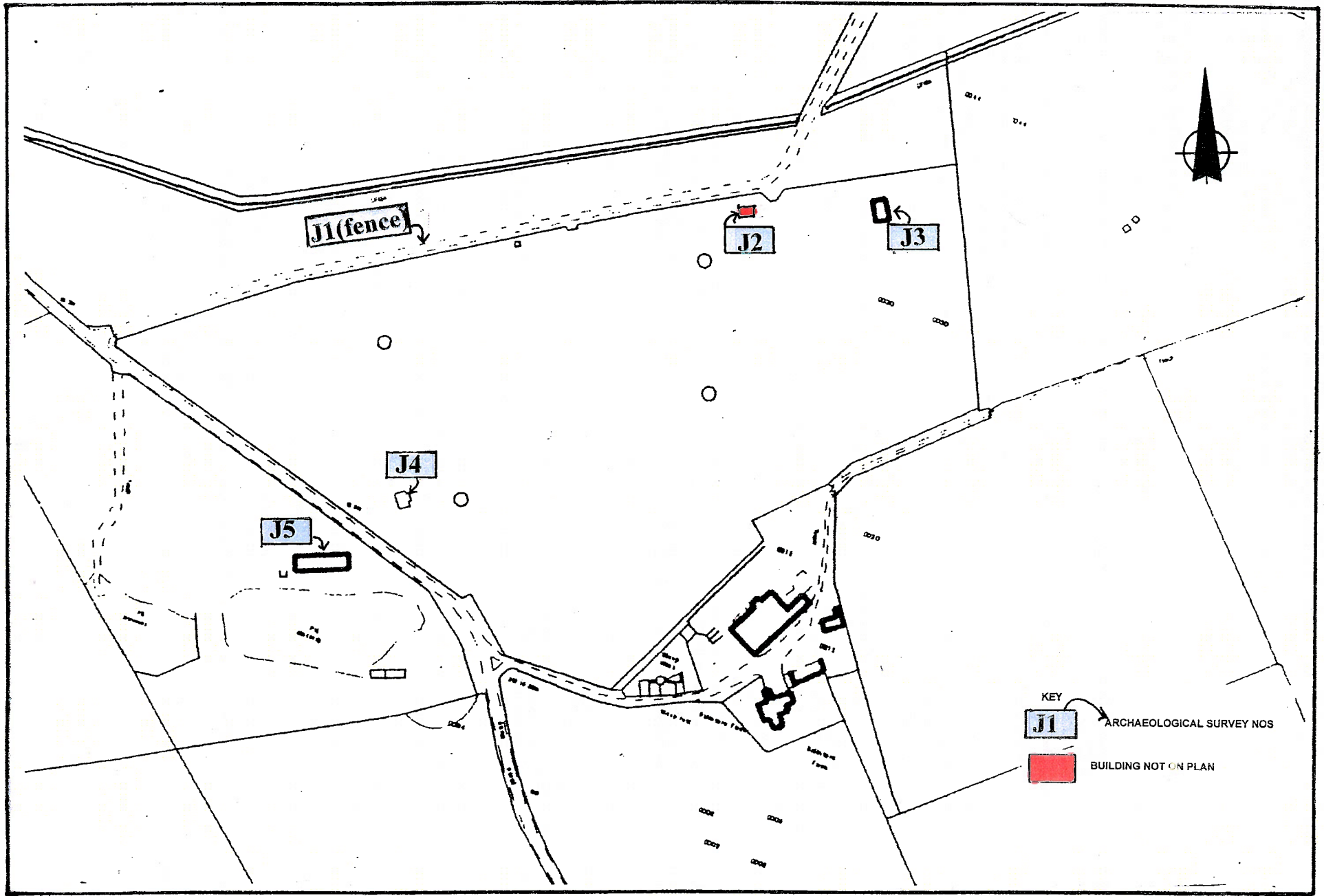
Photograph J18: water tank



Photograph J19: fire engine building



Photograph J20: building opposite stores



FEARN AIRFIELD - ARCHAEOLOGICAL RECORDS -

KEY PLAN - AREA J

FEARN AIRFIELD

Building Record

No. J.1

NGR NH

Description

The perimeter fence of the former camp survives largely intact around the area of the camp as marked. The posts still retain fragments of barbed wire and, in places, radisseurs to tension the wires. The gates still survive as cast iron frames with wire as illustrated.

No trace of individual buildings survives and though slight hollows may mark the site of former buildings, these are by no means certain. The corrugated concrete water tanks are the only internal feature to survive. The quality of the grass within the area of the former camp suggests this has almost certainly been ploughed and re-seeded since the buildings were removed

Condition

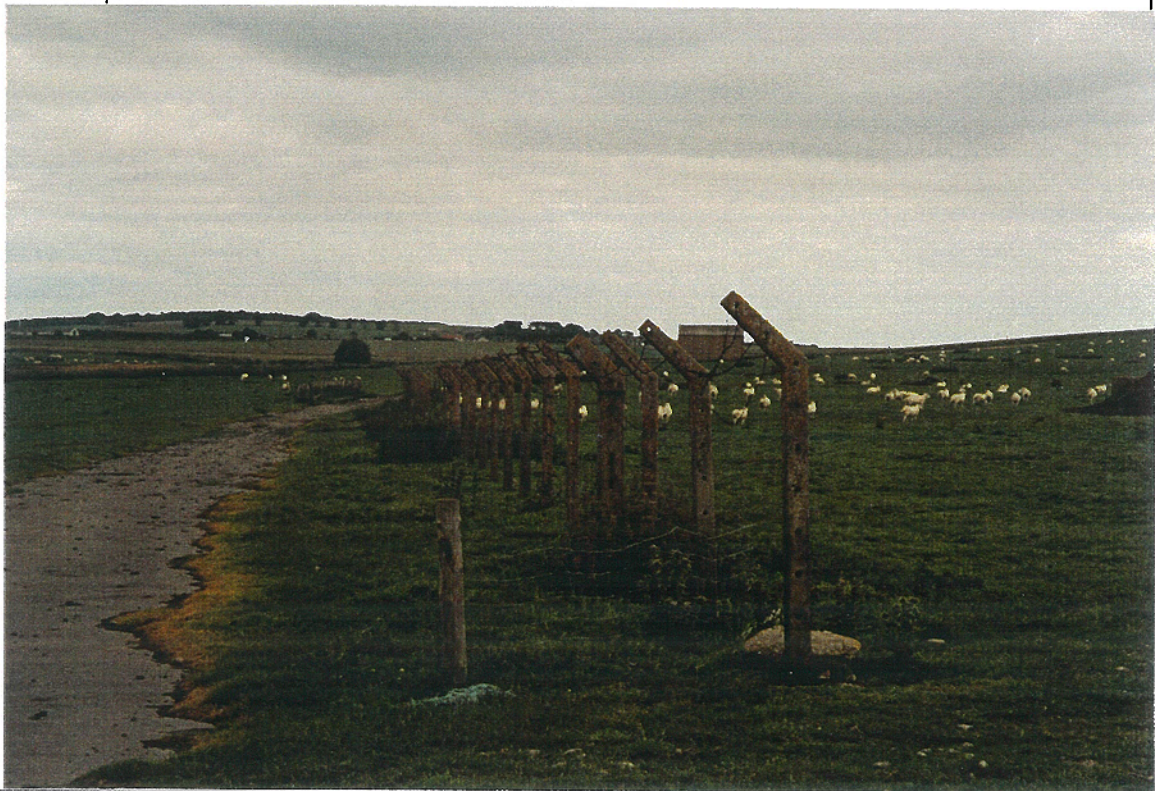
Fair but has been partially removed and is generally in a fairly derelict state.

Interpretation

Area of former camp serving Fearn Airfield.

Importance

As only the fence and water tanks survive, this is probably not of major importance.



Photograph No. 22B
Looking NE

Date 1/7/99

FEARN AIRFIELD

Building Record

No. J.1

NGR NH

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

24B

Date 1/7/99

Looking

E

FEARN AIRFIELD

Building Record

No. J.2

NGR NH

Dimensions

3.15m by 3.75m aligned WNW by ESE

Description

This brick building is built adjacent parallel to the perimeter fence some 10m S of the gateway as illustrated. It has a large 'window' facing N and a doorway to the S.

The roof is of concrete with a slight pitch from N to S

The interior is filled with rubble that includes probable field clearance stones.

Condition

Good, though obscured by the rubble dumped in the interior.

Interpretation

Guard post next to the camp entrance.

Importance

Only important if camp retained as a feature, as not intrinsically important.

**Photograph No.** 23B**Date** 1/7/99**Looking** SE

FEARN AIRFIELD**Building Record****No. J.3****NGR NH*****Dimensions***

12.3m by 7.15m by an estimated 7m high, aligned NNW/SSE

Description

This substantial brick building has a pitched asbestos roof supported on timber joists. The present entrance facing N is 4.4m wide but it is not clear if this has been enlarged to allow access for stock.

No internal floor supports are visible set up the walls and this is clearly a single storey building.

A small ?service area is set at the back and the entrance to this in the S wall has now been sealed with breeze blocks.

Condition

Good, apart from probable alterations to doorway

Interpretation

Vehicle store, probably for a crane or possibly a fire engine dispersed to the area of the camp in case of attack.

Importance

Not known

***Photograph No.***

25B

Date 1/7/99***Looking***

SE

FEARN AIRFIELD

Building Record

No. J3

NGR NH

Dimensions

Description

See previous page

Condition

Interpretation

Importance



Photograph No.

26B

Date 1/7/99

Looking

SE looking at roof details

FEARN AIRFIELD**Building Record****No. J.4****NGR NH****Dimensions**

9.25m by 6.2m with porch 2m long, aligned NNW/SSE

Description

Brick building with precast concrete frame with pitched asbestos roof supported on an iron frame.
The smaller room at the N end contained a drain and shelving.

Condition

Brickwork fairly good but roof in ruinous condition, making this building unsafe.

Interpretation

The room at the N may have been a kitchen or service area for a small mess room to the S.

Importance

Low

**Photograph No.**

27B

Date 1/7/99**Looking**

S

Dimensions	30m by 7m aligned WNW/ESE
Description	<p>A long brick building within a precast concrete frame, divided into a series of small rooms or cubicles with mortar rendered breeze block dividing walls. It sits on a substantial concrete plinth and has 14 metal frame windows on each side.</p> <p>A small brick enclosure with a barbed wire fence lies to the SW as drawn.</p> <p>A modern quarry lies to the S</p>
Condition	This building has been heavily vandalised and the roof is unsound and unsafe.
Interpretation	This building appears to be part of the camp to the E of the road, though it lies outside the perimeter fence. It could be a shower or toilet block, though it seems too open for this. Alternatively it was an administrative area or a series of small bedrooms.
Importance	Low



Photograph No.	28B	Date	1/7/99
Looking	S		

PART 4: SITE SURVEY –TAIN AIRFIELD

FEARN AIRFIELD

Building Record

No. J.5

NGR NH

Dimensions

Description

As previously described

Condition

Interpretation

Importance



Photograph No.
Looking

29B
W at internal features

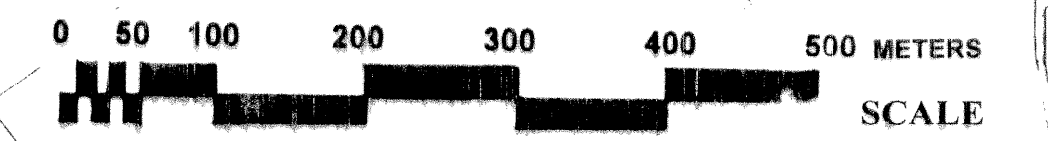
Date 1/7/99

PART 4: SITE SURVEY – TAIN AIRFIELD

18 INTRODUCTION TO SITE SURVEY

- 18.1 A preliminary walkover survey was undertaken to establish the extent of surviving remains at Tain Airfield. These were found to be widely dispersed over several sites ranging from the main airfield itself, the Hunting Hill operations room, camp sites and community facilities such as the cinema and canteen which would have formed the core of the former camp site areas.
- 18.2 On the main airfield, the buildings are generally in a poor state of repair and the area, which is highly visible from the Tain to Portmahomack Road and the wider landscape, has a derelict and unsightly appearance due to the presence of semi collapsed structures, extensive areas of concrete foundations, hardstandings and building rubble. Much of this area is in agricultural use and public access is not as readily obtained as at Fearn. The presence of the RAF bombing range over part of the site further and industrial land uses occupying other parts means that any encouragement of public access could only be to a limited area.
- 18.3 The former campsites, where these have not been cleared, contain many buildings and structures in various states of repair. Those which remain structurally sound tend to be utilised for agricultural purposes or are in such isolated locations that they remain more or less intact but unused. There is significant dereliction, particularly in the vicinity of the canteen building and the cinema in particular is almost completely collapsed.
- 18.4 The focus of this study is to record the existing situation and to identify potential for development for visitor and educational purposes. As a result of the preliminary site investigation, early discussions with the client were undertaken to establish whether it was considered that the surviving remains at Tain had significant potential for interpretation and it was concluded that the emphasis for interpretation development should be placed on Fearn Airfield.
- 18.5 For this reason, none of the buildings and structures on the Tain Airfield sites have been subject of an engineering survey. Archaeological records have been made of the principal buildings and structures, with the exception of the Hunting Hill operations block to which access could not be obtained due to its change in ownership. A video record of this building was however made prior to this study being undertaken and it is recommended that a detailed survey be completed prior to any building work being instructed by the new owner.

SECOND WORLD WAR AIRFIELDS IN EASTER ROSS



A/G Control Tower and Technical Area: Potential for public access
Retain and conserve control tower, operations block, torpedo sheds and ancillary buildings in good condition.
Demolish buildings in poor/unsafe condition (refer to archaeological record sheets and engineer's condition survey).
Remove all hazardous waste.
Fence agricultural areas to prohibit public access.
Create car parking area which does not conflict with industrial/agricultural uses.

B Technical Area: Potential for limited public access
Retain Engine Test House and at least one aircraft pen with underground shelter.
Retain other buildings in good/fair condition.
Demolish buildings in poor/unsafe condition (refer to archaeological record sheets and engineer's condition survey).
Remove all hazardous waste.
Fence agricultural areas to prohibit public access, restoring areas to grazing on completion of demolitions and clearance of hazardous waste.

C Hangars, Pens etc: Recommend no public access
Hangar E has been sold and will be dismantled and removed.
Retain fire engine house within recently planted woodland area (seal door and window openings).
Demolish and remove remains of other buildings and structures including rubble and hazardous waste.
Return as much of the area as possible to agricultural use/extend recently planted woodland with new deciduous woodland planting.

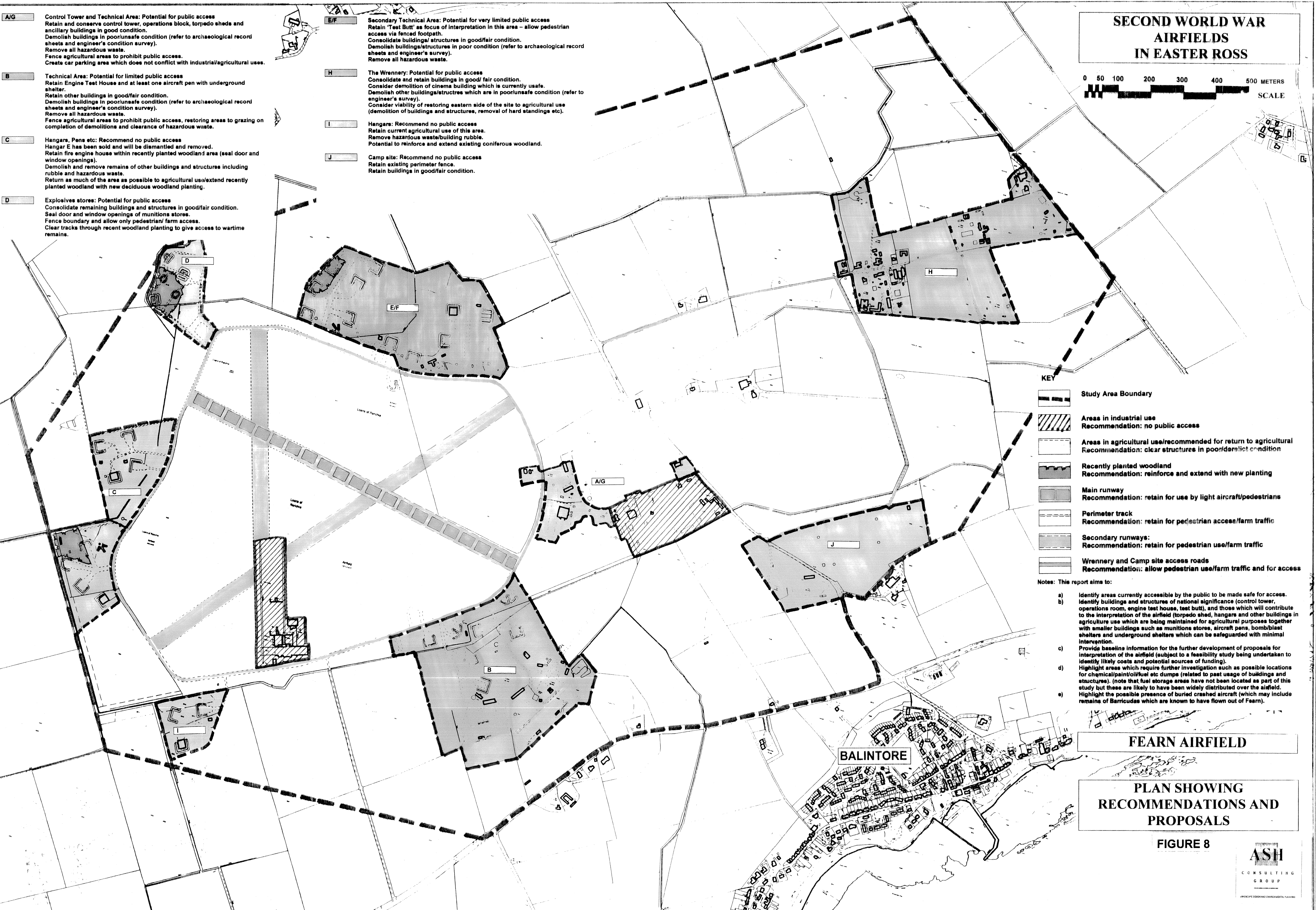
D Explosives stores: Potential for public access
Consolidate remaining buildings and structures in good/fair condition.
Seal door and window openings of munitions stores.
Fence boundary and allow only pedestrian/ farm access.
Clear tracks through recent woodland planting to give access to wartime remains.

E/F Secondary Technical Area: Potential for very limited public access
Retain 'Test Butt' as focus of interpretation in this area - allow pedestrian access via fenced footpath.
Consolidate buildings/ structures in good/fair condition.
Demolish buildings/structures in poor condition (refer to archaeological record sheets and engineer's survey).
Remove all hazardous waste.

H The Wrennery: Potential for public access
Consolidate and retain buildings in good/ fair condition.
Consider demolition of cinema building which is currently unsafe.
Demolish other buildings/structures which are in poor/unsafe condition (refer to engineer's survey).
Consider viability of restoring eastern side of the site to agricultural use (demolition of buildings and structures, removal of hard standings etc).

I Hangars: Recommend no public access
Retain current agricultural use of this area.
Remove hazardous waste/building rubble.
Potential to reinforce and extend existing coniferous woodland.

J Camp site: Recommend no public access
Retain existing perimeter fence.
Retain buildings in good/fair condition.



KEY

- Study Area Boundary
- Areas in industrial use
Recommendation: no public access
- Areas in agricultural use/recommended for return to agricultural
Recommendation: clear structures in poor/demolition condition
- Recently planted woodland
Recommendation: reinforce and extend with new planting
- Main runway
Recommendation: retain for use by light aircraft/pedestrians
- Perimeter track
Recommendation: retain for pedestrian access/farm traffic
- Secondary runways:
Recommendation: retain for pedestrian use/farm traffic
- Wrennery and Camp site access roads
Recommendation: allow pedestrian use/farm traffic and for access

- Notes: This report aims to:
- a) Identify areas currently accessible by the public to be made safe for access.
 - b) Identify buildings and structures of national significance (control tower, operations room, engine test house, test butts) and those which will contribute to the interpretation of the airfield (torpedo shed, hangars and other buildings in agriculture use which are being maintained for agricultural purposes together with smaller buildings such as munitions stores, aircraft pens, bomb/blast shelters and underground shelters which can be safeguarded with minimal intervention).
 - c) Provide baseline information for the further development of proposals for interpretation of the airfield (subject to a feasibility study being undertaken to identify likely costs and potential sources of funding).
 - d) Highlight areas which require further investigation such as possible locations for chemical/paint/oil/fuel etc dumps (related to past usage of buildings and structures). (note that fuel storage areas have not been located as part of this study but these are likely to have been widely distributed over the airfield).
 - e) Highlight the possible presence of buried crashed aircraft (which may include remains of Barricades which are known to have flown out of Fearn).

FEARN AIRFIELD

PLAN SHOWING RECOMMENDATIONS AND PROPOSALS

FIGURE 8



TAIN AIRFIELD**Building Record****Area A****No. 1****NGR NH****Description**

To the E of the entrance to Area A is a breeze block building aligned NNE/SSW measuring 20m by 4m. The room at the S end does not connect with the rest of the building and has bars across the windows
To the E are a bomb shelter of red brick and an unroofed store with an iron framed door and a barbed wire top still extant.

Condition

Good with the roof largely intact. The interior has been used as an animal shelter and is covered with dung.

Interpretation

D.Easton (NMRS 1997) suggests this may be an administrative block with the main admin. Block A.4. The barred chamber at the S suggests it may also have had a security function.

Importance

Low unless part of a general interpretation of this site.

**Photograph No.****14D****Date 07/07/99****Looking****NE at Building A.1**

TAIN AIRFIELD

Building Record Area A No. 1

NGR NH



Photograph No. 15D

Date 07/07/99

Looking NE at bomb shelter and store E of Building A.1 with a.2 & A.3 in the background

TAIN AIRFIELD**Building Record****Area A****Nos. 2 - 4****NGR NH****Description**

A.2 A grey brick building measuring 12m by 6m and aligned NW/SE. The SW end has partially collapsed, though the asbestos roof is largely intact. The building is now used as an animal shelter.

A.3 To the E of A.2 is a red brick compound with a largely derelict open structure lying on the N side. The area has now been converted to stock pens.

A.4 To the S of A.3 are substantial concrete foundations from demolished buildings lying E?W parallel to the public road. Additional small rectangular flat roofed buildings and underground shelters survive to the NE, as well as the small reservoir A.5.

Condition

Both A.2 and A.3 are in poor and unstable condition.

Interpretation

A.2 was probably used as stores or as a workshop. A.3 was presumably a vehicle store.

Importance

Low



Photograph No.
Looking

16D
NE at Building A.2

Date 07/07/99

TAIN AIRFIELD

Building Record

Area A Nos. 3 & 4

NGR NH



Photograph No.

17D

Date 07/07/99

Looking

NE at compound A.3



Photograph No.

18D

Date 07/07/99

Looking

E along building foundation A.4

TAIN AIRFIELD

Building Record Area A No. 5

NGR NH



Photograph No. 19D

Date 07/07/99

Looking E at brick buildings, underground shelters and reservoir A.5 (centre left)



Photograph No. 20D

Date 07/07/99

Looking NE at reservoir A.5 (and duck!) and brick building behind.

TAIN AIRFIELD

Building Record

Area A

No. 6

NGR NH

Description

A substantial red brick building as drawn with a pitched roof estimated as being 3m high. Most of the doors and windows have now disappeared though fragments of the iron frame survive on the northern of the E wings. The southern wing has been repaired with breeze blocks and has new asbestos sheeting.

The building is currently used as a shelter for stock

A series of small brick buildings and blast shelters lie to the E of this structure. There is also a large foundation 28m by 20m between the S end of A.6 and buildings A.2/A.3

Condition

Good because of regular maintenance.

Interpretation

This has previously been described as a parachute store, the length of the building being necessary to pack the parachutes correctly.

Importance

Low though it clearly has considerable agricultural value.



Photograph No.

21D

Date 07/07/99

Looking

N at S end of Building A.6

TAIN AIRFIELD

Building Record Area A No. 6

NGR NH



Photograph No. 22D

Date 07/07/99

Looking N at E wings of Building A.6 with repairs and ?original door frame.



Photograph No. 24D

Date 07/07/99

Looking SW down interior of Building A.6

TAIN AIRFIELD**Building Record****Area A****No. 7****NGR NH****Description**

To the W of Building A.6 is a concrete foundation measuring 15m square. Ducts run beneath the floor of this building from the centre to a series of service hatches set around each side of the building. 2 small brick buildings with flat roofs survive at the NE and there is a probable bomb shelter largely filled in to the SW. To the N of the track in front of this building is a foundation measuring 30m by 9m aligned NE/SW. An area of tiling is visible in the centre of the N side of this second foundation.

Another foundation c32m by 9m aligned NE/SW sits too the S of this first foundation and there is a long foundation running NE/SW along the E boundary of this area.

Condition

Foundations only

Interpretation

The ducting suggests this was a communications centre.

Importance

Low

**Photograph No.****25D****Date 07/07/99****Looking****W across foundation A.7**

TAIN AIRFIELD**Building Record****Area A****No. 8****NGR NH****Description**

A substantial breeze block building with a pitched asbestos roof survives to the N of the entrance to this area. It is aligned NW/SE measuring 41m by 8m. The roof at the NW has been partially repaired with corrugated iron.

The interior is used as an animal shed and no distinctive features can be observed.

2 small flat roofed brick structures have been demolished to the N of this building

Condition

Fair due to continuing maintenance for agricultural use.

Interpretation

D. Easton (NMRS 1997) has interpreted this as the main administrative block for the airfield. The foundations to the NE recorded under A.7 may have had a similar function with the small demolished flat roofed buildings being toilet blocks.

Importance

Low

**Photograph No.****26D****Date 07/07/99****Looking****SW at Building A.8**

TAIN AIRFIELD**Building Record****Area A****No. 9****NGR NH****Description**

To the SE of the control tower A.10 are a series of largely derelict structures including 2 bomb shelters and 2 long brick buildings with pitched roofs. The position of these 2 buildings is as drawn.

Condition

Poor

Interpretation

Not known

Importance

Low

**Photograph No.****27D****Date 07/07/99****Looking****N across ruins of A.9 towards control tower A.10**

TAIN AIRFIELD**Building Record****Area A****No. 11****NGR NH*****Description***

Control tower as previously described by D. Easton (NMRS 1997) is a substantial rectangular red brick structure with a mortar render. Detailed measurements were not made of this building. It is used as an animal shelter.

Condition

While the basic structure is sound, it is potentially hazardous to the public.

Interpretation

Control tower

Importance

As similar examples survive in better condition elsewhere in the country this is not considered to be of major importance.

***Photograph No.*****28D*****Date*** 07/07/99***Looking******SW at front of control tower A.11***

TAIN AIRFIELD

Building Record Area A No. 11

NGR NH



Photograph No.
Looking

29D
SE at Control Tower A.11

Date 07/07/99

TAIN AIRFIELD**Building Record****Area A No. 12****NGR NH****Description**

A substantial red brick building with a flat concrete roof and entrances on the SE and NW.

The interior has been partially rendered and there are traces of pipes on the walls. The entrances are partially protected by blast walls.

Condition

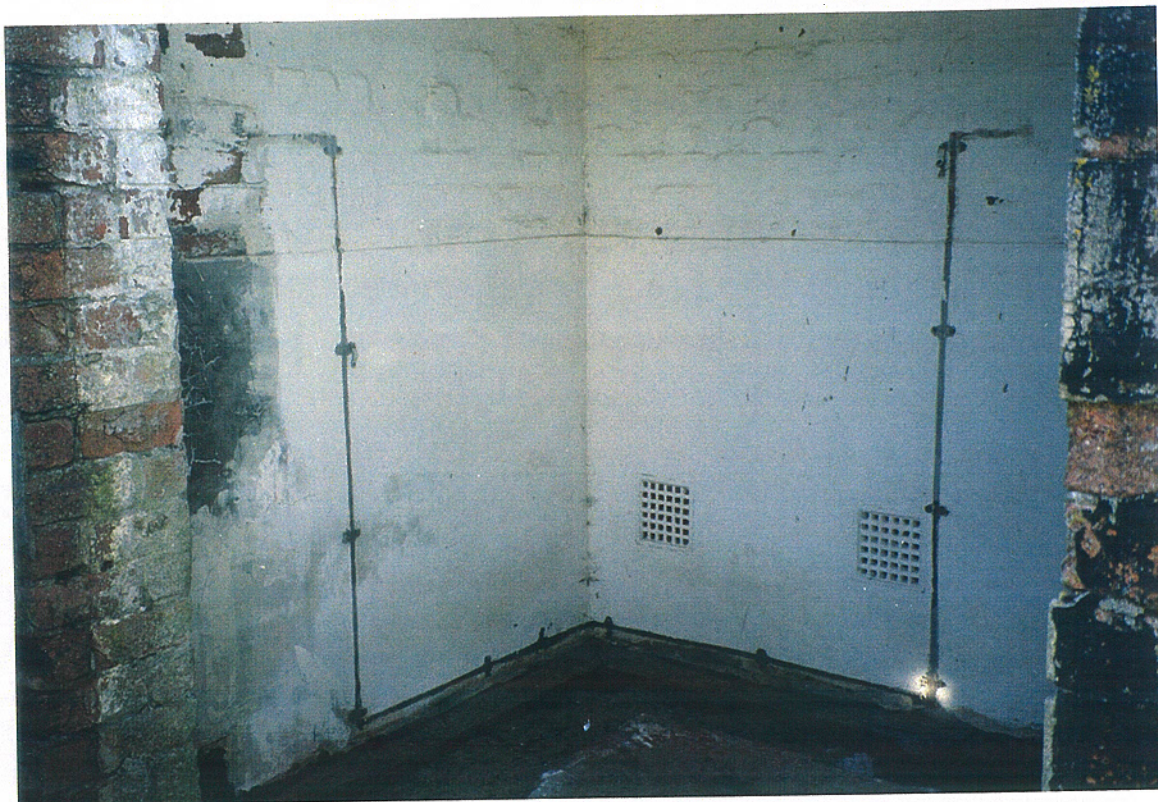
Good

Interpretation

May only be shower or toilet block but is perhaps too substantial for this and may possibly be a gas decontamination area

Importance

Low

**Photograph No.****2E****Date 07/07/99****Looking****NW at interior of Building A.12 S end**

TAIN AIRFIELD**Building Record****Area A****Nos. 13 & 14****NGR NH****Description**

A13 A red brick building with a pitched asbestos roof with only N half roofed, foundations of an extension to the SW are visible. Not photographed

A14 Substantial, complex of red brick buildings with pitched asbestos roofs. It is dominated by the central building with an entrance 5m wide facing SW and estimated to be 7m high.

Condition

The adjoining buildings are less well-preserved with the roof missing from the central portion and from the NE end of the S wing. The interior of the buildings has been used for stabling animals and the dung is nearly 1m high in places. The central building has been used as a feed store and is in better condition.

Interpretation

The tall building is presumed to be a vehicle store for a fire engine or crane. The other buildings are likely to have been used as stores or workshops.

Importance

Low

**Photograph No.****3E****Date 07/07/99****Looking****SW at Building A.14**

TAIN AIRFIELD

Building Record Area A No. 14

NGR NH



Photograph No.
Looking

1E
NE at Building A.14

Date 07/07/99



Photograph No.
Looking

37D
SSE at buildings and underground blast shelter SE of Building A.14

Date 07/07/99

TAIN AIRFIELD**Building Record****Area A****No. 15****NGR NH****Description**

The foundations of a large hangar or shed lie aligned WSW/ESE parallel to the road measuring 62m by 34m. The roof was supported on a series of 16 concrete plinths c0.5m high set in 4 parallel rows. The entrance from the W is 14m wide

On the NW corner a watertank c12m square has been filled in with modern rubbish such as fence wire. To the E of this is a low rectangular brick wall defining a small compound.

Condition

Good but missing its walls!

Interpretation

D. Easton (NMRS 1997) interpreted this as a vehicle store, though it could have also functioned as a small aircraft hangar.

Importance

Not known

**Photograph No.****36D****Date 07/07/99****Looking****SE at roof supports for Building A.15**

TAIN AIRFIELD**Building Record****Area A****No. 16****NGR NH****Description**

A breeze block building with pitched asbestos roof lies as marked on the W side of the entrance to this area. It is aligned WNW/ESE with a 3m wide doorway on the E

Condition

The door has been lost but it is in a generally sound condition and is currently used as a vehicle store.

Interpretation

Vehicle store

Importance

Low

**Photograph No.****4E****Date** 07/07/99**Looking****SW at Building A.16**

TAIN AIRFIELD

Building Record

Area A

No. 17

NGR NH

Description

To the Se of the main area of A, there are a series of concrete foundations, a small lean-to brick shed only partially roofed and the exposed remains of an underground blast shelter

Condition

Poor

Interpretation

Shed and underground blast shelter

Importance

Low



Photograph No.

6E

Date 07/07/99

Looking

SE at Building A.17

TAIN AIRFIELD**Building Record****Area B No. 1****NGR NH****Description**

A group of 3 red brick huts in total wide are linked to form a substantial structure 45m long by 40m as drawn on plan. This building survives largely intact though most of the cladding under the asbestos roof has now disappeared. The windows are also largely intact and this survival reflects its current use as a grain store. In the central portion a corrugated iron clad tower has been built for milling the grain and the machinery for this secondary use still survives. This may have been an original feature that has been converted but it is more probably a later addition. There seem to have been lean-to structures attached to the SE end in all 3 wings of the building and these have been removed and the entries to the main structures blocked-up. The cross wing is slightly N of centre with 5 windows set N of the entrance and 6 to the S. Little detail of its original function remains.

The building is set in a complex of bomb shelters, 8 of which survive to the E of the building. Apart from the one labelled a), closest to the building on the E side, they all appear to be largely intact, though heavily overgrown with gorse. With bomb shelter a) the central blast wall has been removed to make this chamber useful as a silage pit or vehicle store. It is now overgrown as the others. To the SE of the building is a sunken water tank c12m square made of plastered red brick and still holding water. It is partly hidden by vegetation as can be seen on photograph. Other buildings to the E of B.1 have been removed, including a large N/S foundation just E of the modern fence line where 2 bomb shelters survive as drawn.

Condition

Building B.1 survives in excellent condition as a shell though no internal fittings are visible. The bomb shelters are largely obscured.

Interpretation Mess hall**Importance**

Building B.1 is not unusual, though the degree of preservation is exceptional compared to most of the buildings on the airfield. This reflects its continued value as an agricultural store.

The bomb shelters are of low importance.

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 8C
Looking N

Date 07/07/99



Photograph No. 13C
Looking W across water tank at SE corner

Date 07/07/99

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No.

13C

Date 07/07/99

Looking

NW at S end of E and central wings of B.1



Photograph No.

15C

Date 07/07/99

Looking

SW at E side of B.1 across shelter a)

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No.
Looking

20C
SE at interior of E wing of B.1

Date 07/07/99



Photograph No.
Looking

21C
SE at interior of central wing of Building B.1

Date 07/07/99

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 9C

Date 07/07/99

Looking NE at ?secondary tower at S end of central wing B.1



Photograph No. 10C

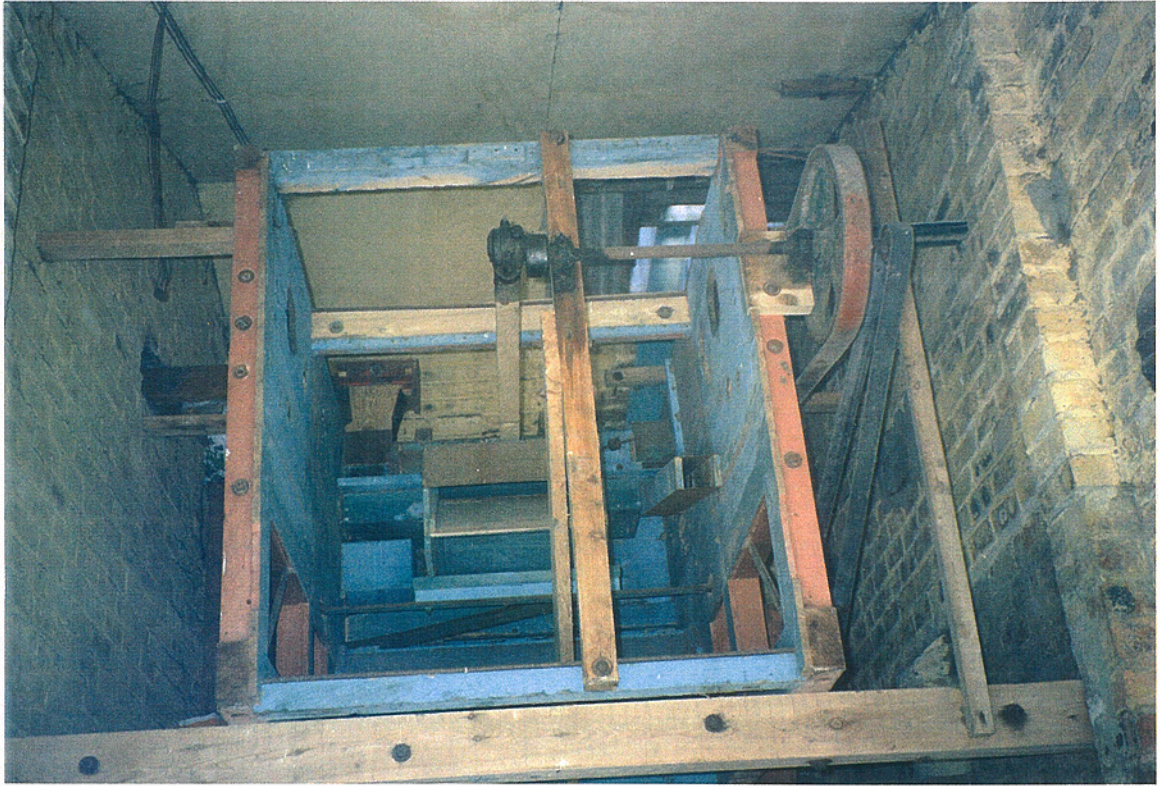
Date 07/07/99

Looking NE at detail of base of ? secondary tower at B.1

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 11C

Date 07/07/99

Looking NE at secondary milling machinery at SW corner of central wing (upper)



Photograph No. 12C

Date 07/07/99

Looking NE at secondary milling machinery at SW end of central wing (lower)

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 17C

Date 07/07/99

Looking W at bomb shelter b) built of red brick and SE corner of building B.1



Photograph No. 14C

Date 07/07/99

Looking N at bomb shelter c) built of grey brick

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 16C

Date 07/07/99

Looking E at bomb shelter d) built of grey brick



Photograph No. 18C

Date 07/07/99

Looking ESE at bomb shelter e) built of red brick

TAIN AIRFIELD

Building Record Area B No. 1

NGR NH



Photograph No. 13D

Date 07/07/99

Looking NW at red bomb shelters f) at N end of foundation E of B.1 complex

Photograph No.

Date

Looking

TAIN AIRFIELD**Building Record****Area B No. 2****NGR NH****Description**

A long grey brick building aligned NW/SE consists of 3 rooms measuring 4m, 25m and 14m from the N by 7m wide except for the southern chamber which is 5m wide. The exterior of the building has a mortar render.

The interior has been substantially converted to turn this into a well-built sheep pen. Stock pens have also been built externally to this building.

Condition

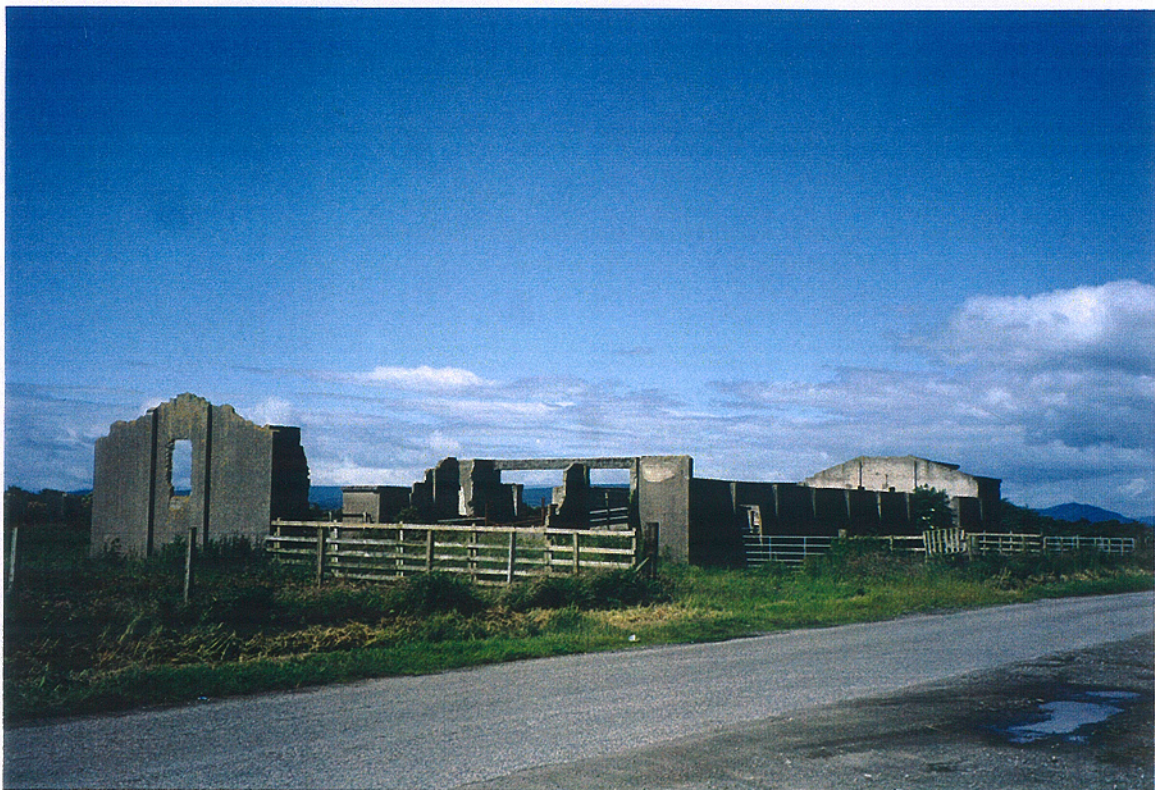
S end very ruinous and the roof has been lost along the full length of the building

Interpretation

This has been previously interpreted as a cinema and the slots for projection can clearly be seen in the S end of the small N chamber.

Importance

Low



Photograph No.
Looking

22C
WNW

Date 07/07/99

TAIN AIRFIELD

Building Record Area B No. 2

NGR NH



Photograph No. 23C

Date 07/07/99

Looking

NW down interior of 'cinema' building B.2



Photograph No. 26C

Date 07/07/99

Looking

E from SE corner of building B.3 to buildings B.2 and B.1

TAIN AIRFIELD**Building Record****Area B****No. 3****NGR NH****Description**

Red brick building aligned NNW/SSE with tower estimated as being 5m high built on the S end. Brickwork stamped HOLYTOWN.

Condition

Poor as the roof has gone and large cracks are visible on the tower suggesting this is potentially dangerous.

Interpretation

Mortar render on the walls and water pipes in the room immediately N of the tower suggest this was either an ablution block or a more specialised area such as a hospital or gas decontamination area.

Importance

Low

**Photograph No.** 25C**Date** 07/07/99

Looking NW across building B.3 with crack on tower visible on left of photo.
Photo taken from red brick bomb shelter to E.

TAIN AIRFIELD

Building Record Area B No. 3

NGR NH



Photograph No.

24C

Date 07/07/99

Looking

S at Building B.3



Photograph No.

27C

Date 07/07/99

Looking

SW at pipework in chamber N of tower in Building B.3

TAIN AIRFIELD

Building Record Area B No. 4

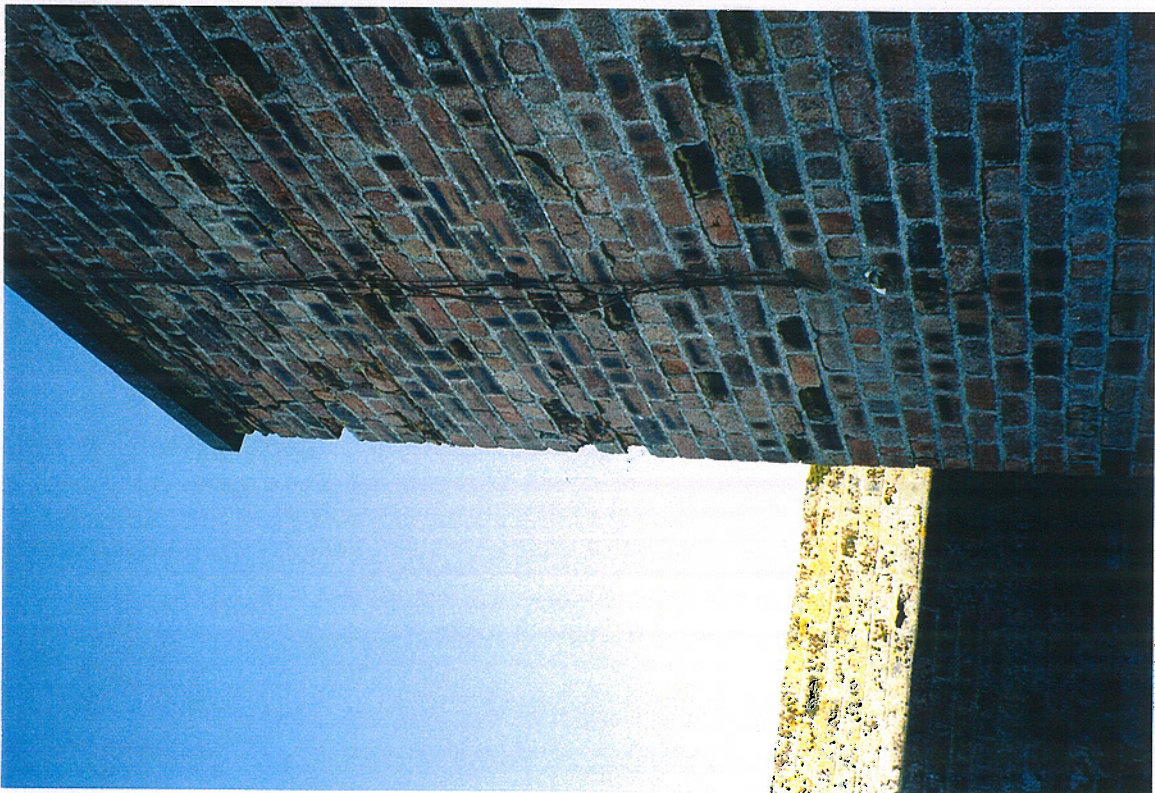
NGR NH



Photograph No.
Looking

31C
Se at interior of Building B.4 at N end

Date 07/07/99



Photograph No.
Looking

30C
N at cables and brickwork on NW corner of Building B.4

Date 07/07/99

TAIN AIRFIELD**Building Record****Area B****No. 4****NGR NH****Description**

Substantial brick building as drawn with flat roof. Measuring c8m by 10m externally by c5m high.

The interior has substantial concrete supports for machinery and is floored with well-preserved red quarry tiles.

Traces of wiring still survive on the NW corner of the building.

Condition

Good though the brickwork is beginning to crumble (see photographs)

Interpretation

Generator house

Importance

Low

**Photograph No.****29C****Date 07/07/99****Looking****NW at Building B.4**

TAIN AIRFIELD**Building Record****Area B****No. 5****NGR NH****Description**

A red brick store survives with its iron framed and wire gate intact (not visible on photograph). The walls were topped with broken glass embedded in mortar.

Condition

The building is badly overgrown and the brickwork is beginning to crumble.

Interpretation

Store

Importance

Low

**Photograph No.****32C****Date 07/07/99****Looking****NNE**

TAIN AIRFIELD**Building Record****Area B****No. 6****NGR NH****Description**

A substantial concrete foundation runs NE/SW as drawn parallel to the road just N of the fence and W of Building B.3. It is partially obscured by a dump of manure and not measured. A red brick bomb shelter survives to the NW.

The large square structure drawn to the NE has been demolished and the gorse has been removed extensively removed by machine in this area revealing sandy gravel subsoil.

The 2 bomb shelters to the SW are badly obscured by gorse and coarse vegetation and were not photographed. The NW example was built of grey brick. The bank in which they lie appears to enclose a small compound, but this is now obscured by a substantial midden.

Condition

Foundations only

Interpretation

Not known

Importance

Low

**Photograph No.**

28C

Date 07/07/99**Looking**

SW down foundations of Building B.6

TAIN AIRFIELD**Building Record****AreaC****No. 1****NGR NH****Description**

Red brick building 10m long by 6m wide and c2.5m high with a pitched roof of asbestos. The entrance facing SE is c3m wide. A second entrance faces NE at the N end but is sealed by a locked double door c2m wide.

Internally concrete pads suggest there was a maintenance pit in the floor, though this is has now been filled in. The main door no longer exists.

It is now used as a store.

Condition

Good reflecting its continued use as a store. There is some evidence that replacement asbestos sheets have been inserted in the roof.

Interpretation

Vehicle store

Importance

Low .

**Photograph No.****33C****Date 07/07/99****Looking****W at entrance of Building C.1**

TAIN AIRFIELD**Building Record****Area C****No. 2****NGR NH****Description**

An underground blast shelter survives within its earthen bank to the NE of Building C.1. It is aligned ENE/WSW with a red brick entrance from the SE. It measures c9m long and is made of rounded precast concrete sections.

Condition

Good

Interpretation

Underground blast shelter. Further examples survive in this area and Area A and fragmentary examples in Area D
This is the standard form of underground blast shelter at Tain and is significantly different to the form used at Fearn. Parts of a demolished blast shelter have been used to make a porch for one of the farm cottages to the E of C.3

Importance

Low but a good example of its type.

**Photograph No.****34C****Date 07/07/99****Looking****WSW down interior of underground shelter C.2**

TAIN AIRFIELD**Building Record****Area C****No. 3****NGR NH****Description**

A large red brick building with a pitched asbestos roof measuring 42m long by 7m wide. The northernmost building has been used as accommodation until at least 1991 on the evidence of TV magazines internally. Fragments of wallpaper and chimneys suggest that the other two sections were also used for accommodation but it is unclear if this was a secondary post-war conversion of a building constructed for a different purpose. The walls are mortared both internally and externally.

The 2 southern chambers are used for animal shelter

The linked buildings recorded to the E have been demolished

Condition

The structure is relatively stable but will need some maintenance if it is to continue in agricultural use.

Interpretation

This may well have been an accommodation block or mess hut for officers but this is impossible to confirm in the present state of the building.

Importance

Low. Will probably continue in agricultural use

**Photograph No.****36C****Date 07/07/99****Looking****SE along E side of Building C.3**

TAIN AIRFIELD

Building Record Area C Nos. 1 & 3

NGR NH



Photograph No. 33C
Looking NW at roof of Building C.1

Date 07/07/99



Photograph No. 36C
Looking NW at interior of S end of Building C.3

Date 07/07/99

TAIN AIRFIELD**Building Record****Area C****No. 4****NGR NH****Description**

An extensive complex of buildings lay to the E of public road at Lochslinn Farm. Apart from the buildings described below as C.4-C.6 the standing buildings are modern and only foundations of the military structures now survive.

C.4 Grey brick building with pitched asbestos roof aligned WNW by ESE and measuring 15m by 8m with an additional structure 8m by 5.5m abutting on the W. The secondary structure is now unroofed. Internally there is some evidence of piping which may be connected with the 8 distinctive flue vents rising above the roof

Condition

Now used as an agricultural store. The building is potentially unstable

Interpretation

It has been suggested this was used as a gas decontamination unit which may explain the distinctive flue vents.

Importance

Low



Photograph No. 2D
Looking NW at Building 4

Date 07/07/99

TAIN AIRFIELD**Building Record****Area C****No. 5****NGR NH****Description**

A grey brick building aligned ENE/WSW similar in design to C.4, though measuring 22m by 5m with an additional structure 5m by 3m on the W. This also has distinctive flue vents rising above the roof.

Internally there is also some evidence of piping and mortar rendered walls, though interpretation is hindered by the use of this building as a farm store.

Condition

Poor with the roof collapsed at the W end.

Interpretation

As with c.4, this may have been used for gas decontamination.

Importance

Low

**Photograph No.****4D****Date 07/07/99****Looking****NE at Building C.4**

TAIN AIRFIELD**Building Record****Area C****No. 6****NGR NH****Description**

2 red brick ended nissen huts measuring 15m by 7m are aligned N/S as shown. Both huts have wooden dormers built into their sides. A small brick tower c2m square by c3.5m high survives at the NW corner of the E building.

The buildings are currently used as agricultural stores.

A foundation shown on plan on the S side of the public road is no longer visible

Condition

Both buildings are in a very poor state of repair and are potentially dangerous

Interpretation

Nissen huts, probably used as workshops

Importance

Low.

**Photograph No.****5D****Date 07/07/99****Looking****SE towards ruinous nissen huts C.5**

TAIN AIRFIELD

Building Record Area C

NGR NH



Photograph No.
Looking

1D

SW at blast shelter sections reused as a porch for farm cottage

Date 07/07/99



Photograph No.
Looking

3D

W at Building C.4 especially at flue vents on roof

Date 07/07/99

TAIN AIRFIELD**Building Record****Area D****Nos. 1-3****NGR NH****Description**

D.1 A small red brick building measuring 6m by 6m with 2 entrances facing N. It has a pitched asbestos roof aligned N/S and a porch on the W side

D.2 A small red brick building with a flat roof with a hollow red brick partition aligned E/W. E end may be a toilet block.

D.3 To the E of D.2 and not marked on plan are the remains of an underground blast shelter aligned E/W.

Condition

Poor

Interpretation

This has previously been interpreted as part of a camp site. These slight remains are not sufficiently distinctive to confirm or deny this

Importance

Low.

**Photograph No.****6D****Date 07/07/99****Looking****SE at front of Building D.1**

TAIN AIRFIELD

Building Record Area D Nos. 2 & 3

NGR NH



Photograph No.

7D

Date 07/07/99

Looking

NE at Building D.2



Photograph No.

8D

Date 07/07/99

Looking

NW at remnants of underground shelter D.3

TAIN AIRFIELD**Building Record****Area D****No. 4****NGR NH****Description**

D.4 A grey brick building with a mortar render measuring 10m by 4m is aligned E/W. Its asbestos roof with distinctive vents survives largely intact. There are pipes in the interior which is now used as an animal shelter.

D.5 To the SE of D.4 is a small red brick building with a flat roof measuring 6m by 3m and aligned NW/SE

D.6 To the SE of D.5, adjacent to the field edge and not marked on plan are the remnants of a blast shelter aligned NW/SE

Condition

D.4 & D.5 are relatively intact though they have mostly lost their windows and any internal features. D.6 has mostly disappeared.

Interpretation

These are also considered to be part of a campsite. While D.5 may possibly be a toilet block like D.2, D.4 has a more specialist use similar to C.4 and c.5, though on a smaller scale.

Importance

Low.

**Photograph No.****9D****Date 07/07/99****Looking****NE at Buildings D.4 and D.5**

TAIN AIRFIELD

Building Record Area D Nos. 4 & 6

NGR NH



Photograph No.

10D

Date 07/07/99

Looking

NE at detail of roof vent in Building D.4



Photograph No.

11D

Date 07/07/99

Looking

SE at remnants of blast shelter D.6

TAIN AIRFIELD**Building Record****Area D****No. 7****NGR NH****Description**

On the N side of the road a rectangular red brick building with a flat roof and a small fragment of red brick wall to the N are the remnants of a group of buildings, partially shown on plan.

These were not examined in detail.

Condition

Poor

Interpretation

Part of the camp site reputedly sited here and connected with the buildings to the S of the road.

Importance

Low

**Photograph No.****12D****Date 07/07/99****Looking****NE at Building D.7 and other fragmentary remains.**

TAIN AIRFIELD

Building Record

Area F

NGR NH

Description

F1 is a small grey brick building with a pitched asbestos roof aligned roughly N/S.

F2 is a flat concrete roofed structure of grey brick aligned WNW/ESE. It is set on a small terrace into the hillside overlooking the main airfield complex. Between these 2 buildings another 3 are shown on plan. These are no longer standing and their positions could only be guessed at in the long vegetation present here.

F3 is sited c350m W of F1 in mature woodland and consists of 2 structures. A barbed fence and cattle prevented a closer examination of this particular area.

Condition

F1 is in poor condition and badly obscured by gorse and rank vegetation.

F2 is relatively good condition.

F3 Both buildings here are in poor condition with the walls partly demolished.

Interpretation

Unclear but possibly part of an observation complex overlooking the airfield.

Importance

Low

**Photograph No.**

11E

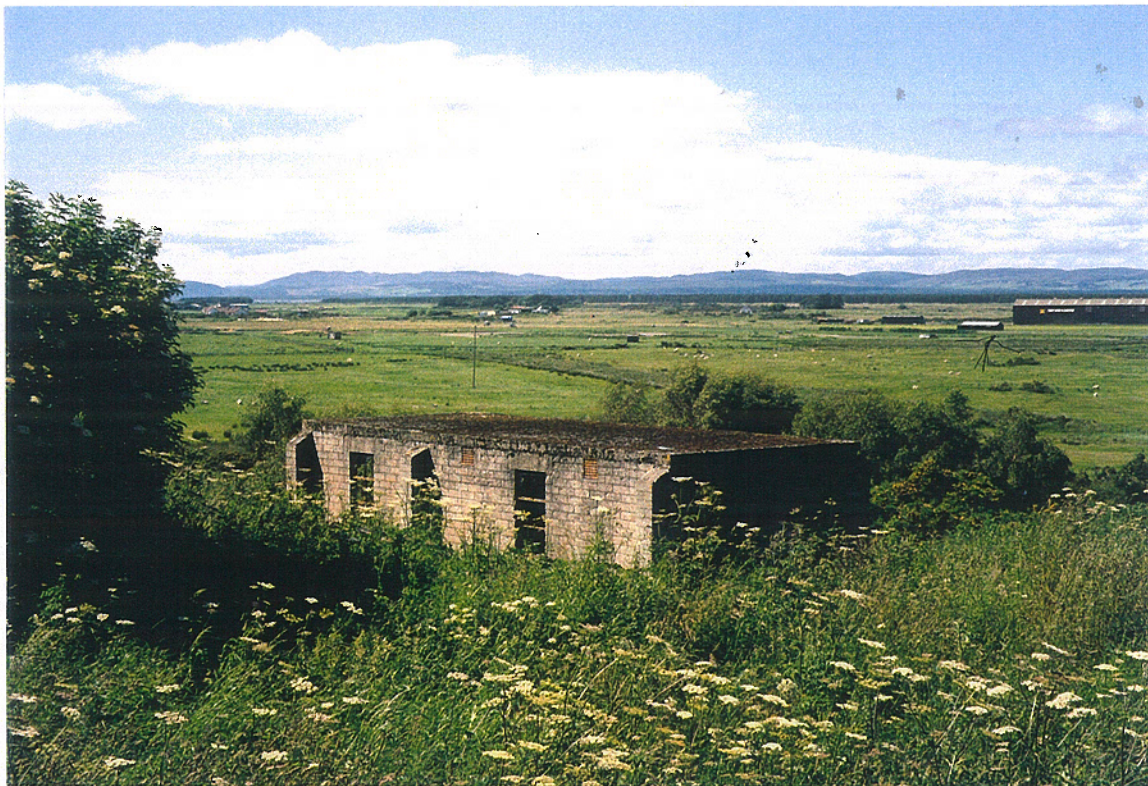
Date 07/07/99**Looking**

NE at building F.1

TAIN AIRFIELD

Building Record Area F

NGR NH



Photograph No.
Looking

13E
NNW at F.2 with airfield behind

Date 07/07/99



Photograph No.
Looking

12E
N at derelict structures at F.3

Date 07/07/99

TAIN AIRFIELD**Building Record****Area G****NGR NH****Description**

G.1 is a gable-ended structure with an asbestos roof aligned NNW/SSE. The building has been converted into a garage for the modern house to the SE.

The building marked on plan to the SE of G.1 is no longer visible.

G.2, an underground bomb shelter, lies to the SW and is not shown on plan.

G.3 is a rectangular compound marked by a low brick wall and topped by a cast iron fence with barbed wire still attached. It may have been in more recent use as a tennis court.

Further buildings may survive to the SE and concrete foundations are visible in the woodland to the NW. None of these buildings are visible from the airfield.

Condition

Good, especially G.1 which has been converted to modern use.

Interpretation

The buildings may mark another camp area.

Importance

Low

**Photograph No.****14E****Date 07/07/99****Looking****SW**

TAIN AIRFIELD
Building Record

Area G

NGR NH



Photograph No.
Looking

15E

SE at underground bunker G2 and ?storage area

Date 07/07/99

TAIN AIRFIELD**Building Record****Area H****No. 1****NGR NH**

Description The large barn of stone and mortar construction with a corrugated iron roof was almost certainly requisitioned and used as a store during the war. The large metal frame of the doorway was probably constructed to military specifications.

Condition The barn is in active use as part of Balnagall Farm and is in good condition.

Importance Low. The barn will no doubt, continue in agricultural use.

**Photograph No.****7E****Date 07/07/99****Looking****SW at Barn H.1**

TAIN AIRFIELD**Building Record****Area H****No. 2****NGR NH****Description**

Two small grey brick buildings with sloping roofs lie as drawn to the N of Balnagall Farmhouse. They are built out of materials used for buildings on the airfield and are therefore likely to be part of the WW11 airfield complex.

Condition

Stable but do not appear to be in current use.

Interpretation

Store sheds

Importance

Low

**Photograph No.****9E****Date 07/07/99****Looking****W at Sheds H.2 to the E of Barn H.1**

TAIN AIRFIELD**Building Record Area I No. 1****NGR NH****Description**

2 parallel joined buildings aligned NE/SW are sited here. The buildings are mortar rendered and have pitched asbestos roofing.

Condition

Good. The mortar render is probably a later addition, suggesting these have been adapted for use in more recent times.

Interpretation

The original use is not known but their position adjacent to the runway suggests they may have had a later use connected with stock car racing.

Importance

Low

**Photograph No.****9E****Date 07/07/99****Looking****S to Sheds I.1**

TAIN AIRFIELD**Building Record****Area I No. 2****NGR NH****Description**

2 small buildings not recorded on plan are sited to the SE of this former dispersal area. The building to the E is unroofed.

This track has formerly been used for stock car racing and 3 derelict cars lie in this area.

Condition

Poor

Interpretation

Former dispersal area

Importance

Low

**Photograph No.****8E****Date 07/07/99****Looking****SW to small Sheds I.2**

TAIN AIRFIELD

Building Record

Area J

No.1

NGR NH

Description

Only the hexagonal water tower survives in this area, the other two buildings drawn no longer being visible.

Condition

Fair

Interpretation

Water tower. This area has been interpreted as a probable camp site, though there is no surviving evidence on the ground to confirm this.

Importance

Low



Photograph No.

10E

Date 07/07/99

Looking

S towards water tower from road

TAIN AIRFIELD**Building Record****J****No. 2****NGR NH****Description**

A grey brick flat roofed building 3m square with a blast wall 3m long 1m SE of the entrance. The floor is of concrete with a missing central cover and there are 3 circular holes set on the SW side of this floor.

To the E of this building is an open brick store? measuring 7m lon and from 4.5 to 6.5m wide. The walls of this structure are headed with mortar and broken glass. The entrance is from the NE.

Condition

Good

Interpretation

This has been interpreted as a ground post for the OPs room and is very similar in size and layout to K.1.

Importance

Accessible but only worth preserving if a development strategy is adopted for the whole airfield

**Photograph No.**

5C

Date 02/07/99**Looking**

NE towards ?Ground post J.2

TAIN AIRFIELD

Building Record Area J No. 2

NGR NH



Photograph No.
Looking

6C
Nw at interior of ?Ground Post J.2

Date 02/07/99



Photograph No.
Looking

7C
SW at interior supports in ?store to NE of J.2

Date 02/07/99

TAIN AIRFIELD**Building Record****Area K****No. 1 & 2****NGR NH****Description**

K.1 measures 3m by 3m . It is made of grey brick with a flat roof of concrete. Its doorway faces SE to K.2. The floor is of concrete with a central cover now missing. On the SW are three circular holes, presumably for communication wires. A low brick wall in front of the entrance may be the remains of a blast wall similar to that in front of J.2

K.2 lies to the E of K.1 on the opposite side of the road. It measures 6m by 4-6m and its walls are topped by broken glass and now fragmentary barbed wire.

In the interior are 2 iron supports or brackets.

A small brick support 0.75m high lies c15m to the NE

Condition

Good apart from gorse scrub encroaching on K.2

Interpretation

K.1 has been interpreted as Ground Post and is similar in design to J.2. The purpose of the store to the E is not known.

Importance

As with J.2 this is not significant on its own but if the Hunting Hill OPs room is developed these could both be linked as part of a small trail.

**Photograph No.****36B****Date** 02/07/99**Looking****SW towards both K.1 & K.2**

TAIN AIRFIELD
Building Record

Area K Nos. 1& 2

NGR NH



Photograph No.
Looking

34B
NW at entrance to K.1

Date 02/07/99



Photograph No.
Looking

35B
at interior of NW of K.1

Date 02/07/99

TAIN AIRFIELD**Building Record****Area K****No. 3****NGR NH****Description**

Hidden in an area of woodland just N of the railway line is a flat roofed grey brick building. It measures 7m by 3m and is aligned SW/NE. A 4m long blast wall lies 1m from the entrance.

Metal posts run 2m and 3m apart are set on a line SE of the W end of the building

Condition

This building is in excellent condition with the marks of shelving and a probable desk visible in the paintwork of the interior.

Interpretation

This has previously been interpreted as a VHF transmitter and the metal posts could be earthing points.

Importance

Not known, but could be developed as part of a small trail with Hunting Hill OPs room and ?Ground Posts J.2 and K.1.

**Photograph No.****1C****Date 02/07/99****Looking****SE at entrance to K.3**

TAIN AIRFIELD

Building Record Area K No. 3

NGR NH



Photograph No. 6C

6C

Date 02/07/99

Looking

NW at interior of ?VHF post K.3



Photograph No. 7C

7C

Date 02/07/99

Looking

SW at interior of ?VHF post K.3

TAIN AIRFIELD

Building Record

Area K

No. 4

NGR NH

Description

To the W of the entrance to Loans of Bogbain Farm are the remains of 3 structures thought to belong to the war time use of Tain Airfield.

The remains include a red brick store with glass set in concrete on the wall head. An iron framed gate with wire mesh still survives here.

To the W is a grey brick foundation also topped with glass embedded mortar at it wall head. It is partially banked with soil.

Between these 2 standing structures is a T-shaped foundation.

Other foundations may lie in the woodland to the W and E, though this area was not surveyed further

Condition

The standing structures are in good condition.

Interpretation

There may have been another camp site at this position, now largely removed. Alternatively the remains may mark part of a guard post on one of the routes of entry to the airfield.

Importance

Low

**Photograph No.**

33B

Date 02/07/99**Looking**

NE at all 3 structures

PART 5: RECOMMENDATIONS

PART 5: RECOMMENDATIONS

19 FEARN AIRFIELD

Introduction

- 19.1 Fearn offers opportunities for development as a site for cultural and military interpretation. It is one of the few remaining Naval Airfields in the country and remains almost intact.
- 19.2 Although part of the airfield has been developed for industrial use much of it and the associated accommodation camp at Loans of Tulloch remains. Some buildings and structures have been lost to site clearance and many others, mainly nissen huts and ablutions blocks, are in such a poor state of repair that demolition appears to be the only course of action available.
- 19.3 It is clear that the Control Tower, which is thought to be one of only three of its design to remain in Britain, offers considerable potential as the focus of any interpretation development. It lies close to the main road, in proximity to existing utilities serving the industrial units which lie near the entrance to the airfield, and commands excellent views over the whole airfield as well as being a prominent feature in the local landscape. In association with the control tower are several other buildings which are in a reasonable condition and which offer opportunities for interpretation. These include the Operations Room which lies to the north of the airfield entrance, the Engine Test House, the Torpedo Shed, the bomb stores, fire engine house, the Stop, or Test, Butt and several hangars which are now in agricultural use.
- 19.4 Several levels of development would be possible at Fearn and could range from refurbishment of the Control Tower as a visitor centre with views, but no public access, to the buildings and structures which remain around the airfield, to a more intensive development which would permit public access to the key sites via the perimeter track and to the camp site at Loans of Tulloch.
- 19.5 The camp site contains a number of buildings which have potential for refurbishment as part of an interpretation centre but there are also a number of features which are in a very poor state of repair and should be demolished and cleared as part of any development programme. Those buildings which are of particular interest include the gas decontamination centre, the hospital, the cinema and the officers' messes.
- 19.6 Other potential new uses for the camp site include sensitive redevelopment for commercial or residential use or a combination of the two as an artist/artisan village but it is not known at this stage whether interest could be generated for such a development in the Fearn area.
- 19.7 In conjunction with the development of Fearn as a visitor attraction, consideration should be given to refurbishment of the main runway, which is currently used for 'touch and go' exercises by light aircraft, and the potential for an expansion of this use should also be explored.

- 19.8 If a ‘full scale’ development was found to be economically viable and was to be adopted the local landowners would require to be fully consulted and their agreement would be required for public access to the more remote parts of the airfield and for the redevelopment of the buildings themselves. It is thought that support would be forthcoming for the development of the Control Tower itself but that local landowners would favour general site clearance of the dispersal and technical areas.
- 19.9 Figure no 8 illustrates those buildings which are considered to be of national significance and should be retained and protected. This drawing also illustrates those buildings and structures currently in use by local landowners, those which remain in a reasonable state of repair and should be retained if possible and those which are in such a poor or dangerous condition that demolition should be considered.
- 19.10 Figure no 8 also illustrates an outline development proposal, identifying key areas for public access and highlighting potential conflicts with existing or proposed landuses.
- 19.11 This plan is intended as a preliminary tool for further discussion purposes. It will be essential that an economic feasibility study be undertaken to establish the appropriate level of investment and to identify potential sources of funding.

An outline interpretive strategy for Fearn Airfield (HMS Owl)

Overview of interpretive strategy

- 19.12 Fearn Airfield (HMS Owl) is exceptional as a site of wartime archaeology, due to the bulk of its context being preserved intact. Of especial significance, within this near-complete context, are:
- ◆ the degree of preservation of the perimeter road and three runways of the airfield itself;
 - ◆ the control tower, said to be the only extant example in Scotland and one of only three in Britain;
 - ◆ the engine test house;
 - ◆ the test butt for calibration of aircraft guns;
 - ◆ the Wrennery, a campsite in a very good state of preservation.
- 19.13 The quality of the extant context of this archaeological site suggests that there should be some on-site interpretation, together with some attempt to raise the site’s profile with special interest groups, tourist visitors, schools in the area and other locals, as the site represents an important element in the Tarbat Peninsula’s heritage.

19.14 On early consideration, there would appear to be five possible levels of interpretation which could be applied to HMS Owl:

- A. the preservation of key buildings; marking the location of other buildings; the provision of a leaflet for self-guiding around the site;
- B. reinstating the key network of 'lost' roads; replacing the bridge over the main dyke; installing stiles over stock fences; researching, writing and installing interpretive panels at key points throughout the site; waymarking the site and creating a leaflet of walks around the site, showing the context and links to other attractions in the area;
- C. identifying one of the key buildings, such as the control tower or the engine test house, for the creation of a simple visitor centre, to be opened by appointment and by occasional volunteer staffing; this to contain wall-mounted maps and photographs and a viewing terrace;
- D. creating a more comprehensive visitor centre, possibly split between two or even three buildings across the site, staffed (even if voluntarily) through the season and well marketed, to contain such elements as models of the site and key buildings and planes which used the site, video/CD-Rom material, oral history and sound effects and appropriate children's activities;
- E. a high cost and very comprehensive project, to reinstate where possible the entire site context, including comprehensive use of the Wrennery, whereby visitors could enter and empathise with the use of each building – this has been done to great effect at St Brelade, Jersey and Eden Camp, North Yorkshire.

19.15 It is suggested, due to the limited number of visitors to the Tarbat Peninsula, that even with aggressive marketing, the last suggestion, E above, would probably not be feasible. C and D would, at first glance, seem possible, pending a full and appropriate feasibility study, assuming that significant local enthusiasm and energy for the project could be marshalled.

Aims of interpretation

19.16 Interpretation differs from mere labelling in that it should have aims within three areas, namely:-

- ◆ educational, e.g. the visitor will leave knowing more about the history of 20th century warfare;
- ◆ behavioural, e.g. due to an appreciation of the role of the archaeologist the visitor will not use a metal detector on archaeological sites into the future;
- ◆ emotional, e.g. the visitor will have experienced empathy with the occupants and users of the site during wartime.

Objectives of interpretation

19.17 The practical outcomes of a project to interpret the HMS Owl site might include:-

- ◆ identifying key aspects of the site which are currently threatened;
- ◆ creating a preservation/conservation strategy;
- ◆ identifying sums of money to implement such a strategy;
- ◆ assessing the visitor needs on the site, such as the requirement for car parking, bridges, stiles, improvement in footpath surfacing, route guidance, supplementary information through site panels or leaflets;
- ◆ identifying ways of interpreting the site context to those with disabilities, such as the provision of at least one route onto the site which does not require negotiating stiles or undertaking lengthy journeys on foot;
- ◆ undertaking a feasibility study on the provision of a visitor centre at various levels, looking at local commitment, agency support, potential markets, links to existing area interpretive strategies and all potential costs.

The site and its potential

19.18 As highlighted earlier, there can be few wartime archaeological sites whose context is so well preserved, leading to the suggestion that the site should definitely be preserved and interpreted to some extent.

19.19 If at all possible, this preservation/interpretation should aim to present the context as a whole, rather than just small areas of the site. The site's strength is its completeness.

19.20 It is suggested that the areas of especial importance highlighted earlier should be preserved intact if possible, namely:-

- ◆ the perimeter road;
- ◆ the three runways;
- ◆ the control tower;
- ◆ the engine test house;
- ◆ the test butt for calibration of aircraft guns;
- ◆ the Wrennery.

19.21 It is suggested that the sub-context of each of the operational areas of the site should be preserved in four ways, namely:-

- ◆ a full photographic record taken at this point, before any possible demolition/removal;
- ◆ a set of reconstruction drawings commissioned, based on information retained elsewhere;
- ◆ the current locations of all buildings retained on site as white painted concrete outlines or equivalent;
- ◆ an interpretive panel placed at the main entrance to each of the operational areas of the site.

19.22 It is suggested that efforts should be made to establish a 'Friends of HMS Owl' or equivalent group, whose role might encompass some or all of the following:-

- ◆ research on the exact use and layout of every building on site;
- ◆ fieldwork, investigating all potential wartime remains;
- ◆ the running of guided walks/delivery of lectures on the site, possibly as part of Archaeology Week or the Heritage Outreach Programme;
- ◆ the collection and transcription of oral history recordings of individuals who remember the site in use during wartime;
- ◆ the investigation of rumours of buried aircraft on the site, potentially leading to archaeological digs to recover any such materials;
- ◆ providing the local impetus, enthusiasm and fundraising necessary to release any required and identified external agency and other funding towards the provision of on-site interpretation at whatever level is deemed appropriate;
- ◆ staffing of any resulting visitor centre(s) into the future.

Potential for a low-key visitor centre

19.23 It is suggested that, to create a low-key visitor centre, one noted building should be selected. This might be the control tower, the engine test house or one of the larger buildings in the camp area known as the Wrennery.

19.24 Such a centre might be open by appointment and kept locked the rest of the time. It might contain some or all of the following:-

- ◆ two dimensional, wall mounted materials such as photographs of site buildings, aircraft, men and women in uniform, vehicles and operations;
- ◆ a detailed and comprehensive map of the site, explaining the layout and function of each element;
- ◆ if the engine test house or control tower, a viewing terrace at the top of the building.

19.25 Such a centre would not add greatly to the costs of preserving such a key building and would cater for such special interest groups and school groups as might present themselves, once aware of its existence. It would, however, require an individual or group of individuals willing to take on, at a minimum, the role of keyholder/caretaker.

Potential for a more comprehensive visitor centre

19.26 It is suggested that the site is of sufficient heritage value to warrant the necessary investment to create a visitor centre with a greater range of attractions and interpretive media. This would require the creation and support of a group of individuals along the lines of 'Friends of HMS Owl', to provide voluntary staffing when complete, but, more importantly, the

necessary impetus, enthusiasm and local fundraising to enable the project to attract sufficient external funding to succeed.

19.27 Given the degree of preservation of the site's context, together with the national significance of some of its buildings, and the degree of interest nationally in the second world war, its remains and its memorabilia, it is suggested that funding should be available, following the commissioning of an appropriate feasibility study and business plan, for the creation of a worthwhile visitor centre.

19.28 Such a visitor centre might contain:-

- ◆ archival film footage, presented on video tape or CD-Rom, showing wartime operations, sourced from the archives at the Imperial War Museum and the Fleet Air Arm Museum, among others;
- ◆ scale models of the whole site, groups of buildings or individual buildings, to enhance understanding of the operational context;
- ◆ scale models of the Barracuda, Seafire and other planes which were based at HMS Owl during the war;
- ◆ oral history presentations through 'sound posts' of reminiscences by people who served at HMS Owl during the war, or locals who remember the air base in action;
- ◆ replica uniforms, torpedoes, guns, personal equipment, etc.

19.29 It would be vital to market such a centre to all special interest groups and individuals, using such techniques as:-

- ◆ leaflets to all key museums and libraries;
- ◆ trips arranged for local museum and library staff to the site, to ensure accurate advocacy in response to enquiries received by them;
- ◆ creating local goodwill through the arrangement of appropriate public meetings at key milestone stages throughout the development of the visitor centre;
- ◆ incorporation of HMS Owl into existing programmes such as Archaeology Week and the Council's Heritage Outreach Programme, for events such as guided walks, lectures and children's activities;
- ◆ the preparation of a good temporary exhibition about the site and the centre, to tour relevant libraries and museums.

The creation of walks around the airfield and beyond

19.30 The simplest way to interpret the existing and very complete context of the HMS Owl site is to encourage people to walk around the site.

19.31 Most of the roads built when the airfield and its accompanying satellite sites were created are still passable on foot, although those from the north into areas D and E/F, the east from the B9166 into area E/F and between A/G and B would benefit from clearance of vegetation. Where farmers' hay crops now conceal the tracks, clearly all necessary agreements would need to be obtained.

- 19.32 It is suggested that three areas should be identified for car parking, namely:-
- ◆ at grid reference NH846747, where the access track to the southern point of the perimeter road for the airfield leaves the Anchorville to Hilton road;
 - ◆ at grid reference NH848761, in the vicinity of the control tower;
 - ◆ at grid reference NH856770, within the camp area known as the Wrennery.
- 19.33 The first of these would require the most work as regards resurfacing.
- 19.34 It is suggested that stiles over stock fences should be provided along the lower track between the B9166 and the Wrennery, which leaves the road at grid reference NH856762. This lower track into the Wrennery forms a pleasant walk with good views of the surrounding area.
- 19.35 It is further suggested that a bridge would be required on Health and Safety grounds at grid reference NH848757, where a culvert of the main dyke across the site has been damaged and partially removed.
- 19.36 As suggested earlier, an interpretive panel at the entrance of each of the operational areas of the site, each of which contained a 'You are Here' element, would go some way towards interpreting the context. Each of the areas A to J could usefully benefit from having a title applied to them, used at each major junction on waymarking posts, to facilitate walkers finding their way around the site.
- 19.37 It would be important, in the devising and creation of a walks leaflet, to consider how the walks linked with existing interpretive strategies, such as the Pictish Trail, the Seal and Dolphin Trail and Sea 2000, and to a lesser extent The King's Route. Therefore the leaflet might point out other attractions in the area such as (among others):-
- ◆ the Shandwick Stone;
 - ◆ the Hilton of Cadboll Chapel site and replica stone;
 - ◆ Dolphin watching;
 - ◆ Shandwick Bay and the Well of Health;
 - ◆ Fearn Abbey;
 - ◆ local pubs/shops in Balintore and Fearn.
- 19.38 It would be necessary to identify on the leaflet a route, with parking and degree of difficulty, for disabled visitors. In the context of a second world war site where, if 18 years old in 1945, potential visitors in active service at the time would now be 72 years old, it is especially important to consider the needs of elderly visitors, who cannot be expected to walk very far or to stand for very long without a seat.
- 19.39 The leaflet need not be lavishly produced to be effective. The quality of design can make a monochrome or two colour leaflet just as effective as a full colour one, and the difference in costs between the two can allow for greater distribution costs to be included within the budget. It is suggested that

professional distribution by an organisation such as Landmark is money well spent, to ensure good coverage of a target area.

Use of the site by schools, within the Environmental Studies 5-14 Curriculum

Where HMS Owl fits the curriculum

19.40 The Environmental Studies 5-14 Curriculum contains five components, namely:-

- ◆ Science;
- ◆ Social Subjects;
- ◆ Technology;
- ◆ Health Education;
- ◆ Information Technology.

19.42 The Social Subjects component contains three attainment outcomes, namely:-

- ◆ Understanding People and Place;
- ◆ Understanding People in the Past;
- ◆ Understanding People in Society.

19.43 A system of strands is used to help identify key aspects of learning, namely:-

- ◆ Knowledge and Understanding;
- ◆ Planning;
- ◆ Collecting Evidence;
- ◆ Recording and Presenting;
- ◆ Interpreting and Evaluating;
- ◆ Developing Informed Attitudes.

Understand People and Place

19.44 This outcome will be attained through the study of places with emphasis on:-

- ◆ aspects of the physical and built environment;
- ◆ ways in which places have affected people and people have used and affected places;
- ◆ transport and communications links and networks;
- ◆ making and using maps.

Understanding People in the Past

19.45 This outcome will be attained through developing knowledge of, and interest in, people in the past, by:-

- ◆ studying people, events and societies of significance in the past in a variety of local, national, European and world contexts;

- ◆ developing an understanding of change and continuity over time and of cause and effect in historical contexts;
- ◆ developing an understanding of time and historical sequence;
- ◆ developing an understanding of the nature of historical evidence by using a range of types of evidence to develop and extend knowledge about the past;
- ◆ considering the meaning of heritage and the influence of the past upon the present.

Understanding People in Society

19.46 This outcome will be attained through the study of:-

- ◆ social groupings, social needs and how they are met;
- ◆ social rules, rights and responsibilities;
- ◆ conflict and decision-making in society;
- ◆ economic organisation and structures.

19.47 From the above it is obvious that use of the HMS Owl site could form a key part of World War II as a topic designed to address the above areas of the Environmental Studies curriculum. This would be greatly enhanced by the provision of:-

- ◆ guided site visits, either through the use of a leaflet or by human guides;
- ◆ a well thought out and presented educational pack on the airfield.

Outline suggestions for the contents of an educational pack on HMS Owl

19.48 It is suggested that the background notes part of such an educational pack should be written either by a current or ex-teacher, or in consultation with a teacher or group of teachers who have been identified as likely to use such a pack into the future. Teachers know what they will need from such a pack, to maximise its usefulness.

19.49 It is suggested that a box should be compiled, rather along the lines of SNH's Marine Boxes, whereby a robust polypropylene box complete with lid is loaned to schools for periods of half a term.

19.50 Such a box on HMS Owl might contain:-

- ◆ a selection of appropriate books, sourced from the catalogues of the Imperial War Museum and the Fleet Air Arm Museum, on planes, uniforms, vehicles, buildings, major operations, rationing, the Home Guard, the three main Services, etc.;
- ◆ laminated and corner punched posters, sourced from the same catalogues;
- ◆ a simple CD-Rom, containing in various formats a range of illustrative material for the schools to incorporate into their work;
- ◆ a good map of HMS Owl, with much detail on all elements of the site;
- ◆ drawings of reconstructed buildings, possibly showing them in use;

- ◆ photographs of key buildings and groups of buildings on the site;
- ◆ background notes on buildings, the Squadrons that used the site, aircraft used on the site and how these fitted into the wider World War II picture, e.g. night anti-submarine dive bombing using flares, the use of Barracudas to damage the Tirpitz in Norwegian waters in April 1944 and their use in the Pacific theatre to attack oil installations, again in April 1944;
- ◆ a tape/CD-Rom of oral history recordings, accompanied by any photographic material relating to the individuals and their reminiscences;
- ◆ a simple site by site guide to other wartime dereliction across Easter Ross.

19.51 It is important, with all oral history work, to avoid the trap of trying to gather as much raw material as possible, "because they will all be dead soon, if we don't hurry." All too often, the results extend to a pile of untranscribed cassettes, depreciating in quality on a shelf. It is vital to approach the work from the other end, by identifying an end product, such as a book, a tape in a visitor centre or a temporary exhibition, and working back from this. It takes on average twice as long to transcribe accurately an oral history recording as it does to acquire the recording, before its end use is even considered.

19.52 It is also important to bear in mind the ethics of oral history work (covered extremely well in *Thompson, P, 1978/88, The Voice of the Past – Oral History, Oxford University Press*) regarding the acquiring of permissions from the subject for end use and the careful management of interviews so as not to traumatise the interviewees, as one is going over sensitive and often painful memories.

Potential school activities

19.53 Clearly the range of activities which could be undertaken using such an educational pack, in combination with site visit(s), is only limited by the teacher's and the children's imaginations. However, work might include:-

- ◆ constructing a model of key buildings, the site or aeroplanes;
- ◆ map and compass work, stimulated by the orientation of the runways, leading to consideration of the location of HMS Owl relative to key world locations;
- ◆ drama work, with scenes involving people stationed at HMS Owl or living in the vicinity;
- ◆ the creation of a book on the site, along the lines of work carried out by Catherine Mackay and pupils from Invergordon Park Primary School;
- ◆ undertaking extension oral history work, following the identification of local individuals with something to contribute to the topic;
- ◆ an investigation into rationing and wartime diets, leading to the preparation of a wartime menu for consumption;
- ◆ work on the role of uniforms, status, blind obedience, sign language on the battlefield and other aspects of the rigid military life;
- ◆ work on camouflage and its role in both military and non-military life;
- ◆ a study of survival and basic human needs, possibly including a camping activity;

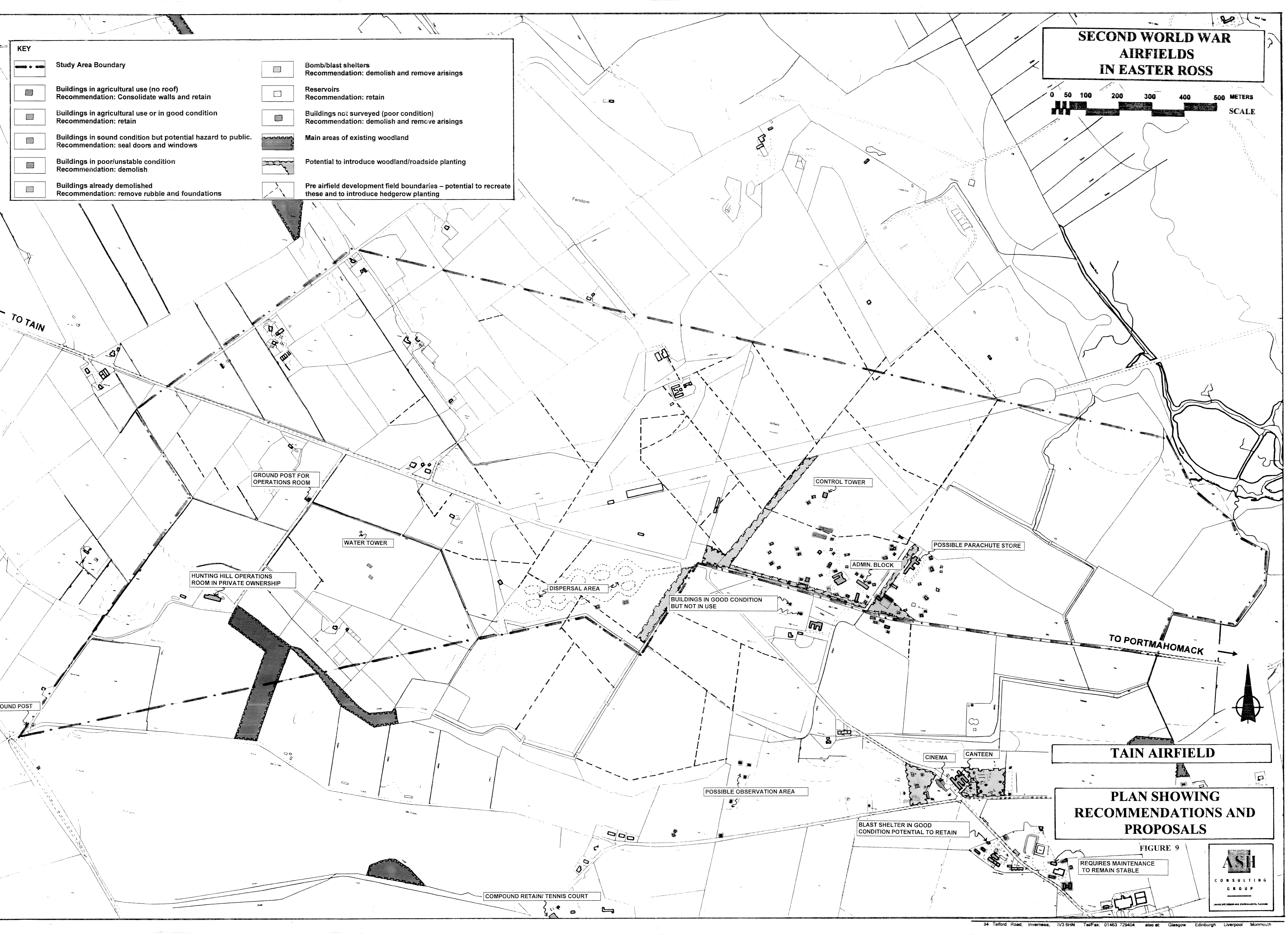
- ◆ a look at the role of the camp entertainment, stress, homesickness and other aspects of being away from one's home and family;
- ◆ the study of wartime songs leading to learning and presenting contemporary and new songs.

19.53 Once the site has been stabilised, preserved and made more accessible, involving a study of the Health and Safety aspects, then clearly drama work and music could usefully take place on site, which would greatly increase empathy. The underground, bomb-proof shelters, for example, would be an extremely evocative location for such work, were it to involve the recreation of a bombing raid situation.

**SECOND WORLD WAR
AIRFIELDS
IN EASTER ROSS**

0 50 100 200 300 400 500 METERS
SCALE

KEY	
	Study Area Boundary
	Bomb/blast shelters Recommendation: demolish and remove arisings
	Reservoirs Recommendation: retain
	Buildings in agricultural use (no roof) Recommendation: Consolidate walls and retain
	Buildings in agricultural use or in good condition Recommendation: retain
	Buildings in sound condition but potential hazard to public. Recommendation: seal doors and windows
	Buildings in poor/unstable condition Recommendation: demolish
	Buildings already demolished Recommendation: remove rubble and foundations
	Main areas of existing woodland
	Potential to introduce woodland/roadside planting
	Pre airfield development field boundaries – potential to recreate these and to introduce hedgerow planting



TAIN AIRFIELD
**PLAN SHOWING
RECOMMENDATIONS AND
PROPOSALS**

FIGURE 9
REQUIRES MAINTENANCE
TO REMAIN STABLE



20 TAIN AIRFIELD

- 20.1 Development opportunities for historical and cultural interpretation of the remains of the Tain Airfield are considerably poorer than for Fearn. This is due to the combination of the following factors:
- ◆ A considerable area of the airfield remains in use as a bombing range;
 - ◆ A large tract of land, including the main runway, has been given over to industrial development;
 - ◆ In general, the remaining buildings and structures are in a poor state of repair;
 - ◆ The only building of any significant architectural and historical interest is the Hunting Hill Operations Block which has recently been sold for redevelopment as a film animation studio;
 - ◆ Most of the buildings and structures on the camp sites in the vicinity of the airfield have been demolished, are in a very poor state of repair or are utilised for agricultural storage.
- 20.2 It is recommended that a programme of clearance and restoration be undertaken on the main airfield site to return as much of the land as possible to a safe condition for use as grazing land and to improve the amenity of the area by removing as much dereliction as possible. This would involve the removal of semi buried air raid shelters which are in a potentially hazardous condition, the demolition of ancillary buildings which are in a poor state of repair and the consolidation of those buildings which are in a fair condition and suitable for continued use for agricultural storage purposes. General site tidying operations would include the removal of concrete footings which supported temporary timber buildings close to the Tain – Portmahomack road in addition to the removal of building rubble which will include the remains of asbestos roofing.
- 20.3 In association with demolition and site clearance, opportunities for environmental enhancement exist and could include the reinforcement and extension of existing vegetation blocks and the replacement of roadside hedgerows and hedgerow trees.
- 20.4 The buildings which have the potential for consolidation for use as agricultural stores include technical blocks and workshops, the parachute store and the fire engine house.
- 20.5 The control tower is in a poorer condition than that at Fearn and while it is of interest as a local landmark it is of a typical RAF design and other examples exist elsewhere in the country. Due to its proximity to the bombing range and the north sea oil pipe manufacturing facility and its remoteness from the main road (and utilities), it is unlikely that this building would attract interest for any commercial, residential or industrial redevelopment.
- 20.6 SNH has been consulted to establish whether any potential future use could be made of this building or any others on the airfield to serve a function related to the SSSI. SNH consider that, while the control tower offers panoramic views

over the SSSI, it is too remote to serve any useful function. SNH also confirmed that the SSSI is of such value that public access should not in any case be encouraged. Outwith both this site and the Fearn Airfield, is a further M.O.D. structure at Pitcalnie near Nigg Bay and RSPB and RACE have identified this building as being ideal for use as a hide.

- 20.7 For the associated camp sites on which war time buildings and structures remain, a programme of demolition and clearance is recommended to remove any potentially hazardous structures and materials. Buildings such as the canteen block which is in a sound condition are in agricultural use and are being maintained by the farmers and no action on these is therefore required. Other buildings such as the former cinema and theatre which lies opposite the canteen are made use of, despite their poor state of repair. The cinema in particular presents a significant eyesore being visible to passing traffic and demolition should be considered as an environmental enhancement opportunity.
- 20.8 Many small buildings, including look out posts on the access roads to the Operation block, remain in reasonably good condition. In general these are isolated features and of such a small size that little opportunity exists for new uses. It is possible, however that some use could be made of these as shelters or information points if the Fearn Peninsula were to be promoted for cycling.
- 20.9 It is understood that the new owner of the Hunting Hill Operations Block intends to preserve the building as much as possible and to devote one room for memorabilia about the history of the building. If Fearn Airfield were to be developed for interpretation, reference to the operations block could be made and it could also be included in any sign posting proposals associated with the promotion of the Peninsula for cycling. If the Naval Trail were to be expanded to include a military trail, the Hunting Hill Operations Block would be a key feature for inclusion.
- 20.10 As part of this study, an assessment of the likely presence of hazards and hazardous materials has been undertaken and these relate largely to the presence of buildings and structures in an unsafe condition and to the existence of asbestos materials around the site. It is also thought that buried materials such as oil, paints, chemicals and aircraft parts, may exist on the site but, without invasive investigation over the whole area, the presence and location of such tips cannot be verified. It is understood that no official records would have been made of tip sites.
- 20.11 Figure 9 illustrates those buildings and structures which are in use for agricultural purposes, those which are considered to be in a relatively sound condition and those which are considered to be hazardous. This plan shows priority areas for action to improve the appearance of the airfield and related sites and illustrates a potential framework of hedgerow and tree planting to further enhance the area.

**Appendix 1:
Highland Council Naval Trails Pamphlet**

•J•E•M•I•M•A•V•I•L•L•E•

The board is situated half a mile east of Jemimaville. As you leave the village look out for a small car park with picnic tables on your left.

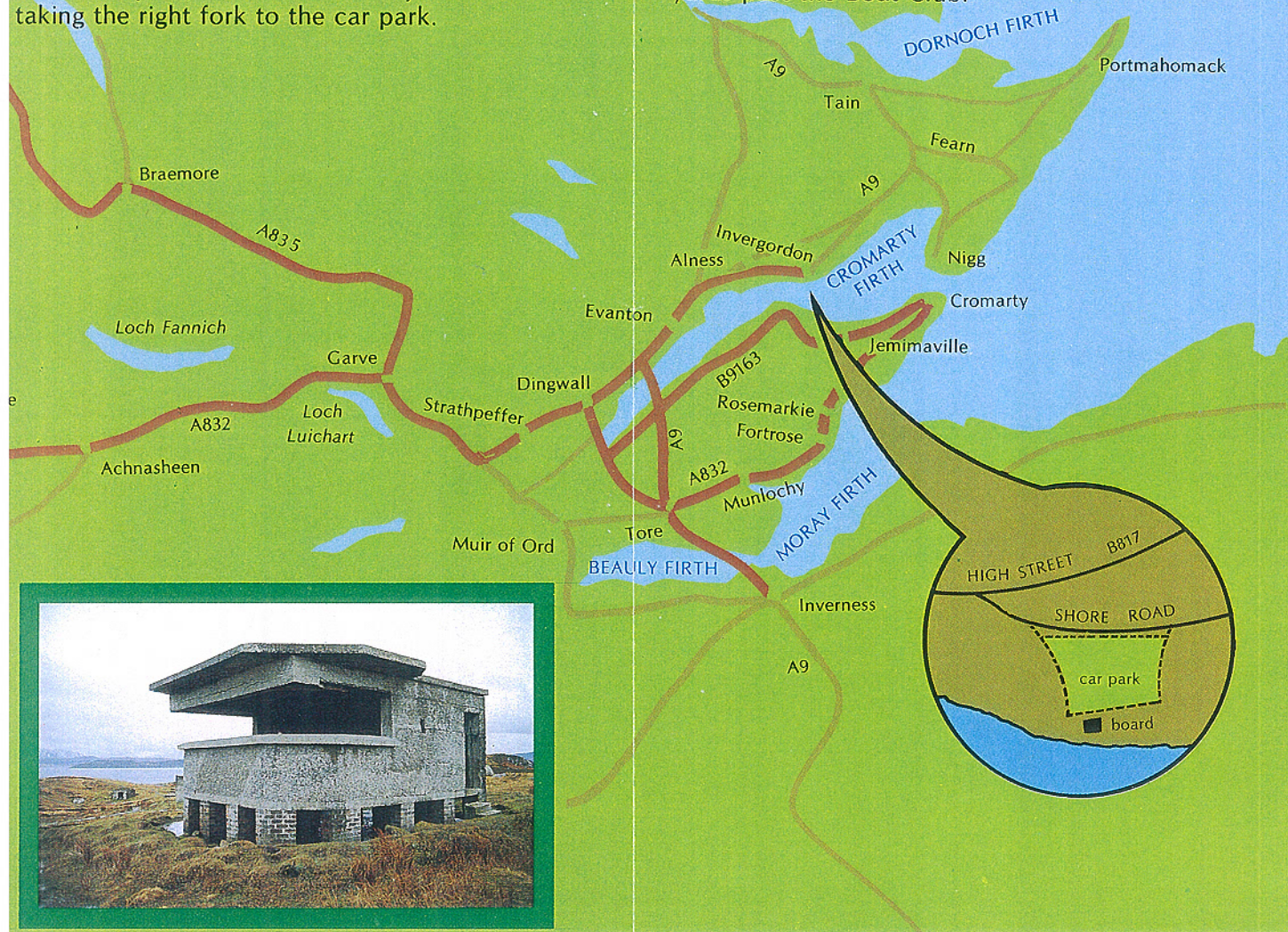
Visit the south Sutor headland after that for a magnificent view of the Cromarty Firth and some remains of wartime defences. At Cromarty follow signs for Hugh Miller's Cottage. Pass the cottage and turn right at the end of the road, at the 'give way' sign. Follow the road uphill, turn left at the T-junction taking the right fork to the car park.

•I•N•V•E•R•G•O•R•D•O•N•

The board is situated in the Cromarty Firth Port Authority Car Park. Follow Shore Road round the town and turn off into the car park.

•D•A•L•M•O•R•E•

Heading north on the A9 turn off for Invergordon. The board is situated in the first picnic area after passing Dalmore Distillery. Heading south from the town it is about 500 yards past the Boat Club.

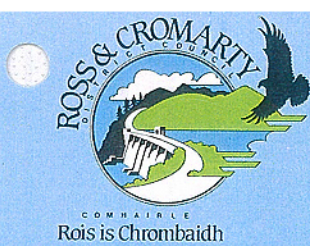


•ROSS & CROMARTY•



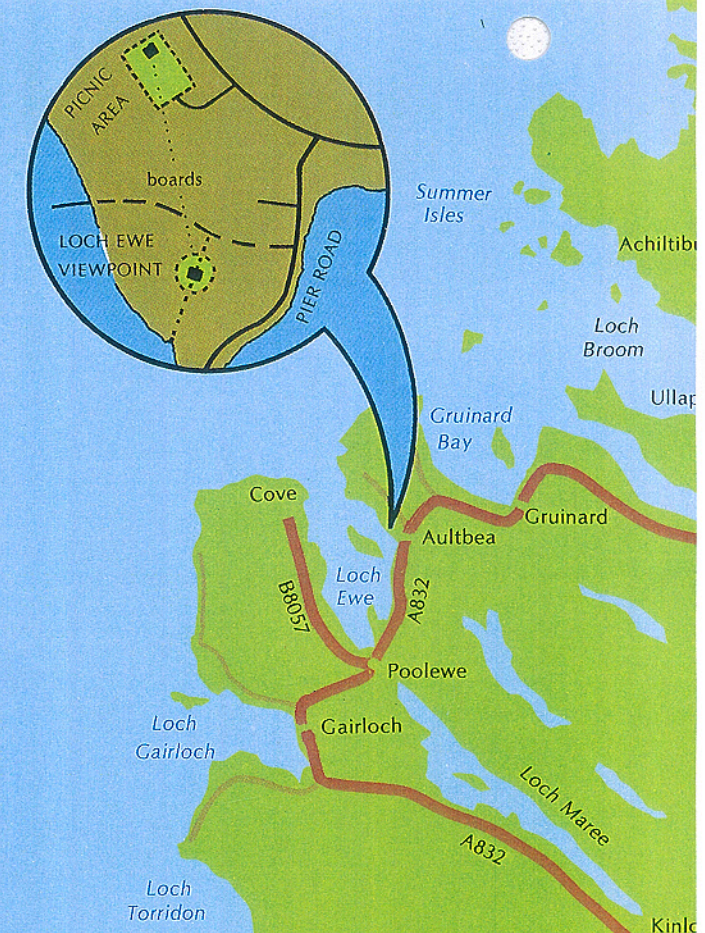
•NAVAL TRAIL•





Ross & Cromarty District Council would like to thank the following for their help with this project:-

Dr. Marinell Ash, Historical Services (Scotland);
 Invergordon Community Council;
 Aultbea Community Council;
 A.J. MacDonald-Buchanan Estate;
 Mr. Peter Nieto, Aultbea Hotel;
 Rosskeen Trust;
 Highland Regional Council;
 Cromarty Firth Port Authority;
 Dingwall Museum Trust.



This trail will take you round sites which played a vital role in the defence of this country and tell you the story of the connection between the Royal Navy and Ross & Cromarty.

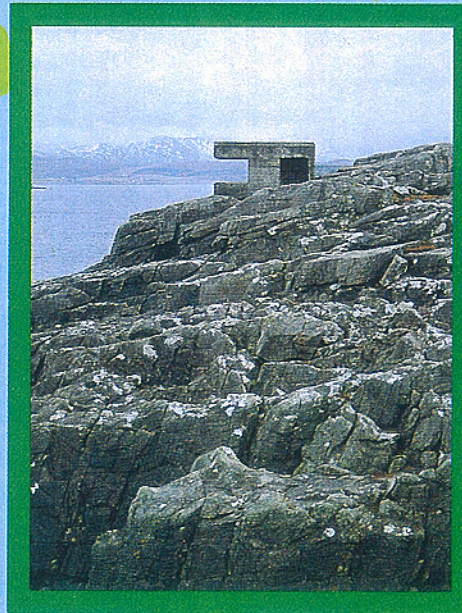
Many visitors to Ross & Cromarty will have heard of the 'Invergordon Mutiny' but few will link it to the fact that the Cromarty Firth was once a larger naval base than Scapa Flow. Many will have heard of H.M.S. Nelson and of convoys to Russia. But few, looking at Loch Ewe today, will realise that it sheltered the mined and crippled 'Nelson' or that convoys of ships set off from the loch to Murmansk in Russia.

On the trail you can visit several sites each with an illustrated board telling its own story. You can visit them in any order as each tells a complete part of the story.

Car parking is available at them all and some are in picnic areas.

All have spectacular views.

There is a souvenir picture inside this leaflet.



•A•U•L•T•B•E•A•

There are two boards at Aultbea quite close together. You can walk along the shore between them. At Aultbea follow the main road round the shore and turn left down Pier Road. The board is then found at Loch Ewe viewpoint.

For the second board either walk along the shore or go back along Pier Road turning left at the junction. Further along turn left again into the picnic area.

•C•O•V•E•

The board is situated at the very end of the road at Cove, 8 miles from Poolewe. Keep driving until you can go no further and the cairn is in front of you. Please keep dogs away from sheep here, and do not enter any of the buildings as they may be unsafe.

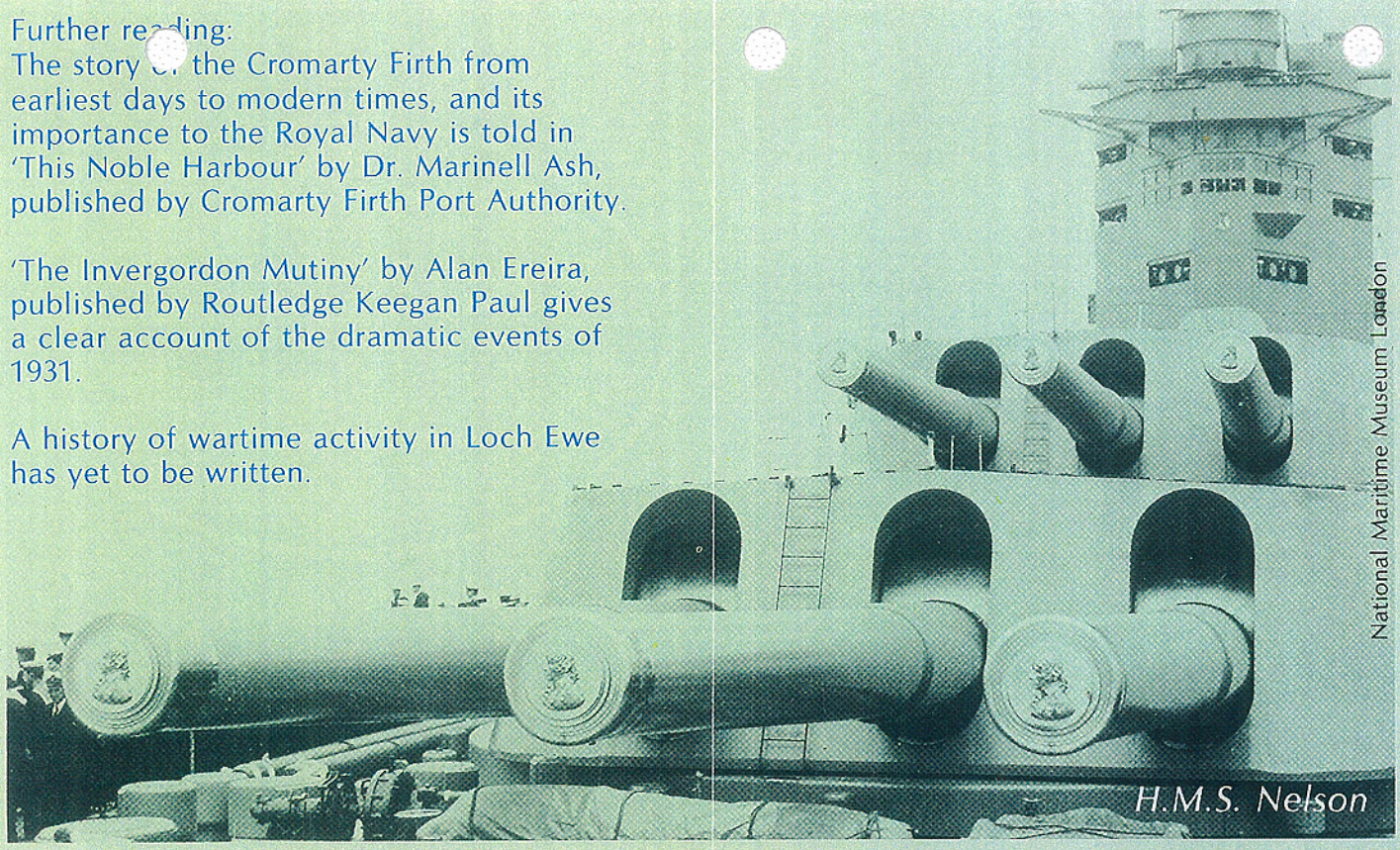


Further reading:

The story of the Cromarty Firth from earliest days to modern times, and its importance to the Royal Navy is told in 'This Noble Harbour' by Dr. Marinell Ash, published by Cromarty Firth Port Authority.

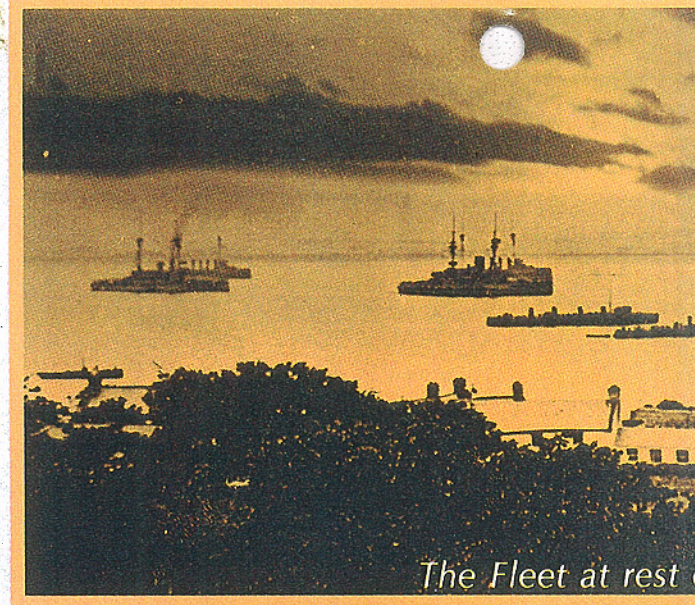
'The Invergordon Mutiny' by Alan Ereira, published by Routledge Keegan Paul gives a clear account of the dramatic events of 1931.

A history of wartime activity in Loch Ewe has yet to be written.

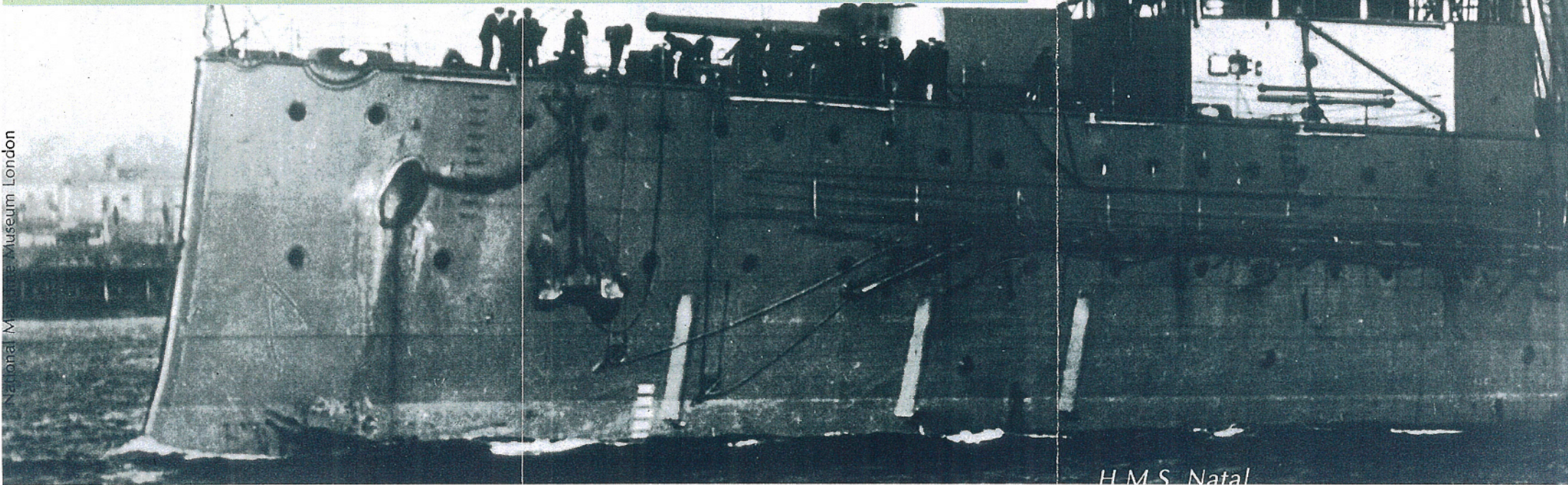


National Maritime Museum London

H.M.S. Nelson

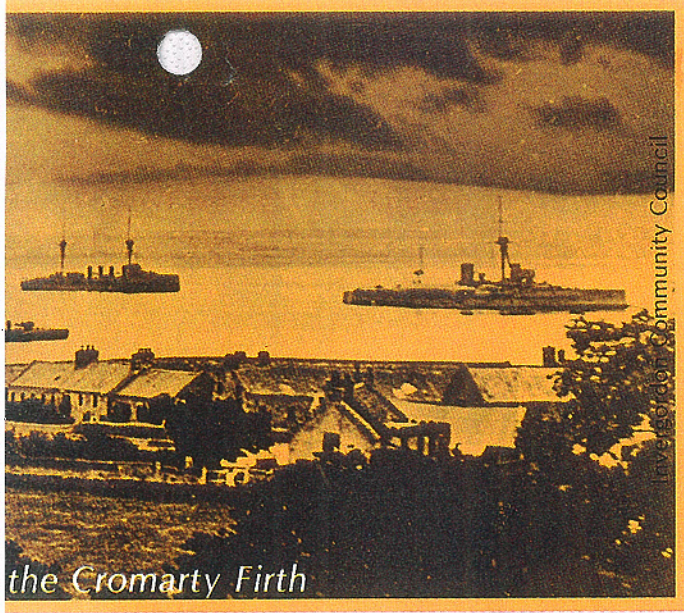


The Fleet at rest



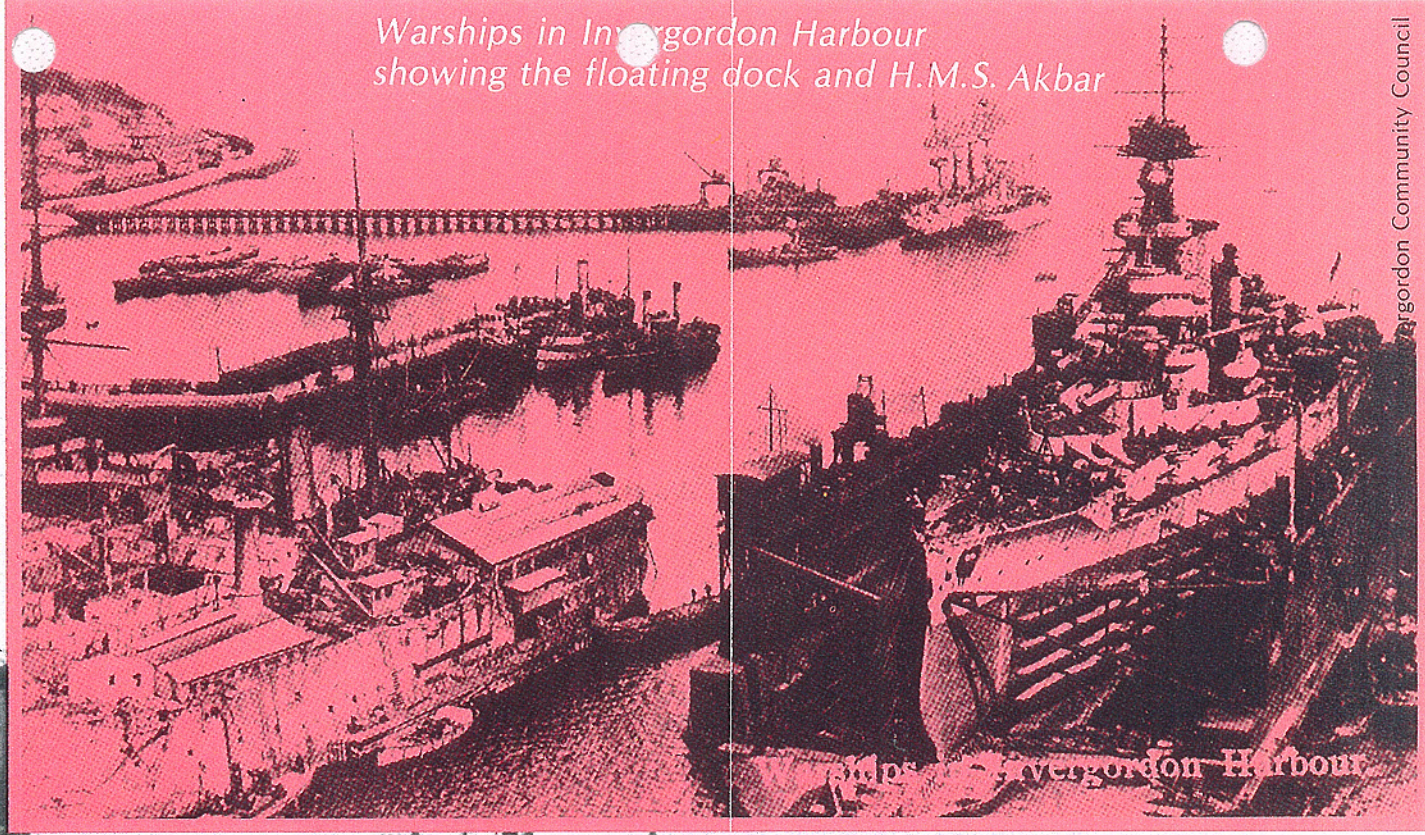
National Maritime Museum London

H.M.S. Natal



the Cromarty Firth

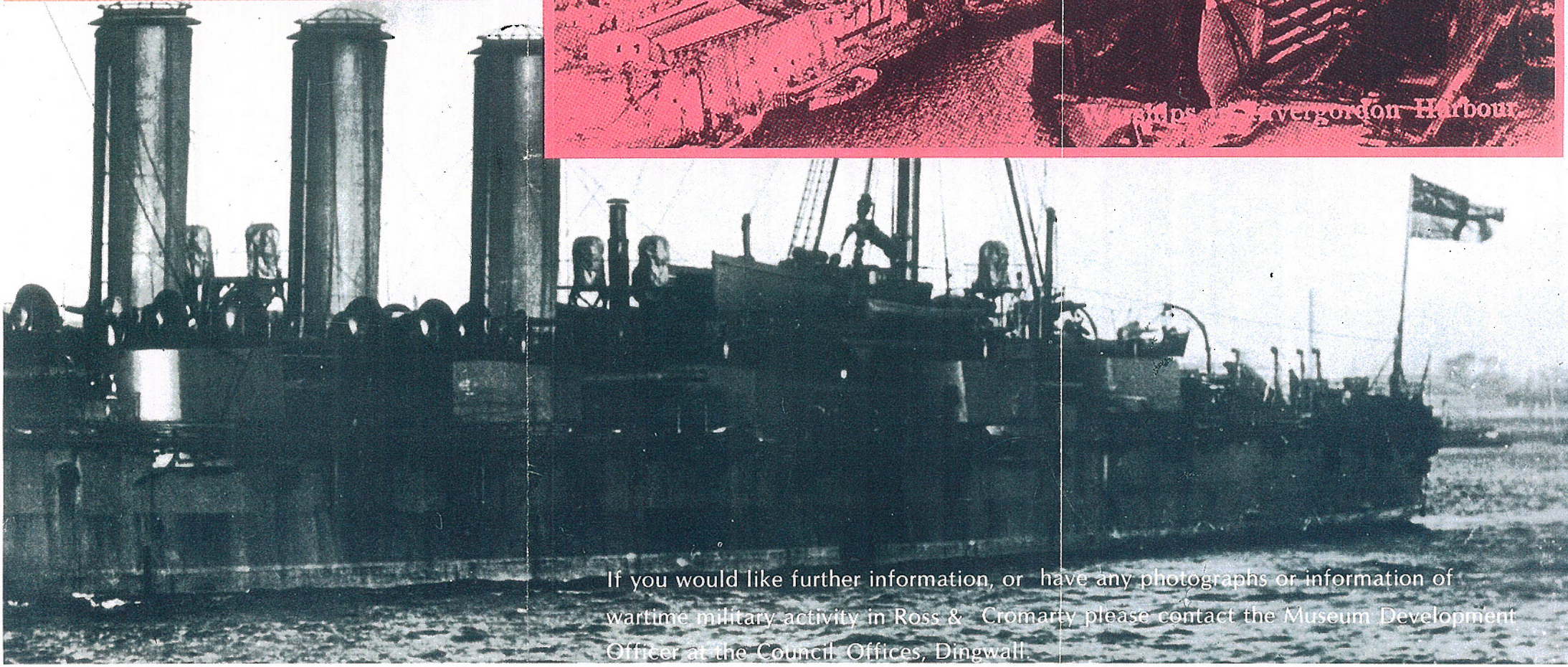
Invergordon Community Council



Warships in Invergordon Harbour showing the floating dock and H.M.S. Akbar

ships in Invergordon Harbour

Invergordon Community Council



If you would like further information, or have any photographs or information of wartime military activity in Ross & Cromarty please contact the Museum Development Officer at the Council Offices, Dingwall.

Appendix 2:
War time Dereliction in Easter Ross Report

CONTENTS

1. INTRODUCTION *
2. CONCLUSIONS
3. RECOMMENDATIONS
4. SITE BY SITE GUIDE TO DERELICTION IN EASTER ROSS

1.0 INTRODUCTION

This paper provides a broad description and photographic record of derelict wartime buildings in Easter Ross. Eleven sites have been identified and ownership, condition of the buildings and current use differs on each. For this reason section four describes each site separately.

Within Ross-shire the greatest concentration of wartime dereliction is in East Ross and for this reason this initial study addressed only buildings in this area. It should be noted, however, that there are sites of wartime dereliction in West Ross.

2.0 CONCLUSIONS

- 2.1 There are eleven main sites in Easter Ross which all contain varying sizes and numbers of a similar style of building. The buildings are generally constructed in either brick, concrete or corrugated iron while the roofs are either iron or asbestos.
- 2.2 The buildings are generally in very poor condition and in some cases have almost disintegrated.
- 2.3 Some of the buildings are an eyesore and are highly visible to passing traffic.
- 2.4 Present uses are mainly as storage spaces and livestock shelters.
- 2.5 Most owners would like at least some buildings removed if the money became available.
- 2.6 As all of the sites contain buildings with asbestos roofs, any dismantling operation would have to be carried out by a licensed operator because of the hazardous nature of the material. This could be a potentially costly exercise. It also seems likely that some of the structures will be built to withstand bomb damage. Hence removal of concrete bases, for example, is likely to be expensive.
- 2.7 There has been some interest from Ross and Cromarty District Council in including the South Sutor buildings as part of a "Naval Trail".

3.0 RECOMMENDATIONS

Funding of the removal of derelict buildings has been considered under RACE's various budgetary headings as follows:

- 3.1 Environmental Renewal - The criteria for funding of environmental renewal projects includes the requirement, among others, to bring derelict land or buildings into economic use. By and large the economic after use is for agricultural purposes and the costs incurred are likely to far exceed the benefits of the economic after use. Accordingly funding of clearance of buildings from this source is unlikely.
- 3.2 Projects - although it could be argued that the continuing decay of wartime buildings has a detrimental effect on tourism in the area, it is considered that any correlation between the two is at best limited. Given that the current projects budget for tourism is limited to £75k, removal of dereliction cannot be considered to be a priority under this programme.
- 3.3 Finance for Business - as little, or no, development would arise from removal of derelict buildings, there is no justification for support under this heading.
- 3.4 Although none of the RACE budgets appear to be able to support a demolition programme, other sources of funding such as Objective 1, may be worth pursuing. If a funding source can be identified, then with owners consent, a priority list should be drawn up to identify those buildings creating the greatest environmental hazard/visual offence. The work required to demolish the buildings in question and to reinstate the sites should be costed.
- 3.5 In the event that a priority list is drawn up it should be recognised that some owners will wish to retain certain buildings which continue to serve a use. Accordingly, the visual impact of a demolition programme is likely to be limited as some decaying wartime buildings will continue to scar the landscape.

SECTION 4 - SITE BY SITE GUIDE TO DERELICTION IN EASTER ROSS

4.7

LOCATION

Fearn Airfield.
OS - NH840760 sheet 86/87

NUMBER AND
TYPE OF
BUILDINGS

There are around twenty of various sizes with some being quite large. They are quite widely spread out.

MATERIAL AND
CONDITION

They are virtually all brick and are mostly still in one piece. Around a quarter have no roofs. Those that do are mainly asbestos or corrugated iron.

PRESENT USE

Some are being used for storage (mostly machinery and Hay). A couple have been done up as workshops and one is used by an electrician. There are bits of aeroplanes lying around.

OWNER

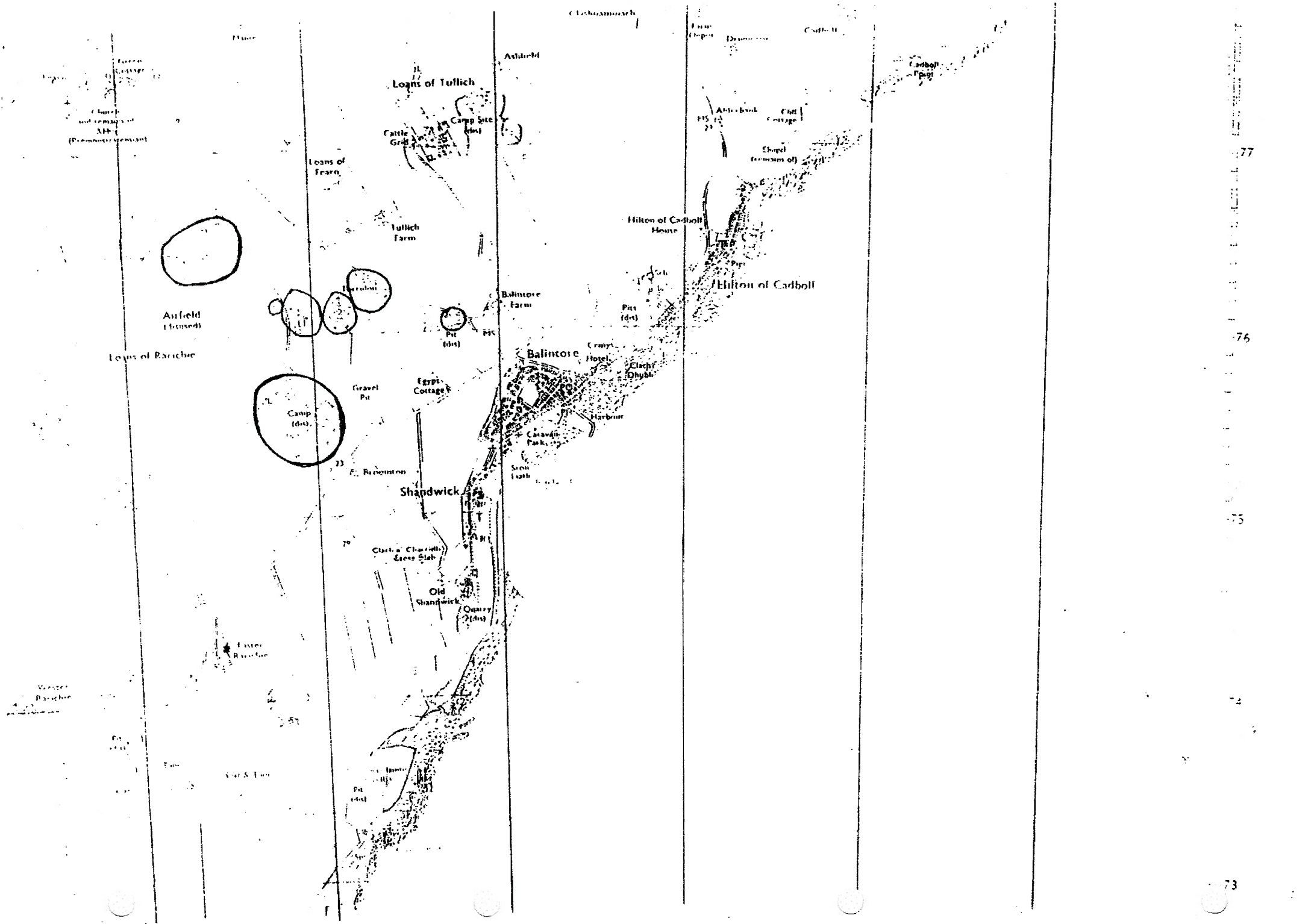
Mrs Sutherland, Tullich Farm.

OWNERS VIEWS

She is not bothered about them although she might have them removed if money was available.

COMMENTS

These fall into the eyesore category and are visible from the Fearn to Balintore road. It seems that the airfield is still used occasionally. Land and Marine have large, modern factory building within the airfield.

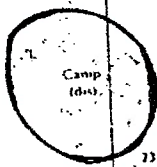


Church and remains of
Abbey
(Demolished)



Airfield
(ruined)

Loans of Bariche



Loans of Fearn

Loans of Tullich

Cattle Grid

Camp Site
(dis)

Tullich Farm

Balintore Farm

Pit
(dis)

Balintore

Crann
Hotel

Clach
Dubh

Harbour

Cavanagh
Park

St. John's
Leath

Shandwick

Clach a' Charaidh
Easach Slab

Old
Shandwick

Quarry
(dis)

East
River

West
River

East
River

Ashfield

C. L. O. S. M. O. S. H.

East
River

Dun
Cottage

Castle

Allybank
Pit

Clach
Cottage

Clach
(remains of)

Hilton of Cardboll
House

Hilton of Cardboll

77

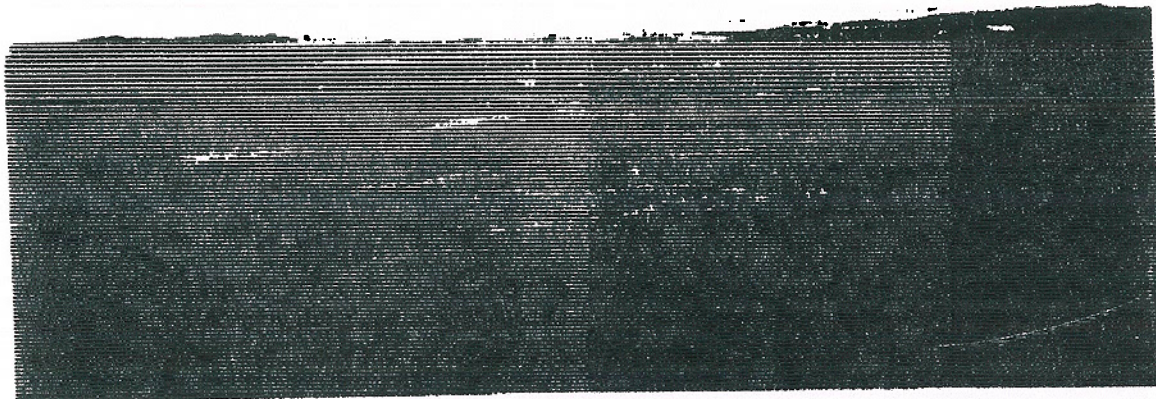
76

75

74

73

Fearn Airfield



This is the view from Arabella to Balintore road about two miles short of Balintore.



One or two of these buildings have been converted into workshops. The majority, however, remain derelict.

4.8

LOCATION

Lochslin Farm (near Loch Eye)
OS - NH839808
NH836809
NH843810 sheet 38/89

NUMBER AND
TYPE OF
BUILDINGS

There are around twenty of various sizes. There seem to be four separate concentrations although they are all fairly close together.

MATERIAL AND
CONDITION

Some of the nissen huts are all iron although the majority are brick. The roofs are of corrugated iron or asbestos and are in generally poor condition. Some have no roofs.

PRESENT USE

Most are being used for storage or as livestock shelters.

OWNER

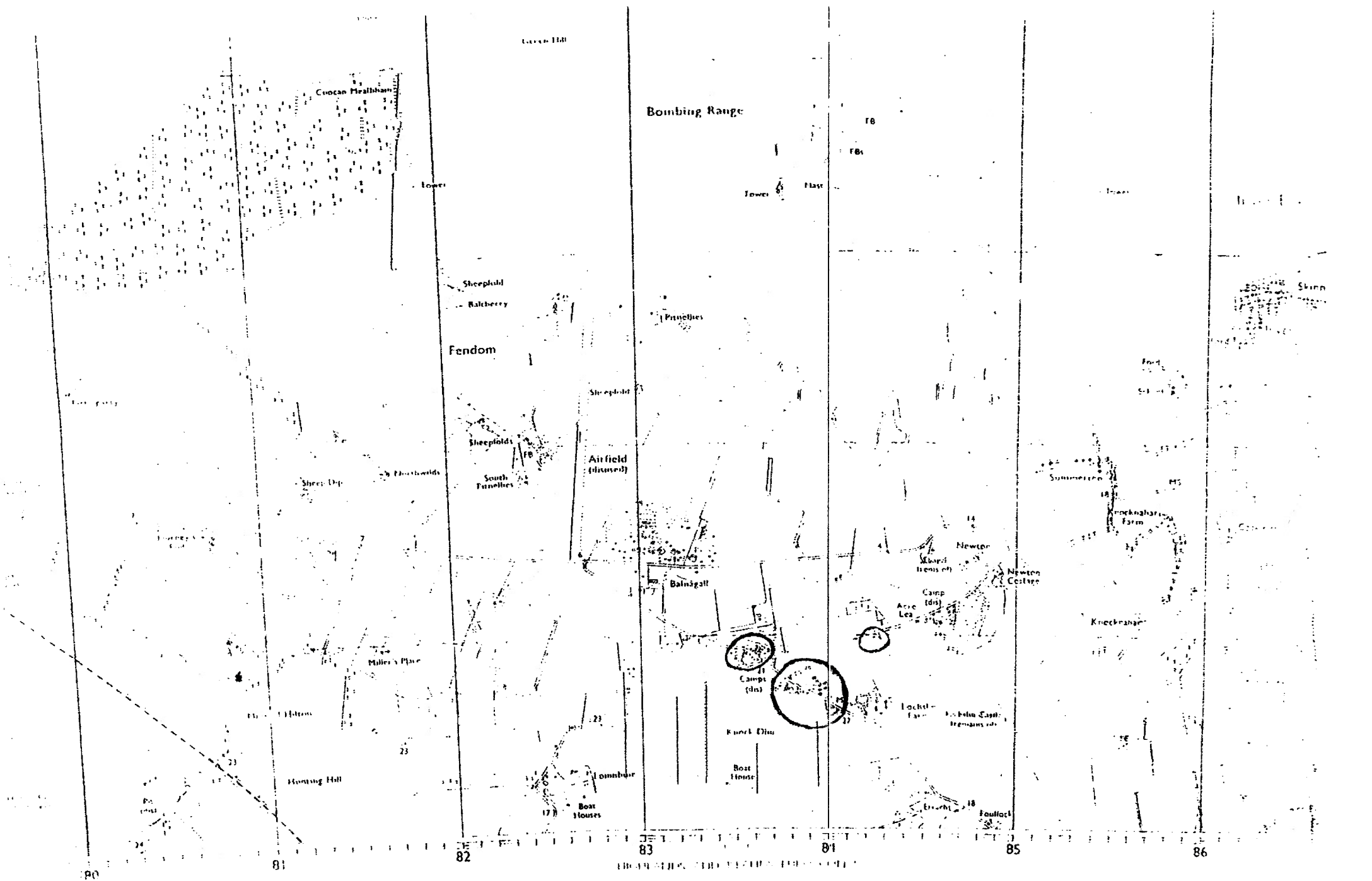
Mr Jim Ross, Lochslin Farm, Ross-shire.

OWNERS VIEWS

He would like them removed if they could be replaced. Some could be removed regardless.

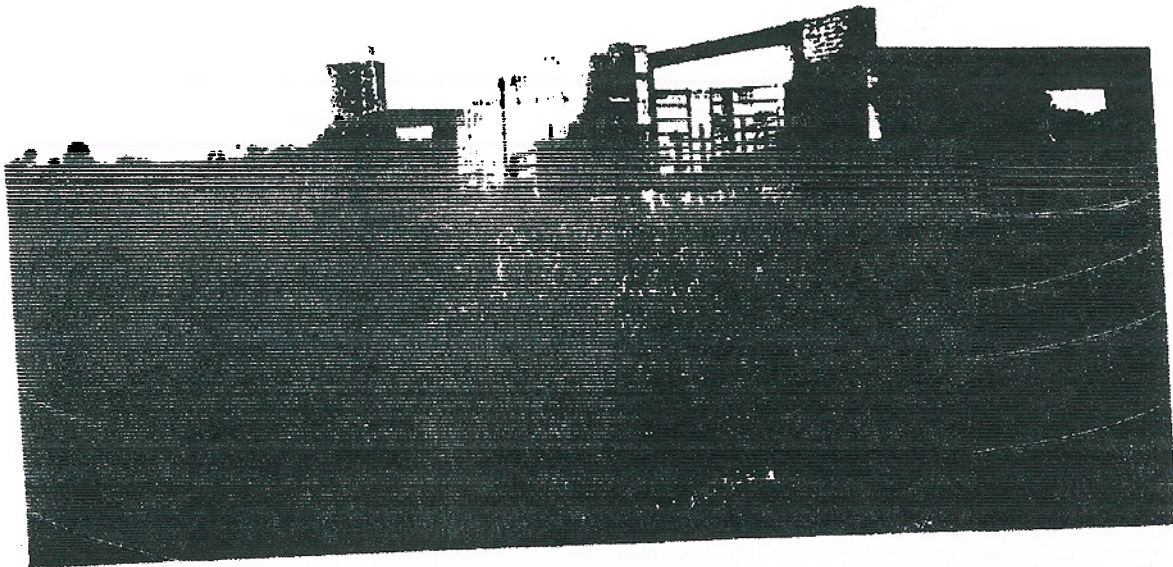
COMMENTS

Some of these are in terrible condition, especially the iron huts, and their close proximity to the road make them significant eyesores. Many have obviously been closely integrated into the workings of the farm though and removing them would create a problem.

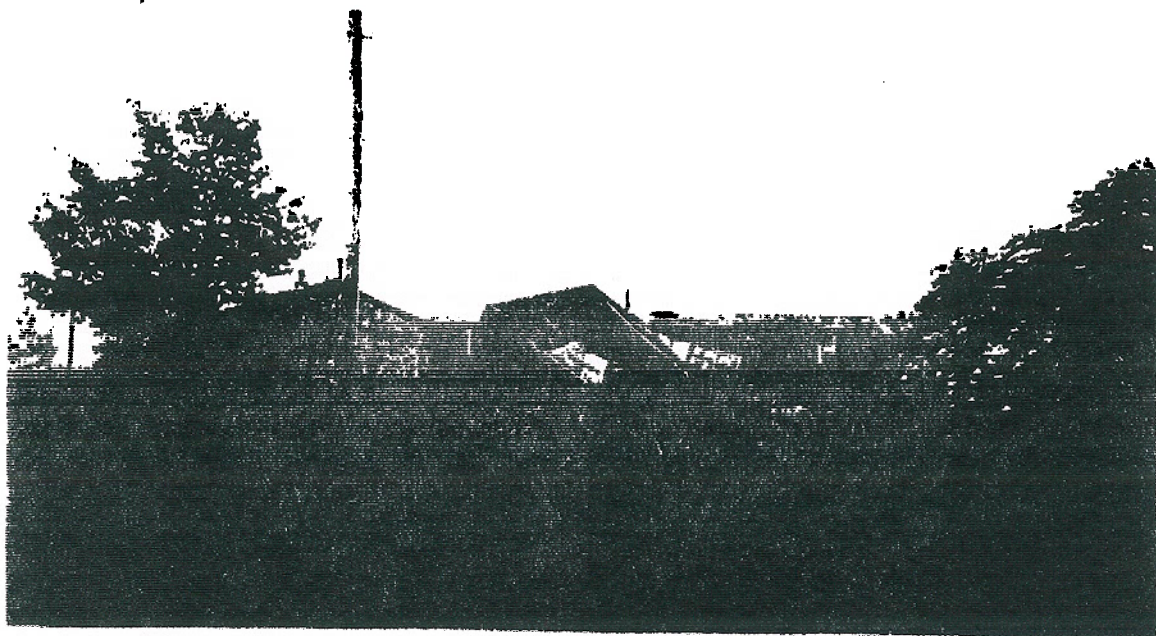


Scale 1:25 000

Lochslin Farm



This collection of buildings at the crossroads north of Lochslin Farm are amongst the most unattractive and derelict of all the war buildings.



More badly damaged buildings at Lochslin. Some of these are used, however, for storage.

4.9

LOCATION

Hunting Hill (Near Tain)
OS - NH804802
NH808805
NH812810
NH812810

sheet 88/89

NUMBER AND
TYPE OF
BUILDINGS

There are four buildings or pairs of buildings spread out along the road over Hunting Hill. One of these is an old operations building which is considerably larger than the rest.

MATERIAL AND
CONDITION

The walls are of brick or concrete and only the operations building has a roof. The operations building appears to be fairly structurally sound although the others are in a bad state of repair.

PRESENT USE

None of these buildings are being used at present.

OWNER

Edward Mackenzie, Pitogarty Farm

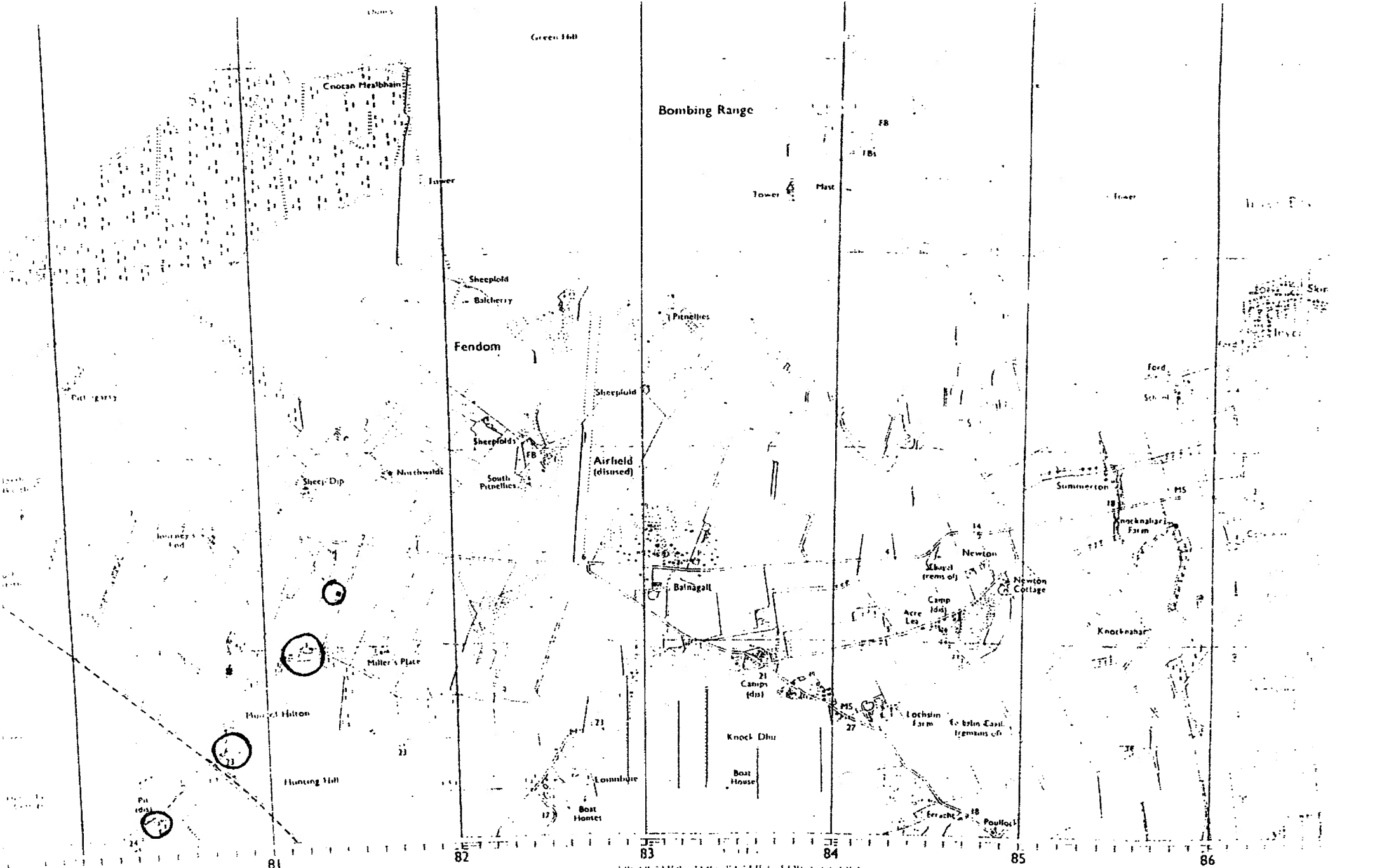
OWNERS VIEWS

He would like these removed if funding was available.

COMMENTS

The operations building is interesting to visit as it is possible to imagine what each area was used for in the past. Some original signs can still be seen although there is also a lot of graffiti.

The other buildings on Hunting Hill are small and seem little more than eyesores.



80

81

82

83

84

85

86

LONGITUDE AND LATITUDE COORDINATES

1 mile = 1.609 kilometers

1000
1000

Meters 0 Kilometers
Yards

Scale 1:25 000

Hunting Hill



The Operations building on Hunting Hill. This is perhaps the most interesting building to visit as it has retained a considerable atmosphere despite the graffiti. Some old signs can still be found.



Another overgrown building on Hunting Hill.

4.10

LOCATION

Balnagall Disused Airfield (Between Tain and Portmahomack)
OS - NH830815
NH825817
NH822809
NH817812 sheet 88/89

NUMBER AND
TYPE OF
BUILDINGS

There are around 25 buildings of all sizes. They have obviously been used for considerably different purposes although they are quite close together.

MATERIAL AND
CONDITION

The walls are mainly brick and most are still intact. A few, however, have almost totally collapsed. The roofs are mainly asbestos although one or two are of corrugated iron.

PRESENT USE

some are used as animal shelters or for storage of hay and equipment.

OWNER

Edward Mackenzie, Pitogarty Farm, Tain

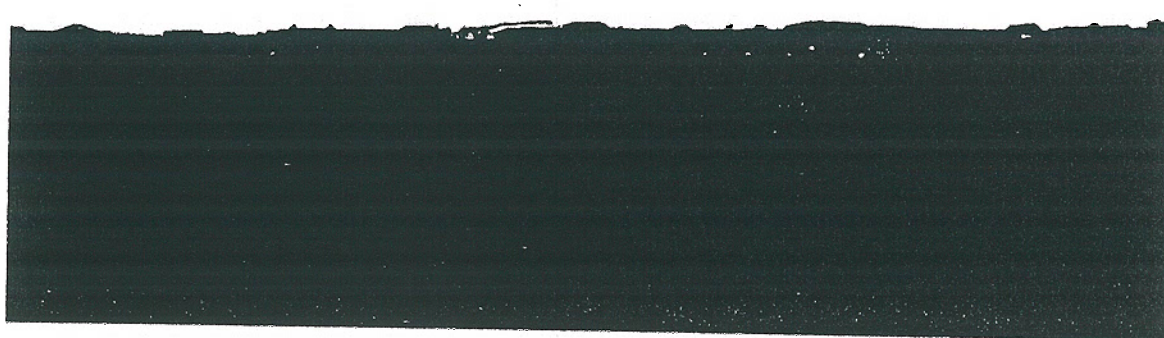
OWNERS VIEWS

Mr Mackenzie feels a few could be converted for agricultural use. He would like most of them removed if financial help was available.

COMMENTS

This site represents the worst eyesore problem due to its very visible position next to the Tain to Portmahomack Road.

Balnagall Disused Airfield

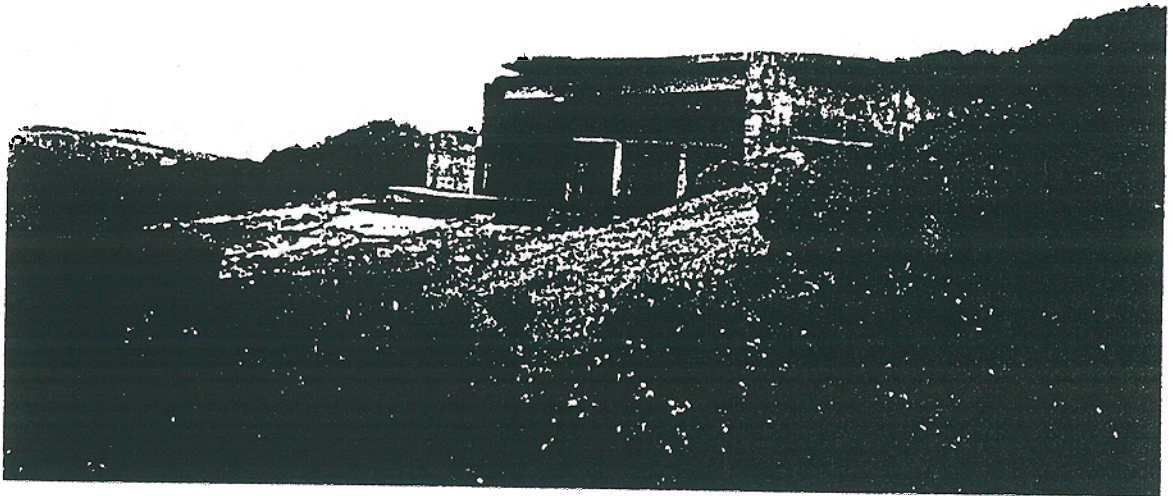


This site is easily visible from the Tain to Portmahomack road.



The buildings are being used for storage and as animal shelters.

WARTIME DERELICTION IN EASTER ROSS



Appendix 3: SSSI citation

MORRICH MORE SITE OF SPECIAL SCIENTIFIC INTEREST

Ross and Cromarty District, Highland Region

PLANNING AUTHORITY: Highland Regional Council

File Reference: 619

NATIONAL GRID REFERENCE: NH 830840

OS 1:50,000 Sheet No: 21

1:25,000 Sheet No: NH 68/78, 88/98

AREA: 2,975 Hectares (7,351.2 acres)

DESCRIPTION:

Biology

This is one of the outstanding coastal sites in Britain, which is especially noteworthy for the development of an extensive low-level sandy plain on which a set of parabolic dunes, now partly afforested, are superimposed.

Coastal

The range of coastal habitats include intertidal flats, salt marsh, dune, brackish pools and heath. These areas are species rich and together support a wide range of plants and animals. Flowering plants alone number several hundred species, of which ten are at their northern limit. Many are uncommon in Easter Ross and there are several national rarities.

The salt marsh and brackish pool system is the only extensive area in Easter Ross and this is the best example of this habitat in the Moray Firth. A range of maritime, brackish and nutrient-demanding plants are present, resulting in great diversity. The older parts of the system have extensive heath on drier ridges with heather and crowberry dominant. Of special interest is the abundance of juniper which is not known so extensively from any other British dune system. Bryophytes and lichens are an important constituent of the flora in this area.

Birds

The site is of major importance for wintering and breeding wildfowl and waders. Large numbers of wildfowl in particular use the site on passage and many overwinter. There is a varied breeding bird community of national importance.

Invertebrates

The variety of habitat within the site is reflected in the presence of a rich invertebrate community. This includes a number of nationally rare species, particularly Diptera.

Physiography

Beach complex

The physiographic interest of the Morrich More is outstanding both for the variety and scale of its coastal landforms, including machair, free-moving yellow parabolic dunes, stabilised grey dunes and developing foredune succession, salt marshes and sandflat, and especially for the complete morphological and stratigraphic record it contains of the shoreline changes of the last 7000 years. It has a potential, perhaps greater than any other part of the Highland coastline, for research into rates of contemporary change and comparison with those deduced from sub-surface stratigraphy.

REMARKS:

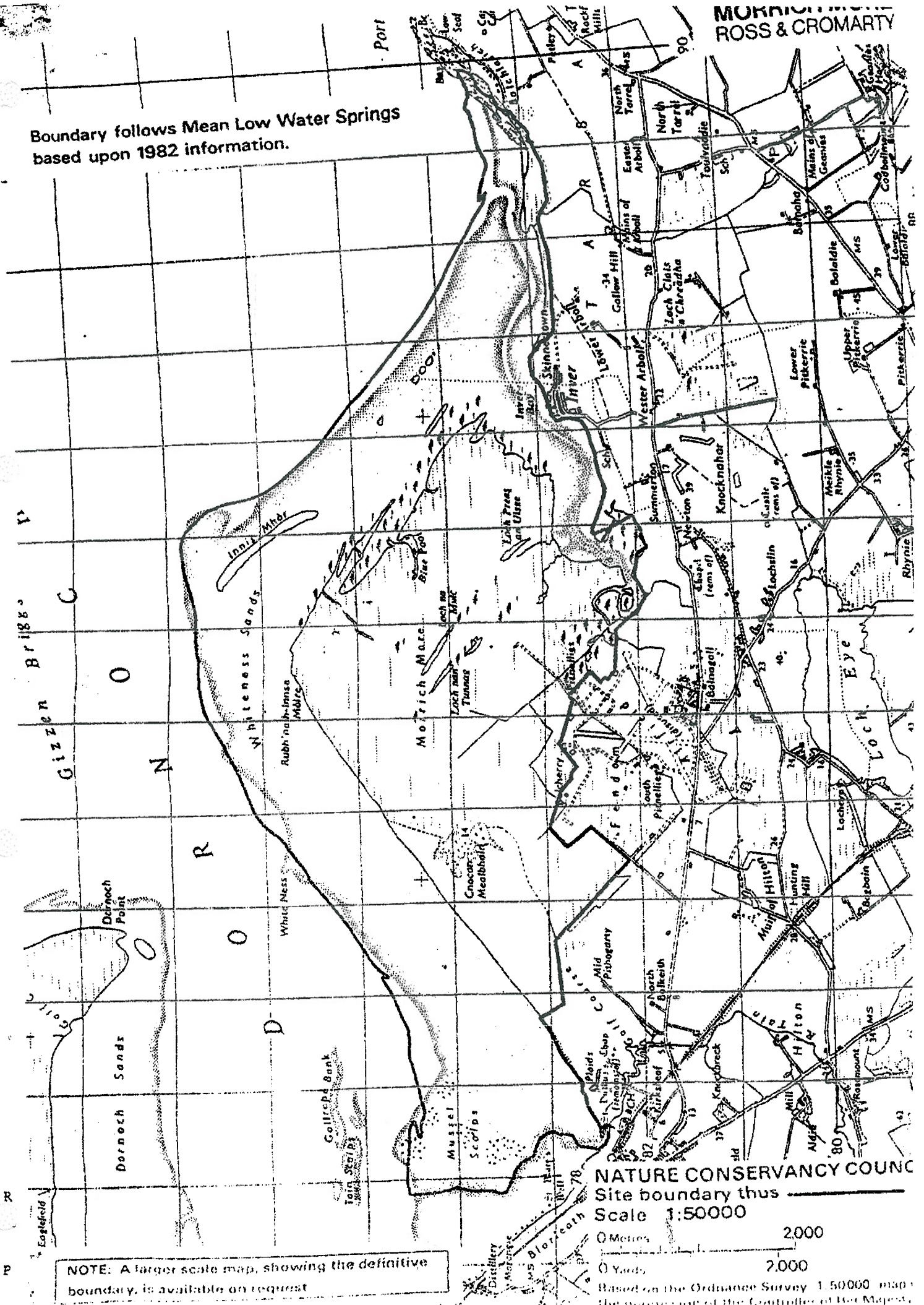
A Nature Conservation Review Site Grade 1.
Amended boundary.

PREVIOUS NOTIFICATIONS:

First notified in 1974.

Boundary follows Mean Low Water Springs based upon 1982 information.

MORRICH MOUTH
ROSS & CROMARTY



NATURE CONSERVANCY COUNCIL
Site boundary thus ———
Scale 1:50000

0 Metres 2000
0 Yards 2000

Based on the Ordnance Survey 1:50000 map of the area, copyright of the Controller of Her Majesty's Stationery Office.

NOTE: A larger scale map, showing the definitive boundary, is available on request

Appendix 4: NSA citation

HIGHLAND REGION

DORNOCH FIRTH

7,500 HECTARES

EXTENT OF AREA

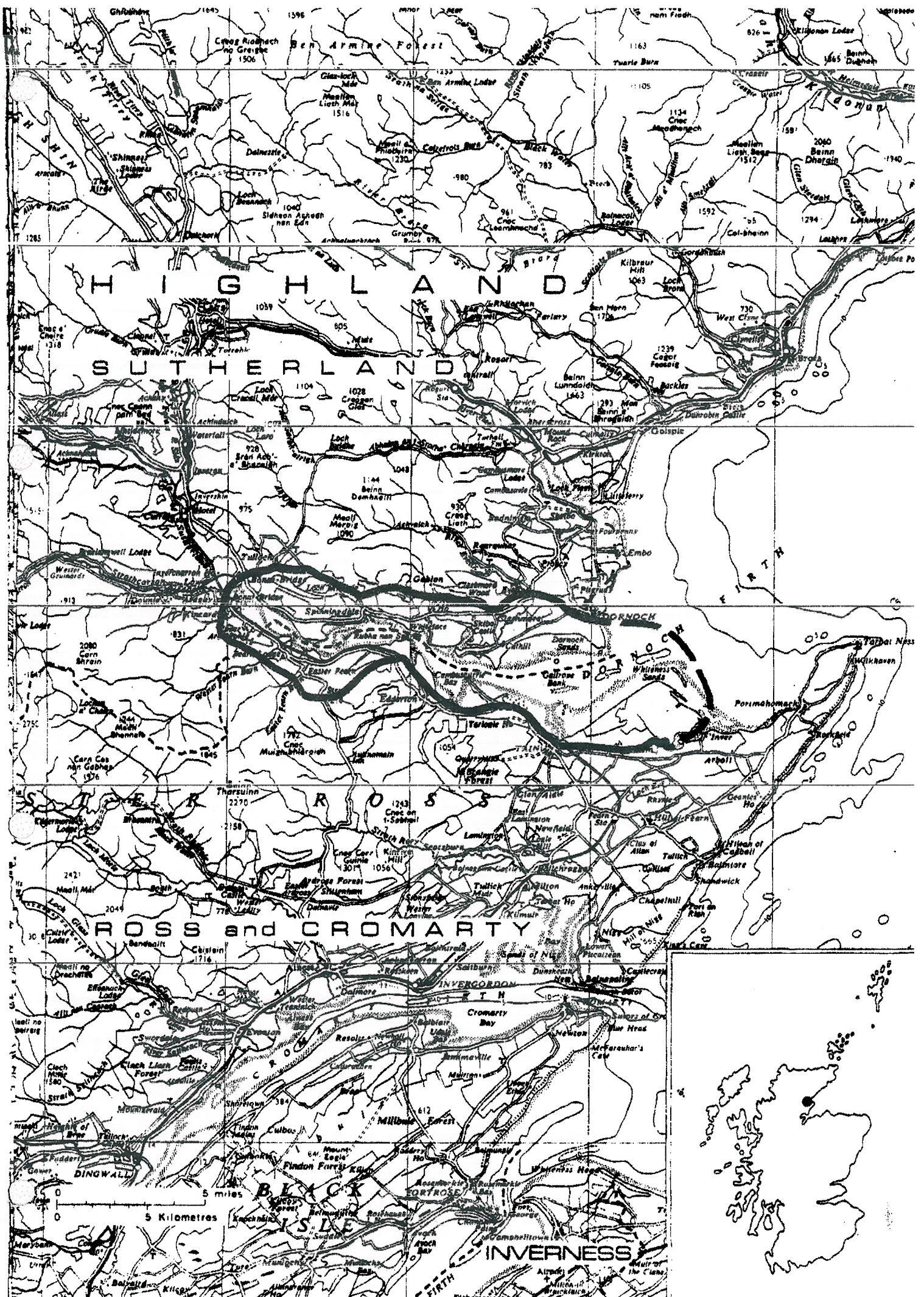
The area includes the whole of the Firth below Bonar Bridge, Migdale and the Morrich More. From Bonar Bridge the western extent of the area is defined by the public road A9(T) south to Ardgay. From Ardgay the western margin ascends Church Hill via Oldtown to run eastwards from Cnoc Bad-a-bhacaidh, Cnoc a'Chiaiginn, Cnoc an Liath-bhaid to Struie Hill. From the foot of Struie Hill (330m) the limit is defined by the railway along the south shore of the Firth to the mouth of the River Tain. Between the River Tain and Inver Bay, the southern boundary of the Morrich More SSSI is adopted. The seaward limits include Innis Mhor and strike ashore to skirt the southern fringes of Dornoch taking up the line of the public road A9(T) at Drumdivan. The trunk road is followed westwards to the unclassified road to Acharry Moor, Claiseanglas and Migdale, and on to Bonar Bridge.

DESCRIPTION

By comparison with other east coast firths the Dornoch Firth is narrow and sinuous, yet it exhibits within its compass a surprising variety of landscapes. It is enclosed by abrupt rounded granitic hills clad in heather moor and scree, their Gaelic names of *cnoc*, *meall* and *creag* giving the clue to their character. Their lower slopes are frequently wooded, oakwoods being a noticeable feature of the area, but with other deciduous and coniferous species represented in plantations which vary from the policy plantings of Skibo Castle to the pines of the Struie Forest. Interspersed among these hills and plantations are areas of pasture and arable on the lower alluvial lands, with whin and broom a common feature in the hedgerows and on the sandy links of the outer firth. But above all it is the firth itself, with its innumerable bays, sands, flats, shallows and promontories which presents a constantly changing scene as much with the coming and going of the tide as with the changing scene afforded by passage round its shores. Migdale with its loch expresses an inland variation of the same theme and has been included for the complement it makes to the firth, the last undeveloped estuary of its kind on the east coast.

OTHER NATIONAL INTERESTS

The Forestry Commission owns land at Struie, Davochfin and Morrich More and there are Sites of Special Scientific Interest at Morrich More, Easter Fearn, Migdale Rock, Ledmore Wood and in the Lower Dornoch Firth.



HIGHLANDS

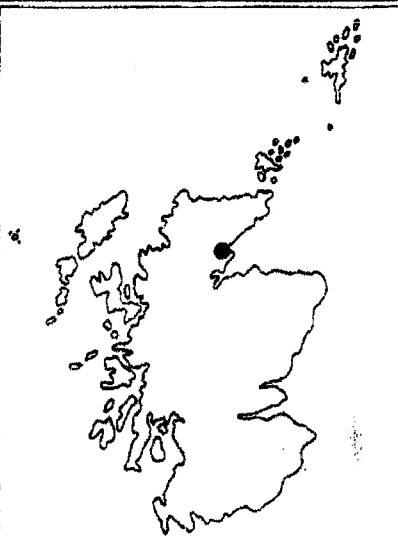
SUTHERLAND

ROSS and CROMARTY

INVERGORDON

INVERNESS

5 miles
5 Kilometres

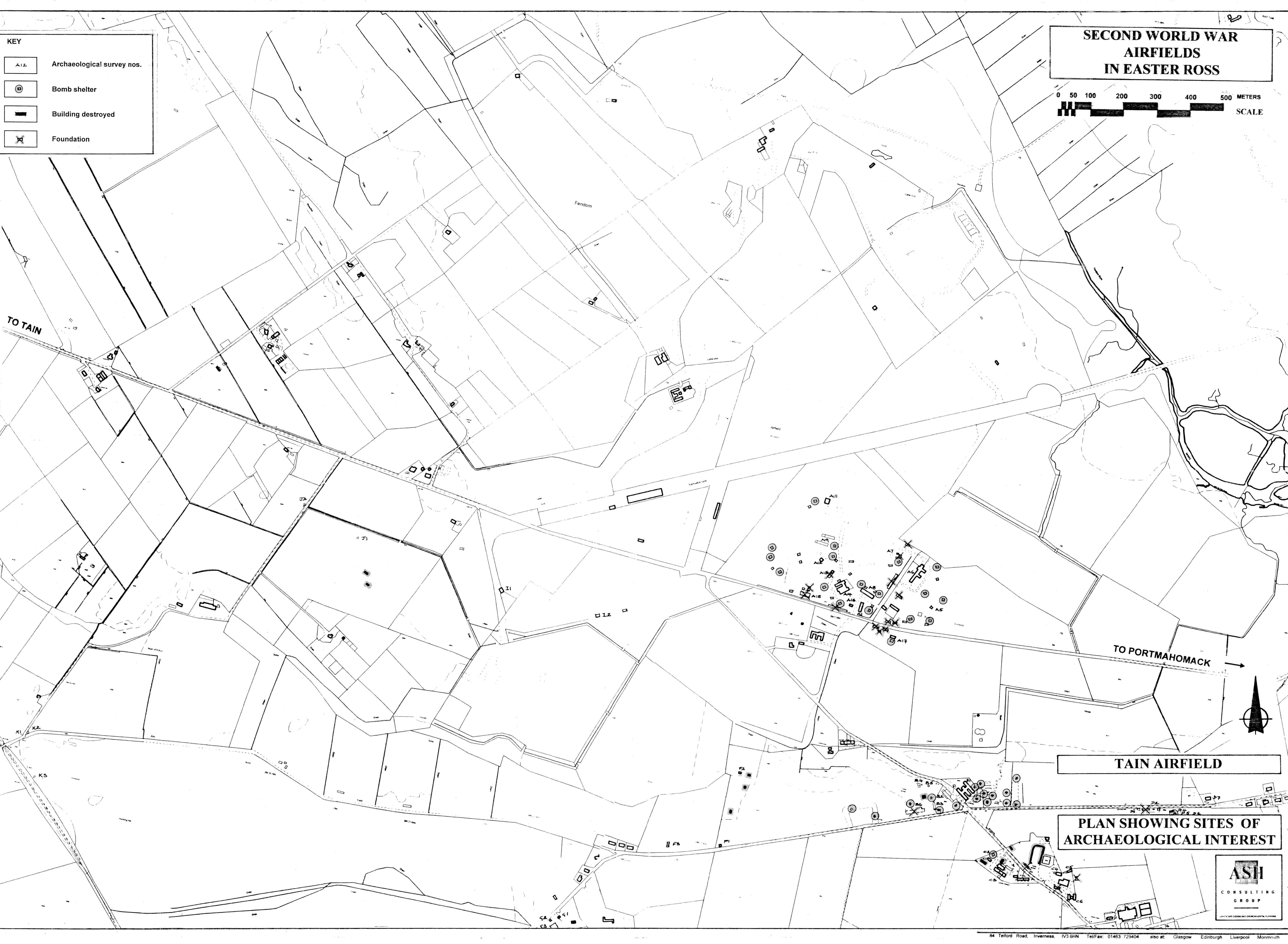


**SECOND WORLD WAR
AIRFIELDS
IN EASTER ROSS**



KEY

- Archaeological survey nos.
- Bomb shelter
- Building destroyed
- Foundation



TO PORTMAHOMACK

TAIN AIRFIELD

**PLAN SHOWING SITES OF
ARCHAEOLOGICAL INTEREST**





SECOND WORLD WAR AIRFIELDS AT TAIN AND FEARN, EASTER ROSS

**A Report to Highland
Council by the ASH
Consulting Group**

ASH

**C O N S U L T I N G
G R O U P**

