

THE JOINT RUSSIAN-AMERICAN LONG-TERM CENSUS OF THE ARCTIC (RUSALCA)

Cruise Report Joint Bering Strait / Chukchi Sea Expedition 23-30 August 2006

Goals of the Expedition

The expedition had the primary goal of recovering the three moorings (A1-1, A1-2 and A1-3) that were deployed in western Bering Strait in August 2005 and to deploy three replacement moorings in similar locations. A secondary goal was to collect CTD profiles/water samples/benthic samples across both US and Russian territorial waters of Bering Strait, a northern transect from Point Hope to Cape Netten and a transect across the southern part of Bering Strait from Point Seroy to Cape York.

Cruise Participants	Citizenship	Institution
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Hydrographic Liason and Chiefs of Expedition

Vladimir Smolin	Russia	State Navigation and Hydrographic Research Institute of the Ministry of Defense of the Russian Federation
Fedor Guskov	Russia	State Navigation and Hydrographic Research Institute
Timofey Gromnickiy	Russia	Representative of Naval Hydrometeorological Service
Sergey Pavlov	Russia	Representative of Russian Federation
Konstantin Khomenja	Russia	Naval Supervisor

Benthic Processes- Infauna

Vladislav Dzurinsky	Russia	St. Petersburg Zoological Institute
Olga Golovan	Russia	St. Petersburg Zoological Institute

Geological Processes

Boris Lee	Russia	Pacific Oceanological Institute
Maxim Ivanov	Russia	Pacific Oceanological Institute

Water Sampling and CTD Measurements

Terry Whitledge, Chief Scientist	USA	University of Alaska Fairbanks
Sarah Thornton	Canada	University of Alaska Fairbanks

Moorings and CTD Measurements

David Leech	USA	University of Alaska Fairbanks
Alexander Ipatov	Russia	Arctic Antarctic Research Institute

CTD Hydrographic and Bottom Sampling Surevy

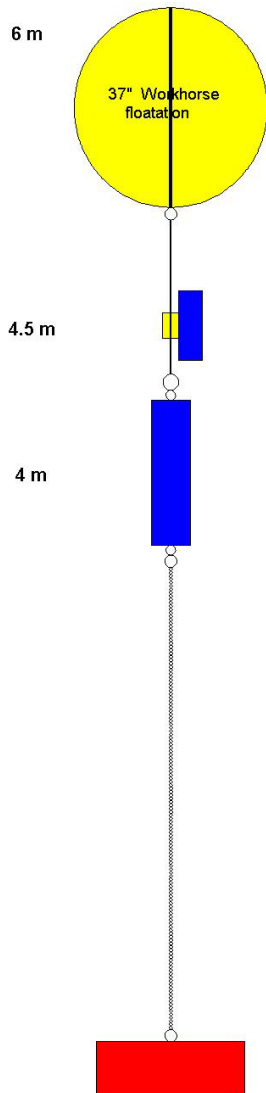
After mooring recoveries and deployments were accomplished four transects of CTD/water sampling and bottom sampling were taken in the study area (See table of sampling stations). The first transect of 17 stations was taken across Bering Strait with only CTD/water sampling. The second transect of seven stations across the Chukchi Sea was taken from Point Hope to Cape Netten with CTD/ water sampling and benthic sampling. The third transect of five stations was taken from Cape Netten to the northwest and included CTD/water sampling and benthic sampling. The final transect of seven stations was taken from Point Seroy to Cape York with only CTD/water sampling.

A SeaBird SBE25 CTD was lowered by the starboard winch with wire cable to approximately three meters above the bottom on each cast. A bottom-trip Niskin sampling bottle was hung below the CTD to obtain a near bottom water sample on each station. Two additional Niskin bottles were hung on the wire at approximately 15 and 30m depths on each station. A surface water sample was obtained on each station from a surface bucket. Nutrient and chlorophyll samples were taken from all water samples. The figure (red circles) shows the locations of the stations. The station depth was determined from the pressure sensor reading when the bottom water sampler tripped.

Three sediment were collected using a VanVeen type bottom grab at each station on two transects.

**RUSALCA 2006
Mooring A1-1**

Deployment 25 August 2006



RDI 300 kHz ADCP s/n 7967

SBE 37 MicroCat s/n 4942

EG&G 8242 s/n 31417
En: 474111
Dis: 474132
Rel: 451207

Anchor drop time: 1022 25 Aug. '06 GMT

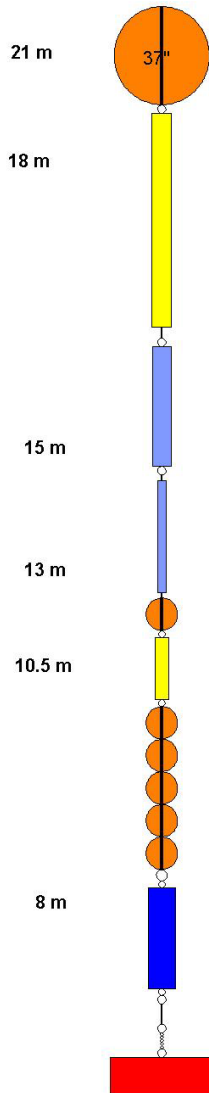
Position: 65 54.000 N, 169 25.783 W

Depth: 50.5 m

2 Railway Wheels

RUSALCA 2006
Mooring A1-2

Deployment 25 August 2006



AARI cm & ctd s/n 5 & 1336

ISIS s/n 098

SBE16plus s/n 4973
w/ flntus s/n 489

RCM-9 s/n 1173
w/turb. cond. temp & pres

EG&G 8242 s/n 31416
En: 471043
Dis: 474060
Rel: 451165


Anchor Drop Time: 1546 25 Aug. '06


Position: 65 55.982 N, 169 36.856 W


Depth: 50.5 m


RUSALCA 2006
Mooring A1-3

18 m  Deployment 25 August 2006

14.5 m  AARI cm & ctd s/n 2 & 1556

12.5 m  Aanderaa RCM-7 s/n 9513
w/ turb. cond. temp & P

10.5 m  SBE37 MicroCat s/n 4943 w/ P

7.5 m  EG&G 8242 s/n 30593
En: 136076
Dis: 136107
Rel: 135131

Anchor Drop Time: 2203 25 Aug. '06 GMT

Position: 65 51.764 N, 169 16.956 W

Depth: 50.5 m

 2 Railway Wheels

RUSALCA EXPEDITIONS 2004 - 2006

