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# Seaways

The International Journal of The Nautical Institute




# Rise of the ocean giants

## What the ULCV means for shipping and salvage

The Nautical Institute

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Danny Cornelissen


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# Drowning in a sea of paper

Following the letter, rather than the spirit, of the ISM code, makes life at sea harder for everyone – and could even be actively dangerous.

**Captain Naveen Satanand Singhal**
MNI

The ISM Code, implemented in 1998, was meant to make the oceans cleaner and ships safer. However, 14 years later, it seems that oceans are now at a greater risk from getting polluted and ships more prone to accidents and disasters than ever. Sadly, much of this can be put down to a lack in understanding the 'spirit' of the ISM code.

The existing practice of equating the safety standard of a company with the size and volume of its documentation is a trend which is generating more paper and dangerously eroding the actual safety on board ships.

## Where did it all go wrong?

Much has been said over the years about the ISM Code, good and bad, but this time the code itself is not to blame. The architects of the ISM Code could have never dreamt in 1993 of the way in which the industry could swamp the ship's Master and crew with a tsunami of documents and thus inadvertently compromise the actual safety of the vessel.

The volume of unwanted paper varies between companies. Although those companies who prefer more user friendly procedures/documents may put less of a burden on the crew, the danger of excessive documentation is still pronounced across the shipping industry.

Captain Thomas Waldher of RIGEL Schiffahrts GmbH & Co German Ship Owners and operators of ships reflects on the psychological impact of this excessive documentation and says: 'ISM did contribute to safer management of ships and better protection of the environment. It is a huge challenge for ship operators to keep the documentation simple. In most cases the aim is to legally protect different interests, which does not contribute to safer operation of the ship. Seafarers who live and work on board for an extended period of time cannot be expected to think of theoretical procedures and guidelines at every minute during their stay on board. From a psychological standpoint this is not feasible. The aim should be to consider how to provide a safe and environmentally friendly working condition for the seafarer, rather than demanding that they read lengthy and complex procedures which are aimed at covering the shortcomings of the organisation's own systems.'

It would not be at all surprising if managers ashore were unable to find and retrieve documents from within their own systems due to the sheer volume of data. If this is the condition of the office, what could we expect from a Master onboard ship with little or no shore guidance or assistance? Would it then be correct to say that every vessel afloat is a disaster waiting to happen, in terms of the paperwork and the distractions it can cause?

The results of a recent survey of shipping experts, owners/managers, classification societies, surveyors and senior officers are not surprising either. It is clear that the amount of documentation and information being dumped on ships is a matter of considerable concern.

- 93% believe that the documents on the ships are excessive
- 87% say that there is a good amount of duplication of documents
- 95% agree that documentation is not simple to read and understand
- 85% believe that surveyors and inspectors insist on documentation
- 79% believe that the company generates documentation
- 100% believe that documentation is required
- 100% agree that documentation should be simple, effective and brief

## Information overload

There are many in the industry who benefit from the process of creating and approving a complex SMS without taking into account the ability and limitations of the seafarer who is the final user. The key purpose of ensuring that the ship's crew reads and understands the manuals is rarely achieved, either because the data is too monotonous and 'general', or because a simple process or activity has been expressed in an elaborate and complicated manner which even Albert Einstein would find difficult.

Mr Bjorn Hojgaard, CEO of UNIVAN Ship Management, puts it very aptly: 'In an effort to cover all bases, the Safety Management Systems in use on board today's merchant ships have become bulky. While good policies, procedures and forms can be of great help to shipboard management, the sheer volume of documents and paperwork is a deterrent to many seagoing officers.'

Shore establishments/companies need to be more prudent whilst passing manuals/data and important information to ships. It should be to the point, simple to read and understand, as brief as possible and less fragmented as well, so that it motivates a seafarer to read.

This information dumping has quite naturally resulted in:

a. Making the crew insensitive to seemingly important information, and unable to distinguish what is really important thus making the ships more unsafe and prone to accidents and pollution.
b. Keeping the Master and crew more occupied with un-wanted documents, paperwork and less time on vessel's safety and operations.

Often, there is simply too much information to absorb in the time available.

Dr. Margaret Heffernan, an expert on information and the author of *Wilful Blindness*, writes that 'We are receiving more information on a continuous basis, but greatly misunderstand the brain's capacity to handle this. Imbibing too much information also impairs the brain's decision-making powers'. Lagging indicator of such an impairment is subtly visible as 'human error' in marine accidents.

In simple terms, if we ask a chef to read an entire book instead of a one page recipe, he will probably ignore the whole thing and cook the dish his own way. No ship owner/operator wants the crew to by-pass procedures; but they are inadvertently encouraging it, since the procedures were never crafted in a 'user friendly' manner to start with.

Some charterers have now started insisting owners/operators include within their manuals and procedures extracts from reference books

such as COSWP, ISGOTT, SIGTTO, chemical tanker guides etc. This is the last straw!

Mr Cong Jian, a senior executive of Dalian Ocean Shipping Company, comments that the ISM Code has no doubt worked effectively over the years and resulted in safer shipping, however numerous procedures and check lists are steadily on the increase. This proliferation of documentations results in undue pressures. Far from engendering a safety culture, it actually increases crew fatigue. In addition, it serves to create a negative approach towards documents and paper. It is essential for IMO to recognize the current state of affairs and work together to encourage all the parties concerned to revisit ISM's goals and foundations.

## What can be done?

N. Rengarajan, CEO, Transocean Shipping Ventures Private Limited, Mumbai says he is striving to improve their company's documentation and comments: 'Successful implementation of any standard requires a thoughtful and a holistic implementation. Documentation should be an aid to the seafarer and not a burden. Hence there is a big need to rethink our ideas to have a good, simple but adequate documentation procedure for our industry which assist the crew and encourages them to read the manuals.'

Interestingly GL Academy, the academic arm of Germanischer Lloyd, has made a good attempt in the right direction by launching a 'lean documentation' training programme. Mr. Ulrike Schodrok the Global Coordinator for Germanischer Lloyd Academy explains, 'We have opened a debate on the need to identify inefficiencies, avoid unnecessary documentation and generally take a 'leaner' approach to ISM implementation. With more regulations to come and new management systems to be integrated it is time to investigate some efficient options to make the SMS more effective. A leaner SMS would also achieve endorsement from the crew, enhance their commitment, improve awareness and contribute to a better safety culture.

Both recognised organisations and flag states have their part to play. According to Ms. Evelyn Soon of the Cayman Islands flag state: 'It is advantageous for the SMS documentation to be as concise as possible to ensure effective compliance. If the system is overly complex and burdensome, this is likely to give rise to issues when this is put into practice. Documentation should be developed to record what is actually done rather than making the process fit the procedure. The main guidance we would offer is to ensure that compliance with the statutory elements can be achieved without being over burdensome. All too often during external audits, we find that procedures require unnecessary and over complex steps to be followed. This can lead to non-conformities as the seafarers will inevitably leave out the unnecessary steps or may find it difficult to comply with. Clearly, we would never discourage going above and beyond the requirements set out in the regulations, but this should not be at the sacrifice of other procedures that must be followed.'

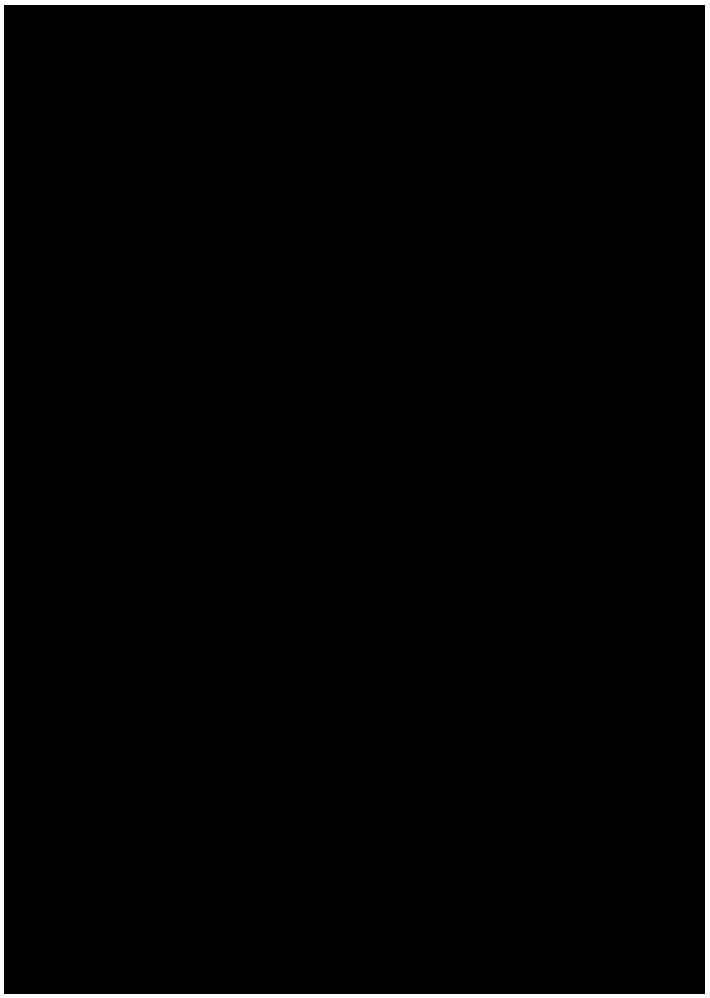
## Role of the IMO

The industry must take its cue from the initial failure and current success story of the ISO 9001 standard, from which the ISM Code was derived. When introduced in 1987, and subsequently amended in 1994, the ISO 9001 was criticised by the world as a 'document tiger'. However ISO Geneva was quick to respond and act, by amending the ISO 9001 standard in the year 2000 and leaving the user to decide the size and need for documentation. This resulted in a most 'user friendly' and globally accepted quality management standard.

The ISM Code has already undergone three revisions, but we have yet to see a code which would be user friendly and would motivate a ship owner to adopt and implement any kind of change. I would earnestly request that IMO takes heed of the predicament caused by the rising tide of documentation and considers amending the ISM code accordingly. We need an amendment which would ensure that only those documents and manuals that are really needed are sent to the ships – and even those that are sent are presented in an easy to understand and user friendly manner. If IMO is to move with the times then it would need to structure a mechanism whereby those marine/technical personnel serving in IMO who are involved in defining policies and codes for the industry are required to sail on ships at regular intervals to keep their understanding of the industry current. This could help give a picture of the reality of the Code as it is implemented – which can be a very long way indeed from what its architects intended.

I also believe that the stalwarts at IMO need to review the ISM Code itself, which I deeply regret to state is out-dated and obsolete. The code introduced risk assessment in 2010, when it was introduced in the shore based industries in 1999 with OHSAS 18001. It has still to introduce the concept of 'preventing the occurrence of a non-conformance', the pro-active action; something which was introduced in the ISO 9001 in the year 2000.

The maritime industry is now heading for the point of no return. If the situation remains as is, we may find ourselves explaining to the world in the wake of a terrible accident why seafarers were paying attention to the documentation not the ship – or why they ignored safety procedures altogether. This is a serious issue, and we need to take stock of it before we reach a point when documentation loses its sanctity, and the industry loses confidence in the ISM Code altogether.



**Philip Wake** MSc, FNI Chief Executive

# Focus

# Change and no change

> The Institute offers a range of digital services to enhance the value of your membership and ensure that we get information to you quickly as well as expanding the ways in which you can become involved.

First – the good news. There will be no change to your membership subscription from April for one year. The Executive Board recognises that the Institute has had three very good years of generating surpluses in difficult market conditions thanks to the support of the membership, the hard work of the staff and the spread of professional activities undertaken. They also appreciate that the continuing economic problems in many parts of the world are affecting the livelihood of members and hope that this subscription decision will help to some extent. This and the other decisions and discussions at the Board and in Council are set out in Governance Proceedings (see pp 12-16) so that members may see the Institute's new structure of representative bodies in action. 'Making the most of digital' (see pp 21-22) updates members on the further development of digital services offered by the Institute to enhance the value of your membership and ensure that we get information to you quickly as well as expanding the ways in which you can become involved.

## Lifeboats and the sea of paper

Two subjects that the Institute has worked on for some years without as yet achieving the results we desire are the design of lifeboats and the volume of documentation that has become the bane of the seafarer's life, particularly the Master. In the Captain's Column this month, Captain Michael Lloyd concisely sets out the compelling need for change in the design of lifeboats and/or the requirement for dedicated, properly designed rescue boats. The former especially applies to cruise ships as they increase in size whilst the latter affects all ships equipped with enclosed lifeboats as they are particularly unsuited to the sea boat rescue task. Rescue is also needed for the Master 'drowning in a sea of paper' says Captain Naveen Singhal (see pp 23-24), who considers the spirit of the ISM Code has been corrupted as too many people have used it to cover them against all eventualities. This has resulted in very extensive procedures contained in multiple manuals and could be said to be detracting from safe operations rather than improving them. He points to some efforts to reverse this trend and calls on the IMO to review the ISM Code itself as well as ensuring the drafters of legislation actually sail on ships from time to time to experience the real world of seafaring. We and other professional body NGOs, such as IMPA and IMarEST, do our best to input this practical view to IMO debates but acknowledge that more sea experience amongst other delegations would be useful.

## So what is changing?

The answer is a great deal and at a rapid pace. Four feature articles this month give just a flavour of this relentless process across the breadth of the maritime industry. AIS is no doubt considered relatively mature navigational technology now, so its development into a satellite system should come as no surprise (see pp 5-7). The underlying data remains the same, and there will probably be a debate about the accuracy and usefulness of that, but the range and uses of the data extends dramatically via satellites.

Meanwhile on the sea and beneath it economic and environmental pressures are driving innovation. Ever larger container ships are being designed to reap economies of scale in transport costs as well as a lower carbon footprint. However, there are risks involved with any enterprise and the challenges of salvaging these ocean giants need to be properly considered. The physical difficulties have already been amply demonstrated in recent casualties involving much smaller ships, but there are other aspects such as General Average that are equally daunting in their scale and the sea of paper they create, to return to an earlier theme. Delving under the sea for a moment, what are the consequences of wave and tidal power generation technologies for the seafarer? These are in their infancy compared to wind turbines but are being developed and tested (see pp 8-9). They will inevitably need to be taken into account in passage planning and the good news is that commercial construction of them is likely to result in employment for specialised vessels and personnel, especially in dynamic positioning.

Finally, it is good to see an initiative gathering pace to achieve consistency in training seafarers internationally that goes beyond merely implementing the requirements of STCW. This is a Stena initiative which links the various nautical colleges they use around the world and enables the sharing of best practice and professional development (see pp 25-26). We wish them success.

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