

INTERNATIONAL SHIPPING

The continued occurrence of marine disasters, causing loss of human lives dating back from the TITANIC, to the threat to ecological and sociological aspects of human life by the sinking of ERIKA near the shores of France, calls for fresh thinking to prevent recurrence of such incidents. Many a commission has been set up in the past, resulting in myriad recommendations, with many agencies being assigned the task of implementing them, but, we are left with the feeling that we have not achieved the targets that those recommendations have aimed at and something more substantial needs to be done to achieve the desired goal of safe shipping and cleaner seas. Major shipping disasters, especially in the vicinity of shores attract adverse public reaction, often blown out of proportion to the reality by the all powerful media, ever alert to grab opportunities to increase circulation. However this is a fact of life that cannot be wished away, and in fact, the role of ever watchful media will only further increase in days to come and we might as well bear this in mind while attempting to improve matters relating to shipping or for that matter in any walk of life.

THE INTERNATIONAL COMMISSION OF SHIPPING has embarked on an unenviable task, and, at the very outset, it is blessed with a plus point in that it has a very compact team—not too unwieldy, not too small, but adequate for discussions within itself. WELL BEGUN. The information paper briefly touches upon a number of key factors dogging the shipping industry at sea, and the commission must look forward to amplifying the reasons in greater detail from different quarters around the globe and this itself is its greatest handicap, in that the opinions collected will not be devoid of the influence of political, geographical, regional, economical, cultural, and linguistic considerations. The one factor that will conspicuously be absent will be OBJECTIVITY. This at the very outset might sound pessimistic, but I would still stick my neck out and declare that it is a reality and remedial actions must bear this in mind while the final recommendations are formulated. It observes that disasters continue to take place despite the progressive establishment of various regulatory authorities, regulations, conventions and inspections. In analyzing the various mishaps, big and small, one is unable to discern an underlying thread, nor a pattern, so that the remedial measures can be directed at one issue or one agency or one organisation. Thus, the issue becomes complicated at that we are called upon to find out what could be wrong and then analyse same and then prescribe the remedy so that all sorts of ailments may not befall the industry. In short a universal panacea against any debacle. At the risk of being labeled digressing, it might be worthwhile to trace the development and changes in merchant shipping over the past four or five decades.

HISTORICAL

Starting in the early part of the Fifties, general cargo ships were 10000 to 15000 Dwt and tankers of 25000 dwt were even termed supertankers.(Size of passenger ships not considered) Closure of the Suez Canal in 1956 led to rounding of the Cape of Good Hope and brought about increase in ship sizes. Ships were also manned with about 50 to 60 crew. Post Suez Canal closure developments gradually brought about larger ships with the same crew. Late sixties witnessed tankers up to 100000Dwt and soon the VLCCs made their appearance. Dry cargo ships did not lag behind, and they also started emulating the liquid sisters, though not to the same extent. Late seventies saw the advent of cape sizes.

In the meantime, there were a few disasters in the tanker sector, which brought about significant changes. The explosions on MACTRA, MAPESSA, and KING HAAKON while tank cleaning resulted in the requirement of I G system and crude oil washing in crude oil tankers above a certain size. Even existing tankers were retrofitted. It is significant that oil companies owned a number of tankers. With the disasters of TORREY CANYON and AMOCO CADIZ came the improvements in steering gear systems and the attendant threat of oil pollution threats saw the introduction of MARPOL 1973 and then the 73/78 protocol.

1972 also saw oil shock and this set the ship owners to think in terms of reducing the cost of operation. Thus began the reduction of crew strength gradually. Even in the early eighties the crew strength had come to about 25 in the advanced countries and in ships of flags of convenience. The late seventies also saw the development of STCW convention, but this did not lead to the desired results as it was thought that it was too vague and contracting governments were unable to interpret the same uniformly and adequately. After considerable deliberations at the IMO, the 1995 STCW protocol was arrived at wherein drastic changes were effected to bring about uniformity across nations and for the first time IMO was armed with executive powers towards implementation of the convention, all the other previous conventions being of recommendatory nature to be given effect by national governments, who had acceded to the respective conventions.

By far the biggest change came about with the oil spill in ALASKA by EXXON VALDEZ. The government of UNITED STATES unilaterally legislated the OIL POLLUTION ACT 1990, and required all the tankers calling at the US ports to adhere to them, under pain of being debarred from entering US ports if the provisions of the Act were not followed. More stringent were the penalties associated with oil pollution, which could financially ruin many a major oil company, and result in their closure, in case of oil pollution. Many established oil companies decided to stop trading to the United States. Slowly normalcy is being restored, despite the provisions of the Act not being altered. Oil pollution has significantly reduced or disappeared from the shores of United States. Is it because of the deterrent penalties?

A significant convention that took place in the early 90s is the enactment of ISM code with the express intention of eliminating substandard ships. It was thought that ship owners shore establishments were not conscious of their responsibilities and obligations towards the conventions and this code was developed to inspect the practices and the awareness of various rules and regulations by the shore staff of the ship owners right up to the level of the topmost person and the practices were such that the top management was kept informed of the state of the ships and remedial measures were taken as required to keep the ships seaworthy and all the deficiencies were recorded and made available to inspecting authorities. This was to ensure transparency in ship operation. The provisions of this code are being implemented in two stages. It has come into force in July 1997 for tankers, bulk carriers, container ships and gas and chemical carriers. The rest of the ships will be called upon to implement the same by 2002. During the 90s, port state control was also established, giving detention powers to the inspecting authorities at the port at which the ships called. This was first established in Europe and other regions followed suit. And all the regions in the world are covered now.

Thus we see, notwithstanding the above regulatory and administrative methods with improved means of inspecting ships qualitatively and quantitatively and by multifarious agencies, disasters such as ERIKA HERALD OF FREE ENTERPRISE, and ESTONIA continue. Collisions in midsea such as between HANJIN MADRAS and MINERAL DAMPIER take place. DERBYSHIRE sinking is not yet a closed chapter..

One can safely conclude that sufficient regulatory mechanism is already in place and adequate number of agencies is more than empowered to administer it. Then what is lacking? Very obviously the implementation. The regulatory bodies can be listed as under:

- 1) The classification societies
- 2) The flag state governments
- 3) The port state control organizations
- 4) The P and I Club inspecting agencies
- 5) The cargo surveyors
- 6) In certain countries the stevedore organizations
- 7) In case of tankers, oil companies vetting organizations.

With such a lot of inspection agencies, spread all over the world consisting of all sorts of nationalities, ages, experience and outlook and interests, it is just not possible for uniform application or interpretation of the rules and requirements. Even in one classification society one experiences different decisions, when proceeding from one part of the world to another, even though it is claimed that one can always refer the matter to the central organization and get a uniform opinion. In a case that I personally know, a ship was not allowed to berth and held up at anchorage, because the class surveyor boarded the vessel (uncalled for) and proceeded to the engine room to conduct a general inspection and declared the unfit for berthing, since he observed that the discharge valve of the auxiliary seawater pump was leaking and a note to that effect was made in the ship's logbook! The irrelevance of the defect needs no elaboration and the ship was indeed delayed from berthing for two days, when the cargo was ready to load!! It needs no Sherlock Holmes to fathom the cause of the mysterious visit. This has been mentioned to illustrate the fact that it is not possible to divorce commercial, and national interests from decision-making and objectivity suffers more often than not. This is not to say that there are no black sheep among owners.

In another instance, a class surveyor while carrying out survey of a ship in drydock was simultaneously acting as an inspecting surveyor for prospective buyer and the principal surveyor was apprised of the paradox of the situation, refused to shift even one of the functions to another surveyor. Political, regional and not the least commercial considerations play a big part in killing objectivity in inspections. If ship safety must be improved, impartial and objective inspections are minimum. Instances of pressures brought upon inspection agencies, by ship owners, shipyards, charterers, sailing

schedules, port authorities, weather conditions, surveying locations. and pressures of work., can be cited galore. (both over strict or over lenient)

SHIP DESIGN

Ship sizes have grown at alarming pace in the late sixties and in the seventies. It is not clear the strength requirements have been thoroughly examined to meet the rigors of the sea conditions, unpredictable that they are. Classification societies will dismiss this as hogwash, but the flexing of large ships in a seaway impairing the watertight integrity of the hull on account of the working of hatch covers is a well known fact and the suspectness of No 1 hatch cover has been well established. Strengthening of aft bulkhead of no1 hatch in bulk carriers of over 150m length points at nothing less. Finite element method has certainly led to saving of steel from where it is not required, but then one cannot escape the feeling that this has resulted in less factor of safety (ignorance as it was referred to in earlier days). High tensile steels were also introduced with much fanfare, but the wheel has turned considerably and experience with such ships has not altogether been satisfactory. One must recognize the fact that ships work in hostile atmosphere, subject to continuous vibration, corrosive effects of the seawater and operated by ever changing crew and this warrants adequate safeguard from the design stage onwards. The factors mentioned above are well known and have been repeated ad nauseum, but reiterating it once more, I, feel will do no harm.

Similar is the case of main and auxiliary machinery. More and more inferior fuels are pushed down the throat sugarcoated with attractive prices, and commercial pressures force engine makers to fight hard to develop suitable designs to cope with such inferior fuels. When satisfactory stage seems to be arriving with respect to combustion of these fuels in present engines, along comes the new requirement to meet with the NOX standards of emission from the engines. There seems to be no respite. Engine designs also seem to fine tuned to the speed requirements to achieve fuel economy, that an adverse wind even in the region of 4 or 5 in the Beaufort scale, drops the speed by 10% to 15%. Not acceptable to charterers. Operating personnel overload the engine with the resultant after effects! New buildings are ever trimmed in specification to effect cost savings. These might be satisfactory in the initial years, but when the adverse effects of cost saving start manifesting themselves between the 5th and 10th year, the original owner sells it off and lets the music to be faced by the subsequent owner/s. Ships generally are expected to perform satisfactorily up to 25 years, but this fact does not seem to be the concern of the shipbuilder, who obviously caters only to the first owner and probably rightly also!

Some countries refuse to allow ships beyond a certain age to call at their ports and the owners sell off their ships to others before that age. Whatever the reason for them not allow such ships to call at their ports or to own them, is it not applicable to others also? This does not reflect international thinking, but confined to national considerations. Thus we see commercial and national considerations in ship designs themselves. Ship designs and shipyard practices need to be looked into.

MANNING

Over the period that we have seen the development of ships in the past five decades, the crew strength has progressively reduced from about 50 to about 20, simultaneously with the increase in complexity of the machinery, sizes, and varieties, decrease in port stays, exacting schedules, proliferation of nationalities in the same ship with attendant non communication among the ship's complement, increase in the standards and frequencies of various types of inspection covering multifarious activities on the ship. Exacting schedules, limited accommodation (preventing doubling up for a short while at least) give the officers very little time to get acclimatized to the ship and get familiar with its operation. Within hours or in some cases minutes, ship is under way, and they are expected to react satisfactorily to meet with any contingency Are we employing robots or humans on the ships?

I have not come across an enthusiastic officer on board any ship of any nationality in the past thirty years. Life on board has become a drudgery. Officers are not fully aware of the nature of their responsibilities when they take up a sea career and by the time they rise to their position of responsibility and realize the nature of it, it is too late. They are riding a tiger. In this context, any talk of attracting talent to take up a sea career seems a big paradox. During the best part of their life i.e. between 20 and 30, conditions of professional life should be such as to create and sustain interest in it for the rest of their lives. One cannot conscientiously say that of a sea career now. When visiting ships now, one can only see tired

faces and minds, surely not a recipe to counter the rigors and complexities of present day marine career. Putting the clock back to the fifties and sixties standards as far as manning is concerned cannot be a retrograde step and without doubt will be welcomed by all seafarers. After all they are the ones who deliver the goods in more than ways than one.

To illustrate, let me quote two instances. I was inspecting a ship for purchase, some years ago and after the inspection was sitting with the Master to recap and collect some other details. Once the official business was over, the conversation turned general and he inquired about sea life in my days. I happened to mention that the crew strength was around sixty and he was in raptures to hear that and exclaimed what a heaven it would have been to be able to talk to such a lot of people during the voyages. Man is a social animal and a seafarer is no exception. In another case, when I was inspecting another ship, also for purchase, similarly sitting with the Master, I found him rather morose and uncommunicative, but slowly he got to a little bit of talking and observed that he had none to talk to for months on end, since each one of his officers and engineers was from different country and spoke different languages. He was European. I could not but sympathise with him. No wonder present day officers do not want to stay more than six months in a ship and they get on to another ship next time with different people for the cycle to repeat itself. How much attachment and commitment can we expect under such conditions? Can one imagine the state or performance of an office or factory if the entire staff gets changed every six months? Ship owner's plea is that they have to economize in all possible ways to operate profitably, which is a prime necessity to continue in business.

Charterers forever are looking for employing the best ship at the rates available for the most ramshackled rust bucket and make no secret of it. It is a vicious circle. Ultimately it is the general public that pay for it. If a high standard of operation of ships is called for the public must pay for it, through charterers, through ship owners by way of efficient operation, and high standards of maintenance, by inspecting agencies carrying out strict and impartial inspections, by repairers adhering to quality standards, employing quality and original spares and materials, and by shipyards building good ships, built to last the major part of the economic life.

REGULATIONS

IMO was established in 1958 with certain objectives and one cannot but conclude that it has substantially fulfilled its role. There are some points of observation in its functioning that need to be addressed. The conventions and, protocols adopted by it must be given statutory effect by contracting governments to be made effective in the ships of the respective flags. Majority of these rules and regulations have to be understood by the people operating the ships. Given the volume of these rules, many a statutory authority itself finds them too much to compile them, let alone comprehend. Many contracting governments have delegated their powers to classification societies, very obviously from the point of practical considerations of worldwide applicability and administration. There is not a single case of any administration setting up a worldwide organization to administer the provisions of the IMO conventions and protocols in ships of its flag. Nor would it seem practicable. Universally they have been delegated. Classification societies are the obvious choices, having worldwide organizations.

It is well nigh impossible to expect the officers to comprehend all the rules and observe them when learned societies have to spend considerable time to catalogue them and issue explanatory notes to their experienced surveyors. Naturally ship's officers get taken aback when finer points and different interpretations are thrown at them by attending surveyors. One is tempted to ask why the ship owners have not equipped their officers with all the knowledge of the rules and regulations? But then, they are a number of ship owners who have small fleets and do not have the organization to have grasped all the rules and regulations and principally depend upon the classification societies to guide them in that respect. Classification societies thus become the implementers of the IMO requirements, except in the case of examinations (STCW CONVENTION). With the adoption of various conventions commencing from 1965 SOLAS, many have been adopted and classification societies have been administering them on behalf of various administrations. Still disasters continue to take place and as a remedy along comes PORT STATE CONTROL and ISM CODE.

The prelude to this was ostensibly a lack of faith in classification societies and the code was supposed to be administered directly by the contracting governments to remove all the deficiencies of earlier practices. Strangely, the implementation of the ISM CODE was entrusted to the very same classification societies, by the governments. Any comment needed on this? It was proclaimed at the time of adoption of the ISM CODE that it will be strictly enforced and we will see the last of

the substandard ships by JULY, 1998. Till three months before the coming into force of the code, classification societies were expressing deep concern that only about 15% --20% of the ships have obtained the certification under the code. Repeated statements were made by many in responsible positions that on no account will there be any extension in the date of coming into force of this code so it turned out. It was widely felt that international sea borne trade is likely to be seriously affected, because a lot of ships will be held up for lack of certification under the code. Many ship owners who had worked hard for over two years to get their fleets certified were anxiously awaiting the coming into force of the code in JULY,1998 when the charter rate would skyrocket and they can reap the windfall!! Come JULY,1998 , and then months roll by -- not a single ship is held up for want of certification under the code !!! No further comments. ISM CODE along with port state control was widely proclaimed to eliminate substandard ships soon after 1998. Now appears the case of ERIKA (We need someone shouting EUREKA to explain this) Every organization associated with this ship has justified its correctness and pleaded NOT GUILTY. It was the same case with ESTONIA. Only in the case of HERALD OF FREE ENTERPRISE the crew member who was charged with the responsibility of having to close the forward door, accepted his failure to do that ,which was deciphered the direct cause of sinking of the vessel. The indicator that should point to the door being open was not working, nor was not observed to be so, is another matter.

CLASSIFICATION SOCIETIES

These organizations have carried their work admirably over long periods and have developed a fine global network, and a treasure house of knowledge and are truly the only organizations that can carry forward the work of universal ship safety. Some of the comments expressed in the previous paragraphs will no doubt sound contradictory to this. The major drawback in them is the competition among themselves and sprouting of various national societies. If a ship trades internationally, the requirements in respect of strength, standards of machinery, their number, the safety equipment, the communication equipment, the contingency requirements cannot vary on account of being in a different classification society. The requirements must be uniform in all respects. Then where is the need for proliferation of these institutions? National interests raise their head and presence of many such organizations leads to competition, which cannot be devoid of commercialism. Herein lies the malady. Conforming to the requirements of a classification society is adequate for seaworthiness and for insurance purposes and one society accepts another's standards. Why then should an owner think in terms of changing class and also have the freedom to do so? There are a number of classification societies now and ten of them have got together in an association called IACS, some others being taken in as associate member, while some others are not admitted. It is being talked about now that three members of the IACS are contemplating forming a separate elite group. Does this mean that the seven others do not measure up to the standards that these three think is correct? And all the ten have been together all these years. If all these years one another's standard is acceptable to each other, what now has come about to think in terms of forming a body of three only. What could be the reason?

PORT STATE CONTROL

This is a body that has appeared in the ship inspection scene in recent years and seems to be going about its avowed purposes in businesslike manner, while establishing a certain amount of transparency in its operations. One can only hope that it ultimately helps in driving out substandard ships, but in the bargain does not harass good operators.

FLAG STATES

Very few flag administrations have a worthwhile marine administration. Registries that have no machinery of their own and exist only for the sake of collecting revenue by offering incentives (an euphemism for no rules) for the ships registered with them are a joke on the marine community. How can small islands boast of substantial fleets and in such an event, how can they discharge their obligations of a flag state? They collect the registration fees and leave everything else to the classification societies.

OBSERVATIONS/SUMMARY

The following points emerge from the foregoing:

- 1) Considering the past five decades, ships have grown in size, complexity, and variety
- 2) Designs need to be reviewed thoroughly in respect of bulk carriers and oil tankers. Safety record of gas ships, and chemical ships are exemplary.
- 3) The crew size has less than halved in the corresponding period. Reason for crew fatigue is not far to seek.
- 4) Ship's officers are overburdened, both quantitatively and qualitatively, with little time or means to refresh themselves.
- 5) Rules and regulations have proliferated far too much for effective implementation
- 6) Rules and regulations need to be understood by ship's officers, for effective implementation, except those required for shipbuilding
- 7) Classification societies are the only organizations that have worldwide networks and only they can meet the needs of worldwide shipping.
- 8) Doubts have arisen about the effectiveness of classification societies. RESULT --PORT STATE CONTROL, and ISM CODE
- 9) Classification societies seem to have classification among themselves, notwithstanding the fact that they are supposed to accept each other's standards, as equivalent.
- 10) Many flag states are so only on paper, without having means to discharge their obligations.
- 11) Port state control seems to be meeting the objectives, for which it was established. The very presence or need for such an organization confirms the doubt about effectiveness of other inspecting agencies.
- 12) LNG and LPG ships have an enviable safety record. Their number is small and they have evolved in times when other ships were experiencing difficulties, so much so extra precaution were taken in formulating their building and operational standards. Also the dangers of disasters, especially in the vicinity of shore seem to have been properly evaluated and adequate preventive steps taken and safeguards built in.
- 13) No organization seems to be devoid of commercial pressures.
- 14) There is very vocal and angry public reaction whenever there is a marine disaster especially in the vicinity of shores
- 15) There are far too many inspections on board now. Masters have come to the conclusion that the ship calls at a port only for inspections.
- 16) IMO had concentrated far too long and far too much on the rules and regulations for ships without due consideration of the means or capacity to implement them, namely the capacity of the ship staff to effectively put them to use. STCW 95 is the first attempt to rectify this anomaly. Development of rules regarding hardware (ships) should have gone hand in hand with that of the ship staff.(software). This has at last been acknowledged. In machinery design it is well known that the machinery is as strong as the weakest part, and it is essential that all parts are equally designed.

RECOMMENDATIONS

- 1) There should be an immediate halt to legislation from IMO
- 2) Efforts should be made to popularize the rules made so far to the seafaring members in a simple manner
- 3) Mental and physical fatigue must be recognized among seafarers and the number on board must be increased to ensure satisfactory rest and recreation. Additional cost is involved in this and must be borne by adequate earnings
- 4) Entire crew on board a ship should be of one nationality and be able to converse freely in one language.
- 5) There should be only one classification society for **international shipping**. This will eliminate commercial considerations in its functioning and avoid competition and result in objective inspecting. The present classification societies can be merged into one. Mega mergers in other fields are becoming common.
- 6) There should be only one international registry for international ships. This will eliminate all substandard flags of state. Operating in international waters, they should be subject to no taxes. National registries can cater for coastal shipping, but ships wanting to take part in international trade should register with the international registry and be subject to all relevant rules.
- 7) If IMO can prescribe standards with regard to safety, pollution prevention, and even assume executive powers in respect of manning standards and certification procedures, there can be no objection to the establishment of an international registry and an international classification society, under its aegis.
- 8) The aim should be to attain acceptable standards in ship operation with least supervision and without multiplicity of inspecting agencies as obtains now. There should be no necessity of port state control at some future point of time.
- 9) Ships should be thoroughly inspected, say, once in two and half years in drydock on all aspects and there should be no necessity to inspect in the intervening period.

10) When rules and regulations are made, careful thought must be given as to how they can be implemented fully. Close up inspections have been introduced, but means of carrying these out have not received the attention that they warrant. Dangerous methods such as rafting are employed in large ships I hope we are not waiting for some casualty before examining better and safer methods to carry out these inspections.

11) National governments should not be allowed to enact legislation unilaterally. Example OPA90 - even though it might be considered to be the only legislation that brought about the desired results, without the slightest doubt. Legislation for international shipping should be routed through the IMO only.

12) Fuel standards for use on board ships also must be standardized by the IMO and not left to the mercy of the oil companies, asking the ships to burn whatever is left over at the end of the refining process. Specific gravities are bordering on 1.0 and the viscosity is increasing steadily, causing pumping problems and getting an oil tank ready for survey is a major exercise. If fuel oil quality is allowed to deteriorate any further, combustion problems could become insurmountable. It is not enough that only flash point is regulated, mainly from the point of safety and fire hazard considerations.

13) IMO should set up a permanent accident investigation board, to investigate major casualties in international shipping. Reports must be submitted within a period of three months for effective remedial measures, if any need be.

CONCLUSION

As long as there are substandard ships, charterers will base their rates on that to beat down the rates for well run, better and younger ships, so that it will not be possible for better owners/managers to maintain their standards and they will suffer in the bargain and possibly quit the scene. As observed elsewhere the average age of the world fleet is increasing and now is estimated to be around 19 and this should sound alarm bells. It is essential that steps are initiated to ensure better returns to conscientious operators so that they proliferate, resulting in safer operation of the ships. Some of these have been enumerated above. International problems warrant outlook and perspective that transcend sectarian considerations, for effective solutions.