

Excerpts from Clearance document.

The goal of the program is to: *provide a view of the stratification and shear at the meso and greater spatial scales of the various streams that feed into the DRI-focused Philippine Strait, as well as those within the Strait confines.* In so doing it provides information of the larger scale forcing of the South China Sea and Sulu Sea affecting the dynamics Philippine Strait. The regional study is carried out with an array of CTD and Lowered ADCP stations from the South China Sea into the Sulu Sea across the key straits and interior seas of the Philippines. A mooring recovery (deployed during the Joint Cruise, December 2007) may be done if this cruise is the last cruise in 2008 between Lee and Gordon. The schedule is still being negotiated.

3.3 Particulars of methods and scientific instruments		
Types of samples and data	Methods to be used	Instruments to be used
T, S, chlorophyll fluorometer, light attenuation (660nm), DOM fluorescence, dissolved oxygen profiles	Shipboard CTD profiling	Seabird CTD and rosette
Water velocity profiles	Ship-based surveys	Shipboard ADCP, lowered ADCP, GPS, GPS attitude
Meteorological variables (e.g. wind speed, heat flux, air temperature, etc)	Ship-based surveys	Shipboard meteorological sensors
Underway (UW) multibeam and single beam	Swath mapping Sub-Bottom Profiler	EM120 multibeam, 12khz and Knudsen 320 B 3.5 / 12
salinity, dissolved oxygen concentration and optical properties	autonomous underwater vehicles	seagliders
UW Mags if available.	Magnetometer deployment	Marine Magnetics total field gradiometer
UW Gravity if available	Gravimeter	Bell Gravimeter
T,S, water velocity	Profiling floats	EM-Apex floats
Water velocity profiles	Moored instruments (tentative – see sect. 4. Below)	Teledyne RD Instruments ADCP , McLane moored profiler

Details of installations and equipment (dates of laying, servicing, recovery; exact locations and depth):

1. Deployment of 4 EM-APEX floats at 4 of the 10 positions indicated on the attached chart and listed below. Choice of the 4 deployment sites will be made during the cruise, and will depend upon prevailing conditions and cruise track. The deployments will last 3-14 days. Recovery to be effected from *Melville*, or by small boat if floats drift into shallow water.

Likely float deployment positions:

12 49.67' N	120 36.93' E
10 16.57' N	121 42.55' E
9 44.89' N	124 51.89' E
10 39.00' N	121 45.00' E
13 00.00' N	120 15.00' E
13 00.11' N	122 28.10' E
10 06.00' N	121 00.00' E
9 40.51' N	121 40.12' E
8 47.71' N	122 44.02' E

11 34.56' N	121 24.68' E

2. A suite of moorings is scheduled to be deployed from the Joint cruise on *Melville* immediately preceding this one; however, if, for reasons of weather or other delays, some or all of the deployments can not be done on the Joint cruise, they will be done on the IOP Regional cruise.

Should the need arise, moorings will be deployed at some or all of the following locations:

ADCP moorings (to be recovered in 2009)

South Mindoro

- ♣ location: 11°16.651'N; 121°55.444'E
- water depth: ~578m
- deployment instrumentation:
Long Ranger ADCP, upward-looking at 565 m
SBE37SM (T-S): 575 m

Dipolog Sill:

- ♣ location: 8°51.910'N; 123°19.996'E
- water depth: ~ 504 m
- deployment instrumentation:
LR ADCP, upward looking at ~490 m
SBE37SM (T-S) 500 m

Surigao Strait

- ♣ recovery location: 10°26.063'N; 125°22.543'E
- recovery water depth: ~192 m
- deployment location: 9° 54'N; 125° 21' E (approx- check with Melville bathy)
- deployment water depth: 500 m (approx – check with Melville bathy)
- deployment instrumentation:
LR ADCP, upward looking at ~490 m
SBE37SM (T-S) 497 m

North Mindoro:

- ♣ location: 11°55'N; 121°4'E (approx)
- water depth: ~ 430 m (approx)
- deployment instrumentation:
2 WH300 ADCP, upward/downward looking at ~180 m
SBE37SM (T-S-p): 200 m, 300 m
SBE39 (T-p): 250 m, 350 m
SIO T: 370 m, 390 m, 410 m, 430 m

Tablas:

- ♣ location: 12°0'N; 121°48'E (approx)
- water depth: ~ 300 m (approx)
- deployment instrumentation:
2 WH300 ADCP, upward/downward looking at ~150 m
SBE37SM (T-S-p): 200 m, 250 m
SBE39 (T-p): 225 m, 275 m
SIO T: 287 m, 300 m

Moored profilers: (to be recovered in early March 2008)
(McLane moored profiler with up- and down-looking ADCP)

MP1 -
depth: 1850 m

location:

DECIMAL: 12.8278, 120.6155

DEG/MIN: 12-49.668', 120-36.930'

MP2

depth: 1500 m

DECIMAL: 10.2762, 121.7091

DEG/MIN: 10-16.572', 121-42.546