

Manx Marine Environmental Assessment

# Infrastructure

## Isle of Man Airport



Aerial image of Isle of Man Airport, with Derbyhaven Bay. Photo: Department of Infrastructure (2011).

### Chapter 6.4

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# Manx Marine Environmental Assessment

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# Isle of Man Airport

## Executive Summary

The Isle of Man Airport is wholly owned by the Isle of Man Government, and is operated by the Ports Division of the Department of Infrastructure (DoI). The DoI operates the Airport on behalf of the Isle of Man Government to a standard which adopts the UK and International standards and regulations. The decision was made by the Council of Ministers in 1994 that the Isle of Man would not legislate against complying with the Liberalised Air Transport Market. This allows certificated airlines to fly in any EU market, subject only to market forces (the 'Open Skies Policy').

A reliable and stable air services network is of fundamental importance to the economy, tourism and quality of life of the Isle of Man. It is thus Government's objectives to have island transport that meets our social and economic needs – by maintaining sustainable sea and air services; by maintaining the reach of air services with regular air services to London and the north west of England such that 75% of the UK population are within 60 miles of an airport serving the Isle of Man.

A further review of the Isle of Man "Open Skies" Policy was undertaken in October 2008 by the Airport Director of Ronaldsway. This looked at role of the Policy within the current Isle of Man air transport environment and whether there was a need to adopt a different approach, given the above objectives and in light of recent experiences. In order to create an improved outcome, it was considered that any change in regulation would need to positively affect the IOM route network in terms of:

- Long-term route stability
- Route growth
- Key service levels – frequency, capacity and fares
- New route development.

The evidence of the 2008 review showed that the open skies environment continued to:

- Encourage competition which increases service levels and reduces prices
- Generate higher traffic volumes
- Ultimately create stability through market forces
- Sustain higher service levels by the availability of open competition
- Remain in line with current EC policy
- Provide a fair and open operating environment for airlines
- Is a reflection of the Government's "Freedom to Flourish" ideals.

It was therefore concluded that the Department's Policy to maintain "Open Skies" to allow airlines unfettered access to Isle of Man air service routes remained the most practical and

most productive means of maintaining and developing the island's air service network. The policy, consistent with the EC regulatory approach, also provided the basis for transparent and fair competition between airlines.

The Tynwald Economic and Policy Review Committee further reviewed 'open skies' in 2013/2014 and recommended no immediate change in the policy.

It therefore remains within the Isle of Man Government Strategic Plan to continue to adopt the regulatory position of "Open Skies", in terms of Air Transport Licensing, thus providing free access for airlines with an 'Operating License' to fly air service routes from the island.

## **Master Plan**

The Aviation White Paper, published in the UK "The Future of Air Transport" (December 2003)" states:-

*"Airport operators are recommended to maintain a Master Plan document detailing development proposals. An Airport Master Plan does not have development plan status, but the level of detail contained within it is essential to inform the content of the Local Development Framework. We will expect airport operators to produce Master Plans or, where appropriate, to update existing Master Plans to take account of the conclusion on future development set out in this White Paper."*

This 'good practice' approach had already been adopted for the Isle of Man Airport, approved by the Council of Ministers, which published its first Airport Master Plan in December 2000, which was revised in 2006 and in 2010, when it was lodged with the local planning authority for information purposes. The purpose of the plan was to review the future airport requirements for land utilisation to achieve the Department's objective of ensuring that sufficient operating capacity is provided to meet present and anticipated demand. The plan was again reviewed in 2017, after most of the airport infrastructure had been developed.

## **Existing Departmental Policy**

Approved by Tynwald in successive annual policy debates, the Department of Infrastructure has the following policy for the airport as part of the Ports Division:

*The aim of the Ports Division with regards to the airport is: "to provide sufficient operating capacity, with modern facilities for customers, while meeting commercial cost efficiency targets and generating sufficient revenue income to cover both operating and refurbishment costs, within the boundaries of observing international operating standards."*

In support of this aim, the key challenges are:

## **Aviation Industry**

The Isle of Man airport is an integral part of the aviation industry, and is subjected to the same external factors as the rest of the industry. Therefore a range of external factors can greatly affect the airport including regulatory changes; airline changes and failures; economic factors; unforeseen cost increases; wars, disease, terrorism and other events that reduce customer demand; new airline activities; more efficient aircraft leading to lower air fares; environmental pressures and fluctuating disposable income affecting travel.

## **Economic Challenges**

In view of the indirect taxation revenue sharing arrangements with the UK, it is a major challenge for the Department to identify opportunities where it can facilitate growth in Isle of Man Gross National Product. For example, increased passenger numbers, increased car park revenue, development of airport operational facilities for executive and private aircraft, runway performance such that operators are not hindered from taking full passenger loads all brings increased revenue.

Our public expect lower air fares, a desire that is driven by their constant exposure to 'good offers' elsewhere. Our airport does not have the economies of scales enjoyed by larger airports, but has to meet the same standards, and incurs the same costs, but with less income available to it. Our challenge is to raise our passenger numbers wherever possible, as only through growth can we achieve increased revenue, and thus increase the benefit per passenger, which in turn can be reflected in lower airport charges, lower air fares and lower levels of public spending.

Passenger numbers in 2005 were the highest recorded at ca 806,500 until 2017 when a new record saw ca 807,500 passengers flew from/to IOM Airport.

## **Infrastructure Development**

The Department is responsible for much of the Island's Infrastructure – including the airport, highways, drainage, harbours and buildings. The Department must develop a strategic budgeted plan to ensure that the strategic infrastructure is maintained to a standard suitable for today's and projected future levels of use. A significant amount of construction has taken place at the airport over the last 10 years, including the airport runway project; a new control tower; more construction with regards to taxiways and apron forecourts; new perimeter fence; a radar replacement project and the outbound baggage X-ray and conveyor system was installed.

Future infrastructure planned for the airport includes a replacement Instrument Landing System and new Explosive Detection System equipment, plus airfield drainage.

### **Compliance with new legislation or regulation**

Regulatory standards are continually evolving and changing, whether on the island, in the EU or internationally - sometimes with great rapidity in response to external events. IOM Airport is committed to observe all the applicable safety and security standards, and airport customers expect nothing less. Where there is sufficient lead time then the airport will forward plans to meet the new requirements and ensure that the existing level of accessibility is maintained.

Isle of Man Airport comes under the 'wings' of the United Kingdom as a third country, which is answerable, under International aviation law for our performance against published International Civil Aviation Organisation (ICAO) standards.

Isle of Man Airport has International status; part of the British common travel area; meets or exceeds EU, UK Civil Aviation Authority (CAA) and ICAO standards and routinely accepts Fire Category 6 aircraft. With regards to aviation security the Isle of Man, like all the other Crown Dependencies, has fully adopted the UK AvSec Programme, allowing for aircraft operations to be treated as if arriving from a UK "domestic" airport.

### **Carbon Emissions**

The UK Government ratified the Kyoto Climate Change Convention of 1997 on behalf of the Isle of Man (see MMEA Chapter 6.3 (Energy, mines and minerals). This places a duty on the Isle of Man Government to develop policies and strategies that will reduce greenhouse gas emissions. The Council of Ministers set a target of reducing carbon dioxide emissions by 20% by 2010 from a 2004/5 baseline, and subsequently set a target of emissions reductions by 80% on 1990 levels by 2050<sup>1</sup>.

The DoI is a large consumer of electricity – particularly for airport lighting. This consumption is certain to increase given future infrastructure development commitments. Over the last couple of years the airport has reviewed and provided options for reducing carbon emissions for Departmental consideration, looking to reduce energy consumption each year.

### **Customer Service**

In such a volatile environment, maintaining good and efficient customer service is a constant balancing act, where any variance will instantly result in delays, poor service and increased costs for those involved. Airlines have a choice of where to place their aircraft and they will use the airports that offer the best value for money and the best returns on their investment. Therefore the Isle of Man Airport competes constantly against other airports to win and retain airline business.

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<sup>1</sup> <https://www.gov.im/news/2016/jun/09/targeting-greenhouse-gas-emissions-will-benefit-economy-and-environment/>

## Current Activities

During summer 2018 Isle of Man Airport will have 13 UK domestic scheduled services (see Table 1). In addition, there are seasonal European charters plus a winter series to Geneva which involve operators outside of those who serve the daily scheduled flights.

Current scheduled operators are:-

Flybe, Loganair, Eastern Airways (as a Flybe franchisee), Stobart Air (as *Aer Lingus* Regional franchisee), easyJet, British Airways and Atlantic Airlines.

Holiday operators include:-

Atlantic Holidays using Monarch Airlines, Flybe and BA.

The daily flights are operated using aircraft ranging from 29 seats (Jetstream 41 aircraft) to 186 seats (Airbus A320 aircraft), however the largest aircraft that can operate fully at Ronaldsway is the Boeing 757 (233 passengers).

**Table 1. Destinations of the UK and Ireland domestic scheduled services.**

Belfast City	Liverpool
Birmingham	London City
London Luton	London Gatwick
Dublin	Manchester
Edinburgh	Newcastle
Belfast International	Glasgow
Bristol	

*NB: Correct at March 2018 for Summer 2018*

Full details of the flights and times are available: [www.iom-airport.com](http://www.iom-airport.com).

## Passenger numbers

The most successful year for passengers was in 2017, when the Airport saw just under 807,500 passengers pass through the Airport.

## Airport/Runway Physical characteristics

Aerodrome Latitude and longitude: Lat. 54°04.00' N Long. 04°37.24' W

Two runways 08/26 and 03/21 remain in service.



The recently completed Airport Runway Project (ARP) in 2010 provided full Runway End Safety Areas (RESA) at both ends for Runway 08/26. The dimensions are 240m long by 150m wide and meet ICAO and UK CAA recommendations.

## Main runway physical dimensions

**Table 2. Isle of Man Airport Declared Distances Runway RW 08/26 CODE4.**

	Fully Operational Declared Distances	Taxiway Bravo Intersection 08 Take Off	Taxiway Kilo Intersection 26 Take Off	Backtrack Runway 08 Full Width Pavement	Backtrack Runway 26 Full Width Pavement
08 LDA	1586	1586	N/A	1586	1586
08 TORA/ASDA	1877	1495	N/A	1754	1877
08 TODA	2815	2242	N/A	2631	2815
26 LDA	1613	N/A	1613	1613	1613
26 TORA/ASDA	1909	N/A	1470	1909	1759
26 TODA	2057	N/A	1618	2057	1907

The other runway RW03/21 is of much small dimensions and in general, on about 8% of all traffic uses this runway.

## Isle of Man Civil Aviation Administration

In July 2008, in order to have segregation of the responsibilities of regulation and operations, the role of regulator was assigned to the Director of Civil Aviation at the Department of Economic Development, now called the Department for Enterprise.

## Legislation

In line with UK airports Isle of Man Airport follows the practices within the Civil Aviation Publication CAP 168, and there are various airport manuals in use: IOM Airport Aerodrome Manual; MATS Part 2; Airport Security Programme; Air Traffic Engineering Exposition document; Airport Emergency Orders; Airport Safety Management System; Fire Station Standing Orders plus others. In addition there is also legislation within the Air Navigation (IOM) Order 20017.

## Environmental Issues

Extensive new work was carried out as part of the Feasibility Study for the Airport Runway Project (previously known as the RESA project). In particular, the airport has not previously had 'baseline' information regarding issues such as air quality, noise contours, vehicle traffic counts, water quality, contaminated land, and flora and fauna. This information was

extensively recorded in a full Planning Application that received final approval in July 2007 after an appeal lodged by one household.

In addition, an Environmental Management Plan was drawn up as part of the project, including measures to be implemented during the construction phase and mitigating the risk of potential impacts on the marine environment. All construction works was undertaken according to the principles of good practice outlined in UK Environment Agency guidance on the prevention of pollution during construction.

There was a significant amount of work to mitigate against the main potential impacts on the marine environment arising during the construction phase i.e. typically due to contamination by the generation of suspended solid plumes, and any discharge of fuels, mineral oils and chemicals associated with malpractice or accident.

During 2009 whilst considering the source for the marine dredged infill for the promontory, a Risk Management Plan was also created.

The airport has a regular Technical Liaison Group meeting with representatives from the Department of the Environment, Food and Agriculture regarding all environmental aspects at the airport (including grass management and airport projects).

## Introduction

The main environmental impacts from the Airport Runway Project were identified in the Environmental Impact Assessment (2006), and as detailed in Volume 2 of the Environmental Statement, were:

- The Marine Environment
- Geology, Soils, Hydrogeology and Waste Management
- Surface Water Quality and Drainage
- Landscape and Visual Assessment
- Terrestrial Ecology
- Air Quality
- Noise and Vibration
- Archaeology and Cultural Heritage
- Traffic and Community Effects

### **The Marine Environment**

Coastal processes, marine ecology, shipping and lighthouses were reviewed as part of the assessment of potential impact on the marine environment.

Existing local sensitive receptors were identified as being:

- An Area Special Scientific Interest (ASSI),

- Important flora and fauna, including sub-tidal sea-grass beds, cetaceans, basking sharks and grey seals
- Important habitat for wintering and migrant waders.
- A fish farm (not currently active)
- Scallop fishery grounds
- A site of nature conservation importance

The reported intertidal environment covered by the promontory has been lost. Some mitigation of habitat loss has been provided by opportunities for compensatory artificial habitat formation associated with the new rock armour. Terrestrial, intertidal and tidal land form creation will provide a wide variety of new habitats. Regular water quality monitoring during construction helped reduce any potential impacts.

The main potential operational impact of the promontory construction on the marine environment is its potential to influence near-shore water movement. This is a permanent effect although very localised and weak. Modelling of tidal flows and the assessment of potential wave height changes as a result of the new promontory suggests that there appears to be very little likelihood of any significant change in the hydrodynamics, sediment movement or in beach or seabed levels within Derbyhaven Bay.

The presence of the promontory will have the potential to deflect near shore flow to generate a weak clockwise gyre.

A former fish farm 'Manx Mariculture' used to extract clean seawater with effluent discharged into Derbyhaven Bay from the production of juveniles cod and turbot. However, whilst the Department installed a significant filter plant to help the company, Manx Mariculture ceased trading/working in 2007 prior to the promontory works taking place.

Two drainage outfalls from the airport also discharge into the proximate coastal waters. However, given the weak nature of the gyre, the distance between the seawater intakes and seawater effluent outflow from what used to be Manx Mariculture, the constitution of existing drainage water, which has not had an adverse impact on the ecology of the area, the impacts on coastal water quality should not be significant.

The old runway lighting gantry was removed and new approach lighting is now inset into the new runway end safety area.

### **Promontory infill**

The modelled design of the promontory predicated the use of marine dredged sands in order to allow for a superior compaction process.

The marine dredged infill, sourced from the middle of the Irish Sea, 36 km east of Douglas, warranted steps to mitigate the risk of spillage during placement and to understand the working practices required to infill the promontory with sands and gravels. The Risk Management Plan (2007) also identified which standards sampling was to be measured against and why. The site of this new source has been dredged since the 1970's, mainly for

construction aggregate, however latterly the sand was used for the replenishment of the beach at Morecambe in Lancashire.

This material was used only after agreement to its use by the relevant Statutory and Competent Authorities:-

- Department of Local Government and the Environment\* (DoLGE, EPU) – Manx Competent Authority;
- Department for Environment, Food and Rural Affairs (DEFRA) – UK Competent Authority;
- Department of Transport, DoT, Airport (now Department of Infrastructure) – Statutory Authority, Project Sponsor;
- Department of Agriculture, Fisheries and Forestry\* (DAFF) – Statutory Authority.

Please Note: These\* Departments changed within the Government restructure on 1 April 2010.

In addition, communications took place with:

- Environment Agency (EA) – assisting UK Statutory Authority;
- Marine and Fisheries Agency – assisting UK Statutory Authority.

Sampling from each barge load of material was carried out including radioactivity testing. All results showed that the material was 'fit for purpose' and there have been no subsequent issues arising from the fill at the time of writing.

### **Surface Water Quality and Drainage**

The Airport Runway Project involved works to the existing drainage system and the installation of additional pipework required for the proposed runway extension and runway end safety areas, and to increase drainage capacity across the remainder of the network. There have been no significant residual impacts on surface water quality from construction of the runway project and associated drainage.

The Isle of Man Airport is currently improving the drainage of aircraft apron areas by installing oil and fuel interceptors. These new drainage measures will effectively mitigate the risk of accidental spillage of oils and fuels from the most "at risk" areas associated with airport operations. As with the existing situation, it is proposed that surface water drainage from the remainder of the airport will continue to be discharged untreated directly into the sea.

The use of de-iceants at the airport is relatively low due to the mild climate. Impacts associated with the use of these materials are unlikely to occur in Derbyhaven Bay due to the solubility of de-icers and the large dilution factor at the coast. At present there are no

proposals for a facility to treat surface drainage containing de-iceants from the airfield. The airport will continue to operate in accordance with discharge consent conditions.

### **Landscape and Visual Assessment**

Isle of Man planning policy seeks to preserve, protect and enhance the quality of its coastline and countryside. In recognition of this much of the coast is designated as having 'high landscape value and coastal or scenic significance'. Within this area "the protection and conservation of landscape character will be the primary planning consideration".

The airport occupies an area of flat low-lying land between Derby Haven and the A5 Douglas Road, which links nearby Castletown and Ballasalla. To the south lies the attractive, open and rugged coastline of Derbyhaven and the Langness Peninsula. Northwards, towards Santon Head, the scenery becomes more elevated and rural, with low cliffs, secluded bays and headlands backed by undulating pastures and occasional wooded glens. Although the coastal landscape is open and lacking tree cover, the rock faces and shoreline are not generally visible from inland due to the slightly elevated landform.

Built elements and land uses include the airport, its associated infrastructure and aircraft movements, Turkeyland Quarry, Freeport Business Park and Balthane Industrial Estate. These visual foci have an urbanising effect on the wider rural context, including views from the *Raad ny Foillan* Coastal Footpath and Langness Peninsula and St Michael's Island.

The final construction of the new footpath was in April 2010 and required an Order through Tynwald to adopt the new footpath route. Access along the coastal footpath on the constructed promontory is below adjacent ground level. As such, the influence of jet blast thrusts will be unchanged from the existing situation and is considered insignificant. A new security fence and wall encompasses the promontory.

The promontory construction of a rubble mound has been designed such that it will provide for the opportunity for new habitats, the introduction of an artificial feature into a natural coastline. However traditional remediation techniques, including tree and shrub planting, cannot be used in this situation due to the open character of the coastal landscape and due to airport requirements relating to potential bird strike and security.

### **Air Quality**

A study was undertaken to assess the impact of the proposed extension of the runway on local air quality at Isle of Man airport. Existing air quality at the airport and its surroundings is good. The study undertaken has focussed on the prediction of the impacts of the proposal on ambient concentrations of the two air pollutants of major health concern, nitrogen dioxide (NO<sub>2</sub>) and fine particulate matter (PM<sub>10</sub>). The assessment also calculated the impact on the total emissions of oxides of nitrogen (NO<sub>x</sub>), PM<sub>10</sub> and carbon dioxide.

In 2010, the air quality predictions indicate an increase in pollutant emissions of between 4.0% and 6.7% for PM<sub>10</sub> and NO<sub>x</sub>, respectively. However, the impact on local ambient air quality concentrations is low outside the airport boundaries. The impact on carbon dioxide emissions is an increase of just over 9% for the study area, which is deemed to be of a minor, adverse nature.

The predicted results for 2030 indicate that although there are increases in pollutant emissions of between 7.8% and 18.6% for PM<sub>10</sub> and NO<sub>x</sub>, respectively, the impact on ambient concentrations is low for PM<sub>10</sub> and moderate for NO<sub>2</sub> outside of the airport boundaries. The impact on carbon dioxide emissions is an increase of 22% for the study area, which is deemed to be of a moderate, adverse nature.

Predicted residual effects could be further mitigated by the promotion of public transport and the use of low emission vehicles within the airport perimeter.

The airport management team will be considering ground carbon emissions with an aim to reducing emissions through improved aircraft/ground equipment procedures during 2018/2019.

## **Noise and Vibration**

An assessment of the existing noise climate and the potential impact of noise on nearby sensitive receptors with the potential to be affected by the construction and operation of the proposed Airport Runway Project was undertaken prior to start.

The existing noise climate in proximity to the airport was measured based on noise arising from airborne aircraft in proximity to the airport, aircraft prior to becoming airborne, after landing, apron and taxiing activities and 'ground noise' generally associated with ancillary airport activities.

Night time constructional activities required a more rigorous noise mitigation strategy to reduce the potential for disturbance to local residents. A formal noise management plan was therefore provided as part of the Environmental Management Plan detailing noise control measures and formal complaints action procedures. Noise criteria for night time working were agreed in discussions with DLGE Environment, Safety and Health officers.

Operational impacts associated with changes in aircraft numbers and types, changes in take-off and landing positions as well as the potential increase in road access traffic associated with the predicted increase in passenger volumes passing through the airport have been assessed. The noise impact analysis is based on information on current and future operational procedures, the future aircraft types using the airport, and the likely numbers of such aircraft.

Noise level contours ( $L_{Aeq}$ ) associated with airport operations have been generated using the Federal Aviation Administration Integrated Noise Model software, based on 2005/6 figures and forecast (2030) aircraft movements at the airport. Although annual aircraft movements may slowly increase over time, a slow progression from dominance by turboprop aircraft to

modern turbojet types will reduce the potential for a proportionate increase in environmental noise emissions. The noise prediction modelling assessment indicates a slight increase (1-2 dB) in airborne aircraft noise levels at local receptors during the day by 2030. The result of this is a slight increase in the population exposed to the low community annoyance criterion.

Despite the forecast increase in aircraft movements, although aircraft movements are just over half in number per annum compared to 2005, the noise impact of general apron operations is unlikely to change significantly. This is mainly due to their reduced impact, the distances to sensitive receptors and the presence of other more significant noise sources. However, short-term noise disturbance from aircraft taxiing to and taking off from the 08 runway (Castletown) end may have the potential to impact upon local residents. Generally the airport has not received such complaints outside of the construction period, re-routing of the taxiways and take off points closer to these receptors has the potential, albeit limited, to generate increased annoyance.

Traffic modelling indicates an insignificant increase in road traffic volume by 2030 with the runway scheme, in comparison to that forecast in 2030 without the runway scheme. Increases in noise from changes in road traffic associated with predicted passenger movements along approach roads should therefore prove imperceptible.

### **Archaeology and Heritage**

Fifteen archaeological sites are identified within the airport boundary from the National Monuments Record held by Manx National Heritage, together with sites known from published literature. One of these, Ronaldsway Village, has been divided into a series of sub-sites, and includes three sculptured stone crosses, an early chapel, a cemetery and an iron-working site. Eight sites have been excavated to a greater or lesser extent.

Permanent impacts to nationally significant sites have been identified at two locations. One site, the Bronze Age barrow on the alignment of the extension of Runway 08/26, lies outside earlier areas of airport construction. The survival of the below-ground stratigraphy of the site has been indicated by geophysical survey. A group of archaeological features located by geophysical survey, lie in the area to be occupied by Taxiway Alpha and the contractor's former compound and stockpile. Both sites are nationally significant.

It was known prior to the start of construction in 2008 that there was the potential for permanent impact at a further four sites. The extent of survival of archaeologically significant material associated with known sites was uncertain. This category included: the Ronaldsway Neolithic 'house'; a find of buried Neolithic jars in its vicinity; the Ronaldsway Village, with an occupation history extending from the Bronze Age to the early Middle Ages; and a find of a Bronze Age urn possibly associated with the village. All were in the path of works on the pavement of Runway 08/26 and construction of Taxiway Alpha. The Neolithic 'house' provides the type-site for an interpretation of European Neolithic development focused on the Isle of Man and is internationally significant. The remaining sites are

nationally significant, in itself in the case of Ronaldsway Village, which is without parallel on the Isle of Man, or by potentially direct association with inter/nationally significant sites.

The density of prehistoric sites identified at the eastern end of the airport appears to highlight its landscape importance up to and including the early Middle Ages. Apart from the potential impact on known sites there is therefore a risk to unknown archaeological remains, possibly extending to encompass the whole airport plateau.

As a result of the initial desk-based risk assessment, a mitigation strategy was agreed which included preconstruction site investigations and a watching brief during construction process. This mitigation strategy allowed for an appropriate site investigation programme to be undertaken prior to the need to instigate construction related works. The field studies were commenced in May 2006.

After the field studies, construction methods included a full archaeological working brief. Shortly after starting work on the new parallel taxiway (Taxiway Alpha) in summer 2008, a significant find was unearthed. Neolithic remains, estimated to be around 3,000 years old, were discovered north east of the airfield where the taxiway was being prepared. A site the size of about 20 football pitches was excavated. The excavations uncovered a Bronze Age village and artefacts, including hundreds of pottery shards and pieces of worked flint, which were recovered, together with domestic rubbish in the form of mollusc shells and bones.

The DoI, as landowner and owners of these finds, transferred ownership of the recovered artefacts to the Manx Museum & National Trust (Manx National Heritage) in September 2008 so that they could enter the national collections.

The summer of 2009 saw the discovery of one of the most important archaeological finds the island has ever seen. The foundations of a strongly-built shelter, which was filled and surrounded by thousands of pieces of worked flint, the charred remains of wood and hundreds of hazelnut shells, all characteristic of the first human settlers returning to the Island around 8,000 years ago after the end of the Ice Age.

The finds were sent across to England for cleaning, identifying, tagging and reporting. At the end of the process they will be returned to the island.

## **Planning Environment**

Since November 2005 the airport has had the facility of a Permitted Development Order (PDO). This means that many developments at the airport no longer require planning consent – i.e. a planning application does not need to be made in the majority of cases. The permitted areas are clearly defined in the Order, but certain developments are specifically excluded, and still require formal planning approval. These include developments of a passenger terminal over a certain size, extensions to the existing terminal building over a certain size, and the construction of a new runway or extensions to the existing runways. Provision is also made for the development of air navigation development at or near the airport and provision for emergency situations.



Within the Department a formal process has been put into place with regard to the consultation process for the PDO.

There is also a requirement for the airport to consult with the Planning and Building Control Division in respect of permitted developments, even where formal permission is not required.

The Order is also clear that where development which would otherwise be authorised under the PDO is included within an application for other works for which planning permission is required, these authorised elements are also subject to consideration as part of the application. As such, the airport has resolved that on large developments, such as the Airport Runway Project, it will include 'permitted items' in the full planning application, so that the full picture is presented for public scrutiny. For example, the airport runway application included changes to lighting and navigational aids, which are 'permitted items'.

## Safeguarding

The effective utilisation of an aerodrome may be considerably influenced by natural features and man-made constructions inside and outside its boundary. These may result in limitations on the distance available for take-off and landing and on the range of meteorological conditions in which take-off and landing can be undertaken.

For all developments above ground, physical and technical safeguarding will need to be carried out by the airport management, to ensure the assessment and treatment of obstacles ensures no infringement to airport operations. This work is carried out as part of the PDO process as mentioned above.

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