

**Atmospheric dust load from the 2003 dust season  
measured from Bellows Air Force Station**

A Thesis submitted to the Global Environmental Science  
undergraduate division in partial fulfillment of the  
requirements for the degree of

Bachelor of Science

In

Global Environmental Science

December 2004

By

Lyle Leonard

Thesis Advisor  
Chris Measures

## **Abstract**

The measurement of eolian atmospheric dust concentrations from Bellows Air Force Station on Oahu, Hawaii.

It has been known for some time that much of Hawaii's dust flux comes from the Asian Continent. This study investigates the concentration of aerosol particles in the atmosphere through the testing of aluminum concentrations of filter samples collected from Bellows. Aluminum is known to be a major and invariant element in continental crustal material and the aerosols derived from that material. The dust concentrations in this study are shown to have a seasonal variance and this is consistent with other studies. This study also confirms that the air masses bringing the dust to Hawaii originated on the Asian continent.