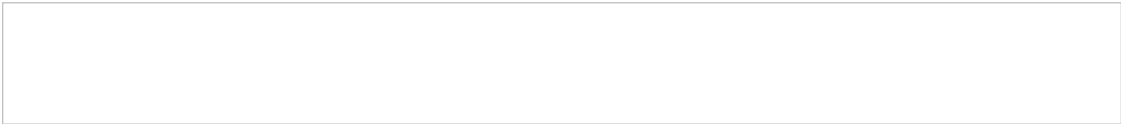


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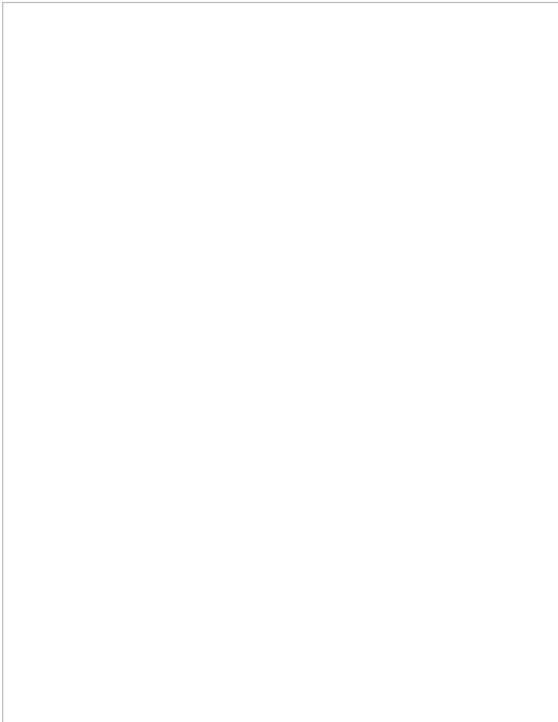
Oceans and Atmospheres

May 17-24, 2006

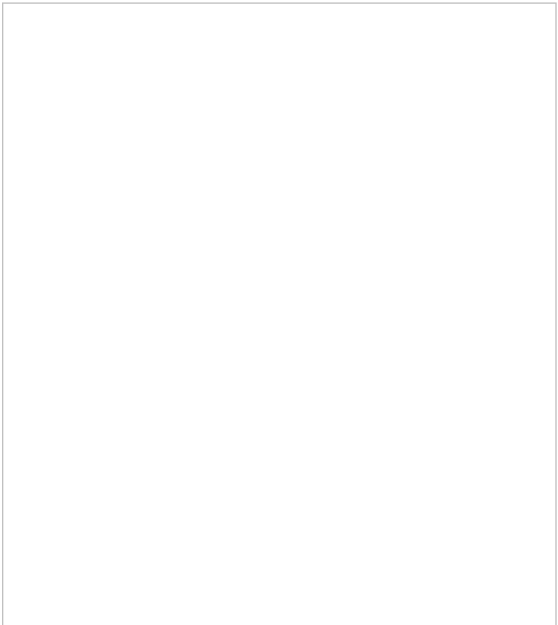
This is an intensive, one-week seminar with annually varying topics. It is designed for advanced graduate students, younger scholars, and also more established researchers in biology and the history and philosophy of science. The course is limited to approximately 20 participants, including discussion leaders.

The topic for 2006 is "Oceans and Atmospheres." The course will take an historical approach to exploring the fields of oceanography and meteorology, with special focus on their interaction. Oceanography and meteorology are preeminently interdisciplinary sciences. Both have large, complex domains as their objects of study, both grapple with the difficulty of "experiment" in the traditional sense of that term, and both have depended on large-scale data-gathering projects that rely on international cooperation or the substantial institutional support of nation-states. Moreover, the histories of oceanography and meteorology are closely inter-twined, involving scientists who worked at the intersection of both fields, cross-fertilization of technical perspectives, and a growing scientific and public awareness that the Earth's climate and biosphere depend on the interaction of the ocean and atmosphere.

Specific themes will include historiographical issues, histories of scientific institutions and



Artist's rendition of Aluminaut exploring the deep sea, 1961



Hurricane Anna - the first hurricane detected from an orbiting satellite, TIROS III

international projects, patronage, military influences, and the role of technology. Specific topics may include air/sea interaction, the general circulation, ENSO, biological oceanography and fisheries, and global change. Discussions will be led by invited historians, scientists, and philosophers. Readings and questions-to-ponder will be circulated in advance.

The Seminar in the History of Biology has been supported since 1989 by the Dibner Fund and the Dibner Institute. Organizers for 2006: Naomi Oreskes, University of California at San Diego; James Fleming, Colby College/Smithsonian Institution; and Erik Conway, Jet Propulsion Laboratory/Caltech.

SCHEDULE

Wed. May 17

7-8PM

Greetings (Maienschein & Smith)

Orientation (Oreskes, Fleming & Conway)

Introductions and Themes (including Patronage, Militarization, Control, Instruments, Resolution)

Thurs. May 18

9AM-12 Noon

Jankovic & Anderson - *18th-19th Century Meteorology*

2-5PM

Fleming - *Understanding and Controlling the Climate*

7-9PM - Informal Discussion

Fri. May 19

9AM-12 Noon

Finley & Rozwadowski - *Fish, An Unruly Biological Element of the Oceans*

2-5PM

Rainger - *Patronage, Identity, and the Changing Contexts of American Oceanography*

7-9PM - Informal Discussion

2006 Session Descriptions & Readings:

Session #1 - **Janovic/Anderson**
Eighteenth- and Nineteenth-Century Meteorology

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Download Readings (PDF)
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[1.2](#) / [1.3](#) / [1.4](#) / [1.5](#)

Session #2 - **Fleming**

Understanding and Controlling the Climate

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Session #3 -

Finley/Rozwadowski

Fish, An Unruly Biological Element of the Oceans

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Session #4 - **Rainger** -

Patronage, Identity, and the Changing Contexts of American Oceanography

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[4.2](#) / [4.3](#)

Session #5 - **Emanuel** -

Tropical Cyclones and Earth's Atmosphere

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Session #6 - **Oreskes/Wunsch**

Download Description (PDF)

Required [6.2](#) / [6.3](#) / [6.4](#) / [6.5](#) /

Sat. May 20

9AM -12Noon

Emanuel - *Tropical Cyclones and Earth's Atmosphere*

2-9 PM - OUTING

Sun. May 21

11AM-12 Noon - Brunch

12-3PM

Oreskes & Wunsch - Thermo-Haline Circulation

3:30-6:30PM

Parker - *Modeling the Atmosphere and Climate System*

7-9PM - Dinner and Informal Discussion

Mon. May 22

9AM-12 Noon

Cushman - *El Nino and Tropical Science*

2-5PM - Reflections by Participants

7-9PM - Informal Discussion

Tues. May 23

9AM-12 Noon

Conway - *Remote Sensing/Data Collection*

2-5PM

Somerville - *Intergovernmental Panel on Climate Change (IPCC)*

7-9PM - Summary and Synthesis

Wed. May 24 - Departures

[Download a PDF of the poster here](#)

For further inquiries, contact Dawn Davis Loring at dloring@mit.edu or 617-253-8721.

Seminar Directors :

John Beatty, *University of British Columbia*,
john.beatty@ubc.ca

James Collins, *Arizona State University*,
jcollins@asu.edu

6.6 (coming soon) / [6.7](#) / [6.8](#) / [6.9](#) / [6.10](#)

Further [6.11](#) / [6.12](#) / [6.13](#) / [6.14](#) / [6.15](#) / [6.16](#) / [6.17](#)

Session #7 - **Parker** - *Modeling the Atmosphere and Climate System*

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Session #8 - **Cushman** - *El Nino and Tropical Science*

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Session #9 - **Conway** - *Remote Sensing/Data Collection*

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Session #10 - **Somerville**
Intergovernmental Panel on Climate Change (IPCC)

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Jane Maienschein, *Arizona State University*,
maienschein@asu.edu

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