XV. Oceanography- Government

Section XV of the Modifications of Activities Planned for 2004-2005 presents final information regarding United States Antarctic Program sponsored oceanographic expeditions during the 2004-2005 season.

Note: 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 30 March 2004 through 31 March 2005. Cruises are:

Cruise NBP04-03

15 Apr – 11 May 2004 Transit Lyttelton, NZ to Punta Arenas, Chile

Late Cretaceous and Cenozoic Reconstructions of the Southwest Pacific

G-071-N (Stock)

Cruise NBP04-04

17 May – 17 Jul 2004 Punta Arenas, Chile to Cape Town South Africa

International Collaborative Expedition to Collect and Study Fish Indigenous to Sub-Antarctic Habitats (ICEFISH)

B-039-N (Detrich)

Cruise NBP04-05

22 Jul – 26 Jul 2004

Sea Trials: Dynamic Positioning Systems/SIMRAD

Cruise NBP04-06

31 Jul – 02 Sep 2004 Cape Town, South Africa to Lyttelton, New Zealand

Late Cretaceous and Cenozoic Reconstructions of the Southwest Pacific

G-071-N (Stock)

Cruise NBP04-06A

03 Sep – 23 Sep 2004

Transit to Auckland, NZ Drydock

Cruise NBP04-07

24 Sep – 29 Oct 2004

DP System and ADCP Sea Trials

Cruise NBP04-08

6 Oct – 10 Dec 2004

Collaborative Research: Cross-slope exchanges at the Antarctic Slope Front (ANSLOPE)

O-215-N (Gordon)

Mysticete whale acoustic census in the GLOBEC west Antarctic project area

B-280-N (Thiele)

Cruise NBP04-09 Lyttelton, New Zealand to McMurdo Station

15 Dec, 2004 – 23 Jan, 2005

Impact of solar radiation and nutrients on biogeochemical cycling of DMSP and DMS in the Ross Sea

B-266-N (Kieber)

Comparative and quantitative studies of protistan molecular ecology and physiology in coastal Antarctic waters

B-207-N (Gast)

Ultraviolet radiation induced changes in the patterns of production and biochemical composition of Antarctic marine phytoplankton

B-206-N (Goes)

Interactive effects of UV and vertical mixing on phytoplankton and bacterioplankton in the Ross Sea

B-203-N (Neale)

Interactive effects of UV and vertical mixing on phytoplankton and bacterial productivity of Ross Sea Phaeocystis Bloom

B-200-N (Jeffrey)

Impact of solar radiation and nutrients on biogeochemical cycling of DMSP and DMS in the Ross Sea

B-002-N (Kiene)

Cruise NBP05-01 depart McMurdo, arrive Lyttelton, New Zealand

Transit

Cruise NBP05-01B depart/arrive Lyttelton, New Zealand

3 Mar – 25 Mar 2005

Late Cretaceous and Cenozoic Reconstructions of the Southwest Pacific

G-071-N (Stock)

Biology & Medicine

Principal Investigator	Event	Institution
Dr. Ronald P. Kiene	B-002-N	University of South Alabama
Dr. William Detrich	B-039-N	Northeastern University
Dr. Wade Jeffrey	B-200-N	University of West Florida
Dr. Patrick Neale	B-203-N	Smithsonian Institute
Dr. Joaquim Goes	B-203-N	Bigelow Marine Laboratory
Dr. Rebecca Gast	B-207-N	Woods Hole Oceanographic Institution
Dr. David Kieber	B-266-N	State University of New York, Syracuse
Dr. Deborah Thiele	B-280-N	Deakin University

Oceans and Climate

Principal Investigator	Event	Institution
Dr. Arnold Gordon	O-215-N	Columbia University, LDEO

Geology & Geophysics

Principal Investigator	Event	Institution
Dr. Joann Stock	G-071-0	California Institute of Technology

R/V Laurence M. Gould

The *R/V Laurence M. Gould* made seven science cruises and three passenger transports to the Antarctic Peninsula during the period of 31 March 2004 through 31 March 2005.

Cruise LMG04-04

16 Apr – 27 May, 2004

Collaborative research: Paleohistory of the Larsen Ice Shelf Phase II

G-096-L (Domack)

Consortium on the Ocean's Role in Climate (CORC) AbRupt climate ChangE Studies (ARCHES)

G-124-L (Visbeck)

Cruise LMG04-05

14 May – 27, May 2004

Palmer Station Shuttle

Cruise LMG04-08

Northbound Hazardous Waste Run to Fourchon, LA

30 Jun – 27 Jul 2004

Cruise LMG04-09

28 Jul – 18 Aug 2004

Maintenance Period/Drydock Port Fourchon, LA

Cruise LMG04-10

19 Aug – 23 Sep 2004

Southbound Transit to Talcahuano and Punta Arenas, Chile

Cruise LMG04-11

28 Sep – 12 Oct, 2004

Palmer Station Opening

Tracers of biological productivity and gas exchange

O-271-L (Emerson)

Cruise LMG04-12

17 Oct – 30 Oct 2004

Foraging Behavior and Demography of Pygoscelis Penguins

(COPA Field Camp)

B-040-E (Trivelpiece)

Cruise LMG04-13A

6 Nov – 18 Nov, 2004

Long-Term Data Collection at Select Antarctic Peninsula Visitor Sites

(Cape Shirreff Field Camp Put-in/Opening)

B-086-E (Naveen)

Cruise LMG04-14

23 Nov – 22 Dec, 2004

Relevance of planktonic larval dispersal to endemism an dbiogeography of antarctic benthic invertebrates

B-281-L (Halanych)

Salpa thompsoni in the Southern Ocean: Bioenergetics, population dynamics and biogeochemical impact

B-307-L (Kremer)

Cruise LMG05-01

29 Dec, 2004 – 6 Feb, 2005

Palmer Long Term Ecological Research (LTER) Project: Climate migration, ecological response and teleconnections in an ice-dominated environment

B-028-L (Ross-Quetin) B-045-L (Ducklow)

Distribution and ecology of ammonia oxidizing bacteria in the Palmer LTER study area

B-114-L (Hollibaugh)

Cruise LMG05-02

11 Feb, 2005 – 11 March 2005

Collaborative research: Paleohistory of the Larsen Ice Shelf Phase II

G-096-L (Domack)

Cruise LMG05-03

15 Mar, 2005 – 29 Mar, 2005

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. Hugh Ducklow	B-045-L	Virginia Institute of Marine Sciences
Dr. Ron Naveen	B-086-E	Oceanites, Inc.
Dr. James Hollibaugh	B-114-L	University of Georgia
Dr. Kenneth Halanych	B-281-L	Auburn University
Dr. Patricia Kremer	B-307-L	University of Connecticut

Geology and Geophysics

Principal Investigator	I.D. No.	Institution
Dr. Eugene Domack	G-096-L	Hamilton College
Dr. Martin Visbeck	G-124-L	Leibniz Institute of Marine Sciences

Ocean & Climate

Principal Investigator	I.D. No.	Institution
Dr. Steven Emerson	O-271-L	University of Washington