GIFT WORKSHOP
AGU Fall Meeting
San Francisco
December 2007

Nicole Herman
France

Annegret Schwarz
Germany

Viola Wierzbicka
Poland

Discovering the city


930
930


1200
DIVISADERO


STOP
CALIFORNIA


PREVENT
RUNAWAYS
CURB WHEELS
PARK IN GEAR
SET BRAKE
FILBERT
STOP
ALL WAY


POWELL & MASON Sts.
5
TAGHeuer
SAN FRANCISCO MUNICIPAL RAILWAY

A bit of sightseeings

Visiting the Exploratorium


Make Waves
Flags wave in the wind. Check out the flags' bottom edges.
The resonant waves in a guitar string are standing


Bicycle Wheel
Gyro
Plastic bottles
Glass bottles
Cans

AGU Fall Meeting

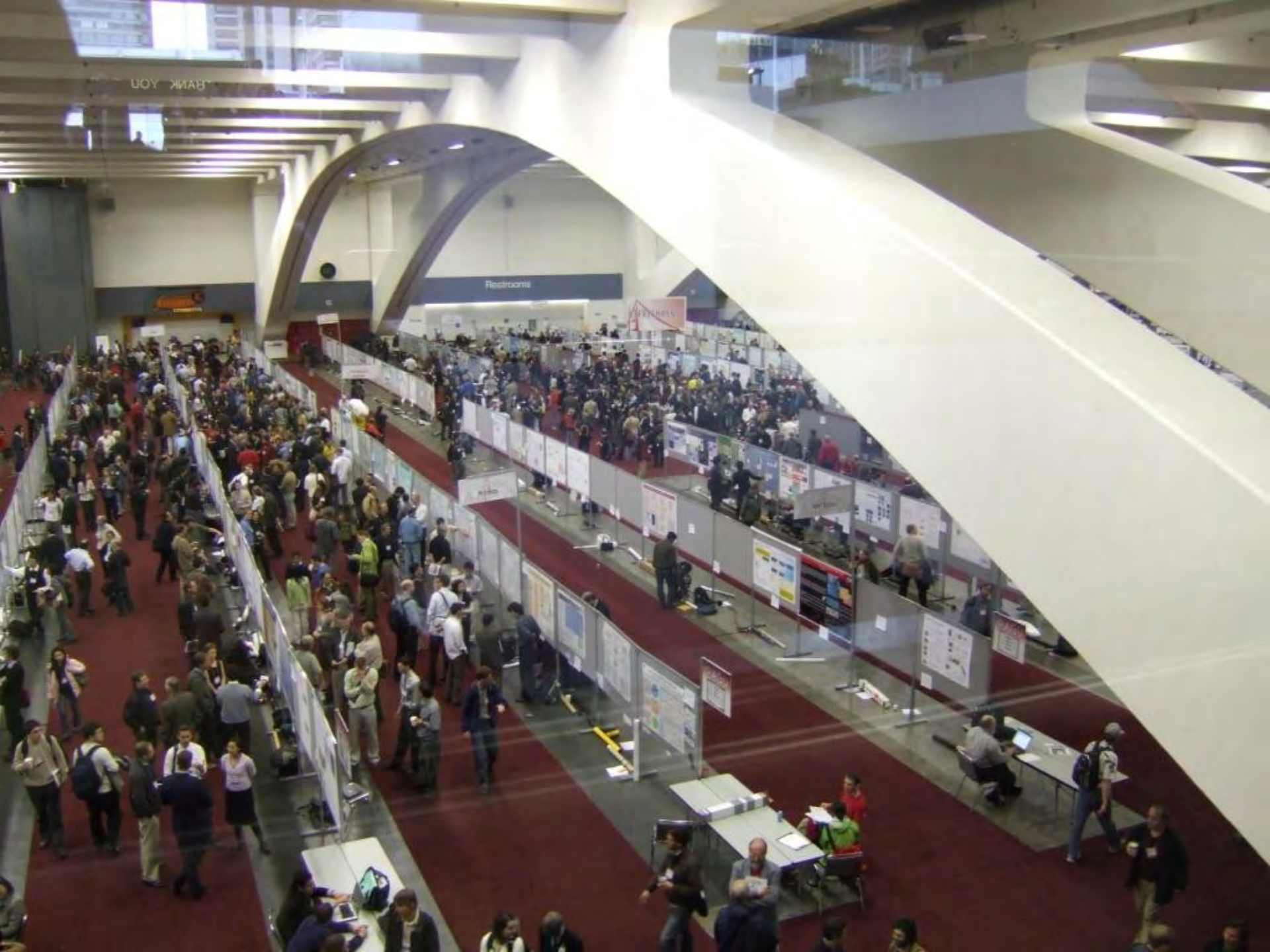
15000 participants,
presenting their researches,
explaining their results to visitors,
exchanging ideas,
meeting overseas collegues…

Internet connexions

Roundtable meetings

Poster sessions


Restrooms
Restrooms


Restrooms

Posters

The Permafrost Young Researchers Network (PYRN): Contribution to IPY's Thermal State of Permafrost.

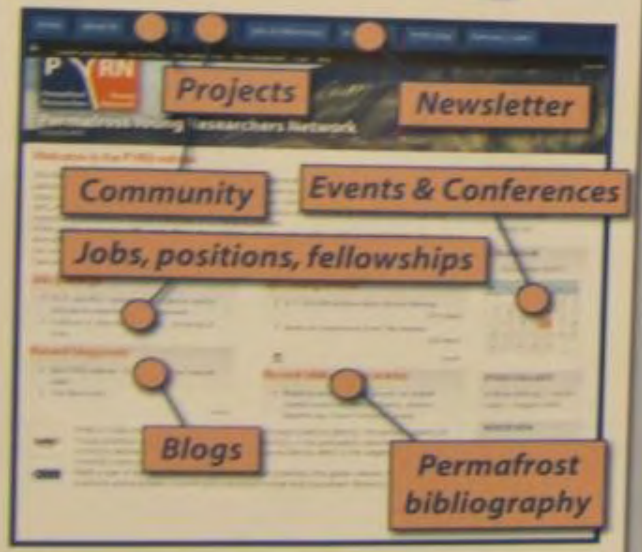
Margareta Johansson

Hugues Lantuit

Oliver Frauenfeld

REGISTER NOW ON WWW.PYRN.ORG

FREE!



PYRN Drilling project

PYRN recently launched a series of initiatives on several continents aimed at providing young scientists with the means to conduct ground temperature monitoring in under-investigated permafrost regions.

Focusing on sites not currently covered by the IPY's "Thermal State of Permafrost" project, the young investigators of PYRN will provide and use lightweight drills and temperature sensors to measure boreholes in those regions. The data and results will be incorporated in the global database on permafrost temperatures and made freely available to the scientific community, thereby contributing to the advance of permafrost science and the strengthening of the next generation of permafrost researchers.

Other PYRN activities

-Annual workshops to bring together PYRN members. Next one to be held at NICOP in 2008

-A program designed to support young scientist attendance to permafrost conferences

-A website with:
- -Conferences, Events, etc.
- -Jobs, Positions, Fellowships
- -Member list

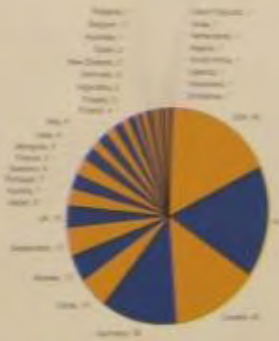
-An award distributed annually to a young researcher at a permafrost conference (PYRN GA-IPA Award)

-A monthly newsletter on the most recent permafrost news

-A bibliography of theses completed in the field of permafrost research (PYRN-Bib)

-A list of senior scientists involved in permafrost research

PYRN membership breakdown



380+ members.
33 countries

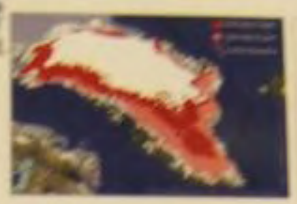
Fig. 1

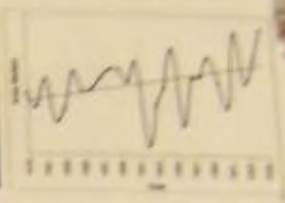
he resulting change
etween: (a) 2005 and
2005 and 1969. Max.
s ~27 m and in (b) is

rmalised DEMs of
a) Midre Lovénbreen

Response of the Greenland Ice Sheet to Climate Change

With another record melt year in 2005...





Greenland's glaciers are thinning, retreating and picking up speed...

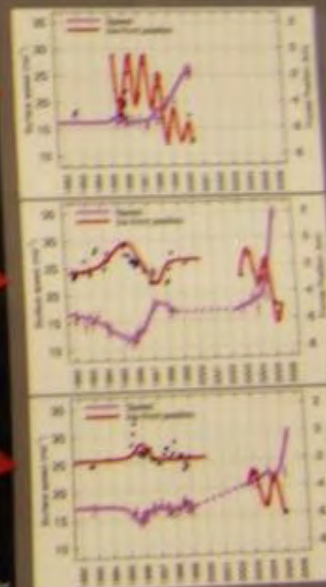
Jakobshavn

Kangerdlugssuaq

Helheim

Implications:
- sea level rise
- ocean circulation
- climate change

Surface Velocities & Frontal Position



Luckman, A. et al. (2006). Geophysical Research Letters, 33.

GLIMPSE

www.greenlandice.org

Multi-Sensor Data From A-Train Instruments Brought Together for Atmospheric Research

Peter Smith[1], Steven Kempler[1], Graeme Stephens[2], Andrey Savtchenko[3], Gregory Leptoukh[1], Hualan Rui[3], John Farley[4], David Winker[5], Don Reinke[1]

[1]NASA Goddard Space Flight Center, [2]Colorado State University, [3]NASA Langley Research Center, [4]NASA Goddard Space Flight Center/SESDA2

Steven.J.Kempler@nasa.gov

Based on the NASA funded ACCESS Project: A-Train Data Depot: Integrating Atmospheric Measurements Along the A-Train Tracks Utilizing Data from the Aqua, CloudSat and CALIPSO Missions

Abstract

The A-Train is comprised of a series of instruments, developed independently, that measure highly related atmospheric components along the same flight path. In order to inter-compare data from this multitude of sensors, researchers must access, subset, visualize, analyze and correlate distributed atmosphere measurements from the various A-Train instruments.

Sensors: Cloudsat, CALIOP, AIRS, OMI, MLS, and MODIS

Areas of Study: Cloud, aerosol, atmospheric temperature, and water vapor parameters, atmospheric composition

Services: Dynamically subset, visualize, co-register, and access multi-sensor A-Train data

Saves researchers great amounts of time by using ATDD services.

Output: HDF, PNG, KMZ (protoype)

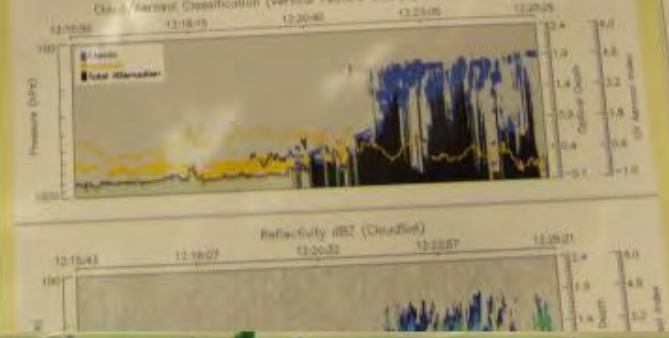
What can the A-Train Data Depot Do For You

The A-Train Data Depot (ATDD) has been operational for mor
(http://disc.gsfc.nasa.gov/atdd/)

- Provide access to **A-Train datasets** from one portal
- Provide user friendly, data visualization and exploration for sc
- **Perform much of the work each individual researchers wo**

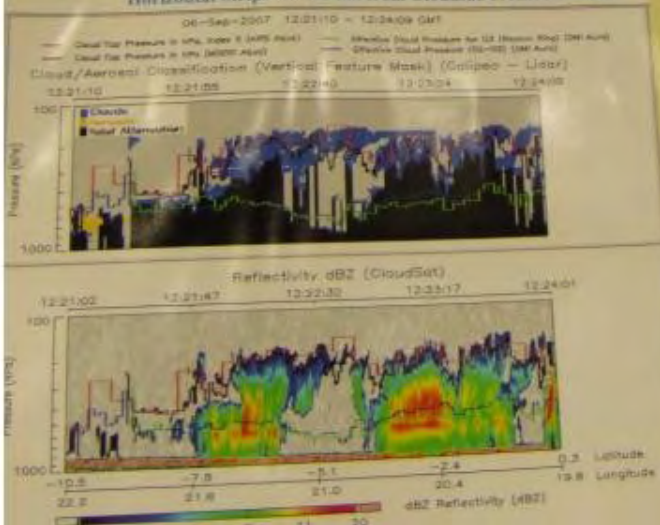
valuable resources on:

Studying Aerosols… Vertical Profiles (curtain plots) & Horizontal Strips +/- 100 km from Cloudsat/CALIPSO nadir



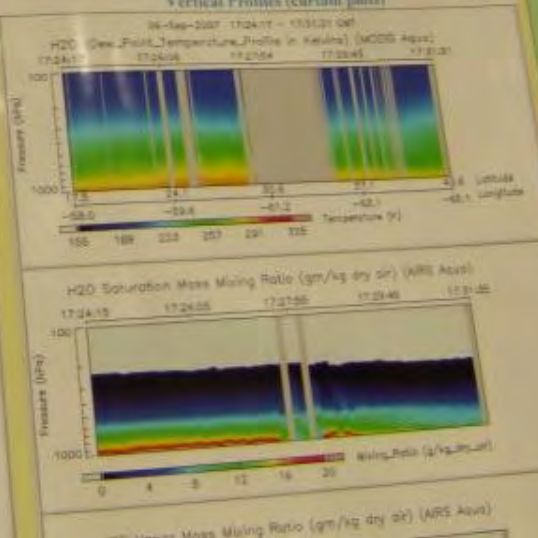
Studying Clouds… Horizontal

Studying Clouds… Vertical Profiles (curtain plots) & Horizontal Strips +/- 100 km from Cloudsat/CALIPSO nadir

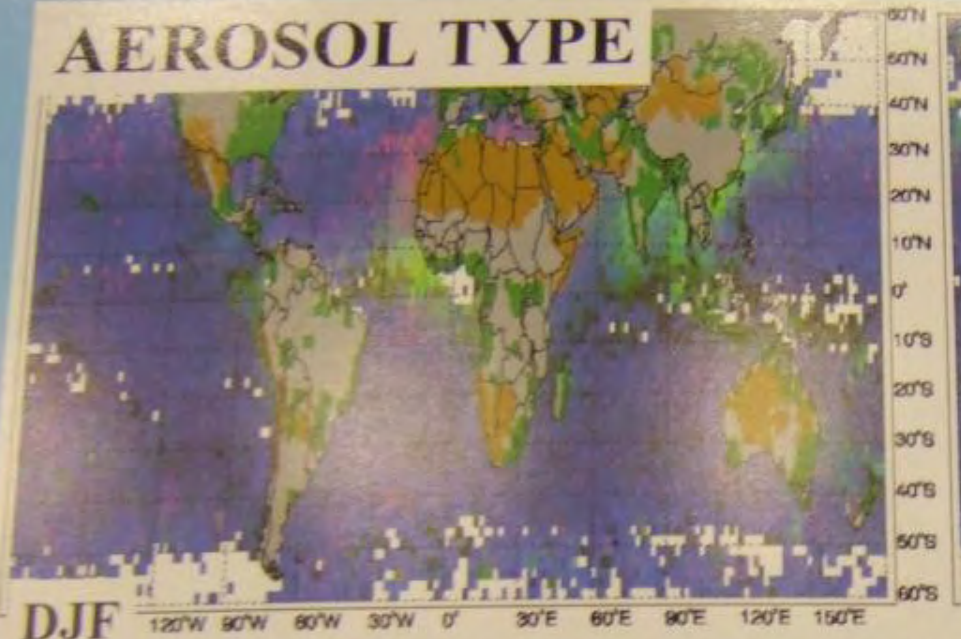


Studying Water Vapor Profiles…

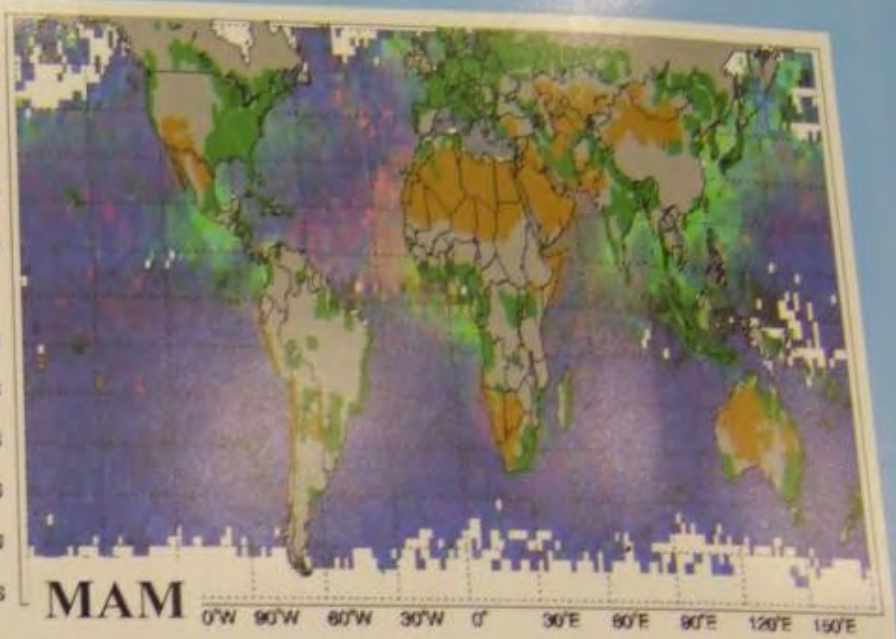
Vertical Profiles (curtain plots)



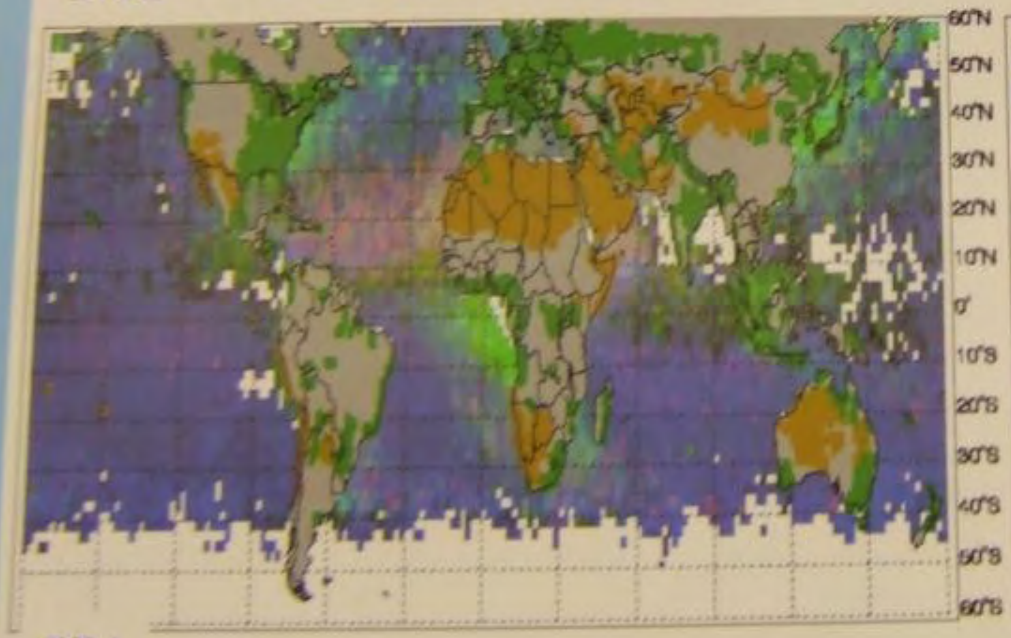
AEROSOL TYPE



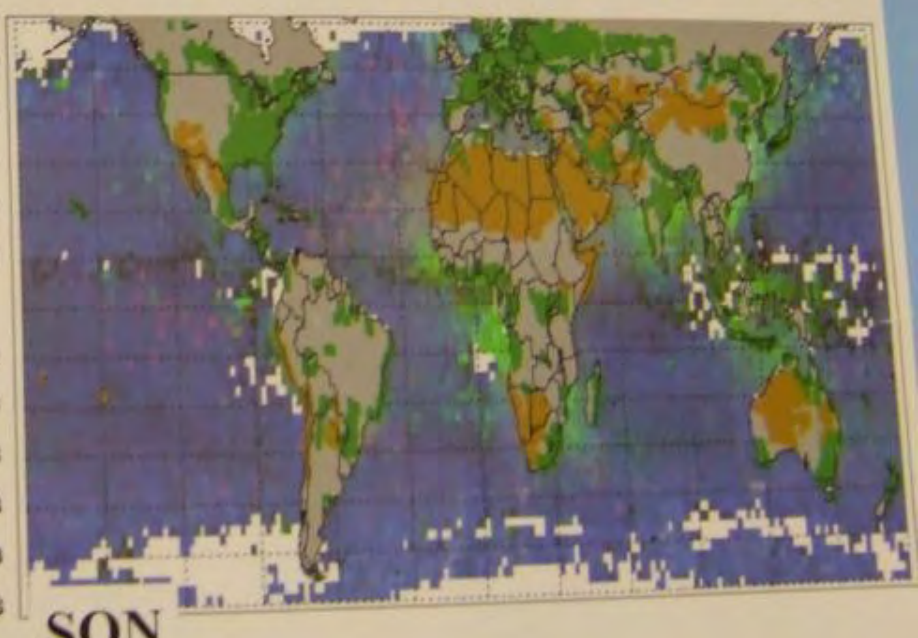
DJF



MAM



JJA



SON

PINK = DUST GREEN = ANTHROPOGENIC BLUE = SEA SALT

So many subjects, so many posters, so many ideas for teachers…

Atmospheric and Space Electricity, Earth and Space Science Informatics, Education and Human Resources, Geodesy, Geomagnetism and Paleomagnetism, Global Environmental Change, Mineral and Rock Physics, Ocean Sciences, Paleoceanography and Paleoclimatology, Planetary Sciences, Seismology, Solar and Heliospheric Physics, Technophysics, Volcanology…

The AGU Exhibition


200
LI-COR
exit ramp
2
LI-COR
• Photosynthesis
• Fluorescence
• Soil CO_2 Flux
• CO_2/H_2O Analysis
• Leaf Area
• Leaf Area Index
• Light Measurement
VAISALA
Humidity
Oxygen
VAISALA
VAISALA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Profiler RDCP 600 -
Oceanography

Atmospheric research


METEORITE PENDANTS
Solid Earth
MAGNETITE
LAPIS LAZULI
RHODONITE


VISA

The GIFT Workshop


262
2007 AGU Fall Meeting
Carlo Laj
LSCE, CEA/CNRS/UVSQ
France
MEMBER
AGU EDUCATION AND
HUMAN RESOURCES COMMITTEE
2007 AGU Fall Meeting
Ines Cifuentes
Education Manager
MEMBER
AGU STAFF
SUPPORTERS
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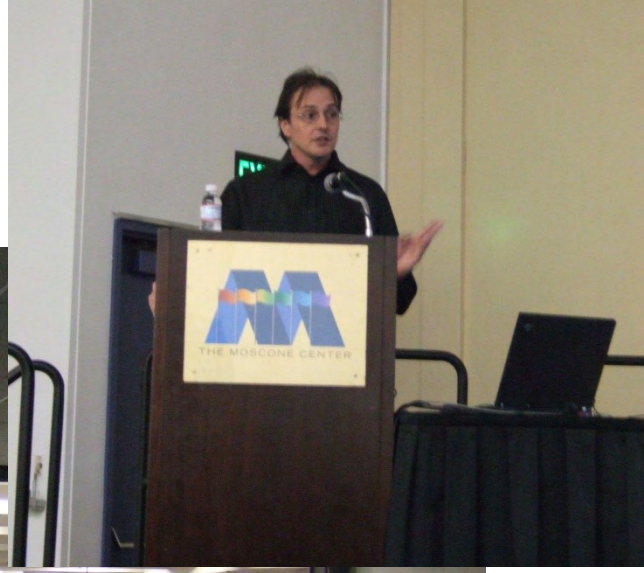
THE MOSCONE CENTER


THE MOSCONE CENTER


Windows to the Universe
Now Available in Spanish!
www.windows.ucar.edu/spanish
Celsius
Celsius


2007 AGU Fall Meeting
C. Maggie Olson
California
2007 AGU Fall Meeting
Louise McMinn
Connecticut
Penderson Glacier
1909
2004
2003


Toboggan Glacier
1909
2000
2004
Traveling Nitrogen Passport
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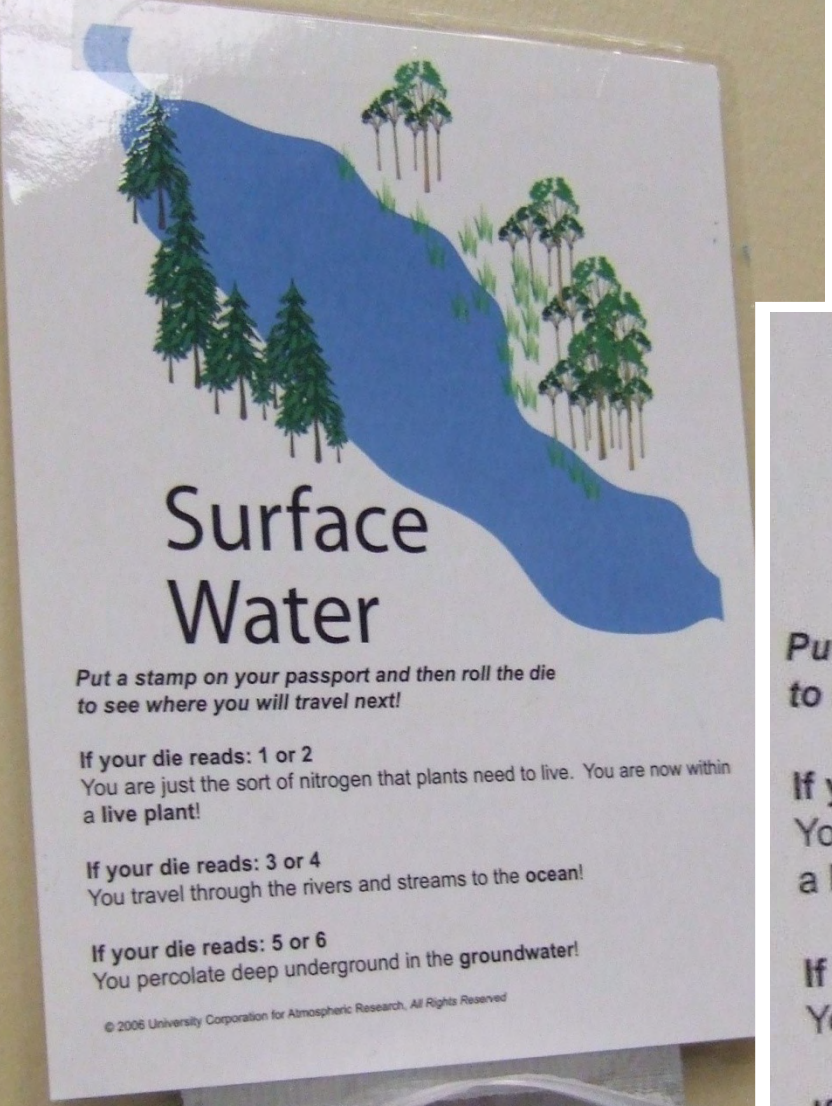
Glaciers Then and Now
AGU


Carbon Dioxide – Sources and Sinks Activity
Part 5: Are fossil fuels a source of CO2?
1. Carefully untwist the tie of the exhaust filled balloon while pinching the balloon neck so the gas does not escape
2. Insert a straw into the neck of the balloon up to the Pinched portion while still preventing the gas from escaping
3. Insert the other end of the
of blue BTB
4. Insert a cotton ball at the
5. Gently release air from th
untwisting the neck
EXIT


exit plan
occupancy
109
Spanish
www.windows.ucar.edu/spanish


Traveling Nitrogen Game
Students play the role of nitrogen atoms traveling through the nitrogen cycle to gain understanding of the varied pathways through the cycle and the relevance of nitrogen to living things.
Precipitation
Organic Residues
Plant Consumption
Denitrification
Organic Matter
Mineralization
Nitrates
Nitrification through bacteria
Ammonium
Fixation
Leaching
Nitrites
Clay Minerals
exit plan
occupancy 106


Surface
Water
Put a stamp on your passport and then roll the die
to see where you will travel next!
If your die reads: 1 or 2
You are just the sort of nitrogen that plants need to live. You are now within
a live plant!
If your die reads: 3 or 4
You travel through the rivers and streams to the ocean!
If your die reads: 5 or 6
You percolate deep underground in the groundwater!
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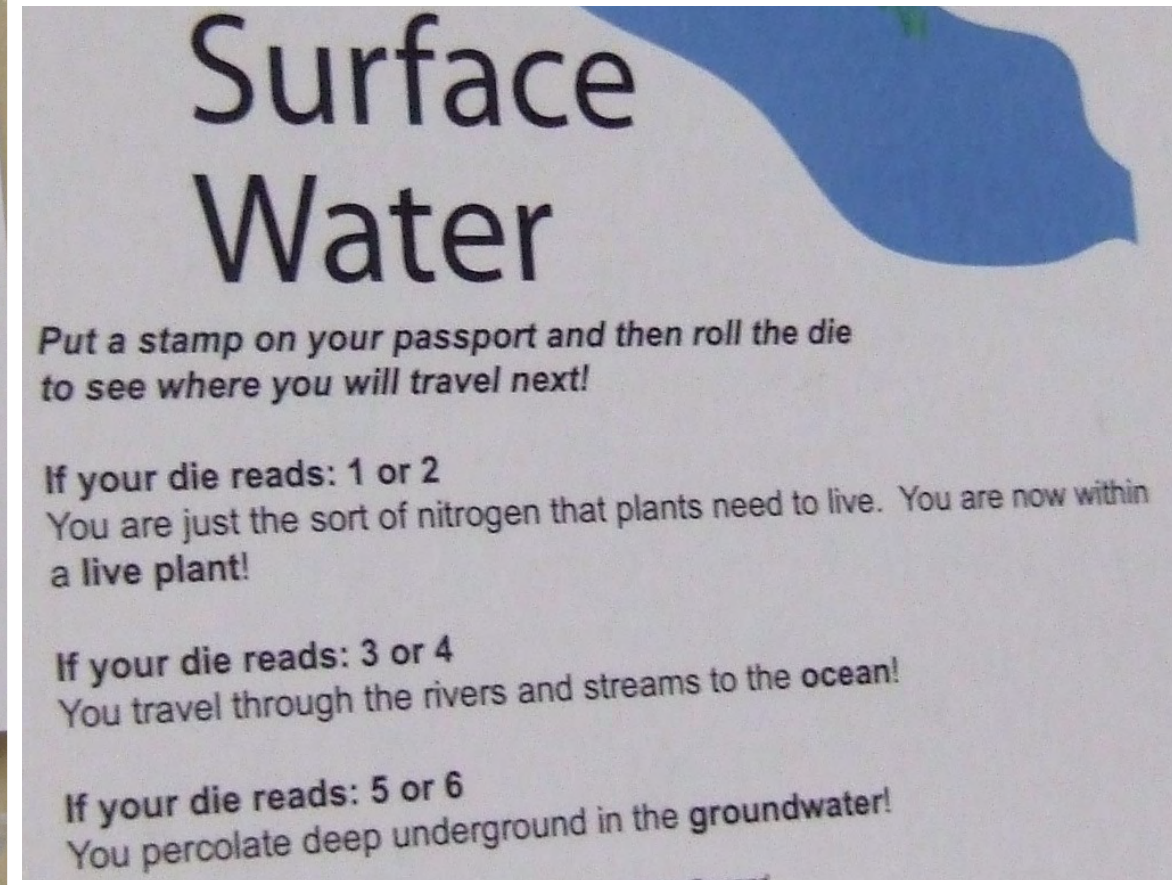
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Atmosphere

Put a stamp on your passport and then roll the die
to see where you will travel next!

If your die reads: 1 or 2
Lightning strikes! Nitrogen gas is make into a solid and travels to the **soil**!

If your die reads: 3
Blue-green algae and bacteria change you into a solid, bringing you to the **soil**!

If your die reads: 4
Bean plants extract you from the air and bring you to the **soil**!

If your die reads: 5 and 6
Some nitrogen can get into the water in clouds and then fall as **rain**!

Rain Water

Put a stamp on your passport and then roll the die to see where you will travel next!

If your die reads: 1
You fall into a lake or stream so now you are part of **surface water.**

If your die reads: 2 or 3
You fall on the land and become part of the **soil**!

If your die reads: 4
You percolate deep underground in the **groundwater**!

If your die reads: 5 or 6
You rain into the **ocean**!

Put a stamp on your passport and then roll the die to see where you will travel next!

If your die reads: 1
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You fall on the land and become part of the **soil**!

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You percolate deep underground in the **groundwater**!

If your die reads: 5 or 6
You rain into the **ocean**!

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And then
some follow-up activities