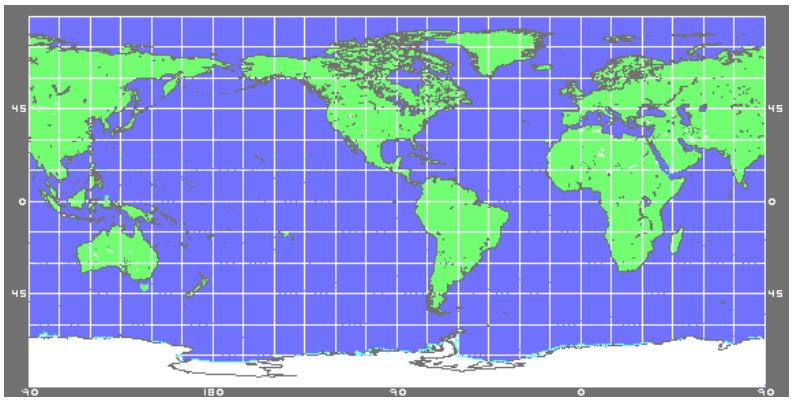
EML
Environmental Measurements Laboratory

"A Federal Resource"

Environmental Sample Archive and Internet Database

EML maintains a unique and extensive archive of environmental samples for the Office of Nonproliferation Research and Engineering (NN-20) in the Office of Defense Nuclear Nonproliferation (NN-1). This archive is now accessible over the Internet at EML's Web Site (*http//:www.eml.doe.gov*). A "user-friendly" interface allows for sample searches using either a form or a map search. Over 50,000 unique sample are present in the archive.



The samples were primarily collected in the EML environmental research programs listed below:

- Soil Programs: Radioactivity measurements on soil samples collected throughout the world from 1953 to the present
- Surface Air Sampling Program (SASP): Radioactivity measurements on surface air filter samples collected at a global network of sites from 1957 to the present
- Global Strontium-90 Deposition Program: Strontium-90 measurements on fallout ion exchange samples collected at a global network of sites from 1954 to the present
- High-Altitude Sampling Program (HASP):
  - Project STARDUST: Radioactivity measurements on air filter samples collected by aircraft in the stratosphere from 1957 to 1967
  - Project AIRSTREAM: Radioactivity measurements on air filter samples collected by aircraft in the upper troposphere and stratosphere from 1967 to 1983
  - Project ASHCAN: Radioactivity measurements on air filter samples collected by balloons in the upper stratosphere from 1957 to 1983
- Acid-Rain Deposition Program: Radioactivity measurements on lake sediment samples collected from 1979 to 1991
- Diet and Bone Program: Strontium-90 measurements on ashed samples of food and bone collected from 1969 to 1982

Sample Utilization:

- Quality Control - Test newly developed instruments and techniques
- Nonproliferation - Identify signatures of nuclear proliferation
- Background - Determine global variations of signatures
- Forensics - Geolocate samples of unknown origin

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