



दिल्ली DELHI

L 615821

## MEMORANDUM OF UNDERSTANDING

### BACK GROUND

Inland Waterways Authority of India (IWAI) engaged Applied Research International Pvt. Ltd (ARI) through the open tender procedure for management and administration of National Inland Navigation Institute (NINI) vide agreement dated 20<sup>th</sup> April 2009 and work order no. IWAI/Hy/NINI/3/2008 dated 18.3.2009, for a period of two years w.e.f. 24<sup>th</sup> April 2009. The agreement in its concluding paragraph states that both the organizations viz ARI and IWAI in their common interest, have collaborated to conduct training programs, courses and research at NINI. Accordingly M/s ARI has successfully conducted various training programs and courses since April 2009.

In consideration of the expertise and experience of ARI in the field of Marine simulator training and education, it is felt that in the common interest of both parties and with mutual understanding, the simulator based training to marine Personnel of both IWT & merchant shipping sector in the Eastern Region of the country should be made available on commercial basis by utilizing the facilities of NINI. With the above objective, it has been agreed to set up a Marine Simulation Centre (MSC) at NINI, Patna on revenue sharing basis between IWAI & NINI.

Accordingly, this MOU is made at Noida and executed on this 4<sup>th</sup> day of Aug. 2010 between **Inland Waterways Authority of India (Ministry of shipping, Govt. of India)**, A-13, Sector-1, Noida-201301, U.P. ("IWAI") AND **M/s ARI PVT Ltd (Applied Research International Pvt. Ltd)**, a company registered under the laws of India, having its registered office at B-1, Hauz Khas, New Delhi-110016, India ("ARI")

 - 1 -



## WHEREAS

Inland Waterways Authority of India ("IWAI") has set up NINI, a premier institute for Inland Navigation in South Asia region.

- NINI is ideally located to be the hub for training in Inland Navigation
- It is envisaged that NINI will be a Centre of Excellence in the IWT sector

## WHEREAS

ARI is a globally established producer of a wide range of Simulation products, IT and e-Business solutions and a recognized service provider of Education and Training solutions. ARI is the only organization that has unique combination of indigenously developed wide range of DNV and DG Shipping approved marine training simulators and long experience in providing training on Simulators in India.

## AND WHEREAS

The Parties understand that setting up of Maritime Simulation Center and running of these courses at NINI will help:

- To develop world standard human resource for IWT sector
- To provide Modern Training to SAARC countries
- To optimize utilization of NINI infrastructure
- Increase the maritime related activities at NINI and spread awareness about IWT activities in National Waterways among seafaring community and public at large
- Show case state of the art training facilities
- Provide training on simulators to merchant marine officers in the region.
- Generation of Revenue for NINI

Both the parties hereto are desirous of working together and setting up a Simulator Based Training Centre at NINI, Patna, on agreed terms and conditions as and by way of this Memorandum of Understanding (MoU)

**Now THEREFORE, both the parties have entered into this MoU.**

**This MoU will have four parts as given below-**

- PART 1- Establishment of Marine Simulator Centre
- PART 2- Capital Expenses, Revenue Sharing and Running Expenses
- PART 3- Management & Operation of Maritime Simulator Centre (MSC)
- PART 4- General Terms

 - 2 -



**PART -I**  
**ESTABLISHMENT OF MARINE SIMULATOR CENTRE**

1. A simulator centre is developed within NINI premises for the optimum utilization of facilities and infrastructure.

2. By developing a state of the art simulation centre in the region, the Parties herein are looking forward to develop NINI as a Center of Excellence in Inland Water Transport Sector.


3. The Parties herein are desirous of:

Setting up a Simulator suite for Training in:

- Bridge Resource & Team Management
- Electronic Charts Display and Information System
- Radar & Automatic Radar Plotting Aids
- Radar Navigation and Search & Rescue
- Vessel Maneuvering
- Communication
- Petroleum Cargo Handling

4. The parties understand that Maritime Simulation Centre requires setting up of the following simulators;

- Bridge Team Management (BTM)
- Electronic Chart Display & Information System (ECDIS)
- Radar Observer's Course/ Automatic Radar Plotting Aid (ROC/ARPA)
- Radar Navigation Simulator Course (RANSCO)
- Ship Maneuvering Simulator Course (SMS)
- Global Maritime Distress and Safety System (GMDSS) and
- Liquid Cargo Handling OIL (LCHS).



**PART -II**

**CAPITAL EXPENSES, REVENUE SHARING AND RUNNING EXPENSES**

**A. CAPITAL EXPENSES**

1. Capital expenses shall be made under the following specific heads in three phases and will be shared equally between ARI and IWAI i.e. 50:50.

- a. **Computers & Monitors**
- b. **Console and Hardware Interfaces**
- c. **Installation/ Commissioning/ Training**
- d. **Software**
- e. **Course Material**
- f. **Approvals**
- g. **Hardware modifications/Upgradation**
- h. **Miscellaneous items**

2. The projected capital investment under various heads shall be as in “Annexure-I-Capital Investment”. The phase wise capital expenditure for the different types of simulators shall be as below:

Expenses	Phase I		Phase II			Phase III		Total in Rs.
	ECDIS	BTM	ROC ARPA	SMS	RANSCO	LCHS	GMDSS	
Computers & Monitors	385600	-	310000	1312000	450000	600000	563000	<b>3620600</b>
Console Hardware Interfaces	850000	-	550000	1855000	1167000	1600000	3600000	<b>9622000</b>
Installation Commission Training	100000	-	150000	250000	250000	250000	250000	<b>1250000</b>
Software	650000	500000	500000	2500000	2000000	1700000	1100000	<b>8950000</b>
Course Material	200000	200000	200000	200000	200000	200000	200000	<b>1400000</b>
Approval		-	200000	100000	100000	100000	100000	<b>600000</b>
Misc. Items		-	225000	268000	266000	200000	280000	<b>1239000</b>
Sub Totals	<b>2185600</b>	<b>700000</b>	<b>2135000</b>	<b>6485000</b>	<b>4433000</b>	<b>4650000</b>	<b>6093000</b>	
		<b>2885600</b>		<b>13053000</b>		<b>10743000</b>		<b>26681600</b>
<b>Total: Say Rupees Two Crore sixty seven lakhs only</b>								

3. The project shall be executed as outlined in the attached document titled “Annex-II Project Execution” with the details given below:-

 - 4 -



- (i.) 1<sup>st</sup> phase shall be executed within 90 days from the date of signing of MoU.
- (ii.) 2<sup>nd</sup> phase shall be executed within 180 days from the date of signing of MoU.
- (iii.) 3<sup>rd</sup> phase shall be executed within 210 days from the date of signing of MoU.

#### **4. Sharing of expenditure between IWAI and ARI**

- (i.) In the 1<sup>st</sup> Phase, the share of expenditure between both the parties shall be ₹. 14.43 Lakhs each, in the 2<sup>nd</sup> Phase, the share of expenditure between both shall be ₹. 65.26 Lakhs each and in the 3<sup>rd</sup> Phase, the share of expenditure between both shall be ₹. 53.72 Lakhs. Thus the total capital investment for simulators is expected to be amount ₹. 2.67 Crore. The capital for simulation course will be shared between IWAI and ARI in a ratio of 50:50 each. Therefore capital investment for each party is expected to be approximately ₹. 1.34 Crore.
- (ii.) For execution of the project in phases, the expenditure shall be incurred initially by ARI to be reimbursed subsequently by IWAI. The phase wise capital expenses incurred by both the parties shall be settled within 10 days of commissioning of each phase on 50:50 bases and the same shall be duly certified by the Joint Management Committee and approved by Chairperson, IWAI.
- (iii.) Due diligence need to be observed by M/s.ARI for selection & Placement of the work order for the computer & monitor so as to ensure that the rate are competitive.
- (iv.) Reasonable ness of the cost of the computer & hardware interfaces to be procured by M/s. ARI Pvt Ltd as well as software of proprietary nature developed by M/s. ARI and to be supplied by them may be evaluated and the approval of JMC obtained before execution.

5. Capital investment for enhancement or modification of simulators required in future will be decided mutually by both parties.

#### **B. REVENUE SHARING**

1. The revenues for all simulators based courses shall be collected and maintained by NINI in a new account as decided by both parties through JMC ( Joint Management Committee) as in Part-III.
2. The net surplus after disbursing the running expenses shall be shared equally between IWAI and ARI.
3. The same sharing pattern will be applicable to any other courses to be started at later stage using the equipment provided.
4. The course fee for every course will be decided jointly by IWAI and ARI. Any revision of the course fee may be done with a prior agreement between ARI and IWAI.
5. The Course fee for other new simulator based courses shall be mutually agreed upon between IWAI and ARI, prior to the commencement of the said courses.

6. The rules/guidelines for admission to various course along with fee structure for each course and each category of students shall be formulated with the approval of JMC. Any discounts in fee/tuition fee waiver if any required as part of rules/guidelines shall be governed as per the decision of JMC.

### **C. RUNNING EXPENSES**

1. The running expenses shall be shared equally between IWAI and ARI for the activities enumerated below such as

- a) Business development
- b) Training and technological update
- c) Housekeeping
- d) Printing and stationary
- e) Communication
- f) Faculty and other human resource
- g) Repairs and Maintenance
- h) Water and Electricity
- i) Simulation updates to ensure DG shipping's requirements
- j) Simulator centre management
- k) Advertisement & publication

2. ARI will provide simulator centre management, business development activities, faculty training/technological update, course management and simulation updates to ensure meeting DG shipping requirements.

3. At a 50% occupancy level, it is expected that running expenses will be met from the revenues earned out of the course fees collection.

4. The total monthly running expenses are expected to be in the range between ₹. 3.47 Lacs to ₹. 4.21 Lacs for the first 5 years.

### **D. MAINTENANCE**

In order to keep the system operational, any repair/maintenance, if required shall be carried out by the management cell & expenditure to be shared between IWAI and ARI. However for the proprietary items like, software, console etc. ensuring DGS compliance shall be the responsibility of ARI.



### PART-III

#### Management & Operation of Maritime Simulator Centre (MSC)

After completing the installation & commissioning of the Maritime Simulator Center (MSC), the management and operation of the MSC will be carried out jointly by first party and second party. The management & operation of the MSC will be performed under the guidance and supervision of Joint Management Committee (JMC) comprising of representatives from both the parties.

#### 1. Members of the JMC

- a. The Joint Management Committee (JMC) will comprise of 4 representatives nominated by the parties. Both the parties shall appoint two officers each to the management committee. The chairman of JMC will be an officer from IWAI. The committee shall hold at least one meeting in a quarter and shall meet at other times of urgent requirement. The following members will constitute the managing committee at the first instance:
  - i. Sh.Sunil Kumar, IAS, Vice Chairman IWAI-Chairman of the JMC,
  - ii. Sh.S.Dandapat, Project Director (IBC), Noida – Member
  - iii. Sh.S.Jayaraman, Chief Accounts Officer, IWAI, Noida,- Member
  - iv. Capt. Inderveer Solanki, Vice President (A&R), ARI – Member
  - v. Capt. Naveen Sharma, Associate Director (Simulation) - Member
- b. The coordination of the JMC meeting will be conducted by the Project manager MSC being the Convener.
- c. No resolution shall be passed without at least one member appointed by each party voting in favour.

#### 2. Powers and Responsibilities of the JMC

- a. JMC will have all responsibilities and powers in respect of utilization of SMC and other facilities. Major decisions in this regard will be taken by JMC. Whenever Chairman, JMC finds appropriate, the matter will be referred to the committee of Chairperson of the first party and the Managing Director of the second party. The JMC will have financial powers to authorize maintenance up to ₹ 25 lakhs per annum. Some functions will be delegated by JMC to the Management Cell. (see paragraph 2b).
- b. The routine day to day functions of running courses, monitoring and the maintenance of MSC, simulators, of accounts and procurement of goods and service will be undertaken by a Management Cell constituted by the

second party specifically for the purpose .The management cell shall prepare an annual business plan, budget, performance indicators of the MSC etc. and submit for the approval of the JMC. The head of the Management cell will report to the JMC.

- c. The running and maintenance expenses and scope of the MSC shall be governed by the Clauses C (Running Expenses) and D (Maintenance) of the MOU.
- d. The Course fee will be decided by the JMC. The JMC may impose penalties or take such other steps required to collect fees on time or charges for cancellation of the booked courses by the candidates. The revenue so earned will be deposited in MSC account.

### 3. Accounts

- a. The financial year will be from April-March
- b. An annual budget for the operation will be approved by the Joint Management Committee (JMC) based on the business plans.
- c. The management cell will arrange for collection of the course fees and penalties imposed on candidates for cancellation of courses and late fees.
- d. The management cell will prepare the statement of candidates trained and also accounts on quarterly basis. The statements shall be submitted to the JMC for approval.
- e. The administrative expenditure shall be met out from the revenue earned from collection of course fees and penalties levied on the candidates. The net surplus generated will be calculated on yearly basis and equally shared in the ratio of 50: 50.
- f. Capital investment for enhancement, modification or up gradation of the simulators in future will be decided mutually by both parties.
- g. The accounts shall be consolidated /settled on a quarterly basis.





## Part-IV

### **A. WARRANTY**

ARI warrants that for a period of twelve (12) months after dispatch of the simulator, Software and Hardware components as supplied and installed by M/s. Applied Research International Pvt Ltd, will conform to its specifications under normal use and operation to meet training objectives of the use of the simulator.

### **B. BRANDING/IPR**

Branding/IPR (Intellectual Property Right) of simulators/ courses/handouts/ certificates/approvals/signage etc. will be in accordance with IWAI and ARI's branding guidelines/policies as applicable from time to time.

### **C. PERIOD OF VALIDITY**

1. This MOU shall remain in force for a period of five (5) years from the date of execution hereof, extendable for a further period of five (5) years as mutually agreed between the parties, unless terminated as provided herein.
2. No amendment, modification or waiver of any provision of the MoU shall be effective unless the same has been made in writing and signed by the authorized officers of ARI and IWAI.

### **D. CONFIDENTIALITY**

Both Parties shall maintain utmost confidentiality at all times.

### **E. ASSIGNMENT**

ARI shall have the right to assign this MoU in part or in whole to any party with prior consent from IWAI.

### **OWNERSHIP OF SIMULATOR**

All the facilities installed & commissioned in the SMC including hardware and the software of the simulators shall and will remain the sole and exclusive property of NINI/IWAI. However the IP(Intellectual Property) rights on the software of the simulator shall remain with ARI. The Parties herein will own the Hardware costs and the Hardware Interface equally. The approvals of DG Shipping & any other Govt agency for the SMC & the training programme shall be obtained in the name of National Inland Navigational Institute who will have the rights to issue certificates therein.

 - 9 -



## FORECLOSURE SETTLEMENT

In the event of a foreclosure, NINI/IWAI shall have the option of buying the facilities as installed & maintained at the depreciated value at the time of such foreclosure.

In the event of such foreclosure ARI shall provide the AMC services for Maintenance of software, hardware and consoles supplied by ARI and ensuring DGS compliance for the software irrespective of who owns the installation post such foreclosure, at mutually agreed terms & condition.

## F. TERMINATION

This MOU may be terminated:

- a. By mutual understanding between the Parties;
- b. By either Party by provision of written notice to the other in the event of a material breach hereof or default of any of the obligations hereunder by the other Party and where such breach or default has not been rectified within (90) days of written notice from the other Party specifying the nature of the default;
- c. By either Party in the event the other Party becomes insolvent or is declared bankrupt or goes into liquidation, voluntary or compulsory, except for the purpose of amalgamation or reconstruction effective immediately upon written notice to the other Party.
- d. Notwithstanding anything to the contrary contained in this MoU, the Parties herein may terminate this MoU at its own discretion upon [ninety (90)] day's prior written notice to the other party.
- e. In the case of termination the procedure as in the foreclosure clause shall be applicable.

## CONSEQUENCES OF TERMINATION

- a. It is expressly agreed and understood by the Parties hereto that in the event of termination pursuant to the terms of this MOU, the Party electing to terminate this MOU shall incur no liability to the other Party hereto for damages arising solely from the exercise of the right to terminate this MOU.
- b. Obligations of confidentiality, Intellectual Property rights (PI), Proprietary Information rights (PR) shall survive such termination.



**G. DISPUTE RESOLUTION**

Any or all disputes or differences of any kind in connection with or arising out of or relating to or under this MoU shall be settled amicably between ARI and IWAI and wherever necessary referred to the Chairperson, IWAI whose decision shall be final and binding

**IN WITNESS OF WHICH THE PARTIES HAVE SIGNED THIS AGREEMENT  
THE DATE ABOVE WRITTEN**

**Signature**  
On Behalf of ARI, N. Delhi

Name- *Capt. INDERVEER SOLANKI*

Place- *NOIDA*

Date- *4th August 2010*

**Signature**  
On Behalf of IWAI

Name- *S. K. SHAMI*

Place- *NOIDA*

Date- *4th Aug. 2010*

Witnesses

1. Principal, NINI, Patna

*ARUN KUMAR*

2. Administrator, NINI, Patna

*S.S. CHHILLAR*

Witnesses

1. Project Director (IBC), IWAI Noida

*04.08.10*

2. Chief Account Officer, IWAI Noida

*4.8.10*  
*(S. J. MANMAN)*

**Annexure-1**  
**CAPITAL INVESTMENT**

The simulator centre shall be developed within NINI premises for the optimum utilization of facilities and infrastructure with an aim to run the said courses mentioned under part 1 of MOU.

**A. Summary:**

1. The capital expenses for simulation courses shall be shared between IWAI and ARI on equal basis. The total expenses under various heads are expected to be Rs. 2.67Cr, with the break up as follows:-

**1. Computers & Monitors**

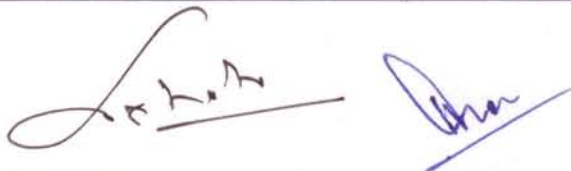
All the hardware shall be procured by ARI after approval of JMC/IWAI.

<b>Computers &amp; Monitors</b>	<b>TOTAL</b>
ROC/ARPA	310,000.00
ECDIS	385,600.00
SMS	650,000.00
RANSCO	450,000.00
GMDSS	563,000.00
LCHS	600000.00
Plasma Display (Projection)	662,000.00
<b>TOTAL</b>	<b>3620600.00</b>

**2. Console and Hardware Interfaces**

Consoles and hardware interfaces shall be provided by ARI at subsidized price for IWAI. These costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

<b>Console Hardware Interfaces</b>	<b>TOTAL</b>
ECDIS	850,000.00
ROC/ARPA	550,000.00
SMS/BTM	1,855,000.00
RANSCO	1,167,000.00
GMDSS	3,600,000.00
LCHS	16,00,000.00
<b>TOTAL</b>	<b>9622000.00</b>



### 3. Installation/ Commissioning/ Training

ARI will provide Installation of simulators and necessary training. ARI will bear the cost on actual basis and the costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

Installation Commissioning/ Training	TOTAL
ROC/ARPA	150,000.00
ECDIS	100,000.00
SMS/BTM	250,000.00
RANSCO	250,000.00
GMDSS	250,000.00
LCHS	250,000.00
<b>TOTAL</b>	<b>12,50,000.00</b>

### 4. Software

ARI will provide the software licenses for ARI BTM, ECDIS, ROC/ARPA, RANSCO, SMS, GMDSS & LCHS software that will comply with "Director General of Shipping" approved courses. These costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

Software	TOTAL
ROC/ARPA	500,000.00
ECDIS	650,000.00
SMS/BTM	3,000,000.00
RANSCO	2,000,000.00
GMDSS	1,100,000.00
LCHS	1700,000.00
<b>TOTAL</b>	<b>8950000.00</b>



## 5. Course Material

Course material for conducting of the courses will be provided by ARI. These costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

Course Material	TOTAL
ROC/ARPA	200,000.00
ECDIS	200,000.00
BTM	200,000.00
SMS	200,000.00
RANSCO	200,000.00
GMDSS	200,000.00
LCHS	200,000.00
<b>TOTAL</b>	<b>1400000.00</b>

**Matrix for course material**

## 6. Approvals

The approvals to the D.G. Shipping for the relevant courses will be applied for by ARI. These costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

Approval	TOTAL
ROC/ARPA	200,000.00
BTM	-
SMS	100,000.00
RANSCO	100,000.00
GMDSS	100,000.00
LCHS	100,000.00
<b>TOTAL</b>	<b>600000.00</b>

**Matrix for Approvals**

## 7. Miscellaneous items

The procurement of the Instructor Station partitioning and workstation, Chart table, Cubicle partitioning, Painting, Air conditioning, Flooring, electrical wiring for power supply and lighting fixtures, Network, Charts, Books and publications, Chairs and tables, Geometric instruments, VHF's/ Telephone system etc. and any other ancillary infrastructure required for the conduct of the course effectively



shall be carried out by ARI under their supervision and expertise. These costs will form part of the calculation based on overall capital expenses being shared between ARI and IWAI on equal basis.

Misc Items	TOTAL
ROC/ARPA	225,000.00
SMS/BTM	268,000.00
RANSCO	266,000.00
GMDSS	200,000.00
LCHS	280,000.00
<b>TOTAL</b>	<b>1239000.00</b>



**Annex-2  
PROJECT EXECUTION**

The Installation and commissioning of the simulators at the Marine Simulation Center, NINI shall be executed in phases.

**Phases**

1. In the **First phase** the simulation infrastructure to conduct "Bridge Team Management (BTM)" and "Electronic Chart Display and Information System (ECDIS)" courses shall be installed and commissioned.
2. In the **Second phase**, the simulation infrastructure to conduct larger range of courses such as Radar Observer Course (ROC), Automatic Radar Plotting Aid (ARPA) course and Ship Maneuvering Simulator (SMS) course shall be installed and commissioned.
3. In the **Third phase** the simulator infrastructure to conduct Liquid cargo Handling Course (Oil) for operation and management level and Global Maritime Distress and Safety System (GMDSS) course shall be installed and commissioned.

**Responsibilities**

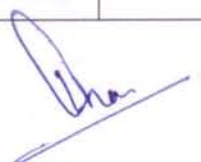
4. The parties herein shall work together with the following defined obligations and responsibilities to set up Marine Simulator training Centre at NINI.
5. The simulator installation involves a number of steps, the stepwise responsibility is assigned in the table below:

ITEM	ARI RESPONSIBILITY	IWAI RESPONSIBILITY
Budget Approval for phase	Submits budget estimate for approval in 5 days of signing MOU	Approves budget estimate in 5 working days after submission
Site Plan and drawings	Makes site designs and drawings including electrical etc. send to NINI in 10 working days of signing MOU	
Computers and Monitors	Procures computers and Monitors within 5 days after financial concurrence form IWAI	Makes payment on the procurement of Computers and monitors within 10 working days of receipt of the goods & submission of Performa Invoice
Hardware and Consoles	Procures consoles, designs and fits simulator components and	





	cabling etc. in 45 days after financial concurrence.	
Software	Tests and validates software	
Joint Management Committee Meeting	Organize JMC meeting within 10 days after signing the MOU	Appoint Head of the Marine Simulation Center/Management Cell on the basis of selection & recommendation by JMC.
Site Readiness	ARI provides design for site readiness	Head of the MSC Management cell gets the site ready for installation of the simulators, Carpentry work, Electrical, AC etc. in 45 days after financial concurrence and funds provision at NINI for same
Shipment	Ships the Hardware consoles and computer items to NINI in 45 days after financial concurrence	
Joint Management Committee Meeting	Organize JMC meeting within 10 days of shipment of material to NINI	Monitor progress, approves budget for Management of MSC and Appoint Faculty for conducting courses at MSC on the basis of selection & recommendation by JMC.
Installation, integration & Training	Integrates the simulators and installs the software in 60 days after financial concurrence	
Course Material	Provides books, publications, course material in 60 days after financial concurrence	
DG shipping Approvals (Not Applicable to phase I)	Prepares documents for submission to DG shipping for inspection on shipment of the hardware and computers at NINI after JMC meeting	
Settlement of Accounts	Prepares installation, commissioning statement of accounts for settling accounts for the phase	Settles accounts for the Phase
Commence conduct of courses	Prepares Course calendar, Market courses, Press release	

## Time Lines

6. In the **First phase** the simulation infrastructure to conduct "Bridge Team Management (BTM)" and "Electronic Chart Display and Information System (ECDIS)" courses will be installed and commissioned. These courses do not require DG shipping approval for conduct of the course. The conduct of courses for the phase is expected to commence 90 days after signing of MOU.
7. In the **Second phase**, the simulation infrastructure to conduct larger range of courses such as Radar Observer Course (ROC), Automatic Radar Plotting Aid (ARPA) course and Ship Maneuvering Simulator (SMS) course will be installed and commissioned. For conduct of these courses approval of DG shipping is required, all going well the procedure takes about one month for approval. The work on the phase will commence one month after signing of the MOU. The conduct of the courses for the second phase is expected to commence 180 days after signing the MOU.
8. In the **Third phase** the simulator infrastructure to conduct Liquid cargo Handling Course (Oil) for operation and management level and Global Maritime Distress and Safety System (GMDSS) course will be installed and commissioned. For conduct of LCHS course approval of DG shipping is required and for conduct of GMDSS course approval of DG shipping and Ministry of Communication is required all going well the procedure takes about one month for approval. The work on the phase will commence one month after signing of the MOU. The conduct of the courses for the second phase is expected to commence 210 days after signing the MOU.

The above dates are based on assumption that the infrastructure required for installation of the simulators will be ready at the time of shipment of the simulators.



The capital expenses likely to be incurred for the three phases are given below.

Expenses	Phase I		Phase II			Phase III		Total in ₹.
	ECDIS	BTM	ROC ARPA	SMS	RANSCO	LCHS	GMDSS	
Computers & Monitors	385600	-	310000	1312000	450000	600000	563000	3620600
Console Hardware Interfaces	850000	-	550000	1855000	1167000	1600000	3600000	9622000
Installation Commission Training	100000	-	150000	250000	250000	250000	250000	1250000
Software	650000	500000	500000	2500000	2000000	1700000	1100000	8950000
Course Material	200000	200000	200000	200000	200000	200000	200000	1400000
Approval		-	200000	100000	100000	100000	100000	600000
Misc. Items		-	225000	268000	266000	200000	280000	1239000
Sub Totals	2185600	700000	2135000	6485000	4433000	4650000	6093000	
	2885600			13053000		10743000		26681600
<b>Total: Say Rupees Two Crore sixty seven lakhs only</b>								

=₹. 2.67 Crore

The capital expenses for phase I is ₹. 28,85,000/ (Say Twenty eight lakhs eighty five thousand), for phase II is ₹. 1,30,53,000/ (Say One crore thirty lakhs fifty three thousand) and for phase III is ₹. 1,07,43,000/ (One crore seven lakhs forty three thousand).