

ORV SAGAR KANYA

CRUISE REPORT

SK 328

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

NORINCO PRIVATE LIMITED  
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Vessel : ORV. Sagar Kanya.  
Cruise No : SK 328.  
Chief Scientist : Mr. D.Gowtham  
Objective : NIOT Mooring Operations  
Institution : NIOT  
Embarkation : Port Blair, Andaman  
Disembarkation : Chennai, TamilNadu  
Period : 16.03.2016 to 29.03.2016.  
Participants : G.Mahadevan  
P. Madhan kumar  
Parshuram Madar  
M. Ramesh  
R. Prakash

**A: Chemical / Analytical Instruments:**

<b>A 04</b>	<b>Water Purifying System</b>	Maintenance Schedule: Date & Service: 24.03.2016 : MS
Service carried out and Remarks: 24.03.2016: Monthly service carried out as per the schedule and the equipment is operational.		

<b>A 06</b>	<b>pH Meter</b>	Maintenance Schedule: Date & Service: 20.03.2016}: QS 27.03.2016}: WS
Service carried out and Remarks: 20.03.2016}: Quarterly service carried out as per the schedule. 27.03.2016}: Weekly service carried out as per the schedule and the equipment is operational.		

<b>A 08.</b>	<b>UV Chamber, UV Lamp</b>	Maintenance Schedule: Date & Service: 25.03.2016: QS
Service carried out and Remarks: 25.03.2016: Quarterly service carried out as per the schedule and the equipment is operational.		

**B: Geological / Geological Instruments:**

<b>B 13.</b>	<b>Deep Sea Echo sounder + Repeaters</b>	Maintenance Schedule: Date & Service: Operation
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.		

<b>B 15</b>	<b>Multi Beam Echo Sounder</b>	Maintenance Schedule: Date & Service: 16.03.2016: MS
Service carried out and Remark: The system was used for surveying the NIOT Tsunami & OMNI BUOY deployment and operational status of the equipment is satisfactory.  16.03.2016: Monthly service carried out as per the schedule and the equipment is operational.  On 18.03.2016 Post Processing PC Operating system not starting up due to corrupted OS. Tried to repair the OS but the status remains same. Then data were backed up and the PC was formatted. Reinstalled the OS and the Post Processing software, SQL server and configured. There after the system started working satisfactorily.		

<b>B 16.</b>	<b>SBP</b>	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.		

<b>B 17</b>	<b>Spade Corer</b>	Maintenance Schedule: Date & Service: 17.03.2016: YS
Service carried out and Remark: 17.03.2016: Yearly service carried out as per the schedule. The equipment is operational.		

<b>B 18.</b>	<b>Chain Bag Dredge</b>	Maintenance Schedule: Date & Service: 18.03.2016: YS
Service carried out and Remarks: 18.03.2016: Yearly service carried out as per the schedule and the equipment is operational.		

<b>B 20.</b>	<b>Deck Unit for Acoustic Release &amp; Transducer</b>	Maintenance Schedule: Date & Service: 19.03.2016 : QS
Service carried out and Remarks: 19.03.2016: Quarterly service carried out as per the schedule and the equipment is operational.		

<b>B 21.</b>	<b>Tension Meter for Winch</b>	Maintenance Schedule: Date & Service: 20.03.2016: MS
Service carried out and Remarks: 20.03.2016: Monthly service carried out as per the schedule and the equipment is operational.		

<b>B 22.</b>	<b>Sieve Shaker</b>	Maintenance Schedule: Date & Service: 21.03.2016 : MS
Service carried out and Remarks: 21.03.2016: Monthly service carried out as per the schedule and the equipment is operational.		

<b>C: Oceanography/Metrology/Biology Equipment:</b>
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<b>C 01.</b>	<b>Automatic Plankton Sampler</b>	Maintenance Schedule: Date & Service: 22.03.2016 : QS
Service carried out and Remarks: 22.03.2016: Quarterly service carried out as per the schedule and the equipment is operational.		

<b>C 05.</b>	<b>Niskin Sampler 1.7Ltrs</b>	Maintenance Schedule: Date & Service: 23.03.2016: QS
Service carried out and Remarks: 23.03.2016: Quarterly service carried out as per the schedule. The samplers are operational.		

<b>C 06.</b>	<b>Niskin Sampler 5Ltrs</b>	Maintenance Schedule: Date & Service: 24.03.2016 : QS
Service carried out and Remarks: 24.03.2016: Quarterly service carried out as per the schedule. The samplers are operational.		
<b>C 07.</b>	<b>Niskin Sampler 10Ltrs</b>	Maintenance Schedule: Date & Service: 23.03.2016 : QS
Service carried out and Remarks: 23.03.2016: Quarterly service carried out as per the schedule. The samplers are operational.		
<b>C 08.</b>	<b>Niskin Sampler 30Ltrs</b>	Maintenance Schedule: Date & Service: 24.03.2016: QS
Service carried out and Remarks: 24.03.2016: Quarterly service carried out as per the schedule and the samplers are operational.		
<b>C 09.</b>	<b>Go-Flo Sampler 30Ltrs</b>	Maintenance Schedule: Date & Service: 25.03.2016: QS
Service carried out and Remarks: 25.03.2016: Quarterly service carried out as per the schedule and all the units are operational.		
<b>C 11.</b>	<b>Bucket Thermometers</b>	Maintenance Schedule: Date & Service: 18.03.2016: MS
Service carried out and Remarks: 18.03.2016: Monthly service carried out as per the schedule and both units are operational.		
<b>C 13.</b>	<b>Barometer</b>	Maintenance Schedule: Date & Service: 19.03.2016: MS
Service carried out and Remarks: 19.03.2016: Monthly service carried out as per the schedule and the unit is operational.		
<b>C 17.</b>	<b>Thermosalinograph</b>	Maintenance Schedule: Date& Service: 18.03.2016: MS
Service carried out and Remarks: Thermosalinograph was used throughout the period and data was recorded. The recorded data was processed and copied on DVD. At the end of the cruise the sensors were flushed with fresh water. 18.03.2016: Monthly service carried out as per the schedule and equipment is operational.		
<b>C 20.</b>	<b>Rotary Shaker</b>	Maintenance Schedule: Date& Service: 22.03.2016: MS
Service carried out and Remarks: 22.03.2016: Monthly service carried out as per the schedule and the equipment is operational.		

**D: Auxiliary / General Equipment:**

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

<b>D 02</b>	<b>CCTV</b>	Maintenance Schedule: Date & Service:
Service carried out and Remarks: CCTV was used throughout the cruise for monitoring various activities onboard.		

<b>D 03.</b>	<b>Refrigerators</b>	Maintenance Schedule: Date & Service: 20.03.2016}: QS 27.03.2016}: WS
Service carried out and Remarks: 20.03.2016}: Quarterly service carried out as per the schedule. 27.03.2016}: Weekly service carried out on these days as per the schedule. Except WetLab STBD side all other refrigerators are operational.		

<b>D 06</b>	<b>Meter Wheel Unit</b>	Maintenance Schedule: Date & Service: 17.03.2016: QS
Service carried out and Remark: Forward Pulley was used during CTD & BPR deployment operation and the performance was satisfactory  17.03.2016: Quarterly service carried out as per the schedule and the equipment is operational. Except cable payout unit, both pulleys are operational.		

<b>D 07</b>	<b>Personal Computer / Server &amp; Peripherals (12 CPUs, 15 monitors)</b>	Maintenance Schedule: Date & Service: 28.03.2016: MS	
Service carried out and Remarks: The following computers are available onboard and their status are as follows:			
<b>Sl. No</b>	<b>PC</b>	<b>Loc: / Dedicated to</b>	<b>Status / Remarks</b>
01	<b>Computer: 01</b> Make: Lenovo Think Centre. M/N: 8811-FRA. S/N: L9AM500. <b>Monitor: 01</b> Lenovo Think Vision	Chief scientist Cabin	Operational
02	<b>Computer: 02</b>		Operational

	<p>Make: Lenovo Think Centre P/N: MT-M 8811-FR8 S/N: L9AM507 <b>Monitor: 02</b> Make: HPLE1851W. P/N: NK033A. S/N: CNC102QH7B</p>	Met Lab / AWS	
03	<p><b>Computer: 03</b> Make: HP Compaq 8100. P/N: XT767PA#ACJ. S/N: INA109VJRJ. <b>Monitor: 03</b> Make: HP LE1851w. P/N: NK033A. S/N: CNC102QH85.</p>	Met Lab / General Purpose	Operational
04	<p><b>Computer: 04</b> Make: HP Compaq 8100 P/N: XT767PA#ACJ S/N: INA109VJYS <b>Monitor: 04</b> Make: HP LE1851w. P/N: NK033A. S/N: CNC102QHX1.</p>	Dry-Lab Port / Thermosalinograph	Operational
05	<p><b>Computer: 05</b> Make: HP Compaq 8100 P/N: XT767PA#ACJ S/N: INA109VJRR <b>Monitor: 05</b> Make : Acer Model : V193HQL Version : V193HQL H6 P/N : VM.XV3SS.HO1 S/N : MMLKESS0063010C9938507</p>	Dry-Lab Port / CTD	Operational
06	<p><b>Computer: 06</b> Make: Lenovo Think Centre. M/N: 8811-FRA. S/N: L9AM534. <b>Monitor: 06</b> Make :AOC Model No. TFT185W80PS S/N:AOCWSM5NA1802098</p>	Dry-Lab Port/ ADCP	Operational
07	<p><b>Computer: 07</b> Make: HP Compaq 8100. P/N: XT 767PA#ACJ S/N: INA109VJWD. <b>Monitor: 07</b> Make: HP LE1851w. P/N: NK033A. S/N: CNC102QH3.</p>	Dry-Lab Port / Magnetometer	Operational

08	<p><b>Computer: 08</b>                  Make: Lenovo Think Centre.                  M/N: 8811-FRA.                  S/N: L9AM499.  <b>Monitor: 08</b>                  Make: HP LE1851w.                  P/N: NK033A.                  S/N: CNC102QH7K.</p>	Dry Lab Stbd /  Echo sounder	Non-Operational
09	<p><b>Computer: 09</b>                  Make: HP Compaq 8100.                  P/N: XT767PA#ACJ.                  S/N: INA109VJKN.  <b>Monitor: 09</b>                  Make: HP LE1851w.                  P/N: NK033A.                  S/N: CNC102QFYF.</p>	Conference room	Operational
10	<p><b>Computer: 10</b>                  Make: HP Compaq 8100.                  P/N: XT767PA#ACJ.                  S/N: INA109VJYM.  <b>Monitor: 10</b>                  AOC. 18.5' Wide LED                  P/N. e950Sw                  Model No.185LM00013                  S/N: AOCAR96C3052436</p>	Photo Lab	Operational
11	<p><b>Computer: 11</b>                  Make: Lenovo Think Centre                  M/N: 8811-FRA.                  S/N: L9AM498  <b>Monitor: 11</b>                  Make: Lenovo                  Model: 9227-AD1                  Serial Number: V1A2955</p>	Photo Lab	Operational
12	<p><b>Computer: 12</b>                  Make: Zebronics.                  Model: Elegance.</p>	Photo Lab	Operational
13	<p><b>Computer: 13</b>                  Make: XTECH.</p>	Photo Lab	Operational
<b>Monitors</b>			
14	<p><b>Monitor:12</b>                  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><b>Monitor:13</b>                  Make : AOC                  S/N: AOCWSM5NA1801905</p>	Dry Lab Stbd /  SWES	Operational. This is connected with SWES

Except One Lenovo system assigned to echosounder all other systems are operational.



28.03.2016: Monthly service carried out as per the schedule.

D 08	LAN	Maintenance Schedule: Date & Service: 29.03.2016: MS
Service carried out and Remarks: 29.03.2016: Monthly service carried out as per the schedule and the LAN is operational.		

D 09	Printers	Maintenance Schedule: Date & Service: Operation	
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
Printers were used during the cruise.			

D 13.	Autoclave	Maintenance Schedule: Date & Service: 21.03.2016 : QS
Service carried out and Remarks: 21.03.2016: Quarterly service carried out as per the schedule and the equipment is operational.		

D 18.	Dynamic Positioning System & All sub - Units	Maintenance Schedule: Date & Service: 27.03.2016: QS
Service carried out and Remarks :		
The DP was used during the CTD and Mooring Operations.		
Though the system was operational, the following sub unit is non-functional and need replacement:		
1. Portside Wind sensor.		
27.03.2016: Quarterly service carried out as per the schedule and the equipment is operational		
<b>Note:</b> The DGPS subscription (Sl.No: 272286) expires on 30/03/2016.		

D 19.	HI-PAP	Maintenance Schedule: Date & Service: 27.03.2016: QS
Service carried out and Remarks : 27.03.2016: Quarterly service carried out as per the schedule. The equipment is operational.		

D20.	Deck Crane	Maintenance Schedule: Date & Service:
Service carried out and Remarks: Crane was used for NIOT mooring operations. The deck crane is operational.		

E 25.	Deep sea Winch	Maintenance Schedule: Date & Service:
Service carried out and Remarks : On 17.03.2016 around 11:45am the deep sea winch was switched on for NIOT retrieval operations and noticed that while lowering the deep sea winch cable in joystick mode it was going in reverse direction with full speed. This was informed to ship staff and they checked and tried to rectify the fault but could not. This will be attended during next port call at Chennai. Deep sea winch is non-operational.		

**ADDITIONAL WORKS CARRIED OUT**

	<b>SBE 9/11plus CTD.</b> (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 4 stations for NIOT. After every operation, underwater unit was washed with fresh water and secured and data has been collected. The equipment is working satisfactorily.		

	<b>CTD Winches (FWD &amp; AFT)</b>	Maintenance Schedule: Date & Service: operation
Service carried out and Remarks : Forward CTD winch was used for CTD & BPR deployment operations. Both the winches are operational.		

For Norinco Private Limited

Chief Scientist

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