

Mother Nature bursts bubble

The inflated roof over the main stadium for the 2010 Winter Olympics ripped Friday, forcing its collapse under a blanket of wet snow.

(Counter-clockwise from left)

A. Rushing air from inside B.C. Place Stadium sends the torn roof flapping.

WILLIAM URREA/SPECIAL TO VANCOUVER S

B. A bird's-eye view of the rip shows the stadium seating underneath. Kirk Lucas, battalion chief with Vancouver Fire and Rescue Services said, 'The only people there were staff, and there were no injuries.'

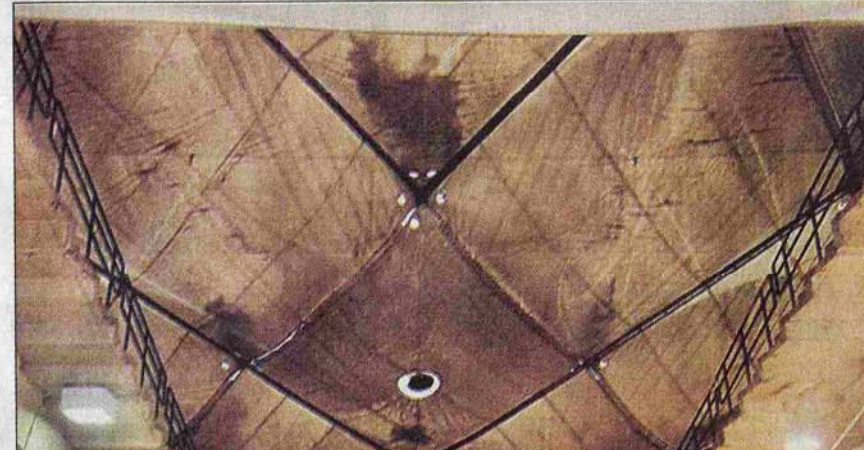
DON MACKINNON/AFP/GETTY IMAGES

C. Vancouver's skyline looked very different without the familiar inflated marshmallow roof of B.C. Place.

WARD PERRIN/VANCOUVER S

D. Inside, workers scramble to begin repairs as the collapsed roof nearly touches the floor.

STEVE BOSCH/VANCOUVER S



Intro-1 EOSC 112 Course Overview

[text KKC, 2nd ed. pp.1-7]

Objectives:

- Course setup**
- Earth system**
- Short term climate change**
- Global greenhouse warming**

Course setup

- **Web site:** <http://www.eos.ubc.ca/courses/eosc112>
 - **user ID = student** **password = fluidearth**
 - **download schedule of lectures, lecture notes**
- **Prof. Lionel Pandolfo**
 - **Office: EOS-South 159. Tel: 604-822-1814.**
 - **E-mail: lpandolfo@eos.ubc.ca**
- **Prof. Evgeny Pakhomov**
 - **Office: EOS-South 364. Tel: 604-827-5564.**
 - **E-mail: epakhomov@eos.ubc.ca**
- **Teaching assistants: (ECAC EOS-Main 135A)**
 - **Rodrigo Montes-Aste Email: rmontes@eos.ubc.ca**
 - **Anna Hippmann E-mail: ahippmann@eos.ubc.ca**

- **Textbook:** "The Earth System" (2nd edition) by Lee R. Kump, J.F. Kasting & R.G. Crane. Pearson Prentice Hall, 2004.
- **Grades:**
 - Test marks (best 2 out of 3 tests) = 60%
 - Final exam = 40%
 - A few quizzes (bonus marks)

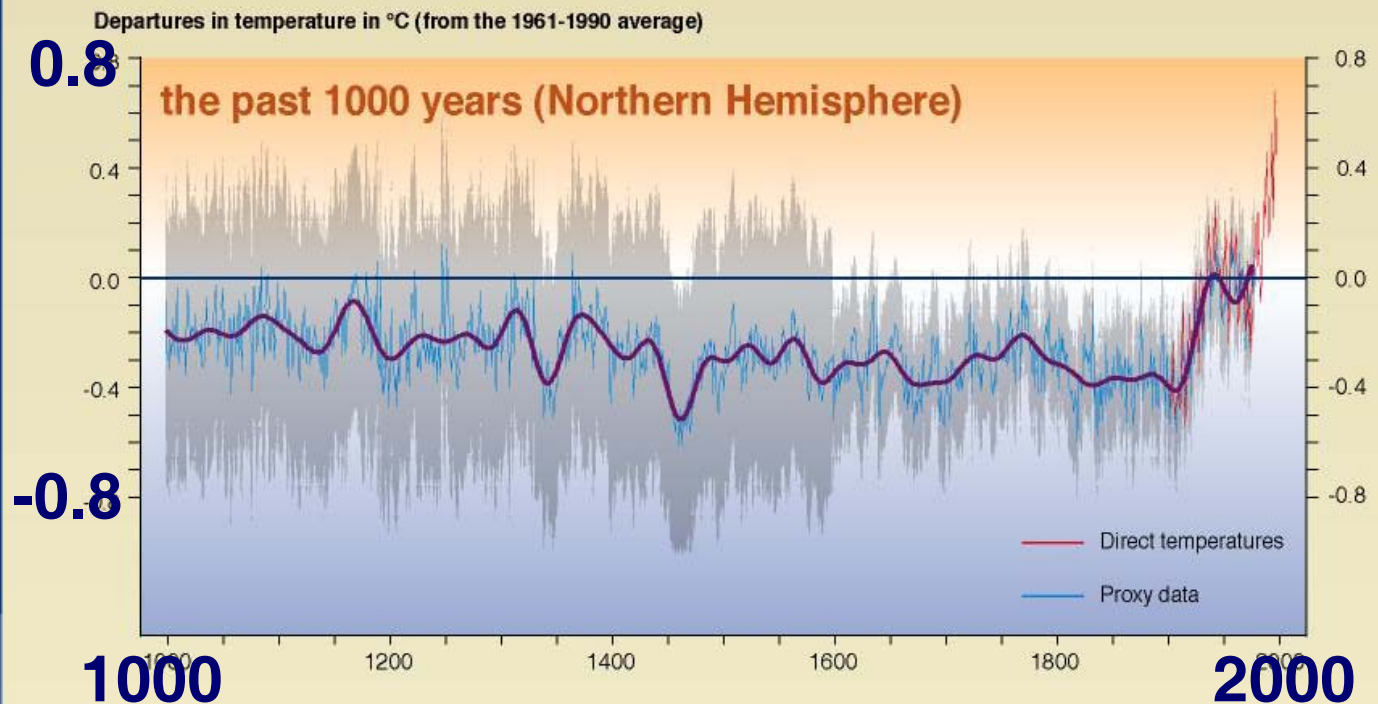
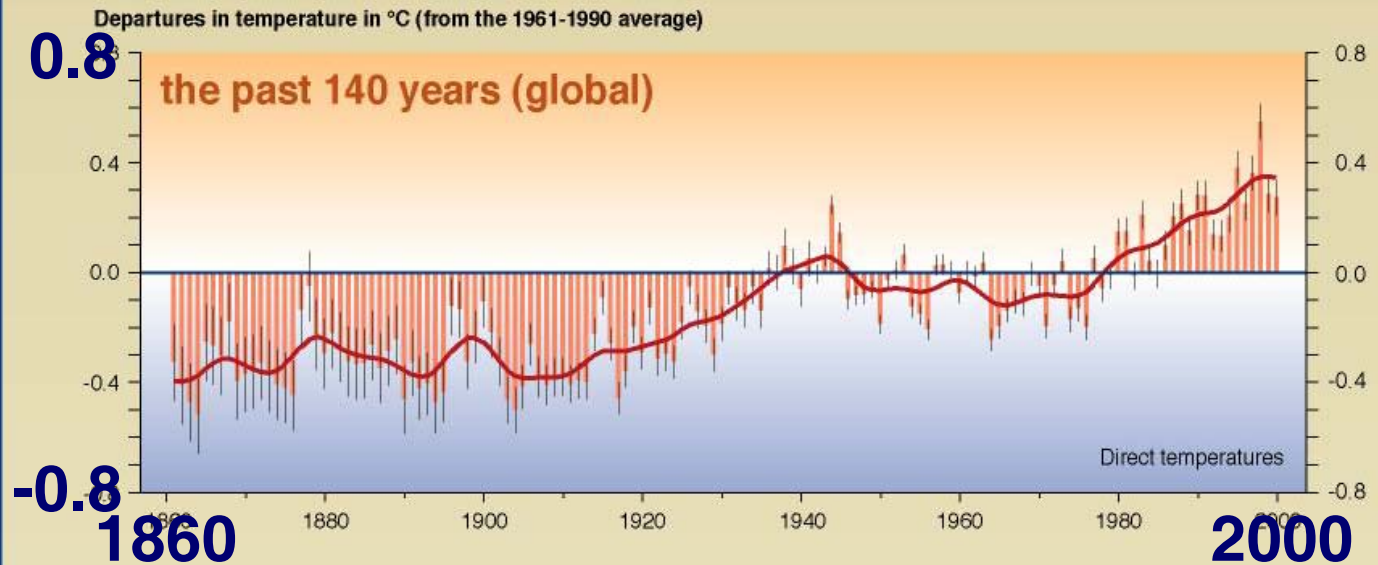
Earth system

- composed of 4 interacting parts driven by solar energy:
 - Atmosphere
 - Hydrosphere
 - Solid earth
 - Biota
- Climate
- Climate variability (El Niño)
- Climate change (global warming)

Short term climate change:

Earth's
surface
temp. incr.
by 0.7
°C/century

Variations of the Earth's surface temperature for...



- **Cooling in 1950s-1960s => fear of coming ice age!**
- **Volcanic eruptions => drop in temp. for 3 years.**
- **Viking colony on Greenland lost by early 1400s.**
- **Little Ice Age in late 1500s.**

Holland in 1565 (Little Ice Age) (Pieter Bruegel)



Annual temperature trends: 1976 to 2000

