



NOAA ESRL OBSERVATORY SITES

Match each observatory description with its correct picture (A-E) and characteristic (1-5)

Here the sun shines and never sets for 82 days from early May to early August and it is dark for 51-67 days (the sun never rises) between November and January. On clear nights, this is a good time to view the "Northern Lights". Scientist here are interested in the air that comes mainly from China and Russia: _____ , _____

A



Trinidad Head (THD)

1



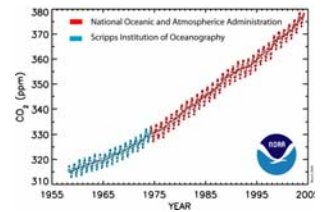
Scientist here are interested in the air that comes across the Pacific Ocean to the U.S. mainly from Asia. The newest addition to the NOAA observatory group, measurements are carried out from two instrumented trailers. Here also is one of the most westerly cities in California: _____ , _____

B



Samoa Observatory (SMO)

2



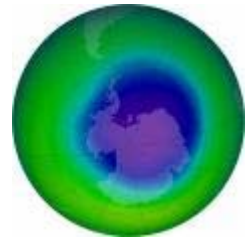
Scientist here spend 9 months in isolation, six months of which are in darkness. Between mid-February to late October, no planes can land here due to the extreme cold and polar darkness. This location is known for the discovery of the first "ozone hole": _____ , _____

C



Mauna Loa Observatory (MLO)

3



The observatory here obtains 30% of its daytime power from solar panels and has survived two major cyclones with only minor damage. Scientists here need strong legs as they need to climb down a stairway 12 stories high from a cliff to the sea to collect the air samples: _____ , _____

D



Barrow Observatory (BRW)

4



Scientists here travel 18 miles on a poorly paved, winding, rolling, and single-lane road through a somewhat barren lava field. Carbon dioxide has been measured here continuously since 1958 and thus is known for the oscillating widely recognized "Keeling Curve": _____ , _____

E



South Pole Observatory (SPO)

5



Mauna Loa Observatory (MLO) is just one of five baseline stations for the Earth System Research Laboratory (ESRL) Global Monitoring Division (GMD) of the National Oceanic and Atmospheric Administration (NOAA). Our mission is to conduct research related to atmospheric constituents that are capable of forcing change in the climate of the earth's environment. We conduct long-term measurements of carbon dioxide, carbon monoxide, methane, nitrous oxide, surface and stratospheric ozone, halogenated compounds including CFC replacements, aerosols, and solar and infrared radiation. Each observatory has an on-site station chief caring for day-to-day station activities, but the overall scientific programs and administrative functions are handled from our main laboratory in Boulder, Colorado.