## Mountain View Elementary School 3rd Graders Visit to MLO Hilo Office.

October 16, 2003

11:40am Arrival of students

John gives brief introduction to what MLO does.

Describe the globe with thin paper over it. "How thick do you think the atmosphere is?"





MLO staff was then introduced. Students introduced themselves. Students were broken down into 4 groups.

## There are 4 manned stations.

**Station 1**. Vognet and CN counter. Operator: Steve Ryan. Students are first taken in to the office and shown the cn counter with a clear Plexiglas tube. Steve shows the operation of the device. The instrument shows a cloud forming on the particles. Steve then takes the student outside and shows a working cn counter with computer hooked up taking data.



**Station 2a**. Digital microscope Table operator: Darryl Kuniyuki. Students were asked to bring in dust from their classroom. The teacher was given sticky paper to capture the particles prior to visit. A sample collected from carpet and a student's desk was brought in. Other items show was dust from MLO office, gobi desert sample and carbon soot from filters from Aethalometer.



**Station 2b**: Hand held anemometer. Students were each given an anemometer to hold and 2 fans were on. They measured the wind speed of the fan at different speeds. They also tried to measure wind speed using their breath. Some students also tried to measure the breeze which came in from the outside of balcony.



**Station 3.** Dry ice and bubbles Operator: Paul Fukumura-Sawada.. Students would blow soap bubbles into an aquarium with dry ice on the bottom. Bubbles would hover in the aquarium and would get bigger until it pops.



**Station 4**. Rain gauge and pH Operator: John Barnes.. A standard 8" rain gauge filled with water was displayed. Kids could measure how much was rain is in it. A tipping bucket with a counter connected to it. Water was poured in tipping bucket an the tipping mechanism can be seen and the counter advances when it tips. Litmus paper was available with the color scale. Water could be tested showing the ph number from the chart.



**Station 5**. UV Station. Due to rain and cloudy weather the UV station was not set up.

## Display table.

On the display table was a halocarbon flask, a running ozonesonde with radiosonde transmitting to a radio. A balloon was donated by the Hilo NWS office and Helium gas was donated by Gaspro. Leslie

printed information signs for the displays.



A web camera and computer was set up which students could see themselves. During this time the event was available live on the network with streaming video with the link available from MLO's website.



## Web scavenger hunt.

Prior to visiting MLO, the students had an assignment to find certain information on the MLO website. Students who found everything got a prize when visiting the MLO office.

Prize for the scavenger hunt was a NOAA key chain with thermometer. John presented this to the kids. Teacher then showed and explained what was inside bag.

Darryl then explained how to use UV card.

Each kid received a goodie bag with the following:



NOAA sticker CMDL pencil UV detection card NOAA pen Ticket for a Popsicle (teacher provided)

Halloween Mini-Oreos pack (teacher provided)

Lanyard donated by the Navy recruiter.

Barf Bag with sticker that said: "Where we bring the atmosphere to you." (Teacher provided)

Chaperones received:

NOAA mug

CMDL pencil

2 NOAA pens

UV card

NOAA sticker

Lanyard donated by the Navy recruiter.

Popsicle were then collected.

Juice and chaperone goodie bags were prepared and provided by Leslie.

1:00pm Students leave MLO. Before leaving building students walked to Navy recruiter office and thanked "Mr. Will" for lanyard.