

**AGRICULTURAL LAND CLASSIFICATION  
INDUSTRIAL/COMMERCIAL DEVELOPMENT  
AT TEESSIDE AIRPORT  
CLEVELAND**

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**ADAS  
Leeds Statutory Group**

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## SUMMARY

A semi-detailed Agricultural Land Classification (ALC) survey of 196 ha of land at Teesside Airport was carried out in January 1996.

60 ha were classed as Subgrade 3b. Topsoils were medium to heavy textured over clayey slowly permeable subsoils. Soil wetness and workability restrictions limit the ALC grade of this land.

Remaining 136 ha were classed as Other (non agricultural) land. This mostly comprises the Airport complex but also includes woodland, roads and farm buildings in the east of the site.

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1. AGRICULTURAL LAND CLASSIFICATION

# AGRICULTURAL LAND CLASSIFICATION REPORT ON PROPOSED INDUSTRIAL/COMMERCIAL DEVELOPMENT AT TEESSIDE AIRPORT

## 1. INTRODUCTION AND SITE CHARACTERISTICS

### 1.1 Location and Survey Methods

A semi-detailed agricultural land classification survey of 196 ha of land at Teesside Airport was carried out in January 1996. The site has a centroid grid reference of NZ 382 132.

Soils were examined by hand auger borings at locations predetermined by the OS National Grid. Supplementary borings were used to check upon and refine grade boundaries. The overall density of borings was one per two hectares. One soil profile pit was dug to examine soils in greater detail. Land quality was assessed using the methods described in "Agricultural Land Classification of England and Wales: *Revised guidelines and criteria for grading the quality of agricultural land*" MAFF (1988).

### 1.2 Land Use and Relief

69% of the site is presently occupied by part of the Teesside Airport complex. This comprises airport buildings, runways and grassed areas between. It is understood that hay is occasionally cut from some of the grassed areas between the runways. However other more intensive agricultural uses such as arable cropping or the use of livestock on these areas is not permitted due to safety and operational restrictions associated with the Airport. Soils within this area were not surveyed.

Outside the Airport perimeter fence is an area of 60 ha used mostly for a mixture of arable and grass land uses with small areas used for farm buildings, roads and woodland. The site is almost all level at an altitude of 35 m A.O.D.

### 1.3 Climate

Grid Reference	: NZ382132
Altitude (m)	: 35
Accumulated Temperature above 0°C (January - June)	: 1341 day °C
Average Annual Rainfall (mm)	: 604
Climatic Grade	: 1
Field Capacity Days	: 144
Moisture Deficit (mm) Wheat	: 101
Moisture Deficit (mm) Potatoes	: 91

#### 1.4 Geology, Soils and Drainage

Soils on the site are all developed from deposits of boulder clay which is often reddish. This material forms thick cover over the solid Sherwood Sandstone below.

Soils have developed from the boulder clay and typically contain medium or heavy, clay loam or silty clay loam topsoil over clayey, slowly permeable often reddish subsoils. Profiles are typically Wetness Class IV, poorly drained.

These soils correspond to the Crewe Association as mapped by the Soil Survey and Land Research Centre.

## 2. AGRICULTURAL LAND CLASSIFICATION

The ALC grades occurring on this site are as follows:

<u>Grade/Subgrade</u>	<u>Hectares</u>	<u>% of Total Area</u>
1		
2		
3a		
3b	60	31
4		
5		
(Sub total)	(60)	(31)
Other Land	<u>136</u>	<u>69</u>
<b>TOTAL</b>	<u>196</u>	<u>100</u>

### 2.1 Subgrade 3b

All the agricultural land on the site is Subgrade 3b. Topsoils are typically medium or heavy, clay loam or silty clay loam over clayey, slowly permeable subsoils. Profiles are soil Wetness Class IV and the land is restricted to this grade by soil wetness and workability problems.

### 2.2 Other Land

This includes all the land within the Airport perimeter fence and woodland, roads and farm buildings in the east of the site. Some land between airport runways is cut for a hay crop. Restrictions on the agricultural use of this land (see Section 1.2) and the probability that soils will be similar to those observed on adjacent land during this survey suggest that were this land to be classed as agricultural it would not be better than Subgrade 3b.

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MAP.