

Anatomy of Shipping

24 March – 5 April 2019
Cambridge

Organised by



Cambridge Academy of Transport

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Course Programme

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Sunday 24 March	INTRODUCTION	
	Course Welcome & Preview	1445-1515
		Session 1
	Introduction to the Shipping Industry	1515-1600
	<p>This lecture will cover developments in shipping which have taken place including changes in ship size, cargoes carried, performance and general market supply-demand trends. The emergence of new ship types caused by the rapid growth of world trade and the shift in maritime markets will be considered.</p> <p>The importance of shipping in the foreign trade of nations will be reviewed and the structure of world trade by various product types will be discussed. It will be divided approximately into two sections, the first of which looks at the general structure of shipping giving an introduction to some of the important terminology used in the deep-sea trades. The second takes a look at the markets in which shipowners operate and the business sectors which form part of the shipping industry.</p>	
		Session 2
	Group Introductions	1615-1700
Monday 25 March		Session 3
	Introduction to the Shipping Industry - <i>continued</i>	0830-1100
		Session 4
	International Institutions & their Role in Shipping	1115-1245
	<p>Shipping, being an international industry, has generated numerous international organisations, both industrial and governmental, that deal only with shipping; it has also attracted the attention of international organisations created for other purposes.</p> <p>This session will concentrate on international institutions at the governmental level, covering those with worldwide membership:</p> <ul style="list-style-type: none">– the United Nations and its specialised agencies (notably the International Maritime Organisation)– the World Trade Organisation, <p>those with sectional membership, for example:</p> <ul style="list-style-type: none">– the Organisation for Economic Co-operation and Development, representing the thirty or so most developed economies, <p>and regional organisations, such as:</p> <ul style="list-style-type: none">– the European Union– the groups of countries exercising Port State Control.	

The session will consider why shipping needs intervention by governments internationally, and the nature and role of the main international institutions that affect shipping, offering examples of their failures and their successes.

Workshop: Opportunities in Shipping - Assignment **Session 5**
1345-1445

Maritime Security Developments **Session 6**
1500-1630

Following the 11th March 2001 terrorist attack on the World Trade Centre in New York, the United States became very concerned about its vulnerability to another major incident. Of particular concern was the entry into the US of undesirable aliens and weapons of mass destruction through unchecked commercial shipping activity.

The usual challenge to International regulators working within the International Maritime Organisation arose: how to accommodate US Domestic initiatives into an acceptable international framework. In almost unprecedented time, an Amendment to the Solas Convention was agreed which introduced the International Ship and Port Facility Security (ISPS) Code. The Code received early implementation, and today nearly all merchant ships and ports of the World must comply with its requirements.

This session will review the international framework for the ISPS Code drawing particular attention to:

- the stated objectives of the Code
- who is subject to its provisions
- what are the specific procedures which ships, shipping companies and ports must follow
- what additional requirements have arisen as part of the Code
- how does the Code compare with additional US security system initiatives, specifically:
 - Container Security Initiative (CSI)

Workshop: Preparation **Session 7**
1645-1815

Tuesday **Session 8**
26 March **Workshop: Preparation** **0830-0945**

Sale & Purchase Negotiation **Session 9**
1000-1130

With only a few exceptions virtually all second-hand purchases are conducted through a broker or brokers. The benefits to the buyer and seller include:

- readily available information concerning vessels available for sale
- market activity and recent sales;
- periodical market reports produced by the major broking houses as a ready guide to owners.

Unlike chartering, which is a regular activity for an owner who will therefore have in-house personnel with expertise on chartering negotiations, owners buy and sell vessels on a far less frequent basis. In fact several years may elapse between purchase and sale.

The sale and purchase broker is therefore required to offer an in-depth service and advice to the owner on the technicalities of the negotiation, contract, and preparation for delivery.

This session will look at the process of negotiating the sale (or purchase) of a second-hand vessel, concentrating on the main clauses of the most commonly used contract - the Norwegian Saleform. The “hand-over” event when money and title are exchanged will also be described.

Reading the S&P Market

Every day the ship owner uses his commercial judgement to interpret market information in a way that will best profit his company. He can afford to make mistakes in some areas but, in the business of Sale and Purchase, the consequences of a wrong decision can lead to disaster. In this session the lecturer will concentrate on one type of vessel, the dry-cargo panamax bulk carrier, and examine the principles that must be applied when a decision is made to buy or sell.

Fortunately the ship owner need not face these questions alone and, generally, the shipping community is always ready to offer advice and opinions. In particular the ship broker can play a vital part in the process and the lecturer will examine in detail how a broker can help his owner to evaluate market information and arrive at a reasoned decision.

Session 10
1145-1245

Financing Ship Acquisitions

This lecture will outline the various types of financing available to the shipowner from governmental and private sources and explain their relevance to owners considering either newbuilding or second hand tonnage acquisitions. A detailed description will be given of the various risks considered and analysed by the commercial banker when faced with a loan application. These will be illustrated by describing a particular case. The relationship between banker and shipowner will be considered and the various other professionals such as insurance brokers and sale and purchase brokers. A description will be given of the function of the different banks and financial institutions, primarily in the UK but also in the other major marine finance centres.

The impact on shipping finance and world trade of the Basle Accord will also be addressed. The Accord dictates the capital adequacy ratios of the banks in most of the World's major trading countries and lays down more severe debt/equity ratios than has been common in recent decades.

There has been considerable debate in the past regarding the size of the shipping industry's capital needs. Many factors will influence this requirement but it is not the purpose of this session to review them all. Rather, the speaker will lead the participants in a discussion that will focus on the future ability to fund the capital-intensive shipping industry from different finance markets.

Session 11
1345-1515

Financing Ship Acquisitions *continued*

Session 12
1530-1630

Workshop: Preparation

Session 13
1645-1800

THE LAW

Wednesday
27 March

Principles of English Maritime (Contract) Law

Session 14
0830-1000

The law has a significant bearing on many aspects of shipping generally and the chartering business specifically. These several lectures will discuss the legal implication of the charter parties and bills of lading. We will begin with a look at the principles of English maritime law, a system of law regularly encountered when dealing with charter party disputes. These principles derive from the law of contract as, not surprisingly, charter parties are simply that: contracts.

Session 15
1015-1115**Charter Parties**

Following on from the introduction provided in the first session, this presentation will consider the main forms of charter parties used in the shipping business and focus on their commercial relevance. The lecturer will then go on to examine the main clauses found in voyage and time charter parties, using a number of standard pro-forma charters for examples. Specifically, the session will cover:

- What does a Charter contain?
 - Simple financial obligations, eg. freight/hire
 - Obligations relating to performance, eg. safe ports, length of charter
 - Carriage of cargo
- Where do charter parties fit into the Owner's business spectrum?

Session 16
1115-1245**Bills of Lading**

While charter parties often get the headlines, the single most important shipping document must be without question the bill of lading. The complex nature of the bill and its often challenging relationship to shipowners, charterers, cargo interests and banks makes for an interesting storey. Along the way the lecturer will cover in some detail the following topics:

- What is a bill of lading?
- What are the different types of bills of lading?
- What is contained in a bill of lading?
- Are there any other documents that can be used instead of bills of lading when the circumstances permit?
- Who is the "carrier" under the bill of lading?
- The difference between a "clean" and a "claused" bill.
- Where does the letter of indemnity fit into the commercial transaction?

MARINE INSURANCE**Session 17**
1345-1430**Opportunity Workshop: Preparation****Session 18**
1430-1545**Marine Insurance Overview**

For an understanding of marine insurance and its importance in the world of commerce, we need to see who is involved, for what purpose and what can be insured. As a further building block we will look at the contract of maritime insurance, how the parties come to enter into it, and the more important policy forms for ships, cargoes, freight and some other subjects of marine insurance.

We will then consider a number of marine insurance concepts and explain their meaning, including:

- insurable interest
- fortuity
- non-disclosure & misrepresentation
- Utmost Good Faith (*uberrimae fides*)
- assignment
- subrogation
- unseaworthiness / privity

For the risks covered we will note the basic differences between the cover provided generally in the companies' and Lloyd's market and the protection available for shipowners in the P&I Clubs.

Then, as in introduction to the following session, we will look at the kinds of losses which are recoverable :-

- Total Loss - Actual and Constructive
- Particular Average
- Particular Charges (Sue and Labour)
- General Average
- Salvage Charges
- Liabilities

Session 19
1600-1700

Hull & Machinery Policies

An insurance policy which does not pay up promptly in the event of a claim is no use to anyone. We will therefore look first at the typical claim, from the time the casualty occurs until the claim is collected, dealing with claims for both hull and machinery and cargo.

Session 20
1700-1815

Protection & Indemnity Insurance

During this session, an introduction to P & I insurance will be given and the following main topics covered:

1. The historical background - why Protecting Clubs and Indemnity Clubs were created.
2. The structure of a P & I Club.
 - Members
 - Directors
 - Managers
 - Correspondents
 - and the function each carries out.
3. The mutual principle and the methods by which it is achieved. Insurance without a profit margin but with individual premium rates.
4. The Group Pool and Market Reinsurance. What happens if there is a catastrophic claim?
5. The scope of cover given
 - Crew and other people
 - Collisions and dock damage
 - Cargo claims
 - Wreck removal
 - Fines
 - Pollution
 - The "Omnibus" Rule.
6. Services provided by the Clubs for their members.
 - Preparatory advice: Documents, cargoes, safety on-board
 - Help when a claim is made
 - Providing security to prevent arrest
7. Other mutual clubs
 - UK Freight Demurrage & Defence Association
 - Through Transport Club
 - Transport Intermediaries Mutual
8. Response to claims.
 - Background to the rise in claims during the past 10 years
 - P & I clubs response
9. An Update on the P&I Market
 - Competition from Fixed Premium Facilities
 - P & I Club Mergers and then on to One Stop Shopping

TECHNICAL OPERATIONS**Thursday
28 March****Session 21
0830-0945****Importance of the Tonne-Mile**

In order to understand the drivers of ship demand, it is essential to grasp the concept of the “tonne-mile”. This session will examine the methods used to calculate the tonne-mile demand and the various factors which can influence its value even when the volume of trade has not changed. The session will go on to show how an estimate of vessel demand can be derived once tonne-mile demand is determined.

**Session 22
1000-1115****Ships and their Operational Problems**

The aim of any ship maintenance and repair plan should be to maximise the availability of the ship to perform her various functions within a minimum total cost.

Planned and preventative maintenance systems have been developed to cover the total ship from the propulsion and auxiliary machinery in the engine room to deck machinery and cargo handling equipment, together with hull structure, coating and painting systems. The maintenance plan should be designed to ensure the following is minimised:

1. Off hire time.
2. Equipment or material failure.
3. Cost of docking.
4. Manpower costs.
5. Spare gear costs.

The most significant cost occurring through lack of firm maintenance policies is usually time off-hire or out of service periods due to breakdown, irrespective of whether ships involved are on charter or in liner trades/services.

The more widespread use of heavy fuel in diesel machinery in order to reduce fuel costs has to be considered in terms of additional maintenance cost and a compromise found to suit both the installed equipment and available resources. More attention should be given to

the reliability of main machinery and equipment at the design stage, and the design should incorporate condition monitoring systems to reduce maintenance inspections within the present climate of low manning levels.

Consideration of planned manning increases as a vessel ages. This should be considered seriously in order to reduce maintenance and repair costs.

**Session 23
1130-1245****Why Maintenance Matters**

The session will begin with a short introduction to maintenance and repair, highlighting a number of key factors, including:

- Safety/Environmental concerns
- Compulsory maintenance imposed by regulations
- Maintenance failure and reputational risk
- Cost of maintenance in a vessel’s life cycle
- The dry docking process

Following this brief survey of a number of important issues, participants will form into teams to undertake a short case study where they will assess a dry-docking

**Session 24
1345-1500****Shipowners’ Bunker Purchasing Strategies**

This session will cover various aspects of fuel issues in relation to merchant shipping. It will open with a brief review of the history of the marine fuel oil industry

and the changing requirements of the shipowners. The refinery process will be examined which will explain what it is that shipowners are buying when they order "residual fuel". Developments in refining technology have resulted in quality reduction in residual fuels, a major concern for owners whose crews and assets can be exposed to extreme conditions should an engine fail in mid-sea.

The session will also consider how to buy bunkers and who the key players are, highlighting the price drivers in this most volatile market. What actually happens when a vessel takes bunkers and why there is scope for fraud will be discussed, together with advice on how to minimise the risk. The speaker will end with a comment on the future evolution of the market

Group Exercise: Providing the "FR" in "CFR" **Session 25**
1515-1630

Opportunity Workshop: Preparation **Session 26**
1645-1800

PRACTICAL CHARTERING OPERATIONS

Friday
29 March

Post Fixture: Chartering Operations

Session 27
0830-0945

This session and the next will deal with some of the functions of the Post Fixture department of a ship owner, ship operator, voyage or time charterer or broker. There are often many more tasks to perform in this department than in the "shop window" department of the fixing brokers but, just as in any well run store, the back room staff perform a vital role which is often unnoticed or ignored until something goes wrong! It is only then that their skills and duties are recognized.

Whilst many think only of laytime and demurrage in the context of "post fixture" operations, the reality is somewhat more complicated. The second of these two sessions will concentrate on laytime and demurrage leaving this session to deal with the post fixture mechanics, addressing the "who does what with whom, when and why" of the business. Specifically, mechanics relates to the relationship between the ship and shore in carrying out orders or activities associated with a voyage or cargo assignment. Voyage and time charter orders to the master, chief officer, port agent and other parties will be considered. The type of information sought and sent will be reviewed.

Post Fixture: Laytime & Demurrage

Session 28
1000-1130

Fixing a ship may be the glamorous part of the business, but without the back-room support of a good post-fixture department most owners would see little of the "meagre" earnings from the ship. This is particularly so when it comes to interpretation of laytime clauses in charter parties and the calculation of any demurrage or despatch due under the contract. In principle the calculation of demurrage or despatch is straightforward in concept, yet it continues to occupy time of the law courts and arbitrations because of the disputes which are generated. In this session, following an explanation of the concepts of laytime, a number of simple examples will be given to help illustrate both the principles involved and some of the practices which have evolved over the years.

Freight Derivatives

Session 29
1145-1315

This session will give each student an overall understanding of the theory, the terminology and the practical trading of Forward Freight Agreements (FFAs).

Ship Owners and Charterers face many different types of risk, one being the volatility of the freight market. Traditionally this risk was covered by booking physical cover for forward dates, an efficient but not a very flexible solution. During

the past two decades a number of financial instruments have been introduced to the international shipping industry, specifically FFAs and Futures. Freight Futures were traded on the Baltic International Freight Futures Exchange, but these have now been completely displaced by the FFA contracts. BIFFEX closed its doors to business in the early part of the decade.

This session will consider the freight risk exposure and elaborate on the following:

- Derivatives in general
- What are Shipping Derivatives - FFAs and Options
- Reasons for using derivatives

To help in understanding how these tools can be applied in the day-to-day running of a shipping company, several practical examples will be provided.

FREE WEEKEND

**Monday
1 April**

**Session 30
0845-1045**

The Classification Societies

The purpose of this session is to review the development of ship classification, with emphasis on the work the classification societies undertake today. The societies represent one important part of the global maritime safety system, but not the only part. Other stakeholders include owners/managers, flag state administrations, port state organisations, and many others

The role of the International Association of Classification Societies (IACS) will be reviewed in the context of their unifying activities

**Session 31
1030-1130**

Future Ship Concepts

In recent years, many new systems have been introduced or proposed for vessels, and the design of future vessels may look radically different from vessels built during the last ten years. These changes will largely be led by the need for future ship designs to be “safer, smarter and greener”. This session will focus on a number of position papers published recently by DNV-GL with a look to the future.

**Session 32
1130-1215**

The Lloyds Insurance Market

Lloyd's, the world's leading insurance market, transacts business worth billions of pounds in premiums every year. It is the world's second largest commercial insurer and sixth largest reinsurer. Lloyd's is not an insurance company but a competitive marketplace where underwriters accept insurance and reinsurance risks on behalf of syndicates of individual and corporate members whose resources provide the security behind Lloyd's policies. Lloyd's business falls into four main areas: Marine, Non-marine, Aviation and Motor. Marine was the original class of business underwritten at Lloyd's and represents 13 per cent of the market broadly divided between hull and cargo. Lloyd's insures marine risks ranging from yachts to super tankers and their cargoes, from offshore supply boats to huge drilling rigs, and

**Session 33
1315-1415**

Eco-Ships: Are they worth it?

Shipyards and a number of shipowners have espoused the benefits of “eco-friendly” ship designs with particular regard to a vessel's fuel consumption. While the environmental argument may be difficult to challenge, where does the commercial argument take us.

The purpose of this session is to carry out a comparative analysis of the commercial returns from modern eco-ships and modern second-hand tonnage. Participants will work through the numbers in small groups and in the process become familiar with

the voyage evaluation techniques used by most shipowners involved in the tramp shipping markets.

China: Economic Power Vs Regional Hegemony

Session 34
1400-1445

Repossessions: A Banker's Perspective

Session 35
1500-1530

This session and the next two will focus on the consequences of the recent shipping recession which began with the collapse of the freight markets at the end of 2008. Lenders, especially the commercial banks, were exposed to the risks of the markets as the valuations of their shipping portfolios fell in parallel with the charter markets. Traditionally, banks could enforce their mortgage and repossess the ship. But the dynamics of the banking market well outside the control of the shipping sector have had a significant impact on the action (or some would say, inaction) of the banks.

How do shipowners view the pressures exerted upon them by their lenders; what is the market practice for dealing with shipowners unable to pay as contracted; what are the signs of an owner in trouble? These and other issues will be covered during the next three sessions.

Repossessions: Market Practise

Session 36
1530-1630

INTERNATIONAL LAW

International Law of the Sea

Session 37
1645-1800

The substance of this lecture will be concerned with aspects of public international law and will therefore not include domestic maritime law as such. Public international law is understood by the lecturer to be the law between states concern directly to other states, their public ships and merchant ships flying their flag. Attention will be paid to aspects of the historical development of the law and the present law with particular reference to the delimitation of internal waters, the territorial sea, the contiguous zone and other offshore areas of the sea and of the high seas, continental shelf and deep sea now largely governed by the United Nations Convention on the Law of the Sea, 1982, and with certain more recent developments in the law.

THE DRY BULK SHIPPING MARKETS

Tuesday
2 April

Dry-Bulk Shipping

Session 38
0830-1000

This lecture will look at what the dry-bulk market comprises, subdividing it into size, commodity and voyage trading pattern groups. The economic benefits of combining trades both from the owners' and charterers' view will be explained.

The operation of the market will be analysed and the costs and earnings explored. The present freight market situation will be reviewed and the possibility of a concerted action to control the supply of tonnage will be discussed. Finally, some thoughts regarding the likely development of demand in the future will be presented.

Dry-Bulk Shipping (*Continued*)

Session 39
1015-1145

Session 40
1200-1300**Dry-Bulk Demand Workshop**

This session will have a very simple objective: to determine how much growth is required from the major bulk markets to absorb the volume of vessels currently on order and the World's shipyards.

Session 41
1400-1515**The Cruise Shipping Market**

This lecture will look at the following aspects of the cruise industry:

- The supply/demand outlook and whether the lines can expect to improve yields this year and next.
- Consolidation in the cruise industry and the extent to which this process may continue.
- The regulatory environment for the cruise industry
- The identification and pursuit of new source markets for the cruise product.
- Cruise capacity deployment, the potential for new regional cruise development and the implications for the ports.

GAS AND CHEMICAL MARKETS**Session 42**
1530-1630**The LNG Carrier Market**

It was not until the early 1960's, that the transportation of chemicals and liquefied gases began to grow significantly. Methane, or natural gas, posed great problems as the critical temperature for liquefaction is significantly lower than most of the other gases. These LNG (liquefied nature gas) ships are among the most expensive of the cargo carrying fleet, surpassed only by cruise vessels. Today LPG, LNG and chemicals moved by the sea account for a major portion of specialised trades.

The purpose of this session and the following two sessions is to ensure that participants have a good understanding of the main products moved in these trades, how these have developed, the major routes and the most significant business drivers.

Session 43
1640-1730**The LPG Carrier Market****Session 44**
1740-1630**The Chemical Carrier Market****LIQUID BULK SHIPPING MARKETS**

Wednesday
3 April

Session 45
0830-1000**The Tanker Market**

This session will open with a brief review of the history and development of the tanker industry. This will develop into an examination of the various types and sizes of vessels, the pattern of trade and the division of ownership between oil companies and the independent owners. The lecturer will then consider how the market operates and the implications of supply and demand characteristics. The various types of charterers will be discussed and an explanation of Worldscale given. Finally, possible developments and the future prospects for the business will be presented with particular regard to current concerns on tanker safety and the regulatory response.

The Tanker Market (Continued)**Session 46**
1015-1115**Practical Applications of Worldscale****Session 47**
1130-1230

The Worldscale system of quoting freight rates is unique to the tanker market, having developed from earlier post-war methods of presenting freight rates. One of the objectives of the system is to allow charterers the option to quote for business without being specific about the ports - for example, to describe a shipment as Middle East Gulf - West rather than Ras Tanura - Rotterdam. This built-in flexibility of the Worldscale System, however, does have some hazards for the uninitiated. This session will look at the System and reveal some of the traps awaiting the unsuspecting user.

Opportunity Workshop: Presentations**Session 48**
1330-1600**Free Afternoon****CONTAINER TRANSPORTATION****Thursday**
4 April**Transformation from Liner Shipping to Container Transportation****Session 49**
0830-0900

During this section of the course we will consider the development of Liner Shipping and its inter-relationship with the conference system. The causes behind the First Container Revolution and the impact which this had on the global transportation of general cargoes will be discussed and how the container as the world's most versatile shipping unit has been the catalyst for the growth of international trade.

Through Transport Concepts**Session 50**
0900-0945

The First Container Revolution in the early 1960s was driven by the shipowners, seeking to improve Liner Shipping's profitability. The outcome was a multi-modal system which changed the dynamics of transporting general cargoes from a traditional port to port activity, to a streamlined point to point supply chain. This in its turn inexorably altered the cultural structure of traditional Liner Shipping and with it the links with the conference system.

The Second Container Revolution in the late 1980s/early 1990s, was led by the world's Shipper's Councils and with it the severance of the last link with the Liner Shipping cycle which had begun in 1816.

Commercial & Logistical Aspects of Container Transportation**Session 51**
1000-1045

This Session will cover amongst other aspects of the container business.

- Supply chain management and shippers' requirements
- Consortia and vessel sharing agreements
- Tariff structures
- E-commerce and roles of intermediaries and infomediaries
- Hinterland operations and intermodalism
- Equipment management and container types
- Documentary processes
- Environmental and security issues

Ship & Terminal Operations**Session 52**
1045-1215

Following the development of the commercial and logistical requirements, so the discussion will turn to other operational aspects of the container business.

- Terminal operations as a key link in the supply chain
- Container ship design and stowage constraints
- Terminal layouts and handling equipment
- Hub and spoke transshipment operations and feeder services
- Hinterland interfaces
- Importance of communications and documentary processes
- Environmental and security issues
- Future trends in terminal design and equipment automation

Session 53
1215-1245

Future Industry Prospects

Is the Fourth Container Revolution inevitable? Some of the future options facing the container industry will be appraised, including:

- Capacity management
- Laying up of surplus tonnage
- Return to port to port operations
- Separate inland logistical services
- 'grey box' concepts
- Restructuring of organisations
- Resurrection of independent agencies
- The Third Container Revolution?

SHIP MANAGEMENT

Session 54
1400-1530

Ship Management Today

This session examines the subject of ship management from the viewpoint of an independent ship management company. Although third party ship management is a relatively young sector of the industry, rapid growth in the 1970s and 1980s has meant that a significant proportion of the world fleet is now operated by these companies. This session will examine seven key aspects of the ship management sector:

1. What is (independent) ship management?
2. Why, when and how did it develop?
3. What is the market size and structure?
4. Why use a ship manager?
5. How should you select a ship manager?
6. What are the current market trends?
7. What of the future?

Session 55
1545-1700

Crewing and Training

Selecting a crew is one of the most important tasks faced by the ship manager. There are many options. Costs vary widely, and so may the voyage profits. What are the regulatory requirements and constraints? This session will provide the background to recent manning developments, examine crew composition, numbers and functions. Typical costs and trends for crews of different nationalities will be discussed and the training and certification required by different flags will be reviewed. The 'human element' has been pinpointed as a contributory cause in major maritime casualties. What is being done and what else can be done to improve in this area? How may changes in the STCW Convention affect ship board manning and shore management? Experiences in personnel safety management will illustrate the importance of attention to this area in a fleet management strategy.

Farewell Dinner

**Friday
5 April**

**Session 56
0900-1015**

The Shipbuilding Industry

Most people dealing in international trade are all too aware of the massive oversupply of ships, but they are not necessarily familiar with the developments in the shipbuilding market place that have created the ability to generate this oversupply. During the 1960's and the 70's, the over-provision of shipbuilding capacity was continually masked by buoyant freight markets, and increasing demand for international trade. The collapse of the tanker market in 1974 exposed the plight of the shipyard as well as the tanker owner.

Since the mid 1970's, an enormous structural change has taken place in the shipbuilding industry with the virtual elimination of merchant shipbuilding in Western Europe in favour of Far Eastern yards - in particular Japan first, then Korea and more recently the rise of China threatening the once dominant position of Japan. Against this background of continuing change, the lecturer will deal with shipbuilding under two broad headings:

1. **Market Fundamentals:** A look at the main factors which influence the market supply/demand for newbuildings and how the price of a newbuilding is determined. The physical building process will be reviewed as an understanding of this process will help identify the capabilities of the World's yards and how they were able to respond to the upsurge in ordering following the buoyant freight markets of the post 2000 era.
2. **Strategic Review:** A review of the current state of play in the shipbuilding market examining the key elements affecting newbuildings and fleet renewals over the next few years.

**Session 57
1030-1215**

Shipping Market Outlook

The shipping market operates within the framework of a supply/demand mechanism which means that future earning levels depend as much on how the industry manages supply as on the growth of demand for ships. This session looks at the various factors which determine freight market earnings and discusses the range of scenarios which could occur in the future.

**Session 58
1215-1230**

Conclusion

Coach departs For London

Please note, this is a provisional programme based upon the previous Anatomy of Shipping course. Changes to either the programme or the speakers are therefore possible.