

HOW MANY MORE?- A NUMAST REPORT ON INTERNATIONAL SHIPPING SAFETY

Executive summary

- International shipping is suffering from unfair and destructive levels of excessive competition
- Inadequate and complex systems of ownership, registration, management, operation, crewing, finance and classification of ships are exploited, providing owners with excessive freedom of choice
- Lack of accountability enables those responsible for substandard shipping operations to gain unfair advantages over those committed to quality operations
- New regulatory mechanisms must be developed to end the scandalous situation in which it can pay to run a substandard ship

2. Introduction

'Built in Spain; owned by a Norwegian; registered in Cyprus; managed from Glasgow; chartered by the French; crewed by Russians; flying a Liberian flag; carrying an American cargo; and pouring oil on to the Welsh coast – **but who takes the blame?**'

Posed by a newspaper in the aftermath of the Sea Empress disaster in 1996, the question can be asked time after time – most recently in the case of the tanker Erika, that broke in two in the Bay of Biscay, polluting hundreds of miles of the French coast. Built in Japan; owned by a brassplate company in Malta; controlled by an Italian; managed in Italy; chartered by the French; crewed by Indians; flying the Maltese flag; classed by an Italian classification society; financed by a British bank; and pouring oil onto the French coast.

Over the past decade, a number of high-profile inquiries have set out to provide answers to the reasons why the shipping industry has suffered some spectacular and serious losses, and why safety statistics displayed such dramatic deterioration during this period. However, while the answers may have been pinpointed in many of the subsequent reports, it appears that they have not been acted upon.

The two incidents referred to above occurred in the waters of developed nations, covered by maritime safety regimes that have been refined in recent years in an attempt to address the problems presented by substandard shipping. They raise profound questions about the effectiveness of the existing measures and initiatives for promoting quality shipping and indicate the need for more significant and direct action to improve safety.

NUMAST has been in the forefront of national and international initiatives to articulate concerns about shipping safety and to seek measures to address the problems experienced by the

industry. NUMAST's position on these issues has been shaped and sharpened by the experiences of many of our members – senior shipmasters and officers – who have been affected by radical changes in the conditions under which they work. As a result of the sweeping changes in the national and international maritime industries over the past 25 years, more than half the NUMAST membership now serve under non-UK registers and provide the Union with detailed professional knowledge and experience on safety and technical issues. When NUMAST refers to safety, it refers to safety in the broadest sense. For too long, the shipping industry has suffered through a too narrow definition of safety – NUMAST believes safety is a holistic concept that must incorporate every aspect of maritime operations, most notably the so-called 'human element'.

The shipping industry has always been international in its nature. But in recent years, globalisation has been exploited to present unfair and untenable levels of competition. Shipping is one of the world's most important industries. The world merchant fleet transports more than 90 per cent of global trade and modern society has an increasing reliance upon the commodities – particularly hazardous and dangerous cargoes – that are carried by ships. It is therefore essential that safety in this industry is given the priority it deserves and that international shipping is governed by effective regulatory mechanisms – mechanisms that are, in turn, properly monitored and enforced to ensure full compliance with agreed standards.

3. Safety trends

International shipping has, for many years, had an unenviable safety record. Underwriters' records show that over the past decade an average of more than 148 ships of 500gt and above have been lost each year. While total losses (in terms of tonnage) have reduced significantly since the very high levels of the previous decade, and continue to follow an overall downwards trend, there has been little movement in terms of numbers as opposed to tonnage – which suggests that the general improvement has been concentrated in larger ships; notably tankers and bulk carriers. The consistent pattern of numerical losses underlines the shortcomings of existing regulations and safety initiatives and demonstrates the need for new approaches.

Similarly, while port state control inspection results might suggest some signs of overall improvement in safety trends, NUMAST believes that the statistics provide no room for complacency and questions whether there are grounds for interpreting recent PSC statistics in an optimistic manner.

The Paris MOU's most recent annual report shows more than 14 per cent of inspected ships to have been in such poor condition that they had to be detained and that the total of detected deficiencies had risen by 8 per cent from the previous year. Among the sharpest increases in the causes for detention were ships found to have operational deficiencies – most notably in key safety areas, such as MARPOL and SOLAS procedures and equipment.

When PSC statistics are considered, NUMAST believes it is important that deeper issues are assessed. For example, PSC inspections are concentrated on the physical condition of the ship and its associated certification, rather than on the social, working and living conditions of the crew. The importance of the human factor in safe shipping operations is now widely acknowledged, yet much more work remains to be done to ensure that the elements that affect

the human factor – issues such as working hours, morale, communications, and personal safety and welfare – are properly considered.

Reports from underwriters and PSC authorities around the world demonstrate wide and disturbing variations in safety standards and performance. These are apparent between different shipowners, different registers, and different classification societies.

International Underwriting Association of London statistics show that some registers have tonnage-loss ratios up to four times in excess of the world average. Some of these are the same registers that have PSC detention rates of anything up to 50 per cent in excess of the average for all flags. It should also be noted that many of these registers display consistently poor safety records over considerable periods of time. It is possible to correlate the data from the underwriters with the data from the PSC authorities in Europe, Australia, Tokyo and Canada to show the registers that have common and consistently unsatisfactory records -- from the most recently available statistics: Cyprus, Egypt, Honduras, Iran, Malta, St Vincent, Turkey, Ukraine, Belize, Greece, Panama and Thailand. It is particularly disturbing to note that these include many of the world's largest flags of convenience and registers, that account for a substantial proportion of the world's merchant fleet.

Such disproportionate loss and detention rates serve as a stark illustration of the unacceptable state of much of the world fleet and of the need for further action to raise standards.

It has been clear for some years that the poor safety record of the international shipping industry and a number of high profile accidents have been used to justify proposals for greater regulation and government control. **NUMAST believes that unless the industry can demonstrate a tangible improvement in overall safety, such pressures will deservedly continue.**

Many shipowners complain of excessive regulation within the industry. And many regulatory authorities now contend there is sufficient regulation; and that enforcement of those regulations has become the critical issue. Certainly, NUMAST has evidence from many of its members of excessive paperwork and a high frequency of inspections by a variety of agencies and organisations. However, many of these additional checks and 'paper-chasing' exercises are the result of industry-led voluntary monitoring systems. These, in turn, are the result of the failure of existing mechanisms. Systems of repeat inspections and codes and guidelines have been developed in response to a lack of trust and confidence in present procedures. Oil companies, for instance, developed their own inspection system – SIRE -- because of their disquiet with the performance of classification societies and regulatory mechanisms.

NUMAST considers that the industry's systems of 'self-regulation' are a manifestation of the inadequacy of previous regulations and procedures – most notably in the absence of transparency and exchange of information – and are in themselves an inadequate substitute for effective and universally applied standards and controls.

4. Unfair competition

The way in which the international shipping industry is structured is one in which individual shipowners or operators are given an immense degree of freedom of choice in fundamental operational issues. Owners and operators have almost unlimited ability to switch between

registries, classification societies, insurers and other supposed arbiters of standards. **An owner or operator can therefore choose between the use of high operational standards or low operational standards. In an industry plagued by intense economic pressures, widely fluctuating freight rates and supply-demand imbalances, there are clearly strong forces for owners to reduce their operating costs by seeking savings through the evasion of international standards.**

The way in which the shipping industry presently operates is one in which owners and operators are induced into pursuing policies that provide short-term gains at the expense of long-term benefits.

The owners, operators and registers that undercut minimum international standards generate competitive pressures that drive down standards in an intensely competitive international industry -- despite the evidence from many quarters that 'quality' policies are good for business. Too many owners and operators fail to recognise the fact that investment in maritime skills can be more than offset by resulting savings on spare parts, machinery repairs and lower insurance premiums. The Swedish P&I Club recently produced research suggesting that ships covered by the ISM Code have experienced a 30 per cent greater improvement in claims than vessels outside the first-phase ISM deadline. **The concept of 'quality pays' must be developed further, with PSC and industry mechanisms adjusted to help reward those who abide by the rules. Regulators and the industry must end the vicious circle of driving down standards, by creating a virtuous circle in which quality is promoted.**

At present, substandard operations can pay – a situation most clearly illustrated by the OECD's 1996 report: *Competitive advantages obtained by some shipowners as a result of non-observance of applicable international rules and standards.*

This study demonstrated the financial inducements for shipowners that flout agreed international minimum standards. Using the example of the 30,000dwt bulk carrier, the report showed how an owner could reduce daily operating costs by almost two-thirds by choosing not to comply with international standards. There was a gap of almost 20 per cent between 'good practice' operating costs and 'standard level' costs, and the OECD pointed out that such gaps were rarely covered by the losses incurred in a typical 30-hour port state control detention period.

Such a situation, the OECD concluded, was one in which substandard operations are actually encouraged. Yet worse, the spot market in such sectors as dry bulk and crude oil trades may be shaped by substandard shipping, with charterers and shippers interested only in obtaining the lowest possible price for moving their cargoes. **NUMAST asserts that the OECD study provides clear evidence of the shortcomings of the existing regulatory regime and the danger of reliance upon port state control as the key enforcement mechanism. Detention is a demonstrably inadequate penalty for substandard shipping. The system must provide truly effective deterrence to those who seek to evade standards. It must also provide genuine penalties for all those involved in the chain of responsibility for what are illegal operations. Authorities must consider punitive penalties for owners – with financial penalties followed by the loss of the right to own and operate ships for those whose vessels are repeatedly detained. Running a ship should not be undertaken lightly. There are inherent responsibilities that must be discharged and the concept of 'a licence to operate' is one that should be introduced to ensure effective controls over owners and operators. Authorities must also develop effective procedures for determining**

whether all those in the chain of operations – cargo owners, insurers, financiers, charterers, classification societies – have discharged their responsibilities to ensure the use of safe shipping, and to impose effective penalties for those who have failed.

NUMAST is concerned that the intense competitive pressures affecting so many aspects of the shipping industry also exert negative influences on the insurance of vessels. These pressures appear to limit the ability of insurers to exert adequate pressures on potentially substandard ships. While insurers have introduced checks and procedures intended to reduce their exposure to losses, NUMAST believes more work is required to create a system that is geared to the deterrence of 'bad risks'. It has also been acknowledged that a significant number of ships in the world fleet – estimated at around 5 per cent – are being operated without third party liability insurance. Once again, international 'flexibility' is being used as a means to gain competitive advantage and **NUMAST considers there is a case for imposing and enforcing mandatory insurance requirements, with punitive mechanisms to be applied through port state control for those that fail to abide by the standards.**

5. Regulatory mechanisms

A: International Maritime Organisation/International Labour Organisation

In theory, shipping should operate to agreed and uniform standards. The United Nations Convention on the Law of the Sea established the rights and obligations of flag states, and the International Maritime Organisation and the International Labour Organisation serve as two UN agencies that, in effect, put flesh on-to the basic provisions enshrined in UNCLOS.

Established under a convention agreed in 1948, the International Maritime Organisation has had the responsibility for devising and developing a global structure of conventions and guidelines to regulate the world merchant fleet.

While recent years have witnessed much work to develop new mechanisms to eradicate substandard shipping, such as the International Safety Management Code and the revised STCW Convention, there is a general consensus within the industry and among maritime authorities that there is at most a limited need for further regulation. Many would indeed argue that there is already too much regulation and red tape. National and international administrations have continued to devise and develop new regulations – often in response to specific incidents and accidents. NUMAST believes that this regulatory flow is unlikely to slow for as long as there are grounds for concern over the safety, social and environmental record of the international shipping industry. This position has been endorsed by IMO secretary-general William O'Neil, who told the BIMCO general meeting in 1999 that 'the only way to slow down the tide of legislation is to make it unnecessary'. **For while there may be agreement that the standards set are adequate there can be no agreement that the levels of compliance with those standards are adequate.**

The IMO has done much in recent years to dispel past allegations that its standards were set at 'lowest common denominator' levels and that it was too slow in developing new regulations to reflect changes in technology or operating practices. However, it remains true that the IMO is essentially only as strong as its membership allows it to be. It has suffered from chronic funding problems, with some registers taking a long time to pay subscriptions – sometimes as a result of political upheavals and sometimes apparently as a result of deliberately withholding

payment. The growth of flags of convenience has created a power shift within the IMO, meaning that worthy and well-meaning initiatives can be resisted by alliances between interests opposed to specific regulatory proposals. For example, a move to introduce helicopter landing areas on large passenger vessels was thwarted at the IMO.

B: The International Labour Organisation

Created under the Treaty of Versailles in 1919, the International Labour Organisation has a long history of work to improve working and living conditions at sea. The ILO has also achieved much in recent years to address problems arising from the abuse of seafarers and the deterioration of shipboard social and working conditions. The last ILO maritime conference agreed such important new principles as controls to govern seafarers' working hours and rest periods, to improve recruitment practices, and to prevent the abandonment of seafarers. It also adopted a revised convention on the inspection of labour standards.

The role of the ILO in contributing to maritime safety is perhaps under-estimated by the shipping industry. This reflects the continuing failure to recognise the importance of so-called 'human factors' in maritime safety. Too often, the response to maritime accidents is focussed purely on technical issues – for instance the debate over double-hulled tankers, in answer to incidents such as the Erika and Exxon Valdez, or for compartmentalisation of ro-ro ferries in answer to the Herald of Free Enterprise. The debate seems to miss the simple fact that the best-equipped and best-maintained ships will prove substandard if their seafarers are improperly trained or certificated, suffer from fatigue or excessive workloads, or experience low morale or poor motivation through poor reward systems.

The shipping industry and those who regulate it must start to display a greater value and appreciation of the seafarers that they rely on for the safe navigation and running of their vessels. The work of the ILO is crucial in this respect and greater priority must be given by member states to the ratification and enforcement of ILO conventions. Attention should also be given to ways in which the work of the ILO and the IMO can be developed and coordinated to overcome the artificial and damaging division between 'safety' and 'labour' issues, as they are inherently linked.

However, the work of both organisations is ultimately the responsibility of the flag states or coastal states who choose to ratify the conventions that are agreed at their meetings. There are many vitally important IMO and ILO conventions awaiting ratification before they can bear fruit. And even when conventions are ratified, there is extensive evidence to show high degrees of non-compliance by member states. Neither the IMO nor the ILO has, at present, mechanisms for effectively ensuring compliance with standards. While the ILO has some limited powers to call member states to account for their performance on ratification and implementation of conventions, the IMO lacks even this power. Research has shown a disturbing failure by many flag states to file information to the IMO on ILO Convention 147-related deficiencies. **In a global industry, such as shipping, global governance is a concept that must be applied to ensure free and fair competition. The IMO and the ILO, therefore, must be given greater resources and authority to enforce and implement the standards that are agreed by their collective memberships.**

C. Flag states

Whilst the IMO sets the regulatory framework for international shipping, flag states bear the immediate responsibility for regulation and enforcement within their own waters and onboard their own ships.

NUMAST is concerned that many flag state administrations lack either the resources or the political will to ensure that they meet their responsibilities for implementing international rules and standards. This has provided 'safe havens' for substandard operators who seek savings through 'laissez-faire' regimes and has fuelled the trend for corporate bodies to distance themselves from their operations. The frequent absence of the 'genuine link' between the ship and flag state further dilutes accountability and clouds responsibility.

The 1982 UN Convention on the Law of the Sea sets out duties for flag states in such areas as safety, manning, labour conditions, training and certification, and the construction, equipment and seaworthiness of ships. It is, however, very clear that many flag states are failing to discharge these duties.

The failure by some flag states to conduct the required checks and inspections before accepting ships onto their registers has been blamed for the growth of the 'phantom ship' phenomenon, in which fraudulent and criminal activities have been allowed to flourish by obtaining temporary registration. Many flag states have abdicated their responsibility for ship inspection through devolution to classification societies.

The past three decades have seen a marked trend for 'flagging out' from traditional maritime nations to registers established in developing nations. Dozens of new registers have been launched in the past few decades – some in landlocked countries, others operated in offices many thousands of miles away from the flag state – and there are now more than 140 registers around the world. Many of these newer registers have been shown to lack the necessary resources or expertise to enforce standards on the frequently sizeable numbers of ships on their books. Until quite recently, one of the largest flags of convenience – Cyprus – had just nine inspectors to check standards for a fleet of more than 1,400 ships. By contrast, the UK employs more than 160 professional survey staff, with a domestic register of some 370 ships. Panama's maritime authority, with more than 5,000 ships on its register, has an annual budget of some US\$35 million – compared with some £50 million for the UK Maritime and Coastguard Agency. While most traditional maritime nations, such as the UK, maintain budgets and staff for maritime safety and enforcement, flags of convenience are notable for delegating work to commercial organisations. The deployment of resources by major registers indicates their attitudes towards the role of shipping – as an industry of strategic significance, or simply as a generator of national income.

This absence of effective procedures and resources to discharge responsibilities is evident in the failure of certain flag states to publish the results of investigations into serious incidents involving their ships, to conduct annual surveys or pre-registration inspections, or to carry out follow-up action after ships on their register are detained. The absence of published investigation reports is a serious obstacle to identifying and tackling adverse safety trends. Many of these flag states also fail to maintain adequate records on the health and safety of the seafarers serving on their ships; again a significant hurdle that prevents the meaningful collection and interpretation of data to identify and remedy problems. **Casualty investigations should be carried out either by an independent body and/or a flag state with jurisdiction over a search and rescue area.** In the case of the Ever Decent/Norwegian Dream collision, for example, it was unacceptable that a state that was faced with SAR responsibilities and

potential pollution consequences was in theory unable to participate or possibly glean relevant information on the incident as it occurred in nominally international waters.

The inaction of many flag states on crucial safety matters in part explains why such registers are often able to offer shipowners substantial savings. As a result of the intense economic pressures within international shipping over the past 25 years, there has been considerable pressure for shipowners to take the course of flagging out. Since 1980, the proportion of the world merchant fleet registered in developed nations has fallen from 51.7 per cent to 25.7 per cent, while the volume of tonnage registered with the major open registers has risen from 27.6 per cent to 47.8 per cent. Over the same period, however, the concentration of ownership has remained with developed nations and no flags of convenience appear among the UNCTAD list of the 35 most important maritime nations in terms of beneficial ownership.

As noted already, there is a general agreement that the shipping industry does not need more regulation – but rather needs effective implementation of existing regulations. It is in this area that the efforts to secure what is known as Flag State Implementation are crucial. Since being introduced as IMO guidelines in 1997, FSI has been a worthy but still largely ineffectual initiative. ‘Naming and shaming’ and voluntary self-assessments are perhaps not the most effective weapons with which to seek compliance with standards. Compulsory, external and independent assessment of flag state performance is essential. **Flag states that persistently fail to discharge their international responsibilities must be identified by agreed criteria, penalised, and the avenue of refusing to recognise their certificates is one that should be explored.**

The machinery being developed by the IMO for the STCW 95 ‘whitelist’ could be adapted and strengthened for such a purpose, enabling the IMO to review and report on FSI performance. The proposals for establishing an international network of quality shipping registers are also welcome, and could also be utilised as a means of marginalising registers that are repeatedly shown to be inadequate. Proposals emanating from the OECD, for international sanctions to be taken against ship registers offering unfair tax regimes, should also be developed further to eliminate the harmful competition created.

In addition, there is a clear need for further controls to curb the ease with which ships can ‘flag hop’ to avoid statutory surveys and inspections and to limit the issue of transitional certificates.

There are somewhat predictable arguments that such a course of action would cut across accepted understandings of flag state sovereignty. However, NUMAST believes that countries that aspire to the status of flag states have an inherent responsibility to discharge obligations for the safety of their ships and the seafarers that serve upon them. NUMAST also questions the validity of the concept of rights of sovereignty in a globalised industry that has to be controlled and regulated through internationally-agreed conventions. At present, it appears that any country can aspire to the status of a ship register without having to meet defined criteria for attaining that status. **NUMAST believes that flag state responsibilities must be clearly defined and that persistent inability to discharge those responsibilities should result in the loss of that status.**

Ships assume the nationality of the state whose flag they fly, and there must be greater effort made to ensure that a genuine link exists between the state and the ship. Article 94 of the 1982 United Nations Convention on the Law of the Sea requires that states

ensure effective jurisdiction and control over ships flying their flag and Article 217 imposes obligations for flag states to effectively enforce international rules, standards and regulations on shipping safety, social and environmental issues. NUMAST recommends that steps are taken by the IMO and ILO to ensure that these provisions are properly implemented and policed.

D. Classification societies

The growth of new ship registers has resulted in a substantial devolution of responsibilities to classification societies. As many flag states are incapable of checking the ships on their registers for compliance with international standards, such work has been delegated to classification societies.

It is perhaps ironic that the first classification societies developed as a result of insurers' concerns about the lack of standards to assess the risks to be insured. Since those times, there has developed a new level of concern at the performance of many classification societies. In turn, this has fuelled a proliferation of additional surveys and vetting procedures at many different points within the shipping industry.

At the heart of the disquiet about the classification societies is the commercial nature of their business. In a largely unregulated sector and in a bitterly competitive international industry, they have to compete for business and are consequently exposed to potential conflicts of interest and pressures to reduce fees or even reduce standards. Such pressures are particularly intense at present, with two of the largest – Det Norske Veritas and Lloyd's Register – recently embarking on significant cost-cutting programmes.

Whilst the International Association of Classification Societies has striven for assured standards of quality, the results of port state control inspections show remarkably varied detention rates between the various societies. In the most recent US Coast Guard statistics, for example, the worst class-related detention record is 16 per cent of inspected ships, compared with an average of 1.1 per cent. It is nothing less than scandalous that the US has found 15 organisations that supposedly enforce safety standards to have detention ratios more than four times the average. There has also been a wealth of evidence to show how supposedly in-class ships have been proved to be substandard and Lord Donaldson is not alone in pointing out that even the record of IACS members is not one to justify any degree of complacency.

NUMAST is particularly concerned at the continued lack of common standards for the training and qualification of society surveyors, as well as at the use of non-exclusive surveyors and the scope for commercial and performance pressures on individual surveyors. While international standards are imperative, NUMAST is also concerned about the long-term impact of the growing global shortage of skilled and experienced officers to fill such posts in the future.

Despite their increasingly important role in the development and enforcement of safety standards, the classification societies continue to enjoy an unrivalled lack of accountability – **with no liabilities for negligence or failure to discharge their responsibilities.** There continues to be **scope for discretion in the application of classification society rules and requirements, and -- despite some progress by IACS – there continues to be a general lack of transparency and an absence of mechanisms to prevent 'class hopping' by substandard owners.** The existing system allows confusion and blurring of the roles of

classification societies and flag states, and the independence of classification societies can be further called into question by the role of shipowners in their governing bodies. At the worst level, there are also grounds for concern at the overlap between flag state and shipowner related areas of work performed by the societies. NUMAST believes that the recommendation made by the Australian Ships of Shame report – **for classification societies to be subject to appropriate operating criteria** -- should be introduced and enforced.

E. Port states

As a result of the extensive evidence of non-compliance with agreed standards, the importance of port state control has grown rapidly over the past 20 years. Since the 1982 agreement establishing the Paris Memorandum of Understanding on Port State Control, there have been welcome, and long-overdue, moves to develop a global system of PSC to ensure that there are no 'ports of convenience' where substandard shipping can flourish.

However, while PSC is undoubtedly a powerful weapon and deterrent against substandard operations, the system does suffer from some shortcomings.

Detention of ships is the main sanction applied when significant defects are discovered. However, the OECD study shows that **detention in itself does not provide sufficient financial penalty for substandard operations**. Detention is usually lifted once repairs are carried out or defects rectified (although in a disturbing number of cases ships have been able to continue trading without deficiencies being repaired). However, it must be noted that in these cases these are problems that should not exist -- and are usually items that should have been addressed through decent operational procedures and management principles. Such a situation would not be tolerated in other transport sectors: a motorist whose car lacked MOT certification, insurance, etc, would rightly expect to face criminal charges. The introduction of significant penalties for detained ships would also help to fund the development of enhanced port state control systems and greater exchanges of information.

Although the system of PSC inspection has been refined in recent years to target high-risk vessel and flag categories, the fact remains that PSC is a limited weapon – with inspection rates in most countries varying between less than 10 per cent to over 50 per cent of ships visiting their ports. The system is further constrained by the very short time in which most vessels are in port and the inability to inspect passing traffic. **NUMAST believes such rates are inadequate and we fully endorse Lord Donaldson's proposal that saturation inspections should be carried out from time to time on all ships entering particular ports**. Such checks should be unannounced and should fully address all aspects of the ship and its operation – including 'human factor' issues, such as social and working conditions. Although the human factor is now acknowledged to be critical in around 80 per cent of accidents at sea, PSC inspections have only limited ability to assess the practical experience and skills of crew members. **More attention must be paid to methods of ensuring that the human element – in its widest sense – is properly addressed and examined in PSC inspections. With adequate training and resources for the inspectorates, PSC must be developed into a more 'holistic' check on all aspects of a ship's conditions – both the 'hardware' and the 'software'.**

PSC authorities should also develop a concentrated programme of inspections related to ILO Convention 147 requirements – such as working conditions, food and catering, and equipment safety – in the same way as GMDSS or ISM defects have been targeted.

NUMAST is very concerned that a significant number of ships continue to clock up repeated detentions. Almost one in 10 of the foreign ships detained in UK ports during 1998 had been detained at least twice in the previous 24 months in other European ports. Of 136 ships detained by Paris MOU members in just one month during 1999, one had been detained six times, another had been held at four times over the previous two years, and six others had been held three times. The Royal One, a Belize-registered ship that nearly sank off the Irish coast in 1999, had been detained six times in under two years – yet was still operating with a long list of defects, including insufficient crew, and an out-of-date liferaft and hydrostatic release unit. Another Belize-flagged ship, the Rema, that sank off the NE coast of the UK in 1998 had been detained for five days earlier in the year with 18 defects and detained the previous year with problems including hull damage impairing seaworthiness and deck cracking. The case of the Erika involves a vessel that was shown in US Coast Guard records to have had corrosion defects as far back as 1994 and had been detained in Europe with corrosion problems in 1996 and 1997. Yet, somehow, it appears the ship was not subjected to subsequent follow-up PSC checks on these points.

It is simply unacceptable that PSC procedures can allow ships to continue operating with defined histories of repeat detentions. There must be a system in which vessels that fail consecutive PSC inspections are penalised and prevented from trading until recurring deficiencies are rectified. Arrest procedures – that would also cover the vessel's cargo – would help to increase the opportunity for ensuring accountability and responsibility within the industry.

It is therefore clear that the system of inspection and detention needs to be tightened up, to end the scandalous situation of repeated PSC failures and to impose effective sanctions against those responsible for the operation of such vessels. Once again, the proposals made in the Donaldson Report – in this case the denial to persistent detainees of the right to discharge and load – should be enacted.

It should also be noted that port state control also represents a significant shift in the cost of regulation, from flag states to port states. NUMAST believes it is an unfair and damaging distortion of the market for port states to have to bear the considerable financial burden of developing and maintaining inspectorates to seek to implement the standards that too many flag states are unwilling or unable to abide by. By instituting a system of punitive financial penalties for those transgressing such standards, port states can seek to recover some of the costs of providing policing authorities and, in turn, shift the financial burden back to where it belongs.

F. Shipowners

While shipowners bear the ultimate responsibility for the standards on their vessels, there is a complex chain of players within the industry – including charterers, cargo owners, bankers, shipbrokers, ship managers, and manning agents -- that can make it difficult to determine where genuine responsibility and decision-making lies. The rise of ship management companies and crewing agencies has caused a dilution of the owners' direct responsibilities for ship operations. Accountability for substandard shipping is often a difficult objective in an environment where many traditional shipowners have been replaced by companies that have little or no commitment to meeting the long-term interests of the industry. Accidents such as the recent Erika oil spill and the Scandinavian Star fire have shown how the network of companies

controlling and operating vessels can inhibit responsibility, accountability or liability. In reality, ship managers operate on a contract with the owner – a contract that can be severed – so the ultimate responsibility for a vessel must remain with the owner, and that principle should not be undermined.

However, the situation in which ultimate responsibility is blurred or evaded appears to be leading many authorities to target the shipmaster (and/or other officers) through the legal system. Such an approach is misguided and fails to recognise the reality of present-day shipping operations (see section below). Most masters and senior officers now join their ships well away from their country of domicile – which will often put them in an insecure position in terms of their own employment security and individual rights. Often, they join ships of which they have no prior knowledge or experience, yet may subsequently be held to be responsible for those vessels. In reality, the genuine power and resources that determine the standard of the operations in which they are involved are taken ashore – and often through a complex chain of responsibility. It is clear the regulatory system must change to reflect those responsibilities and to introduce measures that instill a proper sense of accountability within the industry.

The absence of effective punitive measures for substandard owners and operators was recognised by Lord Donaldson's 1994 inquiry after the Braer disaster, which recommended 'severe sanctions' for substandard ships. The first successful prosecution by the UK authorities of the owners/operators of a substandard ship did not take place until 1999. Despite the wealth of evidence in the UK and internationally, prosecution for blatantly substandard and illegal shipping operations remains a rare event. Now that the ISM Code has introduced the concept of a 'designated person' with clear responsibilities, it is to be hoped that legal proceedings may be used more frequently to instill a genuine sense of accountability ashore.

NUMAST believes there is a strong case for a system in which shipowners can lose a 'licence to operate' if they are repeatedly found to be failing to comply with international standards. In addition, effective sanctions must be developed to penalise others involved in the chain of responsibility for substandard ships – including charterers and cargo owners, banks and insurers. The only way in which substandard shipping can be eradicated is by concerted action involving all those involved in the operational chain.

Fierce competition, which characterises so much of the international shipping industry, even affects the arrangements for ship finance. During the 1990s there was a four-fold increase in the number of lending institutions entering the market – helping to fuel speculative building and support for inadequate operators. **Greater control must be exercised over the finance of shipping operations, with banks and other financial institutions being given a duty to develop what the OECD describes as 'fully responsible' lending policies, associated with stricter conditions on loans and finance and monitoring by lenders of standards of ship crewing and vessel maintenance.**

The way in which the industry is regulated has evolved in an unstructured manner, in which new regulations are almost invariably devised in direct response to accidents – such as the Torrey Canyon, Amoco Cadiz, Herald of Free Enterprise and Estonia. Regulation is usually reactive rather than proactive and regulators clearly struggle to keep pace with the rapid pace of technological and operational developments within the industry. Debate on fundamental regulatory principles lags far behind the introduction of fast craft, for instance, or the use of new

technology in vessel traffic control services. **A change of regulatory approach is desperately needed, to create a proactive rather than reactive system of controlling maritime safety and environmental protection, and one in which underlying issues – most notably the ‘human element’ – is no longer neglected.**

G. Seafarers

The growth of flags of convenience and the emergence of one-ship ‘brass plate’ companies has resulted in complex and often secretive chains of responsibility for modern ship ownership and ship operation. Although the International Safety Management Code was designed in an attempt to proscribe acceptable practices and to identify management responsibilities, the recent Erika oil spill has demonstrated shortcomings in the system and the continued difficulty in defining accountability. Shipping remains a highly secretive industry, that would benefit from greater transparency about where true ownership and responsibility for a vessel lies.

One alarming consequence of the corporate secrecy prevalent in shipping outlined above is the increasing exposure of shipmasters and other senior officers to detention and potentially draconian fines and jail sentences. While not seeking to defend inexcusable actions or omissions by seafarers, NUMAST is very concerned that in some cases masters and/or senior officers are used as convenient scapegoats for others who are able to evade their responsibilities through the complex chain of shipping operations. There have been several examples in recent years where shipmasters have been detained without trial for long periods following oil spills or other incidents.

NUMAST is concerned that the position of the master, in particular, is often misinterpreted by regulators who continue to view the master as having supreme responsibility for his/her vessel. In reality, present-day shipping operations mean that the master's real power and resources have been severely constrained. Simultaneously, drastic changes in employment conditions have increased the pressures placed on masters and officers and have eroded the spirit of IMO Resolution A443 (XI), which was intended to protect masters in the exercise of their professional judgement.

NUMAST believes that there is a strong case for a change of regulatory approach to ensure that shipmasters and/or senior officers can not be used as ‘pawns’ in wider disputes over liability or damages. The responsibilities of shipmasters, in particular, must also be endorsed within the regulatory framework to ensure that they are protected in the exercise of their professional judgement from unfair commercial pressures. Similarly, more support must be given to masters and officers who presently face threats to their employment if they take professional decisions not to sail a ship because of serious safety concerns.

The position of seafarers in the international shipping industry has been adversely affected by the radical changes of the past few decades and, in particular, by the massive ‘flagging out’ from traditional registers. In many cases, this has deprived seafarers of basic civil rights and social benefits, as their contracts of employment and working conditions have also been transferred from ‘traditional’ or home-nation agreements. Many seafarers have effectively been disenfranchised because they are now working under flags that give them no access to recognised state institutions, welfare systems, or national legal machinery to protect their rights. Such developments have increased the importance of the support role played by national maritime unions and seafarers’ missions, but have also fragmented traditional

consensual means of determining seafarers' terms and conditions and resolving disputes or securing redress. Statistics compiled by the ITF show a clear link between cases of abandoned seafarers and open registers, and the FoC system has enabled the grossest forms of exploitation and abuse to flourish almost unchecked. **NUMAST believes there is a firm need to develop new regulatory mechanisms to protect the basic rights of seafarers employed under 'globalised' conditions.**

The need to protect seafarers in such situations is further underlined by a Seafarers' International Research Centre study that provided evidence that health and safety standards are inferior on 'new' registers. This report showed that UK officers serving on foreign-flagged ships were almost twice as likely to suffer a work-related death than those employed on red ensign registered tonnage. Shockingly, suicide rates among British seafarers serving on foreign ships are almost four times higher than those serving under the UK flag. During a 10-year study period, there were 14 disasters involving foreign-flagged vessels where UK seafarers' lives were lost, compared with just four involving British-registered ships. Nine of the 14 foreign vessels were under flags of convenience.

The unacceptable social and welfare consequences of the drift to FoCs are further exacerbated by serious shortcomings in the collection and dissemination of ILO Convention deficiencies. Port state control fails to take sufficient note of onboard social standards, although these have a profound impact on the overall standards of operation and the safe and efficient running of the ship. This means that in key areas such as seafarer health and safety, and onboard living and working conditions, there is totally inadequate record-keeping and no centrally-published and detailed information on the nature and scale of ILO Convention-related defects. Even worse, there are no reliable statistics covering the health and safety of the world's seafarers – one study estimated that more than 84,000 have died in the past 35 years. **NUMAST believes that much greater effort must be made to collect such information through PSC inspections, and to compile and disseminate detailed international records on seafarer health and safety on a centralised basis.**

While there is agreement on the importance of the 'human element' in maritime safety – with a wealth of statistics to show that 'human factors' are critical in around 80 per cent of accidents at sea -- it can be argued that until recently the regulatory system has failed to ensure an effective means of controlling and enforcing seafarer standards. The 1995 STCW Convention represents a long overdue attempt to raise levels of competence that have been driven down by several decades where the crewing of ships has been determined largely by low cost rather than by competence.

For many years STCW certification could not be taken as a guarantee of competence, but the new IMO machinery for assessing and verifying member states to agreed standards should do much to restore faith in the system. However, **NUMAST considers that the work of the IMO must be supported by much greater emphasis in port state control inspections on the 'human element' and STCW-related procedures and policies.** In this connection, work to tackle the recognised problem of forged or fraudulent certificates is essential, as is increased control over the recognition of other countries' certificates.

The regulatory system must also be refined to address associated 'human' issues, such as language problems among multinational crews. It is now not uncommon to find as many as four or five different nationalities among as few as 15-20 crew complements. **Failure to communicate effectively has been implicated in a number of serious incidents and**

accidents and NUMAST recommends that further controls are implemented to address this important issue.

The existing regulatory framework also fails to ensure effective control over the manning of modern ships. Average crew complements have more than halved over the past 20 years and inadequate crew levels have been recognised as having an adverse effect on such important elements as watchkeeping standards, maintenance, fatigue and breaches of important safety regulations. The inadequacy of the system used to determine crew complements was recently highlighted by the principal surveyor of Hong Kong's marine department, Captain Suresh Anand, who noted that 'in the intensely competitive environment which is prevalent today, any attempt by a responsible flag state to enforce high and sensible standards unilaterally will only result in shipowners deserting that register and finding a more accommodating (flag)'.

Welcome work is now being undertaken at the IMO to provide revised principles for assessing safe manning that better reflect the reality of ship operations and the factors that influence the demands on crew members. **NUMAST believes that the revision of the safe manning principles must be accompanied by a determined approach by flag and port state authorities to ensure the adequacy of manning levels and to prevent unfair competition from those who seek to undercut by a relaxed interpretation of standards.**

One particularly deleterious effect of the bitter competition to save money through reducing crewing costs has been the shrinkage or even the withdrawal of training budgets. This trend has been most marked in traditional maritime nations, but has been noted on a global basis and has resulted in a situation where the industry is facing a serious and growing shortage of skilled officers. The run-down of training in traditional maritime nations has also been fuelled by the failure of the flag of convenience system to develop a sustainable source of supply of skilled seafarers. The FoCs take the greatest numbers from the global pool of maritime labour, yet give the least into that pool. What can only be described as a desperate supply and demand situation is likely to be further exacerbated if the introduction of STCW 95 standards results, as intended, in the withdrawal of low quality labour.

Whilst NUMAST appreciates that the regulatory opportunities for addressing the maritime skills shortage are limited, we believe the regulatory framework can be used to foster and develop the highest standards of competence. The existing environment has allowed systematic abuse of seafarers and their conditions of employment. In turn, this has had a profound impact on the safety of shipping and **NUMAST would stress that when regulators consider the issue of substandard shipping, they should recognise that even the best ship can be substandard if its crew are improperly skilled and experienced, or employed on inadequate terms and conditions, or if their numbers fail to match the level needed to operate their vessel safely and efficiently.**

Research conducted for the ITF by MORI showed how the downward spiral in shipboard conditions impacts upon morale and performance, with clear links, for example, between the number of hours worked and the levels of accidents witnessed. Almost one-third of the seafarers on FoC vessels had experienced racial discrimination in the previous year and 10 per cent complained of physical abuse. More than 40 per cent worked in a language other than their own and more than one in 10 worked over 12 hours each day. Furthermore, a recent SIRC study showed how average ship turn-round times have been slashed from six days to under 16 hours since 1970, adding to concerns that the deterioration in the quality of life at sea is reducing the industry's chance of attracting and retaining qualified, motivated and

professional staff. Long hours, low pay, no shore leave, and uncertain employment prospects are not the signs of valued and honoured workforce, and the industry ignores at its peril the long-term effects of allowing such deplorable practices to flourish.

High wastage rates (up to 30 per cent of cadets lost within the first two years of training, for example) among seafarers from both the developed and developing nations are just one sign of the industry's failure to properly nurture its increasingly scarce human resources. As the owners' organisation BIMCO has pointed out, international shipping is having to place a 'tremendous reliance' upon an increasingly older pool of experienced personnel, with no evidence of the necessary effort to replace that shrinking pool. Research published by the SIRC last year suggested that more than half the world's seafarers are over 40 years old and only 20 per cent aged under 20, yet the most recent reports from the International Shipping Federation indicate that seafarer training worldwide has been cut back in recent years. Almost two-thirds of national shipowner associations report domestic deficits of skilled and experienced officers and 19 per cent describe the supply-demand situation as 'serious'.

The scale of abuse and exploitation of seafarers is immense, and maritime welfare agencies and missions have expressed concern at evidence that it is increasing. The ITF, for example, has over the past four years dealt with more than 210 cases of abandoned crews involving a total of more than 3,500 seafarers. Not surprisingly, the statistics also show that two-thirds of cases of abandoned seafarers involve FoC vessels and the majority involve flags that have the worst ship loss records. **NUMAST supports the proposals to create a 'safety net' system of liability and compensation for the world's seafarers, many of whom presently suffer from the absence of international provision for claims by crew members, the lack of uniform liability, compulsory insurance or any other form of financial security.**

Substandard shipping will not disappear until substandard crews and substandard crewing practices are ended. **NUMAST therefore recommends that the regulatory approach is refined to ensure that IMO and ILO conventions on crew training, qualifications, conditions, safety and welfare are adhered to.**

NUMAST would also recommend that other countries look to the UK's adoption of a scheme that links access to supportive measures for the shipping industry to a commitment to employment and training and that the international shipping industry develops ways in which the 'burden' of training can be shared and spread by all those who rely on the continued supply of maritime skills and experience.

6. Proposals

NUMAST believes it is clear that the shipping industry is in urgent need of radical measures to address long-standing safety concerns. This report concludes with the following proposals:

- **'Self-regulation' must not be accepted as an alternative to the universal application of agreed international standards and controls**
- **mechanisms must be developed to provide incentives and recognition for the 'quality pays' approach to ship operations**

- punitive penalties must be introduced to provide genuine deterrence to those involved with substandard shipping
- procedures must be developed to determine the levels of responsibility of all those involved in the chain of shipping operations and to penalise those identified as failing to discharge their duties
- mandatory requirements for third party liability insurance cover must be introduced and enforced for all ships
- the International Maritime Organisation and the International Labour Organisation must be given greater resources and authority to enforce and implement standards agreed by their collective memberships
- flag states that fail to discharge the responsibilities enshrined in the UN Convention on the Law of the Sea and that fail to ensure effective jurisdiction and control over ships flying their flag must be identified and penalised, with the ultimate sanction of refusal to recognise their certificates
- action must be taken against flag states that consistently fail to investigate, or publish the results of investigations into accidents involving ships using their registers
- controls must be introduced to curb the ability of shipowners to evade statutory surveys and inspections by flag and/or class 'hopping'
- classification societies should be subject to appropriate operating criteria, with liabilities for negligence or failure to discharge defined responsibilities
- international standards must be introduced to govern the training and qualification of classification society surveyors, and to control the use of non-exclusive surveyors
- punitive penalties must be introduced for ships that fail port state control inspections with significant deficiencies
- ships that are repeatedly detained after failing PSC inspections should face a rising scale of punitive sanctions leading to the denial of the right to load and discharge and the confiscation of cargoes
- saturation inspections should be carried out from time to time on all ships entering particular ports
- concentrated programmes of PSC inspections should be undertaken to focus on 'human element' issues and onboard social and working conditions and port state control procedures should be refined to place greater emphasis upon STCW and ILO Convention requirements
- shipowners should be exposed to the potential loss of a 'licence to operate' if they are found repeatedly to be failing to comply with international minimum standards
- mechanisms must be introduced to provide 'fully responsible' lending policies for banks and other institutions involved in shipping finance
- shipmasters and officers need regulatory protection from being unnecessary and/or prolonged detention in wider disputes over liability or damages

- shipmasters and officers must be given greater protection against victimisation and/or commercial pressures in the exercise of their professional judgement on safety issues
- new regulatory mechanisms are essential to protect the basic social, welfare and employment rights of seafarers employed under 'globalised' conditions
- the industry and the authorities must compile and disseminate detailed international records on seafarer health and safety statistics
- revision of the principles used to assess the safe manning of ships must be accompanied by concerted efforts to enforce adequate crew complements and to prevent unfair competition through relaxed interpretation of international standards
- urgent action is needed to implement proposals to create a 'safety net' of insurance provision to provide financial security for abandoned seafarers
- the industry and flag states must develop new mechanisms to promote maritime training, to curtail wastage rates and to reverse the growing global shortage of skilled and experienced seafarers