

ParcAberporth & West Wales UAV Centre

Making Routine UAS Operations a Reality

An airspace change proposal to support the routine testing, research, development, demonstration and certification of UAS at ParcAberporth is due to be submitted to the Civil Aviation Authority later this year .

Establishing new segregated airspace will ensure that UAS undergoing development and certification at ParcAberporth will be able to operate in a controlled and safe airspace environment. The new proposed airspace, if adopted, will significantly enhance capabilities at ParcAberporth and provide routine access to both military and civil UAS operators to a substantial area of overland airspace, in addition to Cardigan Bay Danger Area, already accessible with permission. Three airspace design options have been drawn up following consultation with stakeholder groups. Each option has been designed to meet current and anticipated future requirements of the UAS industry and the preferred option will be submitted to the CAA later this year following extensive consultation. If successful, the segregated airspace could be operational in 2010.

In the meantime, the operation of unmanned aircraft at ParcAberporth will continue to make use of the existing Restricted Airspace (Temporary) - RA(T) around West Wales Airport which has proved to be adequate for short demonstration flights. It is six nautical miles in radius and extends to a height of 5,000 feet above the airfield.

The proposed new airspace is intended for use by a wide variety of UAS and the Welsh Assembly Government considers their requirements could be met by using four airspace blocks to cover Short Range – Low/Medium Altitude Operations; Medium Range - Medium Altitude Operation; with two areas designated for Medium Range - Medium Altitude Operation. If the proposals get the green light it will have a major impact on the development of the sector, particularly the development and certification of suitable sense and avoid technology.

It will also reinforce ParcAberporth's position as the premier location in the UK for the research and development of UAS. The 50 hectare high specification technology park on the West coast of Wales provides a range of state-of-the-art, purpose built accommodation for the UAS industry. These facilities are owned by the Assembly Government, and can be leased to UAS manufacturers or operators on a short or long term basis according to individual needs. Developed as a centre of excellence for the UAS sector, ParcAberporth's success is due to a unique set of circumstances and partnership with MOD Aberporth, West Wales Airport and the West Wales UAS centre. Together they provide the essential ingredients to support the creation of the Wales UAS Environment. West Wales Airport is the only site in the UK able to undertake routine operations of civil and military UAS operations and the only UK airport to have a UAS Operations Manual accepted by a civil regulatory authority.

The West Wales UAS Centre is based at ParcAberporth and provides a one-stop-shop service to industry to ensure all relevant technical criteria are met to enable the safe deployment of UAS. This includes the development of safety cases, system design advice and flying supervision.



The existing infrastructure associated with MOD Aberporth Range provides the final part of the equation that places ParcAberporth at the forefront of UAS activity for both the UK and Europe. MOD Aberporth Range has been used for military unmanned aircraft operations for years and has dedicated segregated airspace and staff with unrivalled expertise in planning and operating exercises involving unmanned aircraft.

This year ParcAberporth will be used for test and evaluation of the Watchkeeper UAS prior to the aircraft entering service with the British Army. The UK's Watchkeeper programme is the largest UAS programme in Europe, providing unrivalled capability in Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR).

The decision to site Watchkeeper test and evaluation in Wales reinforces the role of ParcAberporth as a site of worldwide importance for unmanned system development. This is a major coup for Wales, and follows five years of planning, investment and development as part of a long term Assembly Government strategy to create the ParcAberporth centre for unmanned systems. Watchkeeper is a major milestone in putting this strategy into action, and will provide a significant beneficial impact to the regional economy through the local support services needed for the contract. It is believed this programme will act as a springboard for attracting other UAS and aerospace technology businesses to the area and interested companies should contact Paul Cremin, Unmanned Systems Delivery Manager for the Assembly Government. To be properly evaluated, Watchkeeper needs to be flown up to 17,000 feet, so an additional RA(T) will be established from mid-2009 to take place ahead of any permanent airspace change. Although only Watchkeeper will be permitted to use the new RA(T), other operators can use the existing RA(T) and the arrangements that permit limited operation within the Cardigan Bay Danger Area.

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