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SHG Press Office

St Helena Airport

LIDAR & MET Analysis



LIDAR - Light Detection & Ranging

LIDAR (Light Detection and Ranging), has now been installed for St Helena Airport. It is a remote sensing method that uses light in the form of a pulsed laser to measure distances and has many applications, from 3D mapping of terrain from aircraft, to modelling archaeological sites, to helping autonomous cars avoid obstacles - it is even the basis of police speed guns.

At St Helena Airport we will be using a type of LIDAR called a Doppler LIDAR (manufactured and supplied by UK company, HALO Photonics). This uses a laser to measure the presence and movement of naturally occurring particles in the atmosphere, from which it can infer the movement and speed of the wind.

The LIDAR will be deployed to several different points around the airfield for three weeks at a time. From each point it will measure and map the

movement of the wind, allowing a picture of the turbulence and wind shear across the airfield to be built up. The Doppler LIDAR system being used will provide data that will help decision making regarding the problem of wind shear at St Helena Airport.

HALO Photonics design and build a range of LIDARs which are used across a wide spectrum of disciplines both in the UK and abroad. The Doppler LIDARs produced by HALO Photonics are primarily used for meteorological research looking at wind flow and turbulence, cloud bases and visibilities, but can also be used to monitor pollution dispersion, detect and track forest fires and also look at ash fall out from volcanic eruptions. They are currently being used at a variety of UK universities, as well as by the UK Met Office and National Oceanic & Atmospheric Administration.

New MET forecaster

Catherine Murphy, a professional Weather Forecaster since 2003, embarked on her new role as Senior Operational Meteorologist for St Helena at the beginning of August this year.

Her role is to provide weather forecast information for Airport operations and aviation customers at St Helena Airport. Her secondary role is being the Liaison Officer between SHG and the UK Met Office.

Catherine also assists Met Office scientists back in the UK to gather data and run experiments aimed at providing better understanding of the wind shear and turbulence issues at St Helena Airport.

Catherine's experience has seen her work on Ascension Island, the Falklands, Afghanistan, Iraq and Antarctica.

Catherine Murphy - Senior Operational Meteorologist



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New Sign Installed at St Helena Airport

A new sign was recently installed at St Helena Airport on the Airside and Landside of the Terminal Building as well as on the Generator Compound



Remote Obstacle Lights

The Remote Obstacle Lights (ROLs) are part of a suite of Navigational Aids (NAVAIDS) and Airfield Ground Lighting (AGL) used to assist aircraft in landing and departing St Helena Airport. In particular, the ROLs are required under International Civil Aviation Organisation Standards and Recommendations as well as Overseas Territories Air Navigation Regulations, to identify areas of high ground.

The ROLs operate red LED lights and are used to guide aircraft away from hazardous points on the Island. These important navigational aids are located in difficult-to-reach places and need to be as self-sufficient as possible - so all 12 ROLs have a solar panel and wind turbine connected to a battery pack to ensure that they are functional both day and night.

The Remote Obstacle Lights are vital to the safe operation of the Airport and to aircraft arriving and leaving St Helena. They must not be tampered with or vandalised. If you see anyone vandalising or interfering with a ROL, please report them to the Police immediately, as anyone caught vandalising or tampering this or any airport related equipment WILL be prosecuted. Likewise, if a ROL appears to have been damaged, please inform St Helena Airport as soon as possible.



Stakeholder Engagement Forum

A Stakeholder Engagement Forum took place on Wednesday 24 August 2016 at the Museum. Environmental Monitor from the Project Management Unit, Dr Robert Kleinjan, gave a presentation providing an overview of the current state of the St Helena Airport Project, starting at the Airport and following the Access Road to the works continuing in Rupert's Valley, covering the Bulk Fuel Installation (BFI), road works, the Sea Rescue Facility and the Permanent Wharf.

The main topics presented were:

- The Airport is largely complete and operational. Some construction work is ongoing on ancillary facilities. There have been ten flights to date, including two medevacs and one tourist flight
- The Access Road has been surfaced for most of its 14km length. Basil Read is busy installing crash barriers, drainage facilities and line painting
- BFI construction is ongoing, with the control building currently under construction and all pipework being installed
- Sections of the road in Rupert's Valley are still to be constructed, particularly across the Run at the bottom end of the valley
- The Sea Rescue Building is nearing completion
- The Permanent Wharf is structurally complete, but services are still to be connected

Robert also provided a brief account of his experiences on St Helena, ahead of his departure on Saturday 27 August 2016.



We would like to say a very big THANK YOU to Nigel Spackman, St Helena Airport Aerodrome Manager.

Nigel left the Island in July to return to the UK.