

# BAS Antarctic Peninsula Automatic Weather Station Update

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The British Antarctic Survey services 5 AWS on the Antarctic Peninsula and Bladrick AWS half way between Halley and the South Pole see below.



All station except Butler Island were visited this year and the batteries were replaced at Larsen, Sky Blu and Fossil Bluff. Also a 9602 Iridium SBD modem was installed at Fossil Bluff that is transmitting data back every 3 hours, it is hoped that this will replace the ARGOS transmitters.

The Bladrick AWS had a suspect wind sensor and failed temperature sensor replace.

Next season we plan to replace the batteries on Butler Island and Limbert AWS and install SBD modems on the remaining AWS (except Bladrick AWS) and sort out a battery charging issue on the Larsen AWS.

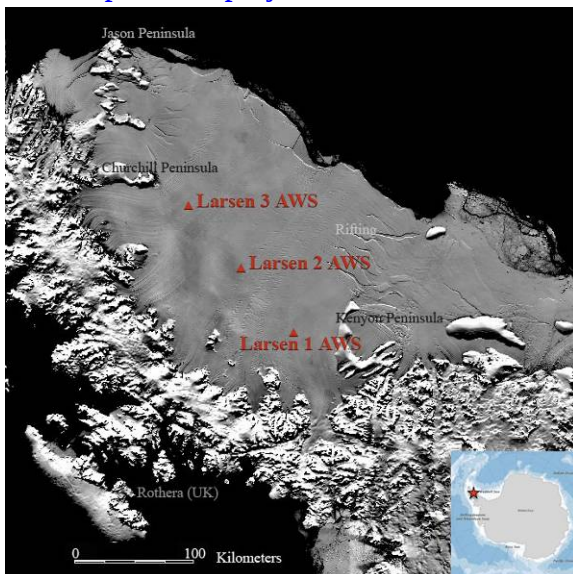


The AWS that was installed at the Thomas site 74°34S, 086°54W last season was removed on the 20<sup>th</sup> December 2010 and relocated to the Fletcher Promontory at 77°53S, 082°35W at an elevation of 871m on the 18<sup>th</sup> February 2011. This AWS will be run for one year at this site and then removed once a drilling campaign has been carried out at the site during the 2011/12 season.

An AWS supplied by Michiel van den Broeke from Utrecht University was installed at Scar Inlet at 65°56S, 061°51W at an elevation of 31m, this also had temperature sensors down into the snow at depths of 5cm, 10cm, 20cm, 40cm and 65 cm. It also measures incoming and outgoing long and shortwave radiation. Real-time data from this AWS can be viewed at:



[http://www.projects.science.uu.nl/iceclimate/aws/antarctica\\_data.html#aws17](http://www.projects.science.uu.nl/iceclimate/aws/antarctica_data.html#aws17)

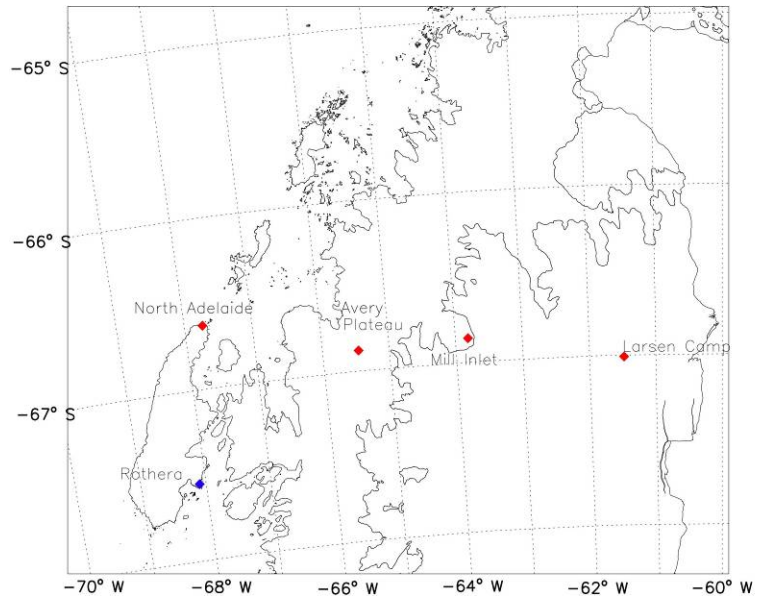


Konrad Steffen leads a joint US and Chilean team running 3 AWS further inland on the Larsen C (see map opposite). All three stations are now transmitting weather, radiation and GPS data. During the 2011/12 season two of the station will be removed and the third one (probably Larsen 1 AWS) will be taken over by BAS and the parts from the other two left at Rothera as spares.

More information can be found at  
<http://cires.colorado.edu/science/groups/steffen/larsenC/index.html>

### **OFCAP project**

A group of scientists from BAS and the University of East Anglia carried out a field campaign designed to study the impact of Orographic Flow on the Climate of the Antarctic Peninsula (OFCAP). As part of this project 3 AWS were installed covering a transect of the Peninsula as indicated on the map also radiosonde ascent were carried out at the Larsen camp. The AWS



at North Adelaide and Avery Plateau were initially planned to be on 15m pole masts due to high accumulation but due to technical problems these were replaced by a 9m one at North Adelaide and a 5m one at Avery Plateau. These stations are temporary installations, intended to collect data for one year only. They transmit data via iridium and measure temperature, pressure, humidity, wind speed and direction.

Two stations operated by Utrecht University on the Larsen Ice shelf were visited and raised. Details of these AWS can be found on the Utrecht University web pages at:  
[http://www.projects.science.uu.nl/iceclimate/aws/antarctica\\_stations.html](http://www.projects.science.uu.nl/iceclimate/aws/antarctica_stations.html)