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The shipping & port sector started off 2009-10 on a poor note, with a 1.21% fall in traffic at all major ports in April 2009 as against a robust 13.38% surge in April 2008. The fall was primarily due to a steep 12.26% fall in handling of iron ore and a 9.26% fall in tonnage container. Port wise, the lower traffic was due to fall in traffic by 15.89% in Mumbai and by 4.79% in JNPT.

Traffic at major ports declined 1.21% to 45410 thousand tones in April 2009 compared with 45968 thousand tones in April 2008. Traffic at the Kolkata port, with a 12% share in total port wise traffic, declined 4.72% in April 2009 compared with a 13.39% surge in April 2008.

Traffic at the Mormugao port grew 16.75% in April 2009 as compared with a 27.06% increase in April 2008. In this port, iron ore constitutes 82% of the total traffic, and it recorded a decent 11.03% increase in traffic in April 2009 compared with April 2008. Traffic of raw fertilizers, with a negligible share in total traffic at this port surged 118.18% in April 2009, followed by other cargo (22.48%) and coking coal (21.02%)

Paradip port recorded the highest growth in total port wise traffic, at 29.21%, in April 2009 compared with a 19.05% increase in April 2008. Traffic at the JNPT declined by 4.79% to 4874 thousand tones in April 2009 compared with a 22.26% growth in April 2008.

Traffic at the Mumbai port, with a 9% share in total port traffic, decreased 15.89% in April 2009 compared with a fall of 4.13% in April 2008. This growth was powered by 133.33% surge in traffic of finished fertilizers, followed by thermal coal (120.50%), and raw fertilizers (93.75%). However, traffic of P.O.L., with the highest share of 63%, fell 15.02% in April 2009 compared with April 2008. Traffic of tonnage containers, with a mere 1% share, recorded the highest fall of 57.55% in April 2009, followed by TEUS containers (54.55%) and other cargo (36.78%).

However, traffic at the New Mangalore, with a 7% share in all traffic, grew 23.43% in April 2009 compared with a 6.97% decrease in April 2008. Traffic at the Tuticorin port increased 11.15% in April 2009 compared with a 24.98% rise in the same month a year ago. Traffic at the Kolkata Dock System moved up to 13.71% in April 2009 compared with a 10.16% increase in April 2008.

At the Kandla port, traffic of thermal coal, with a mere 1% share, recorded the highest increase of 11.83%, in April 2009 compared with April 2008. Traffic of P.O.L, with the highest 59% share in total traffic, declined 7.08% in April 2009 as against April 2008. Traffic of TEUS containers, declined 28.57% in April 2009 compared with April 2008.

At Chennai port, traffic of thermal coal recorded the highest increase of 567.83%, with a share of 20% followed by traffic of coking coal (179.09%) in April 2009 as against April 2008. However, traffic of tonnage container, with the highest share of 33%, fell 7.25% in April 2009 compared with April 2008. Traffic of other cargo recorded the highest fall of 71.71% in April 2009 compared with April 2008. It carries a 6% share in this port.

Global trade is recovering, but it still lower on y-o-y basis, which is reflected in the traffic handled at major Indian ports too. The slowdown in the global economy has made many global players to increasingly look to emerging markets like India. This can lead to growth in imports. At the same time, India's refinery capacity has increased and the surplus needs to be exported. So, we will have more crude oil imports as well as POL exports. Further, after the crash of coal prices and the fact that India remains in ports deficit, our coal imports too are witnessing a healthy rise. So, there are some bright spots, which can help improve port traffic, despite the difficult global trade environment.

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Contents

The Indian Shipping industry requires concentration on giving
**Importance to the
Ship building and
Coastal shipping
and at the same time**

face to face
WITH



Vipul Shah
Port Consultant &
Approved Valuer
Ahmedabad

4

Market-Driven Control in **CONTAINER TERMINAL MANAGEMENT**

7

Larry Henesey,
Fredrik Wernstedt,
Paul Davidsson
Blekinge Institute of Technology,
Ronneby/Sweden

Ports... & Privatization

15



RO-RO Ferry Service in Gujarat 20



PORT PROFILE
GANGAVARAM
PORT LTD.

23

events
Calendar

26

news

28

The Indian Shipping industry requires concentration on giving

Importance to the Ship building and Coastal shipping and at the same time



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KEY PROJECTS



Shri Vipul Shah, Port Consultant & Approved Valuer, Ahmedabad. He has 46 years of experience in areas of port management, projects supervision, designs of harbour structures and ports administration. During his service in port organization, Trained in various courses in port management at Indian Institute of Port Management, Chennai (Madras). He has attended numerous seminars on ocean engineering, ports designing and interacted with officers of Central water and power Research station, Pune (A Government of India Organization). He is the member of Institution of Engineers (India).

During the interaction with Indian port and Infrastructure Review, Shri Vipul Shah shared his perception about the key factor of Public Private Partnership (PPP's) in port's development. Here are the excerpts:

Q Which type of developments is needed in Indian Shipping Industry? Which are the areas to be more focused?

- (a) The Indian Shipping industry requires concentration on giving importance to the ship building and coastal shipping and at the same time, increasing the fleet of container and break bulk cargo ships.
- (b) For encouraging coastal shipping, State Government should levy minimum port charges at all ports, particularly the ships to and from Gujarat/Kutch ports and southern Indian Maritime States like Karnataka, Kerala, etc. It is very much desirable and will help in decreasing the load on road transport sector.

Similarly on eastern coast from Tuticorin to Kolkata, there is a considerable scope of transportation by ships.

- (c) Government of India should also provide incentives to increase coastal shipping.
- (d) For coastal shipping, small ships are generally required and therefore, container ships of small size, i.e. 100 to 200 TEU capacity should be specially constructed, for which, if required, subsidy may be given to the ship owners.

- (e) Shipping companies operating in the coastal areas should try to cut their cost of operations. The cost of operations should not be like the International shipping.
- (f) Main areas to give focus on shipping industry shall be expansion of containerization in small and large size of ships and for this purpose, container construction industry also should be encouraged near port locations.

Q How is Public Private Partnership (PPP's) become key factor in port's development?

- (a) PPP model all over the world is the most successful model of development in port sector. This is due service sector. Decision making is a very important factor in this sector and which is very difficult with the Government or Public sector frame work and rules & regulations.
- (b) Another important factor is technological advancement in all sectors attached with shipping and port operations and here also, time bound decision are very important and therefore, private sector can play a positive role.

Q What approaches should be followed for improving the use of the Indian ports in globalization era?

- (a) Construction of deep water berths with proper navigational aids is the requirement of the day.
- (b) Development of expertise in dredging of ports and port channels. For this, if required, training should be imparted to the personnel of the dredging staff at the developed countries like Netherlands, Germany or Belgium. Persons operating dredgers should learn the latest technological advancement in the dredging techniques and operations of the latest new dredgers.
- (c) Providing proper and efficient connectivity of roads and railway to all the major and minor ports.
- (d) Providing efficient infrastructure like water supply, internal roads, railway sidings, uninterrupted power supply, social infrastructure like schools, hospitals, entertainment facilities, etc. should be provided at the Greenfield ports.

Q How Port and Infrastructure development can boost the growth of the Indian economy?

- (a) Port infrastructure is a very important for growth of any industrial development because with globalization of economy, it has become imperative

to compete in cost of operations with World standards. The industries, which are dependent on import of raw-materials and export of finished goods, if located near port, can complete in cost due to low cost of transportation and low cost of labour in our country. With increasing cost of crude prices, transportation becomes the most important factor in costing of any product and therefore, the importance of port has increased.

- (b) Port based thermal plants (coal imported as a fuel) can produce power at low cost and instead of transporting coal to thermal plants in the interior places like Haryana, Punjab & Delhi, it is easier and cheaper to supply electric power through transmission lines.

Q What is your expectation from coming Budget for the industry?

I personally feel that Government is conscious about the infrastructure development and therefore, importance to this sector will be given in the coming budget.

Q What more are expecting after completion of development program?

I personally feel that not only the development of ports and infrastructure, but also the human resource development is the most important part, which will play in the development of the ports, With the increasing use of computers, training part of the port personnel in various fields of activities is an important factor, which will play its part in future. Government should encourage and design proper courses for port sector in engineering and business institutes. Port personnel should be trained for customer friendly attitude and marketing techniques. Even the Port Authorities should prepare different modules for continuous training of the staff in all the fields of operations.

Q Could you please share us your experience in this sector? Do you have any views on the development at the side of India's seaboard?

I was associated with the framework of port policy, which was formulated in 1995. This policy document was the first document produced by any Maritime State of the country. Though this document is appreciated by one and all, it requires revision since last 14 years technological advancement has taken place and many structural changes have happened in the State and Central Government policies. Industrialization all over the country has seen the advantages of port based industries and therefore, it is necessary to convene a meeting of prominent industrialists, stevedores, to clearing agents, importers, exporters and incorporate their views in revising the Port Policy document in 2010.

Q How are the Institutional barriers come in the way of Development and what are the causes for same? What steps are taken to prevent those barriers?

There are many institutional barriers in the development of the port sector. You cannot have the same policy for the development of all the ports since logistically, certain advantages are there in certain ports and some advantages are there in other ports. At the same time, some ports can have a large area of back up land, but some port may not have enough area. Therefore, development strategy should be port based stand alone port development. This strategy requires sometimes viability gap funding also Viability funding can be provided by way of providing cheap land or certain concessions in Government taxation. All these factors should be considered and it should be made proactive and transparent.

Strategy for development and business opportunities on Gujarat ports.

Looking to the development of the Gujarat ports, after the implementation of the Port Policy and BOOT Policy by Government of Gujarat, i.e. 1995-96 onwards, Gujarat ports are developing rapidly. The principal commodities of increase in cargo volumes are crude, refined petroleum products, coal and containers. If we take only growth of 10% in traffic by 2016, the traffic of Gujarat ports shall be about 300 Million Tonnes and by 2020, it will reach 450 Million Tonnes. From the present trend of traffic growth and likely requirement of import of coal, crude, LNG for the growth centres of Western India and North-western India. The estimate of traffic of 450 Million Tonnes is quite logically achievable. For handling of major traffic of coal, Gujarat ports shall have to develop adequate dedicated coal berths with modern mechanical handling machineries with capacity of unloading cargo from the ships at the rate of 5000 Tonnes per hour and at the same time, dedicated terminals for import of LNG and SPM for crude shall have to be developed at suitable ports.

To achieve the above goals-

1. Gujarat Maritime Board (GMB) will have develop such ports which can provide deep water berths of more than 16 metres draft at low tide besides having a proper protection from south-west monsoon.
2. Existing GMB ports, if possible, shall have to be dredged and shall be equipped with modern mechanical handling equipments/machineries.

Thus, expected increase in dry and liquid bulk cargo requires a significant capacity expansion and operational capabilities the above cargo handling is suggested only for break bulk, liquid and gaseous cargo. Other important cargo at the port will be the containers. Considering the

Gujarat Maritime Board (GMB) will have develop such ports which can provide deep water berths of more than 16 metres draft at low tide besides having a proper protection from south-west monsoon.



future trend and container cargo, the capacity of container terminals shall have to be increased. At present, two container terminals at Mundra and one container terminal at Pipavav are available. But, considering the future trend in container cargo handling, another 4 to 5 dedicated container berths shall be required at Gujarat ports at different locations. While designing the container terminals and container locations, care shall have to be taken about logistic of the ports and available depths and cost of the project at the particular site.

While taking up the Projects of container terminals, we will have to look into the capacity building in container berths by other ports on the eastern coast and at Mumbai and JNPT ports. Though privatization by other ports in India is taken up in later years after Gujarat's privatization policy, they are taken up very seriously by Govt. of India and PPP model is being implemented at many minor ports in India. Therefore, proper estimation of container traffic and development of container terminals at other sites in India will have to be considered before finalizing the sites of container terminals. As we look into past, out of ten suggested ports in Gujarat Port Policy, only three ports are being developed, i.e. Mundra, Dahej and Hazira and out of these three, container terminals are only developed Mundra. However, at Dahej and Hazira, the projects are under implementation stage.

Business opportunities due to containerization of cargo in Gujarat and India.

Due to increase in containerization in India and abroad, the need for speedy clearance of goods with minimum turnaround time of cargo will gain utmost priority. Due to this, the business opportunities due to containerization are as under:

- (1) Manufacturing of containers.
- (2) Development of Internal Container Depots (ICDs)
- (3) Repairing of containers and maintenance services.
- (4) Development of software in container operations.
- (5) Container train operations including dedicated manufacturing of wagons.
- (6) Material handling equipments.
- (7) Container cranes maintenance and repairs.

All these factors are very important and GMB and Government of Gujarat shall have to facilitate private parties to provide infrastructure for the above facilities. All these activities are likely to be important after the operation of the dedicated Railway corridor between Delhi and Mumbai.

The steady, global increase in number of containers and the size of vessels able to carry containers is adding pressure to seaports and terminals to increase capacity. The alternative solution to increasing capacity other than physical expansion is via increased terminal performance so that containers are loaded, discharged, stored, and dispatched efficiently whilst optimizing available resources. The automatic planning of the operations of a container terminal via market-based allocation of resources may greatly benefit the container terminal in satisfying its objectives and meeting its goals. The proposal is that a Multi-Agent System approach would offer port or terminal

managers a suitable tool to plan, coordinate, and manage the container terminal domain. There exists a variety of inputs and outputs, actors, intrinsic characteristics and a large number of combinations of factors influencing the output that makes it quite difficult to conduct analysis. In the suggested approach, the Multi-Agent System will plan and co-ordinate the processes within the terminal by mapping the objects and resources that are used in the terminal. The agents will be searching, coordinating, communicating, and negotiating with other agents via a market-based mechanism, a series of auctions, in order to complete their specified goal.

Market-Driven Control in **CONTAINER TERMINAL MANAGEMENT**

Larry Henesey, Fredrik Wernstedt, Paul Davidsson
Blekinge Institute of Technology, Ronneby/Sweden



Seaports are important nodes in international shipping. The transfer of goods from one mode of transport to another model has been the primary function of seaports and more specifically, terminals. It is important to note that terminals are parts of a port where specialized cargoes are handled, e.g. passengers, autos, containers and oil. Ports are more than just piers. More than 90% of international cargo is moving between ports, Winklemans. Of this increasingly growing trend, containerization has become the dominant method of moving unitized cargo in the world with many adverse effects such as the requirement for increasing space and causing congestion. This paper will pay particular attention to container seaports and container terminals. The needs for higher operational productivity, faster exchange of information, and speedier vessel turn-around times are just a few of many critical factors that are currently pressing port's nodal position within logistics systems and supply chains. Logistics chains are stretching across continents where production may be in one continent and the market in another. Cargoes and shipments from all over the world have been increasing exponentially. However, seaports have not kept with the pace that economic development has been growing. In fact, many seaports are experiencing difficulties. There exist many bottlenecks in terms of information and physical status of the cargo leading to low productivity within the terminal. There are many obstacles in increasing terminal capacity through expansion, Notteboom and Winklemans.

In container terminals, the management of container terminal systems (CTS) is a decentralized, poorly structured, complex, and changeable problem domain, Gambardella et al., Rebello et al. It is important that the definition of terminal operation system be explained in that it is an operating system managing the flow of cargo through the terminal, ensuring that the cargo all go the right places and that the cargo movements are handled in the most efficient manner. Unfortunately, the few "off the shelf" programs that are available (i.e. NAVIS, based in Oakland, California and COSMOS NV. of Antwerp, Belgium) are designed for specific functions and not covering the total terminal operating system. The proposal to use Market Driven control implemented as a Multi-Agent System (MAS) in container management would provide control over the various sub systems found in a CT by decentralizing the problem solving tasks to the local area agents.

The MAS approach is considered as a viable approach to CT management due to the complexity in finding a solution, because performance of terminals are determined by a variety of inputs, outputs, actors, intrinsic characteristics and external influences, Persyn. Both for the CT operators and the vessel operators it is paramount to minimize "turn-around time", i.e. the loading and discharging of containers should be done as quickly as possible. An average container liner spends

60% of its time in port and has a cost of \$1000 per hour or more, Rebollo et al. To shorten the time spent by vessels, terminal operators need to spend special emphasis in resource allocation. Receipt of information before vessel berths in order to reduce the \$45000 stay of a third generation containership or \$65000 of a large vessel at port is important in the planning of terminal operations, Kia et al. The terminal operators are obliged to provide a service that involves much more than crane moves per hour. In the CTs there exist four main subsystems and several processes that have a direct effect on each other and on the system as a whole. The MAS approach to the management of containers would allow each agent to find the container destinations through the array of subsystems that make up the CTS. By introducing auctions, agents will bid based on criteria and goals set before each auction, the agents would negotiate and bid their way through the series of subsystems found in CTS.

The use of Artificial Intelligence (AI) techniques to support port or terminal management has already taken root in some parts of the world. For instance, a family of 10 expert systems assists the port of Singapore to plan the optimal use of the port resources, which serve 800 vessels daily, reduces the stay in the port from days to



In container terminals, the management of container terminal systems (CTS) is a decentralized, poorly structured, complex, and changeable problem domain, Gambardella et al., Rebello et al. It is important that the definition of terminal operation system be explained in that it is an operating system managing the flow of cargo through the terminal, ensuring that the cargo all go the right places and that the cargo movements are handled in the most efficient manner. Unfortunately, the few "off the shelf" programs that are available (i.e. NAVIS, based in Oakland, California and COSMOS NV. of Antwerp, Belgium) are designed for specific functions and not covering the total terminal operating system.

hours, Turban and Aronson. A number of uses exist where agents have been applied to related areas as air traffic control, Ljungberg and Lucas and recently to SouthWest Air Cargo operations, Wakefield .

In the next section we describe briefly the principles of container port terminals. This is followed by an overview of related research and then a section presenting the suggested approach. Finally, we provide conclusion and pointers to future work.

Problem Description

Currently, there exists an estimated 15 million containers and this figure is projected to continue increasing for the next 10 years at 8.5%, Containerisation. Ship lines are aware of this growth as can be seen by the huge investments in yard construction of very large container ships that can transverse the oceans at 25 knots, whilst laden with 6000 or more containers. Ports and terminal operators are also cognizant of the coming changes and perhaps threats if they do not keep up with the pace of change. Ports such as Antwerp, Rotterdam, and Hamburg are expanding their terminals or creating new terminals to accommodate the projected rise in number of containers. The planned CT investment in Europe (1999-2001) is approximately 208 million Euros, Weigmans et al. Due to increases in speed and volume, the operations of a CT requires a better regulating systems approach. One area where terminal operators are experiencing problems is reducing the unproductive and expensive container moves in a terminal. Technology such as agents may be able to assist terminals in increasing capacity and performance without spending large investments on terminal expansion and equipment. The "software" rather than the "hardware" of port development will be the determining factor in future trends in port competition vis-à-vis terminal management, Winkleman. The CT is viewed not as a passive point of interface between sea and land transport, used by ships and cargo as the natural point of intermodal interchange. They have become logistic centers acting as 'nodal points' in a global transport system.

Congestion and increasing cargo dwell times is a common scene in many of the world's ports. Government authorities such as customs and health may delay containers from reaching their destinations due to inspections. Shipping lines are unconcerned if there is a

poor terminal productivity, as long as their vessel sails on time. Terminal operators are trying to reduce or stabilize the cost per TON/TEU (twenty-foot equivalent unit: container) handled and thus maximize profit. The aim is to efficiently use the resources available during the operating time that the vessel is occupying the berth. Complications in port systems arise in having the various computer systems work together. Currently, ports are seeking better ways in improving their productivity and offering logistical solutions to shippers of cargo. No longer are ports handling just cargo, but more and more they are becoming "information handlers", Henesey.

We will consider CTs that are at least handling over 50,000 TEU per annum. It has been researched that after 50,000 TEU per annum a terminal requires an Information System to help manage, Jeffery. In building a model of the system, a set of operations is taken from the various sub-systems that exist within the terminal domain. In Figure 1, the four main subsystems/operations in a CTS are illustrated; (1) ship-to-shore, (2) transfer cycle, (3) storage, and (4) delivery/receipt. The two subsystems that are constantly plagued with congestion and bottlenecks are the (2) transfer cycle and the (4) delivery and receipt area (also known as the "gate"). The optimization of the vessel turn around (time spent in port) is viewed by much research as being paramount to a port's performance and competitive advantage. We propose that a Market Driven control would provide faster discharge and loading of containers and increased productivity through faster turnaround of containers through the CTS are the primary goals.

Ship to Shore System

Also synonymously used as the maritime interface in that this area is where cranes handle vessels. One area where terminal operators are experiencing problems is reducing the unproductive and expensive container moves in a terminal. The number of cranes used to perform the operation varies depending on the size of the containership and the volume of containers to be handled. Usually, every gantry crane will be served with a fixed number of transport machinery, which transfer the containers in the terminal and can stack them to a certain height depending on the type of transport machinery employed. The vessel planning is typically executed 24 hours before a vessel call and produces a manifest, list of containers to be loaded or discharged is provided by the ship line.

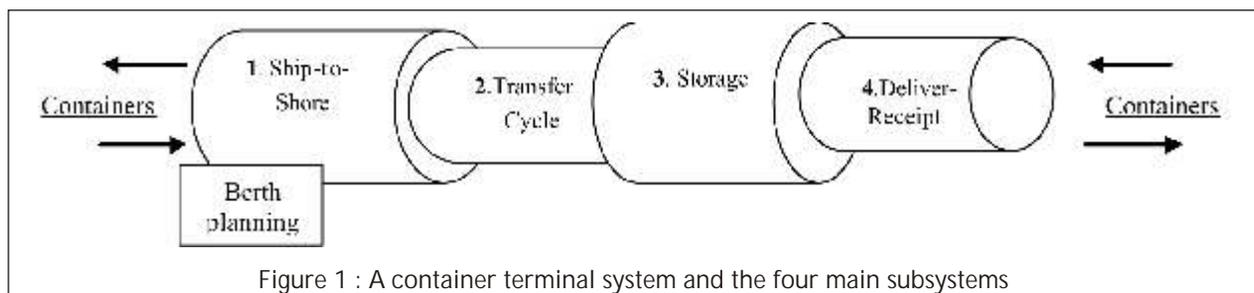


Figure 1 : A container terminal system and the four main subsystems

Berth Planning System

The objective of berth planning by evaluation of congestion and cost as suggested by Nicolaou is to arrive at an optimum port capacity while incurring minimum capital cost Frankel. Each containership that arrives at a terminal will be assigned a berth, a location where a vessel can dock in the terminal. The characteristics of a container berth are the length, depth, equipment (i.e. cranes), handling capacity, and service facilities.

Transfer System

Containers are moved from berth to the storage area to be stacked or placed in an area for dispatch or containers from the stack are delivered to the gantry crane at the berth to be loaded on a vessel. The import container information such as its number, weight, seal number, and other information are recorded along with the location identification to a central database, such as a yard system in the terminal. Depending on the operations either yard tractors, front loaders, or straddle carriers are employed as transport in this operation. The type of transport employed has a direct relation to the layout of the yard, operations of the terminal, and how the stacking is executed. The export containers are transferred from a



Containers are moved from berth to the storage area to be stacked or placed in an area for dispatch or containers from the stack are delivered to the gantry crane at the berth to be loaded on a vessel. The import container information such as its number, weight, seal number, and other information are recorded along with the location identification to a central database, such as a yard system in the terminal.

location in a stack, thus notifying a yard system that the location is free and will be given to a gantry crane to be loaded on a vessel.

Container Storage System

There exist three main types of storage systems: short term, long term, and specialized, Frankel, (1987). The short-term storage system is for containers that may be transhipped onto another containership. Long-term storage is for containers awaiting customs release or inspection. Specialized storage is reserved for the following containers: refrigerated (called reefers), empty, liquid bulk, hazardous materials, or are out of gauge. Transtainers (either RTG-rubber tired gantry cranes or RMG- rail mounted gantry cranes) are usually employed in the sorting and management of containers in the terminal. The container storage system uses stacking algorithms in assigning a space for the container till it is loaded or dispatched.

Delivery and Receipt System

The interface to other modes of transport lies in this system. The managing of the gate is to obtain information of containers coming into the terminal so as to be properly physically handled before ship arrival and to release import containers before the arrival of trucks or rail. Controlling this access to the terminal is important in that it affects other parts of the container terminal system. The data collected for example are; container number, weight, port of destination, IMO number if hazardous, reefer, shipper, ship line, and seal number are used in deciding where to place containers for storage and later for loading.

Related Work in Agent Oriented Approaches to Container Terminals

The planning for port optimization and control has been traditionally been dominated by researchers in the field of Econometrics and Operations Research. In the field of Artificial Intelligence, recently there have been several papers written that incorporate the use of agent-oriented technology (AOT) such as MAS in the CT domain.

Buchheit et al have modeled a multi-agent scenario that considers parts of a terminal by using a developed platform called MARS for several shipping companies where the transportation firms carry out transportation orders dynamically and the complexity of orders may exceed capacities of a single company. Cooperation between firms is required in order to achieve goal(s) in satisfactory means. The common use of shared resources, e.g. ships and trains requires coordination between many firms. Only a partial container terminal system is viewed.

Degano and Pellegrino apply agents in operating cycles called export, import, and transshipment in an intermodal container terminal. The dispatching of containers and the

stacking or storage of containers is touched upon in the research. Petri nets are used to assist in fault diagnosis and recovery. Their monitoring system uses agents that detect disturbances to a Daily Process Plan. The agents are able to perform diagnosis, and decisions in a simulation that has been validated with historical data from Voltri Terminal Europa in Genoa, Italy.

Gambardella L. et al. investigated the intermodal container terminal in a number of papers where a combination of OR techniques with simulation using agents in a hierarchical order is applied. The problems focused are the scheduling, loading, and unloading operations. The models of the intermodal terminal are based upon complex mixed integer linear program. Decision support for terminal management is divided into three modules: forecasting, planning, and simulation. The last module, simulation, uses agents that act as an agent simulator test bed to check for validity and robustness of policy.

Rebollo, et al. have suggested the multi agent system paradigm in a few papers in order to solve the port container terminal management problem and specifically the automatic container allocation in order to minimize the time a ship is berthed. Various resources and entities such as trainstainers, yard planners, and ship planners are mapped as agents. The use of wrapper agents is suggested for legacy systems in order to provide access to the database, along with communication with external software. A prototype is still being developed.

Thurston and Hu have developed an agent simulation written in Java or the loading and unloading of containers onto vessels, also known in this paper as the ship-to-shore system. The authors focus on the quay cranes as being paramount to the total performance of a terminal. It is assumed that first all containers should be unloaded are unloaded first and those container to be loaded would be loaded after unloading has been completed. However, in reality containers are loaded and unloaded simultaneously, rarely are vessels unloaded and then loaded with containers due to time. The authors provide insight on the job assignments for the straddle carriers and how their routing may be plotted. The system has been evaluated in a simulation with randomly generated data.

Lee et al., analyze the port operations via agent-based simulation for the planning and management of the CT. As with Thurston and Hu, they have focused on the berth allocation and the crane policies. The researchers simulated the PECT terminal in Busan, Korea by testing various policies with physical and logical agents. The agent based simulator results indicated that the stronger the partnership relationships between shipper agents and CT operator agents, the faster the handling of containers. The study was primarily focused on the ship-to-shore system and the transfer system.

The Market Driven control to container management is viewed as a possible holistic solution to the container terminal system through decentralized problem solving within the sub systems of the CT leading to a global solution. In the next chapter the subsystems of the CT are defined and the conceptual model that is currently being developed is discussed.

Market-Based Control

In the next chapter, we will describe a market-based approach to CT management. The motivation of using market-based control is formulated from auction theory in economics where system wide costs are minimized, bidding agents will bid according to their true values, and auctions offer a specifically short-term contract that ignores long-term implications. Much interest has been garnered in the use of market mechanisms in AI. Perhaps the interest in the Internet has swelled such interest in the form of electronic markets and even auctions, Sandholm. A large informal body of knowledge on auctions has been in existence for centuries, and a more formal, game theoretic analysis of auctions began in the 1960's with the pioneering work of Vickery. Market-based control is viewed as a paradigm for controlling complex systems that are difficult to control or maintain. In this paper, we consider the port terminal domain to be a complex system and difficult to be structured quantitatively. The fundamental properties of such complex systems consist of the following notions, Gosh and Lee :

1. Entity: characterized in the CT domain as resources, such as gantry cranes, straddle carriers, lorries, and ships having consistent behavior that does not deviate, i.e. straddle carrier will not change roles with gantry crane.
2. Asynchronous behavior of the entities: various entities on the CT, such as gantry cranes, straddle carriers, lorries, and, ships are encapsulated with unique behavior described by functionality and timing.
3. Asynchronous interactions between the entities: not all the resources in the CT have the knowledge to execute a task, thus the sharing of information is necessary to carry out jobs, i.e. the straddle carrier can not load container in the vessel only the crane can and the crane can not travel to the yard similar to a straddle carrier.
4. Concurrent execution of the entities: simultaneous occurrences of lorries, trains, and vessels entering and leaving a CT with varying number of containers.
5. Connectivity between the entities: the sharing of data, information amongst the resources in the CT constitutes connectivity.

Market-Based control has been proved to be a suitable tool for complex resource and task allocation applications, Bredin et al. It is interesting that markets are not initially perceived as a means to control a system. In the market-based system, the agents are provided with individual goals and through their interactions with other agents in an auction, a control of the CT system is achieved. Since the CT "owns" the agents, there is no security threat from agents acting selfish or behaving greedy. For the market to function we assume that agents will not bid more than they can and that agents will honor agreements. The view is that agents should act benevolently in that agents will not cheat or lie, but will buy or sell when they can. The agents in the CT system view resources, i.e. time and containers as assets that can be bought and sold. The auctions protocols currently being considered for the prototype for the various resources within the CT are proposed to be a Market-Driven Contract Net, Clearwater. Where a task would be generated as request for bid (RFB) and broadcasted to all resource agents. The resource agents would make bids according to their cost (based on position, time and operating cost) to carry out or execute the RFB (task).

Multi-Agent System for Container Port Terminal Planning

In this section we present our suggested approach to a market based system for allocation and dispatch of containers within a CT. The system is primarily used for creation of work orders, container yard allocation and berth planning. The system uses the agent and multi-agent system metaphors in that the mapping of functionality in the container port terminal is made in terms of agents. The system will make use of auctions where agents are free to bid and raise their bid until no other agent is willing to bid any longer. The auction setting depends on the value that each agent places on an activity. A setting that could be utilized is the correlated value auction, Weiss, each agent bidding is dependent on its preference and the value that other agents may have for handling the task. In Figure 2, we show the main flow of resources traversing the system as well as the four different types of global agents inhabiting the system:

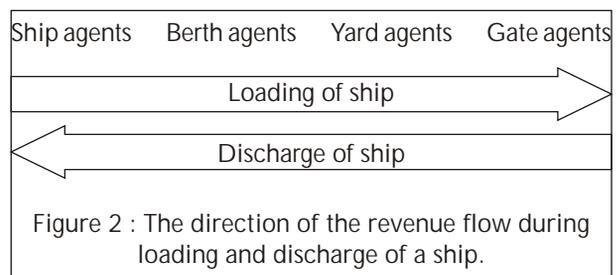
The ship agent is instantiated upon the planning of an arriving vessel. The agent will, before the final decision of the berth location, interact with the berth agents to decide where the most cost beneficial berthing can be achieved. The agent gains revenue when discharging / selling containers to the terminal and has expenses for the loading / buying of containers.

The berth agent is responsible for the allocation of resources at a dynamically changing part of the quay. It will upon request calculate the current price for the berthing of a ship with an indicated loading manifest (list of containers). The berth agent calculates the price by

issuing requests for crane resources, container transportation and container storage.

The yard agent is responsible for a dynamically changing storage space in the terminal. The agent will on requests for container storage, respond with a bid by calculating the value of the specific container, e.g., is there already containers in the dedicated storage with similar destination data, is there any space available and is it allowed to store the container at that space? Other impacts on the agent bids are the expenses related to transportation of the container and the subsequent need for transtainers to lift the container into place. The agent will during loading sequences of ships demand revenue for the dispatch of containers from the storage area. The agent will also request revenue for the dispatch of containers to the gate.

The gate agent is a logical wrapper to the physical gate. The gate agent allocates containers to the terminal storage by awarding the containers to yard agents and requests stored containers when dispatching containers to land transportation.



In addition to the agents mentioned above there are three other types of agents that are used by the global agents as utility agents:

The crane agent is a mapping of a crane (typically a gantry crane) for the loading and discharging of a ship. The agent is concerned with the optimal usage of the crane in that it will try to minimize the number of location shifts in relation to the maximum utilization of time. This agent is one-sided in the auctions in that it will always sell its service and its costs will be based on its operating running cost.

The transtainer agent is a mapping of a crane used for the movement of containers within a yard. The agent is mainly concerned with optimization of the allocation of containers within a designated space. Typically it will make use of queuing theory, stacking algorithms and other existing techniques for positioning the containers so that a minimum of subsequent handling is necessary.

The transport agent is a mapping of a transportation vehicle. The main goal is to utilize the vehicle as optimal as possible both for allocation as well as for dispatch of containers. The utility function for the transportation agent is the degree of occupancy in relation to the

distance to travel. The transport agent is one-sided in that they are always selling their service and not buying in the auctions.

The system architecture mainly supports the following activities:

Allocation of incoming containers to the terminal yard (see Fig. 3). A gate agent will on receipt of a container initialize an auction and request the yard agents to bid on the specific container. The yard agent has to take into consideration the cost and availability of transtainers and transportation as well as the likelihood that it later can sell this particular container at a higher price. The gate agent awards the container to the yard agent presenting the best bid.

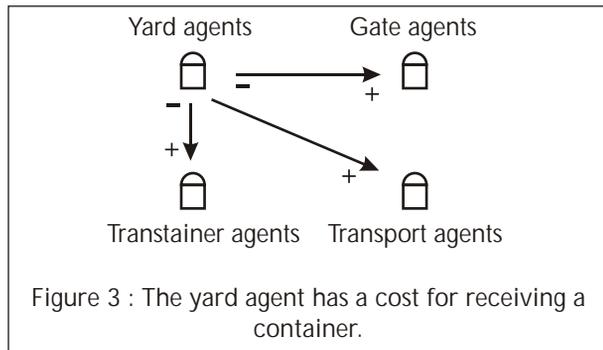


Figure 3 : The yard agent has a cost for receiving a container.

Dispatch of containers from the terminal yard to ships (see Fig. 4). A ship agent will make a request for a price for the loading of a set of containers at a specific berth. The corresponding berth agent will calculate the price by issuing a request for the containers to the yard agents. The yard agents will indicate a price as well as availability (depending on the transtainers) if the container is stored within its area. The berth agent then requests a price for transportation and cranes. Depending on the availability of a load order list, the exact sequence of containers is used when calculating the price, otherwise the availability, distance and occupancy determines the price. The final decision on which berth the ship will use depends on the lowest price presented by a berth.

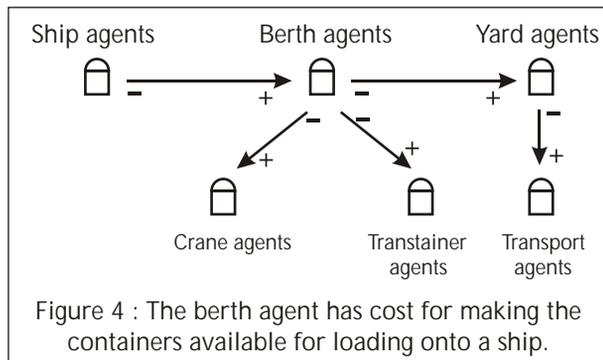


Figure 4 : The berth agent has cost for making the containers available for loading onto a ship.

Allocation of the yard with containers discharged from a ship (see Fig. 5). A ship agent will make a request for discharging a container to the berth agent. The berth

agent then initializes an auction and requests the yard agents to bid on the specific container. The berth agent will also have to request operations from the crane agents to lift the container off from the ship. The crane agents will sell their service to the berth based upon their operating costs, thus crane will acquire income.

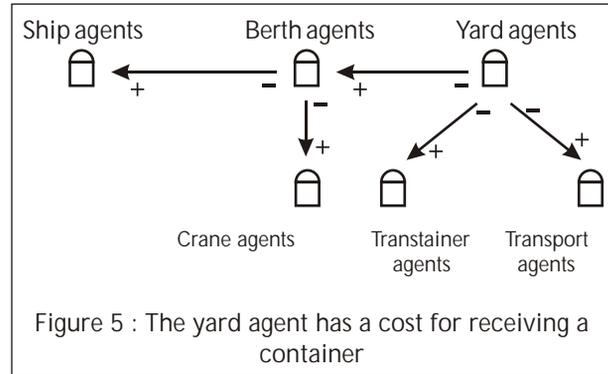


Figure 5 : The yard agent has a cost for receiving a container

Dispatch of containers from the terminal yard to land transportation (see Fig. 6). The gate agent will make a request to the yard agents for a container upon demand from a land transportation source. The gate agent will also have to initialize an auction to receive bids for transportation from the yard to the gate.

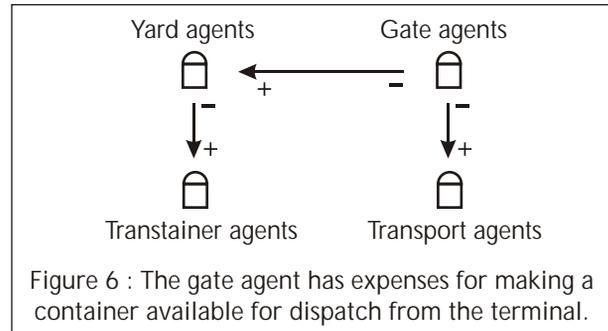


Figure 6 : The gate agent has expenses for making a container available for dispatch from the terminal.

Reallocation of containers after final decision of berth. The ship agent will continuously interact with berth agents to determine the current price for an actual berthing. After the final decision of berth, the yard agents can start buying and selling containers among them if the cost or price of shifting is beneficial to the yard agents. Optimally, the containers are already stacked close to the awarded berth but the shifting of one or two containers may improve turn-around time for the ships.

Conclusion and Future Work

Research in applying MAS approaches in container terminal planning and management issues has been gaining popularity due to the complexities in solving the problems. Researchers have proposed varying methods in applying MAS in CT. We have suggested a multi-agent architecture based on a market-based approach. This is our initial approach towards a holistic solution to a very complex domain. The MAS approach to the automatic planning will generate several work schemes.

Furthermore, the planning will assist terminal management when executing decisions from the work schemes.

The system is to provide dynamic yard allocation, dynamic berth allocation, and will reduce idle time of transport vehicles. Furthermore, the main goal is to optimize the capacity of the terminal, which is measured by four main performance indicators: measures of production (e.g. traffic or throughput); measures of productivity (e.g. crane moves/hour); measures of utilization (berth occupancy) and measures of level of service (ship turnaround time). Some questions that concern CT performance are length of time to move equipment and supplies through the CT, what and where are the potential bottlenecks and limited resources to movement through the CT, why are operations not completed by the required time, what are the implications if certain seaport resources are constrained or available? What are the port throughput capability given explicit assumptions on assets, resources and scenarios?

We are currently developing a CT simulator that will be used to evaluate the market-based approach. The simulator will run scenarios where the interactions between the agents within the system will follow the information patterns that are generated and executed by physical moves, i.e., the system will map the flow of an actual container terminal.

The suggested approach needs to be concretized in several aspects, e.g., which auction protocols should be used, and how is the update of information to be achieved. Furthermore, the system needs to be validated and evaluated.

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What is privatization? To define "privatization" is a difficult, complex and controversial task. Many definitions have been proposed, often covering very different concepts and values, such as:

- Privatization is the act of reducing the role of government, or increasing the role of the private sector, in an activity or in the ownership of assets;
- Privatization means the opposite of nationalization: the objective of nationalization is for government to take over the ownership of private enterprise, while privatization means the transfer of government services to the private sector;
- Privatization means transferring the production of goods and services from the public to the private sector. It is not a policy but an approach, one which recognizes that the regulation which the market-place imposes on economic activity is superior to any regulation which can be devised and operated through law.

ports... & privatisation



As far as port sector is concerned, the diversity of definitions and the implied differences in nature, scope and coverage pose problems for the drafting of standard guidelines. There is therefore a need to agree first of all on an appropriate definition that is sufficiently precise to accurately reflect the concept of privatization and sufficiently broad to incorporate the specific characteristics of port assets and services in the majority of "privatization schemes" proposed in the ports industry - in the past, present and future.

For the purpose of drafting the "port privatization guidelines" the definition of privatization is as follows:

Privatization is the transfer of ownership of assets from the public to the private sector or the application of private capital to fund investments in port facilities, equipment and systems.

Without the notion of private ownership or the private funding of port assets or services, there can be no port privatization. Increased participation by the private sector in the delivery of port services, without private investment, is not privatization but devolution. Not surprisingly, devolution is often presented as privatization by those vested interests that oppose any enlargement of the financial stake of the private sector in ports. The same is true for corporatization. In its true sense this means giving a public sector organization the legal status of a private corporation or company, whilst the Government holds the shares. All the land and assets are then legally transferred to the newly established company or corporation, but they remain wholly within the public sector. Again, it has been suggested by some interest groups that corporatization is an improved form of privatization. This is clearly unjustified since there is neither a divestment of the Government's interests in favour of the private sector nor the inflow of fresh private capital.

Another popular term that is often used is commercialization. Although no standard definition has been suggested by its promoters, the concept

it is appropriate to point out that no generally valid formulation of concepts and modes of privatization exists or has been embodied in an international convention. Rather, the opposite is the case, since national legislation and local practice often give a special meaning to the notions and terms explained above. It will therefore be necessary to verify whether in any given context, the definitions provided in this chapter, and on which the guidelines are developed, are consistent with the legal foundations of the national legal system and do not infringe international agreements.

presupposes at least a greater awareness by the public Port Authority of the needs of its private and public sector clients and the need to make it more accountable for its decisions, operational performance and financial results. It also presupposes no further interference by government or other public bodies, although this has rarely been verified in practice. Finally, confusion reigns supreme when, in the privatization debate, mention is made of deregulation of the transport sector. In essence, deregulation is the elimination or liberalization of rules and regulations initially introduced and enforced by government agencies and public authorities with a view to promoting safe, adequate, economic and efficient transport services, but which are now felt to be unduly restrictive and burdensome. However, deregulation can have both positive and extremely negative effects. The elimination of restrictive port rules and regulations in order to liberalize the market and promote efficiency is no doubt a favourable development. But a minimum of regulations has to be in place, if only to ensure that the management and

operation of the ports respects international codes, rules and regulations with regard to safety, security and employment. Examples of appropriate deregulation are the lifting of rules restricting entry into a business or on a transport route, the granting of freedom of pricing, thereby dispensing with an obligation to file rates, and the freedom for a transport operator to agree special contracts with large shippers, based on volume and service.

In the "privatization debate", notions such as concepts and modes are frequently mixed up. Privatization, corporatization, commercialization and deregulation mostly refer to concepts promoting a greater private role in economic activities or a greater degree of freedom for the private sector. Realization of the concepts, however, requires the reliance on various alternative modes of privatization. These are specific instruments that ensure the implementation of the various concepts. The most common of these instruments are:

- licences and concessions;
- leasehold contracts;
- Build-Operate-Transfer (BOT), Build-Own-Operate (BOO) and Build-Own-Operate and Transfer (BOOT) arrangements.

It is, however, essential to emphasize from the start that various forms of privatization determine to a large extent the choice of privatization instruments and the specific procedures for actual implementation. The forms of privatization that can be distinguished are the following:

1. **Comprehensive privatization** : This is a scheme in which a successor company becomes the owner of all land and water areas as well as of all the assets within a port's domain (this is equivalent to the sale of an entire port to a private or public/private company);

2. **Partial privatization** : This is a scheme whereby only part of the assets and activities of a public port body are transferred to the private sector (such as the sale of existing berths, the transfer of the pilotage or towage functions to the private sector or the concession granted by a public Port Authority to a private company to build and operate a terminal or a specialized port facility);

3. **Full privatization** : This signifies that the complete ownership of the facility or service provider is entirely in private hands (e.g. ownership of a specific terminal or storage facility, or of a tug-boat service, has been wholly transferred to a private company);

4. **Part privatization** : This signifies that part of the same facility or service provider is owned by the public body and part by the private sector, with public and private bodies thus effectively executing a joint venture agreement.

This means that it is possible to have comprehensive and full privatization, but also comprehensive and part privatization. Partial privatization can be in full or in part, depending on whether or not the public sector retains ownership.

In conclusion, it is appropriate to point out that no generally valid formulation of concepts and modes of privatization exists or has been embodied in an international convention. Rather, the opposite is the case, since national legislation and local practice often give a special meaning to the notions and terms explained above. It will therefore be necessary to verify whether in any given context, the definitions provided here, and on which the guidelines are developed, are consistent with the legal foundations of the national legal system and do not infringe international agreements.

The diversity of privatization schemes is matched only by the dissimilarity of the objectives pursued by these

schemes. Governments opting for the privatization of their port facilities and services often pursue a cluster of objectives, some of which sharply contradict other aspects of government policy. When drafting guidelines for privatization, it is essential to be aware of the government's true intentions and what it hopes to accomplish through the proposed privatization scheme(s).

At least three paramount objectives underpin most major port privatization efforts:

1. **Improvement of the management capability of the port entities**, such improvement often being narrowly defined as increased efficiency and upgraded operational productivity;

2. **Reduction of the financial demands on the public sector**, in particular on central government, by employing private sector resources to replace those of the public sector by generating increased revenue for the government, or both;

3. **Enhancement of the service quality offered to users and a reduction of the price they have to pay for port services.**

Additionally, other objectives are targeted by privatization schemes, such as:

- redistributing wealth or other social objectives (e.g. curbing the power of trade unions);
- attracting new or additional trade and business for the country and the port;
- sharing commercial, economic, technological or management risks between the public and the private sector;
- stimulating private entrepreneurs and investment in the economy;
- transferring technology in the form of advanced equipment deployment or the introduction of state-of-the-art management systems.

The objectives often reflect the perceived inherent advantages to be derived from port privatization schemes. What is not always apparent is which party or parties are expected to be the main beneficiaries. Table 1 groups the perceived inherent advantages and links them to the expected beneficiaries. It indicates that five parties can potentially benefit. The main beneficiaries are in particular the Port Authority, the terminal operator and the port customers. They gain in a varied number of ways. Another significant aspect brought out by the table is the distinction to be made between macroeconomic benefits (in general those generated at the level of the world economy, the national economy or the national Government) and microeconomic ones (typically the advantages accruing to the three main beneficiaries referred to above).

Again, the mode of privatization and the instruments used to privatize will to a large extent determine how many of the perceived advantages listed in table 1 can be obtained and by which of the parties listed. For example, if at the beginning of a privatization scheme the transfer of technology has been earmarked as a priority spin-off, the choice of the most suitable privatization instrument (long-term lease contract or BOT, BOO or BOOT arrangement) will need to be accompanied by the proper clauses in the concession or licensing contract. These clauses should not only be worded to allow the transfer of technology from the concessionaire to the Port Authority initiating the privatization scheme, but should also effectively encourage and facilitate such transfer.

Scope of Privatization Schemes in Ports

At the start of any port privatization scheme is the selection of what port facilities or services will benefit from a transfer to the private sector. Not surprisingly, some are considered more amenable to privatization than others. Experience shows that the most frequently privatized are cargo-handling and storage facilities, which can be well defined and delimited and allow a reasonably accurate valuation acceptable to both the previous and the new owner. Port terminals for general and specialized cargoes are prime candidates for privatization. But often the process does not concern existing facilities but terminals yet to be built. This then raises the question of the precise "object" to be privatized and offers a range of possible alternative arrangements. Indeed, for a dedicated specialized terminal for example (containers, ore, liquid bulk, grain), the privatization of the full facility can be considered. The private sector would then be invited to invest in all the components that make up a terminal, such as the quay-wall, alongside dredging, land reclamation, pavement for the operational and open storage areas, buildings, gates, lighting, handling equipment and systems. The other extreme case would be to offer to the private sector the complete infra- and superstructure and invite proposals for provision of the handling equipment and systems. The privatization mode, as will be discussed in chapter 4, depends very much on the nature, scope and extent of the "object" that is offered for privatization.

The scope of privatization schemes in ports raises two important and complex issues:

- (i) The valuation of existing or projected facilities;
 - (ii) The ownership and utilization of land.
- (i) The valuation of existing or projected facilities can be done using:
- expected earnings projections;
 - methods based on the value of the existing assets;
 - market-based methods;
 - port-industry-specific methods.

For existing facilities the expected earnings projections

(see chapter 9) and asset-based methods are most frequently relied on. Market-based methods are generally irrelevant because the assets are not held by a company quoted on the stock exchange, but by a public body. Finally, the methods specific to the ports industry are at best very crude as they can be based only on annual throughput or past revenue. The most relevant basis for valuing a port's business is therefore the earnings-based valuation method and particularly the discounted cash flow method. Problems specifically related to port valuation are the cost structure (heavily weighted towards labour costs, which makes it difficult to predict how the cost structure and labour cost level will change after privatization) and the determination of port capacity and traffic growth (the former fluctuates greatly and is most difficult to predict, while the latter depends to a large extent on international, regional and local economic conditions). In developing countries, port valuation is further complicated by the uncertainties surrounding the legal and regulatory framework, doubts regarding the convertibility and repatriation of profits, the risk that the private owner's freedom to negotiate employment terms is "severely curtailed", and last but not least, the level of political stability that is expected in the medium and long term.

(ii) The ownership and utilization of land is a highly critical issue because in most cases the public sector will make land available to the private sector on the assumption that optimal use will be made of it. Thus the question is ultimately one of ensuring that such optimal use is consistently and permanently guaranteed. Considerably more difficult is the question of whether land can be indefinitely made available (i.e. sold) to the private sector. The answer to this question depends on the provisions of the applicable national legislation. In general terms, statutory corporations in charge of ports are forbidden to sell land without ministerial or Cabinet



Experience shows that the most frequently privatized are cargo-handling and storage facilities, which can be well defined and delimited and allow a reasonably accurate valuation acceptable to both the previous and the new owner. Port terminals for general and specialized cargoes are prime candidates for privatization.

authorization because they are considered part of the public domain or because the public trust doctrine applies (i.e. navigable waters and adjacent land are held in trust by the sovereign for his or her subjects and should be used only for the benefit of the general public). Only in exceptional cases does a privatization scheme lead to the sale of the land, mainly where it is comprehensive and relates to a specialized port outside traditional port boundaries.

The ownership of the land has, however, significant consequences for the choice of the preferred mode of privatization and also implications for the ownership of

the facilities that will be built on the land. Where the domain is immune, no liens and mortgages can be obtained or edifices built on it. If a mortgage has been obtained (despite the principle that it cannot be), the pledge is legally worthless. Port Authorities, however, have generally adapted the clauses of their leases to give more flexibility, although this again may not stand a judicial test. In fact, in some countries banks have accepted liens and mortgages based on the good faith of the parties involved. Clearly then, this is a major weakness of the lease and BOT modes and one that could be exploited by less scrupulous parties participating in such an arrangement.

Table 1 : Perceived advantages and main beneficiaries of major privatization schemes

Beneficiary	Perceived advantages
Port Authority	<ul style="list-style-type: none"> • possibility to more readily define its priority corporate objectives, thanks to greater Terminal operator as required; • greater freedom from public sector constraints, particularly with respect to personnel management, pricing, budget review and its sanction by higher authority, administrative impediments, and procurement of equipment and services; • increased ability to define precise financial targets; • increased accountability in line with set targets; • greater transparency of costs, greater likelihood of tariffs being cost-related, reduced risk of cross-subsidization; • a better distribution of port charges and dues particularly in the case of service ports, as these tend to undercharge the ship and overcharge the cargo; • increased responsibility for the private investor with regard to the level of infrastructure investments necessary to carry on with his business;
Terminal operator	<ul style="list-style-type: none"> • opportunity to bring into the country foreign management and technical expertise as required; • greater potential for the diversification of activities; • freedom to subcontract to third parties any activity the company does not want to pursue itself (or does less well); • full accountability with respect to achieving the set operational and financial targets; • cost transparency allowing for cost-related tariffs and a curb on the practice of Cross-subsidization;
Port customers	<ul style="list-style-type: none"> • availability of customer-tailored quality services; • quicker, more effective response to users' service requirements; • reduction in prices for port services, as competing units will make efforts to reduce costs and prices to attract traffic away from competing ports;
The world and the national economy	<ul style="list-style-type: none"> • increased responsiveness to changes in market structures and demand; • faster adaptation to changes in maritime transport technology and intermodal transport;
National government	<ul style="list-style-type: none"> • reduction of the financial and administrative burden on the government • creation of additional tax revenues for the Government as private operators pay their taxes (contrary to statutory port authorities, which often try to escape them) and the increase in business levels.

Source : Matter collected from editorial desk

RO-RO Ferry service

in Gujarat

Concept and Background

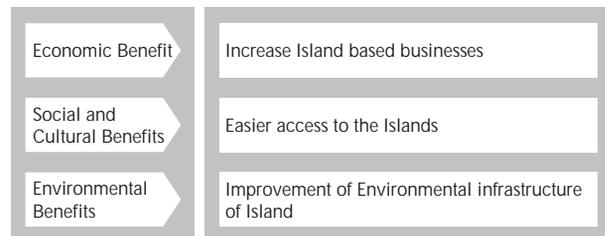
- Roll-on/roll-off (RO-RO or ro-ro) ships are vessels designed to carry wheeled cargo and passengers (car borne and direct)
- The concept of commercial Ro-Ro operation began from Europe in 1950
- Presently ro-ro ferry operates regularly in European countries like Netherlands, France, Belgium, UK and quite a popular mode of transportation in South-East Asia and China.
- It's environmentally friendly mode of transportation

Requirements for Ro-Ro to operate efficiently:

- Special Ro-Ro vessels
- Shore terminals with appropriate facilities like berthing jetty, parking, passenger amenities, terminal connectivity etc.

Benefits of Ro – Ro Ferry

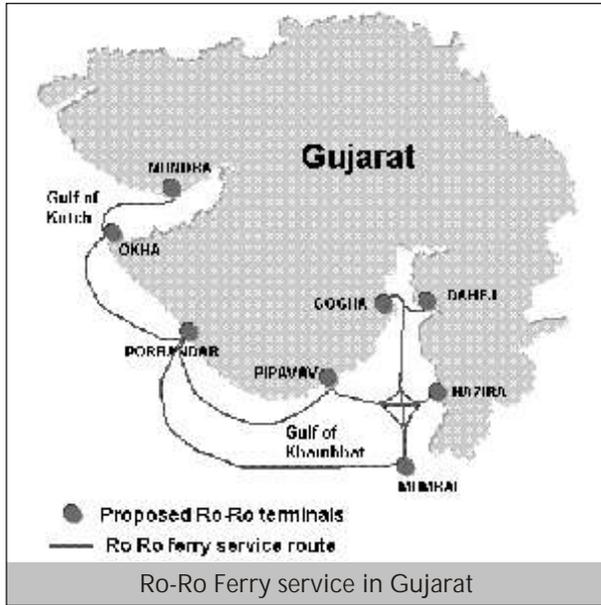
The benefits of Ro-Ro ferry services are manifold from cost effectiveness to huge employment generation.



Ro-Ro Service in Gujarat

With two gulfs dividing the State in three parts, Gujarat is an ideal location for Ro-Ro ferry service operation.

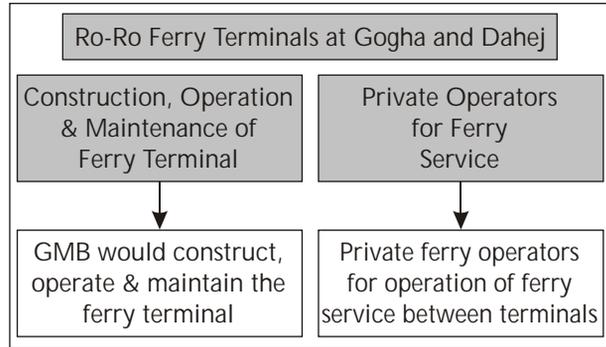
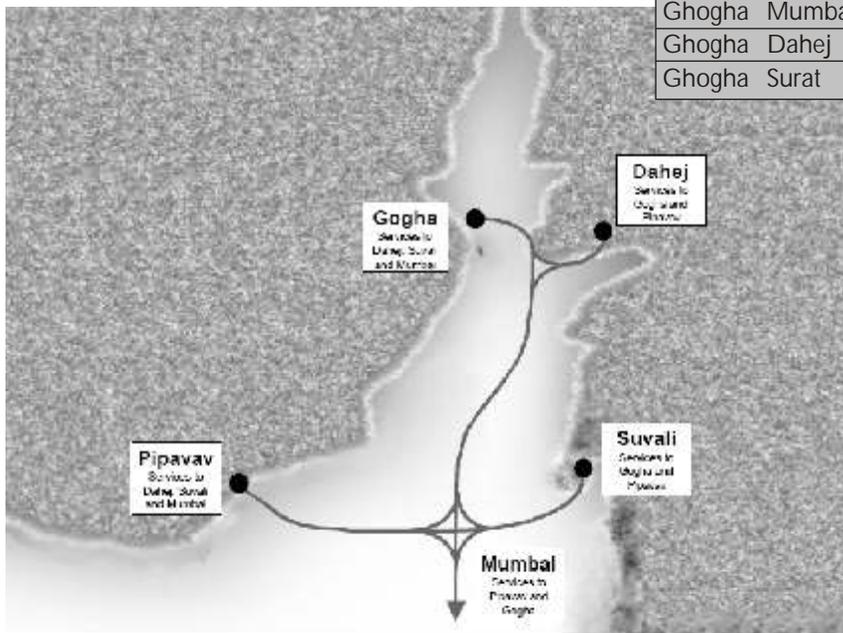
- Presently the travel from Kutch and Saurashtra region to the southern region takes around longer travel times and wastage of resources (fuel, operating costs, etc).
- Coastal water transport is an eco-friendly, cost effective, and fuel efficient mode of transport with huge potential of employment generation
- Port policy announced by the state government in December 1995 special emphasis has been laid on the introduction of Ro-Ro ferry service
- Proactive measures by State Government is aiding this sector



Concept and Development Model of Ro-Ro Ferry service in Gujarat

The total investment envisaged in the project includes dredging at both the terminals and construction of ferry terminal which will be constructed, operated and maintained by Gujarat Maritime board (GMB) at its own cost and a service charge would be collected from ferry service operator. The ferry service would be operational for 8 months and 4 months non-operational.

Gujarat Maritime Board (GMB) will be inviting prospective private ferry operators for ferry operation by EOI (Expression of Interest) between the terminals. GMB will issue license for ferry vessel. GMB will collect charges for the usage of the facilities.



Project Potential: Ro-Ro Ferry Service in Gujarat

- The combination of cargo cum passenger Ro/Ro vessel with powerful engines will be most suitable vessel for this purpose.
- Vessel with powerful twin engines, good speed and economical consumption is required. A vessel of minimum capacity of 60-80 Trucks, and minimum 500 passengers is desirable. However pure cargo or pure passenger ferries are free to operate.

The probable goods for transportation are:

Building material, Heavy Machinery, Textiles, Perishables, Agricultural Products etc.

The distances saved by operation of the ferry service are mentioned below:

Distances saved by operation of the ferry service

From	To	Distance by Road		Distance by ferry service	
		Distance (km)	Time (hrs)	Distance (nautical miles)	Time (hrs)
Ghogha	Mumbai	672	26	216	16
Ghogha	Dahej	380	10	21	1.6
Ghogha	Surat	497	8	41	3.2

- Passenger vehicles accounted for 2917 and cargo vehicles accounted for 2332 trips per day (as per 2008).
- Movement of passengers across the Gulf of Khambhat accounted for 19800 per day.

Technical Details: Ro-Ro Ferry services in Gujarat

- GMB planned to introduce Ro-Ro ferry service network in Gulf of Khambhat, Gulf of Kutch and also to link with Mumbai and southern coastal states up to Kerala.

- To begin with, ferry service between Ghogha and Dahej will be commenced.
- GMB has decided to develop the Ro-Ro ferry terminal at (Gogha and Dahej) the cost of approximately Rs 171.00 crores (USD 32 million) in Phase-I and will extend upto Mumbai in Phase - II

Technical Details

Location	Gogha	Dahej
Latitude	21° - 41' N	20° - 41' N
Longitude	72° - 17' E	72° - 32' E
Current (Knots)	4	6
Tidal range (meter)	9.06	8.94
Waves (meter)	2.4	2.6
Draft (meter)	0.80 – 1.5	0.60 – 1.2

Ro Ro ferry Service: Facilities to be provided by GMB

- The total infrastructure cost envisaged at Ghogha and Dahej is US\$ 32 million.
- Planned to complete the construction of both the terminal and the ferry operation to commence by January 2011.
- The facilities to be provided by GMB to the private ferry operators are given below:

Proposed Structures for Ro- Ro Ferry

Onshore	Offshore
Terminal & Administrative building buildings,(3700 sq m)	Berthing Jetty 250 m
Shelter house	Approach Jetty 130 m
Fire station, Police station (400 sqm)	Bank Seat
Control Tower(100 sqm)	Link span-50 m
Custom house(400 sqm)	Approach Bund-130 m
Police Station(100 sqm)	Dolphins
Workshop, Pump house & sanitation (100 sqm)	Dredging
Electric sub station, (100 sqm)	Navigational aids
Large Terminal Parking Area (10,000 sqm)	
Toll & Security(20 sqm)	
Internal Roads(7000 sqm)	



Connecting Further : Gujarat Maritime Board (GMB), Head Quarters, Sector 10- A, Gandhinagar – 392010. Phone : 079-23233346-47-48-51. Fax : 91-79-23244132. Web : <http://www.gmbports.org>



OM SAI Navigations Pvt. Ltd.

ASHWIN BANKER
Managing Director

Email : ashwin.omsainavigation@yahoo.co.in
Ph: +91-79-27522789
M: +91-94266 00417

Project:
Ro Ro Ferry Service in Gulf of Cambay Between Port VICTOR (Saurashtra) and SURAT (South Gujarat)



Gangavaram Port

A Harbinger of Maritime Trade Revolution



Upholding the true spirit of Public Private Partnership the State Government of Andhra Pradesh, India, with an intention to develop the Port on the Public Private Partnership model, conducted a global bid process and selected the consortium led by Mr. D.V.S.Raju, to develop and operate the port.

Gangavaram Port has the unique distinction of being one of the few Greenfield projects in India which has been implemented on schedule. Construction at the site commenced in December 2005 and the Port commenced Trial commercial operations at the port in August 2008.

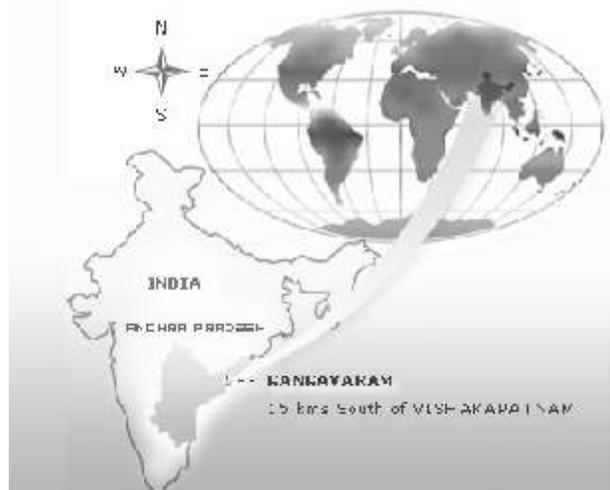
Gangavaram Port has been developed as all weather, multipurpose, deepest port in India with a depth up to 21 meters capable of handling Super Cape size vessels of up to 200,000 DWT. Gangavaram Port with its deep draft berths will act as the gateway port to existing and Greenfield projects planned in the hinterland. Its ability to handle larger vessels efficiently will result in substantial savings to trade and port users. It will be able to provide efficient cargo handling services for a variety of bulk cargo groups including Coal, Iron Ore, Fertilizer, Limestone, Food Grains, Steel products, Petrochemicals etc.

The Port, its related facilities and material handling system have been planned to meet the highest standards in terms of pollution prevention and safety.

Location

Gangavaram Port is located at Visakhapatnam, the industrial nerve center of Andhra Pradesh around Latitude 17° 37' N and Longitude 83° 14' E, about 15 kms south of Visakhapatnam Port.

The site for Gangavaram Port is the best location for development of a modern all weather, deepwater, multipurpose and truly next generation port. The coast here forms a bay between Yarada Hill at north and Mukkoma Hill at south. A creek in between these two hills forms Balacheruvu Lagoon, where the natural port of Gangavaram is being developed.



Advantage

The Gangavaram Port, located on East Coast of India, is the most modern, all weather, deepwater, multipurpose port offering significant cost savings to Importers and Exporters in the hinterland.

Key advantages of the location include:

- Deep waters very close to the shore
- National/Regional road and rail connectivity run very close to the site
- Around 2800 acres (1133 ha) of uninhabited back up area
- Vizag Steel Plant with cargo handling requirement of 7 MTPA located adjacent to port site
- Proximity to major industrial and mineral belts of Eastern and Central India

The Port offer's the following advantages with potential cost savings to Port Users:

- Reduced per ton ocean-freight owing to larger parcel sizes at deep-draft berths
- Significantly reduced vessel waiting time owing to highly efficient port operations
- Faster turn-around of vessels owing to modern high-speed cargo handling equipment
- Cost-efficient logistic solution owing to high-speed cargo evacuation and proximity to national/regional road/rail network
- Environment-friendly material handling system
- Competitive tariffs

Development plan

Keeping in view the future requirements of industry, Gangavaram Port Master Plan has been designed with facilities to handle up to 300,000 DWT vessels, flexibility for phased development and room for expansion for a plan period of 50 years.



Coal unloaders installed on Coal Berth



Mobile harbor cranes on General Cargo Berths

The Salient Features of the development plan include:

- Master Plan has provision for 29 berths with a capacity of 200 MTPA
- Plan for entire spectrum of cargoes, with berths for handling dry bulk, other dry bulk, break bulk and container cargo with dedicated cargo centric zones
- Breakwaters to provide complete protection to berths from waves and swell to facilitate all weather, round the year port operations
- Navigation channel and harbor area providing adequate maneuvering room for ships
- Total land area of 2800 acres for port facilities development
- Extensive ancillary facilities and state-of-the-art utilities/services
- Adequate backup area for developing stack yards, covered storage sheds, tankages, container freight station, etc.
- Flexibility to quickly ramp up cargo handling facilities as per demand
- Rail and road access up to the stack yards, storage sheds and container yard
- Provision to provide value added services like Coal Blending
- Provision for Ship building and repair facilities
- Marine Oil Terminal consisting of Single Point Mooring system for handling VLCCs, sub-sea pipeline and Tank farm

Milestones

- Commencement of Commercial operations at the Port by handling first vessel on 3 August 2008 and second vessel on 4 August 2008
- Largest Coal vessel to call at Indian Ports, Capesize vessel MV Ocean Dragon (151,049 DWT) handled successfully at Gangavaram Port on 15 January 2009
- Gangavaram Port achieves another historic milestone on 30 May 2009 by discharging 71,808 tonnes a day from Third Capsize Vessel MV Go Patoro (150,108 DWT) carrying coal cargo for Adani Enterprises Limited
- Gangavaram Port handles the fourth Capesize vessel MV Dong A Hermes (146,115 DWT) on 12 June 2009
- Gangavaram Port handles the fifth Capesize vessel (First capsize vessel carrying Iron Ore), MV Cape Cosmos (138,102 DWT) on 7 July 2009
- Gangavaram Port has handled more than 8 Million tonnes of Cargo till date, including cargo like Coking Coal, Steam Coal, Iron Ore, Limestone, Bauxite, Urea, Slag, Steel, Raw Sugar, Scrap and Project Cargo

Port connectivity

Railway Connectivity

Railway connectivity has been laid connecting the port to the main broad gauge national network of "Chennai-Visakhapatnam-Howrah" rail corridor. The Port has its own independent "Railway Siding" with main salient features as follows:

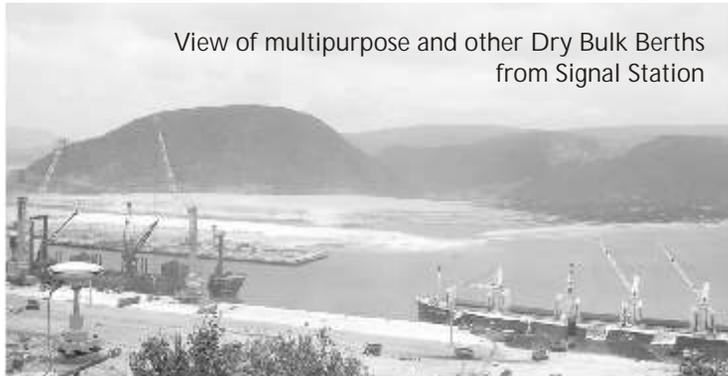
- R&D yard with "Six interchangeable lanes" for receipt and dispatch of rakes
- Distance from port R&D yard rail siding will be approximately 2.5 kms
- Coal siding for placing two full rakes for mechanized wagon loading
- Two in-motion weighbridges for weighing of rakes
- Two locomotives for shutting of rakes within the railway siding

Road Connectivity

Road connectivity to the port has been provided by a 4 lane expressway of 3.8 kms connecting the port with the National Highway No.5 (Chennai - Kolkata)

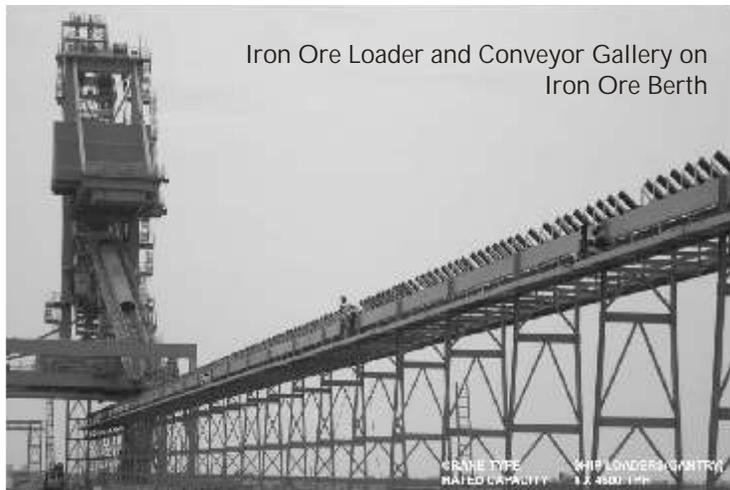
Source : www.gangavaram.com

View of multipurpose and other Dry Bulk Berths from Signal Station



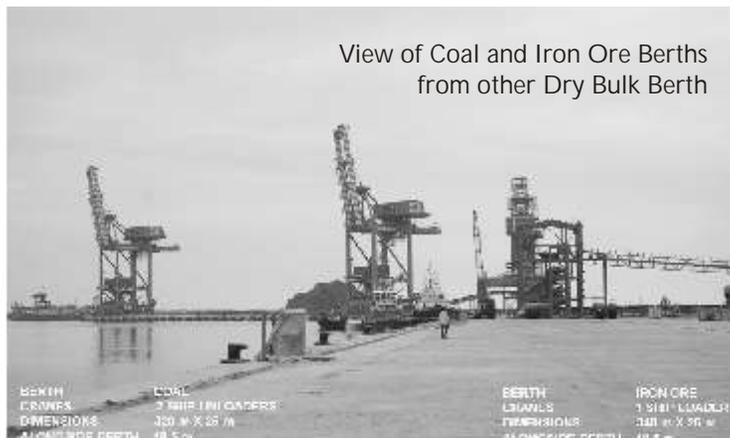
M. V. Timios Stavros and M. V. Ikan Sembak berthed on Multipurpose and other Dry Bulk Berth Respectively

Iron Ore Loader and Conveyor Gallery on Iron Ore Berth



CRANE TYPE: 400 TONNE
RATED CAPACITY: 1.2,000 TPH
SHIP LOADER CAPACITY: 1.2,000 TPH

View of Coal and Iron Ore Berths from other Dry Bulk Berth



BERTH CRANES: 3 SHIP LIFT CRANES
DIMENSIONS: 320 M X 25 M
ALONGSIDE DEPTH: 18.5 M

BERTH CRANES: 1 SHIP LIFT CRANE
DIMENSIONS: 140 M X 26 M
ALONGSIDE DEPTH: 18.5 M



events Calendar

Europort 2009
3 - 6 November 2009
Ahoyweg 10
Rotterdam, South Holland NL

EUROPORT 2009 Europort 2009 is connecting the maritime world without question the most complete international maritime exhibition. From 3 to 6 November 2009 professionals and representatives of leading maritime companies meet in Rotterdam.

All sectors of the shipbuilding industry, from inland to sea shipping, from naval to dredging and from fishery to offshore, are brought together in one state-of-the-art exhibition. Europort is truly connecting you with the maritime world.

Europort takes place in one of the largest ports of the world - Rotterdam. With a total exhibition space of 40,000 m² divided over 10 halls, Europort has evolved into the second largest maritime exhibition in the world.

For more details, contact -
Mr. J. Joshua
Tel: +971 4 340 77 43
Email: jeen@alfajer.net
Website: <http://www.europortmaritime.nl>

SeaCargo Americas
International Congress & Exhibition
4 - 6 November 2009
Doubletree Miami Mart Hotel and Convention Center, Miami, Florida, USA



In November 2009, the fourth SeaCargo Americas Conference will be held in Miami, Florida to enhance the growth of the industry in the Americas. More than 200 international trade executives are expected to attend the conference and more than 4,000 executives will attend the exhibition. The IV SeaCargo Americas exposition will be held in conjunction with the X Air Cargo Americas Congress & Exposition.

For more details, contact -
World Trade Center Miami
c/o Port of Miami, 1007 N. America Way, Suite 500
Miami, Florida 33132 USA
Tel: 305-871-7910 Fax: 305-871-7904
Email: info@worldtrade.org
Website: www.seacargoamericas.com

Port & Ship International India
12 - 14 November 2009
Mumbai, India



Port International India 2009 is a right place for anyone who wants to get updated with port and terminal technology and equipment and is concerned with the growth of infrastructure and modernization. The aim of the event is to provide a superb opportunity to marine, ports, terminals, and logistics manufacturers and service providers to promote their products and company. Also, the concurrent conference will be a nice forum to discuss on every aspect of Indian maritime industry. It will be a superb meeting place for international and Indian companies from the maritime sector.

For more details, contact -
Inter Ads Limited
Conferences & Exhibitions
Plot No. 859, Phase-V, Udyog Vihar,
Gurgaon-122 016. Haryana
Tel: 91-124-4524100/4524109
Fax: 91-124-4381162
Email: info@interadsindia.com
Website: <http://www.interadsindia.com/trade.htm>

Tanker Safety Conference 2009
12 - 13 November 2009
Millennium Gloucester Hotel, London



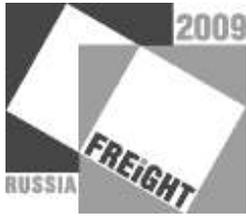
The Tanker Safety Conference is a two day event focused on all aspects of operational safety, security and emergency response in the tanker industry.

Its programme is designed to bring together all stakeholders - charterer, owner, trading company, manufacturer, regulator, consultant, service company, academic, designer, shipbuilder, finance and insurance, class and industry association - from all over the world, in order to gather intelligence, network and gain practical insights into maintaining and promoting tanker safety and effective emergency response. The event builds on the success of Tanker Shipping & Trade, the world's leading magazine dedicated to coverage of the technical and commercial aspects of the world's tanker industry and is the latest in a series of highly successful conferences organized by maritime information specialist Riviera Maritime Media.

For more details, visit -
www.rivieramm.com/events.

Freight 2009
26 November 2009
Ambassador Saint Petersburg RF

November 26, 2009 St. Petersburg will play host to the main event of the year for the Russian container industry - the international conference "FREIGHT-2009: International Container Transportation in Russia and Neighbouring



Countries". This is the sixth time container market trend-setters, top managers of key companies and state officials representing industry regulating bodies will discuss industry developments at their annual meeting.

This year the main subjects set forth for discussion will be the results after the first year of the crisis and the key trends and initiatives to define the industry development in 2010.

The container logistics and transportation market in Russia has been hit by the economic recession worse than many other segments as the traffic downturn was aggravated by the large-scale infrastructure projects started during the container boom, when the industry was suffering from the lack of capacity.

The first session will be dedicated to demand forecast for the next year, consumption restructure and shippers' expectations.

Strategic planning much depends upon the policies set by the state authorities that regulate and control the market, notably the customs. One of the conference sections will be traditionally given to a panel discussion with Federal Customs Service officials. This year, the RF Federal Customs Service has embarked on a number of initiatives that will inevitably change the market environment. One of these is the Concept of moving customs clearance and control to the state border of the Russian Federation that was proposed in March 2009. Local implementation of the Concept as well as the Customs Service's initiative to restrict container operations via road border crossings will be topical during the customs panel.

For more details, contact -
Tel.: +7 (812) 380-3826 Fax: +7 (812) 380-3827
E-mail: info@seanews.ru
Website: www.seanews.info

Shipping Marine and Ports World Expo 2010
3 - 6 March 2010
Bombay Exhibition Centre, Mumbai

CHEMTECH is pleased to announce Shipping, Marine & Port World Expo 2010. Towards Global Competitiveness, from March 3-6, 2010 at Mumbai.



The International Exhibition & Conference is being organized to provide insights with the expectations, challenges and opportunities for Indian Marine, Shipping, Ports and logistics service providers and manufacturers, to become globally competitive by showcasing latest innovation and bringing the gap between technology provider and users.

Shipping & Marine will also provide ideal platform to the members of the Shipping, Maritime, Ports and trade

fraternity for interacting with a cross section of users and service providers across the Globe.

Shipping & Marine will also provide ideal platform to the members of the Shipping, Maritime, Ports and trade fraternity for interacting with a cross section of users and service providers across the Globe.

For more details, contact -
Chemtech Secretariat
26, Maker Chambers VI, Nariman Point,
Mumbai - 400 021, India.
Tel: +91-22-40373737
Fax: +91-22-22870502
Email: conferences@jasubhai.com
Website: http://www.chemtech-online.com

4th Indian Ocean Ports and Logistics 2010
25 - 26 March 2010
Hilton Mauritius Resort and Spa, Mauritius

Indian Ocean Ports and Logistics is the largest biennial Container Ports, Shipping and Transport Logistics Exhibition and Conference business to business trade event serving Africa and the Indian Ocean islands region.



The 4th Indian Ocean Ports and Logistics 2010 Exhibition and Conference will take place at the luxurious 5 star Hilton Mauritius Resort and Spa on Thursday 25 and Friday 26 March 2010.

A two days Conference will feature 30 world-class conference speakers in global transport and logistics attended by a prestigious gathering of 250 senior executive delegates from the world's leading shippers, cargo owners, shipping lines, freight forwarders, logistics companies, importers/exporters, ports, terminal operating companies, railway operators, airports, port equipment and services suppliers from the USA, Europe, Africa, the Middle East and Asia.

There will be the opportunity for 35 exhibitors and sponsors to showcase latest products and services to altogether more than 350 international participants at this prestigious international biennial transportation and logistics Exhibition and Conference taking place next year on the beautiful island of Mauritius.

For more details, contact -
Transport Events Management Limited
Level 1, Lot 7, Block F, Saguking Commercial Building,
Jalan Patau-Patau, 87000 Labuan F. T., Malaysia
Tel. +60 87 426 022 Fax. +60 87 426 223
Email: enquiries@transportevents.com



news

AMTOI to play more constructive role on STP Bill & MTG Act

'Association of Multimodal Transport Operators of India' (AMTOI) held its 10th Annual General Meeting (AGM) (for the year 2008- 09) at Hotel Ambassador on Sept 29, 2009. Large gathering from the members, representatives of Shipping industry and others graced the event.



The members present, amongst various issues, discussed the impact of global economic slow down on the Exim Trade, implications of the proposed shipping trade practices bill and proposed amendments to multimodal transportation of Goods Act. While briefing the members Shri. Tushar Jani, AMTOI President expressed that enactment of Shipping Trade Practices Bill would adversely affect the Shipping and Freight Forwarding industry. On one hand shipping lines may be able to overcome the problems created by enactment of such draconian law due to the support of their huge resources; On the other hand such laws never affect flyby night operators as they do not get trapped into the net of laws during practical implementation. Explaining the severity of the provision in the law he expressed many Freight Forwarders particularly medium size would have to even close down their offices.

Further briefing the members he expressed last year was largely consumed in dealing with draft Shipping Trade Practices Bill and Amendments to Multimodal Transportation of Goods Act. In the new term, there is a big agenda before the committee & he expects the year to come to be vibrant as AMTOI has a busy calendar with several events like a full day conference on Multimodal Transport, Training Programmes and the most popular shipping event in shipping industry. AMTOI Day.

The Secretary Mr. Anand Sheth announced that two vacancies created by retirement on rotation of Mr. Anand Sheth and Mr. Shantanu Bhadkamkar was filled by unopposed reelection of both of them.

In the first Managing Committee Meeting held after the AGM following Office Bearers were elected unanimously.

AMTOI OFFICE BEARERS FOR 2009-10

- Mr. Tushar Jani President
- Mr. Anand Sheth Vice President
- Mr. Shantanu Bhadkamkar Secretary
- Mr. Shashi Tanna Treasurer

Hanjin Shipping transforms into a holding company

Hanjin Shipping has announced that an agreement was reached at the board meeting, to separate the company into Hanjin Shipping Holdings Co., Ltd., a holding company and Hanjin Shipping Co. Ltd. an operating company. With this decision, the former Hanjin Shipping will be divided into Hanjin Shipping Holdings focusing on managing the subsidiaries and Hanjin Shipping Co., Which maintains full control over the existing shipping business. "Hanjin Shipping has come to understand the need of implementing an advanced corporate governance system which will allow the company to cope with the rapidly changing business environment and secure its future-oriented corporate structure for sustainable growth," it said in a release. The stocks of Hanjin Shipping Holdings and Hanjin Shipping will be distributed to the share holders according to the ratio of net asset of each company. The stockholders with 1 share of the former Hanjin Shipping will be given 0.1616362 share of Hanjin

Shipping Holdings and 0.8383638 share of new Hanjin Shipping. The face value per share will remain the same. Hanjin Shipping will be opening a temporary shareholders meeting on forthcoming October 28 concerning the issue. Also after the official separation on Dec 1, the companies will be relisted on Dec 29.



Virginia Ports in talks to operate APM Terminal

The Virginia Port Authority and its terminal-operating subsidiary, Virginia International Terminals (VIT), confirmed that they have been in talks with APM Terminals since December 2008 under a US Federal Maritime Commission Discussion Agreement.

The state-owned port operator is reported to have set its sights on acquiring the right to operate the two-year-old Portsmouth marine terminal at the US Port of Virginia that is owned and operated by APM Terminals. It said the Virginia Port Authority said in a statement that the goal of the talks with APM terminals is "to optimise operations and use the world-class assets and capabilities available at the port of Virginia to address the current commercial environment at the port, as well as the growth and capacity that will be required in the future."

The port authority is saying the discussions have focused on the optimisation of assets and ensuring the long-term success of the port, as well as its ability to support customer consolidations and reductions in

volume. "These talks have included a number of potential options such as volume consolidations, lease arrangements, operating agreements and other opportunities," the VPA statement said. "At this time, the negotiations are ongoing and no agreement has been reached.

We remain committed to timely communication with stakeholders and will share information as appropriate going forward," the VPA said. The deal is expected to be many months away as the talks between the Virginia Port Authority and APM are believed to still be in the early stages and the state's review process on the privatisation bids is expected to take some time. Virginia Transportation Secretary Pierce Homer is assembling an independent review panel to decide whether the State of Virginia ought to enter into detailed negotiations with any of the three bidders.

It reported that any potential final outcome is expected to be more than a year away.

MSC hikes India-North Europe rate by \$ 150/TEU from Oct 12

Mediterranean Shipping Company (MSC) will increase freight rates for cargo moving on its services from India to Europe and Africa, effective October 12. From India to North Europe, the United Kingdom, East/West Mediterranean and Black Sea ports, rates will increase \$150 per TEUs. The proposed increase for the trade from India to East Africa, Mozambique, South Africa and the

Indian Ocean Islands will be \$ 200 per TEUs. The Geneva based company said the rate restoration is necessary to offer "efficient and reliable services to customers." The move comes just as the state owned SCI, which operates the weekly Indian-Subcontinent Europe Service (ISES) in conjunction with MSC, announced plans to seek a similar rate increase, effective Oct. 10.

Ships over 25 years old should not be allowed to enter ports

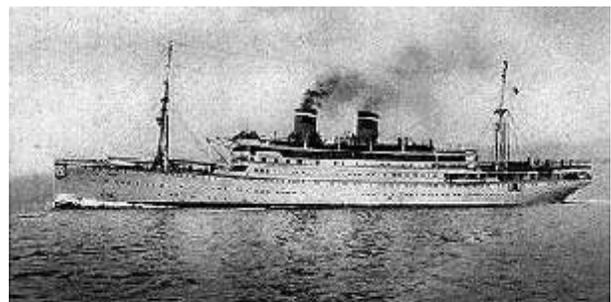
The high power committee constituted by the Shipping Ministry under Capt P.V.K. Mohan, Chairman of national Shipping Board, is of the view that no vessel more than 25 years old should be allowed to enter Indian ports unless otherwise approved by the competent authority. The committee has noted with concern that an estimated 35 per cent of the ships calling at Indian ports are more than 25 years old and, therefore, vulnerable. The preliminary investigation into recent disasters involving sinking of iron ore ships in some of the country's ports confirms that the ill-fated ships were old.

The Question, therefore, has arisen how could such ships be allowed to call at the ports. Another issue is the authentication of the documentation of ships and cargo. The need for such authentication has arisen in view of the anomaly in the P&I Club certificates of the ship that recently sank off Paradip port.

The committee, it is learnt, has also in favour of stringent preloading and post loading inspection of cargo and ship to ensure safety. Also, it is felt that all major ports need to be advised to adopt proactive measures in conformity

with international safety codes such as bulk code, and BLU code and to verify documentation.

These views of the committee became available after its members, including the Capt Mohan, had visited Paradip port recently. However, these are not final recommendations of the committee but only preliminary findings as more short term and long term measures will become available after the committee members visit other ports. The members include, among others, the Chairman of new Mangalore Port Trust and the Deputy Chairman of Paradip Port Trust.



NMPT moves forward with mechanized iron ore handling facility

The share of iron ore in total cargo handled at the New Mangalore Port Trust (NMPT) has been increasing over the years. The time has come for NMPT to go in for mechanised handling of cargo.

Though handling has increased manifold, the port is still dependent on a manual system of handling for iron ore cargo. The last financial year saw total iron ore cargo handling at 8.12 million tonnes.

The facility, which will have iron ore handling capacity of 6.62 million tonnes per annum, is estimated to cost Rs 296 crore. Sical Logistics is likely to come up with the facility in 2 years.

The mechanised iron ore handling facility will be set up from railway marshalling yard to the ship loading at berth, the facility is likely to be developed on an area of about 1.45 lakh sq metres. Of this, 75,000 sq metres is inside the security compound wall behind the proposed berth and 65,000 sq metres near the marshalling yard. The right of way from marshalling yard to storage yard and behind the deep-draught berth will be about 5,000 Sq metres.

The mechanisation of the handling at berth No.14 would increase the throughput of the berth. With this, the iron ore cargoes, which are now being operated in other

berths also, will be shifted from those berths.

As a result of this, the occupancy rates for these berths will drop and would create capacity for other cargoes.

The Bellary-Hospet and Tumkur Chitradurga belts in Karnataka are major contributors of iron ore cargo for exports.

The proposed facility will reduce the cost of cargo handling at the port and reduce pollution caused due to iron ore Lorries. It is also expected to reduce the movement of iron ore cargo by road. The facility will handle cargo coming through the railway rakes. With mechanisation, the rakes will be released faster. Under the present manual system it takes nearly eight hours to handle a rake of iron ore.

After the introduction of the mechanised iron ore handling facility, the rakes would be released in three hours. With this, the port will be able to handle 5 rakes of iron ore cargo a day.

The mechanisation of the facility will make the port competitive in terms of handling iron ore cargo. With this the port could target achieving the iron ore handling figures of 10.9 million tonnes by 2012-13 and 20 million tonnes by 2025-26, as envisaged in its business plan.

Historic Shipping convention signed in Rotterdam

Fifteen countries have officially expressed their support for the new UN convention 'Rotterdam Rules'. The countries signed the convention that describes the rights and obligations involved in the maritime carriage of goods.

Important seafaring nations such as the United States, Norway, Greece and the Netherlands are among the signatories. The Rotterdam Rules bring more clarity regarding who is responsible and liable for what, when, where and to what extent when it comes to transport by sea. The Rotterdam Rules will give world trade a boost, considering that 80 pc of world trade is conducted by sea. If the same law applies all over the world, this will promote international trade and make it more efficient and clearer.

The signing took place in Rotterdam, the city after which the UN convention is named. The following countries have signed the convention: Congo, Denmark, Gabon, Ghana, Greece, Guinea, the Netherland, Nigeria, Norway, Poland, Senegal, Spain, Switzerland, Togo and the US. In addition to this, delegations from all over the



world will be attending the signing ceremony. The UN convention will not take immediate effect. Only one year after 20 countries have ratified it the Rotterdam Rules will officially come into force. The Rotterdam Rules are the first rules governing the carriage of goods by sea and connecting or previous transport by land. This used to require separate contracts. Also, responsibility and liability during the

whole transport process are clearly demarcated. Furthermore, the convention puts in place the infrastructure for the development of e-commerce in maritime transport. This will mean less paperwork. The shorter turnaround times will reduce the chance of errors and lower costs.

The Rotterdam Rules are the result of inter governmental negotiations that took place between 2002 and 2009. These negotiations took place within the United Nations Commission for International Trade Law (UNCITRAL), after the Comite Maritime International (CMI) had prepared a basic draft for the convention. On Dec 11, 2008 the General Assembly of the United Nations adopted the Rotterdam Rules.

NOL, 13 ship lines try to end US Price war, 'Panic'

Neptune Orient Lines Ltd.'s (APL Ltd.) unit, China Cosco Holdings Co. and 12 other container lines agreed to raise rates on Asia-US routes, seeking to end a price war caused by slumping demand, over capacity and "panic." The lines decided on a US\$500 increase for carrying a 40-foot box from August 10 as a "voluntary guideline," the Transpacific Stabilization Agreement said in statement. The companies will also raise fuel levies and may add peak season surcharges, the group said. Container lines will try to raise rates again after an April increase collapsed amid rising competition and a 20 pc drop in demand, the TSA said. Spot market Hong Kong-Los Angeles rates have slumped to as low as \$900, according to Lloyd's List, as US retailers pare orders for Asian made furniture and toys on weak consumer spending. "The east-bound transpacific trade lane has been driven by panic," Lee Won Woo, chief executive of TSA member Hanjin Shipping Co.'s container unit, said in the statement.

"Panic is difficult to stop once it has begun." Average revenue per container dropped as much as \$1,200 from October to May, the TSA said. Container lines should have resisted pressure to cut rates covered by longterm contracts to match spot rates, it added. Hong Kong, Los Angeles spot rates have fallen about 56 pc over the past year, Lloyd's List said, citing Drewry Shipping Consultants. "The lines are taking the opportunity of the peak season to reduce losses," said Quam Ltd. analyst Allen Wong. "That doesn't mean demand has come back."

Container-shipping lines traditionally raise rates in July and August as shops stock up for the peak back-to-school and holiday shopping periods. China Shipping Container Lines Co., has said it plans to almost double rates on Asia-Europe routes this month. Neptune Orient, Southeast Asia's biggest container line, dropped 1.4 pc to S\$1.42 in Singapore trading. China Cosco, China's biggest, fell 3.3 pc to HK\$8.51 in Hong Kong. Other TSA members including Evergreen Marine' Corp. and Orient Overseas (International) Ltd. also declined. Shipping lines have laid up vessels, canceled routes and fired staff as they battle plunging trade. Evergreen, Asia's biggest container line, said that it plans to retire 31 ships. Yang Ming Marine Transport Corp. announced delivery delays of as long as 15 months for 14 new vessels.

"The damage is serious," Lee said. "If current rates are extended out over 12 months, it is likely that the trade will encounter significant financial challenges." Neptune Orient, which has announced 1,000 job cuts, posted its biggest quarterly loss in at least seven years in the three months ended April 3.

APL, China Shipping, CMA-CGM, Cosco Container, Evergreen Marine, Hanjin, Hapag-Lloyd AG, Hyundai Merchant Marine Co., Kawasaki Kisen Kaisha Ltd., Mediterranean Shipping Co., Nippon Yusen K.K., Orient Overseas, Yang Ming and Zim Integrated Shipping Services make up the 14 members of the Transpacific Stabilization Agreement.

India contemplates to join Red Sea pipeline project

In a bid to diversify its crude oil supply sources, India is examining the prospects of participating in the proposed Ceyhan (a port in Turkey) Red Sea pipeline project, also called the Mediterranean pipeline project. Sources said that, "This is at a conceptual stage. India is currently sourcing crude oil from Ceyhan port, but with the construction of the proposed pipeline, the delivery point would shift from Ceyhan to Eilat in Israel.



This would mean bypassing the congested Suez Canal, and enabling VLCC having larger capacities also to be used." "We are currently examining whether it would be economically viable for India or not. India may not be directly participating in the pipeline construction. The network would be built by Turkey and Israel," an official said. At present, of the 120 million tonnes of crude oil that India imports annually, two million tonnes are lifted from Ceyhan, where crude oil from Azerbaijan lands.

"This is a good idea as it offers a cheaper alternative to beneficiary countries. We will consider it only if the price offered is cheaper than what we are buying from Saudi Arabia, Iran, Iraq and Kuwait," the official said. The plan is to bring oil from countries such as Azerbaijan through a pipeline to the Ceyhan terminal in south east Turkey. The oil will be then shipped to Ashkelon (Israel) using tankers and then sent through the existing pipeline to Eilat and further to eastern Asia on VLCCs.

"A final call will be taken only after studying the feasibility report that Turkey and Israel are to prepare the project will not be restricted to India, but others also can make use of the shift in the delivery point," sources added. During a recent visit to Turkey, the Minister for Commerce and Industry, Mr. Anand Sharma, said that, "the meeting with Turkish authorities was fruitful. We are part of the consortium of the proposed Turkey Israel pipeline network and are looking into feasibility and other aspects."

SCI mulls to sell 7 tankers this fiscal

SCI plans to sell seven single hull tankers by the end of this fiscal year to meet the global deadline to phase out single hull tankers by 2010.

"Initially, we had planned to sell five single hull tankers, but now we are looking to scrap one or two more," Capt K.S. Nair, Director Bulk Carrier and Tanker Division, SCI, said.

In 2005, legislation by the International Maritime Organisation, made it mandatory to replace single hull tankers with double hull by 2010 to check marine pollution.

A double hull ship, in which the bottom and sides have two complete layers of watertight hull surface, is considered a safer bet against oil spill due to underwater damage or collisions. Recently, the company sold one tanker.

"At present, we are planning to sell another two tankers

and the deal will be done soon," he added. The sale rate would be around \$ 250-300 per light weight tonne.

Capt Nair said the tankers being phased out have been around for 20-25 years. Currently, SCI has around 42 tankers, of which around 30 per cent are single hull.

"With the soft freight market, especially in the tanker segment, accentuated by the entry of new buildings in the global market, there is no sign of recovery till end of 2010. Therefore, it is a good time for Indian shipping a shipping companies to scrap old vessels," said a shipping analyst with a brokerage firm.

SCI firm is also looking to borrow Rs1, 300 crore by the end of the current fiscal year for acquisition of vessels. It is looking for second hand vessels as rates have fallen steeply.

"We will be substituting new buildings with secondhand acquisitions, which are relatively three to five years old," Mr. S. Hajara, CMD, SCI, said.

Gangavaram port to handle 15 mt in first year

Gangavaram Port, which began operations in April, expects to handle between 13 and 15 million tonnes of traffic and earn revenue of Rs. 350 crore this fiscal

Set up at a cost of Rs 1,800 crore, the port has at present five berths to handle bulk cargoes such as coal, iron, ore, steel, fertilizers, limestone and bauxite. "We have so far handled six million tonnes of traffic and 250 ships," Mr. D.V.S. Raju, Chairman, said. The Andhra Pradesh Government has a 10.5 pc stake in the port, while Warburg Pincus holds 30 pc. With a draft of 21 metres, the biggest in India, the port can handle vessels up to three lakh DWT. "We have handled vessels of about 1.5 lakh DWT. We provide the best turnaround time as compared to other ports in the country. A Panamax vessel can be turned around in our port in 50 hours and a cape size vessel in 72 hours. Most other ports in India have a turnaround time of about five days," he said. The port handles steel and coal cargoes for steel makers such as Rashtriya Ispat Nigam Ltd, Tata Steel and JSW Steel. It is in talks with aluminum companies such as the Vedanta Group, which is setting up a plant in Orissa, and RAK Alumina, for handling their cargoes.

It Plans to add two or three new multi purpose berths at a cost of about Rs 500 crore in the next two years. "We can add another seven berths to take the total number to 14 according to the existing design.

However, our master plan has provisions for a total of 29 berths with a total capacity of 200 million tonnes a year," Mr. Raju said.

Referring to reports that the port promoters were planning a stake sale to another Indian private port, Mr. Raju made it clear that there were no such proposals. "We are not in talks with anyone for a stake sale. We are not even considering an IPO at this moment. We intend to finance our expansion plans through internal resources and debt," he said.

The port's expansion plans include foray into handling liquid cargoes, especially petroleum products and petrochemicals. It feels that once the proposed Petrochemical Investment Region plans in Visakhapatnam fructifies, the port will need to handle petrochemical products.

The master plan envisages setting up of a marine oil terminal, consisting of a Single Point Mooring facility for handling VLCCs and a sub sea pipeline.

It also plans to enter container handling, but the promoters feel that there is not enough potential in this region at the moment. "At present, about 80,000 TEUs of container traffic is handled in this region.

We feel that only after the container traffic flow increase to about 1.5 lakh TEUs, we will get into container handling and this could take, about two to three years," Mr. Raju said.

At a later stage, the port may setup a ship repair facility to become a one stop logistics service provider for ships.

News source : Daily Shipping Times, Maritime India

Lift and Shift - Imagining the unimaginable

In a project of its kind, Lift and Shift India Pvt Ltd part of the Natvar Parikh Group Ltd. has created a history in transporting heavyweights segment. The company has a set a benchmark in terms moving the heaviest and largest module ever in India. The company has transported a total weight of 3300 tons. Height equivalent to 20 storey building, weight equivalent to 41 Boeing 747 planes, It takes a mammoth company to transport a HA deck of 3300 tons. And who else can do it better than Lift and Shift India Pvt. Ltd.

The largest operation required specialized ballast pumps that pump out 175 tons of water per minute which is equivalent to pumping out 20 water tankers per minute. The Deck operation lasted about 72 hours of working along with clockwork precision and was appreciated by both L&T and Maersk team.

The mammoth mega structure was fabricated by Larsen & Toubro Ltd., Hazira for Maersk oil, Qatar. This included a total of 5 modules of 300 to 2800 tons fabricated by L&T over the last 24 months were transported by LSPL by using 116 axle hydraulic axle lines. This includes HA

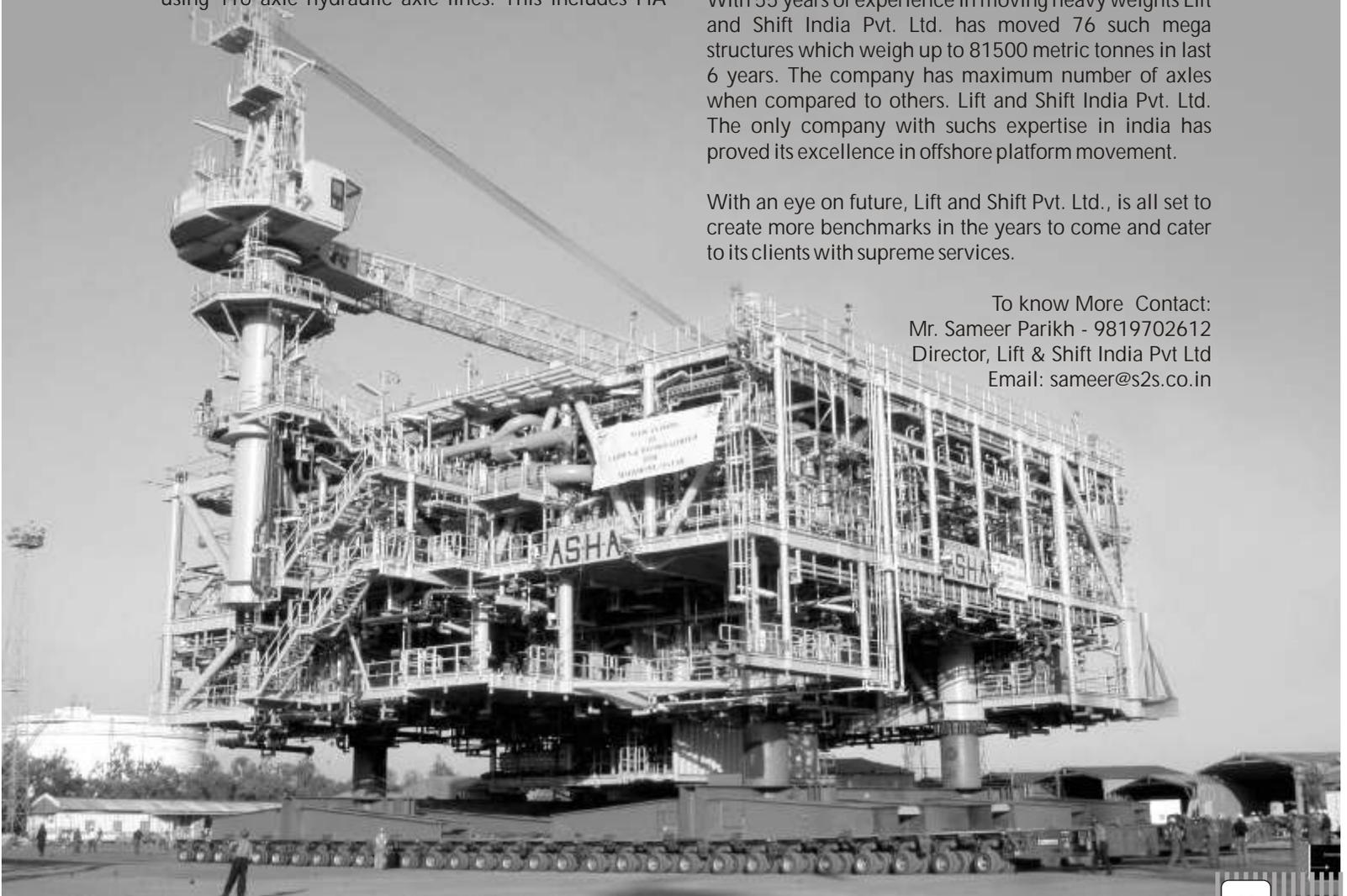


deck of 2400 tons, load spreaders weighing 200 tons, barge grillages of 100 tons, axles weighing 550 tons. The mega structure was lifted with the help of special hydraulic axles placed in 4 rows having 4 Engines and 928 tyres The entire HA deck was transported for over 1000 m at 1 km per hour.

With 55 years of experience in moving heavy weights Lift and Shift India Pvt. Ltd. has moved 76 such mega structures which weigh up to 81500 metric tonnes in last 6 years. The company has maximum number of axles when compared to others. Lift and Shift India Pvt. Ltd. The only company with suchs expertise in india has proved its excellence in offshore platform movement.

With an eye on future, Lift and Shift Pvt. Ltd., is all set to create more benchmarks in the years to come and cater to its clients with supreme services.

To know More Contact:
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Misc's Halal Express Service calls at Pipanav Exim New service

MISC Berhad, Malaysia's national Shipping line, extended its Halal Express Service (HE1) to port pipavav. The inclusion of pipavav in the Halal Express service is expected to provide the shippers in the Gujarat region a direct service to China and South-East Asian ports. The service will also facilitate exports from Northern inland container depots (ICDS), like Delhi, Ludhiana, Jaipur, a direct and fast connectivity to South-East Asia.

This is an independent service of MISC. Six 4,250-TEU capacity vessels have been deployed providing the trade a weekly service in the following route: Shanghai, Ningbo, Shekou, Jakarta, Singapore, Tanjung Pelepas, Port Klang, Karachi, JebelAli, Bandar Abbas, Pipavav, Nhava Sheva, Colombo, Portklang, Singapore, Shanghai.

The Halal Express Service was first launched in November 2006 and following the tremendous response from the trade, the service was upgraded with bigger vessels in April this year.

To commemorate the maiden call of the Halal Express Service at Pipavav, a small function was held on board the vessel, Bunga Raya Tiga voy104E, which was attended by senior personal from Gujarat Pipavav Port Ltd (Gppl) and Crescent Shipping Agency (India) Ltd, besides the Master and senior officers of the vessel. The traditional lamp was lit, in keeping with the Indian custom, and plaques were exchanged in keeping with the age-old tradition of the sea. The vessel arrived at night on September 30 and sailed off in the early hours of October 1.

Mr. Parkash Tulsiani, Managing Director of GPPL, in his speech, thanked MISC for its commitment to Port Pipavav. They, in turn, will extend all possible assistance and make this venture a success.

MISC is represented in India by Crescent Shipping Agency (India) Ltd which is a part of the Transworld group of companies.

(Source : Exim India, 8th October, 2009)

Bharati shipyard raises open offer price

Bharti Shipyard has hiked the open offer price to acquire stake in offshore service provider, Great offshore, to Rs560 per share. With the increase in offer price the size of the offer price now stands at Rs 438.3crore.

Bharati, which already holds 22.48 per cent share in great offshore, had initially offered to acquire 20 per cent stake in Great Offshore for Rs 405 per share.

ABG shipyard also made an open offer to buy over 32.12 per cent stake in Great Offshore at Rs520 a share.

The hike in the open offer price followed acquisition of 3.01 percent stake in Great Offshore by Dhanshree Properties (a sister concern of Bharati) from the open market on September 16.

Earlier too, Bharati and ABG had fought for a countrolling stake in Great Offshore. In August, ABG Shipyard had revised its open offer price to Rs.520 a share for the offshore drilling firm from Rs 450 earlier.

However, Bharati, which originally offered Rs 315 per share for the 14.89 per cent pledged shares of Great Offshore in May, also revised its price to Rs 403 and Rs 405 on ABG's counter-offer.

Great offshore's promoter, Mr Vijay Kantilal Sheth, lost the company after he failed to redeem pledged shares from Bharati shipyard earlier this year. In May, Bharati made an open offer to purchase another 20 per cent stake in Great Offshore at Rs 344 a share.

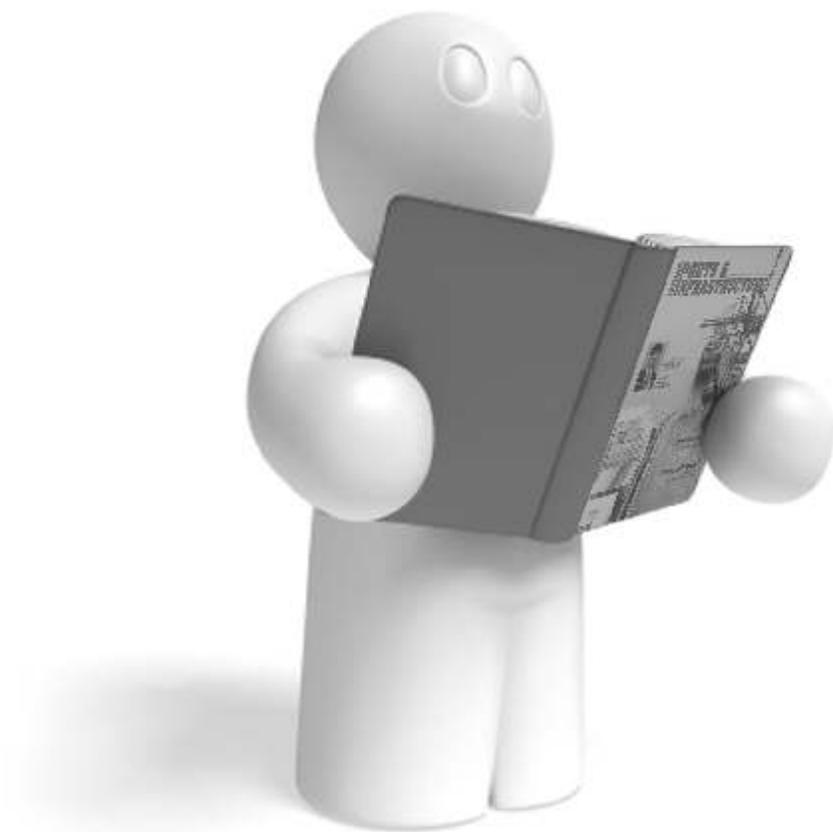


Consequently, ABG made its counter-offer for a 32.12 per cent stake, or 1.25 crore shares, at Rs 375 a share. The long drawn battle between the two companies to acquire Great offshore is said to be reaching the final stage, with the Securities and Exchange Board of India's (SEBI) approval for the open offer expected soon.

While Bharati has received the shareholders' approval to raise fresh funds, ABG has sought its shareholders' permission to raise its borrowing limit to Rs12,000 it is learnt.

(Source : Exim India, 8-10-09)

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**INDIAN PORTS &
INFRASTRUCTURE** **REVIEW**

Shell to use world's biggest ship at Australian field



Royal Dutch Shell plans to deploy a vessel "much larger than an aircraft carrier" off the coast of northwestern Australia to house the world's first floating liquefied natural gas plant.

Shell will use the technique at the Prelude and Concerto gas discoveries, Malcolm Brinded, the company's executive director for international upstream business, said on a conference call. The untested method is a "game-changer," allowing discoveries that are small and too far from the coast to justify onshore plants to be profitable, he said.

The Hague-based Shell's plans to employ what will be the biggest ship in the world are backed by the largest exploration budget of any oil company, estimated at \$31 billion this year and \$28 billion in 2010, Brinded said. The project is among more than a dozen that may propel Australia to second among global suppliers of the fuel from fifth now.

"There are clearly some technical challenges, but I think the industry is confident that a company like Shell would be able to address them," Tony Regan, a consultant at Singapore-based Tri-Zen International, said by telephone. Regan previously worked for Shell's LNG business.

Brinded declined to give an estimate of spending on the floating LNG project. Prelude is about 475 kilometers (297 miles) north, north-west of Broome in Western Australia, and about 200 kilometers from the Kimberley coast, Shell spokeswoman Claire Wilkinson said by phone from Perth.

Samsung Forecast

Shell in July awarded a contract to Samsung Heavy Industries Co. and Technip SA to design, construct and install floating LNG facilities over 15 years. Shell may order as many as 10 units worth about \$5 billion each, Samsung Heavy estimated in a July statement.

Inpex Corp., Shell and Santos Ltd. are among companies investigating floating LNG technology, yet to be deployed commercially. There are more than 100 fields globally suitable for the concept, Daryl Houghton, senior LNG consultant at Poten & Partners, said Sept. 11.

The vessel will weigh about 600,000 metric tons and be around 480 meters long, 75 meters wide, and designed to withstand a "one-in-10,000-year" tropical cyclone, Brinded said.

Floating LNG facilities may take less than half the time to build compared with onshore units and may cost a third of an onshore plant, according to estimates by Citigroup Inc. Shell's decision is "putting floating LNG on the

map," Regan said. "It's tremendously good news to the floating LNG community."

Light Oil

The project will produce about 3.5 million metric tons of LNG annually and 1.3 million metric tons of condensate, a type of light oil, Brinded said. He declined to comment on the timing of a final investment decision or the first gas production from Prelude.

The fields, 100 percent-owned by Shell, lie in the Browse basin off Australia's undeveloped Kimberley coast, where more than a third of the nation's known offshore gas is located.

"Australia is a critical country for us, especially for growth in the LNG sector," Brinded said.

Shell's announcement is a sign Australia is cementing its status as a leader in the global LNG market and a "highly attractive and secure destination for investment," Energy Minister Martin Ferguson said in a statement.

Floating LNG is important to Australia because of the remote fields within its waters that remain uneconomic in the absence of this technology, Ferguson said. A report by Australia's Commonwealth Scientific and Industrial Research Organization last year estimated "stranded" gas reserves to be around 140 trillion cubic feet and worth around A\$1 trillion (\$903 billion), he said.

Design Studies

Chilling gas to liquid form on floating facilities has yet to be deployed commercially. Design and engineering studies for Prelude have started and are expected to take about 18 months to complete, Brinded said.

A draft environmental impact statement on the plan will be released for public comment on Oct. 12, Wilkinson said by telephone. Shell is working on production approvals for the project, it said in a statement.

LNG is natural gas that has been chilled to liquid form, reducing it to one-six-hundredth of its original volume at minus 161 degrees Celsius (minus 259 Fahrenheit), for transportation by ship to destinations not connected by pipeline. On arrival, it's turned back into gas for distribution to power plants, factories and households.

Pluto, Gorgon

Australia is now the fifth-largest exporter of LNG, generating A\$10.1 billion in sales in 2008-2009, Ferguson said. With the addition of Woodside Petroleum Ltd.'s Pluto LNG project and the Chevron Corp.-led Gorgon venture, this is expected to more than double to about A\$24 billion by 2017-2018, he said.

Arrow Energy Ltd., Shell's Australian coal-seam gas

partner, plans to supply the fuel to two LNG ventures in Gladstone - the Fisherman's Landing project of Golar LNG Ltd. and Liquefied Natural Gas Ltd.; and Shell's Curtis Island venture. They are among five LNG plants proposed for Queensland targeting sales to Asia.

The competing ventures may struggle to find enough workers, Gavin Madson, director of Fitch Ratings' energy and utilities team, said. "If they cannot line up the

contractors, consolidation is what they'll have to do."

Shell is in talks with competitors developing LNG projects in Gladstone, central Queensland, about possible coordination, Brinded said. At the same time, he reiterated that the company is well positioned to "go-it-alone" with its project.

Source : www.chron.com

Govt awards seven port projects worth Rs 1,800 cr

In a major thrust to expand capacity at important ports in the country, the Ministry of Shipping has awarded seven projects worth over Rs 1,800 crore, to be developed through the public-private partnership (PPP) route.

Another 19 projects, estimated to cost around Rs 18,000 crore, are expected to be awarded on similar PPP basis by early 2010.

These 26 projects together will expand capacity at the major ports in the country by 42 per cent, or 245.97 million tonnes per annum. The ministry intends to double capacity at major and non-major ports in the country to 1,590 mt by 2012 from the present 795 mt.

Rakesh Srivastav, joint secretary (ports), said: "We have floated RFQs for all the projects to be developed through PPP this fiscal. We are hopeful that the bidding process for most of the projects will be completed by early next year."

Of the seven projects awarded, those for the construction of deep draft iron ore berth (Rs 591 crore) and deep draft coal berth (Rs 479 crore) at Paradip port have been entrusted to a consortium of the Noble Group, MMTC and Gammon Infrastructure and Essar Shipping Logistics, respectively.

Others include setting up of mechanised iron ore handling facilities at berth 14 at New Mangalore port (Rs

277 crore) by Sical Logistics, development of berth 7 for handling bulk cargo at Mormugao port (Rs 252 crore) by a consortium of the Adani Group and Mundra SEZ and mechanization of berth 2 and 8 at Haldia Dock Complex (Rs 150 crore) by ABG Infralogistics Ltd. These projects on completion will enhance capacity at the ports by nearly 42 million tonnes per annum.

There were originally 17 projects scheduled for awarding in 2009-10. Nine projects, which were supposed to be awarded in the previous fiscal, have spilled over into this year, taking the total number of projects to be awarded for development through PPP this year to 26.

The 19 projects which are under bidding include development of multipurpose cargo berths 14-16 at Kandla port (Rs 755 crore), development of EQ-10 berth for handling liquid cargo (Rs 55.38 crore) and WQ-6 for handling dry bulk cargo (Rs 114.37 crore) at Vizag. Another five projects valued at over Rs 1,200 crore are scheduled for awarding to develop facilities at Vizag.

Besides these, container terminals are proposed to be set up in Tamil Nadu, Karnataka and Maharashtra. One new container terminal will be constructed at the Jawaharlal Nehru Port (JNPT) at a cost of Rs 6,700 crore, while another standalone container handling facility would be developed at the NSCIT Terminal of the same port for Rs 600 crore. (Source : www.business-standard.com)

Rickmers-Linie, ECL expand cooperation

Rickmers-Linie, the Hamburg based break-bulk, heavylift and project Cargo Company and Eastern Car Liner, Tokyo, will expand their cooperation in the Trans Pacific trade. Since 2006, Rickmers-Linie has deployed ECL's vessels from the US to Asia. The newly concluded agreement will allow Rickmers-Linie also to utilize the ECL vessels eastbound from Asia to the US Gulf & East Coast.

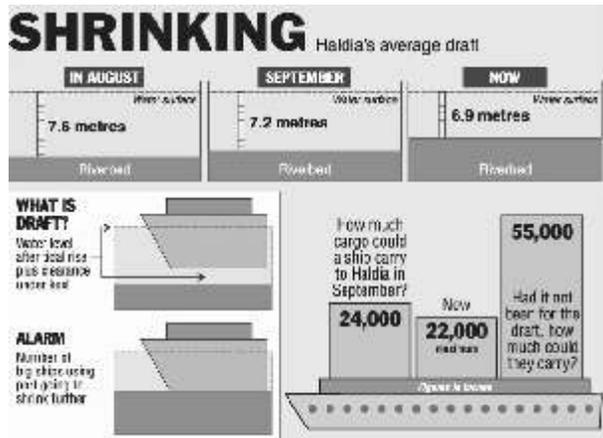
This new expanded co-operation will be effective with the sailing of 'Fortune Epoch' (V514) sailing from Japan in early October. The four 11,000 DWT vessels that are involved in this cooperation come with heavy lift gear capable of lifting loads of up to 120 tonnes. These vessels were built between 1995 and 1998 and are equipped with Ro-Ro ramps.

Regular loadings ports within Rickmers-Linie's eastbound service will include Moji, Kure, Nagoya, Hitachi all in Japan and other ports not presently served by Rickmers' round the world vessels.

The four vessels involved are 'Fortune Epoch', 'Reina Rosa', 'Del Sol' and 'Millennium Falcon'. With this agreement, both Rickmers-Linie and ECL will be optimising their operations within the US Gulf & East Coast services and cooperating on the monthly service from Asia to US Gulf & East Coast services and cooperating on the monthly service from Asia to US Gulf & East Coast. For Rickmers-Linie, this expanded cooperation will enhance both its westbound and eastbound services. (Source : [Maritime India](http://MaritimeIndia))

Haldia door shuts for heavy vessels - Cost scare for industry

The river draft for ships calling at Haldia has reached its lowest level ever, Calcutta Port Trust declared today, dealing a blow to industry which is left with little choice but to spend more on transportation.



The port trust said the average draft in the Auckland channel - an imaginary waterway that ships sail through in the Hooghly - has gone down to 6.9 metres from 7.2 metres last month and 7.6 in end-August.

Today's level means ships with capacity to carry 55,000 tonnes of cargo can bring at best 22,000 tonnes to Haldia. This will turn transportation via Haldia, about 90km from Calcutta, costlier because industries will have to use more ships to bring the same volume of cargo.

Steel Authority of India, Tata Steel, Haldia Petrochemicals, Mitsubishi PTA and Indian Oil Corporation are among the heavy users of the port apart from some of the power companies. Coal, iron ore and petroleum products are the three main goods handled.

Anindya Majumdar, the acting chairman of Calcutta Port Trust, called the situation "critical" but promised to ensure operations continued. "We will not let the port shut down," he told a hurriedly called news meet in Calcutta.

However, Rajeev Dubey, deputy chairman of the Haldia port, sounded fatalistic. "No one can fight nature," he said, sitting next to Majumdar.

Six dredgers owned by the Dredging Corporation of India are working at Haldia, though their efficacy has been under the scanner for long.

Majumdar said two more, one from Paradip and another from Goa, were on their way. Dredging Corporation is also planning to hire two "effective" dredgers to replace two of those at work.

However, the port appeared to be running out of ideas on how to tackle siltation.

The Centre does not allow any company but its own corporation to work in Haldia.

Captain A.K. Bagchi, director of the marine department of the port trust, said Haldia was doing the best it could.

The port can keep a maximum of nine dredgers, said experts. Keeping any more of them on the river will affect shipping movement.

Some port officials said the only viable long-term option was to open a new channel for ships bypassing the existing Auckland and Jellingham.

Bikash Choudhary, the chief hydraulic engineer of the port trust, said a 2.5km stretch had to be dredged for that. It can be done only when the weather is good, between October and March, he added.

However, commissioning the project this year is near impossible as the port has to first issue a global tender.

The Haldia crisis comes at a time space crunch at Calcutta port has prompted shipping lines to slap a \$250-surcharge on every container.

Source : www.telegraphindia.com

Investigations into new Cairns/Port Moresby shipping route gets underway

CAIRNS Chamber of Commerce says business and industry representatives are investigating a possible direct shipping route between Cairns and Port Moresby.

According to Cairns Chamber of Commerce, it has discussed the idea with Cairns Ports and also plans to speak with shipping operators and potential users.

Cairns Chamber of Commerce says the idea will be on the agenda in November 2009 when a Cairns Chamber delegation visits Port Moresby for a trade delegation.

Cairns Chamber of Commerce claims it is seeking input from businesses to determine current freight from Cairns to Papua New Guinea. It is also looking at all economic opportunities including supplying goods and services for liquid natural gas projects.

According to the commerce, about \$200m worth of goods was sent to an Indonesian Papua mine through Cairns, proving a boat link's potential.

Source : www.shippingindustry.com.au

Shipping companies to charge customers port congestion fee

Ships calling at the Kolkata port to load and unload cargo per containers will impose a congestion surcharge of \$250 (about Rs12,000) standard container from 15 October as depth restrictions and a lack of storage space in the port are hurting trade.



Piling up: Containers stacked at Kolkata port last week. Some 5,900 standard import containers and about 2,000 standard export containers are lying at the port waiting to be cleared. Indranil Bhoumik/Mint

The port authorities have suspended fresh berthing permission to container ships until 18 October to clear the current backlog of vessels waiting to enter the port. Several container shipping firms calling at the port's two docksone at Kolkata and the other at Haldiahave informed customers about the congestion surcharge, said Deepak Tewari, chairman of the Container Shipping Lines Association, which represents container shipping firms operating from India.

The Kolkata port, operated by the state-run Kolkata Port Trust, handles about 25,000 standard containers a month.

"From September, container ships calling at Kolkata/Haldia are facing delays due to depth restrictions and lack of space to store containers," said an executive at the state-run Shipping Corp. of India Ltd. "This

becomes a cost for shipping lines. Hence, we are imposing a congestion surcharge."

Container ships calling at the port take about six days to unload and load containers and sail off, a process that needed two days or less earlier, said an executive at Bengal Tiger Line Pte Ltd.

"It's a disaster," he said. "The storage yards are overflowing. Containers are all over the port and the place is chock-a-block."

Tewari said the situation would have a "very adverse impact on exports and imports from the region". Some 5,900 standard import containers and about 2,000 standard export containers are lying in the port waiting to be cleared, he said. "Nothing more can be brought in because there is no space."

The problem will lead to a huge backlog in ports such as Colombo and Singapore, Tewari said. As large ships cannot call at the Kolkata port because of its inadequate depth, they transfer the Kolkata-bound cargo to smaller ships at Colombo or Singapore. Tewari added the government should dredge the port's channel to create more depth. Equipment breakdown and narrow roads leading to the port also make it tough to evacuate containers, he added.

The depth of the port's channel has fallen to less than 5m from 8-9m earlier, because of which ships have to call with less than their full loading capacity to be able to enter the port. "This is a loss to shipping lines," said the SCI executive mentioned earlier. "The situation can be improved by widening the roads, increasing the storage space and by deepening the channel," said Saket Agarwal, a director at ABG Kolkata Container Terminals Pvt. Ltd, which runs two container handling berths at the Kolkata port.

Source : www.livemint.com

NHAI urged to fast track Vallarpadam road project

The shipping ministry has urged the National Highways Authority of India (NHAI) to make available at least a two-lane road connectivity to the International Container Transshipment Terminal (ICTT) at Vallarpadam by March 2010 to facilitate the commissioning of the terminal.

Speaking to the media after reviewing the progress of terminal work and its connectivity projects, shipping secretary APVN Sarma expressed concern over the slow progress of the road work. Though he said other construction works like the rail connectivity were progressing fine.

While there is only a month's work left for the completion of rail connectivity, construction of transshipment

terminal facilities and the dredging work being carried out by the port trust are progressing according to schedule. The only delay seems to be in completing the road work, he observed.

Cochin Port Trust chairman N Ramachandran said ICTT would be commissioned within the first quarter of next year. He hoped that the exact date could be decided within a couple of weeks after reviewing the progress of the work.

Earlier, Sarma visited the terminal site at Vallarpadam, the construction sites of the National Highway connectivity and the port-based special economic zone at Puthuvype where the construction of an LNG terminal is in progress.

Source : www.business-standard.com

Ennore Port earns Rs. 41.46 crores profit

The Union Minister of Shipping Thiru G.K.Vasan was presented at Chennai the maiden dividend of Rs.4.15 crores by Ennore Port. The dividend Cheque was presented to the Minister by Thiru S.Velumani, Chairman cum Managing Director of Ennore Port Ltd (EPL).

The Ennore Port Ltd. has reported a post tax profit of Rs.41.46 crores during the Financial Year ended March 31, 2009 and it proposes to declare dividend at 15% on PAT which comes around Rs.6.22 crores. Dividend Tax is Rs.1.06 Cores. The dividend cash flow including dividend tax is Rs.7.28 Crores, of which Government of India gets Rs.4.15 crores and Chennai Port Trust Rs.2.07 crores.

Ennore Port has been conferred Mini Ratna Category I status by the Government of India based on its impressive performance, which enables it with enhanced functional and financial autonomy. The Port has been successful in attracting an investment of Rs. 1200 crores on various terminals and harbour crafts from private entrepreneurs. It maintained a very low operating ratio at 25.80% during 2008-09.

Construction of the Car Export Terminal at the Port is in progress in pursuance of MOU with Nissan Motors,

which would enable Nissan to export 1,80,000 cars per year. Exports are expected to commence by August, 2010. This Project will cost Rs.110 crores and the facilities include a berth, dredging of basin to 12 mtrs, parking yard of 1,75,000 sq. Mtrs.

A modern Coal Terminal and an Iron Ore Terminal are being developed at a total investment of Rs.880 crores. Ennore Port will be able to handle 8 million tonnes of Non-TNEB coal and 12 million tonnes of iron ore with completion of these two projects by August 2010. Detailed Project Report (DPR) for construction of third coal berth is being prepared so as to enable EPL to handle 35 million tonnes of coal need for TNEB by 2013-14. The Project is expected to cost Rs.100 crores. The Marine Liquid Terminal constructed at a cost of Rs.250 crores is already operational since January 2009.

Rail connectivity project works to link Coal and Iron Ore stackyards with Athipattu Stations on the Chennai - Vijayawada mainline are under the implementation at a cost of Rs.51.60 crores. Phase - II Capital Dredging to create necessary depths to handle Cape Size vessels and main line Container vessels has been approved by the Board of EPL with a proposed of Rs.440 crores.

Source : <http://pib.nic.in>

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