ANTARCTICA
Automatic Weather Stations

A PolarTREC Project to Research Polar Climate

My name is George Hademenos and I teach physics at Richardson High School in Richardson, Texas. In November 2017, I will be traveling to Antarctica as a PolarTREC teacher to work with Carol Costanza of the Antarctic Meteorological Research Center from the University of Wisconsin at Madison in the maintenance and data collection from Automatic Weather Stations positioned across the continent. PolarTREC, an acronym for Polar Teachers and Researchers Exploring and Collaborating, provides teachers with an opportunity to partner with polar researchers to gain a unique perspective of relevant and real-world STEM applications related to the polar regions of the globe. PolarTREC is supported by the National Science Foundation.

George Hademenos
Carol Costanza

A PolarTREC Teacher’s Expedition to Antarctica

During my expedition to Antarctica in November 2017, I will have the opportunity to visit six Automatic Weather Stations (AWS) units. These units, depicted on the map to the right in relation to McMurdo Station (home base for the expedition), are:

- Alexander Tall Tower (BAT)
- Gill (GIL)
- Marble Point (MPT)
- Minna Bluff (MBN)
- Salusna (SAB)
- Willie Field (WFD)

Detailed information about these AWS units is displayed in the table below.

<table>
<thead>
<tr>
<th>AWS Site Code</th>
<th>AWS Name</th>
<th>Region</th>
<th>Location (lat, lon)</th>
<th>Elevation</th>
<th>Date Installed</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAT</td>
<td>Alexander Tall Tower</td>
<td>Ross Ice Shelf</td>
<td>-79.0125,-178.725E</td>
<td>55 m</td>
<td>02-02-2011</td>
</tr>
<tr>
<td>GIL</td>
<td>Gill</td>
<td>Ross Ice Shelf</td>
<td>-79.8795,-178.565W</td>
<td>55 m</td>
<td>01-24-1985</td>
</tr>
<tr>
<td>MPT</td>
<td>Marble Point</td>
<td>Ross Island Vicinity</td>
<td>-77.4399,163.754E</td>
<td>108 m</td>
<td>05-05-1989</td>
</tr>
<tr>
<td>MBN</td>
<td>Minna Bluff</td>
<td>Ross Island Vicinity</td>
<td>-78.5555,166.691E</td>
<td>895 m</td>
<td>02-22-1991</td>
</tr>
<tr>
<td>SAB</td>
<td>Salusna</td>
<td>Ross Ice Shelf</td>
<td>84.5475,-170.668W</td>
<td>87.614 m</td>
<td>02-02-2000</td>
</tr>
<tr>
<td>WFD</td>
<td>Willie Field</td>
<td>Ross Island Vicinity</td>
<td>-77.6685,166.921E</td>
<td>9 m</td>
<td>01-25-1992</td>
</tr>
</tbody>
</table>

What is PolarTREC?

PolarTREC (Polar Teachers and Researchers Exploring and Collaborating), administered by the Arctic Research Consortium of the United States (ARCUS), is funded by the National Science Foundation Office of Polar Programs (Award # 1630463). It provides unique opportunities for teachers to work alongside polar scientists conducting research in the polar regions. You can follow my expedition at:

http://www.poltrec.com/expeditions/antarctic-automatic-weather-stations

Source
Antarctic Meteorological Research Center: http://emrc.eas.wisc.edu/aws

Disclaimer: Any opinions, findings, and conclusions or recommendations expressed in this flyer are those of the teacher and research team and do not necessarily reflect the views of the National Science Foundation.