

XV. Oceanography- Government

Section XV of the Modifications of Activities Planned for 2007-2008 presents final information regarding United States Antarctic Program sponsored oceanographic expeditions during the 2007-2008 season.

For actual tracks of the Research Vessels Nathaniel B. Palmer and Laurence M. Gould please see Attachment C, Cruise Tracks.

R/V Nathaniel B. Palmer

The R/V *Nathaniel B. Palmer* made six science cruises during the period of 31 March 2007 through 31 March 2008. Cruises are:

Cruise NBP07-04

10 May 2007 – 19 May 2007 Punta Arenas, Chile

Open Period

Cruise NBP07-05, NBP07-06, and NBP07-07

20 June 2007- 22 July 2007

Transit to Drydock, Drydock period in Talcabnano, Chile and Transit back to Punta Arenas

Cruise NBP07-08

23 July-27 August 2007 Punta Arenas, Chile

Open Period

Cruise NBP07-09

01 September-31 October 2007

SIMBA (sea ice mass balance in the Antarctic)

O-270-N (Ackley)

Cruise NBP07-10

05 November-24 November 2007

Dynamics and transport of the Antarctic Circumpolar Current in Drake Passage

O-313-N (Chereskin)

Cruise NBP07-11

29 November-12 December 2007

Collection of marine geophysical data on transits of the R/V Nathaniel B. Palmer

G-071-N ((Stock/Cande)

Cruise NBP08-01

01 January -23 January 2008

Do crustacean zooplankton play a pivotal role in structuring heterotrophic plankton communities?

B-245-N (Caron)

Cape Adare Long-term Mooring (CALM)

O-399-N (Huber)

Cruise NBP08-02

23 January-14 February 2008

Do crustacean zooplankton play a pivotal role in structuring heterotrophic plankton communities?

B-245-N (Caron)

Ross-Sea outer continental shelf morphology and near-surface stratigraphy: Quaternary ice-sheet grounding-zone migrations and the LGM dilemma

G-154-N (Bart)

Cruise NBP08-03

15 February-17 March 2008

Ross-Sea outer continental shelf morphology and near-surface stratigraphy: Quaternary ice-sheet grounding-zone migrations and the LGM dilemma

G-154-N (Bart)

Cruise NBP08-04

20 March-11 April 2008 Transit Lyttelton, New Zealand to Punta Arenas, Chile

Biology & Medicine

Principal Investigator	Event	Institution
Dr. Dave Caron	B-245-N	University of Southern California

Oceans and Climate

Principal Investigator	Event	Institution
Dr. Steven Ackley	O-270-N	University of Texas, San Antonio
Dr. Teresa Chereskin	O-313-N	University of California San Diego
Dr. Bruce Huber	O-399-N	Lamont-Doherty Earth Observatory

Geology & Geophysics

Principal Investigator	Event	Institution
Dr. Joann Stock	G-071-N	California Institute of Technology
Dr. Steve Cande	G-071-N	University of California, San Diego
Dr. Philip Bart	G-154-N	Louisiana State University Baton Rouge

R/V *Laurence M. Gould*

The R/V *Laurence M. Gould* made five science cruises, four Palmer Station opening/ transports and one Haz Waste transport in the Antarctic Peninsula during the period of 23 March 2007 through 31 March 2008.

Cruise LMG07-04

23 March 2007-06 April 2007

Palmer Shuttle and Palmer Turnover

Cruise LMG07-05 and LMG07-06

11 April 2007-05 May 2007 and 12 May 2007-03 June 2007

Differential Expression of Oxygen-Binding Proteins in Antarctic Fishes Affecting Nitric Oxide-Mediated Pathways of Angiogenesis and Mitochondrial Biogenesis

B-036-L (Sidell)

Habitat Utilization of Southern Ocean Seals: Foraging Behavior of Crabeater and Elephant Seals Using Novel Methods of oceanographic Data Collection

B-232-L (Costa)

Cruise LMG07-07 and LMG07-08

07 June 2007-22 June 2007 and 25 June 2007-19 July 2007

Hazardous Waste Shuttles

Cruise LMG07-09 this cruise number was not used/assigned

Cruise LMG07-10

Drydock 20 July 2007-11 August 2007

Fourchon, Louisiana

Cruise LMG07-11

11 August 2007-08 September 2007

Southbound Transit through Panama Canal to Punta Arenas, Chile

Cruise LMG07-12

13 September 2007-27 September 2007

Palmer Station Opening

Cruise LMG07-13

02 October 2007-14 October 2007

*Foraging behavior and demography of *Pygoscelis penguins**

COPA Opening B-040-E (Trivelpiece)

Cruise LMG07-14

19 October 2007-30 October 2007

Open Period Punta Arenas, Chile

Cruise LMG07-15

04 November 2007-16 November 2007

Cape Shireff Opening and Petermann Island Put-in

Cruise LMG07-16

17 November 2007-25 November 2007

Open Period

Cruise LMG07-17

26 November 2007-22 December 2007

*Search for Late Mesozoic Vertebrate Fossils and research on Late Mesozoic Climatic Conditions
at Livingston Island in the South Shetland Group*

G-170-E (McPhee)

Cruise LMG08-01

01 January 2008-09 February 2008

*Long Term Environmental Research (LTER), Climate Migration, Ecological Response and
Teleconnections in an Ice-dominated Environment (Prey Component)*

B-028-L (Ross-Quetin)

B-013-L (Fraser)

B-016-L (Vernet)

B-021-L and O-241-L (Martinson)

B-032-L (R.Smith)

B-045-L (Ducklow)

Cruise LMG08-02

15 February 2008-14 March 2008

*Benthic Faunal Feeding Dynamics on the Antarctic Shelf and the Effects of Global Climate
Change on Benthic-pelagic coupling*

B-237-L (DeMaster)

(Petermann Island pickup)

Cruise LMG08-03

19 March 2008-01 April 2008

Palmer Station Turnover

Biology & Medicine

Principal Investigator	I.D. No.	Institution
Dr. Robin Ross-Quetin	B-028-L	University of California, Santa Barbara
Dr. Wayne Trivelpiece	B-040-L	Antarctic Ecosystem Research Center (AMLR)
Dr. William Fraser	B-013-L	Polar Oceans Research Group
Dr. Hugh Ducklow	B-045-L	Va. Institute of Marine Science
Dr. Raymond Smith	B-032-L	University of Calif., Berkeley
Dr. Maria Vernet	B-016-L	University of Calif., San Diego
Dr. Langdon Quetin	B-028-L	University of Calif., Santa Barbara
Dr. Doug Martinson	B-021-l	LDEO, Columbia University
Dr. Bruce Sidell	B-036-L	University of Maine
Dr Daniel Costa	B-232-L	University of California, Santa Cruz
Dr David DeMaster	B-237-L	North Carolina State University

Ocean & Climate

Principal Investigator	I.D. No.	Institution
Dr. Doug Martinson	O-241-L	LDEO, Columbia University

Geology & Geophysics

Principal Investigator	I.D. No.	Institution
Dr. Ross McPhee	G-170-E	American Museum of Natural History