Maritime administration in Malaysia

Karuppiah Ramadas

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MARITIME ADMINISTRATION IN MALAYSIA
A PROPOSAL FOR RESTRUCTURING AND INTEGRATION.

BY
RAMADAS KARUPPIAH
MALAYSIA

A THESIS SUBMITTED TO THE FACULTY OF THE WORLD MARITIME UNIVERSITY IN PARTIAL SATISFACTION OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTER OF SCIENCE (GENERAL MARITIME ADMINISTRATION). THE CONTENTS OF THIS PAPER REFLECT MY OWN PERSONAL VIEWS AND ARE NOT NECESSARILY ENDORSED BY THE UNIVERSITY.

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MARITIME ADMINISTRATION
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A PROPOSAL FOR RESTRUCTURING
AND INTEGRATION

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WORLD MARITIME UNIVERSITY
SWEDEN
1985
ACKNOWLEDGMENTS

This work means a great deal to me and so are those who helped me in no small way. The greatest effort came from my dear wife and to her alone remains the crowning glory of any success that may arise from this study. My children and family (my parents, sister and brothers) have always remained an immeasurable source of inspiration. To my Professor, Dr. A.A. Monsef, deep gratitude only manages to express, in so few words, for so much he has done through his whole-hearted dedication and sincerity throughout my two years at the World Maritime University. Finally, my appreciation to Professor Edgar Gold for his encouragement and confidence. This study is the culmination of the efforts of all them.
ABSTRACT

One of the chief factors for the growth of an industry is a conducive environment. There are many tangible and intangible factors that go to make up this environment. One of the tangibles is the presence of an institutional framework - a body to provide the leadership and administrative services for the growth of an industry in a desired direction. It can be claimed, with a degree of certainty, that the lack of such institutions may hamper the growth of an industry. So it is with the maritime industry - an industry which has progressed from the days of simple wooden riggers to the highly complex, technologically sophisticated competitive industry.

In Malaysia, the problem is not a lack of institutions. In fact there are too many having a "hand in the pie". This study firstly explores the present position of the maritime industry in Malaysia and looks at its geographical, historical and economic significance. The study then explores the existing institutional framework in Malaysia, and proposes an integration and reorganisation of some major functions into one institution. The Malaysian Maritime Authority (MMA) will be the outcome of this reorganisation and integration. It will be vested with the responsibility for the development, control and regulation of the maritime industry as a whole. The MMA will not be a "super" organ. It will however encompass the most vital functions related to maritime development and safety in the fields of ports, shipping, shipbuilding, marine sciences, offshore shipping and related services. The organisation will be created by rationalisation and amalgamation of largely the Maritime Departments, Maritime Divisions (Ministry of Transport) and the shipping section of the Implementation Coordination Unit.
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tr>
<td>ALAM</td>
<td>Akademi Laut Malaysia (Maritime Academy Malaysia)</td>
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<tr>
<td>CMMF</td>
<td>Central Mercantile Marine Fund</td>
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<tr>
<td>CIF</td>
<td>Cost, Freight and Insurance</td>
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<tr>
<td>DDG</td>
<td>Deputy Director General</td>
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<td>DG</td>
<td>Director General</td>
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<td>DSLB</td>
<td>Domestic Shipping Licensing Board</td>
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<td>EC</td>
<td>European Commission</td>
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<td>FMP</td>
<td>Fourth Malaysia Plan</td>
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<tr>
<td>GDP</td>
<td>Gross Domestic Product</td>
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<td>GNP</td>
<td>Gross National Product</td>
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<tr>
<td>ICU</td>
<td>Implementation Coordination Unit</td>
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<td>ILO</td>
<td>International Labour Organisation</td>
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<td>IMO</td>
<td>International Maritime Organisation</td>
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<td>LDB</td>
<td>Light Dues Board</td>
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<td>LNG</td>
<td>Liquefied Natural Gas</td>
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<td>MARDEC</td>
<td>Malaysian Rubber Development Corporation</td>
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<td>MARPOL</td>
<td>Marine Pollution Convention</td>
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<td>MATES</td>
<td>Maritime Training and Education Foundation</td>
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<td>MDPM</td>
<td>Marine Department, Peninsular Malaysia</td>
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<td>MISC</td>
<td>Malaysian International Shipping Corporation</td>
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<td>MITI</td>
<td>Ministry of Trade and Industry</td>
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<td>MMA</td>
<td>Malaysian Maritime Authority</td>
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<td>MNSC</td>
<td>Malaysian National Shippers Council</td>
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<td>MODU</td>
<td>Modular Drilling Units</td>
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<td>MOF</td>
<td>Ministry of Finance</td>
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<td>MRELB</td>
<td>Malaysian Rubber Exchange and Licensing Board</td>
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<td>MSE</td>
<td>Malaysia Shipyard Engineering</td>
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MSO  Merchant Shipping Ordinance
MSD  Maritime Safety Division
NMA  National Maritime Administration
NIC  Newly Industrialising Countries
NMTEC National Maritime Training and Education Committee
PNSL PERNAS National Shipping Line
PORLA Palm Oil Research and Licensing Authority
SAR  Search And Rescue
STCW Standards of Training Certification and Watchkeeping
ULCC Ultra Large Crude Carriers
VLCC Very Large Crude Carriers
WMU World Maritime University
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PART 1

THE PROBLEM AND THE APPROACH

This Part will define the problem that is being attempted to be resolved by this study. It will contain basic definitions and premises including the type of approach that will be adopted by the study.
In 1980 the notion of a "Maritime Nation" was born. This policy objective was set out in the Third Malaysia Development Plan. Nevertheless for such an important objective the concept was not clearly defined. It is also not clear whether an evaluation was undertaken before this objective was set. Most significantly no specific implementation measures were proposed nor was an agency identified to undertake the task of achieving the objective. Implicitly the Ministry of Transport assumed the major burden. However this role was circumscribed to a very great extent by the involvement of a number of other agencies namely:

(1) the Ministry of Transport (MOT) which has direct Ministerial responsibility for all shipping and port related matters. This does not appear to include shipbuilding, shipping agencies and forwarders. It will soon become apparent that there are many other functions which, logically should be under the responsibility of the MOT, but is widely dispersed thereby diluting the total responsibility for maritime matters (or even for that matter shipping specifically) within the MOT;

(2) the Implementation Coordination Unit (ICU), Prime Minister’s Department is responsible for MISC, PNSL and the National Merchant Marine Training Academy (ALAM);

(3) the Ministry of Finance guarantees PNSL’s loans and issued the ruling that all government cargo has to be carried on MISC’s ships. It is also involved in federal financing of shipyards, approval of allocations for purchase of vessels for Government departments and incentives for shipping. Further by virtue of the Customs Act 1967, the Ministry is responsible for the declaration of all ports as legal landing places for shipping;

(4) the Ministry of Public Enterprises is responsible for Malaysian Shipyard Engineering (MSE) and other shipyards where Government financing is involved. In addition it has a say in the shipping policies of the numerous state owned corporations such as the National Rice Board (Lembaga Padi Negara);

(5) the Ministry of Trade and Industry is responsible for the National Shippers Council and has been instrumental in the ratification and formulation of recommendations for implementation of the UN Code of Conduct for Liner Conferences;

(6) the Economic Planning Unit, Prime Minister’s Department is involved in national port infrastructure development and in the formulation of maritime policy;

(7) the Ministry of Primary Industries evaluates the impact of freight/shipping on exports of primary commodities;

(8) the Royal Marine Police, Royal Navy, Royal Customs and Department of Fisheries undertake enforcement of their res-
pective jurisdictions in the territorial seas;

(9) the Ministries of Labour and Health in so far as seafarers in international forums are concerned, particularly at the ILO and WHO;

(10) the Attorney Generals Office in so far as the Law of the Seas Convention and all other maritime legislation is concerned;

(11) the Marine Departments' for maritime safety and administration of minor ports. There are three departments namely the Marine Department Peninsular Malaysia, Marine Department Sabah, and the Marine Department Sarawak – each governed by different ordinances;

(12) the National Bank of Malaysia (Bank Negara) is the central monetary authority and has control over the Industrial Development Bank (Bank Kemajuan Indastri Malaysia) and the National Development Bank (Bank Pembangunan Malaysia) both of which are the principal sources for financing shipping and shipbuilding. In addition the National Bank coordinates the monitoring of the impact of the outflow of freight on the national balance of payments position;

(13) the Department of Statistics is involved in the collection, compilation and publication of shipping and trade statistics and is involved closely in the implementation of the National Shipping Statistics Scheme;

(14) the Department of Fisheries licenses fishing vessels and works with the Marine Department for the safety of fishing vessels;

(15) the Royal Malaysian Navy which performs the task of hydrographic surveys;
(16) the State Governments who appear to have partial if not full control/jurisdiction under state law to allow construction of jetties and other shore facilities along the coastal water front; (1)

(17) the Public Works Department which at one time undertook/supervised major port construction projects but (since the Kuantan Port Project and the problems associated with it) now confines its responsibilities to supervision of construction of minor jetties and other small marine works;

(18) PETRONAS and the Petroleum Development Unit, Prime Minister's Department control the development of the offshore industry;

(19) the Department of Environment which is responsible for the prevention of pollution, in particular marine pollution;

(20) the Public Services Department which undertakes training for all government personnel and determines their conditions of service; and

(21) the Ministry of Foreign Affairs which is involved in the Malacca Straits Tripartite Committee, the Law of the Seas, the bilateral shipping talks, in attending/collating information on meetings of the International Maritime Orga-

(1) Whilst the Malaysian Constitution explicitly states that ports, harbours and foreshores are federal matters, in contradiction state law grants the power to regulate and license the building of private jetties to the District Officer. The National Land Code too grants the right to foreshores and sea bed within the territorial waters of a state as the property of that state.
nisation (IMO) and in carrying out some of the functions of flag state duties overseas such as endorsement of change of master or crew on board a Malaysian ship.

One of major weaknesses of the maritime sector in Malaysia is this diversified institutional framework at the administrative level. The twenty or more agencies listed above indicates both the complexity of the industry as well as the legitimate interests that each may have. The absence of a central body entrusted with the development, regulation and promotion of the sector is certainly a major setback. The present roles of the two principal maritime agencies, namely the Ministry of Transport and the Marine Departments are confined, delimited and sometimes even obscured by the overlapping roles of all these other agencies. It appears however that the lack of an appropriate institutional framework may not be unique to Malaysia. A similar study in Canada for example, indicated a situation where Canada "suffered from an unfortunate overlapping of responsibilities within the Federal bureaucracy which (inhibited their) capacity to respond to major problems. There was lacking the cohesiveness and unity of purpose that (characterised) the shipping policies of most other nations." (1) Increasingly, in many maritime nations of the world the tendency has been to recognise the need for and establish a focal point for administration of the maritime industry.

One of the basic factors for assessing the potential costs and

(1) Canada, A_Shipping_Policy_for_Canada, (Ottawa, Transport Canada Marine, 1979) p.36
benefits of investments in maritime activities and where investments are likely to be most beneficial to a country is the environment which offers comparative advantage in the sector. This environment includes "an appropriate institutional framework (both from the national and private company point of view)."(1) This study aims to propose just such an "institutional framework". The task before this study is to try and rationalise the diverse roles of the various agencies and to derive an organisational structure that would serve to achieve the policy goals of the Government much more effectively. The intention however is not the creation of a super organisation. Those familiar with the industry know that the complexity of the industry would not make it feasible for such an organisation to operate efficiently. At the same time this very complexity requires the promotion of a centrifugal force - a centre of excellence as it were to pull the diversity together for the integrated development of the industry. The proposal is the formation of an organisation that is based upon the experiences of other countries. One which will be able to perform the present tasks more efficiently, pioneer new developments and create the "environment" necessary for the growth of the industry.

The approach adopted by this study will be firstly, to analyse the maritime sector and its important role in the Malaysian economy. The existing institutional framework would then be analysed. A comparative approach would be adopted. Finally an organisational

structure would be proposed for the effective promotion and regulation of the industry.

**Definitions**

It is appropriate that several of the terms which will be used freely in this study be precisely defined for the sake of clarity and uniformity of understanding.

*Maritime Industry*— the word "maritime", according to the Collins English Dictionary means "connected with seafaring, of the sea or shipping". (1) For the purposes of this study Maritime Industry may then be defined as all sectors of the industry associated with the ocean or more specifically to shipping. This will include the stage from which a ship is built (shipbuilding, repairing and maintenance), the operation of a ship (chartering, insurance, brokering, navigation, ship handling, bunkering, cargo handling, etc), the safety aspects its operation (ship survey, certification, safe cargo operations, safe navigation, environmental impact, ship design and classification, flag state and port state control, etc) and the port interface (port safety, development and operations). Under this definition, we would also include the offshore industry in so far as the classification and safety of the types of structures which are classified as vessels (mobile drilling units and offshore supply vessels) are concerned. (2) With respect to fishing

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(2) For types of offshore structures which can be considered as vessels, see Michael Summerskill, *Oil Rigs: Law and Insurance*, (London, Steven and Sons, 1979).
it may not be considered as part of the maritime industry per se except in so far as safety of the vessel are concerned. The major sectors which would therefore be included under the definition of a maritime industry would be merchant shipping and its related services, shipbuilding and repairing, ports, the offshore industry and safety of fishing vessels. There are other minor sectors such as small boats and pleasure craft which would also be included under the definition.

Maritime Administration is difficult to define in a few words because of the immense complexity of the industry. Perhaps the best way to define it is to begin by defining the role of the agency namely an agency with the role of effective development, promotion and regulation of the industry. "Development" would mean achieving direct growth (measured in physical growth) in the desired direction such as port facilities, shipyard expansion and expansion of the shipping fleet. "Promotion" whilst giving the same connotation of growth would however imply an indirect more subtle role such as through marketing, increased awareness and policy management. "Regulation" would mean the technical (as well as economic) control and enforcement of national legislation and policies such as those pertaining to maritime safety and carriage of government cargo by Malaysian ships.

Shipping Administration would be as above except it will be confined to the shipping industry.

Basic Premises of the Study

The study is based upon a comparative model approach in so far as the evaluation for an organisational structure is concerned. A number of maritime administrations in Europe and in the United Sta-
tes of America would be the basis of this approach. These are all major maritime nations with well established and time tested administrative infrastructures to cope with the industry. Every organisation has to be, and nearly always is, a product of its environment in which it exists and operates. The organisational restructuring and integration to be proposed for Malaysia in this study has to politically acceptable, organisationally workable and able to coexist within the overall framework of the Malaysian administrative system. These paramount factors will determine the acceptability of any proposal made in this study and the subsequent success or failure of the new organisation.

The study whilst critically evaluating certain existing policies does not however attempt to suggest new or a change in existing policy. Current policy has been accepted as guiding principles within which this new organisation would work. This does not in any way limit the new organisation in making changes or adopting new policies once it is operational. New areas for consideration may arise just by virtue of the new definition of administration of the industry and in such instances possible policy options are sug-

(1) The writer had the opportunity to directly observe the maritime administrations in the Netherlands, Norway, Denmark, Sweden, Poland and the United States. Further his association with his colleagues in the Maritime Administration Course at the World Maritime University gave access to the latters personal knowledge and experience of the maritime administrations of over twenty countries. The writer was also actively involved with the ASEAN Committee on Transport and Communications which afforded a regional overview of maritime transport.
gested and recommendations made. The fundamental approach has been however to cause change only with the minimum disruption, not change for its sake, but change where it may lead to an overall improvement in policy implementation and achievement. Some changes are direly necessary but the implications are enormous (such as for example the creation of a Coast Guard). In such situations an option suggested is for such matters to be taken at a high level, perhaps by the Implementation Coordination Unit and or the Manpower and Management Planning Unit (MAMPU), where an independent assessment and more objective consideration of the issues may be undertaken with less chance of interdepartmental rivalry becoming a problem. Naturally this would have to be considered in an interdepartmental committee of some sort but headed by one of the above mentioned agencies.

It would become fairly obvious that the immense complexity, highly technical and intersectoral dependence of the maritime industry would never accommodate any single "super" organisation to perform all of the tasks and responsibilities demanded by the industry. More so than before, if the proposed restructuring and integration of the maritime administration in Malaysia is implemented it would necessitate continued (and perhaps even more intensified) interagency coordination, cooperation and joint effort for a higher degree of success. This crucial factor must be borne in mind constantly. What would emerge from the proposed reorganisation is a clear definition of responsibilities and tasks and thereby strengthen the existing capabilities within each organisation to approach this vital and dynamic industry in a more confident and professional manner. More important the lead agency will set the strategy to achieve the status of a maritime nation. It will be an agency bêt-
ter equipped and structured to deal with a expanding industry which always had (and needs) a fair measure of Government initiative and involvement particularly in developing countries like Malaysia. Many of the measures, for example, which were initiated by the Shipping Unit, Ministry of Transport such as the relaxed conditions for registration of Malaysian vessels, bilateral agreements, national shipping policy formulation, registration of offshore units, implementation of the Shipping Statistics Scheme and a better shipping incentive scheme would have been far more effectively implemented if there was a maritime organisation to carry these promotional measures through. All them are now facing problems in implementation.

Other factors taken into consideration are current Government policies for reducing or curbing expenditure and greater privatisation including the concept of "Malaysia Incorporated". Due consideration to all these factors have been given in the proposed reorganisation. In order to curb expenditure for example a reorganisation (instead of a new organisation) of the existing Marine Departments with an expanded role is being proposed. Within this expanded role, what can and should be done by the private sector should be identified and be privatised. Where there is a need for a greater role by the Government a gradual increase in staff and funding is proposed. The concept of Malaysia Incorporated and its implementation in this sector will be one of the crucial factors to the success of the achievement of maritime status. Much more in the maritime sector than perhaps in other industries, the need for close cooperation between not only the Government and the private sector but also within the private sector will be one of the vital ingredients for the promotion of the industry. It is the foundation of the suc-
cess of the Japanese, South Korean, Dutch and American shipping industries and is increasingly being pursued with greater vigour by these countries. The proposed maritime administration (which is termed in this study as the Malaysian Maritime Authority (MMA)) will have to work with and for the industry.

One of the measures proposed to be adopted to better manage, regulate and conduct effective programmes in this industry is through effective information resources management, that is the use of computer technology to collect, compile and disseminate information. Information resources and data required in the maritime industry is so vast that efficient management will depend to a crucial extent on up to date information being made available. The necessary systems to collect basic national shipping information have been initiated (Shipping Statistics Scheme L-2 Programme) through the joint efforts of the Ministry of Transport, Department of Statistics and the Ministry of Trade and Industry. Whilst the Department of Statistics may produce basic shipping information, the MMA will require far greater details into more specific areas. A computer system will have to be established within the MMA. This system must have the capability to utilise the master tapes from the Department of Statistics and ideally have a similar capability for the systems in the Port Authoritys too. Computer technology has advanced to a stage where it is cheap and easily accessible. Administrations in all the traditional maritime countries (including the Marine Department Peninsular Malaysia) utilise computers as an essential part of the system to enable companies and Governments to better manage the industry to compete internationally. The MMA will be crippled and ineffective in its role without the aid and efficient utilisation of modern information systems.
Limitations of the Study

One of the consequences of the antiquated information system currently existing in the maritime industry in Malaysia is the lack of up to date and relevant information. This is especially so for the States of Sabah and Sarawak, where very little information on maritime activities is currently available. It has been very difficult therefore to establish a common data base for all the information used in this study. Where possible the most up to date data is used. Otherwise the most recently available is utilised.

Every effort has been made to ensure that this study and the proposals made therein are practical and may be easily implemented. This may not necessarily mean that problems will not arise in implementation. Problems are bound to arise especially when changes are contemplated within the existing nature of the maritime administrative structure in Malaysia (which has not changed substantially since colonial times). Further the amalgamation of the three Marine Departments into the MMA may present problems of a political nature. These problems however are not insurmountable and must be overcome.

The breadth of the maritime industry does not allow all matters to be covered in this study. For example manpower development would be vital to the success of the development of the Malaysian indus-

(1) For example the service structure (existing practically unchanged since the 1950's) of the marine officers may have to be changed completely if the MMA is implemented. There is already a proposal submitted by the Marine Departments which has been under consideration since about 1980.
try. So too are other matters such as freight stability and marine insurance. These are matters which would have to addressed by the Maritime Authority. To keep this study within manageable limits however, it has to be confined to an emphasis on the shipping and shipbuilding and repairing industries. Ports are another major sector. In general, Malaysian ports have always received a great deal of attention from the Government. Malaysian port authorities are well managed, efficient and generally do not face many major problems in terms of organisational weaknesses. The privitisation of some major facilities in the ports should lead to greater efficiency and competitiveness. The study has therefore only dealt in passing with ports and this where it concerns the involvement of the MMA in port safety and administration of minor ports.

The offshore industry has been, in so far as safety is concerned, been largely left unregulated. The National Petroleum Authority (PETRONAS), licenses the oil exploration sector and has a marine division to handle safety aspects of its operations. However PETRONAS itself is an owner/operator of oil platforms and therefore is in an awkward position to regulate itself. The MMA would only deal with those aspects in which it has the requisite expertise, namely the regulation and control of mobile drilling units (MODU’s) and supply ships. This will not include fixed platforms or structures except in so far as safety of navigation is involved. Again here we face the problem of a lack of information about the industry as a whole. It is comparatively new and there is little or no information available.

The limitations mentioned above cannot be conceived to have had a crippling effect on this study. Lack of information is the perennial blight of all research work. This study has not been unduly
affected by this factor. Finally it must be mentioned that the pro-
posals made here cannot be deemed to be sacrosanct. They can and
should form the pedestal on which further refinement may be made to
enable the MMA to be established on a basis deemed acceptable to
the Government.

Conclusion

A basic inhibiting factor to the continued growth of and achieve-
ment of the policy goal of maritime status is the lack of an
effective maritime organisation. The wide diversity of institutions
involved and the inherent weaknesses of the existing maritime orga-
nisations does not allow the present administrative structure to
effectively address the problems associated with the rapid growth
of the maritime sector itself. Malaysia is in a sense already a
maritime nation if one realises that the nation is surrounded by
the ocean which vitally influences the social, economic and politi-
cal forces within the nation. What is crucially needed is a multi-
disciplinary integrated approach to the many facets of the indus-
try. Malaysia has the opportunity to take full advantage of the
resources of the ocean provided effective leadership is exercised.
The source of such leadership is often at the implementing agencies
- the more dynamic and forceful the latter, the greater the
results. This study is aimed at creating this critical dynamic for-
ce for the achievement of Malaysian maritime status.
PART II

THE MALAYSIAN MARITIME INDUSTRY — AN OVERVIEW

This part will deal with the maritime history and geography (Chapter 2) of Malaysia. Its aim is to lay the ground work for a better understanding of the environment in which the maritime industry operates. The major characteristics of the industry (Chapter 3), its importance to the national economy (Chapter 4) and existing national policies related to the industry (Chapter 5) will be outlined in this Part.
Pre-Independence Historical Development

Malaysia’s maritime tradition as recorded, dates back to the early fifteenth century when the prosperous Malacca Sultanate encouraged Malacca as a way port for traders from the Middle East, India and the Far East. Situated in the narrowest part of the Malacca Straits and well sheltered from monsoons, Malacca’s natural harbour fronting the Straits offered an ideal trading outpost. This same advantage attracted the Portuguese (1511), the Dutch (1641) and finally the British (1824) who used Malacca as a port as well as a fort to control the vital seaway. Malacca was, by the end of the fifteenth century, the most important trading centre for inter-Asian trade. In fact the Portuguese claimed that Malacca, at this period was the richest seaport with "the greatest number of wholesale merchants and abundance of shipping and trade in the whole world." (1) Despite this there was no local tradition of ocean-shipping. However the locals did sail as crew. Significantly the Sultans sometimes did own ships. As far as shipbuilding was concerned, the local industry was not capable of constructing deep sea vessels. Small light ships, vessels with two masts and oars did ply around the coasts of the Malay Peninsula and neighbouring islands. These ships were not strong enough for ocean going. At this time

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too remarkably, Malacca had a Maritime Code probably codified sometime between A.D. 1488-1510. (1) These seem to indicate that whilst Malacca had a strong trading community, shipping was not actually pursued by the locals. Malacca gradually declined under the Portuguese and their highly protectionist attitude. (2)

By the 18th century Penang (1786) and Singapore (1819) were firmly established. They represented a vital link in international trade. Singapore grew tremendously, helped in large part, by her unique geographical position at the cross roads of international shipping and by her free port regulations. (3) The opening of the Suez Canal and the development of steamers brought Europe and Asia even closer together and increased the importance of the Malacca Straits. Penang and Singapore became important coaling ports. (4) Singapore outgrew (to the detriment of) both Malacca and Penang. Malacca in fact no longer figured as a port of any significance. At this juncture much of the transportation was riverine. For example the Klang river was used to move supplies to and from the mine fields in Selangor to the mouth of the river. Most of the communities were concentrated along rivers and towns invariably grew up at the confluence of two or more rivers, such as Kuala Lumpur (in 1858/59). Small ports sprung up all along the coast at the mouths of such rivers. The British laid great emphasis on the role of

(1) Ibid., pp. 24-26
(2) Ibid., p.61
(3) Ibid., p.155
Singapore as an entrepot port for the whole of the South East Asian region. Malaysian trade was channelled through Singapore. Roads and railways were built to enable feederding of Malaysian primary products to Singapore where it was re-exported. Small estuarine ports developed at Port Weld, Telok Anson, Port Swettenham and Port Dickson for this purpose. Penang grew to be an entrepot centre for Thailand, Burma and Northern Sumatra. Even the trade from Sabah and Sarawak was (and still largely is) brought across the South China Sea to Singapore for export. By 1910 the rubber boom was at its height. The first world war and cars gave rise to increased demand. By 1920 Malaya was producing over half of the world's supply of rubber at that time. \(^{(1)}\)

By the early 20th century there was a marked improvement in shipping services. The Straits Steamship Company, operating out of Singapore, provided a fairly efficient and scheduled service covering not only the Malay Peninsular but also the regional trade. Small 75 tonner cargo (with deck passengers) ships ran daily services between Singapore and Muar, Malacca, Batu Pahat, Port Dickson, Port Swettenham and Telok Anson. \(^{(2)}\)

However, gradually this situation started to deteriorate. The increased pace of development of roads and railways during the early 1900's slowly eroded the importance of both coastal shipping and riverine transportation. Much of the cargo started to move overland.


to the main ports of Penang, Port Swettenham or Singapore from where the cargo was exported on foreign ships. The rapid development of roads and railways and the consequent shift in urban growth made the days of the small coastal ship numbered. Coastal shipping deteriorated till its role became negligible.

By this time the British had introduced their English maritime laws into the country and in 1952 the whole of the then existing English Maritime Code (1894) was adopted as the Merchant Shipping Act 1952. In 1957 Malaya gained independence to become known as the Federation of Malaya.

Post-Independance Historical Developments

Malaya's preoccupation, after independence, was with the development of basic infrastructure largely roads. The basic network for railways was already in place. The development of port facilities was also pursued, though Singapore was considered an important outlet. By 1966/1967 Malaya had a road network of about 9600 miles. The Mid-Term Review, Second Malaysia Plan for example stated that "since the Second World War and especially since independence road connections were established between the west coast of Peninsular Malaysia and the east coast. Thus the transport network has expanded from simply servicing the port economies of the west coast to connecting most production areas and consumption centres with each other."(1) The facilities at Port Kelang and Penang were being slowly expanded as the volume of the country's trade expanded. By

then Malaya was the world’s largest producer of rubber and tin.

In 1963 Singapore, Sabah, Sarawak and Malaya formed the Federation which came to be called Malaysia. This could be considered a significant event as far as shipping is concerned. Sabah and Sarawak, situated on the island of Borneo, are physically separated from Peninsular Malaysia and Singapore by the South China Sea, a distance of about 800 nautical miles. Shipping was the major means of transportation between the two parts of the country. Further, the declaration of Confrontation by Indonesia (which has common land and sea frontiers with Sabah and Sarawak on the island of Borneo), added a strategic dimension to the South China Sea. Trade between the two parts of the country was too low to adequately support any major shipping development by commercial interests. At the same time, for social and political cohesion and trade to grow, a basic service was a prerequisite (a chicken and egg situation). A service was being provided by ship operators from Singapore through "a scheduled cargo and passenger coastal shipping service between East and West Malaysia." (1) This service in essence meant trade between Singapore and East Malaysia (Sabah and Sarawak) as the service originated from Singapore.

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control over the transportation and marketing of her exports so as to ensure quality and accountability and to derive maximum benefits from her trade). During this period the nation's output of goods and services, valued at 1967 prices, had risen every year since 1958. GNP rose 7.3 per cent, an average of 6.3 per cent per annum. From 1961 to 1967 the growth rate averaged 5.7 per cent per annum. Agriculture (including forestry and fishing) and manufacturing represented major sectors of the West Malaysian economy in 1965. The country was attracting manufacturing activities and it represented the leading sector in terms of GDP growth. Agriculture was also given great emphasis. The acreage of plantations continued to be increased whilst research led to greater productivity. Palm oil planting was introduced and encouraged. Trade between West and East Malaysia grew from $71.5 million in 1965 to $125.3 million in 1968. East Malaysia's trade continued to flow mainly through Singapore though a growing volume was being shipped from Peninsular Malaysia.

Malaysian trade was increasing but little or no attention seems to have been devoted by the Government to shipping. Shipping services were left largely to foreign lines. The Far East Freight Conference (FEFC) dominated the trade. Freight payments were making

(3) South East Asia Regional Transport Survey, Arthur D. Little Incorporated, (Book 2, Part 2, 1972) p. 204, for example states that "no explicit statement was found of Government policy with regard to support for an international merchant marine."
a huge claim on the foreign earnings of Malaysia. In 1965 for example Malaysia had a net outflow of US $60 million on freight and insurance.(1) By 1983 this had increased to 2.2 billion Malaysian ringgit (nearly US $1 billion). The incessant freight increases began to affect Malaysian commodity competitiveness. Malaysian shippers were helpless in the face of the FEFC monopoly. In what appears to be an attempt to alleviate the situation, the Malaysian Government formed the Malaysian International Shipping Corporation (MISC). (At about the same time (1972) a Freight Study Unit was created in the Ministry of Trade and Industry). The Corporation was formed in 1968 and started operations in 1970 with the commissioning of its first vessel. Its immediate priority was to serve in the trades where Malaysian cargo moved in large quantities. In a very real sense it may be said that the development of Governmental interest in shipping started with the establishment of MISC.

Given Malaysia's tradition as a trading nation and its long coastline, seafaring and shipping does not seem to have been a popular activity. This may have been so because of the fertile and resourceful land available which was equally if not far more attractive. Fishing however seems to have been an important occupation employing many hundreds, especially from the coastal people. It is open to speculation whether, given the right impetus, Malaysia may have developed into a seafaring nation. One of the

major reasons for this late start and slow progress may be due to
the lack of an appropriate motivating and developmental role by the
Government. The Marine Department, affected since inception (prior
to independance) by an anaemic shortage of staff, never played such
a role and even fell far short on its technical role. The Ministry
of Transport (MOT), staffed largely by administrative officers with
little or no expertise in shipping, was not in a position either to
play a leading role. Its very structure in fact deterred any effort
to play a more meaningful role to develop shipping. Until 1982,
MOT's Port Planning and Development Unit was also implicitly assu-
med to take care of any incidental matters that may arise pertai-
ning to shipping. At this juncture "shipping" meant responsibility
for only MISC and the Marine Department. The Secretary General of
MOT was a member of the board of directors of MISC but this did not
appear to have had any "trickle down" effect on the organisational
structure of the Ministry.(1) In 1975 Ministerial responsibility
for MISC, which was faced with problems over the hasty purchase of
five LNG tankers, was transferred from MOT and placed under the
jurisdiction of the Prime Minister's Department. It has remained
with the Department (specifically the ICU) since though it was
intended then that the move would be temporary.

A vibrant Governmental role in shipping has only emerged since
1982 when the organisational structure of MOT was altered and a
Maritime Division was formed with specific responsibility for the
technical and commercial aspects of shipping. The underlying reason

(1) Till today there is this break in the chain linking MOT's
representative on the Board of MISC and the Maritime Division.
for the formation of this Division was the declaration of the Cabo-
tage Policy in 1980. The latter policy encouraged a tremendous
growth of the Malaysian fleet including a new found awareness of
the problems and inadequacies of Malaysian shipping in general. The
Licensing Unit created to administer the implementation of the
Cabotage Policy found these problems to be beyond its scope and
expertise. The establishment of the Maritime Division created, for
the first time, an administrative core for the development of ship-
ning. Two out of the three units in the Division were to deal with
shipping. The third unit was to be responsible for port development
and operations. In 1984, the Domestic Shipping Licensing Unit was
also placed under the jurisdiction of the Maritime Division. The
present structure of the Division in the MOT is reflected in Chart
1 (see Annexes at the back).

**Maritime Geography**

The Malaysian nation geographically comprises 13 states, 11 in
Peninsular Malaysia and two in East Malaysia. Peninsular Malaysia
juts out astride the strategic Malacca Straits on the west, the
Andaman Sea in the north-west, the Singapore and Johore Straits in
the south and the South China Sea on the east. East Malaysia shares
the South China Sea on its west coast. The Sulu and the Celebes
Seas wash the east coast of Sabah. All 13 states have coastlines,
none of them being land locked. The Malaysian coastline is 2899
nautical miles in length and its exclusive economic zone has an
area of 138,700 square nautical miles.\(^1\)

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\(^1\) *Atlas for Marine Policy in South-East Asian Seas*, edited by
Joseph R. Morgan and Mark J. Valencia, (East-West Environment and
East Asia, Malaysia together with Singapore, Indonesia, Thailand, the Philippines and Brunei, all neighbours, have formed the regional grouping of the Association of South East Asian Nations (ASEAN).

The Malacca Straits represents the most important sea lane in terms of shipping. It is a vital gateway to the Far East and is one of the busiest seaways in the world, second only to the English Channel and the Straits of Gibraltar.(1) The vibrant economic growth of ASEAN and other countries in the Far East is increasing its importance. For example, up to forty percent of Japan’s economic requirements move through the Malacca Straits. The sealane has also "exerted a tremendous influence on the spatial distribution of economic development, population and land transport facilities" in Peninsular Malaysia.(2)

The Malaysian coastline and its territorial seas are a significant geographical asset to the country. Trading, fishing and as a link between two parts of the country, the ocean has always been a dominant feature of the economy of Malaysia, though one suspects that this was seldom perceived in Malaysia. Today, the economic exploitation of offshore crude oil and natural gas in the South China Sea has added another dimension to its importance and forcefully brought attention to its importance. In 1984 Malaysia was served by 24 shipping conferences from all parts of the world.(3)

The major trade routes are to Japan, United States and Europe, in that order. The most important liner conference serving Malaysia is the Far East Freight Conference (FEFC) which happens to be the largest and most powerful conference cartel in the world. In 1983, Malaysian ports had over 15,500 ship arrivals. Together they handled over 26.7 million metric tonnes of cargo. About 230 shipping companies (foreign as well as local) operated services to and from Malaysia.

Malaysia has seven major ports spread out over the whole country. These are Penang, Port Kelang, Pasir Gudang, Kuantan, Kuching, Bintulu and Kota Kinabalu. Besides these major facilities, there are numerous other facilities which may be termed as minor ports or alternatively specialised ports. Of the latter category the biggest are Kemaman (supply base and an industrial port), Kuala Kedah (a cement port), and Port Dickson (a petroleum port). To a large extent Bintulu may also be called an industrial port largely being a LNG export terminal but also with break bulk cargo facilities. Malaysian ports are a highly mechanised and modern terminals. About 2.4 million tonnes of cargo moved in containers. With Singapore situated so close and physically connected to Malaysia (by a causeway) Malaysian ports compete fiercely with Singapore for a fair share of the cargo. The port of Johore is in fact situated right next to the Singapore Port facilities and competes more so than the

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(4) Ibid, Mid Term Review, p.361.
other ports in Peninsular Malaysia. To counter Singapore’s free port status which attracts large volumes of Malaysian cargo, a free trade zone was established in Johor Port Authority in 1984. No figures are available as yet to measure the impact of this development.

The economic dependence on the sea also extends to about 90,000 fisherman who together operate about 30,000 fishing boats of various sizes, largely below 25 tons. About 25 per cent of these are mechanised trawlers varying between 15 to 30 tons. (1) Together they landed about 720,000 tonnes of fish (in 1983). (2) Fishing is an important source of livelihood to a large number of people living in Malaysia’s coastal areas. It is an extremely important national dietary item too. The rapid depletion of fishing resources along Malaysia’s coastal areas is therefore a major source of concern. The over exploitation of the rich fishing grounds by Malaysian (and foreign) fishermen and the lack of effective enforcement has brought about the current situation where Malaysia has to import increasing quantities to supplement her needs. The Government is presently attempting to encourage deep sea fishing by making available easy loan facilities for boats exceeding 40 grt. (3)

Much of the Malaysian EEZ falls in the South China Sea. Some of

(3) Ibid, p.127.
the outer limits of this area are disputed by neighbouring countries particularly the Philippines, Vietnam and China. The narrow Malacca Straits just manages to accommodate Malaysia’s 12 mile territorial limits though in certain areas the breadth of the Straits falls well below 12 miles. The territorial limits in the Malacca Straits is fairly well delineated between Indonesia, Malaysia and Singapore. The Straits has in fact been the subject of exemplary trilateral and international cooperation in the field of maritime safety. The Straits of Malacca and Singapore Traffic Separation Scheme was the successful outcome of this cooperation. A revolving fund for combatting marine pollution is in operation, funded largely by the Japanese based Malacca Straits Council. On the South China Sea, Malaysia has an agreement with Indonesia recognising the latter’s archipelagic claims (which practically severs communication links between Peninsular Malaysia and East Malaysia). In return Malaysia has obtained guarantees for access to submarine pipelines and cables, shipping lanes, overflight rights and traditional fishing grounds.

The South China Sea, off the coast of the State of Trengganu, is also the site of a large offshore industry. Similarly in the States of Sabah and Sarawak similar offshore activities are important. Gas and crude oil are today the main export earners of the economy. Crude petroleum exports totaled 14.2 million tonnes in 1983 and gas exports totaled 1.83 million tonnes. The transportation of crude oil, refined petroleum products and gas by ships forms one of the most important sectors of the local maritime industry. Further the supply services to the offshore industry forms another important

(1) Ibid, p.110.
subsector in the maritime scenario.

Conclusion

The ocean is a vital ingredient in the Malaysian facade. It has helped to shape Malaysia in a manner that would not have been possible if the country was otherwise situated. The importance is not only economic but social. Despite this closeness to the sea, Malaysians have not been natural seafarers and the nation has little maritime traditions. Unlike other maritime nations therefore Malaysia cannot rely or fall back on great traditions for the spontaneous development of its maritime industry. It must set out to capitalise on the rich resources of the ocean in which it is so richly endowed and painstakingly carve out a new industry - to create the pioneering work today that will be the traditions of tomorrow. It must actively and deliberately pursue the development of a maritime industry. The nation must progress beyond the realm of mere cognizance of the economic, social and strategic importance of the oceans to measured exploitation of its resources.
CHAPTER 3

THE MARITIME INDUSTRY - MAJOR CHARACTERISTICS

The scenario of international shipping for the last four years was bleak and the future does not look any better. Most shipping companies were making losses, many going bankrupt including such illustrious companies as Salen Shipping, Sanko and Hellenic Lines with many others on the brink of failure. The market has generally followed the trend of international trade into recession. The world's ULCC's and VLCC's have been virtually eliminated by the changing patterns of demand for crude petroleum. The emergence of strong outsiders to the traditional conference cartels has had a marked impact on the liner industry both in terms of freight levels as well as in terms of the structure of the conference systems. Despite this generally despondent environment, the Malaysian shipping industry seems to be bucking the trend and increasing in size and numbers. MISC was one of the few shipping companies which made a profit though this was largely due to its LNG ships. It may be now appropriate to delve briefly into the characteristics of the Malaysian maritime industry.

Coastal Shipping in Malaysia

Malaysia made a relatively late start in Cabotage. The policy was implemented as of 1980. As indicated earlier, traditionally Malaysia's coastal shipping was dominated by operators based in Singapore such as the Straits Steamship Company. The strategic position of Singapore and its large entrepot trade contributed to this situation and still influences Malaysian coastal shipping.
Some of the major new domestic shipping operators (such as Syarikat Perkapalan Kris Sdn. Bhd.) are, for example, joint ventures with companies based in Singapore. The Cabotage policy was an effort by the Government to increase direct Malaysian participation in shipping. Domestic shipping was viewed as the appropriate first step towards the objective of increasing such participation, eventually leading Malaysians to progress into international/regional shipping. More significantly the policy was initiated to ensure the viability and security of an essential infrastructure link between Sabah and Sarawak and Peninsular Malaysia.

The characteristics of Cabotage in Malaysia are similar in nature to that existing in many other countries. Coastal shipping, defined as the transportation of cargo and/or passengers between two or more Malaysian ports, or between a port and a point or structure in the Malaysian Exclusive Economic Zone, is licensed by the Domestic Shipping Licensing Board (DSLB). Besides being confined to Malaysian ships the company operating that ship must be Malaysian. The ships crew must be at least 75 per cent Malaysian. However DSLB has the discretion to license other foreign ships to participate in domestic shipping on a temporary basis in order to fulfil lack of or shortage of Malaysian tonnage that may occur.

In 1981, the number of Malaysian ships licensed was 173 with a gross tonnage of 152,000 tons. The number of foreign ships licensed then was 178 with a total tonnage of 1.8 million tons. It is fairly obvious that foreign ships dominated coastal shipping. The total tonnage (net) was nearly 1.3 million tons with a total of 140 companies participating. However nearly 1.1 million net tons of this total was used for the carriage of petroleum and petroleum products 99 per cent of which were foreign registered.
By 1984, the situation had changed completely. The total number of Malaysian ships licensed remained the same (at 172) vessels but with a total tonnage of 396,037 gross tons (includes only vessels of above 100 grt and excludes barges and other small utility vessels). The increase in tonnage was in the region of over 160 per cent. Foreign vessels licensed (excluding barges, tug boats, utility vessels and other small utility vessels) in 1984 had dropped drastically to only 9 vessels (with 55,046 grt) most of which were cement carriers, supply vessels and palm oil tankers. In total the tonnage for foreign vessels of all types was only 103,941 grt, a decline of major proportions by 1984. A large number of licenses seem to have been issued to foreign registered barges - a category of vessels which should be the most easily owned/operated by Malaysians. It is possible however that such barges are used for temporary purposes and specialised in a way such as for the offshore industry.

It is also clear that in totality the tonnage had declined sharply by nearly 400 per cent from about 1.8 million grt. in 1981 to only 451,083 grt. in 1984. Nearly 40 per cent of this tonnage was general cargo vessels with nearly over 100 vessels (of above 100 grt) dedicated to this trade. The other major types of vessels used were petroleum (41 per cent) with 44 vessels and palm oil tankers (8 per cent) with 19 vessels. The average size of the Malaysian coaster is about 2000 tons grt. or less, with tankers in the higher range and dry cargo ships in the lower end.

(1) Source: DSLB, 1984 Register Tables.
The decrease in tonnage seems to have occurred largely in the petroleum tanker market (a decrease by nearly 900 per cent from 1.7 million grt. in 1981 to merely 183,000 grt. in 1984). The number of Malaysian registered tankers had doubled in numbers from 1981 (20) to 1984 (44) and the tonnage has increased by leaps and bounds (from 14,000 grt. to 183,000 grt.), eliminating the foreign owned tanker fleet.

In terms of qualitative change, the Malaysian flag petroleum tanker market seems to be generally characterised by vessels averaging largely in the range of over 10 - 15 years (about 70 per cent of all vessels were in this range of which 45 per cent were 15 years or older). Less than 20 per cent of the vessels were below 5 years. Seen another way, nearly 80 per cent of the tanker vessels were 10 years and older.

The dry cargo/general cargo market has fare better in terms of market share. The sector has seen an overall increase of 30 per cent in terms of tonnage over the 1981 figures (rising to 171,000 grt. in 1984 as opposed to 130,000 grt. in 1981). Malaysian flag vessels comprised 98 per cent of this tonnage. The dry cargo sector is however characterised by very old vessels. Nearly 40 per cent of the vessels are more than 25 years old, and nearly 65 per cent of them were 15 years or more. Fully 80 per cent of the vessels were 10 years or older. It is difficult to see how the industry can continue to provide economical services with such old ships.

In general 60 per cent of the coastal fleet was 15 years or older. Only 24 per cent of the fleet was below 10 years (built in 1976 and after). It can be said that this tendency to buy and operate old ships arises from many factors some of which are structural such as lack of financing and small operating companies. Opera-
ting such inefficient ships will give rise to higher transportation costs to the domestic economy.

Presently freight levels are very low due to alleged overtonnaging in coastal shipping. There is little or no information available on the types and total volumes of cargo moving on the domestic routes. (2) The last available estimate was done in 1966 where the cargo flow was approximately 52 thousand tons. (3) It is presently estimated to be in the region of about 1.3 million tonnes. Based upon this gross figure it would not be possible to draw any conclusion except to state that whilst the drastic reduction in the tanker fleet may have alleviated the tanker market situation, the dramatic increase in the tonnage of the dry cargo fleet may have had the opposite effect on the latter market.

The number of Malaysians employed as crew on Malaysian flag vessels in the domestic sector was about 1900 in 1984, as against a foreign crew of 1200 persons. If the foreign licensed fleet is included then the number of foreign crew increases to 1400. It is apparent that there is ample scope for Malaysians to be trained and

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(2) The study "Transport Development in Malaysia", op. cit., (vol.4, Annex E), p.34, for example recommended that the collection and compilation of coastal shipping data be improved. More than a decade after that recommendation, the situation remains unchanged. The successful implementation of the proposed Shipping Statistics Scheme would remedy the situation.
cation of a ship suitable for the Malaysian coastal and regional trade could be undertaken by the Government. Licensing too must be matched with available cargo tonnage and the number of companies deemed suitable for the total trade. Gaps in policy formulation have arisen due to a lack of data but efforts to set up a system to obtain such data seem to have encountered problems. There is also the need to look into the age structure of the fleet. Malaysian shipowners, faced with severe constraints of finance, may have little choice but to be owners of old ships. Many of these ships are bought cheaply from Japan, where ironically, the Government encourages shedding of old ships and helps in maintaining an efficient and modern coastal fleet. In terms of fuel efficiency and other maintenance costs, the operation of the old ships may be so high as to increase the inefficiency of the whole interfacing infrastructure such as for example the port and inland haulage. Unless arrested, the trend with time will only get worse.

The inclusion of the offshore supply services in cabotage presents another potential area of growth which, if approached correctly, is a lucrative opportunity for Malaysians to participate. At the moment these supply ships are largely foreign owned and operated. Promotional measures (besides the mere granting of licenses) need to be adopted to enable Malaysians to enter into this very high cost, capital intensive industry. Unless this is done the industry would face the same problems as the other sectors of the cabotage.

Domestic shipping is closely intertwined with international shipping. They contribute and work together or must do if the economy is to gain the full benefit. Coastal ships, for example feeder cargo from the smaller ports to the major export terminals. A
A rationalised approach to both sectors would require greater unity in approach and coordination of policy goals. For this purpose it is proposed that cabotage be an integral part of the MMA, as in most other countries such as Japan, South Korea and the United States. In 1981, the coastal fleet comprised 19 per cent of the Malaysian flag. By 1984 this had grown to about 22 per cent giving added emphasis for a rationalised approach to both the domestic as well as international shipping activities.

**International Shipping**

Malaysian international shipping has undergone tremendous growth in the last few years. From one major international operator, there are now two namely MISC and PNSL and a potential third in the MPSC. Besides this there are three to four other smaller shipping lines based in Sabah and Sarawak who engage mainly in the carriage of logs to Japan and South Korea.

Table 1 gives the types of ships, tonnage and numbers. MISC is the biggest carrier with PNSL expanding rapidly. The Malaysian fleet comprised a total of over 737 vessels with a total tonnage of 1.83 million grt. in 1984.(1) Over the past decade, the fleet has grown by nearly 450 per cent in terms of tonnage. Just over the last five years (since 1980) the fleet has expanded by 150 per cent, partly helped by the rapid expansion of the coastal fleet, but mainly due to the expansion of MISC and the formation of PNSL. The Malaysian fleet has in fact been growing at the rate of about 20 per cent every year since 1980 (in terms of numbers) and,

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<table>
<thead>
<tr>
<th>Types of ships</th>
<th>No.</th>
<th>Gross Tons.</th>
</tr>
</thead>
<tbody>
<tr>
<td>oil tankers</td>
<td>70</td>
<td>188,632</td>
</tr>
<tr>
<td>liquified gas carriers</td>
<td>6</td>
<td>342,394*</td>
</tr>
<tr>
<td>ore/bulk/oil carriers</td>
<td>25</td>
<td>462,688</td>
</tr>
<tr>
<td>general cargo</td>
<td>249</td>
<td>478,857</td>
</tr>
<tr>
<td>passenger/cargo</td>
<td>37</td>
<td>33,941</td>
</tr>
<tr>
<td>container</td>
<td>11</td>
<td>172,555</td>
</tr>
<tr>
<td>vehicle carriers</td>
<td>6</td>
<td>7389</td>
</tr>
<tr>
<td>Miscellaneous (non trading vessels)</td>
<td>333</td>
<td>139,292</td>
</tr>
</tbody>
</table>

Total 737 1,825,748

Source: Shipping Unit, Maritime Division, Ministry of Transport Malaysia.
astonishingly, been doubling its rate of growth every year in terms of tonnage since 1981 (nine per cent in 1981, twenty eight per cent in 1982 and sixty one per cent in 1983). It has however slowed down to 13 per cent in 1984. The Fourth Malaysia Plan envisaged that MISC would ultimately have a fleet size of 2.5 million dwt. The current market slump however has probably slowed this rapid expansion plans. Table 1 also reflects the diversity of the Malaysian fleet ranging from the normal general cargo ships to the highly sophisticated LNG and chemical carriers. The average size of a vessel is in the range of only 2500 grt. However, MISC which is the largest international operator, had an average size of 32,000 grt in 1983. In 1981 (the last available data) only 27 per cent of the Malaysian fleet was less than ten years old, and nearly 40 per cent was older than twenty years. It is heartening therefore to note that in 1984, of the 105 new vessels registered, 70 per cent of them were below 10 years - in fact over 50 per cent of them were below 5 years old. About 10 per cent of the vessels were more than 15 years old. Much of these are probably destined for the coastal fleet.

The largest shipping company is MISC which is one of the biggest shipping lines in South East Asia. It has a solid reputation for service overseas. Strangely enough, it appears to have the image of a high cost operator in Malaysia which may be due to its emphasis on cross trading as well as from competing cheaper services from Singapore. As at 1983 MISC had 45 vessels with a tonnage of nearly 1.5 million dwt. (1.3 million grt). (1) The major types of ships are

container vessels, tankers, ore/oil carriers, panamax bulkers and LNG ships. Fully 90 per cent of its fleet is dedicated to international trading, whilst the other 10 per cent is used in coastal shipping. In terms of age structure, the company has a relatively young fleet. More than 70 per cent of its vessels are below ten years of which 24 per cent are below five years. About thirty per cent are between ten to fifteen years old. (It can therefore be said that the Malaysian international fleet is relatively young, MISC's vessels comprising 90 per cent of the fleet).

MISC's services can be categorised into three main areas namely coastal shipping, liner services such as within the FEFC and tramp services for bulk commodities such as wood chips, coal, grain, iron ore, petroleum and LNG. The largest revenue earners are the tramp services, particularly (since 1984) from the LNG vessels. The liner services within the FEFC have been a fairly steady earner. MISC operates jointly with the Scan Dutch/MISC Group within the FEFC. It is estimated that MISC's share in the Malaysian trade amounts to between 16 to 20 per cent for both east and west bound trades within the FEFC conference. Efforts to diversify its liner services have not been very successful so far. Its services to West Asia (MACOL) and more recently to the United States West Coast (INTER ASIA) ended in huge losses.

In terms of origin of MISC's business, it is well known that the company is largely a cross trader. At one time up to 80 per cent of its revenue was estimated to be derived from cross trades. However since 1984, with the LNG ships (carrying Malaysian gas) contributing up to 40 per cent of its revenue the situation may be said to have changed. Up to 60 per cent of its revenue is still derived from cross trades.
The Federal Government has a 30 per cent share in MISC. Further, up till 1983, the Government guaranteed MISC’s loans. MISC is essentially a private corporation run on purely commercial lines. It is expected that the corporation will be soon privitised and quoted on the Malaysian stock exchange.

The other major shipping corporation is PNSL established only in 1982. Envisaged originally to be purely a tramp shipping company, there has been recent indications of PNSL going into liner shipping too. PNSL, unlike MISC, has focused its attention largely on participation in the Malaysian trade carrying bulk commodities such as palm oil, cement, liquid petroleum gas, crude petroleum and dry bulk cargo such as coal and iron. It presently (1983) owns a fleet comprised of tankers, cement carriers and dry bulk ships with a total tonnage of 254,000 grt. Two panamax bulkers are also on order. PNSL has also entered into joint ventures with foreign companies to operate parcel tankers and to undertake marine services such as dredging and insurance.

Multi Purpose Shipping Corporation (MPS) has the potential to become a major Malaysian operator. At the moment it has only four vessels registered under Malaysian flag. The remainder (about 15 ships) still operate under the Hong Kong flag Prompt Shipping Company. According to reports the company intends to eventually register half the fleet in Malaysia. The company operates both on liner as well as the bulk sectors. Its liner services are concentrated on China, West African ports and Europe.(1)

Malaysian international shipping appears to be regulated piece-

meal by a number of Government agencies. MISC and PNSL are under the supervision of the ICU, Prime Ministers Department which means that the major portion of international shipping is regulated by the agency. The other international operators are however under the supervision of MOT. MOT is also deeply involved in the promotion of international shipping through such initiatives as the bilateral shipping agreements, implementation of the UN Liner Code and liberalisation of Malaysian registration laws. There is little or no coordination between the two agencies. It is not clear too whether there is the required expertise within the ICU to deal with the problems of MISC and PNSL. Such a lack of expertise in shipping however is symptomatic of every government agency that deals with shipping including the MOT. The latter however has the advantage of retaining officers who have been specifically dealing with the subject for several years at a stretch and therefore is in a better position to effect decisions.

It would be appropriate, at this juncture, to mention briefly the manpower needs of the Industry. Unlike most maritime nations, Malaysia does not appear to maintain a register of seamen. Thus up to date information is either not available or hazy at best. A survey undertaken by the Central Mercantile Marine Fund (a welfare fund established for seamen) in 1983 indicated that only about 48 per cent of the officers on board Malaysian ships were Malaysians. For the crew it was nearly 96 per cent. Only 34 per cent had masters and 32 per cent chief engineers who were Malaysians. There are a number of local institutions involved in the training of seafarers, the main one being Akademi Laut Malaysia (ALAM) or the Marine Academy Malaysia. The Academy is largely funded by the Government though the private sector contributes some funds through
the MATES Foundation. MISC is the largest contributor to the Academy through the Foundation. On the part of the Government the Prime Minister’s Department has overall control of ALAM even though nearly every substantive aspect is regulated by MOT such as the examination, certification and syllabus of ALAM including the head of the Academy who is an officer seconded from the Marine Department.

It would be appropriate to end this section by mentioning briefly the private institutions which represent the shipping sector. Malaysian shipping companies have organised themselves into the Malaysian Shipowners Association (MSA). The Association represents both the coastal as well as the international operators. Most major shipowners are members of the Association. The shipowners in Sabah and Sarawak have their own Associations termed the Sabah and Sarawak Shipowners Association respectively. The latter two Associations are however largely dominated by coastal operators. There are other organisations such as the International Shipowners Association which represents the interests of the foreign shipowners and operators in the country. These Associations are important agencies whose views represent the industry and are given due consideration by the Government. The MSA is in fact consulted on all major policy initiatives related to shipping and ports.

**Shipbuilding and Repairing**

There are five major shipyards in Malaysia namely the, Malaysian Shipyards and Engineering (MSE), Sabah Shipyards Corporation (SSC), Penang Shipbuilding Corporation, Hong Leong Lurssen Shipyards and Brooke Dockyard and Engineering Works Corporation. The two largest yards are the MSE and the SSC. It is estimated that there are over 20 other small yards in the country. In addition a relatively new
naval yard at Lumut has been in operation. The major yards are owned by the Government with an estimated investment of M$1 billion. (1) Together this industry employs over 4000 people in what is considered to be the "only major intermediate level engineering assembly work in Malaysia." (2)

Even though labour costs are cheap, Malaysian shipyards have been unable to compete with other regional yards such as those in Singapore, Japan and Korea. Most of the material for shipbuilding has to be imported. The cost of building ships in Malaysian yards is estimated to be 30 per cent higher than in Japan because of the higher cost of imported materials, low level of technology used and poor delivery times. Government agencies are required to build all their vessels in Malaysian yards which often penalises these agencies in terms of higher cost involved. The financial situation of these yards has made the Government undertake several studies including a study by IMO Experts. Major recommendations may be made within the scope of the Fifth Malaysia Plan (or even the Industrial Master Plan).

The MSE, built at a cost of over M$200 million in 1976 has not fared well financially. The collapse of the tanker market and with the intense competition from Singapore, the yard has been losing financially almost every year since its inception. The yard has the capacity to repair ULCC's of up to 400,000 dwt. and a building capacity of up to 8000 dwt. It has recently turned to other engineering fabrication works such as railway wagons to shore up its

(2) Ibid., p.59.
turnover. The yard is majority owned by the Government with Japanese investment (10 per cent) involved. The involvement of the latter (which is too minimal anyway) has apparently failed to provide the technological transfer of expertise and input necessary to overcome some of the problems at MSE.

The SSC, built at a cost of over M$100 million, is another disappointing investment. It is majority owned by the Sabah state government. Since inception in 1982 it has been facing large losses. It has the capacity to undertake ship construction, conversion, maintenance and repairs. It is also able to build vessels of up to 8000 dwt.

It is possible that some measures may be adopted by the Government to overcome the problems faced by the shipbuilding industry. Inevitably most measures (such as requiring domestic operators to service their vessels locally) would require some form of interaction with the shipping industry. On their part the shipyards appear to have recently closed ranks and initiated the formation of a national association to represent their interests before the Government. They may be able to achieve some rationalisation on their own though this is doubtful. At the moment there is no clear overall administrative jurisdiction exercised by any Government agency over this industry. Any measure proposed will have to initially redress this situation. It will be proposed in this study that the MMA undertake supervision and regulation of the shipyard industry due to the close linkages this industry has with the other sectors of the maritime industry.

**Offshore Industry**

Malaysia ranks within the top 40 nations in terms of world oil
and gas producing countries. The offshore industry began only in 1967 but several major oil and gas strikes have since been made. The major offshore areas (about 23 offshore fields) are off the Trengganu coast in the South China Sea, and in the western coasts of Sabah and Sarawak (also in the South China Sea). (1) Malaysia produced 440,000 barrels of crude petroleum per day, and 3.7 million tonnes of liquified natural gas in 1984. (2) PETRONAS is the National Petroleum Development Authority which controls all activities pertaining to offshore mining of petroleum and gas. Within PETRONAS, a marine department has been established to regulate the maritime safety aspects of its operations. The Petroleum Development Unit, Prime Ministers Department acts as a liaison, coordinating and policy making body on petroleum matters.

The offshore industry is largely dominated by foreign registered and operated drilling units. The supply vessels for the drilling platforms are also largely owned by foreigners. PETRONAS however owns a jack-up rig used for exploration. MISC, PNSL and other Malaysian companies have formed joint ventures with foreign offshore supply service operators in order to gain a foothold in this growing industry. The inclusion of such services within the ambit of Cabotage has given added impetus to local participation.

No information is available on the number of vessels, MODU's or personnel involved in this industry. The registration and regulation of offshore drilling units (semi-submersible MODUs) under the

Merchant Shipping Ordinance was made possible in 1984. Rules and regulations will have to be drawn up to enable implementation of proper standards. The Marine Departments will be authorised to undertake regulatory action under this Act. The role of the MMA will be significant in the offshore area.

Ports(1)

Ports are a major sector of the maritime industry. As mentioned before they handled nearly 40 million tonnes of cargo in 1983. There are over 23 ports in Malaysia of varying sizes (from major to small) and a large number of other minor ports. Most major ports have port authorities which are statutory bodies operating along commercial lines. The other ports are largely self regulating without any identifiable operating body. The Marine Departments undertake the safe operations of these ports (the navigational and dangerous cargo aspects) and the Customs Department declares them as "legal landing places" and ensures the collection of revenues. The Public Works Department constructs (but does not actively maintain) the ports. The management of these ports in terms of cargo operations, maintenance and operational efficiency is thus largely ignored.

The decision to build a new port is taken at the political level on the recommendation of the Economic Planning Unit (EPU). Prior to

(1) A description of the characteristics of Malaysian ports has been deliberately avoided as such information is easily available. Example see Fairplay World Ports Directory, (1983-1984, Vol.1), pp.515-524.
this there is usually an economic and technical feasibility study undertaken. The Ministry of Transport is usually involved in these processes, though there have been instances where the Ministry is brought in only at the implementation and operational stages at which point it has to be inevitably involved. Proposals for expansion of existing port facilities however go through the Ministry of Transport. The number of staff and expertise at the MOT does not allow it to form an independent opinion on such proposals and therefore most expansion proposals made by port authorities are readily recommended for approval. The final approval is made by the Government as often federal funding or loans may be involved. The MOT is not involved on any development matter pertaining to ports in Sabah and Sarawak, this being handled directly by the EPU. However for operational efficiency, all port authorities and the Marine Departments are members of the National Ports Coordination Committee. The latter Committee is an advisory body to the Ministry of Transport and considers all operational as well as development matters pertaining to ports in Malaysia.

It would be apparent that this rather disjointed approach to national port development and operations is highly undesirable. It is preferable that all port development projects, both in Peninsular, as well as Sabah and Sarawak should be regulated and controlled by the MMA in the future before submission to the EPU. The staff and expertise at the MMA should be sufficient to undertake such evaluation in order to avoid duplication of facilities as well as to ensure that the existing facilities are operated at optimum levels. Central agencies such as EPU should avoid directly coordinating feasibility studies on ports as often the counterpart work to the consultant is vital to the success of the study and its sub-
sequent implementation. Furthermore counterparts gain direct expertise and experience in port operations and development which is more relevant to the implementing/operating agency such as the MMA.

The Maritime sector in Malaysia is a vibrant rapidly developing industry. This is to be expected from a nation where 80 per cent of its territory is bounded by the sea and the area of its oceans exceeds that of its lands. There are however weaknesses in the present approach to the administration and development of the industry which may be a retarding factor for greater growth. For example there is little or no research activities in the maritime field. Increasingly the growth of the industry will pose many challenges to the nation. Such challenges can only be overcome and the potential fully realised if the right environment for dynamism exists. One of the key factors in this environmental make-up is an appropriate institutional framework. Without such a framework the growth of the industry may lead to consequences both unexpected and unintended.
CHAPTER 4

IMPORTANCE OF THE MARITIME INDUSTRY TO THE MALAYSIAN ECONOMY

Background

Transportation has been a significant instrument for achieving economic and social goals, not only in Malaysia, but in most developing countries. In Malaysia it has also been an object of achieving social and political unity. Transportation is necessary in order to make more accessible remote areas of the country so as to open up the economic and social opportunities available to these areas. Historically, every Government in Malaysia has placed great emphasis in ensuring and striving for a basic transportation system to be provided to serve these objectives. (A study of the national development plans will reveal this).

In this context sea transportation has traditionally played a vital role in the economic development of Malaysia. Shipping, without doubt, played (and continues to do so) a major role in the progress of the countries who are today termed as developed. Henry C. Hunter for example claims that "the history of the progress of England is really the history of the development of her merchant marine."(1) Malaysia's crucial reliance on international trade and the fact that up to 90 per cent or more of this is transported by

sea illustrates her dependance. Despite the great importance of shipping to the economy a clear perception of this was significantly lacking both in the private sector as well as in the Government. Existing shipping services were efficient and reasonably priced and therefore warranted little concern on the part of the nation. The General Transport Survey in 1970 concluded that there was no need for Government concern to this sector presumably because of these services by foreign shipping lines being provided through Singapore. (1) Another study concluded that there was "little knowledge ... of the amount of cargo which moves to, from and within the (South East Asian) region, what form it takes, from what origins and to what destinations it moves, and what changes are likely to take place in the composition, tonnage and direction of trade in the future. There was likewise little information available on the types of ships now being used, their condition, their efficiency, the way they are organised to handle the trade, or how these elements are likely to change in the future. Nor has there been much understanding of the present freight rate systems which affect the cost of the region's trade, nor of the navigational aids or the training needed to support the regional shipping lines."(2) The formation of MISC in 1968 appeared to have been a confined spurt of interest which was not sustained. It is only since 1980, with the growing impact of the outflow of freight revenue on the balance of payments position, that the Government began to realise the need for urgent attention to the maritime sector. The policy of achievement...


ing maritime status indicated for the first time, in no uncertain terms, a concrete objective to be achieved in the maritime sector.

Malaysia's sea transportation system may be divided into two main subsystems namely international shipping and coastal shipping. International shipping exists in a free market situation and involves the transportation of Malaysian international trade. Currently there are two major Malaysian shipping companies both of which have significant Government participation, and other smaller shipping companies involved in international activities. The two major companies are the MISC and PNSL. Several smaller shipping companies operate out of Sabah and Sarawak such as Yayasan Sabah Shipping Sdn. Bhd. (which is managed by MISC) and the Bormill Line Sdn. Bhd. There are some Malaysian owners operating under flags of convenience such as Prompt Shipping (which is the sister company of MPSC) operating out of Hong Kong. The system of international shipping in general in Malaysia may be said to be fairly well developed. Basic services such as shipping and forwarding agencies and port services operate at a high level of service. Shipping services itself are efficient as represented by quality of services and its frequency. The Malaysian shipping market is an extremely competitive market with free access for any shipping line to Malaysian cargo and its ports. In 1983, nearly 16,000 ship arrivals were recorded in Malaysian ports. 1980 figures reveal that foreign flag vessels comprised nearly 98 per cent of the number of vessels calling at Malaysian ports. (1) This situation has not changed substantially.

(1) Malaysia, Shipping Statistics, Peninsular Malaysia, 1980, (Department of Statistics, Kuala Lumpur), Table 6.
In contrast the domestic shipping sector is regulated by the Cabotage laws which permit only licensed Malaysian vessels to participate. This law was introduced in 1980. The main trade route is between Sabah/Sarawak and Peninsular Malaysia. There is also coastal distribution of petroleum products and lately gas. It is also known that there is considerable movement of cargo in small crafts between major and minor ports all along the coasts of Sabah and Sarawak. Practically no information is however available on domestic trade and shipping. Since 1984 Cabotage also includes supply vessel services to the offshore industry. The MISC coastal shipping company and Kris Shipping Company (a subsidiary of the Straits Steamship Company) are the largest domestic ship operators. The domestic shipping industry is characterised by old vessels (averaging above ten years) operated by small young companies. The problems in the domestic sector can be said to be both structural (caused largely by defects of policy) and operational (caused by such factors as old and inadequate types of ships). Some of these problems are a lack of expertise (both within the industry as well as in the Government), rigid policies, lack of financing and over tonnaging.

The effects of such problems on the economy of Malaysia have not been evaluated. However one could arrive at probable implications on the basis of studies done elsewhere. One of the less obvious results may be the impact of poor transportation links on the political and social cohesion between Peninsular Malaysia, Sabah and Sarawak. An accessible and efficient linkage between both East and West Malaysia would certainly be a prerequisite towards greater
mobility and thereby greater cohesion. (1) "Transport is the link between geographically separated markets, whose growth can maintain a balance only if the transport demand is satisfied in sufficient amounts and at efficient rates." (2) Traditionally, much of Sabah and Sarawak's trade and passenger movements have been channelled through Singapore because of the geographical advantage of good transportation links (both air and sea). Any policy to wean these States from the existing system will necessarily have to take into consideration current transportation links with Peninsular Malaysia.

The number of licenses issued by the Domestic Shipping Licensing Board increased from 164 in 1980 to 268 (which approximates 268 vessels) in 1983. (3) The number of vessels involved appears to indicate that the trade is possibly well served by appropriate services. However, there have been allegations by existing operators of a situation of overtonnaging. The trade is also characterised by old ships, of poor management (conceivably because of a continuous flow of new and inexperienced entrants to the trade) and low freight rates. Besides this, the type of ships used (which are old and inappropriate) would possibly have a deleterious impact on the other interfacing units such as inland transportation and port. In general, ships on coastal voyages spend up to 60 per cent or more of their time in ports. Ships earn money only when they are sailing.

(1) "Access" here would connote both price and equitable access.


and to that extent any measure to effect savings in port time would be crucial. However, faster turnaround of ships depends not only on the efficiency of ports but also on the vessels. A long term goal must be to have an appropriate and relatively modern coastal fleet. Coastal shipping has a high foreign exchange retention rate (as high as 90 per cent depending upon sources of financing) and there are stronger reasons to encourage this sector of the maritime industry as opposed to international shipping. A more realistic and professional approach to the regulation of the industry must be undertaken. This would depend on the expertise available within the regulating institution. Such expertise is not presently available, nor is there much hope of securing it in the future within the existing institutional framework. There is also little or no information available for any precise decisions to be taken.

Before moving on to international shipping, brief mention should be made of the situation of inland waterways transportation. Once a major means of transport (and the focus of social community life) in Peninsular Malaysia, their role has now been eroded into negligence by a good network of roads and railways. The rivers of Peninsular Malaysia are perhaps best described as a forgotten asset (and way of life), left to become silted, over fished and often polluted. (1) However in Sabah and Sarawak the rivers are still a major means of transportation. Riverine transportation is very important here only because the alternative systems on land are limited. A wide variety of vessels operate but these are mostly small native

(1) One suspects that this is one of the legacies of the colonial era. Compared to the European continent Britain never laid much emphasis on its rivers.
craft because of the limited depth of the rivers due to heavy siltation and sand bars. (1) The channels are seldom maintained. The principal ports in Sarawak are located on rivers, varying in distance from a few miles to as much as 70 miles upstream. The Rajang river in Sarawak is navigable by small coasters as far as Kapit, 150 miles from the sea. (2) This river is potentially a major artery of transportation which has not been duly recognised. Water transportation is the cheapest means of transport. (3) The potential of inland waterways has never been assessed as a viable alternative means of transportation in Malaysia. For Peninsular Malaysia, the system of land transportation may have proceeded so far as to be virtually beyond the point of no return. However, the river systems in Sarawak (and to limited extent in Sabah) do still present this opportunity. A survey of current traffic and future potential usage of Malaysian rivers for inland transportation should be undertaken to arrive at an exact picture of the situation. This should include an assessment of institutional changes necessary including the identification of an appropriate organisation for its development. Better planning and utilisation of this resource may then be


(2) Ibid., Vol.4, p.53.

(3) Irwin M. Heine, The U.S. Maritime Industry In The National Interest, (National Maritime Council, Washington, 1980), p.113, states "according to data prepared by American Waterways Operators Incorporated it was estimated in 1977 that a gallon of fuel could produce over 408 ton miles by barge, about 207 by rail and only about 70 by truck."
developed before it is too late.

**International Shipping**

Malaysian concern for international shipping may be said to be very recent brought about mainly by an adverse balance of payments position aggravated by an increasingly huge outflow of payments on freight. Since 1980 the Malaysian fleet has grown tremendously till today it ranks thirty-eighth in the world with a total tonnage of 1.8 million grt. (1) Among developing countries it ranks thirteenth. (2) However the percentage of Malaysian trade lifted by Malaysian vessels is estimated to be only around 5 per cent or less. (3) MISC is largely a cross trader. It is not that Malaysia and South East Asia represent an insignificant trading area. For instance this area together with the Far East has been identified to be the most important cross trading area for United States based shipping lines, generating about 1,693,000 long tons of cargo in 1982 with a revenue of U.S.$144 million. (4)

The immediate problem facing Malaysia is the balance of payments deficit. Between 1961 to 1983 freight grew to account for between 20 to 25 per cent of the services component of the current account. (5) In 1983, this amounted to M$2.2 billion, compared to

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(1) 1984 figures. Source: Ministry of Transport Malaysia.
(2) Lloyds, *Lloyds Register of Shipping—Statistical Tables, 1984*.
(3) The number of Malaysian ships calling at the ports of Penang and Port Kelang for example accounted for only 3% or less. Source: Op. cit., Shipping Statistics, Table 6.
only 1.8 billion just three years ago. The export oriented economy of Malaysia and its almost total reliance on foreign shipping for its trade has led to the present situation. The relative inelasticity of supply of Malaysia’s major exports (such as rubber, tin and palm oil) and elastic demand for imports has imposed a major portion of increased transport costs on Malaysia. (1) Whilst trade has been increasing rapidly (consequently also increasing the freight bill), the rate of growth of freight and insurance payments has been outstripping the growth of trade. Export value, for example, rose by 6.8 times from 1963 to 1981 (from M$3296 million to $25,609 million), whilst net freight and insurance payments increased by 12.2 times (from M$155 million to $2,048 million) during the same period. In terms of export value, freight and insurance has risen from 4.7 per cent in 1961 to 8 per cent in 1981. (2)

Export led growth in Malaysia may become increasingly less viable if freight payments to foreign shipowners continues to absorb a sizeable portion of the foreign exchange earnings. In fact Malaysia’s strategy of export led growth from its resource based industries may face increasing freight rates as generally the latter rise with the degree of processing of the raw materials (and therefore its value). Alexander J. Keats confirms this and further notes

(1) UNCTAD trade figures appear to show for example that freight for rubber on the Malaysia - Europe route has averaged about 11.1% between 1964-1980. For tin it was 1.2%. Source: Review of Maritime Transport, 1981, (UN Doc. TD/B/C.4/251, 1982), Table 22.

that freight costs may, on average, have an effect equal to tariffs and this effect is much larger on high bulk and low unit cargo such as lumber and paper products. For example, the average ad valorem freight rate for imports of natural rubber into the United States was approximately 10 per cent while it rises to more than 15 per cent for rubber manufactures. (1) The 1983 UNCTAD Review of Maritime Transport also confirms this in general— that the proportion of freight charges to import (C.I.F) values for developing countries was twice as high as compared to that for the developed market economies. This does not mean that Malaysia should slow down her present industrialisation and export policies. Trade is the generator of growth. (2) The problem is one of regulating the outflow of freight revenues. This can be tackled in two ways. Freight rates and adequate shipping services can be the subject of negotiations between shippers and shipowners. The Malaysian National Shippers Council (MNSC) would the most appropriate body for such a task and is engaged in such work. Through an effective joint stand, the shippers would be able to negotiate rates that are cost effective and stable. The Malaysian Palm Oil Producers Association for example had a very effective agreement which met their shipping requirements in terms of service, types of vessel and freight rate sta-


bility. The Malaysian Rubber Exchange and Licensing Board (MRELB) also negotiates favourable rates for rubber shipments including the provision of appropriate vessels. At one stage there was a lack of appropriate vessels for shipping of latex which was overcome through negotiations with the shipping lines. It appears that an approach based upon specific trades or commodities gives much more effective results than a general approach. (1)

Freight levels may also be controlled through consolidation or aggregation of cargo. Larger savings may be achieved by diverting traditional liner cargoes, such as rubber and tin, to non liner bulk shipments (which are traditionally cheaper). Malaysian commodities offer great scope for such diversion and aggregation. A study by UNCTAD for bulk exports of rubber from Malaysia showed that such an exercise would result in substantial savings for export of rubber. A tendering exercise was suggested and the existence of the MRELB would enable such efforts. (2) Such an exercise could invite tenders from all interested parties and subsequently a choice made between Malaysian and or foreign lines on a competitive basis. Forward integration and cooperation with Malaysian lines would enable Malaysian shippers to exert a greater control over the transportation of their goods and facilitate broader agreements for competitive and stable freight rates and services. The recent decision to form a National Freight Booking Centre by the MNSC would concretise the efforts to obtain appropriate shipping services and

(1) United Nations, Protection of Shippers Interests - Guidelines for Developing Countries, (UN Doc. TD/B/C/176), p.11.

better freight rates through cargo aggregation. The role of the Government would be to lead the shippers in adopting organisational changes and restructuring marketing arrangements to enable rati­
onalisation of the affected trades. The last option is by local parti­
cipation in shipping. It has been demonstrated that, under the right conditions, carriage of a nation's trade in its own flag ves­
sels definitely leads to economic advantages.(1) Such advantages may not arise immediately but in the long run would give positive returns to the economy. MISC'S operation, for example, is estimated to have produced a net foreign exchange gain of between 20 to 25 per cent of freight revenue. In spite of the fact that MISC operated at a loss in 1982 and 1983 (negative returns on investment), it is estimated that the impact of its operation on the Malaysian eco­
nomy, in terms of net foreign exchange retained, was still posi­
tive. The same could be expected of PNSL and the other Malaysian shipping companies. Those engaged in domestic shipping would give a larger retention of foreign exchange due to their localised ope­
rations, the main outflow being interest on capital and possibly ship repairs. As mentioned earlier, Malaysia relies on foreign ves­
sels for the transportation of up to 95 per cent of her trade. This situation will not change drastically in the near future. The establishment of and continued expansion of MISC, PNSL and other Malaysian shipping lines will have a growing impact on this situa­
tion, giving rise to a more secure position for the country.

This may hold true and the process even accelerated if a strate­
gy to develop national factors, which are favourable, as inputs

(1) For an excellent exposition see Harold Hansen, The Developing Countries and International Shipping, op. cit.
into the industry is adopted. Malaysia has several factors to its advantage such as a large and expanding foreign trade, efficient ports, a low cost, disciplined and malleable work force and low administrative expenses. Contrasted to this are the negative factors such as high capital cost, lack of managerial skills and trained crew, low level of technology and old ships, inadequate institutional framework, and high cost of supportive services such as shiprepairs and docking. These negative factors can be influenced to become favourable if the right strategies are adopted. For example the Newly Industrialising Countries (NICs) such as Singapore, South Korea and Taiwan have succeeded in expanding their fleets by about 40 per cent annually between 1970 to 1980. Their strategy was basically to capitalise on the factors in their favour such as an expanding and voluminous foreign trade, low costs of manpower and general administrative expenses, high management efficiency and governmental support buttressed by an efficient maritime administration. (1) Similarly the developed maritime states have capitalised on their endowments such as research and development, capital intensive technological development, horizontal and vertical integration leading to market control, multinational enterprises and diversification and or specialisation. (2)

The national factors which affect the costs of operating ship-


ping companies may then be summarised as follows:

(a) a conducive environment
(b) capital
(c) labour
(d) management
(e) technology
(f) trade, and
(g) government support.

A conducive environment would include the existence of a maritime tradition, an appropriate institutional framework, experienced seafarers, trained managers, complementary industries such as shipbuilding and repairing, a modern legal framework and legal expertise to handle maritime affairs, a good financial system, efficient telecommunications, stable political conditions and last but not least a population that is conscious of and has an interest in the oceans and activities related to it. (1) Localisation of these factors would have a positive impact on the balance of payments. The other potential areas which could be easily localised are labour, management and even technology. These factors are presently a drain on the Malaysian economy, particularly in so far as the employment of large numbers of foreign personnel is concerned. Technology, particularly where it is suited to the Malaysian operating conditions should and could be developed if sufficient input into research and development is gathered. Finally government support, not merely in terms of tax inducements (which are prevalent in nearly every maritime country) but in other concrete areas such as in financing, cargo rights and in administrative/policy guidance

would be essential. The creation of the "conducive environment" mentioned earlier would be dependant largely upon the maritime administration's efforts, which in turn depend upon the level of expertise, professionalism and efficiency existing within that organ.

The question of localisation of capital for financing of the shipping industry is much more complicated. To a very large extent, most Malaysian ships are financed abroad largely through shipyard credits. MISC and PNSL finance their ships through foreign bank financing with Government guarantees. Interest and capital payments would represent the largest single item of foreign exchange earning paid out by Malaysian shipping companies. In nearly every major maritime nation, the Government provides financing on concessionary terms to its shipping industry. (1) Malaysia may not be able to emulate this on a large scale because of competing demands for the limited capital resources and due to the low rates of return of investment in shipping. However, at least for the domestic sector, some form of financing scheme must be considered. Present financing schemes through the Industrial Development Bank appear to be inadequate as witnessed by the fact that most ships are financed abroad. The Bank also operates independently of shipping policies formulated by the MOT. There is a lack of complementarity between financing and shipping policies which is essential to route the industry in the right direction.

Malaysian shipping must also have a complementary commitment to

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(1) United States, Maritime Subsidies, (U.S. Department of Transportation, Maritime Administration, 1983), for example gives details about maritime aid given by 48 maritime countries.
promoting national industrialisation and export-led growth. For example, promotional freight rates for new products could be developed either through the conference system or by Malaysian tramp shipping. Such rates would easily determine the success or failure of new export items. Studies have indicated that promotional freight rates may be crucial in the initial stages of breaking into new markets.

(1) A case in point was when tin exports to Australia had to be stopped because of freight increases.

(2) In general, developing countries incur higher shipping costs than that paid by the average industrial country and this is estimated to be about 60 per cent lower for example for shipments from South Asia.

(3) A positive role by Malaysian shipping lines to promote new Malaysian products may thus be identified.

(4) Such close ties between industry and shipping are not uncommon. The Japanese industry works hand in hand with the shipping industry through the system known as "shikumisen" whereby shipowners accept small but steady profit margins based on long term business arrangements. Such cooperation is encouraged actively by both the Japanese as well as the Korean maritime administrations. Malaysia is embarking on a programme of


(2) Op. cit., Khor Kok Peng, p.188.


(4) The freight rates need not necessarily lead to a loss to Malaysian shipping. The rates should, at minimum, be cost based (below which the Government may have to subsidize) until the trade picks up sufficiently to enable profit to be made.
heavy industrialisation in cement, steel, automobiles and other resource based industries. Participation of Malaysian shipping lines along a similar strategy must be defined from initiation and developed jointly.

Malaysia is also presently pursuing a policy of diversifying its trading partners. Direct trading and cooperation with non traditional trading countries like Pakistan, Bangladesh, Turkey, East Bloc countries like Rumania and Yugoslavia and with regions such as the South Pacific have been initiated. One of the major obstacles that such efforts will encounter (and has encountered) is the lack of appropriate shipping services on these non traditional routes. For example, the good trading possibilities with Pakistan may have been partly retarded by a lack of appropriate shipping services. (1) Initial trade volumes being low, shipping lines would refrain from starting services on such "pioneer" routes. Under such circumstances, until trade volumes are sufficient to sustain profitable or at least cost recoverable operations, some form of incentives may have to be offered. Indian and Brazilian shipping lines have been successful for example in opening up and developing new trade routes on this basis. Where such incentives are not necessary, national lines may promote national products as part of their own promotional efforts. This amounts to the "Malaysia Incorporated" policy being implemented in trading. (2) National shipping lines would be

(1) Bilateral talks between Pakistan, Turkey and Fiji identified lack of shipping services as hindering trade.

(2) "Malaysia Incorporated" is adopted from the Japanese concept of total commitment to national development with both Government and the private sector working together as in an incorporated company.
expected to serve the trade, irrespective of port congestion, minor commodities, minor ports or other such factors.(1) Under normal circumstances this would not be the case with foreign lines. Given the right policy and incentives Malaysian lines would be able to fulfil their participation with due consideration for national economic priorities besides company profit motivation.

One of the areas where such national priorities should hold sway would be in the liner conferences. MISC’s (and PNSL’s) participation in liner conferences should have a positive impact on freight and shipping services in the Malaysian trade. Their participation in the conferences should lead to less pressure for freight increases, particularly where it concerns Malaysian commodities.(2) To what extent MISC has been able to influence the FEFC in such manner is not certain. (It is even possible that MISC’s participation may have led to higher freight levels). Clearly however, the FEFC cannot but choose to consider any intermission by MISC on behalf of Malaysian shippers. Whilst MISC on its own may not have a significant voice, the possibility of a regional approach (by ASEAN shipping lines for example) would certainly lend greater strength.

Shipping is a highly capital intensive industry. In fact most of the major components of the maritime industry such as ports and

(1) H.Hansen quotes examples where national lines have held services despite these conditions, op. cit., Harold Hansen, p.34.
shipbuilding and repairing are very capital intensive. MISC's container ships for example would cost about U.S.$35 million each (the LNG ships cost about U.S.$250 million each). Contrasted with this is the low returns on investment that shipping produces (about 5 per cent) compared to the rates of return for other heavy industries. To the Government this has several implications namely:

(a) the capital intensive nature of the industry means that the industry does demand a significantly higher and more systematic level of consideration on the part of the Government. The cost of the five LNG ships for example for MISC meant an outlay of over $2.5 billion ringgit. The transfer of MISC to the Prime Minister's Department, whilst superficially bringing the problem to attention at the highest level, did not solve the problems of a systematic and expert approach at the administrative level (even for example to form an opinion or take decisions independent of the opinion of MISC). Failure in this highly competitive international industry will have widespread consequences not only for MISC, but the economy as a whole;

(b) to a large extent, Government involvement will be unavoidable, at least to provide financing to ensure that the industry does not degrade into a state where mainly old and uneconomical ships are used; and

(c) Government involvement is essential to lead the industry on an overall integrated approach, in areas such as the desired tonnage, research and development, pioneer routes and services, crew training and financing to mention just a few areas.

To sum up the full potential of national shipping may be fully realised only if there is a conscious and deliberate effort by the Government to create the right environment. Malaysian shipping has
the potential to contribute significantly to the national economy. So far it has been largely foreign operators who have played a pivotal role in this respect. Malaysian ships have, significantly, been mainly foreign cross traders. In contrast we should note the extremely important role played by local shipping in the rapid growth of the NIC's, particularly in the carriage of their national trade.

Other Maritime Sectors

The role of the other major sectors of the maritime industry in the national economy is also enormous. Malaysian ports are modern, well equipped and fairly efficient. Port Kelang, the major port in Malaysia, for example had nearly 4500 ship arrivals. Ship turn-round time for a container vessel averaged 14 hours in port whilst for conventional vessels this was 2.13 days in 1983. Malaysian ports employed about 15,000 personnel. Together they generated nearly 30 million tons of cargo annually. In 1983 the major ports earned a total gross operating revenue of M$429 million.(1) Ports have also been major growth centres such as in Pasir Gudang and Kuantan. The Kelang Valley and Penang/Butterworth are major industrial centres depending to a great extent on the interfacing role of their ports. Nearly all the major ports (Kelang, Penang, Johore, Kuantan, Kota Kinabalu and Kuching) have the capacity to handle containers. Major container terminals are however situated in Port Kelang and Penang which together handled about 223,180 t.e.u.'s in 1982.(2)

Several new industrial ports are being considered and some have

been constructed such as the port at Kemaman, at Kuala Kedah and at
Bintulu. (1) It is expected that the present number of major break
bulk common user ports will largely remain unchanged, their capaci-
ty being expanded as and when the need arises. New industrial ports
however may continue to be considered to serve specialised single
(or limited) users. Port congestion, particularly in Port Kelang,
was a major problem until recently. Measures have been taken to
overcome these problems which was brought about by several factors
chief among which was equipment failure, poor inland haulage and
other institutional factors such as documentation, customs working
hours, inefficiency on the part of the shippers and to a certain
extend terminal design, road access and equipment maintenance. Port
congestion does have disastrous implications for the economy as
essential supplies are delayed or cut off, freight rates increase,
and the cost of transport in general becomes exorbitant. Ports there-
refore have to be keenly aware of and avoid congestion through a
combination of increasing their operational efficiency whilst
expanding their terminal capacity.

The construction of specialised terminals for private user orga-
nisations with development funding from Government has to be clo-
sely monitored. An integrated approach is highly desirable. In this
respect the manner in which the supply base at Kemaman was built
raises many disquieting implications for the future. The result of
an ad hoc approach to port distribution and the consequent implica-
tions for physical distribution (and competition/duplication of
port facilities) may be costly to the nation. The proliferation of

(1) Industrial ports would be ports built solely to serve a speci-
fic industry.
specialised ports and the impact this may have on existing ports as well as on existing intermodal split have not been considered. One immediate effect may be for example shorter cargo movements than before. The operational safety of these installations both from a navigational aspect as well as from cargo operations must also be given due consideration. Malaysian ports are vital to the economy. Any inefficiency in their operations will have adverse implications to the trade oriented economy of Malaysia. The privatisation of some of the major port facilities may lead to improved and efficient port operations, besides reducing the need for continuous capital outlay by the Government. Privatisation however would demand a greater level of expertise and professionalism in the Government administration in order to be able to effectively monitor and coordinate the operations from a national and regional approach. Basically this would include considerations of safety (dangerous cargo, etc.) and economics such as regulation of tariffs when and if necessary.

The shipbuilding and shiprepair industry in Malaysia represents the third major sector in the maritime industry. The industry employs about 4000 people in two large, five medium and twenty small yards all over the country. Small repair yards have existed traditionally catering for the coastal trade ships. These yards have limited capacity and can only manage minor repairs to small vessels. The two major shipyards are the Malaysia Shipyard Engineering Sdn. Bhd. (MSE) and the Sabah Shipyard Corporation (SSC) both of which have governmental participation. The MSE was built in 1976 to cater for servicing and repairs of the ULCC’s. With the fall in the market for such tankers, the yard has had a bleak experience losing money every year till 1982. The SSC in Labuan, Sabah, in operation
since 1982, has also faced losses. Both shipyards were built des-
pite the keen competition in the region from South Korea, Japan and
Singapore. It is estimated that it costs about 30 per cent more to
build in Malaysian shipyards than in Japan for example. Whilst
labour costs are low, the other factors of production are largely
imported and thereby impose a high cost element in the production.

Shiprepairing (as opposed to shipbuilding) does lead to a grea-
ter proportion of net retained foreign earnings within the country.
Shipbuilding, because of the high import content, leads to a drain
on foreign earnings. Malaysian shipyards have generally relied on a
protected market, building ships belonging to the Government such
as dredgers and tugs for the Marine Department and Port Authori-
ties. MSE and SSC have also diversified into other engineering and
steel assembly works. Malaysian shipowners have generally built
their ships or repaired them abroad due to the high cost in local
yards. The delays that frequently occur on delivery of the vessel
is another prohibitive factor. The absence of any form of Govern-
ment aid either in the form of shipyard credit or subsidies makes
the yards even less competitive. To a certain extent Malaysian
shipowners should not be discouraged from purchasing their ships
abroad as full advantage should be taken of the subsidised prices
and concessionary financial terms offered by the foreign yards.
Forcing Malaysian shipowners to build locally would therefore impo-
se not only a unfair burden on them, but the real impact of such a
policy would be on the economy. Malaysian shipyards are still a
long way from being a competitive force in todays international
shipbuilding market. Their repair services however are essential
and this aspect must be given the highest priority and attention.
The Government must work in concert with the Malaysian shipping
industry to ensure greater utilisation and localisation. Some incentives which directly encourage Malaysian shipowners to repair their vessels locally must be considered. At the same time the shipyards will have to upgrade their competitiveness not only in terms of price but also in terms of services and delivery time. Basically the yards have to realistically assess their capability and capacity and work together with the Malaysian maritime industry and the Maritime Administration.

The other services related activities to the maritime sector such as marine insurance, maritime lawyers, brokers, shipping and forwarding agents, average adjusters and banking and finance are important subsectors for the efficient performance of the Malaysian maritime industry. These are largely privately operated agencies with little interference or regulation from the Government. There has been efforts to localise some of these services so as to retain foreign exchange as much as possible and also to develop local expertise in these areas. Marine insurance, particularly cargo insurance, is being localised as far as feasible. The Malaysian marine insurance market is closely linked to the London international market, either directly or indirectly through reinsurance. The Malaysian fleet is too small for localisation of hull and machinery or even P and I policies (though a regional approach through ASEAN may be possible).

Malaysian shipping and forwarding agencies are fairly numerous and generally well managed though the lack of any regulation does lead to frauds. Many of the leading agencies too are merely agents

(1) There are even some Malaysian investors in Lloyds syndicates, for Singapore based principals. Thus there is a tendency to channel
cargo through Singapore. Maritime lawyers are a rare breed in Malaysia and particularly so in the Government service. The Government will have to take steps to train some of its lawyers in maritime law. Malaysian banking services are also fairly efficient and able to generally meet the needs of international trade. Limited ship and shipyard financing facilities are available through the Industrial Development Bank and the Development Bank of Malaysia.

Quite unlike many developing countries Malaysia has a relatively well developed maritime sector. Direct Government participation in this sector is significant. The major shipping lines, ports and the shipyards are either Government owned, controlled or have significant Government equity participation. On shipyards alone the Government has invested M$1 billion. The economic impact of these huge investments has been significant in terms of employment and returns on investment. Whilst the investment on ports and shipping seem to have given sufficient returns to the economy, the investment on shipyards has been so far disappointing. Despite such heavy involvement, it is remarkable that a major area of weakness has been in the institutional framework within the Government to take the right policy directions. Expertise has been sadly lacking. It is not surprising therefore that national strategies for the development of the maritime sector take a painfully long time to materialise. Perhaps more importantly, a better understanding and appreciation of the Malaysian maritime environment has only just begun.
Unlike many other sectors of the Malaysian economy, national policies in the maritime sector are rather few and far between. Most of them were formulated to address certain specific issues. Perhaps under such circumstances, it would be best to approach this subject on a sectoral basis, namely to identify the policies associated with shipping, the offshore industry, ports and shipbuilding and repairing. There is however the broad policy statement made in the Third Malaysia Development Plan which set the objective of achieving maritime status. This rather broad policy objective was not defined neither was any action indicated as to how such an important policy goal was to be achieved. The statement went on to cite MISC and its programme of growth which appears to indicate that the latter may have been presumed to be the vehicle for the achievement of this goal (which is undoubtedly a rather narrow interpretation of this objective). For good measure however, this policy statement has enabled the initiation of many activities under its banner. It has for example, enabled the MOT to start many new initiatives. Even the formation of the Maritime Division in 1982 within the Ministry was justified largely on that basis. Consequently the Division has presumed upon itself to achieve the goals of that policy. It has interpreted that policy to mean expansion of the Malaysian merchant marine fleet, an objective seen to
be squarely within its jurisdiction. (1) As far as the other sectors of the maritime industry is concerned, with the exception of ports, due attention is not being given or it is being approached on a piece meal basis. It is not even clear whether "maritime status" does include these sectors and if so which are to be the leading agencies. For the purpose of this study however, it is presumed that the word "maritime" was a deliberate choice over "shipping" and therefore all sectors of the maritime industry are to be included. Using this broad policy goal as a basis it is possible now to delve into the various sectors of the maritime industry and examine specific policies related to these sectors.

**Shipping**

Since the formation of the Maritime Division in MOT formulation of a national shipping policy and development programme was pursued. By the end of 1983 and early 1984 the basic framework was ready. It may be sometime however before the Government considers and adopts this framework. The basic premise of this policy is the attainment of "maritime status". This has been translated to mean a growth of the Malaysian fleet and related to this is the expectation that a greater proportion of the national trade will eventually be carried by Malaysian flag carriers. Towards this end liberalisation of the conditions for registry of vessels under the Malaysian flag, an income tax free environment for shipping companies and Malaysian seamen and several other measures were put into effect.

(1) However there appears to be a misconception within many Government agencies that MOT is only concerned with the domestic shipping fleet, a view that is perhaps fostered by the fact that MISC and PNSL are under the ICU.
Registration conditions were made more flexible in order to attract shipowners from the high cost developed maritime states to form joint ventures and thereby move their operations to low cost Malaysia. South East Asia is viewed by many sources as the future centre of the shipping world (the centre having moved from North to Southern Europe and gradually to South East Asia). This policy seems to have had its desired impact as can be seen partly by the tremendous increase in the number of vessels registered as well as from reports made in some of the shipping journals.

Undoubtedly one of the attractions of the Malaysian registry is the nation's large cargo base (estimated at nearly 40 million tonnes). There are currently no cargo reservation policies in practice. However Government cargo is reserved for MISC and other Malaysian shipping lines. This administrative directive is not effectively implemented nor enforced and therefore has had very little impact. Malaysia has embarked on a policy of promoting bilateral agreements and has so far signed agreements with Bangladesh, Belgium, Turkey, Pakistan, Sri Lanka and South Korea. It is also presently negotiating similar agreements with China, the United States and Japan. In general these agreements stipulate cooperation in shipping, guarantee free access to the ports and have cargo sharing arrangements either on a 50/50 basis or on the basis of the Liner Code. Agreements may however vary depending upon the interests of

both parties. Due to several reasons, signing of the agreements has not necessarily led to implementation. Malaysia, for one, does not have either the administrative expertise or the information systems necessary to monitor bilateral shipping. In this respect the successful implementation of the Shipping Statistics Scheme would be crucial. Malaysia should continue with the efforts to promote bilateral agreements to ensure that it has a foot in the door and is able to utilise the agreements when and if the need arises.

Another significant policy measure was the implementation of Cabotage in 1980. This policy has resulted in a significant increase in local private sector participation in the shipping industry and has contributed to much of the tremendous increase in Malaysian flag ships. One of the reasons for this policy was the belief that experience gained in the protected domestic shipping market may eventually form the basis for initiative into international shipping. So far there has been no discernible shift in that respect from domestic to international shipping though it is still too early. The domestic sector itself is undergoing many problems which will have to be overcome.

The ratification of the UN Code of Conduct for Liner Conferences and the signing of the UN Convention on the Law of the Seas (UNCLOS) by Malaysia are significant policy measures which in due course will influence the Malaysian maritime industry. The implementation of the UN Code is being actively considered by the MITI and MOT. Several aspects of UNCLOS have already been implemented such as the Exclusive Economic Zone, the Continental Shelf and the extended 12 mile territorial seas. It is expected that Malaysia will ratify UNCLOS.

Offshore shipping activities have also had some policy initia-
tives. Supply ship operations to and from a Malaysian port and off-
shore platforms in the Malaysian EEZ was declared to be part of
Cabotage. At the same time it was made possible for semi submer-
sible modular drilling units to be registered as vessels under the
Malaysian flag.

The Mid Term Review of the Fourth Malaysia Plan reemphasised the
"importance of promoting the supporting services for assisting the
growth of trade especially for freight and insurance" and indicated
that the "development of these services will be accelerated." It
proposes that a larger proportion of the international trade of
Malaysia should be carried by Malaysian vessels. It also identified
the need for Malaysian shippers to exert greater control over the
transportation of their cargo particularly through the appropriate
use of trading terms such as F.O.B and C.I.F. (1)

Ports

Malaysian ports may be broadly divided into major and minor
ports. The major ports are those with established Port Authorities,
statutory bodies that operate the facilities on large commercial
principles. These ports have good management, have little or no
lack of funds and are operated fairly efficiently. The minor ports
on the other hand are very often small jetties maintained by the
Marine Department. A new breed of ports are increasingly being
constructed namely the specialised or industrial ports such as at
Kemaman and Kuala Kedah. It appears, at this juncture, that ports
may be operated and maintained by the major user/industry located
at or near the port.

The proximity of Singapore, the second largest port in the world after Rotterdam, and its efficiency has had both a competitive as well as a limiting influence on Malaysian port development. Port policy has therefore devolved into channelling Malaysian cargo to Malaysian ports to maximise not only utilisation of local port facilities but, more significantly, to exert greater control over Malaysian exports in terms of quality and marketing.

Recognition of the important role that ports play in regional growth has very often led to non-economic political influences on the development of the number of ports in Malaysia. The FMP for example stated that the number of existing ports was sufficient to handle Malaysian international trade. However, as indicated earlier, a number of ports (though specialised such as Kuala Kedah) have since sprung up. Kemaman, for example, is barely 22 kilometres from Kuantan. So long as ports are viewed as "engines" of growth these influences will continue to bear down on port development policy.

The emphasis accorded to port efficiency has resulted in moves to privatise some of the major port facilities such as the container terminal in Port Kelang. Such efforts are part of the National Policy of privatisation and certainly will lead to greater efficiency and competitiveness of Malaysian ports.

As far as technological development is concerned container facilities are available at nearly all the major terminals. Ro-Ro facilities are available at Penang and Port Kelang. Malaysian policy towards containerisation has been one of active encouragement. Most of the ports have computer aided information systems. One of the drawbacks of present Malaysian transportation policy in general is the lack of coordination for multimodal transport. Some of the
present inland linkages to the ports are congested and seriously hamper the efficient flow of cargo to and from the ports. Road development (under the Ministry of Public Works and Utilities and the Highways Authority) proceeds apace seemingly oblivious of intermodal transportation needs. The creation of appropriate inland container depots (ICD’s) and the increasing trend towards door to door service requires intermodal coordination. The alternative is an inefficient, costly and unsafe transportation of Malaysian trade inland. One may have a superb transport network but a highly inefficient transportation system. It is imperative that the MMA, the Malaysian Highways Authority, the Malaysian Railways and other appropriate agencies coordinate their transportation policies and programmes. The MMA may be the appropriate agency to initiate this activity.

Ports do not offer any concessions to Malaysian ships. The ports have common user terminals and give free access to any ship on a first come first served basis. Their basic operational philosophy has been one of providing a sea land interface with least possible costs to the economy.

Ports in Sabah and Sarawak, by virtue of the Malaysian constitution, are currently administered directly by the state governments. This position may be reviewed after ten years, (which was over in 1973) but so far nothing has been attempted by either the Federal or the State Governments. In Sabah, the Sabah Ports Authority administers all port facilities. In Sarawak there are three major Port Authorities with numerous other small ports. The Bintulu Port Authority in Sarawak is the only federal port (with Labuan in Sabah recently becoming the other) in East Malaysia. Much of the port development work is carried out with the aid of Federal funds. The
Ministry of Transport has little say or even less responsibility in the consideration of allocation of such funds, this being directly taken on by the Economic Planning Unit, Prime Minister's Department. The Ministry of Transport is however involved in a great deal of coordination and joint effort to bring about uniformity and integration in the major ports in Malaysia through common policies, improved standards of efficiency, formulation of sound management principles as well as avoidance of duplication in the development of new facilities. There has been some consideration given to the idea of a National Ports Authority but the possibility that this may curb competition among Malaysian ports has prevented such an idea being seriously considered. The increasing pace towards privatisation of port facilities would also make the latter idea incompatible.

There are however some advantages in having a certain degree of centralisation for the ports sector as a whole, particularly where economies of scale may be gained. For example in the training of port personnel and purchase of port equipment and parts may be undertaken most efficiently by one agency. This body must also have sufficient authority and expertise to avoid duplication of facilities in competing ports. There must be a national master plan to guide the development of Malaysian ports in general. The MMA should be able to contribute significantly and perform these functions very well. This would allow the two interfacing sectors of shipping and ports to be dealt with in an integrated manner. The training needs for port personnel for example may be made complementary to the training needs of the merchant marine field (in areas such as shipping/ port economics, pilots, management and shipping technology).
Port operating policy may be therefore summarised as the efficient management of the ports in a competitive environment, with least costs to Malaysian exports and imports and to ensure that Malaysian cargo is channelled through Malaysian ports. Port development policy would be that the present number of ports precludes any new major port being established. Facilities at existing ports would continue to be expanded and upgraded as needed. New ports if established would only be industrial ports serving (and possibly operated by) the major industrial concern. Whilst major ports are fairly well taken care of, minor ports have so far been neglected.

It is commonly presumed that the Marine Department manages the operations of minor ports. It does not however have the legal jurisdiction or administrative authority for that purpose, its role being confined to safety only. There are other agencies involved such as the Customs Department and the Public Works Department, but none seem to have management responsibility for the minor ports. The Marine Department does not appear to have been given clear administrative jurisdiction or direction to undertake the management of such ports either. Once built little or no maintenance is carried out. These ports (in Peninsular Malaysia alone) handled 6 million tonnes of cargo (excluding petroleum crude and petroleum products which amounted to another 9 million tonnes) in 1983.(1) Whilst the Government has been aware of the poor management of these ports it has so far not addressed the problem effectively.(2)

(2) Mid_Term_Review_1st_Malaysia_Plan, para 319 and the Transport Development Study, op.cit., Vol 4, p.8., pointed out this weakness.
Another effort to redress the situation is being made through the Fourth Malaysia Plan.(1)

Shipbuilding and Repairing

This is one of the weakest sectors in terms of maritime policy. Against the recommendations of two major studies, the shipbuilding yard MSE and (more recently the SSC) was built.(2) No concerted policy formulation has existed, induced by the diffused nature of administrative responsibility for this sector. The Ministry of Transport does not bear responsibility or gives attention to this sector mainly due to unclear administrative jurisdiction and responsibility. The major yards (MSE, SSC and even the Penang shipyard), by virtue of having Government investment and thereby being considered as "public enterprises," appear to be under the jurisdiction of the Ministry of Public Enterprises. This appears to be limited to largely financial responsibility. The other minor yards do not fall under the purview of any Government agency nor does any agency appear to monitor or coordinate the overall activity of shipbuilding and repairing.

In an effort to promote the local shipyards, the Ministry of Finance imposed a ruling that all shiprepairs and shipbuilding undertaken by Government agencies has to be done with MSE or locally as far as possible. This ruling however has caused many operational problems to many of the user agencies in the form of cost overruns, delayed deliveries, technical problems and in the case of


(2) Both the Regional Transport Survey, op. cit. and the Transport Development in Malaysia, op. cit., consultant reports recommended against the establishment of shipbuilding yards in Malaysia.
the Marine Department has even resulted in their limited number of
boats becoming increasingly crippled due to bad maintenance, high
costs and inefficient or slow attendance to problems.

Malaysian shipowners are not required to build or service their
ships in Malaysian yards and invariably they use Singapore, South
Korea or Japan. This is a troubled sector, and has been so even
when the shipping market was having better times. In recent years
the yards have followed a prudent policy of diversion into heavy
engineering such as building of railway wagons, floating pontoons,
dredgers, etc. The Industrial Development Bank of Malaysia has ini­
tiated shipyard capital expenditure loans, special ship repair
financing and bridging finance for shipyards in an effort to over­
come the financial shortcomings for both shipowners and shipyards.
However it is in the area of competitive efficiency and services
offered that the major shortcomings appear to lie.

Other Policies Related To The Maritime Industry.

Trade policies are the most pertinent to the maritime industry
as shipping is a handmaiden to trade. The continued emphasis on
export promotion of Malaysian goods would mean that, by and large,
Malaysian shipping may gain importance. This would particularly be
so where trade in new directions are concerned, for example the
current efforts to promote South-South trade such as with the South
Pacific countries. Essentially this would mean new trading routes
which are off the traditional shipping lanes with low if not erra­
tic volumes of cargo. Such routes would have to initially rely to a
crucial extent, on the need for "pioneer" services and such servi­
ces may have to be temporarily subsidised by the Government. In
promoting such routes or new trades, the question often arises as
to whether shipping services should precede trade so as to encou-
rage/foster the growth of the latter. It is suggested that both measures would often have to go hand in hand. Actual trading links must be established and should precede shipping services. Such links may not be substantial initially but the potential for growth must be secured so as to enable pioneer services to be started and sustained for long term profitability. Export trade promotion efforts (such as through the bilateral Joint Technical Cooperation Committees) need to be combined with the promotion of Malaysian shipping simultaneously. This has been lately the policy of the Government though this has not been formally adopted and encouraged actively.

Even within the ASEAN region there may be a need to encourage such services, perhaps through a joint regional approach. The high cost of transportation between Latin American ports, for example, seriously impeded the development of intra Latin American trade. A similar situation may exist in the ASEAN region. Whilst the region is extremely lucrative in terms of extra ASEAN trade (trade from outside) and well served by shipping services in that respect this may not be applicable in the case of intra ASEAN trade. Despite this Malaysia has a growing trading relationship with ASEAN. In terms of trading areas ASEAN now ranks fourth behind Japan, the United States and Europe. If trade with Singapore is included then ASEAN would represent the largest trading partner. Malaysia has in been in the forefront urging its regional partners to adopt measures to encourage regional shipping to enhance intra regional trade. Whilst there has been much talk, little concrete progress has been

made in this direction largely, one suspects, due to competing interests of the national lines in the region. There has been however progress made in a regional approach to other matters such as maritime training, pollution prevention and in exchange of information about various developments.

The Mid Term Review of the Fourth Malaysia Plan stated that shippers will be encouraged to exercise greater control over the transportation of their products. This will be implemented firstly through exercising greater control over shipment terms (exporting C.I.F and importing F.O.B.).(1) Shipping agents will also be encouraged to base their operations in Malaysia rather than merely soliciting for agents in Singapore (and thereby also channelling most of the cargo through Singapore). Another important measure taken was the establishment of the National Freight Booking Centre where competitive freight rates are sought to be obtained through cargo consolidation and long term shipping arrangements. Operated by the MNSC as a private company, the Centre may provide an important avenue for greater utilisation of Malaysian vessels. Encouragement of contra or barter trading should also lead to a greater control over shipping and with it the possibility of greater utilisation of Malaysian vessels.

Industrialisation and the move towards heavy industries should also mean larger volumes of raw materials such as ore and coal and the export of bulk items such as steel, LNG, fertilisers, cement and eventually even the Malaysian car. Strategic planning from the initial stages for greater utilisation of Malaysian shipping in these industrial ventures would benefit not only the shipping

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industry but also the other parties concerned and the economy in general. The transportation of LNG by Malaysian ships for example was initiated from the beginning stages of the planning of the LNG plant. It is now contributing a significant proportion of MISC's freight earnings (and turned it into one of the few companies in the world which turned in profits for the year 1984. This is a remarkable achievement, particularly in the present international shipping doldrums. (1) It is no coincidence that another shipping company presently doing fairly well is the Polish Steamship Company. The latter has the advantage of having strong ties with national cargo interests (and the Company does operate along commercial lines). Such ties between industries and shipping companies are being increasingly encouraged in Malaysia.

In conclusion it may be stated that Malaysian policies related to the maritime industry have only recently become more substantive. The objective of achieving "maritime status" maybe the headspring of all these policies. There are still considerable gaps in national policy related to the maritime sector and particularly in the manner in which such policy formulation takes place. There are for example no policies related to training, for expansion of the services sectors such as marine insurance, law, brokering, shipping and forwarding agencies and a coordinated multimodal approach. In the process of national policy formulation there appears to be little interaction with the considerable expertise available in the private sector. The Mid Term Review of the Fourth Plan stated that a study has been completed to determine national policy pertaining

to shipping and its related industries. (1) There is however no information as yet available about the results of the study. (2) It is possible that these results may be incorporated into the Fifth Malaysia Plan which is due shortly. Certainly there is a need for a comprehensive policy to deal with the many facets of the maritime industry in an integrated and coherent manner. Policies are however only guiding instruments. The basic foundation still remains an appropriate institutional framework to formulate, update and implement these policies.

(2) The author was closely involved and contributed significantly to the study.
This Part, the heart of the study, shall examine the existing institutional framework in Malaysia (Chapter 6), suggest what a model maritime administration should undertake (Chapter 7) and finally recommend a Maritime Administrative structure for Malaysia (Chapter 8). The Part must be read as a whole in order to fully comprehend Chapter 8. The latter Chapter is the heart of this dissertation. In developing Chapter 7 and 8 a comparative approach was adopted where various maritime administrations were examined to formulate the proposed model for Malaysia.
Regulation And Control

Maritime affairs are vested in the Federal Government. Article 74 of the Malaysian Constitution states that Parliament may regulate any of the following matters concerning shipping:

(a) shipping and navigation on the high seas and in tidal and inland waters;
(b) ports, harbours and foreshores;
(c) light dues;
(d) light houses and other measures for the safety of navigation;
(e) wrecks and salvage;
(f) regulation of traffic by sea other than on rivers outside the harbour areas and wholly within one state; and
(g) carriage of goods and passengers by sea.

As such states take no active part in maritime affairs, except in Sabah and Sarawak where ports and shipping under 15 registered tons are delegated to the state legislatures. The Minister of Transport is the authority for the administration and control of shipping affairs. All shipping related legislation is regulated by the Minister of Transport. It would however be noticed that two aspects of maritime matters have not been covered under the Federal Constitution. These are shipbuilding and offshore activities. Shipbuilding has not been regulated by MOT. However shipping, in so far as offshore shipping is concerned, has recently (1984) been brought...
under legislative control by the Ministry of Transport. (1) Reporting to and working under the MOT are the Marine Department Peninsular Malaysia, Marine Department Sabah and Marine Department Sarawak. These Departments are responsible for the administration of the Merchant Shipping Ordinances (M.S.O.) and related marine activities. At the moment there are three distinct M.S.O.'s, all of them based largely on the Merchant Shipping Ordinance 1894 of the United Kingdom. These are the Merchant Shipping Ordinance No. 11 of 1960 for Sabah, Merchant Shipping Ordinance No. 2 of 1960 for Sarawak and the Merchant Shipping Ordinance No. 70 of 1952 for Peninsular Malaysia. Only in the matter of registration of Malaysian vessels does there exist a unified law covering all three areas of the country, this too having been effected only in 1984 (implementation of a unified system is still however in the preliminary stages). (2) Otherwise the three Ordinances are different in many respects. Efforts to revise and unify the Merchant Shipping laws have been going on for decades. It is only since the formation of the Maritime Division in MOT has the pace hastened and the work nearing completion.

**Government Agencies In The Maritime Sector**

As mentioned in the beginning of this study, there are more than twenty government agencies involved at varying degrees in the maritime sector. This reflects the complexity and diversity of issues which have to be considered. Each of these institutions may have valid reasons for their involvement and or jurisdiction. However this scattered approach does not necessarily correspond to the most

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(2) Ibid., 1984.
efficient and organised approach the development and operation of the maritime sector. Much of this may be attributed to history - practices which have continued with little or no changes even though the maritime environment in the country has undergone vast changes such as for example the Royal Navy performing hydrographic work to the almost complete exclusion of the departments concerned with maritime safety. In other areas new developments have taken place such as the creation of ALAM and PNSL which, somehow, has resulted in the involvement of still more agencies. The result has been further dissipation of the little maritime expertise that exists in the Government. In the absence of any strong coordinating influence over these myriad interagency interests the tendency has been towards duplication of resources with limited results. The impact on the MOT and the Marine Departments has been a growing impatience with what is seen as inefficiency and ineffectiveness on their part. The fact of the matter is, both MOT and the Marine Departments are delimited to a large extent by the multitude of agencies involved in the maritime industry. The problem may best be appreciated by beginning with a brief description of the functions, organisation and present problems of all these agencies in so far as they are related to the maritime sector.

**Ministry of Transport**

The Ministry is the agency for the development and regulation of all modes of transport, by land, sea and air. The Secretary General of the Ministry is the chairman of the DSLB Board and the Ports Coordination Committee. He is also a member of the Board of Directors of MISC. A representative of the Maritime Division is a member of the Board of ALAM. The Ministry's organisation is split along the three modes of transportation. For the maritime sector, it is
the Maritime Division which plans, develops and executes all legislation, policy and programmes. The Division is divided into four main units namely the Ports Unit, Marine unit, Shipping Unit and the Secretariat to the Domestic Shipping Licensing Board (DSLB). This Division operates in close liaison with the Marine Departments and the port authorities. The Marine Unit deals with all technical matters related to maritime safety and navigation (including manning and legislation). The Shipping Unit deals with all policy matters related to the promotion of the industry including the registration of ships. The Ports Unit deals with all development and operational matters related to the Malaysian ports. There are 12 officers within the Division (including the DSLB Secretariat). In essence it may be said that the Division is largely concerned with the formulation and implementation of national policies related to shipping and ports. Besides this it originates all legislative work related to shipping and ports. To an increasing extent it is becoming involved in operational matters such as shipping agreements, shipping statistics, manning and training, construction of small harbours and ports, port construction and development in the major ports and monitoring of port performance. The Division is involved in a huge amount of work, much of which had been neglected in the past.

Progress achieved since 1982 in the Malaysian maritime sector has been directly or indirectly due to the efforts of this Division. The organisation of the Division within the Ministry is reflected in Chart 1. The Division operates within an environment which does not allow it to be fully dynamic. Maritime matters, within the context of the overall national transportation system is relegated below land transport (which receives most attention
because of its mass appeal and therefore its political implications) and aviation (which is glamorous and attention grabbing). Often expertise too is lacking to enable this Division to act rapidly. Such expertise is limited both within the Division itself as well as in the higher echelons within the Ministry. The Malaysian civil service structure and its system of generalist officers rotating within the entire civil service does not allow either the Ministry or the Division to train and retain such expertise for long. The limited staff (though in terms of numbers this Division is the largest) also impinges on the role that this Division can play.

Another setback is the operation of this Division in what appears to be a void. The work of this Division is closely related to the work of the Marine Departments and the port authorities. One important relationship may be in providing leadership (by the Maritime Division). This relationship enables the Division to exercise a push factor, as it were, to prod the Departments into action. This would be true as far as maritime safety is concerned. In actual practice, due to a lack of expertise within the Division, such leadership is limited or does not exist. In maritime development, the Division lacks support of a corresponding role by the Marine Department. Maritime development must be viewed in a totality and not compartmentalised. The technical aspects of maritime development are as important as the economic aspects - the two interact. The Ports Unit faces the same shortage of expertise as the two Shipping Units. In addition the Unit is called upon to perform supervision of port development, engineering work which the
Unit is least suited for (its officers are not engineers). There is also the question of the administration and operation of the minor ports, a matter which must be resolved satisfactorily. With privitisation the quality of the supervising officers must be matched with those of the private sector. This may not be possible within the existing structure of the Division. It will be proposed that this Division be transferred and placed within the MMA to form, the core of the Maritime Development Division (see Chapter 8). Within the MOT there may be a need to retain a small maritime unit for Ministry related functions such as legislation and liaison work or this may be forgone for direct MOT/MMA contact.

**The Marine Departments**

The three departments (Peninsular Malaysia, Sabah and Sarawak), established during colonial times, have continued to operate almost unchanged. They are the guardians of the Merchant Shipping Ordinances which are the basic law for control of all merchant shipping activities in Malaysia. The Director of Marine is prescribed by law to be the regulating authority of all matters pertaining to merchant shipping throughout the country. He is directly or indirectly responsible for pilotage, supervision of ship construction, dredging of small harbours and river mouths, charts and hydrographic surveys, navigational aids, certification of seafarers, training, maintenance and operation of Government launches, safety administration of ports, licensing and registration of vessels, dangerous cargo, wrecks and salvage, and survey and certification of

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(1) Malaysia has too many major port construction failures largely due to a poor supervisory role by the Government. The cost has been tremendous as in the case of Kuantan Port.
Malaysian vessels. The Marine Departments also exercise authority under the Petroleum Ordinance, the Explosives Ordinance and the Fisheries Ordinance where these relate to safety in the ports and other marine activities. Each of the three Departments have port offices spread throughout the country. The Marine Department Peninsular Malaysia (MDPM) has 6 regional offices and 27 port offices throughout Peninsular Malaysia. Similarly Sabah and Sarawak have regional and port offices too. These offices carry out the day to day functions of licensing of small boats, maintenance of navigational aids, maritime safety, port safety and clearance of ships. In essence the main aim of the Departments is to ensure the safety of shipping.

The MDPM also has two other related bodies namely the Light Dues Board (LDB) established under the Light Dues Ordinance 1953 and the Central Mercantile Marine Fund (CMMF) established by Act 34 of 1964. The Director of Marine is Chairman of the Boards of these statutory agencies. The LDB collects dues from all ships by means of light dues imposed and uses this money to maintain navigational aids throughout Peninsular Malaysia. The CMMF is a welfare fund for seamen. Besides welfare services it provides training and maintains the Mariner’s Clubs. Both Sabah and Sarawak have similar organisations for the maintenance of navigational aids.

All three departments have been perennially crippled by a shortage of staff ever since their formation. The shortage arose partly due to over zealous localisation of staff. Whilst the expatriates term of contract were either shortened (to two years or less) or terminated, there were no trained Malaysians to take over these vacancies. In 1981 for example there were 32 posts (64%) for officers vacant out of a total of 50. This situation was identified by
the Transport Development Study in 1970. The Study had strongly recommended remedial measures to overcome the severe shortage. (1)

(The problem has been existing for such a long time that it has become almost accepted as an inevitable feature of the Departments). Clearly the solution to the problem lies not only in training sufficient Malaysians to fill the vacancies but also in better wages and service conditions to retain the few who serve the Government. Considering the fact that it takes in excess of ten years to gain a master's certificate and the fact that such qualifications are at a premium in the market paying nearly three times as the Government, it is an impossible task to fill the vacancies without an integrated, rational and radical approach being adopted. (2) Inevitably the shortage of staff has had a tremendous adverse impact on the Departments and has seriously undermined their image. (3) Much of their activities have had to be curtailed such as in survey and certification, handling of dangerous cargo, examination and licensing of fishing vessels and in enforcement.

Besides the actual work of the Department in shipping, it is also the agency delegated with the responsibility for regulation of marine pollution from vessel based sources. The authority for pre-

(2) It appears that recently quite a number of young officers have joined the Marine Departments. This does not solve the problem of experienced officers needed to perform the more technical jobs. Neither does this ensure that these officers will remain for long in service, as would be obvious by the resignations of some very senior officers lately. This is largely due to the crippling service scheme for the Department.
vention of pollution lies with the Ministry of Science, Technology and Environment. The latter has some equipment for the combatting of marine pollution including three vessels which are maintained by the MDPM. The delineation of responsibility between the two agencies does not appear to be clear. For example work on the marine pollution conventions (such as MARPOL) has not started because of this unclear definition. Further there is little ongoing coordination or exercises to undertake anti pollution activities. Anti pollution responsibility does not seem to have even been considered as one of the tasks of port officers.

One of the obvious functions of the MDPM would be in hydrographic surveys. The Marine Departments in East Malaysia undertake this function. However in Peninsular Malaysia, it is being carried out by the Royal Malaysian Navy (by accident of history following colonial practice). Being in charge of pilotage, safety of navigation, maritime charts and maintenance of passage ways and channels, the Marine Departments would be a more logical choice than the Navy which obviously has its own priorities other than safety of navigation. The Navy for example does not undertake surveys close to the coasts (inshore areas) whilst the Marine Department is not allocated the resources for such work either.(2)

The organisation chart of the MDPM is in Chart II (the charts for Sabah and Sarawak are not available). MDPM has the largest organisation of the three Departments. The Directors of Marine are members of the Board of DSLB and the Ports Coordination Committee.

The Implementation Coordination Unit (ICU) Prime Ministers Department.

Ever since the transfer of MISC to the Prime Ministers Depart-
ment the above Unit has become increasingly involved in shipping matters. Prior to that (1975), its involvement was virtually non-existent. The Unit itself was set up with the main objective of monitoring and coordinating national development programmes. It was meant to be a trouble shooting agency to smoothen implementation of Government projects which had run into delays or other interagency problems. As such it had avoided being directly involved in the implementation of projects except where such projects had run into problems. With the responsibility for MISC and PNSL resting with the Prime Minister the actual task of coordination and supervision seems to be undertaken by the ICU. The Director of ICU is a member of the Board of MISC.

By virtue of the fact that the National Merchant Marine Academy (ALAM) is partially funded by MISC through the MATES Foundation, ICU seems also to have assumed direct responsibility for the development and operation of ALAM. (1) Up to half of the development budget of ALAM is funded by the Federal Government. These funds are presently channelled through ICU. The Chairman of the Board of Governors of ALAM is the Director of the MATES Foundation who is also incidently the Executive Chairman of MISC. ICU's Director is a member of the Board.

ALAM's responsibility to ICU raises two main problems. Firstly, the fact that it is under the Prime Ministers Department may give it a comparative advantage in obtaining better monetary allocations (an assumption that cannot be substantiated). However, for all

(1) The Maritime Training and Education Foundation (MATES) was set up by MOT in 1976 in order to channel private sector funds for training. The main contributor so far has been MISC.
other operational purposes such as examinations, recruitment of staff, training facilities and syllabus including the future direction of the Academy, the latter is dependant on MOT and the Marine Departments. The Director of Alam is an officer on secondment from the MDPM. Inevitably (and perhaps ironically since ICU is involved) this leads to a position where there are problems of coordination and responsibility which has had some impact on ALAM’s development.

ICU further has an added disadvantage. Its limited involvement in shipping matters means that it has very little expertise on the subject. With such little expertise and professional knowledge of the industry, general supervision and coordination of MISC, PNSL AND ALAM (in accordance with shipping policies determined by MOT) will tend to have its shortcomings. The tendency would be to follow the input given by these independent private organisations for lack of capability to assess such inputs independently.

ALAM itself was set up by a charter granted by the Government in 1981. The Charter granted supervisory control to the MATES Foundation. The latter initially operated a seamen’s training school before this was upgraded to an Academy. Since then the development of ALAM has been dependant upon a greater proportion of Government funds than from MATES.(1) Funding by the private sector for training seafarers should be encouraged. It may not be appropriate however for the control of the institution to be placed under them. The setting of standards for training and certification as well as the efficient management of the Institution for national needs has to be the responsibility of the Government particularly since the

(1) In 1983 for example the Government funded up to 50% of the operating budget of $5 million.
Government is the largest contributor of funds.

Under the present depressed conditions of shipping ALAM cannot depend financially on MATES. The Government's direct role will increase. The training of Malaysians for seafaring benefits not merely the Malaysian shipping companies but also all other sectors of the maritime industry such as ports, shipbuilding and the offshore industry. All these sectors should be encouraged to contribute some funds towards MATES through fiscal incentives (such as contributions to be considered as tax free). The supervisory role of ALAM should be removed from MATES to the MMA. (1) Representatives of MATES should however continue to sit on the board of governors. Such representatives may be selected for example by the Malaysian Shipowners and appointed by the Foundation. (2) MISC and PNSL should also be placed under the responsibility of the MMA which will coordinate not only the latter but all shipping companies and the maritime industry as a whole.

The Ministry of Trade and Industry (MITI)

MITI's involvement in shipping has been largely on behalf of shippers. The Freight Study Unit within the MITI has responsibility for all shipper's activities on a national scale. The Malaysian National Shippers Council (MNSC) has its Secretariat in the Freight Study Unit. The Chairman of the MNSC is the Deputy Minister of Trade and Industry. The MNSC is a private body. MITI has been encouraging the private sector to play a much larger role in MNSC inc-

(1) See Chapter 8.

(2) This may further encourage contributions from companies other than MISC, as ALAM would be viewed as an independent institution for all companies and sectors of the industry.
cluding eventually running the Secretariat by themselves. Over the last few years the Unit has played an active role in promoting the interests of Malaysian shippers. The ratification of the Liner Code and subsequent efforts to adopt measures to implement the Code was initiated by the Unit. There was a great deal of coordination and cooperation between the MOT and MITI in shipping matters as both Ministries have an equal interest in ensuring that shipping does lead to maximum benefit to the Malaysian economy. Thus the National Freight Booking Centre and the Shipping Statistics Scheme were the result of joint effort of several agencies including the two latter Ministries which were the leading agencies and have a greater stake in the success of these projects.

The separation of functions between shippers and shipowners, as reflected in the area of responsibility of MITI and MOT respectively, is becoming less clear as the two areas increasingly merge. As mentioned earlier the sole criteria should be national interest and not shipper's or shipowner's. So long as the two Ministries recognise this fact, closer cooperation and understanding of each others interests will become easier. For example the UN Liner Code deals with the interests of both shippers as well as shipowners. The Freight Booking Centre can equally be an instrument for obtaining fair rates for shippers as it can be a means of promoting greater utilisation of Malaysian shipping. The area and scope for cooperation is wide and may be mutually beneficial. MOT, as a first step, should be made a member of the MNSC (even if only as an associate member). The Freight Study Unit is represented on the DSLB, and is involved in nearly every major activity of the Maritime Division, MOT. The successful implementation of policy measures such as exporting CIF and importing FOB would depend very much on
the joint efforts of both the MNSC and MOT.

MITI's trade promotion efforts be should be linked to Malaysian shipping. Shipping and trade should be approached as a total package to export Malaysian goods and services. Often the availability of shipping services and its costs may determine the establishment of trading links. Malaysian shipping could be utilised to provide pioneer services.

The Contra or barter trade, where large quantities of a single commodity is involved, presents particularly promising opportunities for such considerations. MITI is beginning to include the shipping option in its trade promotion activities. In many countries shipping is part of the Ministry of Trade's portfolio (for example, at one time, both the United Kingdom and the United States had their Maritime Administrations under the Department of Trade and Commerce). The recent trend however has been to bring all modes of transportation under one roof in the Ministry of Transport.

One other important role of the MITI has to be mentioned. Its trade office in Geneva acts as the channel for all UNCTAD activities in shipping. On occasions a representative from this office attends UNCTAD's Shipping Committee meetings. Whilst UNCTAD's activities may involve the MITI occasionally (such as in the UN Code of Conduct for Liner Conferences), it invariably always involves the MOT. The need for the Trade Office in Geneva to channel information to MOT is crucial for the latter to keep abreast of international developments and to participate actively in such activities. MITI should specifically include this as one of the tasks of their office in Geneva. It would be faster for the office in Geneva to maintain a direct link with the MOT in order to ensure that the information reaches on time.
Ministry of Finance

The Ministry of Finance (MOF) exercises overall budgetary and financial control over all Government agencies. Within the maritime sector this has involved development loans and grants to the port authorities, the guaranteeing of loans to MISC and PNSL, equity participation in MISC and PNSL, federal investment in shipyards such as MSE, and the approval of and control over annual budgets for MOT and the Marine Departments. MOF is also involved in formulation of policies to promote greater utilisation of some of these agencies such as the shipyards and MISC. Thus directives have been issued to all Government agencies to utilise MISC and other Malaysian vessels whenever possible. Agencies are also required to build their vessels locally in the MSE or other yards. It also appears that this ruling has been extended to include all repairs and maintenance which has posed problems (to agencies like the Marine Department) as these services provided by the local yards appear to be slow as well as expensive.

The directive to utilise MISC or other Malaysian vessels (MISC appears to have first priority which need not be the case if the intention is to promote the shipping industry in general and not only MISC) is not monitored and therefore appears to be largely ineffective. In the United States for example a similar regulation (where 50 per cent of all Government impelled cargo has to be shipped on US ships) is closely monitored and implemented by the Maritime Administration and a report submitted on the actual cargo moved on US as against foreign ships. (1)

(1) In the latter case too, the regulation is incorporated by law rather than by administrative directive.
The Ministry is responsible for fiscal incentives for the maritime industry. Over the last four years the fiscal regime for shipping companies has been improving till today all ships registered and operated out of Malaysia do not pay any taxes. Malaysian seamen too are free from income tax, a strong measure to encourage seafaring among Malaysians. Lately the MOF has held consultations with the MOT before such incentives are finalised. Such cooperation has resulted in a better framework for the development of proper fiscal incentives for the shipping industry. The expertise of MOT/MMA in shipping matters helps in the formulation of appropriate incentives.

This cooperation should be formalised and extended to other areas where the MMA’s involvement and expertise in the maritime sector would be highly useful in avoiding duplication or wastage of resources. This would include the construction of small jetties by the various Government agencies, declaration of legal landing places by the Royal Customs Department, policies related to marine insurance, purchasing of boats or ships or even policies or investments in the shipyards. Prior consultations with MOT would avoid duplication of facilities (such as jetties being built by various agencies in the vicinity of each other,(1) ) and better planning, utilisation and design of the yards and vessels. Whilst it is appropriate for the Treasury itself to have in-house staff (such as marine engineers) to undertake basic evaluation, total dependance on them should be avoided as their lack of active involvement and participation in the various sectors and regions would be a major

shortcoming and may lead to ineffective programmes. Costly mistakes such as having two or three jetties within the same vicinity, building boats with overdesigned equipment such as expensive radar and other navigational equipment could be easily overcome if the proposed MMA is given the overall task of approving/coordination of all marine construction and government boat design.

The Ministry has overall responsibility for the insurance industry. As far as marine insurance is concerned however, there are no policies related to the industry. The Malaysian Insurance Act requires all owners of ships registered in Malaysia to insure them with a Malaysian insurer. This vague requirement, which may even turn out to be unfeasible in the Malaysian insurance market, does not appear to be strictly enforced. The insurance requirements (P&I and H&M) of Malaysian ships are largely placed on the London market. This includes even cargo insurance. The Malaysian marine insurance market uses the plain English Marine Policy forms which is based upon the United Kingdom Marine Insurance Act 1906. Marine insurance is a highly complex body of legal and commercial principles which is largely self regulating. The MMA and the MOF however could cooperate to solve pertinent issues and initiate policies pertaining to the industry, particularly where it relates to reducing the outflow of insurance premiums as foreign exchange. This may include a regional approach particularly as the national maritime industry may be too small to permit an adequate spread of risks.

The Ministry of Foreign Affairs

The Ministry of Foreign Affairs deals with all matters involving Malaysia's relations with other countries. The Malaysian Consular
offices or Embassies abroad may be called upon to act in the following (which, at the moment, is not clearly demarcated and agreed upon):

(a) preliminary investigations into complaints made by port state countries on Malaysian flag vessels;
(b) to maintain welfare and well being of Malaysian seamen abroad especially in situations involving disputes, stranding and/or repatriation;
(c) preliminary inquiries, when necessary, into maritime casualties and accidents abroad Malaysian ships where these occur in foreign countries; and
(d) assistance to master, ship or crew in case of other difficulties where flag state responsibility needs to be exercised such as endorsements on certificates.

Besides the above consular duties the Ministry is also involved jointly with the other relevant agencies (such as MOT) in the Tripartite Malacca Straits Council, the Law of the Seas, the bilateral Economic and Technical Agreements and in bilateral shipping agreement negotiations. The Malaysian Embassy in London particularly, has the role of interfacing with the International Maritime Organisation (IMO). All information is channelled through that office. Occasionally one of the staff members may attend the meetings to maintain representation. However this is meaningless as the Embassy does not have the expertise to usefully attend IMO meetings. Consideration may be given for a maritime attache in London. London is the centre for international maritime activities. The United Kingdom is also the centre for Malaysian students studying maritime related subjects. Besides the above consular functions, this attache could also monitor the progress, problems and movement of these students.
Malaysian students sponsored by the Government are presently impossible to locate after some years because of the very long period of training. The attache could also look after UNCTAD activities and ILO maritime matters in Geneva. Further he would be able to collect valuable maritime information for the MMA’s research and planning purposes. Most maritime nations have a maritime attache in London such as South Korea and Indonesia.

In general, Malaysian embassies abroad should also have the added function of collecting and sending maritime information, related either directly or indirectly to Malaysia, to the MMA. This is not done presently. There is also the need to send such information directly to the MMA (with a copy to the Ministry of Foreign Affairs, if necessary), in order to speed up the process of timely arrival of information.

**The Economic Planning Unit, Prime Minister’s Department**

Within the Unit, the Infrastructure Division is responsible for national planning of all infrastructure including shipping and ports. This basically involves the drawing up of the five year development plans, mid-term reviews of these plans, and other major economic and technical feasibility studies related to the various sectors such as the ports. This Unit has, over the last two years, also been involved in the formulation of a national maritime policy. The tremendous amount of work undertaken by the infrastructure unit, particularly where it was directly involved in monitoring and coordinating feasibility studies, has perhaps over stretched its capacity in terms of both numbers of staff and expertise for particular sectors such as shipping and ports. It would be preferable for specialised agencies such as the MMA to directly undertake,
coordinate and implement such studies as the national maritime policy or the national ports study with preliminary input and final approval by the EPU. The coordination of consultant studies by the EPU deprives the other specialist agency concerned of counterpart experience with the studies. The agency will even face problems later in project implementation as it was not involved directly in the study from the beginning.

**Others**

The other departments/agencies are involved only to a limited extent in certain aspects of the maritime sector. Their involvement is incidental to factors such as the maritime industry being merely one of many sectors which falls within their purview. Thus the Industrial Development Bank, which gives priority loans to heavy industries, also considers loans for local shipyards and purchases of second hand vessels by Malaysian companies. The Ministry of Public Enterprises, by virtue of its purview over public enterprises in general, supervises MSE and the other Government owned yards. It does not, for example, coordinate the other private shipyards. The Department of Environment is responsible for prevention of pollution including marine pollution.

The Attorney General's Department is responsible for all national legislation. Nearly all legal officers in Federal Government Departments and agencies belong to the legal service. Similarly all legislation relating to maritime matters is dealt with by the Department. The Department is also the leading agency for the Law of the Seas Convention, a Convention with major implications for the maritime sector as a whole. MOT and the Marine Department (and in the future the MMA) will have to play much larger roles in the implementation of the Convention.
The Royal Navy, Marine Police, Royal Customs and Excise Department and Fisheries Department all undertake enforcement work in the territorial seas. Each department confines itself to the narrow enforcement of merely its own interests. The Royal Navy (and possibly the Marine Police) however often play a larger multi-purpose role. The Marine Police have surveillance aircrafts. The Royal Navy and Marine Police have a capability to undertake enforcement work in the EEZ (and the Malaysian territorial seas). However only the Marine Department has the legal authority, and more important, the technical expertise to undertake enforcement work on safety of shipping and navigation. In many countries the enforcement agency with responsibility for safety of shipping and navigation is also given the added responsibility of other enforcement functions (such as in the United States, the United Kingdom, Norway, Sweden and Canada). It would not be possible to reverse this order of precedence as enforcement agencies related to fisheries, customs, immigration or security will not have requisite expertise to undertake maritime safety enforcement measures. A single agency with a multi-mission role on the ocean would be the most rational, cost effective solution. Under the Third Malaysia Plan the Government spend M$450 million on the purchase of vessels for several agencies (excluding the Navy). This proposal for a single multi-mission agency to undertake enforcement on the high seas must be seriously considered. To a certain degree a step in the right direction was taken by the creation of the National Maritime Coordination Centre (arising from UNCLOS). This Centre appears to have the task of coordinating all enforcement work undertaken by the Royal Navy and the Marine Police. Whilst it may bring about a greater efficiency in the utilisation of resources it cannot however be a substitute
for a single multi-mission agency. The answer may be simply to designate one of these agencies as having such a role at least to undertake enforcement pertaining to fisheries, customs, immigration, piracy and security.

The Department of Statistics was involved in the processing and compilation of shipping statistics as a small part of its overall national statistics functions. Shipping statistics is however a specialised function which entails a large amount of work and resources to which the Department may not be able to accord sufficient priority in comparison to other economic statistics. There is a need to capitalise on the information systems and computer facilities available in the ports to coordinate and possibly apportion part of the workload. At the same time the needs of the MMA, would require the latter to have a computer facility sufficiently large to undertake some of the statistical work pertaining to shipping and port statistics. The computer should be compatible with the Statistics Department's computer (and possibly the ports) so as to enable interaction. The Department of Statistics was also one of the key departments involved in the implementation of the Malaysian Shipping Statistics Scheme — a scheme to establish a nation wide system to collect, compile and later publish comprehensive shipping and trade information. The expertise and computer resources of the Department and its continued support for the Scheme would be vital for its successful implementation. Other agencies involved particularly the MOT, MITI and the Marine Departments will have to strengthen their cooperation and ensure that this vital Scheme gets off the ground.

The Ministry of Primary Industries has an interest in the impact of freight on primary commodities. Whilst such an interest is legi-
timate it should not build an inhouse capacity to perform such evaluations but instead depend on either the MITI Freight Investigation Unit or the MMA in the future. Cooperation between the two agencies (MITI and Primary Industries) has been increasing, particularly under the auspices of the National Shippers Council and this should be encouraged. Cooperation and joint action by the Ministry and the MMA should be established particularly where it concerns the shipping of primary commodities by agencies under this Ministry such as MARDEC, MRELB and PORLA. It could also involve the future shipment terms for primary commodities.

The role of the Ministry of Labour, in so far as matters pertaining to seafarers, in the ILO is not clear. The Ministry does not deal with matters pertaining to seafarers in Malaysia. This is done by the MOT and the Central Mercantile Fund Board. The work of the International Labour Organisation in the maritime sector has been largely neglected, primarily due to the problem of unclear jurisdiction between the Ministry of Labour and MOT. Whilst it may be decided that Malaysia would like to maintain a low profile in the ILO, this does not preclude the necessity for information to be made available to MOT for evaluation and further consideration. The Ministry of Labour has a permanent representative in Geneva attached to the ILO who should be directed to gather all such information to be sent to the MMA. The MMA could also make greater use of ILO’s technical cooperation programmes such as in port training and in the training of seafarers.

The Royal Customs and Excise Department undertakes several functions which have an impact on maritime activities. The Department’s personnel have a crucial role in the expeditious clearance of cargo (and documentation) in all ports. Most Malaysian ports work twenty
four hours whilst the Customs Department works normal office hours and the extra hours required is performed on "overtime" extra payment basis. Customs documentation is essential to both cargo and vessel clearance from the ports. Many developed countries, such as Sweden, have now moved to a regime of less physical enforcement. The regime is based upon the principal of trust (which incidently, is also the basis of the present system for example actual physical inspection only covers about 5 to 10 per cent of throughput), and efficiency. An importer is allowed to remove his cargo without the necessary customs inspection, his documents and necessary tax payments having been cleared documentarily. The Malaysian Customs Department also declares ports as "legal landing places" designating such areas as customs bonded (controlled) areas. In declaring such areas however, little or no coordination exists between the Marine Departments, the MOT and the Customs Department. The Marine Department for example also needs to designate the area as a "port" under the Merchant Shipping Ordinance and has obligations to perform in all ports. This includes vessel clearance (but which many vessels may ignore due to lack of a marine presence in the area). Customs documentation are vital to national economic statistics as well as shipping and port statistics. Customs however tend to accord low priority to the latter as it is not directly related to their functions. Registration of shipping and forwarding agents is also done by the Department though this appears to be merely used as a source of information and record.

The Petroleum Development Unit, Prime Minister's Department and PETRONAS are the two main agencies involved in the offshore maritime sector. These two agencies appear to be largely concerned with the efficient exploration of the resource. Safety of the offshore
drilling and production platforms has been given little attention so far. The MOT has recently enacted legislation to register MODU's and to regulate their safety thereof. The other operational units in the offshore area will have to be regulated too. The MMA and PETRONAS will have to work together very closely to maintain proper safety standards, training and prevention of marine pollution in the offshore zones of Malaysia. This would include an effort to localise, as much as possible, all aspects of the industry particularly in supply services and personnel.

The Ministry of Agriculture, the Fisheries Development Authority (MAJUIKAN) and the Fisheries Department are the agencies involved in the promotion and the regulation of all fishing activities. The Departments license fishing vessels and enforce the fisheries laws. The Ministry of Agriculture appears, (as part of its fisheries portfolio?) to have also recently suggested the formation of Marine Parks. The safety of fishing vessels remains the responsibility of the Marine Departments. The MMA would have to continue this role and strengthen it further. An increasing emphasis is being given to larger boats and long distance fishing. The MMA's role in marine scientific research should also accommodate and build upon the establishment of the marine parks for maximum exploitation of these parks on the basis of scientifically established programmes.

In conclusion it may be gathered that all these agencies appear to be performing functions which are very much part and parcel of their present portfolios. The very diverse nature of the maritime industry lends itself to such intersectoral interfacing which is both an advantage as well as a complicating factor. Without a strong and centrifugal agency to pull together the various threads of the industry, there would be a tendency towards duplication and
dissipation of all efforts. Thus for example the priority accorded to MISC and MSE over other private companies cannot be justified merely because they have Government equity participation. It conflicts with the other policy of promoting self sustaining private enterprises. A decision to expand the Malaysian fleet would for example involve nearly all or most of the agencies identified so far. How should the expansion take place may be the question in MOT’s mind and whilst the latter may proceed to encourage the private sector as a whole, the ICU may decide between MISC or PNSL. The question of financing may be the concern of the financial agencies. Other questions may arise such as what types of ships, in which trades to be employed, what cargoes to be carried, how are they going to be manned, their impact on the bilateral trades and measures necessary to ensure cargo for these ships. These are but some of the questions which have to be answered. There are other technical questions to be looked into such as the safety of these ships, the impact on the marine environment, port facilities and shipyards where these are going to be built and serviced. The approach taken by each agency may duplicate or conflict with the strategy adopted by another agency, and again with the overall strategy of the MMA.

The ability of this structure to be able to adapt to the dynamic growth of the industry is doubtful. With increasing specialisation and privatisation (MISC for example will be shortly privitised) the role of agencies such as the Ministry of Public Enterprises may be reduced or alternatively increased in importance (for example in situations where the Government retains majority or significant equity participation). The increasingly complex and highly sophisticated nature of the maritime industry requires a high level of
expertise and knowledge. Such expertise is expensive and severely limited. It cannot possibly be diffused over the range of agencies that have been identified. The present system of assigning generalist officers (Administrative and Diplomatic Officers, PTD) to undertake shipping/maritime related work in all these agencies (except the Marine Departments) creates a situation of fitting square pegs in round holes. In many situations work comes to a standstill when existing officers, who had gained experience by being thrown in the cauldron, are transferred out. New officers replace them and the arduous process of learning, rather than managing the industry begins. Thus development of the industry moves in starts and spurts when a propitious combination of experienced officers remain in the main maritime agencies. This may be the reason for delays in several programmes such as the Shipping Statistics Scheme, formulation of National Shipping Policy, and the implementation of the UN Liner Code as the initiative is lost with the outgoing officer. The identification and establishment of a focal point for maritime expertise would determine the dynamism of the Malaysian maritime industry in the future. The manner in which the existing diversity could be overcome however is not through the creation of a large all powerful authority but a body which is strong enough to give expert direction and leadership to the legitimate interests of a few agencies. Such an authority would therefore strengthen the roles of these agencies rather than usurp them. Such an authority does not exist at the moment. It is a basic need which must be fulfilled. It will be the vehicle for the achievement of maritime status.
The complexity of the maritime industry has fostered the breeding of various forms and types of organisations, each designed to develop and regulate the industry in a certain way. The organisation in any one country may be as much a result of the particular features of its maritime industry as it may be one of historical precedence. Countries like Malaysia have organisations that have scarcely changed since their formation before independence whilst others have organisations (such as the Federal Republic of Germany and India) that have grown and adapted to the growth of their industry. Still others such as the Philippines and South Korea have deliberately reorganised their administrations as a prelude to enhanced development of their maritime industry.

The basic objectives of national maritime administrations (NMA) however remain the same. It is the development, control and regulation of the maritime industry in accordance with national policies.  

(1) Many organisations however do not have these same objectives for maritime administrations. See for example: United Nations, Guidelines for Maritime Legislation, (UN, ESCAP, Bangkok, 1982) p.42; and P.S.-Vanchisvar, Establishment/Administration of Maritime Affairs in Developing Countries, (World Maritime University, Sweden, 1984) p.52.
tives. For example economic development and promotion of the maritime industry is often separated from its technical regulation and control, as for example in the United States. Such separation may place a higher requirement for expertise and personnel in both departments, something which most developing countries are unable to meet. In Malaysia merely the economic function is spread over five or more agencies. The international trend is to place both the promotional and the regulatory functions in a single organisation as in Norway (1962), South Korea (1976) and the Netherlands. In the Netherlands (in 1980), all shipping and maritime affairs were brought together under the Director General of Shipping and Maritime Affairs in order to "achieve unified administration in maritime matters." Unification results in savings in terms of personnel (especially where such expertise is scarce and expensive) and in terms of reducing interdepartmental rivalry and friction. Much more important, the technical functions have an impact on the promotional and developmental efforts on the economic side. Thus for example high levels of manning may thwart efforts to reduce costs on shipping operations. High technical standards would have the same effect. On the other hand inefficient technical and safety management may result in reducing the efficiency of the national fleet in

(1) The Coast Guard deals with technical and enforcement matters whilst the Maritime Administration (MARAD) deals with the promotional aspect. Both agencies are however under the Department of Transport.

(2) Netherlands, The Ministry of Transport and Public Works in Outline, (Ministry of Transport and Public Works, 1983), Section II.
terms of its ability to maintain operational efficiency, a higher incidence of maritime accidents, loss of property and lives (resulting in higher insurance premiums for the flag vessels), marine pollution and generally an adverse image for the country. Some countries have overcome the problem by interdepartmental agreements clearly delineating their authority and responsibilities (such as in Norway and the United States). Such agreements may be necessary even when a centralised administration is set up as it will be impossible for the latter to undertake all and every maritime function. The greater the number of different agencies involved the more difficult will coordination be. Such coordination will be severely undermined if there is no central authority perceived to have leadership for the industry.

The roles and functions of Maritime Administrations are wide ranging and varied. They may however, be broadly divided into two main spheres namely economic promotion and development and the technical control and regulation of the industry.

**Economic/Promotional Role of the Maritime Administration**

Most maritime administrations today undertake this very important function. Shipping as a means of transport and infrastructure (in coastal shipping for example) plays an important role in the economies of most nations. Ports, offshore shipping activity, related services such as marine insurance, and shipbuilding are important subsectors of the maritime industry. The maritime administration has a direct responsibility for the formulation and implementation of national policies geared towards maximising the economic potential of the industry. The maritime administrations of South
Korea, Taiwan, India, the Philippines, Thailand and Indonesia are directly involved in such policy formulation and implementation. Policies may include such matters as training and manpower development, fleet development, trade development (in so far as the latter depends on shipping to bolster such trade), greater utilisation of national shipping lines including ports and shipyards, the introduction of new technologies and the effective implementation of the through transport concept. It would also include international relations with other nations such as through bilateral arrangements, regional approach to maritime problems such as through ASEAN and ESCAP and participation in international organisations such as UNCTAD, ILO and the Law of the Seas. Research and development would also be essential to maintaining a competitive maritime industry. This would involve both technical as well as economic research.

As mentioned earlier, the economic role of the NMA is often artificially separated from its technical role which gives rise to many problems of administrative practicality. On the international level for example, there are obligations on the part of the national administrations which, more often than not, transcends such an administrative division. Bilateral agreements cover both technical as well as economic cooperation. Similarly, regional cooperation thrives in this broader framework as for example in ASEAN. At the level of international organisations though there appears to be a broad division along technical (IMO) and economic (UNCTAD) functions, even though inevitably both have to be taken into consideration when either is being discussed. With UNCTAD for example, the proposed draft Convention on Registration of Ships deals not only with economic functions but also specifies operation of the ships
in a safe manner. Almost all IMO conventions, such as the Convention on Standards of Training and Watchkeeping (STCW), have an economic impact. In fact every technical convention has to be a compromise between absolute safety and reasonable costs to the shipping community. There are also areas where both IMO and UNCTAD claim common jurisdiction such as in piracy, mortgages and liens.

The economic/development role of the Malaysian Maritime Administration (MMA) would consist of the following main activities:

(i) creating a healthy environment for the development of the Malaysian maritime industry such as an appropriate legal framework and institutions;

(ii) fiscal policies related to the development of the industry;

(iii) development of the Malaysian maritime industry such as port and fleet expansion;

(iv) training and manpower development;

(v) greater efficiency through intersectoral cooperation such as between ports and shipping;

(vi) maritime research including marine scientific research;

(vii) participation in international activities such as in ESCAP, IMO, UNCTAD, ILO and ASEAN;

(viii) intraregional and bilateral relationships;

(ix) formulation and implementation of national maritime policies and strategies for development;

(x) cooperation/coordination with the private sector for the development of the maritime sector;

(xi) intermodal coordination in relation to ports, shipping, inland waterways, railways and roads;

(xii) promotion of seafaring in the local population;

(xiii) consideration and implementation of International Conven-
tions such as the UN Code of Conduct for Liner Conferences, the MultiModal Transport Convention, the Hamburg Rules and the Law of the Seas;

(xiv) interagency cooperation on shipping, shipbuilding, ports and offshore services;

(xv) support to national shipowners in case of difficulties arising from their operations such as when faced with protectionist measures;

(xvi) development and efficient operations of national ports;

(xvii) development and promotion of a coastal shipping fleet;

(xviii) development and promotion of offshore services; and

(xiv) development and promotion of other ancilliary industries;

The main advantage of having these functions under one roof would be an integrated approach that arises from a multisectoral overview.

Ports are a major sector by themselves and require quite a different kind of expertise than that related to shipping, shipbuilding or offshore services. The operation and development of minor ports in general may be placed under the supervision of the MMA. Ideally all port matters should be coordinated by one authority. In some countries such authority may be vested with the Ministry of Shipping and Ports such as in India or in a National Ports Authority such as in the Philippines and in the state of Sabah, Malaysia. Alternatively the responsibility may be placed directly under the national maritime administration (such as in the United States, Indonesia, South Korea and Japan). This may be appropriate in situations where there are competing ports operated by either statutory bodies, municipalities or private operators. The need for overall
coordination and supervision of national ports is essential in order to avoid duplication of facilities. Interaction between the maritime administration and the port authorities would be required in several technical areas such as pilotage, safety of shipping and regulation of dangerous cargo. The maritime administration would also have an economic interest in matters such as reducing port related expenses for coastal and non-liner shipping so as to reduce overall costs, an assessment of port development in terms of shipping requirements, and training of technical/management personnel where such needs (often) coincide. A joint approach in maritime research and on collection/compilation of statistical information would be advantageous too. Malaysian national policy is to ensure maximum utilisation of national vessels and ports. There is a consequential need for coordination at the national level and this may be done through the MMA.

The shipbuilding and repair sector must have close ties with shipping. This need not be the case where the shipbuilding or repair activity is oriented largely towards export markets such as in South Korea and Japan. However even in these large shipbuilding nations the need for rationalisation between the two sectors has been recognised and is actively pursued as a policy objective by both administrations, particularly in the depressed market of today. Shipbuilding is both capital as well as labour intensive. The need for minimization of outflow of foreign exchange may justify the building of local ships including repairs and docking to be undertaken in local yards. However such a move may have severe consequences for local shipowners if it results in higher costs than that available in the international market. Unless the local
yards are able to provide competitive services, the only alternative, besides continuous efforts to upgrade their efficiency may be to subsidize their operations. Such subsidies can be effected either in the form of incentives such as tax rebates or direct financial assistance such as ship financing and repair loans and reduction of docking and other charges. Still, many other problems such as late delivery (a severe constraint which imposes a tremendous financial burden on the shipowner due to his inability to meet commitments) must be overcome. This can only be done by effective management and technical expertise. Malaysia’s experience with joint ventures in the shipbuilding sector has been disappointing. Developing countries in setting up such ventures, must ensure that the level of participation of the foreign partner is sufficiently high in order to elicit from the latter a greater commitment towards transfer of technology and expertise. At this juncture a large number of shipyards are facing financial problems in the developed countries. Efforts to transfer such high cost operators to low cost countries may be successful. In the final analysis however, ambitious projects must be tempered with reality. Ideally the basis of such projects should be largely (or at least, a fair proportion of) work generated at the national level.

In many of its requirements shipbuilding also draws on the same expertise as the shipping industry such as naval architects, marine engineers, ship surveyors and other nautical personnel. The approval of ship designs and the ultimate approving authority for ship repairs and building would also be the function of the MMA. In so far as shipbuilding and repairing is a private undertaking it may be assumed that the role of governments may be minimal. In reality this has proved to be not true. The strong hand of the government
is behind the success of the industry in Japan and Korea. It is also seen in the continued operations of many uneconomical shipyards in the major maritime countries. Malaysian shipyards are in a similar economic condition and the role of the Government will increase. The question is whether it is appropriate for this sector to be placed under the MMA? This may be answered partly by examining whether other agencies could assume this responsibility. The Ministry of Trade and Industry may be the only alternative logical choice. This was the situation in South Korea where shipbuilding was initially viewed as an export industry. However (in the face of the continued depression in the market), under its recent maritime development plans shipbuilding has been brought under closer coordination by the Korean Maritime and Ports Administration. (1) Whilst shipbuilding as an "industry" may be considered to be under the scope of the Ministry of Trade and Industry, the commercial activity of the industry is largely related to and dependant upon the shipping sector. Other agencies may be involved in shipbuilding activities such as the Ministry of Public Enterprises in Malaysia (by virtue of government equity participation) but they will face major shortcomings in terms of expertise and a lack of control over the other sectors of the maritime industry. The Ministry of Finance however has a major role to play in the event of rationalisation of the Malaysian industry but should attempt to do this with the cooperation and expertise of the MMA.

Offshore services represent a relatively new but an increasing-

ly important subsector of maritime activities in Malaysia. As far as economic promotion and regulation of offshore shipping services are concerned, it should be the jurisdiction of the maritime administration to ensure that the supply services for offshore activities, and where economically viable, the drilling submersibles are operated and owned by nationals. National legislation should at least enable the registration of such submersibles under the national flag. This has been done in Malaysia under the Merchant Shipping Ordinance. Whilst the extremely high capital cost of such equipment and vessels may deter nationals from being owners, it has been possible to overcome this through joint ventures. Priority must also be given to nationals working as crew on board the rigs and supply vessels. Supply services would include the following activities performed by specialised vessels (1):

(a) supply of provision and materials for the rigs such as food, pipes, fuels and equipment;
(b) transport of personnel;
(c) functions of towage, anchor handling and shifting;
(d) assistance in repairs and emergency stand by operations;
(e) assistance in cable or pipe laying and in geophysical or other oceanographic surveys;

The offshore activity should be supported by a supply base as in Kemaman. This is essentially a port which operates 24 hours a day and is used as a staging area for stockpiling and replenishing the drilling and production units. The base may also be the site of minor repair works and the administrative offices of the offshore

companies. The MMA would be the appropriate coordinating and regulatory body for the promotion of the offshore industry. It would have to work closely with the Petroleum Development Authority (PETRONAS) though the latter is itself an operator in the offshore industry. The training and crewing including licensing and safe operations of the vessels would be also under the jurisdiction of the MMA.

There are also legal obligations which would have to be performed by the MMA. This would include all legislation pertaining to the Merchant Shipping Act including international conventions, ports and harbours legislation, bilateral agreements and other matters pertaining to private, commercial law such as the carriage of goods and passengers by sea and multimodal transport. This would comprise a significant amount of work.

Maritime research and development is infinitely important towards the continued growth and development of the industry. Article 275, Part XIV of UNCLOS states that countries "shall promote the establishment.... of national marine scientific and technological research centres and the strengthening of existing national centres.... to enhance national capabilities to utilize and preserve their marine resources for their economic benefit." Maritime research must be relevant to particular circumstances prevailing in Malaysia. The research can cover all sectors of the industry and should have both an economic/commercial as well as a technical capability (such as for example designing of a typical coastal vessel and greater utilisation of national products for use in local shipbuilding). Research into marine sciences should also be undertaken and encouraged. The ocean has been termed the last frontier. Malaysia need not however be the last to be a pioneer in these
developments. The oceans have a capability to yield food, energy, minerals and drugs and also intimately influence environmental quality, transportation, tourism, meteorology and structures in the sea including coastal ecosystems. Malaysia's land area is largely (up to 80 per cent) bounded by the sea and its influence has been historically overwhelming both socially as well as economically. A more scientific approach to the seas has not however evolved. Even traditional uses of the ocean benefit from scientific research such as through the discovery of new resources, maximum yields with minimum damage to sustainability and economically more efficient usage with minimum conflict among competing uses. Implementation of such research requires trained manpower (scientists as well as engineers), resources, services including data management and effective institutional arrangements. (1) The operation of a research vessel is essential for scientific work at sea and it should be given serious consideration. Such a vessel should be used on an interagency basis, coordinated by the National Marine Science Research Council which will be the main coordinating institution. This Institution will be instrumental in leading the largely interagency, multidisciplinary approach to research in the seas. The Council will also coordinate, approve and participate in foreign scientific missions which perform research in the territorial waters or the EEZ. (2) Local centres of excellence such as the universities (the University of Science and the Agriculture University are presently

(2) Every country has the right to participate in such missions. See the UNCLOS, Part XIII.
engaged in marine research) should be included and form part of the Council. This would avoid independant expenditure which may be duplicated by these institutions as well as the other departments such as the fisheries agency, the offshore mining authority, Department of Environment and the Marine Department.

Joint approach would certainly pay dividends in terms of an integrated approach to the contiguous area of the ocean. The Council may be coordinated by a number of different agencies such as the Ministry of Agriculture, by the Fisheries Department or by a National Science Council. Since the MMA would be the only agency dealing solely with maritime matters it would be the most appropriate coordinator and secretariat for the Council. In many countries such as Japan and South Korea a National Maritime Research agency exists to lend weight to the development of and continued competitiveness of the industry. In the United States the National Oceanic and Atmosphere Administration (NOAA) is the lead agency for oceanographic research. In the absence of a research agency such as the latter a central coordinating body would suffice to perform a similar function admirably. Japanese and several European research programmes for example have the following features:

(a) overall Government targeting of research;
(b) joint efforts by involved agencies and companies;
(c) involvement of universities with research capabilities; and
(d) centrally designated agencies for specific research so as to avoid duplication and wastage of overlapping research.\(^1\)

An integrated approach through this Council will lead to greater results in applied research.

Finally there are several other matters which should also fall under the purview of the MMA. These include marine insurance and the registration of shipping agencies (who play a significant role in the efficient operation of shipping companies), forwarding agents and multimodal transport operators so as to prevent maritime frauds. It will be seen that the economic/promotional role of the MMA is dynamic and would have a large impact on the maritime development of the country. In the initial stages of development of the maritime sector, greater consideration and emphasis has to be given to this role. The MMA should however guard against over reaching itself into areas of operation which are best left to the private sector. In this regard the economic role of the MMA would also be dependant upon a countervailing influence exerted by the private sector.

Technical/Promotional Role of the MMA

The technical and safety aspects of the maritime industry are no less important than the economic/commercial considerations. In fact, to a much larger degree, the MMA would be the alone in its responsibility for maritime safety and administration of technical standards. It will be the only agency having the technical competence and capability the MMA may be the only agency able to effectively undertake regulation of the increasingly complex, high technology of the maritime industry. This would include setting up of and maintaining minimum standards of construction of vessels, of manner of operating them and subsequent enforcement of these standards. Such duties arise not only for the national flag vessels
(flag state responsibility) but also foreign vessels operating in or calling at ports in the territorial waters of the country (port state responsibility). The main objectives of these functions are the safety of life and property at sea and the protection of marine environment. Some of the major functions would include the following:

(a) merchant marine safety standards;
(b) search and rescue;
(c) casualty investigation and reporting;
(d) wrecks and salvage;
(e) small boats (passengers and cargo on inland or enclosed waters) and pleasure craft safety;
(f) enforcement of national laws and treaties such as relating to merchant shipping, bilateral shipping arrangements and cabotage;
(g) aids to navigation;
(h) port safety;
(i) marine environmental pollution prevention and combating;
(j) waterways management especially in the provision of vessel traffic management services;
(k) dredging;
(l) hydrography and marine charts;
(m) regulation of dangerous cargo;
(n) vessel registration and licensing; and
(o) standards for training.

Whilst the above are considered to be technical in nature the sum total implication of them is strongly economic and financial. It was determined in the case of the United States for example that whilst the cost of regulation was small (increased costs amounted
to less than 0.5 per cent), the benefits attributable were large
(for fiscal year 1981 the regulatory programs will save 225 lives,
prevent 3038 injuries and $354,000,000 in property damage).(1) An
efficient technical administration is vital to the interests of the
commercial maritime industry in the latter being able to meet its
statutory obligations, such as registration or certification, in a
timely manner. Delays in the shipping world mean high costs. The
operational efficiency of the maritime industry is as much depen-
dant upon commercial business as it is on the administrative
infrastructure supporting its technical operations. The greater the
localisation of such infrastructure in terms of expertise and equip-
ment (such as marine engineers and ship surveyors), the less the
outflow of foreign exchange on imported expertise. A well coordina-
ted survey and certification function will lead to reduced main-
tenance costs. Well maintained ships and low records of marine acci-
dents will have the sum effect of reducing insurance premiums, not
to mention saving lives, property and environmental resources.

The implications are not only apparent to the maritime industry
but important to the national economy as a whole.(2) The impact of
a maritime disaster often cannot be confined within national bound-
daries as was evident with the Amoco Cadiz tanker grounding (or the
Showa Maru in the Malacca Straits). Ships are international traders
sailing all over the world and technical standards therefore have

(1) United States, Coast Guard Roles and Missions, (U.S. Depart-

(2) A nation would need to engage in at least port state jurisdic-
tion over foreign vessels. The alternative of no regulation has
proven to be politically as well as economically unacceptable.
international repercussions. The Paris Memorandum adopted by the EC countries to enforce port state control on a regular basis is as much motivated by national/regional consideration as it is an effort to equalise the costs of low standards (and thereby presumably 'low-cost') vessel operators with the high cost operators of the EC countries.

The technical activities of the MMA may be broadly broken down into three parts namely formulation and development of action such as for safety standards, legitimisation of these actions and subsequent regulatory control to enforce these actions. Not every action may be broken down into these three parts though most of them would follow the above procedure in more or less strict order. In the formulation and development of the safety standards, a lot of work has been done by the IMO. However there is a great deal of flexibility allowed to coastal states to set their own standards above the minimum set by IMO conventions. The process of formulation and development involves close cooperation between various parties of the maritime industry such as ports, shipowners, shippers, shipbuilders and repairers and the government. Many countries such as the Netherlands, Norway and the United States have an institutionalised approach to such action. There is a set procedure of consultation which attempts to rationalise the various interests of the industry to reach a national consensus on the best alternative for the country's industry. It also draws upon the expertise in the private sector to provide an effective solution to the problems at hand. The importance of such consultations must be given due prominence as it involves not only mere discussions but also ensures smoother implementation.

Legitimisation of the actions take place largely through legal
processes either through national legislation or subsidiary rules and regulations. It may also take place by means of administrative fiat or orders issued by the agency. Often delegation of authority and responsibility is undertaken in order to better perform the responsibility of the specified agency such as for example when marine pollution enforcement is delegated to the MMA or the latter delegating certification as required under certain conventions to classification societies. The need for national action is sometimes precipitated by the actions of other nations particularly where shipping standards are concerned. For example certification under the MARPOL Convention may be a requirement for all ships calling at the ports of a particular country (such as the United States). In the latter case the affected types of ships belonging to other nations would require almost immediate certification which may made possible only through relevant legislation or some interim measures being adopted.

It is in the implementation and enforcement of the national standards that most administrations face crucial problems particularly NMA’s in developing countries. NMA’s come up against problems of what should be performed, the level of performance and who should perform the activity. All three are interrelated actions as often what and how it should be performed depends upon who is to perform it. The answers to the crucial questions of "at what level and how" would also depend to a very great extent upon the resources available within the NMA’s, particularly the human resources. Many if not most developing countries face severe shortages of expertise to undertake most of the functions. Financial resources allocated may also be insufficient due to low priority accorded to maritime safety programmes. Increasingly third party organisations
such as classification societies are being used to perform some of the tasks of the NMA. However, the ultimate responsibility still rests with the NMA and therefore it has to maintain at least an "oversight" programme over the work of these third party organisations. Such third party organisations are largely foreign organisations (based in the developed maritime nations) and greater utilisation of these organisations would mean not only an outflow of foreign exchange but also a lack of localisation of technology and expertise. There is therefore little leeway or substitute for the training and development of adequate local manpower and expertise for the NMA to perform its functions and duties efficiently and effectively. A lack of such expertise and shortfalls in performance will inevitably lead to an erosion of the reputation and respect for the NMA and its relationship with the private sector. This may be the present situation in Malaysia where both the private sector and many government agencies hold the Marine Department in low esteem. The possibility of a similar situation was reported in the United States. (1)

The idiom "prevention is better than cure" is perhaps very applicable to the maritime industry. An effective safety programme will, in the long run, work out to be much cheaper as the cost of a major marine disaster may run into unimaginable costs and consequences. Unfortunately, both national and international record on marine safety has been poor till the occurrence of major disasters (such as the Titanic and the Torrey Canyon) before effective preventive measures are taken. In Malaysia the Showa Maru incident impelled action on marine pollution prevention and safety in the

Straits of Malacca. Several accidents (with even loss of life) involving tankers loading/unloading at ports (in Butterworth, Penang and recently in Telok Intan, Perak) have gone by without proper investigation or remedial action being taken despite the fact that the potential for a major disaster was, and still is, extremely high. The huge fire at Port Kelang terminal (reportedly causing one of the biggest claims in the world for that year) appears to have been relegated to secret files. If the fire was caused by or was aggravated by hazardous cargo then the maritime administration should have become involved. It is not clear whether this was so.

The flag state and port state enforcement duties of the MMA requires it to have a capability for enforcement of its duties on the oceans. Such duties include safety of shipping (construction, equipment, seaworthiness, manning, crew competency and conditions of employment) in so far as port state jurisdiction is concerned, safety of navigation, marine pollution surveillance and cleaning up operations, safety of offshore modular units, search and rescue operations, removal of wrecks and salvage and the safety of small boats and fishing vessels. All of the above functions may be exercised in the area of the territorial seas and the exclusive economic zone. On the high seas (as defined by UNCLOS, Article 86) the functions of the MMA would be confined to regulation and control of only its flag vessels.

In many developing countries such as Malaysia, there are also other agencies with an enforcement capability on the ocean such as the Navy, Fisheries Department, Customs, Immigration and the Marine Police. Each perform duties confined to their respective jurisdiction such as law enforcement, antismuggling, fisheries enforcement and illegal immigration. All of them, except possibly the Navy and
the Marine Police, perform a single mission related to their area of responsibility. Effective enforcement of the nations interest requires both sea and air patrol of the ocean boundaries, a commitment which can be done only at great cost and wastage by every agency. Many nations have opted for a semi-military agency with a multi-mission role (often being the called the Coast Guards). Such countries include the Philippines, Australia, Japan, Sweden, the United Kingdom and the United States. The Coast Guard is a multi-mission organisation performing enforcement duties over the oceans "conscious that the problems of ocean space are closely interrelated and need to be considered as a whole." (1) A vessel can perform not only general law enforcement duties but simultaneously act against piracy, smuggling, illegal immigrants and undertake marine conservation, fisheries and merchant shipping safety. Single agencies with confined missions are an extremely high cost option for ocean patrolling. The study on the roles of the United States Coast Guard for example states "splintering marine enforcement resources among various Federal agencies would represent costly duplication in enforcement capability. Focussing the primary law enforcement role within one agency permits program and resource flexibility as well as the ability to maintain a fleet possessing visible law enforcement presence." (2) In developing countries a diversified multiagency approach would further raise problems of maintenance of the vessels, manning and effective utilisation.

The creation of a Coast Guard may present the best option other

than the Navy becoming involved. The Navy may be able to perform a multimission role provided its officers are trained for such duties. It must also be able to coordinate its own priorities (which often may not coincide) with the needs and priorities of the other civilian agencies which may be very difficult. A serious disadvantage maybe that it is an armed service which may present legal or constitutional problems. The coast guard being a civilian body, may be able to perform these functions more effectively than the navy in this respect. Maritime safety (vessel boarding program) enforcement would not also be an appropriate role for the navy as its officers would require a higher level of training and technical competence to undertake such work. Further maritime safety enforcement is carried out as a preventive safety measure rather than after a criminal act for breaking the law. These measures are also largely carried out at the ports or close to the coasts. The approach adopted by the United States and several other countries appears to be a rational and cost effective solution. The coast guard is considered to be a military service with a civilian role under the Department of Transport. It becomes an armed service in times of war. A similar approach has been adopted in Sweden and Peru. In Malaysia the choice between the Navy (and possibly the Marine Police) and or a Coast Guard (which would be a new agency) would depend upon an evaluation of the country's resources, defence priorities (the Navy's priorities may be at possible conflict areas such as boundaries and disputed islands or territories and naval warfare training), the extent of the nations maritime zone and other particular situations such as the extent of fisheries, smuggling, piracy and illegal immigration. The marine police and the enforcement functions of other agencies should logically be amalg...
mated into the coast guard or the Navy. The Marine Police however may need to maintain a limited law enforcement role in inland waterways and rivers. A former commandant of the United States Coast Guard posed this key question—"during its early stages of development can a nation afford the luxury of more than one sea going army?"(1) The question may be relevant irrespective of the stage of development of the nation. In Malaysia an answer to this question should be closely examined by an independant agency.

A final point must be made here about the need for information in safety administration. Information collected, compiled and utilised properly will ensure cost effective management. Information for example on vessel registration, seaman serving on Malaysian ships, safety certificates and surveys performed will help the MMA to utilise its expertise and logistics in the most efficient manner. Modern computer technology must be utilised for such purposes. A centralised information system within the MMA would take care of all such needs, both economic as well as technical.

The technical role of the MMA in relation to each specific sector of the industry must be now examined. The shipping sector needs no elaboration and the role of MMA in this sector is of course pervasive and well documented. Its role in the other sectors of the maritime industry may however not be very clear to the layman. In the ports sector the MMA’s role can be identified to be as follows:

(a) safety of navigation within the port limits and approaches to the port. This includes safe anchorages, depths of water,

navigational lights and other aids to navigation, pilotage, and other aspects;

(b) regulation and control of hazardous cargo;

(c) mandatory consultation and approval of the siting, design and construction of all ports, jetties and other similar facilities;

(d) operation and maintenance of minor ports, jetties and other similar facilities and coordination of national port development and operations;

(e) charts and hydrographic surveys;

(f) inquiry into accidents, salvage, removal of wrecks, etc.;

(g) marine pollution prevention activities; and

(i) port security in so far as seaward approaches are concerned.

Mandatory consultation prior to approval of port construction (c) is deliberately stressed so as to prevent port construction which pose a hazard to navigation. It will also ensure that duplication of facilities by different governmental agencies (in the same area) is avoided. Inevitably the operation and maintenance of these jetties and small ports may be left to the MMA (d) as it may not be viably operated by port authorities or other private companies. The MMA should however endeavour to privatise these facilities as far as possible both in operation as well as in maintenance. Activities concerning marine pollution and port security are often areas where ports either do little or accord low priority to such activities. Many ports are known to have such security problems where ships in the anchorage are robbed. The Harbour Master will have the responsibility to maintain the security of the port especially where it is not operated by any authority.
The MMA will exercise much of its port state and flag state duties in the ports. A vessel may not leave a port until it is cleared by the customs authorities and the Harbour Master. Before the vessel is allowed to sail the Harbour Master will ensure that it is fit and safe for the journey, the cargo is properly stowed, manned, generally complies with the laws of the nation (for example licensed to undertake cabotage) and all fees and dues have been paid. All ships are subjected to this procedure at the ports. It is a safe guard measure for the safety of both the ship as well as the port and the nation. It occurs however that where there is no port officer, a ship often leaves with only customs clearance. The MMA would have to work with the Customs Department to ensure that this situation does not continue to prevail in the future. The MMA would also have to coordinate its work with the Customs Department on several other issues such as documentation, declaration of "legal landing places" and registration of shipping agents. This cooperation should be formalised in the form of an interagency agreement or working committee.

The primary role of the MMA in the shipbuilding and repair sector may be said to be indirect in so far as technical matters are concerned. All ships built or repaired have to be approved and certified by the MMA, beginning from the design stage to final completion. The MMA does not get involved directly in supervising such work (which is often done by classification societies acting on behalf of the owners) but close consultation is vital to the successful completion and operation of the vessel. Besides this, safety of certain equipment in the shipyard itself, such as floating docks will have to be regulated by the MMA.

The offshore sector, in so far as safety of the drilling
units (MODU) and supply vessels is concerned, comes under the purview of the MMA. This would include regulation of matters such as registration of offshore industry vessels, inspection, survey and certification, radio installations, manning, pollution prevention and the carriage of dangerous goods. It would also include the establishment of safety zones around these installations.

CONCLUSION

The complexity, diversity and rapid growth of the industry often creates a situation where a large number of agencies undertake functions related to the industry. Under these circumstances interagency coordination and cooperation would often be the key to a successful programme of fulfilling the Government’s role in the industry. However such cooperation is often lost in a sea of interdepartmental rivalry, political preferences and disputes over administrative jurisdiction. National interest often appears to be of lower priority than safeguarding departmental gains. A practical approach needs to be taken such as formal interdepartmental agreements clearly demarcating the responsibilities and authority of the respective agencies.

Whilst such agreements may facilitate greater effectiveness they should not be viewed as a substitute for a single agency vested with the authority and responsibilities to undertake the complex task of developing and regulating the maritime industry. It is not good enough that the MMA undertakes either technical or economic functions. The inter relationship necessitates the agency to deal with both matters under one roof.

The enforcement role of the Government over the oceans is one sector where there appears to be "overkill" in terms of numbers of
agencies and resources committed. A great deal of duplication exists. Without doubt a single multimission agency would be the most rational and cost effective solution to the problem. As to which of the existing agencies would be the most appropriate or whether a new agency should be created (the coast guard) are options that need to be carefully considered. Eventually it would be an amalgamation of existing resources from the many agencies into a single agency. For its part the MMA would have to ensure that its enforcement responsibilities are adequately performed. By its very nature the MMA would always have to maintain a sea going capability and undertake enforcement for a safer, cleaner ocean.
CHAPTER 8

THE ORGANISATIONAL STRUCTURE OF THE MALAYSIAN MARITIME ADMINISTRATION

Having examined the existing institutional framework in Malaysia (Chapter 6) and what should be the roles and functions of a NMA (Chapter 7), the final task remains that of drawing up an appropriate organisational structure for Malaysia. (1) At the risk of repetition, it is appropriate to note again that the contiguous ocean zone can be best managed by an integrated approach. Edgar Gold in his book on Maritime Transport states that "although scientists have seen the sea as a biological whole for a long time, policy makers ... still attempt to place their policies ... into neat compartments. We wish to focus attention on marine transport to show that no concept relating to the ocean can be isolated, that no maritime policy can be separated from others and that the field of maritime affairs - like the sea itself - is a complete unit that will only benefit ... if it is seen, understood and left whole." (2)

The proposed NMA for Malaysia termed in this study as the Malaysian Maritime Authority (MMA), would not (by and large) be a new organisation. It would be an integration of the maritime functions of five main agencies presently involved in shipping administration. The five agencies are the following:

(1) Chapters 6 and 7 are fundamental to a greater appreciation of Chapter 8.

the Marine Department, Peninsular Malaysia, including the Central Mercantile Marine Fund and the Light Dues Board;

(ii) the Marine Department, Sabah;

(iii) the Marine Department, Sarawak;

(iv) the Maritime Division, Ministry of Transport; and

(v) the shipping unit within the Implementation Coordination Unit, the Prime Minister's Department (it is not clear whether a shipping unit exists but it is known that the ICU does deal with shipping and related matters. It is this function that is proposed to be integrated).

Besides the above there are a number of specific functions in the other agencies which must also be rationalised. These include hydrographic work by the Royal Navy, monitoring of Government cargo carried by national vessels (Ministry of Finance), maritime policy formulation by the EPU and marine construction by the Public Works Department. These functions should ideally be lodged in the MMA.

Efforts to amalgamate the three Marine Departments into a single agency with a unified merchant marine act for the whole nation has been going on. These Departments, upon unification, will undertake the technical and safety regulatory aspects of the industry. The amalgamation of the Maritime Division, Ministry of Transport and the shipping unit, ICU within the MMA would unify and form the expertise to undertake the economic, commercial cum developmental aspects of the maritime industry. It is therefore a rationalisation of the current diverse multiagency approach to the maritime industry in Malaysia into a unified administration. The cost implications would be minimal as no extraordinary expenditure is expected to be incurred in the creation of this organisation. It would be
largely an exercise in restructuring and integration. Personnel for this new agency would be largely derived from serving officers from
the MOT and the ICU. These officers must have some years of experience in the maritime sector and they may be either seconded to
the MMA or offered permanent posts. The MMA would remain directly
responsible to the Minister of Transport and will now act on all matters that the Maritime Division, MOT used to undertake such as
in port coordination, shipping legislation, shipping agreements and
providing expert advice to the Minister. By virtue of the integration of the shipping unit in the ICU, all matters pertaining to
MISC and PNSL would also legitimately come under the responsibility of the MMA. The officers and staff of the Marine Departments' would
become MMA personnel. The office buildings, assets and other equipment of the Departments would become the property of the MMA.

Why an Authority and not a Department?(1) There are several reasons for this. Many of the present problems of the Marine
Departments are associated with the fact that they are entirely dependant upon Government sources of funds for their operations. All revenue earned presently by the Departments goes into the central Government coffers. Under the present austerity drive for example the Departments is even short of sufficient funds to perform routine maintenance on their vessels resulting in serious

(1) An authority is taken to mean a independant statutory body whilst a department would be a full fledged government department. A Ministry of Shipping may be an alternative but this depends almost entirely on political discretion. Problems related to such matters as service, intersectoral coordination and multimodal transportation would also surface.
damage to the few vessels that they possess. The Light Dues Board and the Central Mercantile Marine Funds exist as independent bodies so as to ensure that adequate funds are always available for their efficient operations. Staffing has also been a serious problem due to the poor conditions of service. The Departments' have been unable to attract and retain expertise which is so vital as they have regulatory control over a technologically complex and intricate industry. The result has been a severe drop in performance and consequent respect for the Departments'. The MMA must be able to perform on a level efficient enough to meet the demands of the industry. The creation of an Authority with a certain degree of independence (like for example the Port Authorities) would allow the Agency the latitude to shape up its own resources to effectively meet its obligations. It would have sufficient financial control over its revenues and significantly would become a cost conscious, revenue motivated agency. Being an Authority it would seek to maximise economy of regulation and operation. The MMA would have limited sources of funds such as from the light dues, surveys and inspections, registration and licensing fees, labour dues and operating its small ports. (1) These sources of funds would form the financial basis for the autonomy of the Authority, though Government assistance may be necessary to supplement these sources, particularly for developmental purposes. It must be noted that the MMA is not a revenue earning agency but a service oriented body. There are many similar independent agencies in the region such as the Maritime

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(1) These revenues presently go into the Federal Government's Consolidated Fund. With the formation of the MMA they should become part of the revenue of the MMA.
Promotions Commission in Thailand, MARINA in the Philippines and the Korean Ports and Maritime Authority all of which are autonomous agencies with statutory responsibilities. The MMA would also have autonomy over the recruitment (to hire and fire) of its staff. The MMA would also have its own terms of service for its personnel (subject to the general policies of the Government).

The MMA may have to be created by an act of Parliament if it is to be established as an Authority. Such legislation may be combined with the Merchant Shipping Ordinance that is presently being drafted or enacted separately if the latter is going to be delayed.

Objectives and Roles

The main objectives of the MMA would be the achievement of "maritime status" for Malaysia. A strategy to achieve this must be drawn up and policies implemented. Maritime status would include the development of a modern merchant marine fleet, the continued existence and improved viable operation of the shiprepair and building industry, an efficient network of ports, an offshore capability and other services related to the industry such as shipping agencies, marine insurance, brokers, average adjusters, marine lawyers, multimodal transport facilities (ICD's for example), lay-up services, etc. The MMA would be the leading agency for the Government's efforts towards achievement of that goal. Other objectives would include the regulation and control of the maritime industry to ensure safety and marine environmental protection. The MMA's broad roles would include the following:

(a) policy (strategy) formulation for the development of the maritime industry;

(b) intersectoral coordination for example between the private
and the Government and within the Government;
(c) intermodal coordination between ports, shipping, roads, railways, and inland waterways;
(d) promotional cum developmental role such as fleet development, port infrastructure development, promotion of institutional bodies, etc.;
(e) operational role such as in operation of small ports, ship registration, marine environmental protection, hydrographic surveys, training, removal of wrecks and salvage, etc.;
(f) technical role such as in ship design and construction, safety of navigation, port/marine construction, investigation into accidents, etc.;
(g) legal matters such as maritime legislation, international conventions, etc.; and
(h) maritime research and development.

(All of the above roles have been elaborated in great detail in Chapter 7). The organisational structure for the MMA is broadly divided into 6 main divisions as shown in Chart V. These are Administration and Finance, Maritime Safety, Legal, Maritime Development, Research and Development and the Management Services Divisions. These Divisions correspond broadly to the present functions of the Marine Departments in Malaysia, except for the Management Services and Research and Development Divisions which would be new. The Maritime Development Division would be made up of officers from the Maritime Division, Ministry of Transport. The latter Division in MOT would cease to function though the Ministry may still wish to maintain a small core (such as in the case of both Aviation and Land Transport) of officers to maintain oversight and liaison.
Administration and Finance Division

This Division would undertake common services to the organisation such as management matters pertaining to the efficient operation of the MMA. This would include office administration, personnel management and training, financial procurements and supplies and stocks including logistics. The Division would be divided into two main units as shown in Chart V(A). The MMA being an independent authority, the Finance Unit must have qualified accountants to undertake effective financial management of the Authority. The Finance Unit will have to assess and recommend ways and means of raising funds for the MMA and for cost effective operations. The Administration and Personnel Unit will have to constantly seek opportunities to increase the expertise of the MMA personnel through training. An inhouse training scheme (with the cooperation of the industry) could be devised to ensure the continuous upgrading of knowledge within the Authority. More than anything else, it will be the quality of personnel that will determine the success or failure of the MMA. The Personnel Unit would also have a tremendous task on its hand in recruiting and retaining the requisite numbers of personnel to staff the MMA. It will have to overcome the present shortage of staff for the maritime sector - a crucial factor to the success of the MMA.

Maritime Safety Division

This Division would have overall responsibility for maritime safety. This would include ship construction, manning, standards of training, navigational aids, channel depth, hydrographic surveys and charts, classification and certification, and port safety. It will have two main units as shown in Chart V(B). These would be the
Policy Planning Unit would undertake technical policy planning work such as national manning standards, port safety standards, maritime safety standards and regulations, standards of training and certification, other training aspects, anti marine pollution action (including contingency planning), vessel documentation, licensing, registration, traffic separation schemes (both bilateral and multilateral schemes) and international conventions and regulations including Law of the Seas. The Operations and Enforcement Unit would be the implementation arm of the Maritime Safety Division. A more detailed description of the two Units follows.

(a) Policy Planning and Implementation Unit.

The Engineering Section will be responsible for all technical matters pertaining to ports and maritime safety. This will include ship construction, survey and certification, inquiries into accidents, marine pollution, international conventions, national legislation and dangerous cargo. The Engineering Section should also have a port engineering capability in order to undertake supervision of port construction, a task in which expertise is currently lacking in Malaysia and which has led to major failures in port construction work.

The Navigation Section will undertake work related to navigational safety such as manning, certification of seafarers, aids to navigation, hydrographic surveys, dredging, port safety rules, safety on board vessels, maritime legislation and pilotage services. It would also include joint efforts (with the Engineering Unit) on marine accidents and removal of wrecks and salvage. Hydrographic surveys may be jointly undertaken with the Royal Navy but the Section should have expertise to undertake such work on its
The Training Section will undertake training for the maritime industry. This will include not only participation on the National Merchant Marine Academy but also undertaking other minor courses which may not be economically performed in ALAM such as able seamen course and basic navigation (for boating and pleasure craft). The Section will determine the courses and together with the Examinations Board, set the syllabus and the standards. It will have to liaise closely with the National Seamen’s Management Board and the National Maritime Education and Training Committee. Should a decision be taken not to form the National Seamen’s Management Board then this Section may also have to perform the functions envisaged for the Board. Such functions would include compulsory registration of and regulation of employment for Malaysian seamen.

The Registration and Licensing Section would undertake all policy functions related to registration of vessels under the Malaysian flag and licensing of small boats (all vessels below 500grt.). This Section will have to ensure that the vessels are duly registered or licensed in accordance with the law. It will maintain and operate the Central Registry including the function of registration of vessels under the Malaysian flag. Consideration should be given to annual registration by means of the Decal system. This will ensure identification of all vessels registered or licensed under the Malaysian flag. The problem which exists today particularly for

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(1) In some countries such as Denmark and the Netherlands, the Hydrographic Division of the Royal Navy is a civilian organisation. The officers in this organisation are permanent civilian staff undertaking only hydrographic work for the whole nation.
the small boats where, after the first year, they are "lost" forever may be thereby overcome. Under the present legislation, boats (not the bigger vessels) are required to renew their licensing annually. In 1980 there were about 1540 boats licensed in Peninsular Malaysia alone. (1) The Decal system may ensure more efficient enforcement (not to mention the collection of fees). (2) The large amount of documentation and procedural work involved will necessitate this section to use computerised systems as far as possible, particularly as the number of ships registered and boats licensed increase. It is expected that there are an even larger number of native crafts in Sabah and Sarawak which will also come under the purview of this Section. The work of the Unit is vital for legal purposes especially for the registration of mortgages and liens and therefore it is essential that it maintains up to date records and documentation. This will also ensure the generation of statistical information which will be vital for research and operational purposes.

(b) Operations and Enforcement Unit.

This Unit, under the MSD would represent the operations and enforcement arm of the MMA. The enforcement function is presently largely confined to technical matters but it may transpire that some economic enforcement may also arise in the future as for example cabotage, small boats trade, bilateral trade and carriage

(1) The Decal system is similar to licensing of cars. Basically it is a sticker that is issued annually and stuck on the face of a certificate or license plate (as in a car) which is prominently displayed. This system has been introduced in the United States.

of Government cargo. The Unit is divided into two main sections namely Maritime Safety and Port Operations and Safety. The Maritime Safety Section will be responsible for safety enforcement, licensing, navigational aids, removal of wrecks and salvage, marine pollution, supervision of ship construction and survey and matters pertaining to seafarers and their welfare. The Port Operations Section will be responsible for the efficient operation of the minor ports, port safety and pilotage and port related services. This Unit would control the three Regional Headquarters under whom would operate all port offices. The three Regions would be Peninsular Malaysia, Sabah and Sarawak. The Regional Headquarters would coordinate and supervise all day to day operations and enforcement pertaining to the respective regions. The activities would include boarding of vessels, prevention and clean up of marine pollution, vessel clearance, maintenance of navigational aids, vessel traffic services, port operations, port security, licensing and its enforcement, search and rescue, casualty investigations, dangerous cargo operations and such other related operational functions. The port Offices would undertake all the above functions including the collection and compilation of basic forms for the Shipping Statistics Scheme.(1)

The Organisation chart for the Operations and Enforcement Unit, would be as in Chart V(C). The organisation reflected in the Chart represents virtually the existing organisation. The Harbour Master’s offices (Regional Offices) would need continuous ratio- 

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(1) The Shipping Statistics Scheme was implemented in Malaysia in September 1984. It is tied to vessel clearance issued by the Marine Departments.
nalisation (at intervals of at least five years) depending upon the development of shipping and port services in the particular regions. For example, depending upon developments, the port office in Kuala Perlis may be either closed or combined together with an office in Kuala Kedah, where proposals for a minor port have been made. The office in Dungun may be moved to Cukai where the offshore supply base and industrial port is located. Similarly an office in Langkawi may be considered as the port is fully developed. Proposal for a typical Harbour Master’s organisational structure would be as in Chart VI. Depending upon the intensity of activities, the Harbour Master would need one or two deputys to help him in his tasks. The present system of largely using Boarding Officers to carry out the vessel boarding programme should be reviewed. These officers are neither qualified nor given adequate training for the task of inspection and enforcement. Every boarding of a merchant vessel should be undertaken by a fully qualified and trained officer and assisted by two or more boarding officers. Each port office should also be given a target to achieve in terms of numbers of boardings and inspections to be undertaken per period of time. The system of inspection should be standardised for all ports with a set format to be undertaken and appropriate documentation filled in by every boarding party. Such information should then be stored in the computer for future retrieval and usage.

Chart VII sets out the structure of the Regional Headquarters (or Bureaus). The need for such offices is essential in order to coordinate and manage the activities of all the port offices at a localised level. Whilst Regional Headquarters I may be amalgamated into the MMA (by creating a small unit in the Operations and Enforcement Unit, MMA) the need for full fledged offices in Sabah and
Sarawak would continue to exist. The Harbour Masters' office would have a single point of reference and responsibility for all matters, namely through the Regional Headquarters. The main role of these Regional bodies would be in coordinating and managing all enforcement and operations functions through the Harbour Masters' and Port Offices'. This would include overall management of personnel, administration and financial aspects of these offices. The Regional Headquarters would exercise overall budgetary control, personnel training and posting and management pertaining to the efficient operations of the local offices such as supplies, etc. In the latter work, the Regional Headquarters would have to liaise closely with the Administration and Finance Division of the MMA. The latter would exercise ultimate control over these matters. The existence of the Regional bodies would facilitate the work of the Administration/Finance Division (as well as reduce the degree of centralisation within the MMA). The Regional Bureaus will be responsible for the efficient functioning of the most important units of the MMA, the Harbour Masters Offices' and the Port Offices'. (1) Particular attention has to be paid to the proper staffing and operations of the MSD as a whole.

Legal Division

The Maritime sector is a specialised international industry. Legal problems require a degree of expertise that would not be common in a general legal practitioner. The need for maritime legal expertise is crucial for the effective operations of the MMA. Under the existing legal framework, it has not been possible for departments, like the Marine Department, to obtain knowledgeable personnel to serve in the Department. The formation of the Authority
should overcome this problem. It may not be able to obtain expertise initially but should, with time, be able to develop and retain such expertise. The Authority will be involved in interminable legal work, particularly in the formulation of the new Merchant Shipping Act, and the literally hundreds of rules and regulations that would form the subsidiary legislation. This work would be the task of the first Unit under this Division. This Unit would also undertake prosecution, give legal advice and generally manage the domestic legal issues associated with the industry. The other Unit would be involved in international conventions, such as those of IMO, UNCTAD and ILO. It would also include the Law of the Seas. Both Units would have to work together on most issues. This Division would be a vital component of the MMA. The MMA would be particularly affected by any attempt to reduce its significance in terms of either function or personnel.

**Maritime Development Division**

This Division would form the economic cum commercial promotional arm of the MMA. (Much of what would be the functions of this Division would be found in Chapter 7). Under the MMA the functions would include shipping incentive schemes, ship financing, monitoring of Government cargo flow, implementation of the FOB/CIF policy of shipping control, domestic shipping and other international efforts such as bilateral shipping agreements, joint ventures in shipping etc.

This Division is broadly divided into three main Units, the subdivision being largely done on a sectoral basis. Chart V(D) reflects this structure. The Coastal Shipping Unit will regulate, control and promote the development of the coastal shipping fleet.
It will have two main Sections namely Licensing of vessels for Cabotage (DSLBB) and Policy Planning for coastal shipping. Needless to say it will be the Secretariat to the DSLB.

The International Shipping Unit will undertake measures to promote the development of the Malaysian international fleet. This will include shipping incentives, financing, bilateral and multilateral agreements, cargo direction in the case of Government cargo, and other such supportive measures. The Unit will have three main sections namely Policy Planning and Implementation, Offshore Shipping and Shipbuilding and Training and Manpower Development. The Policy Planning Section will undertake all policy formulation work and will also seek to implement it. This will mean policy planning for the whole shipping industry and other ancillary industries. The Offshore Shipping and Shipbuilding Section will undertake relevant work similar in nature to the above Section. The Training and Manpower Development Section will coordinate the work of the National Maritime Training and Education Committee, ALAM and the National Seamen's Management Board. It will formulate and implement manpower development plans for the maritime sector as a whole.

The Ports and Harbours Unit will oversee the operations of all Malaysian ports. It will include port coordination, (through the National Ports Coordination Committee), training of port personnel, port operations, port development and other such oversight actions. Where minor ports are concerned the Unit will have to play a larger role in the administration and operations of these ports. In this it will have to liaise closely with the Operations and Enforcement Unit, Maritime Safety Division. In training it will have to liaise closely within the framework of the National Maritime Training and Education Committee. The present proposals to establish a National
Ports Training Centre should be rationalized with the training available in other institutions such as ALAM. (Much of the work of this Unit will be similar to that undertaken by the present Ports Unit, Maritime Division, MOT).

The Offshore Shipping, Shipbuilding and Ancillary Services Section will perform a promotional cum developmental role for the other sectors of the maritime industry such as offshore services, shipbuilding, shipping and forwarding agencies, multimodal operations and lay-up services. These sectors being highly specialized and private sector oriented, greater attention may be needed to ensure development in the right direction. The Section will also serve as an important focal point to address the problems of the shipbuilding and repairing industry.

The work of this Division will include participation in international agencies such as UNCTAD, ESCAP and ILO. It will also include pioneering work such as in initiating ferry services where these are viable and promoting "pioneer services" along non-traditional trade routes. This Division will also be the Secretariat to the National Maritime Council. Specifically the Shipping Policy Planning and Implementation Section will coordinate the work of the Council.

Research and Development Division

This Division would form the core of national scientific and economic research related to the oceans. It may not necessarily undertake such research by itself but it should be the coordinator for all research in marine science. In this work it should liaise
with the National Scientific Research Council. This Division would have experts on marine construction, ship design and construction, hydrography, ocean currents, tides and similar fields. Besides research it will be involved actively in development work such as in port construction and design. Chart V(E) reflects the structure of this Division. This Division would be divided into three main Units, namely the Ports and Marine Engineering Unit, the Marine Sciences Research Unit and the Maritime Policy and Operations Research Unit. The Ports and Marine Engineering Unit will be divided into two sections. The Port Construction and Engineering Section will undertake all research into port construction and design including the coordination of technical studies undertaken by port consultant firms. It will liaise closely with the Engineering Section of the Maritime Safety Division. The Ship Design and Construction Section will be the approving authority for all ships being designed and constructed under the Malaysian flag. It may conduct research into appropriate types of vessels for the Malaysian shipping industry.

The Maritime Policy and Operations Research Unit will undertake research into the economic/commercial aspects of the maritime industry. This will include coordination and encouragement of private sector initiative in this particular field. Research may be undertaken for example into optimum routing of vessels on Malaysian trade, optimum size of the Malaysian fleet, types of vessels to

serve the trade and promotional measures to encourage greater utilisation of Malaysian shipping, shipbuilding and ports. The Unit is divided into two sections according to two broad divisions, Policy Formulation and Operations. The Policy Formulation Section would undertake research into and help in the formulation of national policies relating to the maritime industry. The Operations Section will undertake research related to operational aspects of shipping and shipbuilding.

The Marine Sciences Research Unit would liaise with the local universities such as the University of Science Malaysia, the Ministry of Agriculture and the Ministry of Science, Technology and Environment to form an expert group on scientific research. This group should be formally constituted as a Council (National Marine Science Council). Its activities would be coordinated by the National Marine Science Council of the MMA. Any requests by foreign agencies to conduct research in the Malaysian territorial waters or EEZ should be channeled to this body which should ensure local participation. The other two sections within this Unit relate to work that need to be performed by the MMA. This essentially is the study of ocean tides, currents and waves which are vital for safety of navigation. Concurrently the production of nautical charts may be made a function of this Unit.

The importance of research in the maritime sector, however small, must be encouraged. It is mainly through research that an industry may continue to thrive. Research must of course, as far as possible, be practical and related to the Malaysian situation. Often research falls first victim to any austerity measures. Such a policy would, in the long run, prove to be short sighted and costly.
Management Services Division

In addition to the five main divisions, the Management Services Division would be a supporting common user service unit to the Organization. It would be the source of such services as information, the EDP system (Electronic Data Processing System) the library, special projects and trouble shooting missions. It would act directly under and be solely responsible to the Director General of the organization. There would be two main units within this Division as reflected in Chart V(F).

The Information Resources Management Unit would essentially be a central computer facility with the following main sections namely vessel documentation, shipping statistics, port statistics and maritime safety enforcement. Vessel documentation would essentially be information about Malaysian vessels and will be primarily used for registration and licensing. Shipping statistics and port statistics are related to both vessel and cargo traffic through Malaysian ports whilst vessel enforcement will be information for the merchant marine safety programme such as certification, surveys and vessel boarding programmes. Chart IX shows the main sources (and in some cases also users) of information. Chart X shows the information network pertaining to the maritime industry.

The Management Services Unit would be responsible to the Director General and basically be his secretariat for the implementation of his directives and organizational policies and objectives. The Unit shall convene and see to the implementation of all decisions taken at the Heads of Department meetings. It will undertake special projects/missions (essentially of a trouble shooting nature) on the direction of the Director General. The Unit will also be
responsible for the library (which may alternatively be made part of the Information Resources Management Unit.

**Intersectoral Coordination**

The above Divisions would comprise essentially the broad structural framework of the MMA. However, as indicated throughout this study, the complexity of the maritime industry requires constant interaction and coordination with a number of different agencies, both public and private. In Malaysia such interaction is vital because of overlapping interagency responsibilities and authority. For this purpose, a number of coordinating bodies would have to be created. Chart VIII indicates the various units. These bodies may be either Boards formally set up by legal enactments (such as the Domestic Shipping Licensing Board, the National Seamen's Management Board, the Examinations Board and ALAM) and placed directly under the MMA or specialized committees or councils (National Maritime Education Committee, National Maritime Council and the National Marine Scientific Research Council) which will be coordinated by the MMA. The National Maritime Council is a new proposal. It would function directly under the Ministry of Transport, with the Minister of Transport as Chairman of the Council. This would be the supreme advisory body to the Government on all maritime matters. The Council's Secretariat will be the Maritime Development Division of the MMA. The role of the Council would be consultative and advisory on all matters pertaining to national policy on maritime affairs. It may be called upon to advise on such matters as shipping incentives, greater usage of Malaysian ships and better utilisation of shipbuilding.

The terms of reference of the Council shall be as follows:
(a) to provide an effective forum for deliberations on national maritime policy;
(b) to provide advisory assistance to the Government in the formulation of national policies;
(c) to assist in the development and implementation of an integrated approach to maritime development and
(d) to secure private sector cooperation and participation in the achievement of national objectives in maritime development.

Members of the Council shall comprise of all related Government agencies namely, the Ministry of Transport, the MMA, the Ministry of Trade and Industry, the Ministry of Finance, the Implementation Coordination Unit, the Economic Planning Unit, and others as needed. Members from the private sector would include the Malaysian Shipowners Associations, the Malaysian Shippers Council, the Association of Shipbuilding and Repairing Yards, the National and International Chambers of Commerce and other representative organisations as when needed (such as the Association of Forwarding Agents and maritime lawyers). If policy matters being discussed are of a sensitive nature, then only the related government agencies may be convened. (In fact a permanent interdepartmental committee comprising all government agencies involved in the maritime sector should be established. This would create the avenue for defining and promoting inter agency cooperation which, as indicated through out this study, would be a vital ingredient for success). Otherwise the full Council should meet. For example implementation of the policy objective of exporting CIF and importing FOB would require the participation of the private sector for it to succeed. Such participation may be fostered through the Council. It may transpire that the full Council may become unwieldy due to the
size of its full membership. In such situation small expert groups may be formed to discuss relevant issues in greater depth and detail before being considered in the Council. Needless to say the success of this Council would be dependant upon the initiative of both the MMA and the private sector. In particular the latter must organise themselves into an effective forum such as a National Maritime Association. This Association may then be the private sector's expert group and interest lobby for the effective promotion of their interests as well. The Association should also look into international participation such as in the CMI (Comité Maritime International) and the International Chamber of Shipping.

National Seamen's Management Board

This is not a new proposal. The idea was considered by the Government in 1984 but a decision deferred. Essentially this Board would take over the functions of the existing Central Mercantile Marine Fund, a Board which operates under a separate incorporating act. (1) The present Act is outmoded. The role of this Board is essential to the seafaring profession. Seafaring is a peculiar form of employment (alternating periods of employed sea service and unemployed shore leave) with the periods of active service counting towards a seafarers professional qualification. This requires mandatory registration of all seafarers. (2) Such registration would enable a rotation system to be devised whereby the seafarers would be employed on an equitable basis. It would improve discipline and


enable greater utilisation of Malaysian seafarers. The Board would also provide for the welfare and training of all registered seafarers, including management of the Mariners Clubs (which provide cheap accommodation and club facilities for seafarers—a system which exists throughout the world.). It would be apparent that what is being proposed is essentially a rationalisation of the existing CMMF organisation into a more effective agency. The Board would be undertaking functions which are being performed by administrations all over the world. In no way would this threaten shipowners who in fact would welcome the idea as contributing to a more disciplined, readily available source of labour.

The Board would be chaired by the Director General of the MMA with representatives of the shipowners, the Maritime Development Division of the MMA, ALAM, the Ministry of Finance and the Ministry of Transport. The Maritime Development Division would have responsibility for the Board’s efficient operations.

The Board may need the facilities of a computer to keep track of all Malaysian seafarers and to establish proper records and documentation. The Board’s operations may be funded through a fee collected for its services.

**Domestic_Shipping_Licensing_Board**

It is an existing body with the Chairman of the Board being the Secretary General of the Ministry of Transport. The Board can continue to function and be organised along existing lines without any changes. The Licensing Unit and the Secretariat to the Board however will function within the Coastal Shipping Unit of the MMA.

**ALAM/The_Examinations_Board**
Will continue to operate along present lines. However the overall responsibility for ALAM should be transferred from ICU to the MMA. The MMA would be the more appropriate body in terms of its role and responsibilities in the whole maritime sector. ALAM’s training policies will be coordinated, to a certain degree, by the National Maritime Training and Education Committee. Much of ALAM’s operational requirements in terms of trainers, training courses, syllabus, exams, and expertise will have to be drawn from the MMA. Maritime development in Malaysia will ultimately hinge on accelerated manpower development and it is imperative that the MMA undertakes this overall supervision of ALAM. The Examinations Board, operating under the MMA would set the questions and conduct the exams for ALAM. It would essentially comprise of two to five persons who will operate independently (but under the MMA) and set the questions, see to the proper conduct of the exams and correct the papers.

National Maritime Training and Education Committee

A similar committee exists presently. Besides ALAM there are at least two other institutions involved, at varying degrees, in maritime training. These are the Ungku Omar Polytechnic and the University of Technology Malaysia. Both these latter institutions train marine technicians and engineers. There is also a proposal to set up a National Ports Training Institute. The efforts of all these institutions must be integrated to ensure maximum utilisation of resources and minimise duplication. The NMTEC should undertake this task. For example ALAM has been recognised as part of the national vocational training grid. The Examination Board mentioned above, could conceivably become a common user Board for all these institu-
The NMTEC should be given the responsibility to consider recognition of local/overseas maritime qualifications, the types of courses to be undertaken locally (and by which institutions) and all other related matters pertaining to maritime training and education. New areas such as training in maritime transport and law must be explored by the Committee.

The Committee should be chaired by the Director of the Maritime-Development Division of the MMA with representatives from the MSD, Ministry of Education, MOT, the Public Services Department together with experts from the private sector (such as the Shipowners Association) and the training institutions themselves. The Secretariat for the Committee would be from the Training Section of the Maritime Development Division.

National Marine Science Research Council

This is a new proposal. There is little or no coordination of marine scientific research undertaken presently in Malaysia, nor is there much information available or disseminated about such work. Various academic institutions and agencies appear to be involved in such research. The sea's contiguous area has long been recognised as one biological continuum and needing an integrated multi-disciplinary approach to its study. It would be unfortunate if present scientific study is sporadic and compartmentalised into narrow fields such as fisheries, petroleum or mineral resources. Without a basic understanding of and better information about, for example ocean circulation and major ecosystems, it will be very difficult to exploit these resources in an optimum well managed manner or predict the final outcome of the consequences of their harvest. The need for appropriate institutions at the national level to "promo-
te, develop, manage and coordinate elements of ocean investigations" was identified by UNESCO. "These institutions can make it possible to combine resources among institutions within a country and among several countries... to make the most effective progress with the means at hand."(1)

The Council would act as the national centre for collecting and compiling data and coordination of all marine scientific research in the country. This would include all oceanographic studies such as fisheries, marine resources, meteorology and ocean currents and tides. The Council would also consider all foreign applications to conduct research in Malaysian waters (including the EEZ) and coordinate such undertakings. The Council may liaise with the National Scientific Research and Development Council. The Marine Council's chairman should be appointed from among the most competent personality (preferably from one of the leading academic institutions) by the Minister of Transport. The members of the Council would be from the MMA (Research and Development Division), the Meteorology Department, the various academic institutions and the National Scientific Research and Development Council. Other leading private companies or persons involved in marine research may be invited to become members. The Secretariat for the Council would be the Research and Development Division (Marine Sciences Unit) of the MMA.

Staff Positions

The major staff positions for the MMA is reflected in Charts V

(A-F) (1) The head of the Organisation may be called the Director General (DG). He will be assisted by two Deputy Director Generals (DDG), one in charge of the technical affairs (DDG I) and the other in charge of the economic/commercial affairs (DDG II). The DG would be supported by a Management Services Unit with an overall commitment to maintaining organizational efficiency both in terms of cost as well as effectiveness. The level of the Director of the Unit will have to be at least equivalent to the level of the Directors of the other divisions for him to perform his functions effectively. The post of DG will be at Staff "C" (which is currently the position of the Director of Marine, Peninsular Malaysia). However depending upon the individual, "personal to holder" flexibility will have to be used in order to retain attractiveness of the post.(2) In the future too, the position of the DG's post may have to be reviewed.

Deputy Director Generals

The size and spread of the organisation would require at least two DDG's as reflected in Chart V. It would be physically impossible-

(1) The proposals being made here should be reexamined more closely before implementation. The proposals are made on the basis of a gradual increase in the strength and service structure of the Organization.

(2) In fact because of the "closed service" nature of the Organization, personal to holder promotions will have to be utilised so as not to lose senior officers leaving the organisations due to a lack of vertical movement.
le for just one DDG to control and manage all functions of the organisation effectively. The rank of both posts of the DDG's is at Super Scale "D", one step below the DG's post. (This will be a feature of the organisation, a "one step up" structure so that it will allow promotions to be undertaken easily from within the organisation thereby fostering staff morale and loyalty). There is to be no preference over which DDG should ultimately accede to the DG's post. It would have to depend on the merit of the individuals.

**Directors**

There will be six directors for the six main divisions. All of them will be equivalent in rank (superscale "E") a step below the DDG'S level. Besides these six there will also be two other Regional Directors for the states of Sabah and Sarawak. The Deputy Director of the Operations and Enforcement Unit will also be concurrently the Regional Director for Peninsular Malaysia. The rank of these three posts will be "F". The Directors will be one of the most important levels in the organizational structure of the MMA. These officers and those below will be the actual level where the work is being performed. These posts are therefore vital to the success of the organisation and appropriate persons of suitable experience (at least seven years) and leadership will have to be found to fill these posts. The Director of Administration/Finance may be seconded from the Administrative and Diplomatic Services (ADS) though it would be preferable for an "organisation man" to be found to run the post. This Division would also need an understanding of the maritime industry despite possible notions to the contrary.
Deputy Directors (DD)

These officers will head the principal units within the six divisions. Their rank varies according to the extent of work involved but should never be below "G" or higher than "F". These are the people who actually carry the workload of the organisation.

Under these DD's will work the Principal Assistant Directors (in charge of each section within the Unit) and the Assistant Directors who will be the ranking officers.

Conclusion

The proposed organizational framework of the MMA follows closely several guidelines established in this study namely cost effectiveness, efficiency, practicability and designed to achieve the policy goals of the nation. Much of what is being proposed can be implemented without additional expenditure. What is needed is merely rationalisation and integration. It has also been pointed out that the MMA may be financially autonomous (Chapter 7) for its operational requirements. The final structure that will be implemented will however be as much dependent upon existing resources as well as conviction on the part of the Government of the necessity for a leading agency to undertake maritime development. Such leadership can scarcely be expected under the existing administrative infrastructure. The proposals made in this study should be critically evaluated by the Government. The chances of success for the birth of any new organisation under the present circumstances (austerity drive, less Government and more privatisation policies) are slim. The proposals for the MMA should not however be viewed as proposals for a new organisation. The basis for the MMA already exists but is dispersed. Integration and rationalisation will create the MMA.
Simple as this may sound, the task may be formidable merely because of the fact that interdepartmental rivalry and politics may very well scuttle these proposals.

The many proposals made in this study may sound grandiose and completely unacceptable. There will hopefully be equally as many who will find the study ruthlessly frugal. The relevance of the need for a strong institution in maritime administration may even be questioned. After all, countries like Norway and Denmark appear to have organisations which are as dispersed as the Malaysian situation (if not worse) and yet the two countries are leading maritime nations. It must be remembered that these are countries with a strong maritime tradition and an equally strong cultural and social affinity for the sea. New maritime nations like Malaysia do not even have the seamen necessary to fully man their fleets. There cannot be a choice other than having a strong institutional framework to lead the growth of the maritime sector.
IMPLEMENTATION OF THE MMA - AN OVERVIEW

Given the seemingly rapid pace of development of the maritime industry in Malaysia, a relevant question may be the need for this proposed reorganisation. It may even be viewed as contrary to the general trend towards privatisation of many Government functions in Malaysia. The creation of the MMA will not be contrary to the privatisation objective of the Government. If anything the centralisation of the dispersed roles and functions of the many agencies involved in Malaysia would lead to a more rationalised administration with less duplication. The presence of these departments with a "chop stick" involvement in fact precludes privatisation. It will certainly cut down on the number of staff involved peripherally in the maritime sector in the many agencies. Much more importantly the legitimate needs of the various departments in this sector will be now met by a readily available source of expertise that they did not have before. In effect therefore the MMA would serve to strengthen the existing departments through a better approach to their functions.

The MMA will buttress not only the administrative structure but also lend support to the private sector. As indicated in this study the maritime industry in Malaysia is developing rapidly, not through the initiative of the private sector but, mainly of the Government. The Malaysian fleet has expanded rapidly only after the establishment of MISC and PNSL by the Government, the cabotage laws and lately the liberalisation of the Malaysian registration conditions. The other sectors of the maritime industry such as ports,
shipbuilding and offshore have similarly responded largely due to Government initiative. This can be further proved by the fact that sectors where there has been little or no Government initiative have also been those where growth has been either slow or skewed in a wrong direction. Thus the services sectors for example such as shipping and forwarding agents have remained largely tied to Singapore. Expertise in maritime law, banking and marine sciences have all been similarly slow growth areas.

In many developing countries, the maritime organisation maybe the primary authority charged with ultimate responsibility for the maritime sector. In most cases the organisation may be the principal source of the limited expertise, knowledge and resources available in the country. The involvement of other agencies in the maritime sector may be largely due to secondary responsibilities (as mentioned earlier "chop stick involvement) which also usually means a relegated and lower priority to these duties. In Malaysia such a primary source does not exist. The only agency with primary interest may be the Marine Departments but their present administrative structure and roles are narrow, confined and clearly unsuited for the management of the many facets of an international, highly complex dynamic industry. These Departments would however form an appropriate basis for the creation of the MMA.

The creation of the MMA should not be viewed as a threat to the roles of existing departments. The MMA would work successfully only within an environment of cooperation and joint effort. The pervasive spread of the industry would not accommodate anything else. The MMA would be the catalyst, the coordinator and the work horse for all such cooperation. Cooperation needs a leader and the led. It must be based on the principles of equality and mutuality of in-
interests. Without these factors cooperation would be doomed to failure.

The implementation of these proposals to create the MMA would need the establishment of an joint interdepartmental committee at a high level. The committee may be chaired by the MOT. Prior to this the Government would have to sanction the proposal in principle. The details may then be worked out by the committee which would comprise the main agencies such as the Public Services Department, the EPU, the Ministry of Finance, the ICU, the Royal Navy and the Marine Departments. The committee should be chaired by the Secretary General of MOT. Alternatively either ICU or MAMPU may be given the task if the MOT is felt to be an interested party.

There are several catch words which recur with monotony in this study such as "coordination, cooperation, rationalisation and integration." These words carry fundamental inputs from deliberate choice rather than picturesque ideas. After all the greatest problems of every Government arise in the manifold areas of coordination, cooperation, rationalisation and integration. Taking it a step down to the level of organisations, the very same dilemmas occur. Even individuals face these parameters everyday. These are therefore words with the vitality of life, paragons which we strive to achieve endlessly.

The creation of the MMA would not be an easy task. It is fraught with political obstacles, interdepartmental rivalry and may be seen to collide with present Government policies. These are problems which must be overcome with the strong conviction and sense of urgency for the development of Malaysia's greatest but vastly underutilised and unexplored resource - the ocean. We are a nation consumately influenced by the ocean and to the latter we may have to
turn increasingly in the future for national development. The institutional framework must be created now.
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CHART I: ORGANISATIONAL CHART OF THE MARITIME DIVISION, MINISTRY OF TRANSPORT MALAYSIA.

MINISTER OF TRANSPORT

SECRETARY GENERAL

NATIONAL PORTS COORDINATION COMMITTEE

DOMESTIC SHIPPING LICENSING BOARD

DEPUTY SECRETARY GENERAL I  DEPUTY SECRETARY GENERAL II

LAND TRANSPORT DIV.  AIR TRANS. DIV.  MARITIME DIVISION

MARINE UNIT  SHIPPING UNIT  PORTS UNIT  DSLB UNIT

MARINE DEPARTMENTS
PENINSULAR MALAYSIA
SABAH
SARAWAK

NOTE: Each box represents a staff position as well as a separate unit.
CHART II: PRESENT ORGANISATIONAL STRUCTURE OF THE MARINE DEPARTMENT

PENINSULAR MALAYSIA

Director (Headquarters)

Light Vessels Board

Deputy Director

Central Mercantile Marine Fund

Enforcement

Dredging and Mooring

Prevention and control of pollution

Administration/Finance

Training and Examinations

Launch Services

Navigational Safety

Survey, Registration and Licensing of Ships

Supervision and Co-ordination

Harbour Master Penang/Kuala Lumpur

Port Offices

Harbour Master Perak

Port Offices

Harbour Master Selangor

Harbour Master Malacca/Negri Sembilan

Harbour Master Johor

Harbour Master Trengganu/Pahang/Kelantan

Port Offices

Port Offices

Port Offices

Port Offices

Port Offices
CHART V: PROPOSED ORGANISATIONAL STRUCTURE OF THE
MALAYSIAN MARITIME AUTHORITY

MINISTER OF TRANSPORT

MALAYSIAN MARITIME AUTHORITY
(DIRIGER GENERAL (C))

MANAGEMENT SERVICES DIV. (&
EDP)

DEPUTY DIRECTOR GENERAL I (D)

DEPUTY DIRECTOR GENERAL II (D)

ADMIN & FINANCE DIVISION

MARITIME SAFETY DIVISION

LEGAL DIVISION

MARITIME DEVELOPMENT DIVISION

RESEARCH & DEVELOPMENT DIVISION

POLICY PLANNING & IMPLEMENTATION

OPERATIONS & ENFORCEMENT

ADMIN & PERSONNEL

ENGINEERING

MARITIME SAFETY

M.S.O

COASTAL SHIPPING

MARINE & PORT ENG.

FINANCE/ SUPPLIES

NAVIGATION

PORT SAFETY & OPERATIONS

INTER'L SHIPPING

PORTS & HARBOURS

OCEANOGRAPHY RESEARCH

TRAINING

INTERNATIONAL CONVENTIONS

REGISTRATION & LICENSING

NOTE: Each box would represent a unit of the main division. The boxes do not necessarily represent staff positions. The alphabets enclosed in brackets indicate possible grades/levels of staff position.
NOTE: The positions indicated in all the Charts (pertaining to the divisional structures in Charts V (A-F)) below the deputy directors level will be filled by principal assistant directors. The alphabets indicated within brackets indicate possible staff grades equivalent in the Malaysian Civil Service.
CHART V(C): PROPOSED ORGANISATION CHART FOR OPERATIONS AND ENFORCEMENT UNIT, MMA.

NOTE: CHART V(C) is only a schematic diagram. It is based on the existing organisational structure which is found to be adequate. The number of Regional Offices and Port Offices (indicated in brackets) would remain the same, subject to review when the detailed proposals are being considered. The only new proposal would be the setting up of the Regional Headquarters in the three main regions of the country, which in effect would merely be a conversion of the existing departmental status into regional headquarters'. Information about regional offices in Sabah and Sarawak is not available (N.A.). The list of port offices shown above is not complete.
CHART V(D): DIVISIONAL STRUCTURE, MARITIME DEVELOPMENT DIVISION

DIRECTOR MARITIME DEVELOPMENT DIVISION(E)

DEPUTY DIRECTOR(G) COASTAL SHIPPING UNIT
  LICENSING
   POLICY PLANNING

DEPUTY DIRECTOR(F) INTERNATIONAL SHIPPING UNIT
  SHIPPING POLICY PLANNING AND IMPLEMENTATION
   OFFSHORE/SHIPBUILDING & OTHER ANCILLARY SERVICES
    TRAINING / MANPOWER DEVELOPMENT

DEPUTY DIRECTOR(F) PORTS & HARBOURS UNIT
  PORT DEVELOPMENT
   PORT OPERATIONS
    TRAINING

CHART V(E): DIVISIONAL STRUCTURE, RESEARCH & DEVELOPMENT DIVISION

DIRECTOR RESEARCH AND DEVELOPMENT DIVISION(E)

DEPUTY DIRECTOR(F) PORTS AND MARINE ENGINEERING UNIT
  PORT CONSTRUCTION AND ENGINEERING
   SHIP DESIGN AND CONSTRUCTION

DEPUTY DIRECTOR(F) MARITIME POLICY / OPERATIONS UNIT
  POLICY RESEARCH
   OPERATIONS RESEARCH

DEPUTY DIRECTOR (F) MARINE SCIENCES RESEARCH UNIT
  NATIONAL MARINE SCIENCE COUNCIL
   OCEANS, TIDES, CURRENTS AND WAVES
    MARITIME CHARTS
Note: Harbour Master should have at least a Master's Certificate or equivalent. Deputy Officers should be Senior Assistant Marine Officers (with at least three years of service), ideally one with an engineering background and the other with nautical. Each Port Office should ideally be headed by an Assistant Marine Officer assisted by boarding officers and port operations personnel.
CHART VII: PROPOSED ORGANISATIONAL STRUCTURE OF THE REGIONAL HEADQUARTERS', MMA

NOTE: The structure and functions of the 3 Regional H.Q.'s would be the same. Regional H.Q. I may be made part of the Operations and Enforcement unit, within the MMA.
New bodies being proposed are the National Maritime Council, the Seamen Management Board, and the Marine Science Council. The Examinations Board and the Training Committee already exist but need to be formalized.
CHART IX: TRADE AND VESSEL INFORMATION

MARITIME ADMINISTRATION

REPOSITORY AND DISTRIBUTION CENTER

- WORLDWIDE PUBLICATIONS
- STATISTICS DEPARTMENT
- MARITIME INDUSTRY
- NATIONAL MARINE SCIENCES COUNCIL
- LLOYD'S LONDON
- CUSTOMS DEPARTMENT
- COAST GUARD/ROYAL NAVY
- PORT AUTHORITIES

NOTE: The Chart indicates the main sources.
CHART X: INFORMATION NETWORK, INFORMATION RESOURCES MANAGEMENT UNIT

SHIPBUILDING & OPERATIONS

LABOUR & MANAGEMENT

DOMESTIC OPERATIONS

CARGO

PORTS

INLAND HAULAGE

OCEAN SCIENCE

GRT, NRT, DWT

MARKET DEVELOPMENT

INTERNATIONAL ACTIVITIES

INVESTMENT VESSELS

TRADE ROUTES

TONNES

REVENUE

SHIPYARDS

FLAGS

MALAYSIAN OPERATORS

F.O.B., C.I.F.

SPECIAL TRADES

ASEAN TRADE

VALUE

ESSENTIAL PREFERENCE

COMMODITIES

CARGO

RESEARCH & DEVELOPMENT

ENVIRONMENT & ENERGY CONSERVATION

PORT & INTER-MODAL DEVELOPMENT

MARITIME SAFETY

NOTE: The Chart indicates the interrelationship between the various types of information and its main users.