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**IFSMA Register of Technical Consultants and Maritime Experts
(RTCME) now Available on the Internet at "www.ifsma.org"**

**The 28th IFSMA Annual General Assembly will be held in Vladivostok, Russia
on Friday 31st May and Saturday 1st June 2002.**

An Electronic Version (pdf) of this Newsletter is available at "www.ifsma.org"

Some thoughts from your Secretary General

In recent weeks your Secretary General has been actively engaged in defending the use of Radar at Sea. If this strikes you as odd, then you are not aware of the commercial pressures being placed on the use of transmission bands particularly since the mobile telephone has captured the apparent human desire to be at all times electronically tethered to business, friends and family.

Seafarers have experienced modern technology being heaped on them for half a century or more. It started in a straightforward way with echo sounders giving more rapid and perhaps more accurate readings than the leadsmen. Then of course Radar came along and was a tremendous visual aid. But, this was when seafarers received a warning shot across the bow. To the untrained, the relative motion displayed on the radar screen could and indeed did lead to the 'radar assisted collision'. This was quickly dealt with and future watch keepers were properly trained in the use of radar as well as technology introducing ARPA .

But technology brought in new ideas; GMDSS did away with the radio officer, and GPS has done away with the sextant! We now have electronic charts and the latest craze is the AIS – the Automatic Identification System. AIS must be fitted to all new ships over 300 gt built from July this year and all ships will have to have them fitted by 2008.

AIS sounds harmless enough, and will certainly offer important information to shore based ship tracking stations. The USA sees it as an important security tool and would like to see the implementation of this equipment on all ships as early as possible, certainly before 2008.

However from a seafarer's point of view it has its limitations. Firstly not all ships have to comply. For example vessels of less than 300 gt and military craft are exempt.

Secondly the ship's own AIS may be switched off if the Master feels it may pose a threat to his own ship, by giving information to pirates for example. Thirdly the system is dependent on third party sources such as GPS and VHF to provide information, and lastly most of the information that is being provided is irrelevant to the watch-keeper.

What seems to have escaped the authorities at present is that any new technology for assisting the watch-keeper must be understood and the operators should be properly trained in its use. Users must understand its limitations and not be distracted from keeping a proper look out with information overload. But at present AIS system has yet been type approved, so no training is available. AIS is therefore a potentially dangerous tool on the bridge. One manufacturer actually advertises that AIS means you won't have to say 'ship on my starboard bow' any more, but be able to call the ship up by name on the VHF. I wonder if when reading this the fear of VHF assisted collisions has crossed your mind as it has mine?

So back to my defending the use of Radar. It seems there are those who believe the use of Radar can be replaced by a combination of ECDIS and AIS, and when this was brought to our attention I presented a paper on behalf of the Nautical Institute and IFSMA to an audience arranged by The UK's Maritime and Coastguard Agency. The presentation was well received and as a result IFSMA has been asked to present a document to IMO Sub-Committee on the Safety of Navigation expressing the Shipmasters' argument for keeping radar as a key tool in Collision Avoidance and an important aid to Navigation.

To make this argument as convincing as possible I need the views of as many shipmasters as possible. Please let me know by letter, fax e-mail or telephone how you feel about the use of radar at sea. Please send your views back to me by the end of April 2002. I look forward to your comments.

Galileo

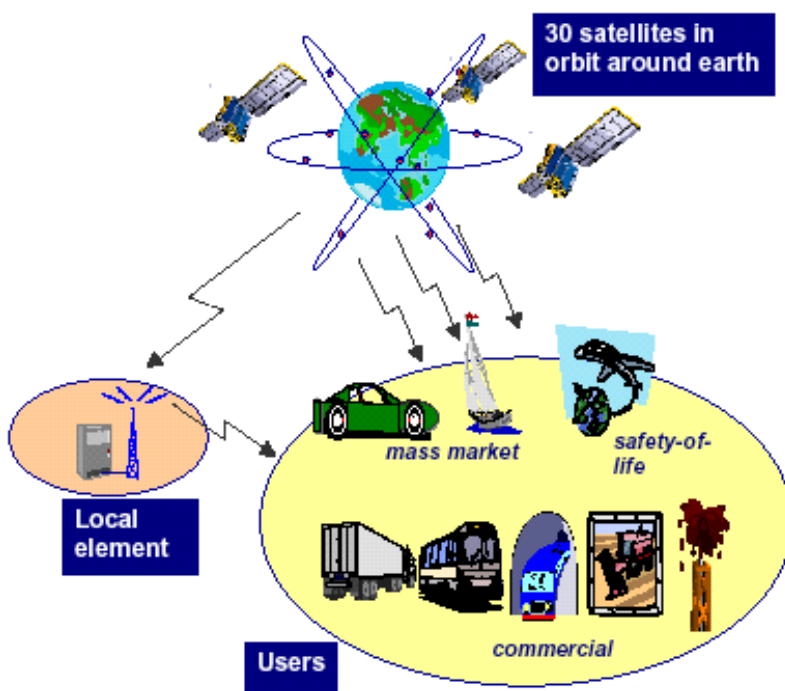
“If Europe truly wishes to be taken seriously as a partner by the US, while ensuring that it has access to capabilities critical for its economic development, it must demonstrate that it has both the will and the means to develop a presence in space. GALILEO represents a litmus test for the EU in many different ways.”

From the article by Carl Bildt, the former Swedish Prime Minister, published in the Financial Times on 31 December 2001

What is Galileo

The GALILEO satellite radionavigation programme depends on cutting-edge technology and enables user equipped with a receiver to receive signals from several satellites and thus determine his exact position in time and space at any given moment. GALILEO is based on a constellation of 30 satellites placed in a medium earth orbit (at an altitude of approximately 24 000 km) continuously covering the entire surface of the earth. Each satellite is a platform equipped with an atomic clock providing extremely precise time measurement (“GALILEO time”). Technically, the system is managed by ground stations.

GALILEO - Satellite radio navigation system



The programme’s definition phase has already been completed. As for all programmes on such a scale, comprehensive studies were carried out during this initial phase, whose total budget amounted to €80 million. The European Space Agency is fully involved in the project and is responsible for its technical supervision. **GALILEO is the first major programme bringing together the Community institutions and the European Space Agency.**

The GALILEO programme now comprises the following phases:

The development and validation phase (2001-2005):

- Development of satellites and ground-based components;
- Validation of the system “in orbit”.

The deployment phase (2006-2007):

- Construction and launch of satellites;
- Installation of the complete ground segment.

The commercial operation phase (from 2008).

2. Galileo as a major technological, economic and political change.

Like other major European projects such as the Airbus or Ariane, GALILEO is a technological advance likely to revolutionise society in the same way that the mobile phone has done in recent years while also heralding the development of a new generation of universal services.

The European Councils at Cologne, Feira, Nice, Stockholm and Laeken all emphasised the strategic importance of this programme. GALILEO will afford considerable advantages in many sectors of the economy. In road and rail transport, for example, it will make it possible to predict and manage journey times, or, thanks to automated vehicle guidance systems, help reduce traffic jams and cut the number of road accidents. There is an increasing amount of positive feedback in this respect from the United States. However, although transport by road, rail, air and sea is the example most frequently quoted, satellite radionavigation is also

increasingly of benefit to fisheries and agriculture, oil prospecting, defence and civil protection activities, building and public works, etc. In the field of telecommunications, allied with other new technologies such as GSM or UMTS, GALILEO will increase the potential to provide positioning information as well as to provide combined services of a very high level.

The role played by satellite global positioning systems in our everyday lives is set to grow considerably. The real impact of satellite global positioning on society and industrial development, as is the case for all major technical innovations, will become clear only gradually, even though many practical applications are already possible. While there is no question but that the future of guidance systems involves satellite radionavigation, there are sectors other than the transport sector which are already dependent on this new technology, even if they are not aware of the fact. This is true of the financial sector when it comes to determining the exact time of bank transactions. Some analysts regard satellite radionavigation as an invention that is as significant in its way as that of the watch: in the same way that no one nowadays can ignore the time of day, in the future no one will be able to do without knowing their precise location.

Having control of the satellite constellation technology which is central to the system means having control of the many industrial applications made possible thanks to satellite positioning (see Annex 1).

The European Union cannot afford not to become involved in what, it is already clear, will be one of the main sectors of industry in the twenty-first century. That would mean becoming dependent on systems and technologies developed outside Europe for applications vital to the running of the society of tomorrow.

3. A system that both competes with and complements the American GPS system.

There are at present two radionavigation satellite networks in the world, one American (GPS), and one Russian (Glonass). Both were designed as military systems. Now that the Russian system is on the way out without having generated any real civil applications, GALILEO offers a real alternative to the establishment of a de facto monopoly in favour of GPS and American industry. Already, "GPS time" and the technology associated with it are in widespread use in financial circles and they are

aiming to become established as the universal standard.

GALILEO offers a number of advantages over GPS:

- GALILEO has been designed and developed as a non-military application, while nonetheless incorporating all the necessary protective security features. Unlike GPS, which was essentially designed for military use, GALILEO therefore provides, for some of the services offered, the legal guarantees of operation required by modern businesses, in particular with regard to contractual responsibility;
- It is based on the same technology as GPS and provides a similar - and possibly higher - degree of precision, thanks to the structure of the constellation of satellites and the ground-based control and management systems planned. While a member of the public can expect to find the street where his car is located using GPS, GALILEO should make it possible to narrow it down to the exact garage;
- GALILEO is more reliable as it includes a signal "integrity message" informing the user immediately of any errors. In addition, unlike GPS, it will be possible to receive GALILEO in towns and regions located in extreme latitudes;
- It represents a real public service and, as such, guarantees continuity of service provision for specific applications. GPS signals, on the other hand, in recent years have on several occasions become unavailable on a planned or unplanned basis, sometimes without prior warning.

Nonetheless, GALILEO also complements GPS insofar as:

- Using both infrastructure in a coordinated fashion (double sourcing) offer real advantages:
 - o In terms of precision;
 - o In terms of security, should one of the two systems go down.
- The existence of two independent systems is of benefit to all users since they will be able to use the same receiver to receive both GPS and GALILEO signals.

The European Union attaches great importance to this complementary role because, alongside GALILEO, it plans to pursue the EGNOS programme to make significant improvements to the services offered in Europe by the GPS and Glonass satellite constellations. EGNOS, which has been developed since 1993, increases the number of GPS signals, applies a differential correction and adds an integrity message, EGNOS is also set to be incorporated into GALILEO. The way that GALILEO complements GPS is useful in presenting Europe as a credible partner to the United States. By the same token, Europe would be putting itself out of the running by abandoning the GALILEO programme.

4. Attempting to claim that GPS is superior to GALILEO, some parties have suggested that GPS is a free service whilst GALILEO is a paying service. This is a spurious argument, reminiscent of the arguments used by the Americans at the beginning of the 1960s, suggesting to Europeans to launch all their satellites free of charge in order to prevent Europeans developing their own launchers. The truth is that, as is the case currently with GPS, the use of GALILEO will be free of charge to basic users. Only some special applications will require payment. These special applications will require a high level of service quality which GPS as it stands is unable to provide, particularly in terms of integrity and continuity of the signal received. It is possible that the GPS of the future will offer high-quality services, but there is no guarantee that these will be provided free of charge, especially if GPS were to find itself in a monopoly position.

The American authorities have, moreover, suggested that GALILEO does not offer adequate security. This criticism is unfounded. There is a specific requirement for an appropriate security framework, and all services provided by GALILEO are ultimately monitored by political bodies. In addition, the American concerns are taken into consideration by some flexible solutions in the use of the radiofrequency spectrum.

5. Unquestionable economic viability

GALILEO development and deployment costs, including the construction and launch of 30 satellites and the setting up of the groundbased component, have been evaluated by the Commission as **€3.2 billion**. It should be noted that the estimate given in the PricewaterhouseCoopers study is very similar to the Commission's own figure. The difference of €200 million can be explained by the fact that

Pricewaterhouse Coopers includes a substantial allowance for risks and the construction of spare satellites.

GALILEO is not expensive. The price is equivalent to that of some 150 kilometres of semi-urban motorway or the cost of just one track of the main tunnel for the future highspeed rail link between Lyon and Turin.

The various studies carried out show that the project is economically viable. The PricewaterhouseCoopers study, based on updated forecasts for a period of twenty years, shows a cost/benefit ratio of 4.6. This ratio is higher than for any other infrastructure project in Europe. Even then, the benefits calculated by the PricewaterhouseCoopers study concern only the air and sea transport sectors. According to other studies, GALILEO will create some 140 000 jobs and will generate service and equipment contracts estimated at approximately €9 billion per annum.

During the commercial operation phase, the company appointed to manage the whole system will receive royalties on the software used to equip the receivers and income from businesses using protected signals to provide value-added services.

It must, however, be pointed out that by no means all the advantages which GALILEO offers the public go far beyond the revenue for the public or private investors participating in the programme. Air navigation provides an interesting example in this connection: GALILEO will benefit society as a whole by improving air traffic control and thus saving passengers travel time and saving airlines money. As opposed to what may have been understood in the European civil aviation sector, all the advantages afforded by improving air traffic control area are assessed by the PricewaterhouseCoopers study as "benefits", not the yield from the dues which airlines would have to pay GALILEO. With regard to the latter, it is highly probable that a future satellite radionavigation system for air traffic control will make use of the complementary nature of the GPS and GALILEO systems and will not be brought into operation until there have been discussions in such international bodies as the ICAO. In addition, the GALILEO programme will maximise its added value in airspace management since it will be based on technological and operational developments in the actual aircraft and control centres.

6. Financing not reliant on contributions from national budgets.

Except for the development phase funded by the European Space Agency, national budgets will not bear any of the public funding costs for the various phases of the GALILEO programme:

- for the development phase (2002- 2005), budget provisions have already been made for the €550 million needed, and the sum has already been made available by the ESA.

- for the deployment phase (2006- 2007), the Commission will make appropriate proposals in order to make the necessary appropriations available under future financial perspectives (European Union budget planning) beyond 2006. Funding will naturally take account of a financial contribution from the private sector, whose participation in the project is required. The Joint Undertaking will be responsible for presenting proposals based on the results of the tender competitions it launches. The cost of the deployment phase is already expected to be revised downwards in consideration of the more intense competition on the world market for launchers over the next few years.

- for the operation phase commencing 2008, the PricewaterhouseCoopers study, based on estimates that were very cautious in terms of costs and income, provides for gradually decreasing public participation until 2015. The exact amount of that participation will have to be reviewed in the next few years by the Joint Undertaking and will not be finalised until after the tender procedure to select the private operator of the system. At any event, the participation would be covered by the Community budget and would also be programmed into forthcoming financial perspectives. It would not in fact be a simple subsidy but rather the consideration for services provided by the operator. The effects of this would be offset by the yield from a very modest charge (in the order of €2) on receiving equipment.

7. Urgent need to launch the development phase.

The development phase involves preparing the technical and financial conditions needed for the infrastructure to be deployed rapidly. In particular, it comprises the construction and launch of experimental satellites equipped with atomic clocks, and setting in place the industrial capability required to construct a number of satellites as well as the financial arrangement for the programme. This will

directly pave the way for the commercial operation of the system.

At their meeting in Edinburgh last November, European Ministers for Research approved the ESA's financial participation in the development phase. In addition to the question of credibility, there are urgent reasons why, by March 2002 at the latest, the Community must now take the decisions needed to launch the development phase:

- The frequencies needed by GALILEO which were obtained only with difficulty at the last World Radiocommunications Conference will be lost if the Joint Undertaking is not in a position to launch the first experimental satellites in the very near future.
- The private sector, which must co finance the project, will lose interest if the European Councils continue to put off making decisions until the next meeting. However, businesses have already agreed to invest considerable sums and have put many teams of engineers onto the project. In addition, the budgetary resources for the technical activities carried out by the European Space Agency remain available only until April 2002. After that date, there is a risk that the industrial teams will have to be disbanded due to lack of funding.
- As stressed by PricewaterhouseCoopers, GALILEO absolutely must become operational by 2008, otherwise its profitability will be jeopardised as it would then have trouble in seizing the expected market share, particularly considering the progress made by the American GPS III programme. What is more, any additional delay would make the project more expensive. In order to meet the target date of 2008, the development phase must start at the beginning of 2002.
- International negotiations instigated with the United States and Russia to ensure GALILEO's complementarity and interoperability with the existing systems would be compromised if the development phase did not start in the next few months. In addition, any delay will weaken GALILEO's position with regard to third countries with whom discussions have begun and in the international bodies currently working on a set of

recommendations governing the civil use of global positioning systems.

8. The Joint undertaking: an original solution to complete the development phase successfully.

In order to complete the development phase successfully and pave the way for the deployment phase, a novel company structure - a Joint Undertaking - is to be set up, for the first time ever, under Article 171 of the Treaty. This solution ensures a single effective management body for the programme and enables a combination of public and private funding to be used.

The Joint Undertaking manages and coordinates the necessary research and development work, involving, in particular, the launch of an initial series of satellites. To this end it will sign an agreement with the European Space Agency, which will be entrusted with carrying out these activities. It will harness public and private funding, will set up management structures and draw up a business plan covering all the phases of the programme. By the end of 2002, in coordination with the private sector, it will draw up an overall plan for the financing of the programme including, in particular, the arrangements for financial participation by the private sector in the deployment phase. The Joint Undertaking will also make preparations for the establishment of the structures that will be responsible for the deployment phase.

The founding members of the Joint Undertaking are the European Community and the European Space Agency. In addition to the European Investment Bank, the Commission wishes to see any business subscribing a minimum of €20 million to the capital of the Joint Undertaking also being allowed to become a member. This amount is reduced to €1 million for small and medium-sized businesses subscribing individually or jointly. The amount of the subscription is reduced by three quarters for businesses subscribing before 31 December 2002.

The Joint Undertaking is created for a period of four years. Its governing bodies are an administrative board and a director assisted by an executive committee. A supervisory committee made up of representatives of the Member States will also be set up.

The total operating budget for the Joint Undertaking is approximately €20 million for the period 2002-2005.

9. Private sector participation required in the joint Undertaking.

During the development phase, GALILEO is effectively an industrial research programme. The Joint Undertaking provides the opportunity to enlist private sector support for the project as of today. Indeed, the businesses have already indicated that they would be willing to participate in the programme at this stage and a number of them have signed a "Memorandum of Understanding" in which they declare their intent to contribute €200 million. Private-sector participation in the development phase is not limited to the investment of funding in the Joint Undertaking. It may also include joint commitments on the part of several companies to perform research work or provide other services.

Private-sector participation in the Joint Undertaking is crucial not for the limited financial input that businessmen are to make to the development phase but because, after 2006, the deployment phase will depend on the private sector's making a substantial contribution. **Private-sector participation cannot be organised at the last minute, the foundations for it have to be laid down as of now.**

One solution - setting up a "promotion company" bringing together businessmen interested in the project without them having the opportunity to participate directly in the capital of the Joint Undertaking, does not appear to be as satisfactory as a genuine public/private partnership. This would require private sector involvement in managing the programme from now on, especially involvement of the future users of the system (service providers, energy and survey companies, banks etc.) who will benefit the most from GALILEO. It is pointless to rule out this possibility in advance. Preventing private-sector input to the capital of the Joint Undertaking would be an incentive to interested firms to restrict themselves to responding to the tender invitations without taking any financial or industrial risks. It would thus run counter the very objective of a genuine association of public and private partners. It is paradoxical, to say the least, that the Member States most opposed to private sector participation in the Joint Undertaking are those that are also advocating developing the public/private partnership and calling for private investment as early as the development phase.

Finally, giving the private sector the opportunity to participate directly in the Joint Undertaking does not prevent solutions such as "licence contracts" being adopted at a later date. The risk of conflicts of interest

arising can be avoided by stipulating that businesses with a share in the capital of the Joint Undertaking are not allowed to draw up invitations to tender.

By way of conclusion, the following two points must be highlighted:

1) The Commission has responded to all the Council's specific requests and has completed the work asked of it. There are no financial, economic or technical arguments which can justify postponing the start of the development phase of the GALILEO programme. **The time has come for a political choice:** is Europe ready to undertake a project of this strategic importance?

2) **All the factors are in place for the project to go ahead immediately.** If the Council decides in March 2002 to set up the Joint Undertaking, the development phase will start immediately as the necessary appropriations have already been set aside, and the Joint Undertaking will be fully operational by June 2002.

Annex 1

Galileo: strategic considerations

In the next 20 years satellite radionavigation is going to have a critical impact on the movement of vehicles by land, air and sea and hence on all associated transport policies. Many "strategic" aspects have been mentioned: the impact on Community transport policy through 'increased accuracy' applications for rail or the transportation of dangerous substances for instance, the impact on other Community policies (in the first, second and third pillars) and on the return on investment for European industry (telephones, receivers, components, software, services, etc.)

There are two "strategic" elements of the Galileo programme which are of the utmost importance to the Member States which have not been highlighted in the various documents published to date (communication, CBA, etc.):

- the impact on sovereignty and the independence of national defence policies. In 20 years' time, all aspects of European defence and of all defence systems (land, air and sea) will involve satellite radionavigation. If the Galileo programme is abandoned, we will in the next 20 to 30 years lose our autonomy in defence.

- exporting systems containing standard radionavigation receiving components is already subject to US domination and that trend will become stronger yet.

In the long term, all systems will have this type of receiver.

Placing the dual European industry (civil and defence) in competition with the American industry will be unbalanced and potentially subject to American decisions (aircraft, boats, associated equipment, etc.). The American defence industry accounts for around 100 billion dollars, with 22% exports, compared with some 50 billion for the European Union, with around 25% exports.

In addition, US domination with regard to a minimal-cost component, the cryptological processor or radionavigation receiver, is going to allow them to dominate the radionavigation sector which relies on hybridisation with other technologies such as inertial technologies .

At the present time, Europe is independent of the United States. In the next 20 years, the European aeronautics industry (Airbus, for example) will be threatened as American companies will be the only ones to dominate the radionavigation market, which will become a monopoly.

Already in the defence market one American company is refusing to sell the individual cryptological processors and insists on selling only complete receivers at 10 to 50 times the price. When questioned on the case, the US Department of Defence response is that it cannot intervene in matters of industrial policy. This is a situation which can only get worse.

Without Galileo, in 10 or 20 years, the entire navigation system will be subject to an American monopoly, including sectors other than the defence sector (sea- or land-based, etc.). This represents a threat to a major proportion of our industry as all means of transport need electronic or positioning functions.

Give a man a fish and he will eat for a day.

Teach him how to fish and he will sit in a boat and drink beer all day.



Voyage to Machu Picchu

The Mission to Seafarers is looking for adventurers to take part in its Machu Picchu Challenge 2002, a sponsored fundraising trek to the "lost city of the Incas" in Peru.

All you need is to be free between 5 –19 October 2002, a reasonable level of fitness and the ability to find £2,500 in sponsorship. The aim is to raise enough money to pay for a full time chaplain for a year.

The 14-day trip starts in the capital Lima, includes a flight over the Andes to the colonial city of Arequipa, and a spectacular

bus ride to the shores of Lake Titicaca, the highest navigable lake in the world. Trekkers will then travel to Cusco, from where they follow the Inca trail over a four-day, 24-mile high altitude hike to Machu Picchu.

Among the walkers who completed the Mission's first sponsored trek to the Inca citadel last year were two former masters, one with his wife, a marine superintendent, a ship's registrar and the teenage daughter of a river pilot.

Further details from Gillian King at The Mission to Seafarers, 3 Arundel Road, Littlehampton, BN17 7BY. Tel: 01902 726969, or email m2ssr@fsmail.net.

Some Actual Signs

In the front yard of a funeral home, "Drive carefully, we'll wait."

On an electrician's truck, "Let us remove your shorts."

Outside a radiator repair shop, "Best place in town to take a leak."

In a nonsmoking area, "If we see you smoking, we will assume you are on fire and take appropriate action."

On a maternity room door, "Push, Push, Push."

On a front door, "Everyone on the premises is a vegetarian except the dog."

Lifeboat Accidents

A presentation by the Secretary General of IFSMA at the IFSMA 27th AGA in Luebeck had highlighted the MAIB Safety Study 1/2001 on accidents involving lifeboat launching systems. So that recipients of this Newsletter may appreciate the prevalence and severity of lifeboat accidents we now reproduce the Annex from submission DE 45/17 to IMO.

Incidents of Lifeboat Accidents Recorded by Australia, Canada and New Zealand Additional to those listed in DE 44/18/1

1. On 12 October 2001, a boat drill was conducted on the port lifeboat of an eight year-old 150,000dwt bulk carrier at anchorage while awaiting port entry for loading. After completion of the drill, the falls were hooked up but the electric motor for the hoist winch would not operate using the local control hoist button. Remaining in contact with the recovery party by portable radio, the first engineer then operated the falls hoist motor by pushing the contractor on the motor starter panel in a room on the main deck. It was decided to continue hoisting the boat past the main deck to the embarkation level. However the operation was not stopped before the davits came up hard against the stops and the falls, forward first and then aft, parted. The boat fell into the water, sustaining broken windows and a crack in its canopy. Five crew were still on board the boat when it fell. All suffered injuries, including three fractures, one a fractured pelvis.
2. The hook of a rescue boat davit for a 33,000dwt Australian flag oil product tanker failed in September 2001, resulting in the boat falling into the water from near the stowed position. As the boat was unmanned, no one was injured but the boat was damaged when it contacted the wharf during its fall. Investigations showed that the four tack welds securing the threaded tail of the hook to an inner swivel had broken and the hook had unscrewed. These failures were only apparent when the unit was machined open and were effectively caused by poor design resulting in sub-optimum inspection and maintenance.
3. Following a drill in which the port lifeboat of an eight year-old 150,000dwt bulk carrier was manoeuvred in the water at anchorage in August 2001 prior to loading, the on-load release mechanism released while the boat was being re-stowed in its davits. The boat disconnected itself from the falls, crashed to the boat deck, toppled down the side of the ship and plunged into the water stern first and upside down. The one person on board suffered abrasions and soft tissue injuries but was able to return to the ship after treatment and rest ashore. Investigations revealed that the accident was caused by incorrect re-setting of the on-load release mechanism during recovery of the boat, including insertion of the locking pin. They also concluded that the system was too complicated for seafarers to fully understand and appreciate the dangers of incorrect operation.
4. A boat drill was conducted in port on a lifeboat of a three year-old 12,500grt ro-ro passenger ferry in August 2001. The boat's crew for the drill numbered eight in a total. After the boat had been launched and manoeuvred in the water, its hooks were re-attached to the blocks by sequential operation of the three levers of the on-load release mechanism. Retrieval of the boat was halted when the boat was just clear of the water to confirm that the hooks were properly engaged. Almost immediately, the forward mechanism released and the bow of the boat fell back into the water, resulting in a trim angle of about 15 degrees as the aft end remained suspended on the falls. The boat was satisfactorily retrieved undamaged and without injury, but damage and injury could easily have resulted if the mechanism had released later in the retrieval. Investigators found that the forward hook released because the forward hook had not been correctly engaged and that the mechanism did not fully comply with the requirements of 4.4.7.6.2.2 of the LSA Code that "the mechanism protection (interlock) should only engage when the mechanism is properly and completed reset".
5. During July 2001, a lifeboat drill was being conducted on a berthed 15 year-old 1,000TEU container ship by lowering the free-fall lifeboat using the recovery arm. As the boat moved towards the end of the tracks of

the launching ramp. The sling connections to the forward end of the boat failed and the boat fell in a vertical position, remaining connected to lifting spreader at the aft end only. There was no injury to any of the three persons on board the boat. Investigations revealed that the recovery arm had not been lowered sufficiently to be directly over the boat when it reached the end of the tracks, resulting in excessive forces on the forward lifting slings and their attachments to the boat, which had been successfully launched in the same manner and by the same personnel three months previously.

6. In May 2001, while the boat was being re-stowed in its davits following a lifeboat drill, the forward on-load release cable of a 6,700dwt 19 year old Australian flag chemical carrier's lifeboat failed causing operation of that release mechanism. The forward end of the boat fell about 600mm, causing the boat to strike the chocks thereby stoving-in its hull. The three persons on board were uninjured, but could have easily been seriously injured if the boat had not been prevented from falling further. Having previously been identified as requiring replacement, the cable remained in service up to the accident pending acquisition of the correct replacement part. Investigations found that design details were the root cause of the failure, but that the need for hook mechanisms to be made up of matched sets of parts and the time taken to obtain the replacement part may have also contributed.

7. A lifeboat drill was conducted on the port lifeboat of a six-month old 22,000TEU containership in port during February 2001, including lowering the boat into the water with its full complement of 8 crew. Difficulties were experienced with the recovery winch when tested using the deck control unit during lowering when the boat was at boat deck level. The drill was abandoned and the boat re-hoisted first manually and then using the winch activated from a bypass button on the starter board inside the accommodation block, communicating by radio with the officer on deck. In view of the gap of 1.5 to 2 metres between the lifeboat and the side of the ship, the crew remained on board the boat for this process. The winch operated intermittently before cutting out, although it had a more regular and continuous movement as the

davit approached the stowed position. Winch operation was not stopped before the arms reached their stops, resulting in the fall wires being over-tensioned and breaking, with the boat falling into the water following heavy contact with the boat deck. One crewman died, two others sustained moderate to serious injuries and required hospitalisation, with a further four crew members sustaining light to moderate injuries. Investigators found that the primary cause of the accident was the fact that the winch was only capable of retrieving the boat if there were no more than two crewman on board. However, the loss of the boat and resulting death and injuries could have been avoided if the winch overload had been immediately identified and appropriate procedures used in attempts to overcome this problem.

8. Training drills were conducted on both lifeboats of a 66,000dwt, 13 year-old bulk carrier in January 2001, while the ship was waiting at anchor to berth for loading. Various crew members were assigned the task of lowering the boat to boat deck level in order to familiarise them with the task, following lifeboat drills the previous two days. In one instance when the davit and lifeboat were being lowered with speed, the jerking motion of the stool frame contacting the deck caused the aft falls to release from the lifeboat. The boat remained suspended vertically from the forward falls, resulting in bending and cracking of the forward davit and damage to the structure and fittings of the boat. There were no injuries as the boat was unmanned at the time. Investigations showed that the attachment of the cable to the release mechanism leading to the aft hook was slack and may have caused the hook to disengage.

9. The port lifeboat of a 13 year-old 40,000dwt tanker was being lowered during a drill in December 2000, when the ship was moored alongside a loading berth. The forward hook self-released, leaving the boat hanging by the aft hook only. All four crewmembers on board the boat remained firmly held by their seat belts, though two received lacerations and required hospital attention. Investigations revealed that a lock nut was loose on the forward hook fulcrum, allowing about 3mm of slack between the main nut and the body of the hook. It is noteworthy that

the manufacturer's manual for the on-load release mechanism was not available on board. The mechanism operated satisfactorily when the nuts were tightened.

10. In October 2000, the crew of a new 38,900grt bulk carrier attempted to launch the port lifeboat while the ship was at anchor. The lifeboat was of the totally-enclosed type and was fitted with 'on-load' release hooks. Four crew members boarded the lifeboat. Everything seemed normal in the initial stages of the launch. However, soon after the davits hit their stops and from a height of about 15 metres, the after hook suddenly separated from the falls. The lifeboat then swung almost to the vertical, suspended from the forward hook, at which point that hook also opened. Completely free, the boat then plummeted stern first into the sea. Three of the four people in the boat perished. The investigations is ongoing.

11. In accordance with statutory requirements, the port lifeboat of a 13 year-old 8,000dwt general cargo ship was prepared for a load test in August 2000. On release of the gripes, the lifeboat and its davit started to move and the lifeboat hit the water. The boat was unmanned at the time but a crewman was injured when he fell and his hand caught in a block as the falls ran out. Investigators found that the falls brake was unable to operate as the brake clutch had not been reinstalled during maintenance work by a shore-based contractor the previous day.

12. In May 1999, a drill was conducted on the starboard rescue boat of a 16 year-old 13,500grt New Zealand flag ro-ro passenger ferry as the vessel approached port. The release hook, which was not an on-load release type, was visually checked for correct setting prior to the drill. Once the slewing-type davit had been swung out the boat, with its four crew, was lowered approximately 2 to 2.5 metres before the release hook opened, and preventer chain parted and the boat dropped about 17metres into the water, striking the belting on the ship's side as it fell. One crew managed to hang onto the man-rope momentarily before losing his grip and falling into the boat. He was injured in landing and died before he could receive attention. The other three crew members required treatment

in hospital. Investigations revealed that the accident was caused by an incorrect replacement part in the release hook, reduced free movement of the locking pin following damage to the release cable and incorrect checking that the hook was properly locked prior to the drill. The preventer, which had been fitted following a similar previous accident, was corroded and ineffective in preventing the fall. It was also found that the hook could be released on-load, despite being designed for off-load operations only.

13. On November 9, 1998, while conducting a lifeboat drill aboard a 38,000grt, 8 year-old bulk carrier, an uncontrolled descent of a totally-enclosed lifeboat occurred. The forward lifting hook of the port lifeboat released prematurely, the forward end of the boat dropped and the keel swung past the vertical, at which point the after lifting hook also released. The boat fell approximately seven metres to the water, landing on its side before capsizing and floating upside down. Five of the six crew members in the lifeboat were able to escape or were rescued from the boat by divers. The sixth person was removed from the boat by the rescue divers but had suffered fatal injuries. The forward lifting hook had not been correctly reset after the boat was last released from the falls and proper adjustment of the release mechanism had not been carried out to firmly lock the hooks in the lifting position. Shipboard personnel were not familiar with the procedures and manuals on board were difficult to comprehend and were incomplete.

14. A boat drill was conducted in August 1997 as part of a PSC inspection on 2 year-old 24,000dwt bulk carrier prior to commencement of loading. Lowering was controlled using the winch brake release cable from within the boat, which was stopped approximately 2 metres above the water and was suddenly released from the hooks. Inquiries showed that the brake cable had reached the end of its length when the lowering stopped. A misunderstanding of instructions on VHF radio lead to "do not release the boat" being misinterpreted as "release the boat", whereupon the on-load release was operated. One crew member was subsequently hospitalised and repatriated with a compression fracture of a vertebra.

15. This incident involved an 11 year-old 94,000dwt oil tanker, waiting to connect to an FPSO on 26 July 1997. In the process of lowering the lifeboat to the boat deck for maintenance, the gravity davits came up against the chocks and the forward fall accidentally released. As the full weight of the boat then transferred to the after fall, the aft hook and hook support were pulled out of the boat and the aft fall also released, with the boat falling into the water. Problems had previously been experienced in activating the release mechanism. Investigations revealed the hook release handle for the on-load release system to be in the closed position and secured by its safety pin, but the forward release cam was in the open position. This was found to have been due to excessive length of, and bends in, the morse cables for operating the on-load release gear and incorrect setting of the cams. No documentation of the on-load release system was available on board, apart from the training manual. No-one was on board the boat due to previous experience of the unreliability of its launching arrangements, so no injuries resulted. The investigator concluded that "time and inappropriate maintenance for the sophistication of the equipment resulted in the activation problems experienced".

16. In May 1996, a 22,600grt, 8 year old product carrier was secured alongside at a port facility. After a totally-enclosed lifeboat had been hoisted back to the level of the boat deck during an abandon-ship drill, the forward on-load release hook opened. First, the lifeboat tipped forward, then the stern hook gave away. This resulted in the uncontrolled fall of the lifeboat to the water. The four crew members who were on board were injured, and one had to take leave to recover. The crew did not take all the necessary actions to arm the hydrostatic hook release mechanism before hoisting the lifeboat back aboard. The monthly inspection did not include checking the hydrostatic hook release mechanism and a safety pin was not replaced before the drill.

Some Actual Signs 2

At an optometrist's office, "If you don't see what you're looking for, you've come to the right place."

Maritime Industry Research Institute

Maritime Industry Research Institute

(MIRI) is an independent research institute dedicated to the social and economic improvements of seamen by introducing fresh ideas in the rapidly changing world of shipping. We are motivated by the fact that the vast majority of the world's seafarers are unprotected and exploited without hope of improvement in their status, career prospects or treatment from their industry.

We believe that *seafarers' co-operatives as a self-help organisation* will be successful in solving human factor problems on and off ships:

- Self-respect and motivation; co-operatives will give seafarers both;
- Mutual support and sharing the financial burden of maritime education and training;
- Freedom from dependence on local agents' goodwill or blackmail;
- Team work and efficiency at work on board ship;
- Seamen and their families within the co-operative would find financial and social security.

MIRI has established links with the Greenwich Maritime Institute, based at the University of Greenwich (offering a variety of study courses in maritime policy, management, history and facilities for scholarly research). A centre for co-operative studies relevant to seamen and the shipping industry is under discussion.

We have published:

- small book (80 pages) **Setting the Course for Co-operatives –**

a chart for the shipping industry's human resources during the next hundred years – introducing co-operative ideas under the following chapters:

I. *Democracy and Freedom equals Co-operation*

II. *Theory, Politics and Economics of Co-operation*

III. *What Co-operatives can do for Seafarers*

IV. *Seafarers' Co-operatives and Shipowners.*

- working paper **The Need for Co-operative Education and Training for Seafarers** – states the challenges faced by seamen in a globalised world of work and proposes how to meet the challenges: Seafarers from developing countries would be the chief beneficiaries of their own co-operative organisations. Their families and immediate communities would also receive considerable gains in financial security and social support. Seafarers would no longer be exploited and bad shipowners would find it harder to undermine the good parts of the industry. Seamen would be able to own their jobs by controlling major parts of it. Greater job security and fewer worries about family circumstances will make seafaring a worthwhile and rewarding experience.

(The book and the working paper can be purchased for £stg. 10 plus postage from London. Both may be translated –free of charge - into any language or dialect spoken by seamen).

I gave a presentation on **Human Factors on Board** to the ISHFOB '01 conference in Bremen/Germany last September organised by the German Institute of Navigation on the theme: Safe Navigation in the 21st Century- A Holistic Approach towards Operators' Requirements on Technology, Operation and Personnel:

- pointing out that co-operatives, like democracies, are for, about and by the people who are individuals in their own right. In shipping, co-operatives are even more for reasons of economy and commercial common sense because co-operatives of seamen and ship managers

would fit like a glove in the contract culture of the industry. As the flexible labour force of shipping companies, co-operatives of seamen and managers can contract as a legal person (whether incorporated or not with limited liability) to crew, operate and manage ships while the shipowner will continue to navigate his business towards profits. Such organisational structure is also the background to harmonious human relations on board. Seafarers' co-operatives will enable a collection of self-employed seamen and ship managers to own, legally and morally, the jobs they are doing on board and ashore. In this way, co-operatives will become indispensable business organisations of the shipping industry, and no more holistic approach to human factors on board ship can be imagined than that.

The Future of Seamen is not in the Past is the theme of the forthcoming book from MIRI., dealing with the propositions:

- shipping policy built around seafarers' co-operatives and cargo owners (and other sources of capital) will enable seamen to share equitably from the contract culture of the industry;
- how co-operatives can combine home and sea life with dependable professional career prospects;
- seafarers' co-operatives are unique assemblies of industrial workers and their families to prove that small and democratic organisations can succeed in the globalised economy.
- **MIRI welcomes** friends and allies sympathetic to the seafarers' cause through co-operatives to contribute knowledge, information, business and moral support. Regretfully, human factor issues receive no interest from the employers' side, although the need to find socially and economically workable solutions to seagoing, and also shore based, manpower problems of the shipping industry are urgent.
- We are establishing a network of individuals and organisations interested

in developing co-operative ideas and practices in shipping.

- Newsletters containing information about seafarers' co-operatives and related issues, and to which you may contribute news items, reports, opinions and correspondence –will be sent by post or e-mail at regular intervals (min. 4 times a year) - in return for a subscription of £stg. 20 a year.

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Carriage and Stowage of Immersion Suits

Summary

A document submitted by Canada to DE 45 later this month identifies an area in which Canada believes the strengthening of the relevant provisions of SOLAS will contribute to stemming losses of life at sea. This paper proposes that the requirements for the carriage of immersion suits be extended to include an immersion suit for each person on board cargo ships operating in cold waters. This item has been referred to DE by MSC.

Introduction

1. MSC 74 considered a proposal by Canada (MSC 74/21/3), proposing amendment of the SOLAS provisions regarding the carriage of immersion suits to include an immersion suit for each person on board cargo ships operating in cold waters. The Committee agreed with this proposal and included, in the subcommittee's work programme, a high priority item on "Carriage and Stowage of Immersion Suits" with a target completion date of 2003. The Committee also agreed that the consideration should be given to carriage and stowage of immersion suits on both passenger and cargo ships.

2. A number of incidents have occurred in and around Canadian waters, resulting in a heavy loss of life associated particularly with bulk carriers. Many of these occurrences have taken place during winter in frigid North Atlantic waters where, without adequate thermal protection the lives of the crew members were put at substantial risk due to hypothermia.

3. Some of the more serious occurrences include:

Bulk Carrier **Charlie**, January 20, 1990, 27 persons lost;

Bulk Carrier, **Protektor**, January 11, 1991, 33 persons lost;

Bulk Carrier **Gold Bond Conveyor**, March 14, 1993, 33 persons lost;

Ore Carrier **Marika**, January 1, 1994, 36 persons lost; and

Bulk Carrier **Flare**, January 16, 1998, 21 persons lost.

4. In the most recent incident, the bulk carrier **Flare** en route from Rotterdam to Montreal encountered severe weather conditions. Approximately 45 miles southwest of the islands of Saint-Pierre-et-Miquelon the vessel broke in two. The stern section sank within 30 minutes, the bow section sank four days later off Nova Scotia. There were 25 crew members on board; four survived.

5. In accordance with existing SOLAS requirements the **Flare** was equipped with six (6) immersion suits. All four surviving members of the **Flare**, wearing lifejackets, were found to have been severely hypothermic and could barely move their limbs, rendering the rescue operation difficult and subjecting Search and Rescue personnel to undue risk. Two other crew members, who had clung to the same lifeboat, remained alive for some time but succumbed to hypothermia before the survivors were spotted.

Discussion

6. A sea survival model indicated that the use of immersion suits would have increased survival times to between 12 to 14 hours, depending on the clothing worn. The model also indicated that, in seawater of 2°C, the best clothed survivor would lose consciousness within 6.4 hours while the other survivors,

those not considered to be well clothed, would reach this state in 2.0 to 2.3 hours.

7. None of the survivors of the **Flare** were wearing an immersion suit when they were found. The survivors could not remember immersion suits being produced at emergency drills nor were they given a practical demonstration of how to don or use an immersion suit. The survivors were equally unaware of the number of suits on board, where the suits were stored, or to whom the suits would be distributed in an emergency.

8. The number of immersion suits required on board cargo ships depends on the number and type of lifeboats carried. Current SOLAS regulations require, on ships that do not have totally enclosed lifeboats, three immersion suits per lifeboat and sufficient thermal protective aids for the remainder of the crew. Only if the Administration considers it necessary and practicable, is a ship required to carry one immersion suit for every person on board. Further, if the vessel is constantly engaged on voyages in warm climates and the Administration is of the opinion that immersion suits are unnecessary, none need be carried. The Administration did not require, nor did the owners or operators of the **Flare** provide, an immersion suit for each crew member.

9. The North Atlantic Ocean is one of the most hostile environments in the world. Average mid-winter sea surface temperatures off the North Atlantic eastern seaboard range from 0°C to 2°C. The mid-summer temperatures range from 8°C to 16°C. In such harsh marine conditions, the survival for a person immersed in water is often measured in minutes, while for a person wearing an immersion suit, survival time can run to several hours. People clad in such suits have been rescued following 18 hours of immersion in cold water.

10. Immersion suits that meet the requirements of SOLAS are invaluable when abandoning ship in cold climates. Because of this, all Canadian-registered vessels of the type and size of the **Flare** are required to carry an immersion suit, with a whistle and locator light attached, for each member of the crew. A similar SOLAS requirement for ships operating at any time in cold waters would be a positive step towards saving lives, if

crews are familiar with both the location and use of the immersion suits.

11. A recent report prepared for Transport Canada "Survival in Cold Waters", indicates that sudden immersion in cold water (i.e. below 15°C) is very dangerous and should be avoided if at all possible.

Recommendation

12. Canada considers that in the interest of safety of life at sea, existing SOLAS requirements addressing the carriage of immersion suits be amended to require that an adequate immersion suit be provided for each person on board cargo vessels operating in waters where cold water can greatly reduce an individual's survival time. Furthermore, the amendments should also reflect that critical life-saving equipment, such as immersion suits and thermal protective aids, are stowed so that they are readily retrievable, without confusion and that all crew members are familiar with their use and their stowage location.

Action required of the Sub-Committee

13. The Sub-Committee is invited to consider strengthening the relevant SOLAS provisions concerning the carriage of immersion suits.

Editors Note:

IFSMA fully supports this proposal and exhorts all Owners and Operators of ships operating in Cold Waters to carry onboard an adequate sufficiency of immersion suits and thermal protective aids approved by the administration. These are to be stowed so that they are readily retrievable and that all crew members are familiar with their use and aware of their stowage location.

Rules for Life

- A closed mouth gathers no foot.
 - Never miss a good chance to shut up.
 - If you tell the truth, you don't have to remember anything.
 - If you send someone \$20 and never see that person again, it was probably worth it.
-

ICSW Guidelines Now Available in French

The French translation of the ICSW Guidelines on ILO Seafarers Welfare Convention 163 and Recommendation 173 is now available on the ICSW website under "How Do We Dot It". 'Projects' section and under 'Publications'. www.seafarerswelfare.org.

STCW 95 and Training

By Capt. S. V. Subhedar, Individual Member

On the eve of coming into force of STCW1995 it is important to reflect on what the Maritime Community has gained through important Amendments pushed through at break neck speed. Based on publication of the "WHITE LIST", almost one year late and with continuing criticism of the system it is clear that there has been lack of transparency and lack of will to implement the provisions of STCW1995 globally. Indeed, we also missed at STCW1995 Diplomatic Conference, the opportunity to consider some measures, which should have made implementation of STCW1995 more meaningful.

Provision of Mutual Recognition in Reg. I/10 & Linking of Reg. I/6 to the whole of the STCW1995 process; for, without good trainers there cannot be good trainees.

This paper looks in more detail some of the issues related to training or lack of it after 5 years of the new Amended Convention. One hopes that Administrations while complying with the provisions of the Amended Convention and Reg. I/8 (by August 2002) on continuous improvements through quality may be able to pick up some useful ideas without awaiting wholesale revision of STCW1995, which may not happen for several years to come.

In promoting improvements, labour supplying countries have most to gain.

Consider the following:

Training as a syllabus element supporting Reg. I/6 for operation & management level – chief mate / second engineer officer;

Promotion of concepts of trainer / trainee at every level; (every surgeon is required to be both trainee & trainer as in service experience throughout working life);

Emphasis by Company (and Owners' / Seafarers' associations) on approved ship board structured (quality of) training rather than quantity of sea time;

Due consideration to National models of training and main stream education rather than blindly following IMO model courses (latter are designed with a specific purpose and at best to be used as a possible model);

Practical training and assessment since we are dealing with science based qualification (In science stream qualification, any University requires at least 40% practical component);

Post sea, value addition training e.g. accounting, management, voyage analysis, HRD, IT, ISM Auditing, Administration, Economics, Commerce, Law, etc. as part of revalidation procedure and company responsibility. Every Master / CE as head of his / her SBU (strategic business unit or profit centre) should know in general, more than just marine knowledge and also appreciate finance / budgeting as is done by any head of department;

Requirement for Company to demonstrate that Master / CE is taken into confidence in matters relevant to higher management;

Introduction of service record books as is common in Armed Forces to demonstrate in service experience through all the ranks;

Liberal and pragmatic use of "Limited Scope" certificates including NCV (and Naval certificates of service, FV certificates etc.) so that as many seafarers as possible are qualified for the right type of trade and vessel; and

Promoting quality to especially include satisfaction of customer (internal /external customer service).

Training as a syllabus element is easily possible by way of record book, short modular course, and initiatives of company's training department. Practice of bygone days when senior officers in this respect looked after cadet needs to be brought back and extended through all ranks. Every Surgeon does and is required to train and supervise medical students so that high-level skills are maintained and improved upon by the student. In spite of clear prescription with respect to minimum sea time, minimum age and its rationalization, one finds many different approaches some of the Administrations have taken. This makes comparing the like with like difficult. Approved Shipboard structured training requirements will make comparison easy and useful without too much reliance on 6-12-24-36-48-60 months sea time and/or college time.

IMO Model Courses have been designed to aid developing countries only. Clearly it is one possible model on which to base maritime training. Making its use mandatory by an Administration creates problem of unnecessary hurdles, bottle necks and prevents innovation. Based on STCW Code A Competency tables it should be possible to develop and dovetail maritime training into National academic mainstream and should be trainers' choice. By doing so avoidable delays in Administration could be minimised and Administration could use higher learning institutions to assist the approval process based on National practice. Basis of such approval could thus be quantified – e.g. number of hours of practical normally in vogue, availability of facilities normally available in the country etc. Cost of training should thereby relate to country and national fleet.

Continuing education envisaged in revalidation / upgrading in STCW95 needs to be further reinforced at least for those who began training under STCW95 only. New Masters / Chief Engineers by the end of this decade should be in position to be real heads of department. Any Master (CEO) who does not understand budgeting and finance may

not be good enough for modern ship management. Clearly, a shipping company also has to change its outlook in this regard. In matters of annual review of company performance qualified and experienced Master / CE must be active players, indeed partners.

Presently, the Convention is not clear if record books should be used for cadet training or throughout the ranks. It is submitted that a service record book will be useful to all personnel and should accompany ones testimonials for any upward mobility. In the Armed Forces this has been in use with much success. A Flag state could easily introduce this provision through CDC / Seamen's book requirements.

Regulation I/2 and AI/2 of STCW95 clearly provides for specification of function, level and limitation on a certificate. Most Administrations however have not found fit to exploit this provision to its fullest. IMO needs to remind Administrations that this provision should help weed out unqualified seafarers, dispensations and increase awareness overall. Only when this provision is effectively used for some years will there be global support for functional certification as per Chapter 7 of STCW95. Administrations not making use of Reg. I/2 provisions are missing an important point in the STCW95 amendments.

Finally, as progress towards quality compliance including third party confirmation by August 2002 approaches it might be prudent to recall that very few Parties have implemented the provisions of Reg. I/8 in letter and spirit notwithstanding ISM Code. This is because most Parties (Federal or quasi Federal) have been unable to apply basic principles of Quality Management. It is essential to ask the question "what improvement in results was obtained since the last review?". Both IMO & IFSMA need to play a larger role.

Rules for Life

- Always remember you're unique, just like everybody else.
- No one is listening until you fart.

The Devaluation Of Brands In Shipping

This speech was given at the BIMCO/ICS Seminar, Chennai, 22 February 2002, by Andreas Sohlen-Pao, Executive Vice President of World-Wide Shipping

As we all know, it is difficult times again for the shipping industry. And in difficult times, we naturally look for reasons why everyone is losing money, why there are so many ships around, and why as an industry we are so unloved by investors and the general public. The instinctive answers tend to be the same each time around. It is because too many other shipowners lost their heads ordering new tonnage. It is because the industry organizations aren't doing enough to protect us from costly new legislation. It is because our customers will not pay a premium for quality. We would perhaps sympathise with Adlai Stevenson who said: "There was a time when a fool and his money were soon parted, but now it happens to everybody."

This finger-pointing exercise is not unique to the shipping industry – we are perhaps just more practised at it because our market goes up and down a lot more frequently. It makes us feel better to think it's not our fault and there's nothing we can do about it. But could it be a case of the proverbial poor workman blaming his tools?

Shipping – Destroyer of Value

Looking at the statistics, according to a UBS Warburg study, the bulk shipping sector covered its cost of capital for only two years out of ten from 1990 to 1999. Things improved briefly, with the heady shipping markets of 2000 and early 2001 proving once again that everyone is a genius when the markets are rising, and that it seems right to be ordering ships when they are making so much money. Every cyclical, capital-intensive industry is prone to these bouts of mindless exuberance – as the great investor Warren Buffett puts it: "Nothing sedates rationality like large doses of effortless money. After a heady experience of that kind, normally sensible people drift into behaviour akin to that of

Cinderella at the ball. They know that overstaying the festivities – that is, continuing to speculate – will eventually bring on pumpkins and mice. But they nevertheless hate to miss a single minute of what is one helluva party. Therefore, the giddy participants all plan to leave just seconds before midnight. There's a problem, though: they are dancing in a room in which the clocks have no hands."

To put the numbers more starkly, public shipping companies typically trade at a discount to net asset value, sometimes as much as a 40 to 50% discount. Microsoft has about \$2 billion of fixed assets and a market capitalization of around \$300 billion. A large public shipping company with fixed assets of \$2 billion might expect a market cap of about \$1.5 billion. How can fixed assets of \$2 billion create \$300 billion of value in one group of hands and less than \$2 billion in another's hands? What investors are saying is that Microsoft has intangible value amounting to many multiples of its tangible assets. Meanwhile, the hypothetical shipping company is so good at destroying value that the expected value that can be generated from the assets is less than their replacement cost. In short, it would be more value-enhancing to sell all the ships on the market and give the cash back to shareholders for them to invest elsewhere.

Brands make the difference

This difference between a company's total market value and the value of its hard assets is termed many things – goodwill, intellectual capital, brand equity. In a world of abundant choice, this intangible value, brand equity, is what distinguishes the leaders from the laggards. The companies which succeed are those which manage to make themselves noticed and appreciated amongst the noise of competition and choice. We all know which companies these are, because they have become household names around the world and because when faced with a choice, we tend to choose them first. Would you rather have an IBM or a Datamini? Fly Singapore Airlines or Aeroflot? Stay at the Ritz Carlton or the Travellers Inn? Have a Nokia or a no-name pressed against your ear?

As you hear these questions, perhaps you are thinking that this is not a fair comparison with shipping. After all, these are consumer products and services, not commoditised business-to-business services. But this is too easy an excuse – if we look at business choices, one would still prefer UPS to a small locally based courier for a critical international package, BP lubricating oil over a generic local brand, an IBM server against a knock-off. The generic oil may work just as well, the local courier may get package there at the same time, and the knock-off server may have a similar or identical processor to the IBM. But we choose the brands we like because we feel that there is a higher likelihood of consistent, high quality delivery. As the old saying goes: “no-one gets fired for choosing IBM”.

What shipping companies do

If we believe that customers are prepared to make a choice for the goods and services that they buy, it begs the question what shipping companies are doing to influence that decision-making process. Before I consider this, I should preface it by saying that I am about to talk of our industry in general and that there are of course exceptions. Container shipping, for instance, is a sector where differentiation is more evident.

One trend appears to be outsourcing to third party managers the core business of running the ships, as the growth in third party managed ships will attest. With due respect to all third party ship managers, this is a bit like UPS or DHL asking the national postal service to deliver all their packages. That is not to say that the national post service will do a bad job, but if the service is delivered by the same group, why choose one company over another, and why pay a premium for UPS?

Second, pools are gaining favour. I have nothing against pools, and know that some work very well, but is this not a perfect way to move away from differentiation? If a customer is dealing with a group of ships from different suppliers, who exactly is managing the ship being used? The answer may be that it doesn't matter because they are all equally well managed, but that is exactly the point – when every company is the same, there is no

reason to choose one over another or to pay any premium.

Third, many shipping companies may be underutilizing and undervaluing their people. This is a controversial statement to make, so I should elaborate by saying that this is not my personal perception but that of the marketplace. The valuation premium that I spoke of earlier can only be created by leveraging the intangible assets of an organization, most importantly the brainpower of its people. Only then is the game no longer just about who has the biggest ship or the most hard assets. When a shipping company claims that its “real assets are its people”, that should be reflected in the company being worth more than the replacement cost of its steel, which many companies are patently not achieving. It is of course uniquely difficult in a shipping context to include senior officers in all decision-making, but this represents a considerable waste of talent for the industry.

Fourth, business has become increasingly spot-market driven, particularly in the crude oil trades, with many customers preferring not to do so many long-term charters these days. But it also reflects a lack of partnership between customers and suppliers. While other industries – notably the car industry – build ever stronger, mutually beneficial relationships between buyers and suppliers, shipping has become increasingly transactional. When a business is transactional, one can end up spending more energy focusing on the worldscale rate for each voyage rather than on satisfying the customer. If supermarkets were to call up a different trucking company every time they wanted to shift goods from their warehouse to a store, the result would be a lot of empty trucks and wastage in the system.

By this stage, some of you may be thinking that these examples are not true of your company, and I would readily accept that there are exceptions. But looking at the industry as a whole, how different is it from 20 years ago when it comes to the way we run our ships? Legislation has tightened, standards have risen, but these are mostly incremental improvements. Could it be that

the reason why we live on meagre returns with limited premium for quality is because of our own shortage of innovation and differentiation, not because of some inherent problem with our industry? Harvard Business School professor Michael Porter once said: "Operational effectiveness means you're running the same race faster. But strategy is choosing to run a different race because it's the one you've set yourself up to win." Examples of significant change abound in other industries – as pointed out by Gary Hamel in a recent book, would anyone have believed that bus drivers and school teachers will line up to pay \$4 for a cup of coffee, as Starbucks has convinced them to do? Or that you could become a \$70 billion company selling consumer products without them ever appearing in a shop, as Dell has done?

Where we could be heading

Looking at examples from other industries, there is of course a bright note to all of this, which is that the current commodity status of shipping doesn't necessarily have to remain that way. Some ideas for further consideration:

1) Relationship with customers

One broad area for consideration is the nature of our relationship with customers. Our customers seem to want a voyage by voyage, transactional relationship. But as described earlier, there is considerable value for both parties in a partnership involving a closer understanding of each other's needs. The trucking supplier to a supermarket chain would be encouraged to optimize the use of its assets and to pass on some of the resulting cost benefits to the buyer. Similarly, the supplier would be expected to bend over backwards to solve a problem for the buyer given the nature of the relationship. But this can only come with closer communication and understanding between the two parties, so that when issues arise, the focus is on solving the problem and not on protecting positions.

2) Transparency and image

Transparency is a hot topic again for the industry, and it is one which merits debate. In the first place, customers want to know

what is happening on the ships that carry their cargoes, because of the cost to them if things go wrong. As recently observed, there is an interesting parallel between classification societies who delve into the integrity of a ship's physical condition and the accounting auditors who delve into the integrity of a company's financial condition. Both are looked to for independent judgment; both are paid by the inspectees, creating a conflict of interest; both are currently being scrutinized for their reliability. There can be little doubt that greater transparency in shipping would help to reduce substandard operators and thereby have a positive impact on the industry's image for customers and the general public. What makes transparency particularly interesting with regard to this discussion is that it is an area where companies can clearly differentiate themselves from each other. How much energy is currently wasted on inspecting vessels time and again? Would this be necessary if there was a strong understanding and partnership between buyer and supplier? When a company buys an IBM server, does it visit IBM's manufacturing facilities every time? Branding and image is synonymous with trust, and I would venture that the level of trust must be low in shipping if everything has to be inspected and re-inspected with such frequency.

3) Differentiated service

Branding is all well and good, but there obviously has to be something behind it. Whether it is better cosmetic appearance, better operating performance, an outstanding safety record, a high level of transparency and openness, or just a greater willingness to listen, a strong brand is critically dependent on some form of differentiation. However, going back to Michael Porter's quote, most of what I have just mentioned relates to operational effectiveness. Is there any way to change the game so that one is actually providing service on a totally different level? Sadly, most changes in our industry are being driven by customers, regulators or politicians, not by the shipping companies themselves. Think of a shipping company which is standing out for its approach to vessel security in this period of heightened terrorist risk. Or

one which is doing something radically different in vessel scheduling. Or a company which is finding innovative ways to overcome the topical issue of rest hours onboard. Or new environmental standards, or innovative ship design, or new technologies. In this regard, the internet companies which are seeking to change the way in which our business is conducted offer some promise, although the foundation for their success – a market in which all participate – is by definition bound to ensure no differentiation for the participants.

4) People

It is hard to create and implement these innovations when our industry is challenged to attract talented individuals to work in this industry at sea and ashore. The war for talent is not unique to the shipping industry, but we are not exactly arming ourselves to win the war. After all, who wants to work for an industry which spends much of its time complaining about lack of pricing power, commoditisation and over-legislation? In typical circular fashion, the stronger the brands we can create in our industry, the higher the calibre of individuals we will attract, who in turn will help further to strengthen those brands with innovative ideas.

Shipping is as ancient and fine an industry as I can think of, and most people who come into contact with it find themselves hooked for life. It is a shame that this passion is not better projected to the outside world. The industry organizations can do a lot to help here, but rather than look to them to solve all our problems, it is perhaps time for individual companies to provide leadership in building up a stronger image for themselves, and by extension the industry. While the opportunity for revolutionary innovation may be difficult in the transportation of crude oil and bulk cargoes, it is not hard to imagine that a strengthening of brands in our market would lead to a widening of returns between the leaders and followers, higher standards generally, and a greater respect for the industry as a whole. Let us hope that with innovative thinking we will find ways to make shipping an industry of strong brands and positive value creation.

Food for Thought

The IFSMA Secretariat suggests the questions raised in the following article might be debated at the 28th AGA in Vladivostok.

Is IT time to throw overboard the deadwood of shipping?

by Andrew Craig-Bennett, from Quarterpoints, Lloyds List 12th March 2002.

There seems to be quite a few people who offer 'IT Solutions for the Maritime Industries'.

Good for them. But I seem to remember that a solution, when it is not something dissolved in a liquid, is the answer to a question or a conundrum, and I wonder if anyone has remembered to ask the maritime questions to which IT has the solutions?

If we don't ask the right questions, we stand a fat chance of getting the right solutions.

According to the celebrated spoof textbook of British history, Sellars' and Yeatman's 1066 and All That', a history book organised on the (probably correct) principle that history is what you remember, not what you ought to know. The British were never able to solve the Irish question because the Irish always changed the question.

Well, merchant shipping throughout the world has the opposite problem; we have never changed the question. We still ask the same question that were asked a hundred years ago; indeed if Samuel Plimsoll were to pick up this newspaper he would find that not much has changed since his merchant Shipping Act of 1876. The same bucks get passed in the same directions.

Which means that IT does not have much chance to offer its solutions.

So, I thought I would offer you some rather more pertinent questions, for the IT folk to solve for us all. I hope that you will agree with some of them, and if you don't I hope that you will feel encouraged to ask some better questions yourself.

To start with, what is the log book? In an age when, as we all know, it is almost impossible to get rid of data that has once been recorded electronically, what on earth is the point of picking up pen and ink and recording a tiny fraction of the available data every few hours? There is no point. The deck log book once an aid to dead reckoning and hence to navigation; that function is redundant, as are its records of weather information. Machinery log books record data that trends can be observed and analysed; a task done far better and quicker on a screen. Even the crew and cargo matters of the official log book can be handled better by communication from ship to shore; something that is now really rather easy and cheap to do. So let us put an end to log books and accept we can process the data better if it is presented in electronic form from the outset.

There is a great deal of interest in audit trails and in the documents of processes. That, after all, is just what the log book is; the documentation of the process of the voyage. The audit trail of any procedure which is the subject of quality assurance and quality control, is not only capable of being held in electronic form; it is, in all cases, better held thus, because the documentation will be more contemporary and more complete.

What is the notice of readiness for? In the days before Marconi, the master of an arrived ship had good reason to drop a billet-doux on the people who had to do with his cargo, ashore, to let them know that he had, in fact, arrived, and was in a position, if they had the wherewithal, to load or discharge it. When the ship's position, known to within a couple of metres, can be 'polled' automatically without anyone aboard doing anything, the concept of letting the charterer's representatives know that you have arrived seems oddly redundant. In which case, the time sheets might as well follow the NOR into long served oblivion.

What are all those certificates for? As we all know, they don't, in fact, prove that the *Saucy Sue* is the *Saucy Sue*, or that those in charge of the ship know what they are about, because they can be, and often are, fraudulent documents. But it is not a difficult matter to produce electronic documents that are

extremely hard to forge. Trade is, in fact, carried on this way today. So why not hold the ship's certificates, and the crew's certificates, electronically, using encryption technology. This stops them being forged and stops them not being in the right place at the right time.

I can remember a perfectly sensible accountant's audit clerk asking me, "please prove to me that this ship exists" and I was in fact unable to do so by means of certificates and documents such as are normally held in the office of the owner of such a vessel; I finally pointed at a picture of the ship in Lloyd's List.

Do we still need paper bills of lading and all their associated paraphernalia? Well, no we don't. We all know of electronic trading systems that operate without a paper original document.

The answer to the question "do we need a paper charterparty?" has been "no" for 20 years and more; indeed even 20 years ago it was unusual for the document to be typed up, let alone signed, before the fixture to which it related was not merely under way, but, often, concluded.

Do we need collision regulations in their present form? We certainly need an agreed way to prevent ships bumping into each other, but when we consider the wealth of data which can now be obtained and processed, one does wonder why we still have Colregs which are descended in a straight line from the days of wooden ships and iron men. If air traffic control systems can be modified in line with new technology, is it too much to expect that our traffic control system might be updated too?

Now, nobody seems to be bothering very much about these questions. Perhaps you will feel that this is because they are the wrong questions, in which case please substitute your own questions, or perhaps it is because we all shrug our shoulders and say "but is it legally acceptable and enforceable?" If it is not, then that is because the law, in a great many countries, has still to catch up with everyday life; but we can be pretty sure that the law will indeed catch up.

It would be a terrible shame if we let the opportunity to radically overhaul our business pass us by because we allowed the inertia of forms and precedents to force us to stop modifying the way we do business; it never stopped us in the past and it should not stop us now.

TEAMtalk

TEAMtalk Satellite Ltd, formerly IMC, is widely acknowledged as the expert in the provision of news to the maritime sector.

The company's news flagship is the newly re-branded TEAMtalk SatNews, and the reputation of the news service in the cruise market is reflected in its market share of around 85%.

Following the increased willingness of shipping companies to accept the need for maintaining crew morale and focusing on crew welfare, TEAMtalk Satellite's news offering, as well as its crew-focused communications packages, is perfectly positioned to cater for some of those requirements of the modern, employee-focused shipping companies.

Renamed early in January this year, TEAMtalk Satellite started life in the early 80s as a national project into ship-shore communications called 'Efficient Ship 2000'. Two ex-seafaring college lecturers, Bernie Thomas and Tim Whalley were assigned to research the British government-posed question: 'What will ships be using computers and communications for by the year 2000?'

Alongside the development of IMC's innovative early messaging system, Bernie and Tim responded to a request for passenger news from cruise companies such as P&O Cruises and Cunard. News for passengers in the form of *INSTANT!* News started in basic format, covering stories from home for British and American passengers cruising the seas. Today, the SatNews service offers 55 daily editions in 10 different languages to both passengers and ships' crew.

Although in the early days IMC also targeted commercial vessels, crew welfare was not yet at the forefront of shipowners' minds and money for a crew news service was deemed unavailable.

Now in the 21st century, further consideration is given to problems facing crew away from home for long periods of time and the solutions for easing these areas of concern are all the more crucial. More and more maritime employers recognise the effectiveness of high-quality crew welfare and can see the benefits of improving facilities, which will enable them to recruit and retain staff more easily, thus leading to a reduction in costs and increased quality of service.

One of TEAMtalk Satellite's main news products for crew is TEAMtalk SatNews. This service has something to suit everyone. Greek, Indian, Philippine, Indonesian and Polish news are offered in the English language. Other English-language services include Asian-Pacific, Australian, American and British. Also offered in English, are news digests with a specialist single theme concentrating on UK or US sports, finance and special events.

News from home is always a morale-booster as crews feel closer to their loved ones through reports from home of the main political, general and entertainment events, along with sports reports and financial bulletins. Additionally, providing the news in English creates an educational tool for crew who are keen to maintain or improve their English-language skills.

Foreign language news services available to crew include Brazilian, Dutch, French, German, Italian, Japanese, Norwegian, Russian and Spanish and the versatility of TEAMtalk Satellite's tenacious news team, along with its broad network of media contacts means that virtually any area or language can be covered on request.

Popularity of this service can be proven by the fact that when head office is reluctant to supply their ships or fleet with this highly-valued service, it is common for the crew of a specific vessel to 'club together' and pay for the service themselves.

Highly competitive rates, combined with ease of delivery and versatile payment methods make TEAMtalk's SatNews the sensible choice for the discerning ship owner, hoping to make life on-board better for his crew.

TEAMtalk Satellite Director Alan Golob said: "Since 1985, IMC has been the first choice for many maritime and remote customers seeking up-to-the-minute, high-quality, news, and cost-effective and reliable satellite communications solutions. Full integration will ensure that TEAMtalk Satellite builds on IMC's strengths by exploiting the additional resources that the larger Group offers. Increased technical, financial and creative input will guarantee that TEAMtalk Satellite is perfectly positioned to meet the future demands of the industry."

TEAMtalk Satellite is set to unveil more enhanced services for crews who want to communicate personally with loved ones at home, and one of the company's communication products already in use is its crew mail service. In the current climate of concern over crew welfare, TEAMtalk Satellite's service is perfectly placed to provide both the ship owner and crew with the ideal solution for cost-effective, reliable and convenient contact with friends and family back home.

The traditional method of communication generally available to crew has long been the phone. However, this form of contact has its disadvantages: from a user perspective, charges are high, time-zone differences often make voice contact inconvenient, and time in a signal strength area can be limited. Additionally, from the ship owner's point of view, callers usually have to use equipment located on the bridge, which can interfere with ship operations, and security can be an issue as leaks regarding confidential information regarding safety, voyage plans, cargo or accidents need to be controlled.

Likewise, the ship owner will have different priorities than their staff for a communications solution. Although looking for methods to improve the perception of welfare on-board, the ship owner's priority must still be the control of costs, such as those related to administration and equipment.

TEAMtalk Satellite's product takes these factors into account with a series of features to attract those making the decisions, as well as those using the service.

Apart from the crew welfare element of the product, TEAMtalk Satellite's crew mail service requires no high-level installations: traditional crew communications methods have often incurred significant expense, effort and upheaval to install but this crew mail service simply needs a PC and no extra cabling or drilling. Additionally, the TEAMtalk Satellite system will not tie ship operators to one airtime provider, off-site billing reduces on-board administrative work, off-line composition of messages cuts down the on-line time, and personal crew messages can be stored temporarily to be sent with important operational mail. The pricing model enables ship owners to make the decision either to provide the product to crew as a simple welfare service, imposing little or no charge for use or, to operate it as a means of generating revenue.

Crewmen want a system that will be simple to use, convenient and fairly priced. Phone calls often have to be pre-arranged to ensure there is someone at home to take the call, whereas an e-mail can be sent in the absence of the recipient. TEAMtalk Satellite's crew mail model has been designed to take all these factors into account; providing the crew with an exceptionally versatile, easy and accessible mode of communication.

An estimated 1.2 to 1.6 million seafarers around the world, excluding the fishing and leisure sectors, and a growing realisation by managers that a happy staff is more likely to reap rewards for the company, has made the crew welfare factor an important issue for all good managers. Ship owners now have a unique opportunity to take advantage of the increasing number of products and services available to ensure their hard-working staff are content and remain loyal to their employers, thus providing increased service quality, improved public relations and ultimately lower costs.

To find out more, or to subscribe to a free trial of the news service of your choice, visit our website www.teamtalksatellite.com

Grounding of the tanker Willy.

The Marine Accident Investigation branch is currently investigating the grounding of the tanker *Willy* in Cawsand Bay on 1 January 2002. Because the MAIB feels there are some important lessons to be learned, it is issuing this Safety bulletin. The branch recommends it be given a wide distribution.

MAIB Safety Bulletin 1/2002

This document, containing Safety Recommendations, has been produced for marine safety purposes only on the basis of information available to date.

The Merchant Shipping (Accident Reporting and Investigations) Regulations 1999 provide for the Chief Inspector of Marine Accidents to make recommendations at any time during the course of an investigation if, in his opinion, it is necessary or desirable to do so.

The Marine Accident Investigation Branch (MAIB) is carrying out an investigation of the grounding on 1 January 2002 of the product tanker

Willy. The MAIB will publish a full report on completion of the investigation.

This is the latest of several groundings in recent years that have resulted from vessels dragging their anchor. This Safety Bulletin is issued to remind owners and masters of the procedures and precautions to be considered when anchoring, especially in confined waters when an anchorage becomes exposed to onshore weather conditions.

J S Lang

Rear Admiral

Chief Inspector of Marine Accidents

Safety Recommendations

The grounding of the product tanker *Willy* is the latest in a number of similar incidents that have occurred in UK waters in recent years. The circumstances of each have been very similar: a vessel anchors in what is judged to be a secure anchorage, but then

drags when the weather subsequently deteriorates.

The Incident

Having discharged her cargo at Cattewater in Plymouth Sound on 30 December 2001,

Willy shifted to a designated anchorage in Cawsand Bay to await orders. She anchored in a position nominated by the harbour authority in a depth of 9.6m. She used her port anchor with 4 shackles in the water, and this gave a stern swinging circle of 1.25 cables.

As an anchorage, Cawsand bay is sheltered from all south-east winds and the holding ground is mainly sand and broken shells. The nearest dangers to *Willy* were rocks 4.25 cables to the north-west.

After anchoring, her position was established using radar ranges and bearings and using the GPS receiver, a 3-cable guard zone was set around the position of the anchor. The main engine was shut down, but remained available for use within 10 minutes. A bridge anchor watch was kept throughout by an officer of the watch (OOW).

The conditions on the day after she anchored, 31 December, gave no cause for concern, with the wind blowing from north-east force 3 to 4. By noon the following day, it had veered to the south-east and increased to force 7. Although the anchorage was now exposed and the conditions were less comfortable with the ship heading into wind and pitching in the increasing swell, her anchor appeared to hold.

At about 2240, on 1 January, the GPS guard alarm sounded. The OOW confirmed by radar that the ship was outside the guard zone and moving in a north-westerly direction and towards the shore. He called the master, who immediately ordered the main engine to be started, and then went straight to the bridge where he saw how close the shore was. He also noticed the GPS receiver displayed a speed over the ground of 1.2 knots. After ordering the OOW to go forward and heave in the anchor, he put the engine to full ahead just as soon as it was available, but it was too late. Within seconds, the rudder and the propeller had struck the rocks. The time was about 2250.

She remained hard aground and was very badly damaged.

Comment

In an anchorage exposed to deteriorating weather conditions, a vessel will remain safely at anchor so long as there is sufficient scope on the cable and the anchor continues to bite. Mariners will readily understand, however, that in certain situations and especially in deteriorating weather, vessels at anchor run the risk of dragging.

In the incidents investigated by the MAIB it seems that a feature common to them all is that those on board failed to recognise what was happening until the vessels concerned had already begun to drag well outside the swinging circle. In many instances the speed, sometimes as much as 1½ to 2 knots, was such that the time available to take corrective action was insufficient to prevent the vessel running aground on a lee shore.

It is, therefore, imperative that when anchored in close proximity to any hazard, or in an anchorage that has become exposed and a lee shore is close by, that any movement outside the calculated swinging circle is detected immediately so that steps can be taken to remedy the situation.

Those charged with keeping an anchor watch must ensure that they are well placed to detect dragging as soon as it starts, even though they may have taken various precautions to prevent it. Whatever means is adopted to check the vessel's position it must be sufficiently foolproof to give an instant warning of movement. Too often watchkeepers believe their means of checking their vessel's position is adequate. Experience reveals that such optimism is often misplaced. Every second counts.

If dragging, is detected or suspected watchkeepers must, in addition to calling the master, be prepared to take immediate action themselves. Bringing the engine to immediate notice, preparing to let out more cable, or even letting go the second anchor are basic precautions.

In deteriorating weather conditions, the situation should be reassessed and

precautionary measures taken to meet the additional risk of dragging. It is often safer to be at sea than in an exposed anchorage with a lee shore close by.

Safety Recommendations

Ship owners and masters should:

1. Ensure that watchkeeping practices and electronic navigational aids are optimised to provide immediate detection of a ship dragging her anchor.
2. Carefully consider the prevailing and forecast conditions when determining the amount of cable to be used when anchoring or when at anchor.
3. Ensure that the availability of engines is appropriate to the proximity of dangers and the prevailing and forecast conditions when at anchor.
4. Consider using a second anchor, or at least having it available for emergency use.
5. Carefully reconsider the safety of the anchored position in deteriorating weather conditions.
6. Not hesitate to shift anchor berths, or put to sea when there is an unacceptable risk of dragging, particularly when anchored off a lee shore.

Some Actual Signs 3

On a taxidermist's window, "We really know our stuff."

On a butcher's window, "Let me meat your needs."

On a fence, "Salesmen welcome. Dog food is expensive."

At a car dealership, "The best way to get back on your feet - miss a car payment."

Outside a muffler shop, "No appointment necessary. We'll hear you coming."

In a dry cleaner's emporium, "Drop your pants here."

Status of IMO Model Courses as at 1 March 2002

Published model courses:

- | | |
|---|---|
| <p>1.01 Tanker Familiarization*</p> <p>1.02 Specialized Training programme on Oil Tanker Operations*</p> <p>1.04 Specialized Training Programme on Chemical Tanker Operations*</p> <p>1.06 Specialized Training Programme on Liquefied Gas Tanker Operations*</p> <p>1.07 Radar Navigation - Operational level*</p> <p>1.08 Radar Navigation - Management level*</p> <p>9.09 Radar Simulation*</p> <p>9.10 Dangerous, Hazardous & Harmful Cargoes**</p> <p>1.11 MARPOL 73/78 Annex I</p> <p>1.12 MARPOL 73/78 Annex II</p> <p>13.13 Elementary First Aid*</p> <p>13.14 Medical First Aid*</p> <p>13.15 Medical Care*</p> <p>19.19 Personal Survival Techniques*</p> <p>19.20 Fire prevention and Fire Fighting*</p> <p>19.21 Personal Safety and Social Responsibilities*</p> <p>19.22 Ship Simulator and Bridge Teamwork**</p> <p>19.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats*</p> <p>19.24 Proficiency in Fast Rescue Boats*</p> <p>1.25 General Operator's certificate for the GMDSS</p> | <p>1.26 Restricted Operator's Certificate for the GMDSS</p> <p>27.27 Operational Use of Electronic Chart Display and Information Systems (ECDIS)</p> <p>27.28 Proficiency in Crowd management for Passenger Ships and Ro-Ro Passenger Ships.</p> <p>27.29 Proficiency in Passenger Safety, Cargo Safety, Hull Integrity, Crisis Management and Human Behaviour Training on Passenger and Ro-Ro Passenger Ships</p> <p>27.30 On-board Assessment</p> <p>2.01 Maintenance Planning and Maintenance Execution with Compendium</p> <p>2.02 Maritime SAR Co-ordinator Surface Search with Compendium</p> <p>2.03 Advanced Training in Fire Fighting*</p> <p>2.04 Maritime Law for Ships' Officers</p> <p>2.05 On-Board Ship Administration</p> <p>2.06 Cargo and Ballast Handling Simulator*</p> <p>2.07 Engine Room Simulator**</p> <p>3.02 Survey of Small Craft</p> <p>3.03 Survey of Machinery Installation with Compendium</p> <p>3.04 Survey of Electrical Installation with Compendium</p> <p>3.05 Survey of Fire Appliances and Provisions</p> <p>3.06 Survey of LSA and Arrangements</p> <p>3.07 Hull and Structural Survey</p> <p>3.08 Survey of Navigational Aids and Equipment</p> <p>9.09 Port State Control*</p> |
|---|---|

- 3.11 Marine Accident and Incident Investigation with Compendium
- 3.12 Assessment, Examination and Certification of seafarers with Compendium*
- 3.13 Maritime SAR Administration with Compendium**
- 3.14 Maritime SAR Mission Co-ordinator with Compendium**
- 16.16 Oil Pollution Liability and Compensation
- 16.17 Maritime English*
- 5.04 Human Resources Management
- 6.08 Maritime Law
- 6.09 Training Course for Instructors*
- 7.01 Master and Chief Mate*
- 7.02 Chief and 2nd Engineer Officer*
- 7.03 Officer in Charge of a Navigational Watch*
- 7.04 Officer in Charge of an Engineering Watch*

New model courses being prepared for publication

- x.xx Second class radioelectronics certificate for GMDSS personnel

Model courses translated into French and Spanish

- 1.07 Radar Navigation - Operational level*
- 1.08 Radar Navigation - Management level*
- 1.19 Proficiency in Personal Survival Techniques*
- 20.20 Fire-Prevention and Fire Fighting*
- 23.23 Proficiency in Survival Craft and Rescue Boats other than Fast Rescue Boats*

- 1.28 Proficiency in Crowd management for Passenger Ships and Ro-Ro Passenger Ships.
- 1.29 Proficiency in Passenger Safety, Cargo Safety, Hull Integrity, Crisis Management and Human Behaviour Training on Passenger and Ro-Ro Passenger Ships

3.17 Maritime English

Model courses currently being translated into French and Spanish

- 1.01 Tanker Familiarization*
- 1.02 Specialized Training programme on Oil Tanker Operations*
- 1.04 Specialized Training Programme on Chemical Tanker Operations*
- 1.06 Specialized Training Programme on Liquefied Gas Tanker Operations*
- 1.30 On-board Assessment
- 3.09 Port State Control*
- 6.09 Training Course for Instructors*

* Courses revised and renamed, as necessary, in line with the requirements of the revised STCW Convention.

** Courses under revision.

Some Actual Signs 4

On a desk in a reception room, "We shoot every 3rd salesman, and the 2nd one just left."

In a veterinarian's waiting room, "Be back in 5 minutes. Sit! Stay!"

At the electric company, "We would be delighted if you send in your bill. However, if you don't, you will be."

In a Beauty Shop, "Dye now!"

On the side of a garbage truck, "We've got what it takes to take what you've got."

Modern Methods 'Could Add to Channel Dangers'

By Michael Grey, Lloyd's List, 2 December 2001.

Modern navigation methods and equipment could be contributing to overcrowding in English Channel traffic lanes, a safety bulletin issued after a fatal collision in the Dover Traffic Separation Scheme has suggested.

In a special bulletin Britain's Marine Accident Investigation Branch has pointed out that the collision between the shortsea vessel *Ash*, run down by the overtaking chemical tanker *Dutch Aquamarine*, was the fourth such incident to have occurred in the Dover Traffic Separation Scheme in 13 months.

The master of the coaster died as his small ship laden with steel was run down by the overtaking chemical tanker and sank rapidly.

While the MAIB investigation into the incident is still going on, the agency has published its warning after noting the disturbing number of similar incidents which have taken place in this busy section of the westbound traffic lane, where the problem of "bunching" has long been recognised.

The MAIB believes that a possible reason for the rash of collisions involving overtaking ships lies with the increasing use of Global Positioning Systems along with electronic chart systems for forming and then storing passage plans. Where this pre-planned track is available to them, navigators, it suggests, "can be reluctant to stray from the planned track" and, after they have been forced to deviate, they seem more enthusiastic to return to the computer's recommendation than to re-plan an appropriate track out of harm's way.

This serves to cause and maintain the bunching of traffic, which brings its own hazards when there are vessels involved with markedly different speeds.

Shipowners and masters are urged by the MAIB to consider their planning strategies in this busy channel, consider the way electronic aids to navigation are being employed and make full use of the traffic lanes to reduce collision risks.

Actions to Improve Bulk Carrier Safety

New requirements to enhance the safety of bulk carriers were announced during March by the International Association of Classification Societies (IACS).

The new initiatives for existing vessels will, inter alia, accelerate the schedule for strengthening of the foremost cargo hold's transverse corrugated bulkhead and double bottom, address the strength of the side structure in cargo holds, increase requirements for forward hatch covers, require the installation of improved bulwarks or breakwaters when the ships are not fitted with a forecastle, and will further increase the requirements of the IACS Enhanced Survey Programme (ESP) earlier in the service life of these ships.

The new requirements for existing ships consist of two sets of actions. The first set, consisting of three measures, has been adopted and will take effect on January 1, 2003:

1. Earlier implementation of SOLAS Chapter XII requirements. The objective is to bring forward the reinforcement of the corrugated transverse bulkhead between No.1 and No.2 holds and the double bottom of No. 1 hold. This is now to be complied with at 10 years for vessels under 10 as of July 1, 2003 and at the due date of the next Intermediate or Special Survey (whichever comes first) after 1 July 2003 for vessels of 10-15 years of age as of July 1, 2003. Previously, these requirements were applied at 15 years. The changes are introduced through the adoption of a new revision of IACS UR S23, which covers the early implementation of the already existing IACS UR S19 and UR S22 for existing single side skin bulk carriers.

2. Adoption of a new revision of UR Z10.2 (Hull Surveys of Bulk Carriers). This amended Unified Requirement now extends ESP requirements for close-up surveys at Special Survey No.2 and also requires Intermediate Surveys of bulk carriers of 10-15 years of age to have essentially the same scope as Special Survey No.2.

3. Extended application of IACS' UR S24, requiring the installation of water ingress detection and alarms in all cargo holds of existing bulk carriers, as well as newbuildings.

The remaining five measures, to be introduced in the second phase of actions towards existing bulk carriers, are under development. The target is to complete the requirements in time to give owners sufficient notice to plan for and implement the modifications by the due date of the next Intermediate or Special Survey commenced on or after January 1, 2003. Those measures are:

1. Requirements for the installation of an improved bulwark or breakwater on existing bulk carriers when not fitted with a forecastle, and a forecastle on new vessels, to provide more protection for forward hatches and fore-deck fittings.

2. Requirements to increase the integrity of fore-deck fittings on existing and new bulk carriers, to resist green water loading.

3. Implementation of hatch cover requirements within the forward 0.25 L of existing vessels that are generally equivalent to UR S21 requirements for new vessels. UR S21 is currently under review for revision in light of the findings of further model tests carried out by the UK with input from IACS in conjunction with the findings of the RFI on the loss of the Derbyshire.

4. Implementation of requirements for the strength of side shell frames of existing vessels taking into consideration IACS UR S12, which today is applicable only for side frames of new bulk carriers.

5. Fitting of water ingress detection and alarms for spaces forward of the cargo area.

New Members

Welcome to the following Individual Members who have joined since May 2001.

Igor Horobets, Ukraine

Ashok Mahapatra, UK

Rodger M. MacDonald, UK

Robert I. Jackson, USA

Yuri Mykhaylenko, Ukraine

Marjorie B. Vormawah, UK

Boris Rukonic, Croatia

Eddie Agbakoba, UK

Amar Mahtout, Algeria

Aurelio J. Dutari, Panama

John W. Dickie, UK

Timothy Harris, UK

Sarath C. Fernando, Sri Lanka

Valerian Imnaishvili, Georgia

Dursun Tsintsadze, Georgia

Tamaz Katamadze, Georgia

Parman Khvedelidze, Georgia

Grigoriy Sarantidi, Georgia

Volodymyr Bashev, Ukraine

Norman W. Lemley, USA

Some Actual Signs 5

In a restaurant window, "Don't stand there and be hungry, come in and get fed up."

Inside a bowling alley, "Please be quiet. We need to hear a pin drop."

In a cafeteria, "Shoes are required to eat in the cafeteria. Socks can eat any place they want."