

Influence of ISM and SMS on Marine Claims

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مستخلص

بالرغم من التطور الهائل في صناعة السفن ووسائل الملاحة البحرية إلا انه مازال تشغيل السفن التجارية يتعرض لكثير من المخاطر والمسائل القانونية... ولاسيما المخاطر التي تؤدي إلى الإصابة و فقد الأرواح والبضائع أوتلوث البيئة البحرية ويظهر ذلك من حجم و قيمة المطالبات التي تقدم لنوادي الحماية وشركات التأمين.

هذا البحث يوضح بالإحصائيات المطالبات التي تفاقمت قيمتها بسبب المخاطر المذكورة للفترة من عام 1987 وحتى عام 1996 وبتطبيق نظام الإدارة العالمي ISM الفعلي و الأمثل لتشغيل السفن ومنع التلوث أدى إلى تقليل هذه المخاطر والمطالبات.

ومما لاشك فيه أن ملاك السفن يساهمون في تغطية قيمة هذه المطالبات وذلك بزيادة قيمة القسط التأميني السنوي وبالتالي تزداد تكاليف التشغيل .

Abstract:

Despite the recent rapid development in shipbuilding industries and maritime navigation instruments, the operation of merchant ships is still subjected to many risks and liabilities, especially these risks where people may become ill or are injured, cargo may be lost and marine environment pollution may occur. The numbers and values of claims are submitted to P&I clubs and insurance companies observed that.

This paper is illustrates statistical claims from 1987 to 1996 which have reached an extreme value of the above risks, and huge financial losses.

Of course all shipowners premium are sharing to cover the value of these claims, which increases operating costs.

It has now become essential to hand over claims to P&I clubs and insurance companies evidence appear of the effectiveness of applying ISM and SMS.

1. Introduction

An inevitable consequence of operating merchant ships is that there are risks and liabilities around every corner. These risks are related to cargo damage, personal injury, property damage, collision and environment pollution. If a ship operator is to have a successful and profitable voyage then these risks must be minimized and managed very carefully.

A natural consequence of properly and carefully managing risk is that accidents and loss incidents will be reduced. To what extent they will be reduced will be directly related to the effort put in by everybody involved and the quality of the risk management methodology.

The old saying that **'you will reap what you will sow'** is as true today as it was those thousands of years ago when first uttered.

One thing is for certain: if the accidents are prevented then everyone benefits - people and property are not injured or damaged and money is not wasted in paying unnecessary compensation for incidents which should not have happened.

Of course a ship operator will probably be insured for many of these risks with his P&I Club and insurance companies. However, if these risks result in claims then everyone loses - no-one benefits. People are injured and suffer the painful consequences; property is damaged and restitution is expensive. The claims have to be paid which is not good for the ship operator nor is it good for the P&I Club and insurance companies. Everyone involved in the maritime adventure will suffer. In addition to these tangible losses the ship operator's reputation may also be damaged and uninsured losses will almost certainly be incurred - such as loss of time.

It clearly makes sense therefore to manage the risk in the most effective way possible. There are at least two approaches to managing risk, neither

of which is exclusive of the other: there is the reactive approach and the proactive approach. The most successful attempts at risk management probably utilize both approaches. Certainly the ISM Code anticipated both reactive and proactive approaches to be implemented as part of the functioning (SMS) safety management system. Whatever method is adopted however will depend upon the particular culture and requirements of each individual ship operating company. The individual company, and they alone, with their own staff, must decide how they are to manage the risks and implement their own loss prevention programme and initiatives within their own company - no-one else can do this for them.

2. Claims before implication of the ISM code

This paper condenses those statistics to give shipowners, managers and all other interested parties in the maritime industry a clear perspective of both the numbers and total value of claims over ten years – from 1987 to 1996.

2.1 Major and minor claims

- major claim

A major claim in this context is one for which the amount paid and the amount of any outstanding estimate together total at least about US \$100,000.

- minor claims

A minor claim or Incurred But Not Reported (IBNR) a term used to describe claims which may have occurred, but not exceed the amount of US \$ 100,000.

As shown in Fig. (1) major claims accounted for approximately 2% of all claims in terms of number, representing 72% of the total value of all claims.

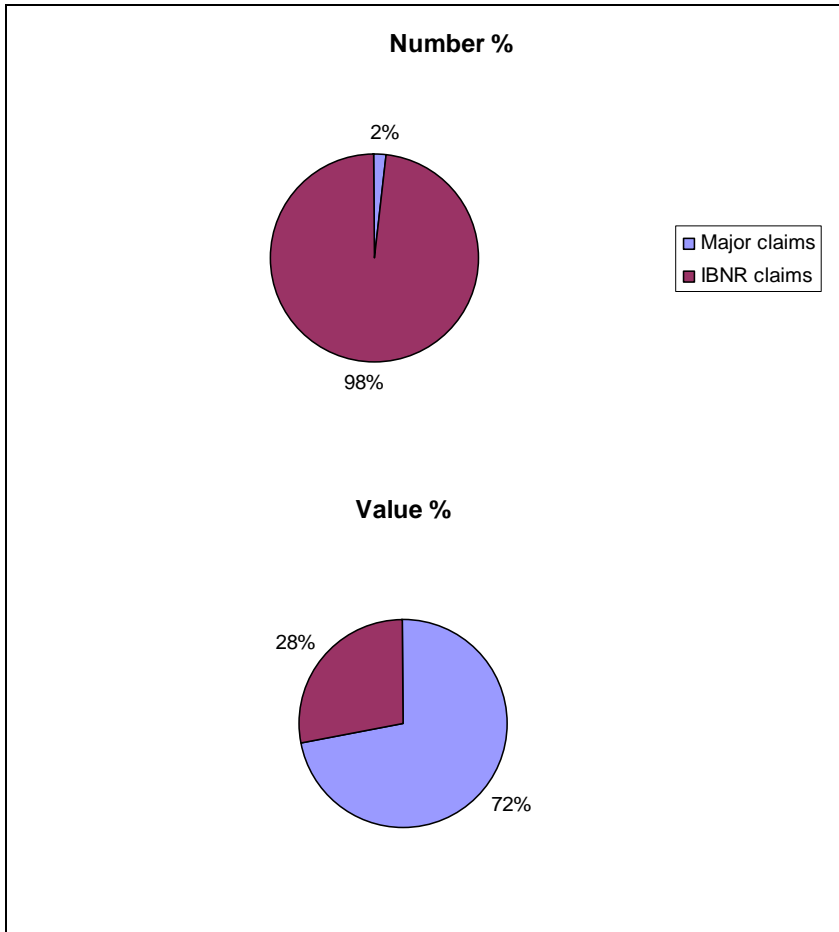


Fig. 1: Comparison of major and minor claims [2]

2.2 Frequency and value of all claims

As shown in Fig. (2) increase frequency of claims in the 1987 and in Fig. (3) sharp increases becoming apparent value of claims in the 1991.

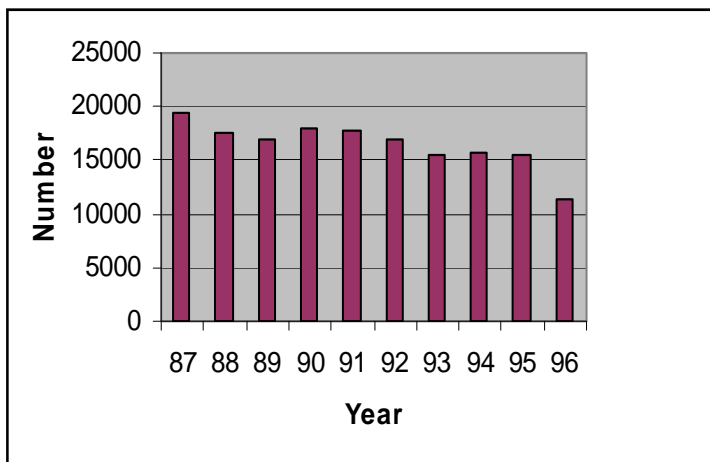


Fig. (2) Frequency all claims [2]

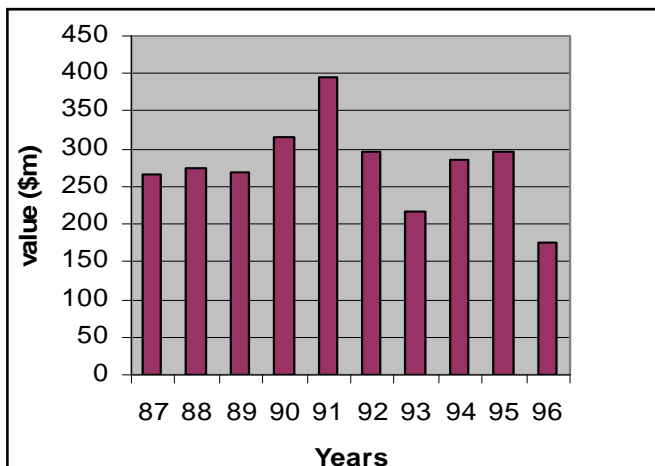


Fig. (3) Value of all claims [2]

2.3 Frequency and value of major claims

As can be seen from Fig. (4) and Fig. (5) comprise the frequency and value of major claims in each year over the ten-year period.

The value of these claims is nevertheless significant as it is these claims that tend to impact on the costs of the wider shipowners rather than just the record of the shipowner concerned.

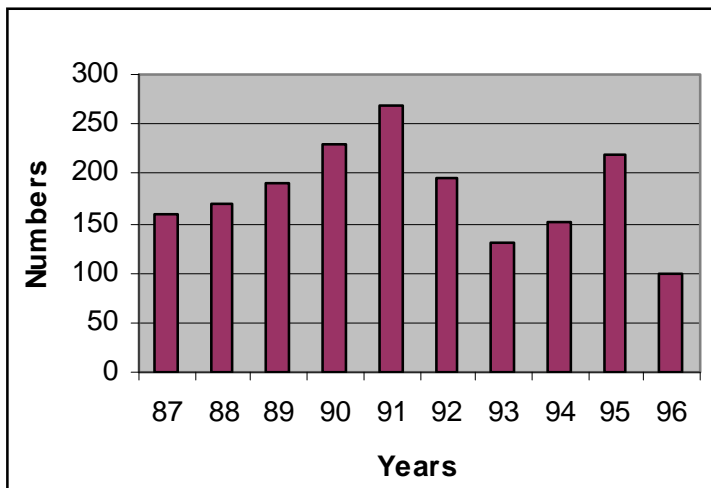


Fig. (4) Frequency of major claims over ten-year period [2]

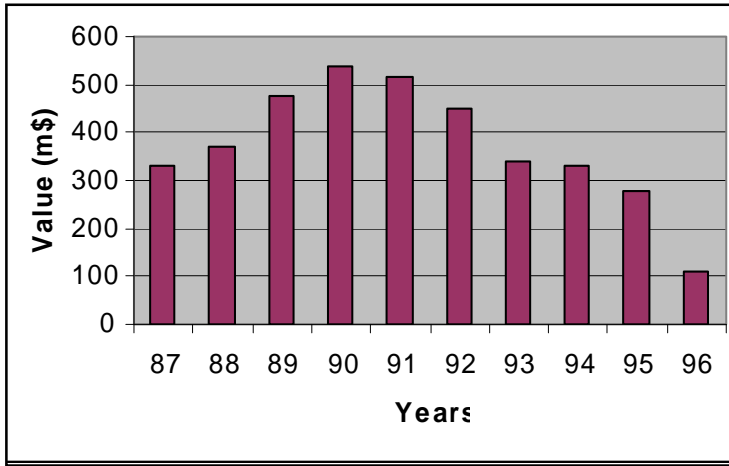


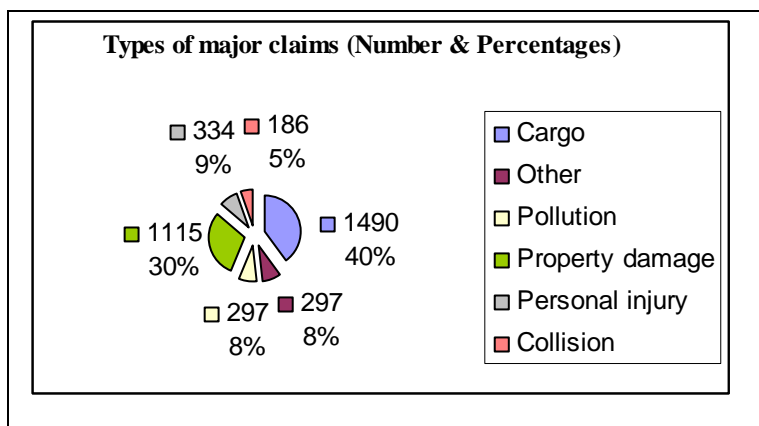
Fig. (5) Value of major claims over ten-year period [2]

3.0 Types of major claims

At January 1997, there were 3,719 such claims with a gross value of US\$1,765 million. Of these claims, only those in respect of cargo, personal injury (both crew and non-crew), property damage, pollution and collision are examined.

Claims in respect of fines, wreck removal and certain other events have not been examined.

The following two graphs in fig. 4 provide details of the percentage division of these claims type by number and cost.



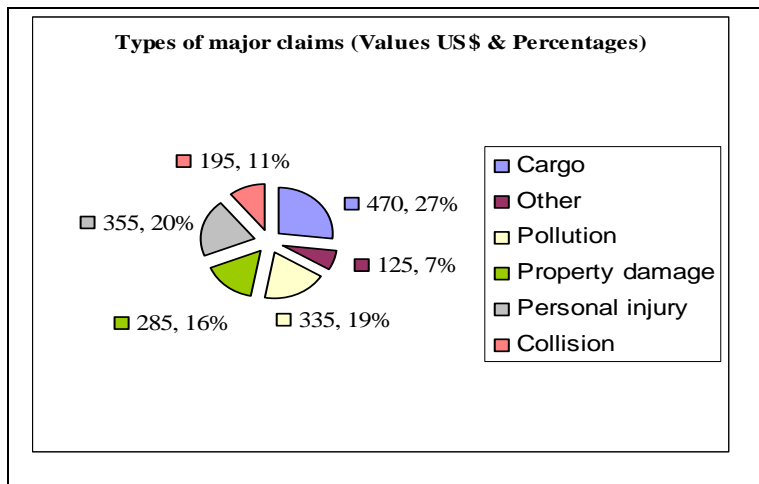


Fig. 4: Percentage division of claims type by number and cost [2]

Main cause of all the major claims

Human factor is general common theme which can be traced through all the claims areas, especially the major claims in the five key risk areas of cargo, personal injury, property damage, pollution and collision.

The impact of the human factor on major claims

Human error plays a significant role in all claims. Almost all major claims happen on ships of all ages and sizes and each ship type is influenced by human errors.

Fig. 5 confirms that human error is the main or contributory cause of most of the claims by number, accounting for 58 per cent of all claims.

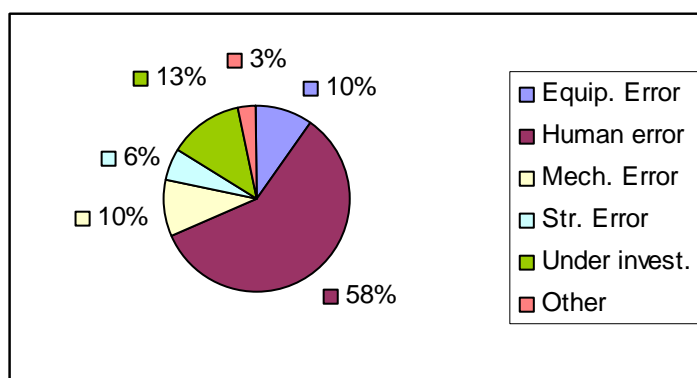


Fig. 5: Percentage of main causes of all major claims [2]

The impact of the “human factor” on each individual risk type examined can be summarized as follows:

- **Cargo claims**

The causes are categorized by reference on the one hand to failures of structure, equipment or mechanisms and on the other hand to the failings of various people involved.

Main cause confirms that human error accounts for around half the claims as shown in fig. 6.

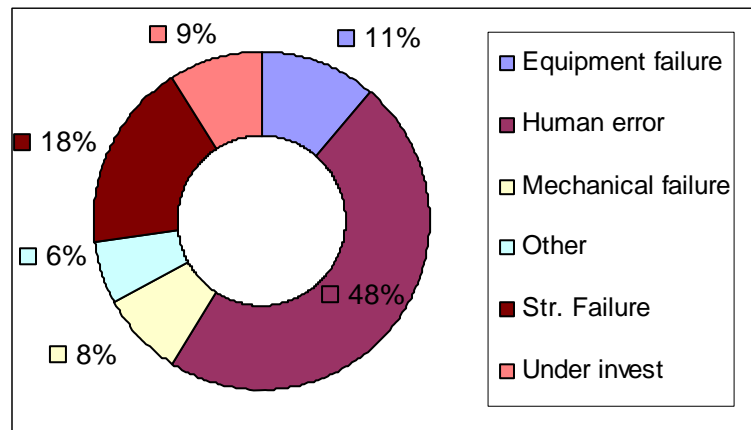


Fig. 6: Cargo claims and human error [2]

- **Personal injury claims**

The majority of all personal injury claims (approximately eight out of ten) are caused by human error, either on the part of the individual performing the task or by the officer in charge failing to give clear instructions and to supervise the performance of the task. There is also evidence to suggest that language difficulties, even between officers and crew on board the same ship, have contributed to a number of the claims.

About 22 per cent were the result of mechanical (i.e. heavy machinery) or equipment failure, but there were twice as many (48 per cent) resulting from various kinds of human error, as shown in fig. 7.

The remaining 30 per cent under the column marked 'no help' were the result of another special kind of human error, namely that of one

person trying, without assistance, to do something requiring the help of a second person. Crew training and/or manning levels are called into question by the high number of injuries in the 'no help' category. These figures suggest that any serious attempt at loss prevention must include a commitment to higher standards of crew training.

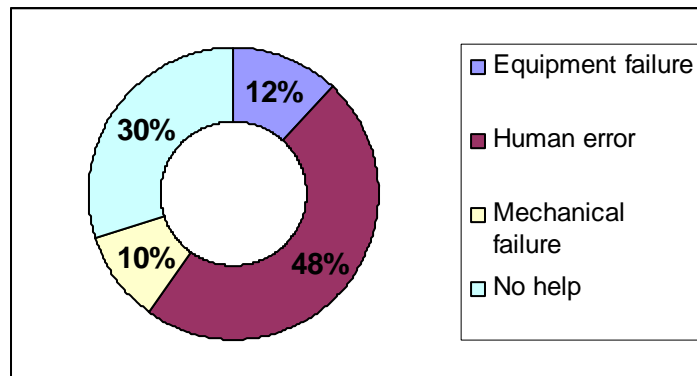


Fig. 7: personal injury claims and human error [2]

- **Property damage claims**

The majority of the claims (80 %) can be attributed either in whole or in part to human error and of these claims the most significant element is pilot error.

This demonstrates the very high percentage number of claims caused by human error as shown in fig. 8.

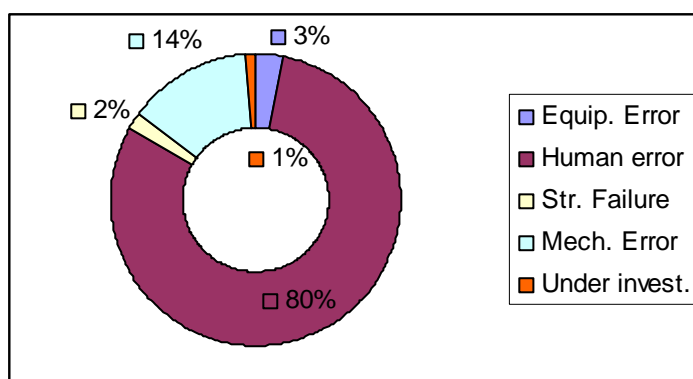


Fig. 8: Property damage claims and human error [2]

- **Pollution claims**

Fig 9 shows the main cause as a percentage of the total number of the claims. As can be seen from the fig.9, human error is a major factor, whether during bunkering operations or as a result of a collision or grounding.

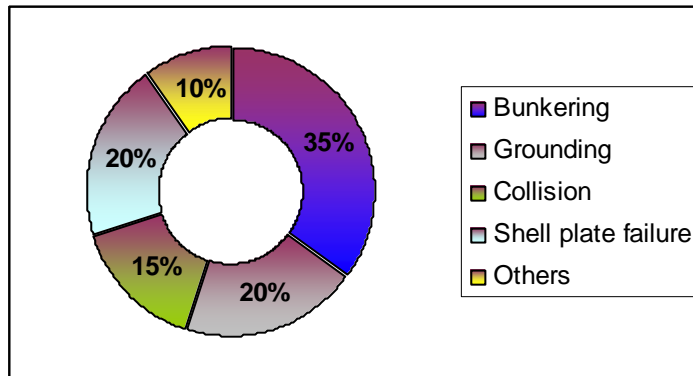


Fig. 9: Pollution claims and human error [2]

- **Collision claims**

Fig.10 presents human error as accounting for around 91% of major collision claims while adverse weather conditions and mechanical or equipment failures were rarely a factor.

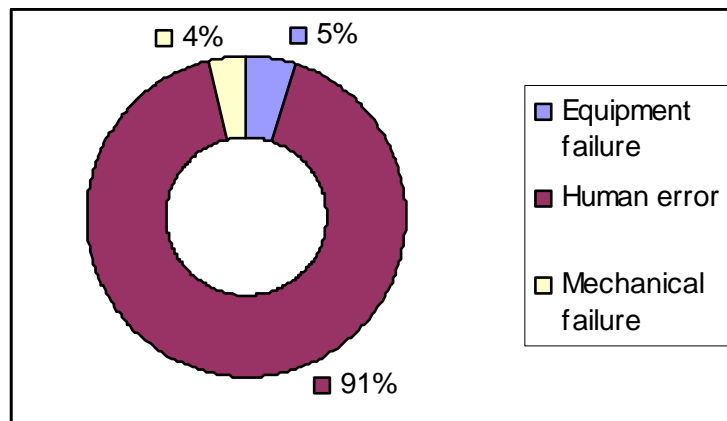


Fig. 10 Collision claims and human error [2]

The majority of collisions are the result of negligent navigation on the part of one or both of the vessels involved.

From the survey of collisions between vessels which were both under way, the contributing factor of frequency were:

- Insufficient watch keeping;

- Excessive speed;
- Lack of assessment of the situation;
- Lack of early positive action;
- Passing/overtaking too close;
- Failure to observe traffic scheme regulations;
- Incorrect lights/signals;
- Negligent maneuvering.

Implications of the ISM Code

It will be appreciated that the implementation or non-implementation of requirements of the ISM Code is likely to have a serious effect upon most of the risks covered by the Insurance. Of particular relevance are:

- (a) Liabilities arising in respect of injuries to people where those injuries have arisen because of a failure to provide the basic requirements of the SMS.
- (b) Liabilities arising out of collisions, non-contact damage to ships and damage to property. Such liabilities are likely to arise because of some error or negligence of the master, officers or crew.
- (c) Liabilities arising out of a pollution incident.
- (d) Liabilities in respect of cargo.
- (e) Liabilities in respect of fines.

ISM code

It is sometimes overlooked that the ISM Code is intended to address specifically pollution prevention and not just safety management. The omission is possibly a result of the shortened title which has been given to the Code, i.e. "The International Safety Management Code", whereas the full title is

**“The International Management Code for the Safe
Operation of Ships and for Pollution Prevention”.**

However, the Code repeatedly highlights the importance of pollution prevention by means of references to the protection of the environment. Indeed, the functional requirement of the safety management system (SMS) specifically includes procedures to ensure the protection of the environment in accordance with relevant international and flag state legislation.

ISM and P&I Clubs

The Clubs of the International Group should deal with and respond to the ISM Code, and specifically how the P&I Clubs should deal with Members who did not comply with the ISM Code requirements, and specifically whether Club cover should be provided for claims which arise as a consequence of some non-compliance with the requirements of the Code.

Clubs recommendations for the minimum standard were as follows:

- (A) Clubs should ensure that their members are obliged to maintain, in respect of each entered ship, valid-ISM Code Certificates both DOC's (Document Of Competence) and SMC's in accordance with requirements of the flag state.
- (B) Clubs should include the monitoring of general compliance with the ISM Code in their existing programmes of surveys or inspections.
- (C) Clubs should decline to accept, as new entries, any ships which do not have valid ISM Code Certificates as required by the flag state.
- (D) Clubs should ensure that in respect of ships which do not have valid ISM Code Certificates there is no recovery for claims

caused by any failure of the Member to comply with the flag state's ISM Code requirements.

Major reduction in claims from ISM Code vessels

A new claims study by The Swedish Club has produced direct evidence that ships complying with the ISM Code have made significant claims improvements in comparison with non-ISM vessels.

The study demonstrates clear differences in claims development between vessel types subject to the ISM Code's first mandatory deadline - July 1998 and those types subjected to the second deadline of July 2002.

The claims improvement since 1995-96 is 30% greater for the first group than for the second group of vessels.

The Swedish Club's Loss Prevention Officers, said: "It is difficult to tell how much of this improvement has to do with the ISM Code, but it is clear that those who have adopted the code and implemented modern safety management systems have been able to keep the number of claims down."

The Club is a firm believer in ISM and says it would not be surprised if this positive development is closely related to the successful introduction of ISM. This is also backed up by the preliminary findings of a Club survey on ISM, where many members see a positive change in the incident rate since implementation.

The study appears to offer a clear message - vigorous application of the ISM Code can significantly reduce claims exposure.

The new analysis examined hull and P&I claims in turn, over the four years ending June, 1999. The project involved close assessment of the claims records of "**Phase 1**" vessels (required to achieve ISM Code certification by July, 1998) and "**Phase 2**" vessels (subject to the July, 2002 deadline).

Phase 1 vessels of four main types were considered: oil tankers, product tankers, chemical tankers, and bulk carriers.

Phase 2 types reviewed were container ships, reefer ships, general cargo ships and ro-ro designs.

- As shown in Fig. 11, 1995 was used a starting year for the study and the claims development over the following years was then measured against the situation in 1995-96.

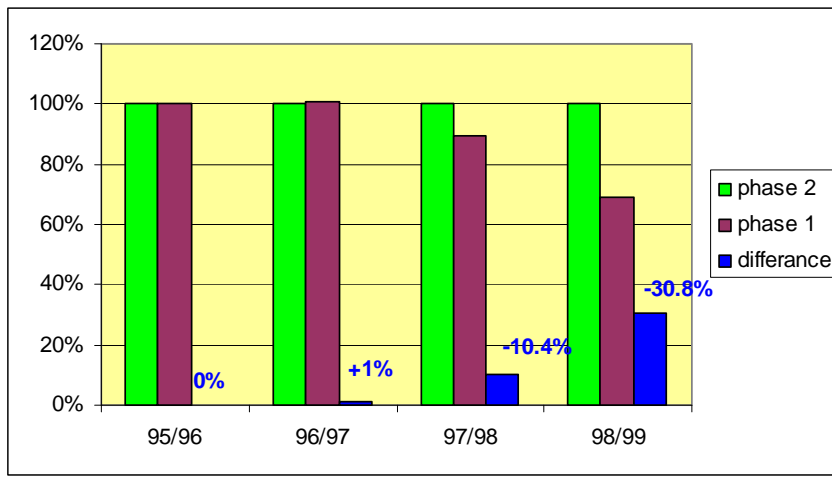


Fig. 11: Claims development for phase 1 vessels in relation to phase 2 vessels

Fig.11 illustrates the claims development for Phase 1 vessels in relation to Phase 2 vessels:

- 1996-97: Phase 1 vessels compared with Phase 2 vessels - 101.9%
- 1997-98: Phase 1 vessels with Phase 2 vessels - 89,6%
- 1998-99: Phase 1 compared vessels compared with Phase 2 vessels - 69.2%

Commenting on the results,

The claims development from 1995-96 to 1996-97 was basically the same for the two vessel groups. The major change, however, is apparent in the final two years of the study, with a significant reduction in claims involving Phase 1 vessels.

This is not the important issue, as that is very much related to the level of deductibles. It is natural that more claims are reported to the clubs as deductibles go down.

We noted an improvement already emerging from 1997. This could be explained by the start made to develop procedures and checklists.

Documents/information required in support claim

The following documents and information should be required to accompany a claim. If an adjustment is prepared, the adjuster will extract information from the documents and incorporate it in the adjustment.

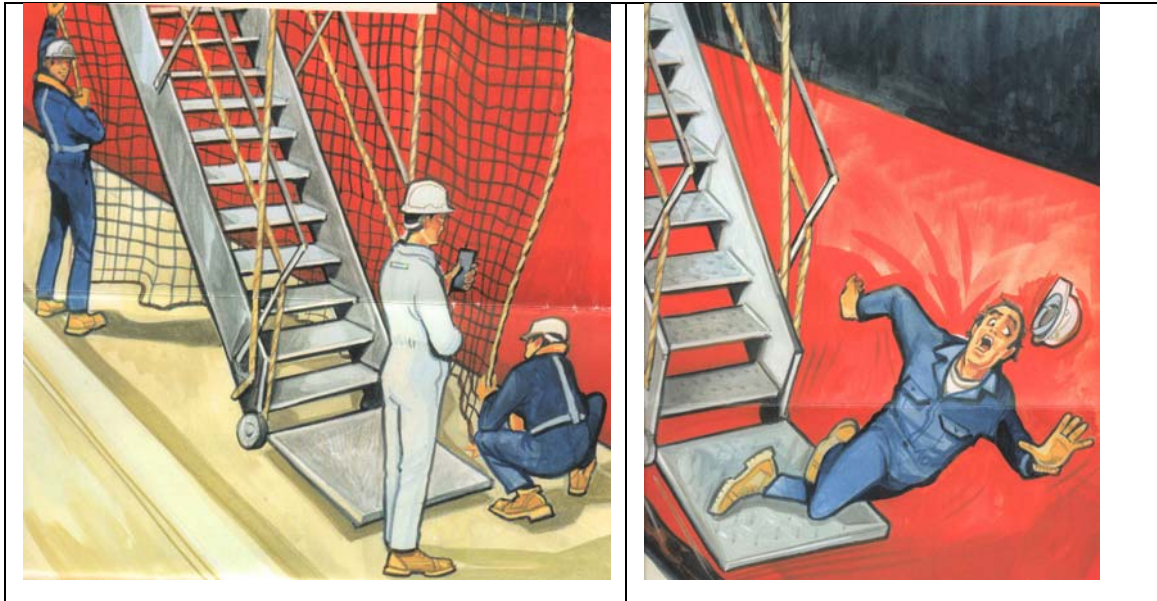
It will be noted from the list below that certain items require the endorsement of the underwriters' surveyor as being fair and reasonable.

1. Copy of the current Safety Management Certificates (SMC) and (ISM).
2. Copy of the current Document of Compliance (DOC).
3. Designated Person report.
4. Deck and engine room log books covering the casualty, and, if possible, the repair period(s).
5. Master's and/or chief engineer's detailed report and/or note of protest, as relevant.
6. Underwriters' surveyor's report and account.
7. Classification society surveyor's report and account.
8. Owners' superintendent's report and account.
9. Receipted accounts for repairs and/or any spare parts supplied by shipowners, in connection with repairs, endorsed by underwriters' surveyor as being fair and reasonable.
10. Accounts covering any docking and general expenses relating to the repairs. These accounts should also similarly be endorsed by underwriters' surveyor.

11. Accounts for all incidental expenses paid at the port of repair, e.g. port charges, watchmen, communications expenses, agency, etc.
12. Details of fuel and engine room stores consumed during the repair period, together with the cost of replacement.
13. If any owners' repairs are affected concurrently with the damage repairs, it will assist the adjuster if the accounts for these repairs are also provided.
14. Copies of cables/telexes sent and details of long-distance calls made in connection with the casualty, together with their costs.
15. Details of dates of payment of all accounts.

Conclusion:

- The total avoidance of claims is an impossible task. But shipowners aim constantly to improve their claims and safety record by the application of sound risk management principles. To do this, it is necessary to identify and assess the risk. It has become a truism that the primary cause of maritime claims is human error.
- The bad handling and stowage problems resulted from either inadequate preparation of the cargo compartments for the particular cargo or because the relevant people involved were careless or just did not know how to look after the particular cargo. Almost all of these possibilities should have been picked up and corrected by a properly implemented SMS.
- If only they had rigged the accommodation ladder properly “this would not have happened”.



Yet again, with a properly implemented SMS such things should rarely happen.

- Finally, a proper implementation of the Code and maintained SMS will have, potentially save in insurance premiums, enormous benefits to shipowners from an insurance point of view—not only in respect of P&I but also H&M. As a natural consequence of a correctly functioning SMS, the accidents and claims will be considerably reduced.

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