ICDC7 REGISTRATION FORM

Last Name:______________________________
First Name:______________________________
Badge Name:______________________________
Country of Citizenship:______________________
Date of Birth*:___________________________
Place of Birth*:__________________________
Passport Number*:________________________
Company Name:__________________________
Address:_________________________________
City:____________________________________
State:________________Zip Code:___________
Country:_________________________________
Phone:__________________________________
Fax:____________________________________
E-mail:__________________________________
Require Handicap Services?_________________
Registration fee: **$450.00**
After August 1, 2005: $500.00
Amount Remitted: $_______________________

Make checks payable to:
NIST/ICDC7 WORKSHOP
(Checks accepted from U.S. banks only)

Method of payment:

☐ Check ______________________________
☐ ++Purchase Order #_________-_____________
☐ ++Training Form __________________________

☐ Visa ☐ MC ☐ AMEX ☐ Discover

Card #_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ Exp. date: _ _ /_ _ _ _

____
Signature (required for all charges)

The information provided in this registration form will be used for the following purposes: To process your payment; to create a conference name badge; to publish a participants list for this conference; to compile mailing lists for future conferences; and to run background checks of each non-U.S. citizen taking the NIST tour.

☐ Please check here if you **do not** want your information published in the participant's list or conference mailing list.

++Enclose a copy or provide one on site at registration; faxed copy acceptable.

Request for cancellation and refund must be received, in writing, by **Sept. 12, 2005**.

ICDC7 REGISTRATION AND ACCOMMODATIONS

Three ways to Register:

1. Complete the registration form and mail it along with your registration fee to:

NIST/Finance Division
100 Bureau Dr., Stop 1624
Gaithersburg, MD 20899-1624 USA

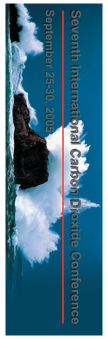
2. Fax the completed form along with proof of payment to: **(303) 497-5208**

3. Or, register on-line at:
https://rproxy.nist.gov/CRS/conf_ext.cfm?conf id=1309
(url is case sensitive)

The conference will be held at the:

The Omni Interlocken Resort
500 Interlocken Boulevard
Broomfield, CO 80021
Phone: (303) 438-6600
Fax: (303) 438-7224
www.omnihotels.com
Lodging rate: Single/Double rate:
$116 + 9.8% tax

Please mention the "Seventh International Carbon Dioxide Conference" when you call for accommodations. Lodging rates available until **Aug 26, 2005**



Coordinating / Host Institution
NOAA Climate Monitoring & Diagnostics Laboratory
325 Broadway R/CMDL1
Boulder, CO 80305-3328

ICDC7

Seventh International Carbon Dioxide Conference (ICDC7)

Boulder, Colorado
25-30 September 2005

http://www.cmdl.noaa.gov/info/icdc7/

Images provided by Wil Von Dauster

ICDC7 OBJECTIVE

This conference will bring together scientists from different disciplines to communicate the most recent results pertinent to the global carbon cycle, with an emphasis on the contemporary increase of atmospheric carbon dioxide. Topics will include atmospheric and oceanic measurements, terrestrial ecosystems and land use change, models, the ice core record, new observational techniques, long-term potentials of carbon sequestration, and more generally the human impact on the carbon cycle.

ICDC7 SCIENTIFIC THEMES

1. The fate of fossil-fuel carbon emissions

The amount of CO_2 in the atmosphere has increased substantially since pre-industrial times because of fossil-fuel carbon emissions. A fraction of this has been further redistributed to the oceans and terrestrial biosphere by natural processes. What do the observed spatial patterns and time series' in the atmosphere and oceans reveal about the flows of natural and anthropogenic carbon? This theme includes observations of CO_2, CH_4, their isotopic ratios, patterns and mechanisms of air-sea gas exchange, inverse models, and instrumentation developments that enhance our observational power.

2. Land use and the terrestrial carbon cycle

Land management over past centuries has been the second largest contributor to global carbon emissions. Furthermore, most of the observed inter-annual variation of the rate of increase in the atmosphere is caused by a varying exchange with the terrestrial biosphere. How can we quantify and understand the effects of land management on the carbon cycle? How can insight be gained into natural variations? Flux measurements, studies of the effects of wildfires, logging, soil management, urbanization, dams and reservoirs, woody encroachment, and seasonal to sub-decadal climate variations are examples that fit this theme.

3. Carbon cycle response to environmental change

The carbon cycle, and thus the course of atmospheric CO_2 and CH_4, could be strongly influenced by Arctic warming, surface ocean stratification, moisture in terrestrial ecosystems, sea level rise, and the stability of methane clathrates, among others. How can we improve understanding and provide early warning of significant changes? Ice core and sediment data have revealed major shifts in the recent geological past, and analysis of these data is one approach to gain insight.

4. Impacts of high CO_2 on land and ocean ecosystems

Some evidence suggests that increasing levels of CO_2 may increase rates of photosynthesis, change nutrient utilization, and alter demand for trace metals, causing further changes throughout ecosystems. Increasing CO_2 in the oceans lowers pH, and there is evidence of detrimental effects on coral reef communities and organisms forming carbonate shells. What are the effects high CO_2 has on the earth system other than simply the radiative forcing of climate?

5. Managing the carbon cycle

Anthropogenic emissions, emission limitations, sequestration, and ocean chemistry will likely play leading roles in the future atmospheric CO_2 burden. Coupled models will be required for long-term projections. How can we gain enough confidence in models for them to aid in decision making? What are biophysical limits of biological sequestration? How much can be stored in geological reservoirs, how much in the oceans? What are likely environmental impacts of different strategies? Instrumentation needs to be developed for independent verification of emissions and sequestration.

ICDC7 CONFERENCE PARTNERS

NOAA — National Oceanic and Atmospheric Administration, U.S. Department of Commerce

NCAR

CIRES

NIST — National Institute of Standards and Technology, Technology Administration, U.S. Department of Commerce

ICDC7 SCIENTIFIC PROGRAM COMMITTEE

- **Pieter Tans**
  Climate Monitoring and Diagnostics Laboratory, NOAA, Boulder, CO, USA
- **Paulo Artaxo**
  University of Sao Paulo, Brazil
- **Jean-Marc Barnola**
  Laboratoire de Glaciologie et Geophysique de l'Environnement, Grenoble, France
- **Sally Benson**
  Lawrence Berkeley National Laboratory, Berkeley, CA, USA
- **Joseph Canadell**
  Commonwealth Scientific and Industrial Research Organisation, Canberra, Australia
- **Philippe Ciais**
  Laboratoire des Sciences du Climat et de l'Environnement, Gif-sur-Yvette, France
- **Richard Feely**
  Pacific Marine Environmental Laboratory, NOAA, Seattle, WA, USA
- **Chris Field**
  Carnegie Institution of Washington, Stanford, CA, USA
- **Lin Huang**
  Meteorological Service of Canada, Toronto, Canada
- **Gen Inoue**
  National Institute for Environmental Studies, Tsukuba, Japan
- **Beverly Law**
  Oregon State University, Corvallis, OR, USA
- **Liliane Merlivat**
  Laboratoire de l'Oceanographie Dynamique et de Climatologie, University Paris 6, France
- **Takakiyo Nakazawa**
  Tohoku University, Sendai, Japan
- **Christian Roedenbeck**
  Max-Planck Institute for Biogeochemistry, Jena, Germany