

# **Promoting Efficient and Competitive Intra-ASEAN Shipping Services – *Malaysia Country Report***

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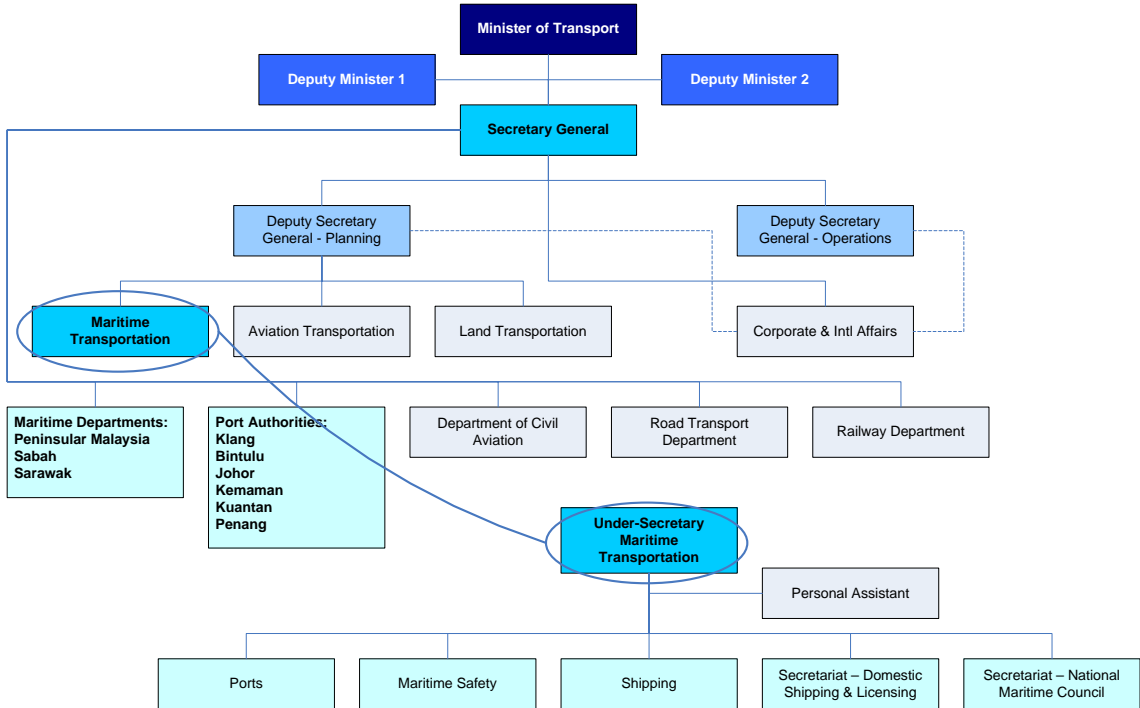
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## I. NATIONAL SHIPPING POLICIES

### A. MARITIME ADMINISTRATION

The Marine Department is responsible for oversight of the maritime sector but responsibility for policy and planning lies with the Maritime Division of the Ministry of Transport. The organisation structure of maritime administration in Malaysia is provided in Figure 1 below.

Figure 1: Structure of Maritime Administration



### B. SHIPPING POLICY

Malaysia has a long-standing program designed to encourage the growth of the Malaysian fleet. Malaysia has a long-standing and systematic program of support for national shipowners. The development of the Malaysian shipping industry is closely linked to national policy, which emphasizes on greater self-sufficiency in shipping services. This is primarily aimed at reducing the severe outflow of freight payments to non-national shipping lines. In this regard the Malaysia maritime industry is considered as still in its infancy stage. As a trade dependent economy, the government felt it is necessary to promote the growth of a national merchant fleet to enable the carriage of more national cargo on national –flagged ships

The Malaysian International Shipping Corporation (MISC) was incorporated as a public company in 1968<sup>1</sup>. A major reason for its establishment was the perception held in Malaysia that the Far Eastern Freight Conference had a stranglehold over trade, Malaysian shippers having expressed concern at the level and rate of increase of freight rates. The Government’s objectives in setting up MISC included a reduction in the dependence on foreign carriers, the minimization of balance of payments outflows for shipping services, and

<sup>1</sup> In 1982, a second national line, Perbadanan Nasional Shipping Line Berhad (PNSL), was incorporated with paid-up capital of M\$10 million and authorised capital of M\$100 million. The government held 100% of the equity of PNSL through the National Corporation of Malaysia (Pernas).

the creation of a 'window into the conferences'. MISC was listed on the Kuala Lumpur stock exchange in 1997.

National oil company Petronas is now the major shareholder in MISC, holding 65%. The focus understandably is now on the tanker fleet. They have recently divested themselves of their fleet of bulk carriers and the lines' container vessels are tied into major alliances.

However, shipper groups are now talking of a new national line, with the Federation of Malaysian Manufacturers (FMM) leading the charge. The FMM is funded by its 2,000+ members and has no government funding. Its members are facing serious problems in obtaining space for their cargo. The FMM confirmed that there is a shortage of space for Malaysia hinterland cargo, given ship-owner preference for long haul cargo in the mainline trades. The shortage of space is most acute in short-haul trades, such as those to ASEAN countries.

MISC does not have sufficient tonnage to operate in its own right in the major trades, and has no option but to operate in space-sharing alliances. The other partners have 60-odd ships, putting MISC in a weak position to bring about change or to support national objectives, according to FMM.

FMM is responding to its members' concerns by lobbying government to consider the establishment of a new national shipping line. The main thrust of their argument is that without a viable national carrier, exporters find themselves at the mercy of overseas lines, which will maximise profitability without concern for protecting regional/national trade. This is the classic argument for a national carrier, a concept tested and generally found wanting by many developed shipping nations.

FMM argues forcefully for the concept and is clearly committed and very passionate about the issue. It is lobbying the Government hard, using the position of the FMM on the National Shippers Council and through the Malaysian Chamber of Commerce & Industry.

This activity is clearly Malaysia-specific, but it was also suggested that there may be the possibility for a line owned and operated by or for ASEAN.

The driver for this is the perceived opportunity for ASEAN countries with relatively low labour costs to ride the current boom led by China. Currently, only the more developed among the original ASEAN members have the ability to provide low cost manufacturing. Others have the low labour costs of, say Indonesia, but do not have the infrastructure to capitalise on the opportunities. FMM argues strongly that ASEAN has the culture, cohesion and commitment to develop this infrastructure.

To encourage foreign shipping lines to set up regional offices in Malaysia, the Government has allowed foreign equity shareholding to be increased 70%.

### **C. SHIP REGISTRATION**

The Government's power over shipping registration derives from the Merchant Shipping Ordinance (1952). To fly the Malaysian flag, a vessel must be 51% owned by Malaysian interests. The Merchant Shipping Amendment Act (1997) created a second register, the Malaysian International Shipping Registry, as one plank of a policy designed to encourage the development of the Malaysian shipping industry leading to increased employment opportunities and technology transfer. Features of the Malaysian second register are as follows:

- The company owning the vessel must be incorporated in and have an office in Malaysia;
- The ship manager must be a Malaysian citizen or corporation;
- The company must have a paid up share capital of 10% of the value of the ship or RM one million, whichever is higher; and

- Tankers or bulk ships must be less than 15 years old, and other ships less than 20 years.

#### D. REGULATION OF COMPETITION IN SHIPPING

Malaysia does not have a competition act. Nor is there any government body overseeing or administering competition rules or regulations, including the monitoring of abuses in the market or restrictive business practices. However, a number of laws, including the Companies Act 1965, Control of Supplies Act 1961, Trade Descriptions Act 1972, Food Act 1983, and the Direct Sales Act 1993, contain clauses protecting consumer interests. Under these laws a consumer or trader may seek redress through the appropriate Ministry or public agency or the Civil Courts.

#### E. CABOTAGE

The cabotage trade is administered by the Domestic Shipping and Licensing Board (DLSB), set up in 1980, part of the Maritime Division of the Ministry of Transport. In order to participate in the cabotage trade a license per vessel is required by a Malaysian citizen or company. The DSLB grants three types of licences:

**Unconditional licence** is granted to a Malaysian entity in respect of a Malaysian flagged vessel on the condition that it:

- is qualified to own a Malaysian flagged vessel according to the law stipulated for owning a Malaysian ship;
- has 30% bumiputra participation in terms of equity, directorship and office staff; and
- employs Malaysian citizens as ratings on the vessel in question to the tune of 75%.

**Conditional licences** are granted to vessels meeting some, but not all, of the above conditions.

**Temporary licences**, upon exemption given by the Minister of Transport, are granted to Malaysian companies that are required to operate foreign flagged vessels due to the non-availability of suitable Malaysian flagged vessels

The table below gives details of the number of licences issued by the DSLB over the period 1993-99. We note that foreign vessels account for more than a third of the licenses issued.

**Table 1: Malaysia: Coastal Licences Issued by the Domestic Shipping Licensing Board<sup>2</sup>**

Year	Local			Foreign
	Unconditional	Conditional	Temporary	
1993	293	276	21	484
1994	218	341	84	633
1995	265	435	60	700
1996	226	560	55	771
1997	245	637	71	637
1998	247	821	26	542
1999	223	630	23	598

The Merchant Shipping (Extension and Amendments) Act 1994, designed to increase the number of Malaysian-flagged vessels, contained exemption provisions that have led to a

<sup>2</sup> Source: Malaysian Shipowners' Association, Malaysian Maritime Yearbook, 2000/01, p.24.

relaxation of cabotage restrictions. These provisions were invoked in 1994 to allow foreign-flagged vessels to carry transshipment boxes between the Malaysian ports of Penang and Port Klang, and were extended to transshipment cargo between Penang, Johor and Port Klang in 1997. In mid 2000, Malaysia was said to be considering a further relaxation of cabotage to allow foreign lines to carry transshipment cargo between designated ports in East Malaysia (Sabah, Sarawak) and Port Klang. The various exemptions are designed to enhance Port Klang's position as a hub port. Under the Eighth National Development Plan (2001-05), we understand that relaxation of cabotage has been extended to support the emerging hub port of Tanjung Pelepas (PTP).

So far as intra-ASEAN trade is concerned, and notwithstanding relaxation of cabotage by some member countries, our contacts in Malaysia pointed to areas in which cabotage may cause inefficiencies. For instance, the spice trade from E Malaysia to Singapore currently uses small vessels – the inference being that the trade would be more efficient if larger, overseas vessels were allowed to lift the cargo.

On the other side of the coin, there are others who view cabotage positively. Domestic ship owners' representatives support it as it is there to protect the local players, who constitute much of their membership. They concede that it can be over restrictive and note that it has been relaxed on certain routes. However, this is seen as creating problems. For example, shippers from Penang complained that there was insufficient space available on feeders. Cabotage was relaxed and mainline carriers called, expecting to make money. One by one they pulled out as revenue did not reach expectations (and no doubt as long-haul opportunities with better revenue increased). In the meantime, local operators had withdrawn from the trade leaving the situation worse in the longer run.

## **F. SUBSIDIES, GRANTS AND TAX INCENTIVES**

Fiscal incentives, many operating through the tax system, favour Malaysian shipowners as well as shippers using Malaysian flag vessels.

- **Tax Exemption for shipping business**

Statutory income of a shipping enterprise, from the business of transporting of passenger, mail, livestock or goods by seagoing Malaysian merchant ships is tax exempt. In this respect the term "Malaysian Ships" means a seagoing ship registered as such under the Merchant Shipping ordinance 1952 other than ferry, barge, tug boat, supply vessel, crewboat, lighter, dredger, fishing boat or other similar vessels. Any dividend paid out of such an exempt account is also exempted from tax.

- **Tax Exemption for ship's crew**

Income of any person derived from employment on board a Malaysian ship is exempted from tax.

- **Exemption of import duty and surtax for ships**

Ships above 26GRT are exempted from import duty and surtax. The import duty of 30% imposed on ships less than 26 GRT has been reduced to 25% with effect from October 1995.

- **Accelerated depreciation on ships**

Accelerated Depreciation on ships is allowed with an initial first year capital allowance of 20 per cent and further special allowance of 6-10 percent.

- **Income tax concessions to shippers**

A less direct form of subsidy or concession is available to shippers who can demonstrate that they have supported national flag carriers. The Income Tax (Deduction for Freight Charges) Rules, under the Income Tax Act (1967 as amended) came into effect in 1995. This provides for deduction of freight charges incurred by a Malaysian shipper and paid to a



Malaysian-incorporated shipping company for transportation aboard a Malaysian flag vessel. The deduction is in addition to any deduction allowable under Section 33 of the Income Tax Act (1967). The OECD has argued that this discriminates against non-Malaysian shipping companies and considers the financial incentive to be in breach of Malaysia's WTO obligations. In fact, our discussions suggested that while the wording of this provision allows shippers to 'register for' such potential savings, it is not clear that the savings are realisable.

- **Ship finance**

The Industrial Development Bank (IDB) was set up in August 1979 to provide loans at concessional rates of interest to shipowners, shipbuilders and ship-repairers. The tying of IDB loans to local ship construction caused concern, shipowners arguing that the higher cost of local construction largely negated the interest rate benefit.

Improved benefits, aimed at promoting fleet expansion, were made available to Malaysian shipowners in the 1982 budget. Under the scheme, Malaysian shipowners received a 50% tax exemption if profit, after declaration of dividends, was credited towards a fleet acquisition reserve, and if 75% of that reserve was actually used for fleet acquisition. In 1994, Malaysia set up a Ship Financing Facility and Ship Venture Fund, helping to finance the rapid growth of Global Maritime Ventures, owned by Bank Negara. The Global Maritime Ventures fleet totalled 400,000 dwt by June 1995. Malaysia's 2001 Budget provided for M\$1 billion to be added to the National Shipping Fund to boost the national merchant fleet. The Malaysian government also provides tax concessions for the construction, purchase and operation of ferries, tugs and barges by Malaysian firms. Some interviewees noted that the Ship Financing Facility and Ship Venture Fund are difficult to tap into and may not be fulfilling their aims.

## **G. MANNING ISSUES**

Industry statistics on the current workforce are to some extent misleading. Once registered, a name is not removed, so many on the register may have departed the industry. However with the introduction of the Biometric System in July 2005, which is valid for 1 year, the Register will reflect the active status of seamen in the Register

Shipowners' representatives identified manning as a major problem in Malaysia, attributing it largely to changing social patterns. As Malaysia becomes more developed, its rate of population growth is declining. Few now want to go to sea and those that do qualify as seafarers stay a short time and then go into the many shore jobs available. Interviewees felt that Malaysia will shortly experience shortages of maritime labour similar to those faced by the UK 20 years ago and Singapore more recently.

Malaysia allows foreign nationals to serve on Malaysian ships provided that they have a permit obtained from the Marine Department. Malaysia allows foreign crew members to serve in Malaysia ships provided:-

(a) they are from countries that a MOU was signed as required under the STCW Convention 1995

(b) in the case of officers, they have a Certificate of Recognition (COR) issued by the Marine Department. (Ratings need to have the Malaysia Seamen Identity Card only).

Estimates suggest that the current ratio of Malaysians to foreigners in the fleet is 60/40, but sources feel that it will move to 50/50 shortly. Regulation requires a certain percentage of manning on domestic vessels must be nationals (75%) in order to secure an unconditional licence. However, it is possible to obtain a conditional licence with a lower proportion of Malaysian crew.

## II. KEY TRADING RELATIONSHIPS

### A. INTRA-ASEAN TRADE IN THE REGION

In the last 18 months freight rates have doubled. Patterns of trade have also changed substantially. In general, cargo flows have increased through ASEAN ports, with certain ports recording over 20% growth compared to 15% growth in intra-Asian trade.

Feeder service operators contacted said that although they may see themselves as a truly ASEAN operation, they also have services to other regions, particularly N & E Asia, West (Middle East) and South Asia. In particular they see China and the Indian sub-Continent as future drivers of trade in S E Asia.

### B. MAIN COMMODITIES SHIPPED IN INTRA-ASEAN TRADES

Container operators identified the following as major intra-ASEAN trade elements:

- agricultural products: rice, sugar, beans etc.;
- consumer products;
- raw materials including palm oil, spare parts;
- electrical and electronic products (most product exports to US but componentry flowing between ASEAN countries).
- automotive – components and some built up cars (CBU)

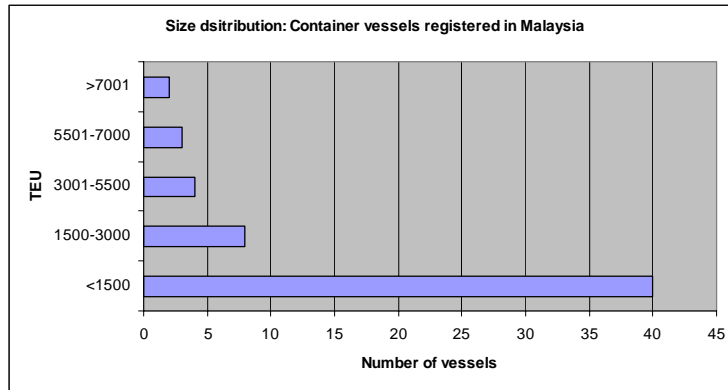
Looking at bulk and break-bulk, the following commodities were suggested as the major movements:

- rubber;
- palm oil (Malaysia is now importing palm oil from Indonesia)
- sawn timber (shipped in break-bulk vessels/barges from East Malaysia-West Malaysia, processed in West Malaysia and exported to various destinations in containers); exports of furniture from Malaysia
- rice (Thailand and Vietnam are the big exporters)
- petroleum products (note the importance of Kuantan; resin products are also exported from Kuantan)
- coal imports
- automotive – CBU in dedicated car carriers.

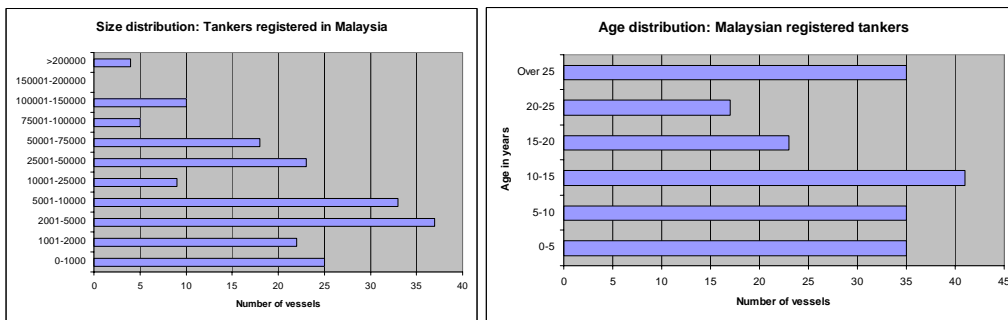
### III. NATIONAL FLEET

The Malaysian fleet has increased from 530 vessels totaling 1.23 million GRT in 1983 to 3667 vessels in 2004.

**Figure 2:** Size/age distribution of container vessels under Malaysian flag



**Figure 3 and Figure 4:** Size/age distribution of tankers under Malaysian flag



Malaysian International Shipping Corporation (MISC) currently owns 127 vessels with a GRT of 3.65 million tons and is a recognized global player. MISC is the largest single owner-operator of Liquefied Natural Gas (LNG) vessels in the world. In 2003 MISC safely completed 316 deliveries of around 16 million metric tones of LNG cargoes through its fleet of 17 LNG tankers. MISC also concluded the acquisition of American Eagle Tanker Inc. Ltd. (AET) from Neptune Orient Line by acquiring 29 vessels, propelling MISC to become the second largest Aframax tanker operator in the world with 39 Aframax vessels.

## IV. PORTS

### A. OVERVIEW OF PORT ADMINISTRATION AND DETAILS OF INTRA-ASEAN PORTS

Malaysia classifies its ports as major or minor. The six major ports are Port Klang, Bintulu, Johor (and PTP), Kemaman, Kuantan and Penang. All six major ports are controlled by Federal Port Authorities (FPAs)<sup>3</sup>. All the ports under FPAs are either corporatized or privatized. In addition to the ports controlled by FPAs, there are a number under the control of four state port authorities (SPAs), as well as those under the purview of local councils and the Marine Department<sup>4</sup>.

In 1993, the Malaysian Government declared Port Klang as the national load centre. Subsequently, when PTP was operational in 2000, the role of PTP was defined as a transshipment port. Port Klang is also now viewed as the transshipment centre.. However, Port Klang and Penang are the major centres for the thriving cross-Malacca Straits break-bulk trade.

Despite its location, the port of Kuantan sees little cargo from East Malaysia, most going to Johor, or in greater volume to Singapore for onward trans-shipment. Kuantan serves a large petro-chemicals industry complex, and tends to specialise in imports and exports of petro-chemical products.

The industry view regarding ports in ASEAN countries is that they range from the well developed ports of Malaysia, Singapore etc. to the opposite extreme, with Yangon suggested as an example of the latter. Often the problem is not so much with infrastructure but with equipment. This dictates geared vessels and slows down working rates, contributing to congestion and delay.

In 1995, the Malaysian Government introduced measures actively encouraging Malaysian shippers to use Malaysian ports rather than Singapore. These include a doubling of duties on laden trucks leaving Malaysia and a new levy of M\$100 (US\$39.50) on trucks entering the country. We note that, prior to the development of PTP and the expansion of Port Klang, around 90% of Malaysian cargo was handled by Singapore. The proportion is now down to 20-30%, with 90% of cargo through PTP being transshipment cargo, compared to 55% at Port Klang.

Participation in the inland haulage business in Malaysia is restricted by licence. For many years the industry was tightly controlled. In 1996, the Government decided not to permit any further operators to enter the container haulage business: the five existing operators being considered capable of providing sufficient capacity<sup>5</sup>. However, a review of the policy in 2000 saw an increase from five to eleven carriers. Subsequent further liberalisation has encouraged further entry, and 71 carriers are now involved in container haulage.<sup>6</sup>

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<sup>3</sup> Kuantan Port Authority has responsibility for both Kuantan and Kemaman, while the Johore Port Authority has responsibility for both Johore and Tanjung Pelepas (PTP).

<sup>4</sup> A complete list of ports and their controlling authorities will be found in Malaysian Shipowners' Association, Malaysian Maritime Yearbook, 2000-01, p.125.

<sup>5</sup> Containerisation International, July 1996, 27.

<sup>6</sup> Information provided by Government of Malaysia in response to Draft Final Report.

## B. PRIVATE PARTICIPATION IN PORT OWNERSHIP AND OPERATION

Malaysia was one of the pioneers of the wave of privatization of port services that has swept the world over the past twenty years. The general objectives of Malaysia's privatization policy, formally expressed in the "Guidelines on Privatization" issued by the Economic Planning Unit in 1985, have been summarized as follows:

- To relieve the financial and administrative burden on government;
- To promote competition;
- To stimulate private entrepreneurship;
- To reduce the size of the public sector and its monopolistic and bureaucratic tendencies; and
- To contribute towards the objectives of the New Economic Policy.

Malaysia's first major foray into the privatization of existing port services was the 1986 privatization of Klang Container Terminal (KCT)<sup>7</sup>. This was followed in 1992 by the sale of the remaining berths at Northport (Port Klang) to Klang Port Management (KPM). KCT and KPM later merged their operations to form Northport. Subsequently, a major new container terminal at Westport (Port Klang) was developed by a private operator on a BOOT basis.

Privatization continues in the Malaysian port sector, six of the seven major ports having been privatised (i.e. terminal operations and cargo handling have been put out to the private sector.) The single most significant initiative has been the private sector development of the new port of Tanjung Pelapas (PTP), which has competed successfully against the Port of Singapore. The exception is the East coast port of Kuala Trengannu, which remains under state control.

There are many privately owned berths and jetties dedicated to specific trade, such as the oil refineries, power generations and cement plants. Some ostensibly common user berths are set aside for specific trades – e.g., palm oil in South Port, Klang.

## C. PHYSICAL DETAILS OF MALAYSIA'S PORTS

### 1. Port Klang

#### Approach

There are two approach channels for Port Klang: North Pulau Angsa Channel which is 153 m wide and 11.4 m deep, and South Pintu Gedong Channel which is 366 m wide and 15 m deep. Both channels are well charted with sufficient navigational aids and buoyed & dredged every three years.

#### Container terminals

There are four container terminals at Port Klang:

Name	Operator
Westport Terminal	Klang Multi Terminal Sdn Bhd
Container Terminal 2	Northport (Malaysia) Bhd
Container Terminal 1 & 3	Northport (Malaysia) Bhd

*Source: Interview program*

<sup>7</sup> The terminal was leased to a joint venture company, in which Klang Port Authority held 49% of the shares. The remaining 51% was held by Kontenas Terminal Klang, in which P & O Australia held a 20% interest.

Dry Bulk cargo facilities

The main dry bulk terminals are:

- Northport - Berths No. 24 and No. 25, with alongside depth of 11 metres and ship handling capacity up to 45,000 tonnes displacement, handles fertilizer, sugar, maize, feedmeal and cement imports and palm kernel expeller exports.
- Westport, where there are three dry bulk terminals:
  - DB1 Terminal, which has two 200 m berths with alongside depth of 15 metres handles grains and sugar. This terminal is equipped with a conveyor system and 2 gantry grab unloaders capable of discharging 2,000 tonnes/hour.
  - DB2 Westport Slag Terminal, which has a 250m berth with alongside depth of 3.5m and capacity to handle fertilizer, silica, sand and slag and ships of up to 78,000 tonnes displacement.
  - Westport Cement Terminal which is a 285m berth supported by 8 loading/discharging pipes between jetty and consignee's facilities. It is capable of accommodating vessels up to 35,000 tonnes displacement with max depth of 11m. Its pumping rate of 800 tonnes/hour is driven by the latest pneumatic technology available on board specialised cement carriers.
- Southpoint (Formerly known as South Port)
  - Dry bulk (wheat, maize, feedmeal) is handled through Berth No. 4, which can receive ships of up to 20,000 tonnes displacement.

Liquid Bulk facilities

Three terminals, North Port, Southpoint and Westport are equipped to handle liquid bulk at Port Klang.

Breakbulk cargo facilities

- North Port: Five berths (No. 12 - 16) have been designated for this purpose. The 943 m long wharves with 9 metres to 11.5 metres alongside depth can handle ships of 30,000 to 60,000 tonnes displacement. Cargoes handled here include manufactured goods, completely knocked down cargo, iron and steel.
- Westport: 4 berths (B03 - B06) each measuring 200 metres in length and 15 metre in depth, are capable of handling ships of up to 80,000 tonne capacity.

Cargo

In 2001, 14 207 vessels, 70,149 000 tonnes of cargo including 3,759,512 TEU's were handled at Port Klang. By 2003 container throughput had grown to 4.8 million TEU's as suggested by Table 2.

**Table 2: Container Traffic at Port Klang**

	2003	2002	2001	2000	1999
<b>Inbound</b>	2,467,936	2,651,230	1,912,980	1,638,316	1,308,356
<b>Outbound</b>	2,373,299	2,592,363	1,846,532	1,568,437	1,242,063
<b>Full</b>	3,843,869	3,637,210	2,899,619	2,429,872	1,960,353
<b>Empty</b>	988,335	896,002	849,207	776,881	590,066
<b>Total TEU</b>	4,840,000	4,533,212	3,759,512	3,206,753	2,550,419
<b>Tonnage</b>	68,538,636	63,269,000	52,837,124	48,097,584	43,852,875

Source: Containerisation International (www.ci-online.xo.uk)

## Development

Port Klang Authority has identified additional facilities required for future operation. When Westport is completed, it is expected that the facilities at Port Klang will be sufficient to handle the projected cargo throughput 130 million tonnes by the year 2010. Container projection by then will be 8.4 million TEUs.

## **2. Penang**

### Approach

There are two approaches to Penang port. Entry into the harbour is either via the North Channel, which is 15 nautical miles long, 183 m wide and of 11 m deep CD, or via the South Channel, which has 5.8 m CD. Vessels entering the port via this approach are restricted to 6 m d, 28 m air draught, but they can enter at any state of tide.

### Container handling facilities

There are currently two container handling facilities at Penang Port, one at the Butterworth Container Terminal (BWCT) and the other is the North Butterworth Container Terminal (NBCT), with a combined capacity of 770,000 TEUs per annum. Although there are two wharves at BWCT, all container handling will eventually be done at NBCT as a way of improving efficiency through the use of advanced container and cargo management technology that integrates cargo movement between the container terminal and the container freight station and provides on-line information to shipping lines, manufactures, importers and exporters. The move to NBCT will also release berths at BWCT for general cargo handling.

### Tanker facilities

There are three privately owned oil jetties operated by Shell and Esso at Butterworth, and Caltex at Prai. Petronas operates at the Bulk Cargo Terminal facilities LPG is handled at the Bulk Cargo Terminal via pipelines to private tank farms located outside the terminal and a dolphin berth of 43 m specially designed for dangerous cargo vessels.

### Breakbulk

Butterworth Wharves comprise four berths for handling a variety of breakbulk cargo such as palm oil in drums, refined sugar, bag rice, iron and steel products, and manufactured goods. The dimensions of the breakbulk berths are shown in Table 3 below.

**Table 3: Penang port breakbulk berth details**

<b>LENGTH</b>	715 metres	
<b>DEPTH</b>	W1	9.0 metres ACD
	W2	8.5 metres ACD
	W3	7.5 metres ACD
	W4	7.5 metres ACD

Source: Summarised from information in Lloyds Ports of the World

### Liquid Bulk

Penang Port's Vegetable Oil Tanker Pier (VOTP) is linked via overhead pipelines to facilitate direct loading and discharging of edible oils to privately-owned storage tank farms.

Liquid bulk cargoes such as Liquefied Petroleum Gas (LPG) and Vinyl Chloride Monomer (VCM), are also conveyed via pipelines to private onshore installations beyond the terminal boundaries.

**Table 4: Penang port dolphin berth dimensions**

BERTH	1 Dolphin Berth of 167 metres	
DEPTH	9.0 metres ACD	
STORAGE	92 tanks	114, 200 tonnes
EQUIPMENT	Pipelines	

Source: Summarised from information in Lloyds Ports of the World

#### Dry Bulk

Penang Port's Prai Bulk Cargo Terminal (PBCT) provides dedicated facilities for handling dry bulk, non-edible liquid bulk and dangerous liquid bulk cargo. The cargo handled at PBCT includes grains, soybeans and raw sugar.

**Table 5: Prai Bulk Cargo Terminal dry bulk facility characteristics**

BERTH	3 Berths	588 metres
	1 Inner Berth	154 metres
	1 Dolphin Berth (for dangerous cargo)	44 metres
DEPTH	Berth	11.0 metres ACD
	Inner Berth	7.5 metres ACD
	Dolphin Berth	11.0 metres ACD
STORAGE	13 Godowns	88, 885 square metres
	1 Stockpile Area	4.7 hectares
EQUIPMENT	1 Gantry Crane	Capacity / Unit
		300 tonnes / hour
	1 Kangaroo Crane	60 tonnes

Source: Summarised from information in Lloyds Ports of the World

#### Handling Capacity

Penang has a total annual handling capacity of 25 million tonnes of cargo and the combined container handling capacity at BWCT and NBCT is 770,000 TEU's per annum.

#### Cargo

An 8 - 11% growth rate was forecasted for 2004 for Penang. From January to April 2004, it handled 238,355TEU, a 10% increase from 2003's 215,287TEU.

#### Development

Development projects to be completed by April 2005 include:

- the ongoing North Butterworth Container Terminal (NBCT) Phase 2B expansion<sup>8</sup>
- upgrading of its container handling system into a web-based system

<sup>8</sup> Future plans for BWCT involve the consolidation of all container-handling activities at the NBCT. With the consolidation, PPSB expects to improve container-handling activities and provide more berths for conventional cargo handling. Under the NBCT Phase II Expansion project, NBCT will be extended a further 200 metres to make a 900 metre berth, 25 hectares will be reclaimed for container yard facilities, a second access bridge will be constructed, and requisite equipment will be provided. Upon completion, it is expected that NBCT will be able to handle 1 million TEUs per annum. (See Penang Port Website, <http://www.penangport.com.my/mainpage/mainwindow.htm>)



- obtaining ISO 9001:2000 certification for its conventional cargo handling operations.

### **3. Johor**

#### Approach

The depth in the main channel east of Johore Straits permits a max draft of 11.6 metres.

#### Accommodation

The port covers an area of 202 ha and 1162m of quay, length encompassing 6 wharves and facilities for handling general dry bulk and containerised cargo. Depth alongside these wharves ranges from 5.5 – 12.8m. Three jetties for liquid cargo provide facilities for handling vegetable oils and dangerous cargo, where the alongside depth is 10.5m. Four private jetties within the port handle diesel, woodchips, granite and general cargo. There are lay-up facilities available for 23 vessels in the Johor River Anchorage.

A free trade zone status operates in the port covering a total area of 148 acres with storage area of 184 680 ft<sup>2</sup>.

#### Container and Ro/Ro Facilities

The container terminal is managed by Pasir Gudang Container Terminal, which has one berth that is 215m long, and 12.8m deep, and is equipped with:

- 2 gantry cranes
- 6 straddle carriers
- 6 transtainer cranes
- 1 reach stacker,
- 20 yard tractors
- 30 yard chassis

The Total area of container freight station is 3 ha, and there is a side ramp for ro/ro vessels.

#### Bulk Cargo Facilities

Two specialised berths for bulk cargoes with depth alongside of 12.8m. Grain silo cap of 50 000t, fertilizer storage area of 80 000t cap, feedmeal and cement silos served by conveyor belts with a total length of 1400m, to and from berths IV and V; two level luffing cranes, two continuous mechanical unloaders are installed at these berths. Cap of the unloaders is 420t/h.

#### Tanker Terminals

With an overall length 244m with depth alongside of 11m that accommodates vessels up to 30 000 dwt, the tanker terminal consists of a twin berth jetty for vegetable oils, petroleum and other dangerous cargoes.

#### 4. Kuantan

##### Approach and capacity

The approach channel to the Kuantan port has a minimum 12 m. and a maximum depth of 11 m at LW.

##### Accommodation

Kuantan Port Consortium Sdn Bhd provides a variety of berthing facilities totalling 2,845 metres in length to cater for cargoes shown in Table 6 below. The port has the capacity to handle a maximum ship size of 39 000 dwt, 11.2 m d, 228 m loa.

**Table 6: Kuantan port facilities**

BERTH	NO. OF BERTH	LENGTH [M]	DRAUGHT [M]	D.W.T.	MAX. DISP. TONNES
<b>LIQUID BULK</b>					
Inner Palm Oil	1	150	8.0	6,000	8,000
Outer Palm Oil	1	250	11.5	40,000	54,000
Mineral Oil	1	150	8	6,000	8,000
Chemical Common User	2	480	11.4	35,000	45,000
Chemical Dedicated BASF - Petronas	1	240	11.4	35,000	45,000
MTBE	1	240	11.4	35,000	45,000
<b>DRY BULK/BREAKBULK</b>					
Multipurpose	4	725	11.2	35,000	45,000
Service Jetty	1	140	4.0	4,500	6,000
Berth IA	1	70	8.0	6,000	8,000
<b>CONTAINER</b>					
Container	2	400	11.2	35,000	45,000

Source: Summarised from information in Lloyds Ports of the World

##### Storage and equipment

Kuantan port has approximately 48,000 square metres of open storage and another 25,000 square metres of covered storage and 5 warehouses. In addition the port has forklifts, multipurpose, mobile and container cranes and reach stackers.

##### Development

Work on the expansion project of the new 80 ha Inner Harbour Basin, adjacent to the existing harbour basin, was completed in December 2001. The new basin of 4 km berth line has the capacity to accommodate 11-12 berths, which will be constructed in phases as and when necessary. KPC constructed a 350 m long dedicated container terminal at the new basin which was commissioned for operations in mid 2002. The existing berth was then designated for conventional cargo handling. KPC also constructed a 240 m long liquid chemical berth (No.3) that was completed mid 2002.

##### Cargo and Traffoc

In 2001 1855 vessels and 7 532 034 t of cargo were handled at Kuantan port.

Kuantan Port experienced a slight dip in its cargo performance for the first quarter of 2004, handling 2.2 million tonnes compared with 2.3 million tonnes the previous year. In 2003 the port registered a total of 9.8 million tonnes and 8.99 million tonnes in the previous year.

The new container terminal, which started full commercial operation, contributed significantly to the traffic growth in 2003. Containerised cargo recorded the second highest growth rate of 13.3 per cent to 1.34 million FWT during 2003. The full

operation of the container terminal is expected to contribute significantly to the growth of the total throughput. The following table shows the container throughput for Kuantan between 1999 and 2003.

**Table 7: Kuantan port container throughput (TEU's)**

	2003*	2002	2001
<b>Inbound</b>	43,540	44,659	37,393
<b>Outbound</b>	52,400	46,865	38,946
<b>Full</b>	56,000	53,319	42,911
<b>Empty</b>	39,940	38,205	33,428
<b>Total TEU</b>	95,940	91,524	76,339
<b>Tonnage</b>	1,254,000	1,185,175	958,656
	* denotes estimated figures for year		

Source: Containerisation International (www.ci-online.xo.uk)

## 5. Kemaman

### Approach and capacity

The navigational approach is through a channel which 3 km long and has a minimum width of 250 m and is 18 m deep.

### Accommodation

**Table 8: Kemaman port facility characteristics**

Location	Length (m)	Draft (m)
Kemaman East Wharf - Operated by Lembaga Pelabuhan Kemaman. For vessels up to 150 000 dwt. 3 berths handling general & dry bulk cargoes.	648	16.4
Kemaman LPG Export Terminal - Operated by Petronas Gas Bhd. LPG, butane & propane. For vessels up to 60 000 dwt. Loading system consists of five loading arms, two of which are for refrigerated propane and butane loading, two for returning propane and butane vapour from the vessel and one for loading pressurized LPG. Storage facility for LPG with cap of 110 000 m <sup>3</sup>	320	13
Kemaman Supply Base - Operated by Pangkalan Bekalan Kemaman Sdn. Bhd. Consists of 5 berths. For vessels up to 8000 dwt. Covers some 50 acres and protected by 850 m of breakwater. Capable of accommodating general cargo vessels up to 30 000 dwt. Open storage yards of 40 ha	360	8
Kemaman Liquid Chemical Berth - For vessels up to 40 000 dwt. The berth has space for 50 pipelines and 6 loading arms	240	11.4
Kemaman West Wharf - For vessels up to 90 000 dwt. 2 berths dedicated to the handling of Gunawan iron & steel	510	14

Source: Summarised from information in Lloyds Ports of the World

### Storage and equipment

At Kemaman Supply Base there are specialized stores for explosives and flammable materials and a 1000 m<sup>3</sup> silo for blending, storing and transfer of mud materials. There are 5000 square metres of covered storage space at East Wharf Equipment at these wharves includes container, multipurpose and mobile cranes and three tugs.

### Traffic

In 2000, 288 vessels and 2 293 956 t of cargo was handled at Kemaman port.

## 6. Bintulu

### Approach and capacity

The approach to Binulu is via a dredged access channel that is approximately 5.7 km long, 240 m wide and 15 m deep. The maximum ship size that Bintulu port can handle is 65000 dwt, 200 m loa, and 13.5 m draft.

### Accommodation

The wharf apron at the general cargo wharf is 24 metres wide and is 30 metres wide at the dry bulk wharf. The width of the wharf deck at the container terminal is 34.5 metres.

**Table 9: Bintulu port berth characteristics**

TYPE OF BERTH	LENGTH (M)	DEPTH (M)	MAX VESSEL SIZE (DWT)
General Cargo	514.5	10.5	25,000
Dry Bulk Cargo	270	13.5	60,000
LNG Jetty	-	15	65,000
Petroleum Jetty	200	11	30,000
LPG Jetty	-	11	51,000
Container Terminal	450	14	55,000

Source: Summarised from information in Lloyds Ports of the World

### Storage and equipment

The storage facilities at Bintulu port are shown in the table below.

**Table 10: Bintulu port storage facilities**

TYPE OF STORAGE	NO.	AREA (M <sup>2</sup> )
Transit Shed	2	10,000
Warehouse	3	7,200
Hazardous Godown	1	312
Open Storage	1	71,900
Rigger Warehouse	1	2,376
Container Open Yard	1	66,450

Source: Summarised from information in Lloyds Ports of the World

In addition to these storage facilities, Bintulu port has a comprehensive range of mechanical handling equipment including mobile and container cranes, forklifts, and trailers, and three tugs.

### Traffic

2001, 4375 vessels, 25 210 000 t of cargo handled, 66 139 TEU's

In 2003, Bintulu Port handled 28.97 million tonnes of cargo, which represents an increase of 13.2% in total cargo throughput from the previous year. For containerised cargo, Bintulu Port recorded a throughput of 145,000 TEUs in 2003 (see Table 11 below).

**Table 11: Bintulu port cargo throughput**

	2003*	2002	2001
<b>Inbound</b>	72,544	52,938	31,928
<b>Outbound</b>	72,463	51,143	33,140
<b>Full</b>	104,896	76,712	43,170
<b>Empty</b>	40,111	27,369	21,898
<b>Total TEU</b>	145,000	105,106	66,139
<b>Tonnage</b>	2,515,726	1,922,705	1,002,254

- \*denotes estimated figures for year

Source: Containerisation International (www.ci-online.xo.uk)

There were approximately 4,825 ship calls in 2003, more than triple the number recorded in 1983, the year Bintulu Port commenced its operation. About 55% of the ship calls in Bintulu Port consist of vessels carrying general cargo.

## 7. Kuching

### Approach and capacity

The channel from the pilot station to the wharf is buoyed and is restricted by the presence of two bars. The outer bar of sand bottom, lies about 2 nautical miles ESE of Tg. Po Lighthouse and has a depth of 5.2 m above CD; the inner bar lies about 1 nautical mile SE of Tanjong Muara Tebas and has a depth of 5.1 m above CD. Vessels drawing more than 5 m, especially during the NE monsoon (October to March) on account of the swell, need an under-keel clearance of at least 2 m when approaching and crossing the bars.

### Accommodation

**Table 12 Accommodation at the port of Kuching**

Location	Length (m)	Depth (m)	Draft (m)
Pending Terminal - Consists of 5 berths. Vessels up to 175 m loa and 12 500 t can be accommodated. Three transit sheds totalling 24 900 m <sup>2</sup> .	613	8.5	7.5
Biawak Oil Jetty J - Jetty No.1, length 47.85 m; Jetty No.2, length 45 m, accommodating vessels up to 110 m loa and 5000 t displacement. The jetty is exclusively used by tankers of Petronas, Shell and Esso carrying petroleum products to the nearby oil installations and for vessels taking bunkers	93	6.7	6.4
Sejingkat Terminal - Vessels up to 115 m loa and 5000 t displacement can be accommodated. 12 reefer points	125	9	7.5
Kuching: Senari Terminal - Consists of 5 berths. For vessels up to 200 m loa and 12 500 t displacement and one container freight station of 8000	635	11	7.5

Source: Summarised from information in Lloyds Ports of the World

### Storage and equipment

At Pending Terminal there is extensive storage facilities including a dangerous goods shed of 900 m<sup>2</sup>, a container freight station of 8505 m<sup>2</sup> and a container yard of 74 598 m<sup>2</sup>. In addition there is also an open storage area of 26 743 m<sup>2</sup>. At Senari Terminal m<sup>2</sup> there is a dangerous goods shed, container yard, ground slots and 192 reefer points. Similarly, Sejingkat Terminal has 20,000 square metres of covered and 45,000 square metres of open storage space. The equipment at Kuching port

includes multi-purpose cranes, two tugs and a mooring boat for handling general cargo.

### Traffic

**Table 13: Containerised cargo through Kuching**

	2002	2001	2000
<b>Inbound</b>	23,095	55,755	56,626
<b>Outbound</b>	21,726	53,964	53,248
<b>Full</b>	32,598	75,985	77,523
<b>Empty</b>	12,223	33,734	32,351
<b>Total TEU</b>	44,821	109,719	109,874
<b>Tonnage</b>	1,181,643	2,754,548	2,810,209

Source: Containerisation International (www.ci-online.xo.uk)

## 8. Sandakan

### Approach and capacity

The largest ship size that can be accommodated is 20 000 dwt at Main Wharf and 30 000 dwt at Oil Jetty, 11 m draught

### Accommodation and port handling functions

**Table 14 Accommodation at the port of Sandakan**

Type of berths	Berth No.	Length (metres)	Depth (metres)	Width (metres)	Max. vessel size
General cargo / container	(1A + 1B)	213	11	22.9	10,000 DWT
General cargo / container	(4)	164.6	7	22.9	8,500 DWT
General cargo / container	(3)	122	8	22.9	8,500 DWT
General cargo / container	(2)	76.2	6.1	22.9	5,000 DWT
Oil Jetty	-	62	9.4	-	30,000 DWT

Source: Summarised from information in Lloyds Ports of the World

### Storage and Equipment

As well as a 4182 m<sup>2</sup> container yard there is 13,052 square metres of warehouse space and further 3252 square metres of open storage space. Equipment at Sandakan includes a range of forklifts and tractors for handling general cargo including consumer goods, logs, palm oil, processed timber, rubber, fertilizer and cocoa beans. Bunker and towage services are available through private contractors.

### Development

Sandakan is one of seven ports - Kota Kinabalu, Sandakan, Tawau, Lahad Datu, Kudat, Kunak and Sapangar Bay Oil Terminal - that will benefit from upgrading as a consequence of investment by a new operator Suria Capital Holdings, which has a 30 plus 30 year lease to operate them. Among the facilities SPA will be upgrading will be the quay cranes, prime movers, trailers, container yards and warehouses.

Traffic  
The most recent figures available for Sandakan port are for 2001 when it handled 5 331 108 t of cargo.

## 9. Kota Kinabulu

### Capacity

The port can handle a maximum shipping capacity of 335 m loa, 20 000 dwt, and 9.2 m draft.

### Accommodation

**Table 15: Kota Kinabulu port facility characteristics**

Description	Berth No.	Berth Length Metres	Draft Metres	Capacity (DWT)
New Wharf				
General Cargo/Container	1	350	9.45	16,000
General Cargo/Container	2	122	7.62	16,000
General Cargo/Container	3	67	5.79	16,000
General Cargo/Container	4	137	5.79	5000
General Cargo	5	122	7.62	4000
General Cargo	6	350	9.45	4000
General Cargo/Container	7	137	6.00	8500
General Cargo	8	180	6.00	10,000
General Cargo	9	92	7.50	3000
General Cargo/Container	10	122	6.00	6000
East Erect Jetty General Cargo	11	122	6.00	2500
South Jetty General Cargo	12	98	6.00	3,000
Tanker facilities: Sapangar Bay Oil Terminal (28 km from Kota Kinabalu)		82.32 (jetty)	12.2	30 000

Source: Summarised from information in Lloyds Ports of the World

The tanker facilities have two mooring dolphins at each end, and are equipped with nine common-user and six single-user pipelines connected to bulk oil and LPG storage installations of Shell, Esso and Petronas.

### Storage and Equipment

Warehousing and open storage facilities totalling 274,855 square feet support general cargo, and a further 651,954 square feet of open storage supports empty general containers and laden containers and timber. In addition the port's mechanical equipment includes forklifts, towing tractors and trailers and two tugs to service key cargoes of cocoa beans, construction materials, electronics, foodstuffs machinery, plywood, rubber, timber, vehicles and veneer.

### Traffic

In 2001, 1395 vessels, 2 441 209 t of dry cargo at wharves and 626 078 t of dry cargo at anchor, and 99 219 TEU's were handled at this port.

## 10. Tanjung Pelepas

### Approach

The approach channel is 12.6 km long and 420 metres wide for vessels of 15-16 m draft. The channel has a turning basin 2.16 km long with a width of 600 m.

Accommodation**Table 16: Tanjung Pelepas port facility characteristics**

TERMINAL - PHASE 1		
Linear berths	:	6 berths of 360 metres each (totalling 2.16 km)
Draft alongside	:	15 metres
Turning basin	:	600 metres
TERMINAL - PHASE 2		
Linear berths	:	8 berths of 360 metres (totalling 2.88km) * 2 berths to be completed by mid 2004 <sup>9</sup>
Draft alongside	:	16 metres (dredgeable to 19 metres maximum)

Source: Summarised from information in Lloyds Ports of the World

Storage and Equipment

Tanjung Pelepas has been designed to handle an annual throughput of 4.5 - 5 million TEUs annually. The main features of the available storage are shown in Table 17 below.

**Table 17: Storage and equipment facilities at Tanjung Pelepas**

Total Area	1.2 million sqm
Total ground slots	22,120 TEUs
Storage capacity	108,360 TEUs
Reefer points	2,100 points

Source: Summarised from information in Lloyds Ports of the World

Mechanical handling equipment at the port includes 24 quay cranes, and prime movers and trailers, and maintenance and repair facilities for containers. Tug and bunker services are also provided.

Development

An additional five quay cranes with a 22-box outreach and twin lift were commissioned along with another 15 RTG's at the end of 2002.

Considerable logistics and manufacturing investments is occurring in the Tanjung Pelepas Free Zone (TPFZ), including BMW's recent move of its Asia-Pacific Parts Distribution Centre from Singapore, and several logistic facilities are currently being run by international 3 PLs.

Work has been completed on the first two berths of Phase II development at the port. The berths, which total 720m in quayside length, can handle container vessels in excess of 10 000 TEU capacity. These two berths have raised the port's throughput capacity to 6million TEU's.<sup>10</sup>

Traffic

In 2001, 2,050,000 TEU's were handled at Tanjung Pelepas and in 2003 throughput rose to 3.5 million TEU's. In the first quarter of 2004 volumes rose steeply

<sup>9</sup> This was completed mid July 2004.

<sup>10</sup> Eye for Transport – July 21, 2004; Asian Shipper – July 20, 2004.



following the opening of the Tanjung Pelepas Free Zone. The port handled 2 million TEU's over the first 6 months of 2004.<sup>11</sup>

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<sup>11</sup> Asian Shipper – July 19, 2004.

## V. MAIN INTRA-ASEAN SHIPPING ROUTES AND THEIR CHARACTERISTICS

### A. CONTAINER SERVICES

In view of the hub nature of some of its ports, direct container services exist from Malaysia to virtually all ASEAN nations with the exception of Laos. A major feeder service operator based in Malaysia, Hub Line, specialises in inter Asian cargo and has services throughout the region as well as non ASEAN destinations including N & E Asia, Indian sub-Continent, Australia and Middle East. Some of these calls are by owned vessels, and some by slot charters in other lines' vessels.

Destinations offered include ASEAN ports Haiphong, Ho Chi Minh City, Sihanoukville, Yangon, Laem Chabang, Bangpakong, Bangkok, Songkhla, Penang, Ipoh, Port Klang, Tawau, Sandakan, Kota Kinabalu, Labuan, Muara, Miri, Bintulu, Sibul, Kuching, Singapore, Belawan, Palembang, Panjang, Jakarta, Bandung, Semarang, Surabaya and Manila.

Growth in containers has been dramatic – see below.

#### 1. Size of vessel typically used

Vessels operating intra ASEAN services range from c. 100 teu upward, but most are in the 500 to 1,500 teu range. As an example, Hub Lines deploy 500 to 1,000 TEU vessels, ACL c.750 TEU and PIL 1,500 TEU capacity vessels. Some feeder operators forecast that that size of feeder container vessels is likely to increase over next decade from c. 1,500 TEU to 2,000-2,500 TEU.

#### 2. Control of Shipping

Although there are several major feeder operators domiciled in ASEAN countries (Singapore, Malaysia and Thailand, Indonesia to a lesser extent), most container operations are effectively controlled by companies based elsewhere. An industry contact observed that their service (operating ships of around 1,000 TEU capacity) is seen as a 'mainline' service in the intra-ASEAN trades. Most other countries have little participation in feeder services, the exception probably being Samudera ex Indonesia.

The majority of vessels on domestic routes, even if container-capable (semi-con etc.), are very small, as little as 100 to 150 teu. For an ASEAN based operator to be able to compete in feeder services, not only do the fleets have to be upgraded but systems as well. The barriers to participating in the major trades are therefore substantial, insurmountable in most cases – so many decide to "stay in their own playground", as a contact put it.

The environment for operating a business and owning ships is a critical factor. Without a beneficial tax climate, shipping operations will move to other centres. During the interview program, we were often reminded by ship owners that shipping operations are the most transportable of assets.

As a side effect of overseas control, a specific problem is space for Malaysian cargo to transshipment hubs. Very heavy loading ex China and the greater revenue generated by long haul cargo to USA, Europe etc., creates problems in Malaysia with space not available for Malaysian cargo, both long-haul and intra-Asia. There is also a tendency for main line services to skip Malaysian port calls if vessels fall behind schedule. Singapore is given priority because of its pre-eminent hub status and Malaysian ports suffer as a result.

In terms of choice of line etc, the power generally lies with the buyer of the goods. Throughout ASEAN region, we were reminded that with major markets for products being

in the developed countries and ASEAN countries being often minor players in those markets, there is often little leverage for sellers to nominate lines/ships<sup>12</sup>.

### **3. ASEAN Trade: Member Countries Participation Rates**

The FMM, the main force behind the current push for greater involvement in shipping issues, estimates the level of ASEAN participation in the intra-ASEAN trades is as low as 20%. Foreign lines account for the remaining 80%. Of the ten members, only the five original members have credible shipping capability. In Malaysia FMM estimates that MISC accounts for perhaps 10% of overall trade, while domestic shipowners account for c15% to 20% of the Singapore and Thailand volumes. Vietnam and Brunei have little participation and Thailand very little. Generally the ASEAN grouping has many small, aging ships, inefficient ports and poor scheduling and few trans-shipment opportunities.

### **4. Indicative Freight Rates**

Ocean freight rates in the region are considered by ship operators to be very low. Various causes of low rates were cited.. For example, Port Klang operators are considered to be very competitive, willing to cut rates to win a competitor's cargo. The Malaysian market historically is seen as being 'manipulated' by the many freight forwarders who operate in the Port Klang area. NVOCCs are seen to be 'playing the market', negotiating very low rates. Also, Malaysian exporters are pressuring shipping lines for lower rates to enable them to compete with exporters based in China, Thailand etc.

Ship operators noted recent increases in containership charter costs and bunker costs. High charter rates make it difficult to justify bringing additional tonnage into a trade. Also they noted that when an owner puts a new vessel into a trade, shippers – knowing that the additional tonnage will operate at a relatively low load factor for a time – press for lower freight rates.

All of the above are exacerbated by the massive container imbalance in the region. In the Philippines, for instance, there is a massive equipment surplus while in Thailand there is always shortage. Lines, endeavouring to address this, discount rates to sometimes ridiculous levels. This then impedes investment in better tonnage.

Most lines argue that rates need to be stabilised and some are attempting to do so. For instance, current rates from Malaysia to Chennai are about US\$600++ per teu but the spot market rate from Port Klang to Surabaya, a similar distance, is c. US\$70 against a market rate for SOCs of US\$180 to 200 per TEU. PIL maintains a rate of \$200, effectively saying that they do not want the cargo at that price. However, given the current shortage of space on many routes from Malaysia, shippers sometimes have to pay premium rates.

## **B. BULK**

In general, bulk shippers are now moving to containers unless they have sufficient volume to justify panamax-sized vessels, smaller vessels being increasingly difficult to obtain. However, some operators using semi container vessels accept bulk as well as unitised or break-bulk. Rice is still imported in 8,000 to 15,000 dwt bulkers from Thailand and, in particular, Vietnam, and coal is imported from Indonesia (Kalimantan) in barges or small to handy size bulkers. Coal from further afield is arriving in panamax and up to cape size bulkers.

MISC has until very recently operated a fleet of bulk carriers. This fleet has now been sold – at the top of the market – in a further step in major shareholder Petronas' strategy for the company, which focuses heavily on oil and, increasingly, LPG and CPG tankers. Thus

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<sup>12</sup> This was a recurring theme in ASEAN countries. A possible means of addressing this through education and efforts of trade attaches was suggested and will be discussed in the final report.

there is little 'national line' influence in dry bulk. However, liquid bulk is predominantly under the control of Petronas, although international oil companies (e.g., Shell) have some control and chemicals are moved internationally by manufacturers through global carriers such as Stolt Nielsen and Dorval. Local distribution in smaller parcel and product tankers is often in vessels operated by local, specialised shipping companies.

Major bulk cargoes such as coal are controlled by the buyers, principally the power generating companies and cement works. Cement and fertiliser raw materials would be partially under local control, but more by overseas supplier who would charter the carrying vessel.

### **C. GENERAL CARGO**

One industry contact suggested that intra-ASEAN break-bulk specialists appear to be going out of business, noting that although some break-bulk operators still use Port Klang, such vessels operate on an inducement or 'as and when' basis. Rapid escalation of charter rates and increases in bunker rates are creating difficulties for owners. Industry contacts commented that break-bulk vessels tended to be 25 years old or more, and few are being replaced. However, the same operator offers heavy-lift-capable break-bulk tonnage for project and other special needs cargoes.

Interviewees identified various commodities moving in smaller vessels, particularly timber moving ex Indonesia (Medan/Belawan) in junks. Some of this is probably illegal and the trade is politically sensitive. Logs and some sawn timber are moving from East Malaysia and from as far afield as PNG to peninsular Malaysia, where it is processed and exported as sawn timber or added value products such as board (ply, MDF etc.) and mouldings (picture framing, door jambs etc.). In this sort of trade and in inter-island domestic in Indonesia, for instance, tug and barge operations are very active<sup>13</sup>.

Industry contacts identified a strong traditional trade using small vessels down to sailing schooner/junk size plying between Indonesia and Malaysia and Thailand. These mainly Indonesian owned vessels are involved in what is known as the 'barter trade'. A vessel will arrive for instance in Southport, Port Klang, from Indonesia. The cargo will be sold, and the vessel will back-load with a broad range of items, virtually a grocery trade. An example quoted was a junk loaded with charcoal from Sumatra, back-loading Coca Cola in cases in Southport (Port Klang) for Sumatra.

Most of this cargo would be cleared by customs but, given the heterogeneous nature of cargo, it is unlikely that any detail would be extracted to feature in statistics and it would remain buried in customs records. Normal clearance procedures theoretically apply but are imposed in an informal fashion. Industry speculated that the governments of both countries wish to support this trade and being relaxed about regulations is a way of encouraging it. Quantifying the trade may be possible by using the MOT to encourage customs to open their books but the task would be substantial as no doubt these would be mostly manual records.

The main port for this trade on the Malacca Strait between Malaysia and Sumatra is Port Klang (Southport) and, to a lesser extent, Penang. However, some of the vessels are so small that port choices would be unlimited, including the many private jetties.

### **D. ROLE OF CONTAINER V GENERAL CARGO SERVICES**

The last few years have seen many break-bulk shippers converted to container as box rates languished. Now, despite freight rates for containerised cargo climbing dramatically, many shippers are staying with containers, partly because they have benefited from the flexibility, cargo security and fast transit, and having been converted are now even prepared

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<sup>13</sup> A barge registered in Kuching was sighted in Manila, discharging rough sawn hardwood lumber in bundles, loaded in Kuching and Sarawak.

to pay a premium, but also because customers with higher income levels have become more demanding and the alternative of break-bulk or bulk has become restricted.

To elaborate, even commodities such as rice have seen substantial modal shift from bulk/break-bulk to containers. Asian consumers are becoming more quality conscious, and supply chain issues have seen retailers (presumably the big retail chains) derive supply from source in consumer packs. As an example, whereas a few years ago the end user in Malaysia would buy rice in gunny sacks, it is now packed and shipped ex Thailand in 5-10 kg consumer packs. Similarly, rice from Vietnam is now moving palletized or in mini bulk bags in containers. Even oil is now being drummed, palletised and shipped in boxes rather than bulk. Cement is being put in bags or jumbo mini bulk bags and containerised.

We note also the after-effects of 9/11 in reducing the availability of break-bulk/general cargo vessels. The security scare had an immediate effect on many owners of smaller conventional and bulk vessels. Insecurity led many owners to defer any planned replacement strategy and the general downturn forced the lay-up of many vessels, causing accelerated deterioration that in turn resulted in increased scrapping. This has been further accelerated by the international security protocols that have made many vessels suitable only for domestic or perhaps intra-ASEAN trades, the main ports no longer accepting calls by non-compliant vessels. There are now far fewer ships in the less than 10,000 dwt range.

Replacement programs, already slowed by recession, have now been further hit by massive price hikes as steel prices have soared. In addition, the ISPS protocols dictate that many of the aging vessels are now captive to domestic and short sea intra-Asian trades as ports such as Klang and Singapore are effectively closed to them<sup>14</sup>.

This combination of factors has encouraged conversion of cargo to container mode. In fact it has led to a shortage of capacity and some lines have even seen very substantial opportunity and growth since 9/11 as a result of these factors as they have expanded to service the shippers' needs.

Where possible, smaller ship operators have converted to container but in many countries lack of funding has impeded this, with commercial banks unwilling to lend beyond five years. Shipping companies need more like 25-year terms to make major investment. Even in Malaysia where there is Government funding available through the Industrial Bank, it is still difficult to finance even a second hand container vessel, now carrying a US\$20 million price tag.

The overall effect of this change in trade has seen a dramatic fall in break-bulk cargo moving to major ports. While within multi-island states such as Indonesia, domestic flows continue to support conventional operations, into Malaysia it is the industry view that only specialised or over dimensional cargo such as project cargo requiring heavy lift is moving break-bulk except where smaller vessels continue the traditional 'barter trade' business, for instance across the Straits of Malacca between Sumatra and Malaysia.

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<sup>14</sup> In fact, further study suggested that the tug/barge combinations and small vessels (junks etc.) are not as badly affected since they do not achieve the threshold for ISPS and there are many private jetties able to handle this business. Singapore is regretted to still have eleven berths open to non ISPS compliant vessels.