

ORV SAGAR KANYA

CRUISE REPORT

SK 326

Submitted to
NATIONAL CENTRE FOR ANTARCTIC & OCEAN RESEARCH,
HEAD LAND SADA, MORMUGAO, GOA,
As per ORV Sagar Kanya Annual Maintenance Contract
With
Ministry of Earth Science, New Delhi

By

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Vessel : ORV. Sagar Kanya.

Cruise No : SK 326.

Chief Scientist : Dr B. Praveen Kumar

Objective : INCOIS & NIOT Mooring Operations,
Argo Deployments & Upper Ocean
Survey in Northern Bay of Bengal

Institution : INCOIS, NIOT, IISc Bangalore, IIT
Bhubaneswar, SAC Ahmedabad,
TIFR Hyderabad &
WHOI USA.,

Embarkation : Chennai, Tamilnadu.

Disembarkation : Chennai, Tamilnadu.

Period : 23.01.2016 to 08.02.2016.

Participants : G.Mahadevan
P. Madhan kumar
Parshuram Madar
M. Ramesh
R. Prakash

A: Chemical / Analytical Instruments:

A 01	UV Oxidation Unit	Maintenance Schedule: Date & Service: 24.01.2016 : QS
Service carried out and Remarks: 24.01.2016: Quarterly maintenance carried out as per the schedule. The equipment is operational.		

A 04	Water Purifying System	Maintenance Schedule: Date & Service: 24.01.2016 : MS
Service carried out and Remarks: 24.01.2016: Monthly maintenance carried out as per the schedule. The equipment is operational.		

A 06	pH Meter	Maintenance Schedule: Date & Service: 23.01.2016} 30.01.2016} 06.02.2016}: WS
Service carried out and Remarks: 23.01.2016} 30.01.2016} 06.02.2016}: Weekly service carried out on these days as per the schedule.		

A 08.	UV Chamber, UV Lamp	Maintenance Schedule: Date & Service: 25.01.2016: MS
Service carried out and Remarks: 25.01.2016: Monthly maintenance carried out as per the schedule and the equipment is operational.		

B: Geological / Geological Instruments:

B 01.	Gravity Corer	Maintenance Schedule: Date & Service: 06.02.2016: MS
Service carried out and Remarks: 06.02.2016: Monthly maintenance carried out as per the schedule and the equipment is operational.		

B 03.	Rock Saw Unit	Maintenance Schedule: Date & Service: 04.02.2016: MS
Service carried out and Remarks: 04.02.2016: Monthly service carried out as per the maintenance schedule. The equipment is operational.		

B 04.	Liner Saw Unit	Maintenance Schedule: Date & Service: 04.02.2016: MS
Service carried out and Remarks: 04.02.2016: Monthly service carried out as per the maintenance schedule. The equipment is operational.		

B 13.	Deep Sea Echo sounder + Repeaters	Maintenance Schedule: Date & Service: 07.02.2016: MS
Service carried out and Remarks: Deep sea echosounder was used during the cruise and data was recorded. On completion of the cruise the recorded data was copied on DVD. On 05.02.2016, DSES monitor got problem as there was no display on the monitor. Alternately we removed one of the repeaters from winch control room and fitted onto the DSES cabinet and the equipment is made operational and found working satisfactorily. The defective monitor details are mentioned below. Make: ACNODES Model No: RM6170 SI no: 13225445. 07.02.2016: Monthly maintenance carried out as per the schedule and the equipment is operational.		

B 14.	Shallow Water Echo sounder + Repeaters	Maintenance Schedule: Date & Service: 07.02.2016: MS
Service carried out and Remarks: 07.02.2016: Monthly maintenance carried out as per the schedule and the equipment is partially operational.		

B 15	Multi Beam Echo Sounder	Maintenance Schedule: Date & Service: Operation
Service carried out and Remark: On 04.02.2016 the system was used for surveying the NIOT BD11 location and operational status of the equipment is satisfactory.		

B 16.	SBP	Maintenance Schedule: Date & Service: Operation
Service carried out and Remarks: The system was switched ON throughout the cruise and data was recorded. On completion of the cruise, data was copied on DVD.		

C: Oceanography/Metrology/Biology Equipment:

C 05.	Niskin Sampler 1.7Ltrs	Maintenance Schedule: Date & Service: Operation
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Service carried out and Remarks:
 During CTD operation 4 Nos of 1.7 Ltrs Niskin sampler bottles were used for collecting water samples at different CTD locations. After water sampling, the bottles were cleaned with fresh water and secured.

C 17.	Thermosalinograph	Maintenance Schedule: Date & Service: Operation
Service carried out and Remarks: Thermosalinograph was used during entire period of the cruise and data was recorded. The recorded data was processed and copied on CD. At the end of the cruise the sensors were flushed with fresh water.		

D: Auxiliary / General Equipment:

D 01	GPS + Power Supply	Maintenance Schedule: Date & Service: Operation.
Service carried out and Remarks: GPS was used throughout during the cruise and navigational data was made available to all under way equipments (DSES, CTD, TSG, and SBP). The equipment is operational.		

D 02	CCTV	Maintenance Schedule: Date & Service: 06.02.2016: MS
Service carried out and Remarks: CCTV was used throughout the cruise for monitor various activities onboard. 06.02.2016: Monthly maintenance carried out as per the schedule and the equipment is operational.		

D 03.	Refrigerators	Maintenance Schedule: Date & Service: 23.01.2016} 30.01.2016} 06.02.2016}: WS
Service carried out and Remarks: 23.01.2016} 30.01.2016} 06.02.2016}: Weekly service carried out on these days as per the schedule. Except WetLab STBD side all other refrigerators are operational.		

D 04.	Dry Ovens	Maintenance Schedule: Date & Service: 27.01.2016: QS
Service carried out and Remarks: 27.01.2016: Quarterly maintenance carried out as per the schedule and unit is operational.		

D 06	Meter Wheel Unit	Maintenance Schedule: Date & Service: Operation
Service carried out and Remark: Forward and Aft Pulleys were used during CTD operation and the performance was satisfactory Except cable payout unit, both pulleys are operational.		

D 07	Personal Computer / Server & Peripherals (12 CPUs, 15 monitors)	Maintenance Schedule: Date & Service: 28.01.2016: MS	
Service carried out and Remarks: The following computers are available onboard and their status are as follows:			
Sl. No	PC	Loc: / Dedicated to	Status / Remarks
01	Computer: 01 Make: Lenovo Think Centre. M/N: 8811-FRA. S/N: L9AM500. Monitor: 01 Lenovo Think Vision	Chief scientist Cabin	Operational
02	Computer: 02 Make: Lenovo Think Centre P/N: MT-M 8811-FR8 S/N: L9AM507 Monitor: 02 Make: HPLE1851W. P/N: NK033A. S/N: CNC102QH7B	Met Lab / AWS	Operational
03	Computer: 03 Make: HP Compaq 8100. P/N: XT767PA#ACJ. S/N: INA109VJRJ. Monitor: 03 Make: HP LE1851w. P/N: NK033A. S/N: CNC102QH85.	Met Lab / General Purpose	Operational
04	Computer: 04 Make: HP Compaq 8100 P/N: XT767PA#ACJ S/N: INA109VJYS Monitor: 04 Make: HP LE1851w. P/N: NK033A. S/N: CNC102QH1.	Dry-Lab Port / Thermosalinograph	Operational
05	Computer: 05 Make: HP Compaq 8100 P/N: XT767PA#ACJ	Dry-Lab Port /	Operational

	<p>S/N: INA109VJRR Monitor: 05 Make : Acer Model : V193HQL Version : V193HQL H6 P/N : VM.XV3SS.HO1 S/N : MMLKESS0063010C9938507</p>	CTD	
06	<p>Computer: 06 Make: Lenovo Think Centre. M/N: 8811-FRA. S/N: L9AM534. Monitor: 06 Make :AOC Model No. TFT185W80PS S/N:AOCWSM5NA1802098</p>	<p>Dry-Lab Port/ ADCP</p>	Operational
07	<p>Computer: 07 Make: HP Compaq 8100. P/N: XT 767PA#ACJ S/N: INA109VJWD. Monitor: 07 Make: HP LE1851w. P/N: NK033A. S/N: CNC102QHM3.</p>	<p>Dry-Lab Port / Magnetometer</p>	Operational
08	<p>Computer: 08 Make: Lenovo Think Centre. M/N: 8811-FRA. S/N: L9AM499. Monitor: 08 Make: HP LE1851w. P/N: NK033A. S/N: CNC102QH7K.</p>	<p>Dry Lab Stbd / Echo sounder</p>	Non-Operational
09	<p>Computer: 09 Make: HP Compaq 8100. P/N: XT767PA#ACJ. S/N: INA109VJKN. Monitor: 09 Make: HP LE1851w. P/N: NK033A. S/N: CNC102QFYF.</p>	Conference room	Operational
10	<p>Computer: 10 Make: HP Compaq 8100. P/N: XT767PA#ACJ. S/N: INA109VJYM. Monitor: 10 AOC. 18.5' Wide LED P/N. e950Sw Model No.185LM00013 S/N: AOCAR96C3052436</p>	Photo Lab	Operational

11	<p>Computer: 11 Make: Lenovo Think Centre M/N: 8811-FRA. S/N: L9AM498</p> <p>Monitor: 11 Make: Lenovo Model: 9227-AD1 Serial Number: VIA2955</p>	Photo Lab	Operational
12	<p>Computer: 12 Make: Zebronics. Model: Elegance.</p>	Photo Lab	Operational
13	<p>Computer: 13 Make: XTECH.</p>	Photo Lab	Operational
Monitors			
14	<p>Monitor:12 Make: Lenovo Think Vision Model: 9227 AD1. S/N: V1A2976.</p>	Wheel House	Operational. This is connected with wheel house deep sea echo sounder repeater.
15	<p>Monitor:13 Make : AOC S/N: AOCWSM5NA1801905</p>	Dry Lab Stbd / SWES	Operational. This is connected with SWES
<p>Except One Lenovo system assigned to echosounder all other systems are operational.</p> <p>28.01.2016: Monthly maintenance carried out as per the schedule. Except Server, CPU #08 and Monitor #05 all other systems are operational</p>			

D 08	LAN	Maintenance Schedule: Date & Service: 29.01.2016: MS
Service carried out and Remarks: 29.01.2016: Monthly maintenance carried out as per the schedule and the LAN is operational.		

D 09	Printers	Maintenance Schedule: Date & Service: 30.01.2016: MS
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Service carried out and Remarks: The following printers are available onboard and their status are as follows:			
No	Make of the printer	Location	Status / Remarks
1	HP LaserJet P 2015dn	CS Cabin	Used, Operational
2	HP LaserJet P 1007	Met Lab	Used ,Operational
3	HP LaserJet P 1007	Photo Lab	Operational
4	HP LaserJet P 1007	Photo Lab	Operational
5	HP LaserJet CP 1525n	Conference Room	Used ,Operational
6	HP LaserJet P 2015dn	CTD Lab	Used, Operational
7	HP LaserJet 1150	Photo Lab	Operational
8	HP LaserJet 1150	Tape Store	Operational, Cover broken
9	HP LaserJet 1150	Tape Store	Operational
30.01.2016: Monthly maintenance carried out as per the schedule and all Printers are operational.			

D 10.	External CD Writer	Maintenance Schedule: Date & Service: 01.02.2016: MS
Service carried out and Remarks: 01.02.2016: Monthly maintenance was carried out as per the schedule and the CD Writer is operational.		

D 11.	Scanner	Maintenance Schedule: Date & Service: 01.02.2016: MS
Service carried out and Remarks: 01.02.2016: Monthly maintenance was carried out as per the schedule and the Scanner is operational.		

D 12.	Plotter HP DesignJet 1050C Plus	Maintenance Schedule: Date & Service:
Service carried out and Remarks: The system is offloaded from the ship as it was non operational and repairing of the system is in progress through OEM service team		

D 18.	Dynamic Positioning System & All sub - Units	Maintenance Schedule: Date & Service: 27.01.2016: MS
Service carried out and Remarks : 27.01.2016: Monthly service was carried out as per the maintenance schedule. The equipment is operational.		
On 31.01.2016 DGPS subscription (Sl.No: 272286) was expired. It was renewed on 02.02.2016. The DGPS subscription expires on 29/02/2016.		
The DP was used during the CTD and Mooring Operations. On 04.02.2016 during retrieval operations the rope was entangled with BT. After that BT was not functioning. This will be attended in next port call.		
Though the system was operational, the following sub unit is non-functional and need		

replacement:

1. Portside Wind sensor.

D 19.	HI-PAP	Maintenance Schedule: Date & Service: 27.01.2016: MS
Service carried out and Remarks : 27.01.2016: Monthly service was carried out as per the maintenance schedule. The equipment is operational.		

D20.	Deck Crane	Maintenance Schedule: Date & Service: 26.01.2016: QS
Service carried out and Remarks: 26.01.2016: Quarterly service carried out as per the maintenance schedule. The equipment is operational.		
Crane was used for mooring operations both retrieval and deployment. This crane is operational.		

ADDITIONAL WORKS CARRIED OUT

	SBE 9/11plus CTD. (Deck unit SN: 11P61163-0862 / Underwater unit SN: 09P61163-1019).	Maintenance Schedule: Date & Service: operation
Service carried out and Remarks : During the cruise, CTD was operated at 10 stations and water samples have been collected. After every operation underwater unit was washed with fresh water and secured. While lowering we observed that FLUORESCENCE/Turbidity (SL No: FLNTURTD – 1095) values showing erratic reading. The Fluorescence sensor needs to be replaced. Along with SBE CTD, INCOIS portable CTD, RBR portable CTD and YSI mini portable CTD has been fixed on the frame and data has been collected.		

	CTD Winches (FWD & AFT)	Maintenance Schedule: Date & Service: operation
Service carried out and Remarks : Forward CTD winch was operated for the CTD operations. On 27.01.2016 the level winder problem persists and stopped working and CTD was manually brought back to deck. This was informed to ship staff and they made it ready on 28.01.2016. In FWD winch they changed the limit switch and “lead screw guide key”. In AFT winch they changed the limit switch and arrested the oil leakage. Both the winches are operational.		

For Norinco Private Limited

Chief Scientist

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