

The Alaska State Museums Statewide Services has a new program for helping museums around Alaska evaluate their environment. One of the single greatest factors contributing to an object's longevity is a stable environment. Environmental evaluation includes: checking ambient and ultraviolet light levels of exhibits, determining long-term fading potential of artifacts on display, and recording temperature and humidity changes in both storage and exhibit areas. Small adjustments can sometimes have a big impact on the preservation of artifacts in the museum.

Services Provided:

- Interpretation of temperature and humidity data
- Assistance in calibrating recording hygrothermographs
- Standards for ambient and UV light levels in exhibits
- Suggestions for improvements to the museum environment
- Assistance with developing appropriate strategies for displaying light sensitive materials
- Publications and information about pertinent environmental topics

If you are interested in more information about equipment or services please contact:

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TOLL FREE NUMBER

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**ALASKA STATE MUSEUMS**

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Department of Education and Early Development  
Division of Libraries, Archives and Museums



Alaska State Museums

Statewide Services  
Museum  
Environmental  
Testing  
Program

Equipment Available:

■ **Infrared Thermometer**

This instrument is a portable, hand-held thermometer, good for checking heat from light falling on objects. It provides quick, accurate temperature readings from a distance. Attached to it is a remote temperature probe that allows for non-contact temperature measurement from 10° C - 300°C (14°F - 572°F). You can select the temperature display in either Centigrade or Fahrenheit. The temperature is displayed on a large format LCD screen on the body of the instrument.

■ **Digital Light Meter**

The hand-held Digital Light Meter measures visible light in units of lux or foot candles and displays the readings. These readings can help museum staff determine whether objects are exposed to an appropriate level of light.

■ **Psychrometer**

This is a primary measurement instrument against which other temperature and humidity recording instruments may be calibrated. Using the psychrometer, the relative humidity is determined by measuring the evaporative cooling effect of a wet bulb thermometer in relation to a dry bulb thermometer.

■ **UV Light Meter**

The UV Light Meter reads ultraviolet light emissions, one of the most damaging wavelengths on the spectrum. It also reads visible light in lux, and ambient temperature in either centigrade or Fahrenheit. Types of measurements are selected by pressing the different buttons. The readings are displayed on a large LCD screen.

■ **Computer Datalogger**

This is a portable, battery powered device that records temperature and humidity in an area and stores the data over time. The stored information may then be downloaded to a computer and viewed in a variety of graph or spreadsheet forms.

■ **Light Damage Slide Rule**

By relating the intensity of light falling on the display to the length of time it is exposed to light, the L. D. Slide Rule demonstrates the damage that will result from particular combinations of intensity and exposure time.

■ **Blue Wool Fade Cards**

Blue Wool Standards are an internationally accepted scale for measuring fading. A blue wool fade card features pieces of wool cloth dyed with blue dyes of eight different degrees of lightfastness. The various colors are used as lightfastness standards and allow you to see fading that results from exposure to light. An exposed blue wool fade card allows you to monitor the net exposure to light when compared to an unexposed card.



■ **Humidity Indicator Cards**

This card provides a quick, inexpensive way to check the approximate relative humidity levels of a storage or display area. Each square indicates a 10% humidity range. The scale responds to moisture in the air by changing color.



UV Light Meter



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Psychrometer



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Humidity Indicator Cards