

KEY FACTS

AS AT AUGUST 2019:

Source: Clarksons

The top 10 containership operators now deploy around **85% of all containership** capacity, up from 60% in 2010

The largest owned GT by nationality is Greece followed by China, Japan, Germany and the United States

Newbuilding orders are at **654 ships of 27.6m GT** in 2019

Panama remains the largest Flag State (by % of GT) followed by Liberia, Marshall Islands, Hong Kong,

Singapore and Malta

Europe is the leading regional owner followed by Asia/Pacific and then Americas

Total mutual tonnage in the Group clubs now exceeds **1.2 billion GT**

The world fleet comprised just over 97,653 vessels totalling **1.4 billion GT**

CONTENTS

Chairperson's Statement	4
Executive Officer's Statement	10
	10
Reinsurance	14
Sanctions	18
Pollution	20
On the Radar	24







The Group cannot afford to stand still.

The Group must work hard to remain relevant to shipowner members and other industry stakeholders including through efforts to enhance safety and ensuring the sustainability of global shipping.

Paul Jennings, Chairperson



CHAIRPERSON'S STATEMENT

Paul Jennings

Chairperson

The last year has seen the Group continuing to build on the initiatives launched over the last couple of years under the chairpersonship of Hugo Wynn-Williams to improve and optimise the way in which shipowners benefit from the strengths and opportunities inherent in the mutual club and Group system. In June 2019, building on the initiatives launched in 2017 and repeated in 2018, senior club managers held a further dedicated and externally facilitated Strategy review meeting in conjunction with the Group Managers meeting held in Gothenburg.

With the work of the high-level working groups previously set up to look at the workings of the International Group Agreement ("IGA"), the scope of claims pooling, internal governance, and branding and communications completed, or largely completed, the principal focus in 2019 has shifted. The Group is now harnessing and analysing collective data, promoting wider understanding of the benefits which the clubs can collectively deliver through the Group, and, importantly, to identifying ways in which the clubs and the Group can usefully contribute to collective efforts aimed at enhancing safety and preservation of the environment. There are no "quick fixes" and whilst a start has been made, much work remains to be done. However, the clubs and the Group are committed to these objectives, and they will actively pursue them over the coming years.



Changes on the bridge

Hugo Wynn-Williams completed his three-year tenure as Group chairperson in November 2018. Hugo's term as chairperson was characterised by strong leadership and an incisive understanding of the fundamentals which underpin the operation of the Group and what is needed to ensure that the Group remains robust and fit to address the challenges which lie ahead. His contributions and input have been greatly appreciated by the Group.

In a further change of watch, Andrew Bardot stood down after 15 years as the Group CEO at the end of June 2019, handing over to the very experienced and highly regarded maritime lawyer Nick Shaw who, in common with his predecessor, spent much of his legal career working with many of the Group clubs on P&I and related issues. Nick will bring considerable strengths and expertise to the role, and he is a very welcome addition to the Group. He will be well supported by the strong team which the Group has built up in the Group Secretariat, who between them have a very broad range of relevant skills and experience.

Group tonnage continues to grow – reinsurance cost reductions decline

Another year of increase in Group-entered tonnage, and a fifth consecutive year of savings in the cost of the Group reinsurance purchase, albeit more modest than in recent years, and with more risk being retained within the Group captive Hydra, are among the key features of 2019 for the Group clubs and their shipowner members.



CHAIRPERSON'S STATEMENT (CONT'D)

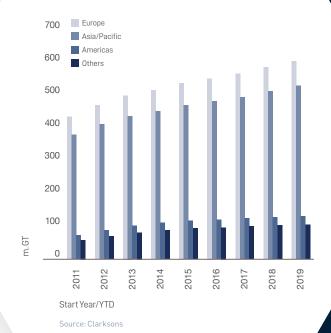
World fleet growth continues to slow

The decline in the annual world fleet tonnage growth has continued during 2019 and is now on a level with the growth rates seen in the early 2000's. Despite this, there has been a further increase in the total entered Group tonnage during 2019. The average size of vessels entered in the Group clubs has increased by around 19% over the last five years to just under 21,000 GT.

Global seaborne trade

Despite the uncertainty generated by threatened trade wars, by Brexit and by the increased focus on international trade and maritime transport sanctions, the current predictions (source: Clarksons) are that trade volumes will continue to grow during 2019 (2%) and 2020 (3.5%). Trade volumes in all key commodity sectors are forecast to increase with the exception of the major dry bulk cargoes which are likely to remain flat. After dropping briefly below US\$10,000 per day at the beginning of 2019, the ClarkSea Index rose steadily and with more vessels taken out of service for scrubber refits and escalating sanctions and trade tensions, some record spot rates have been seen in the tanker markets in October 2019.

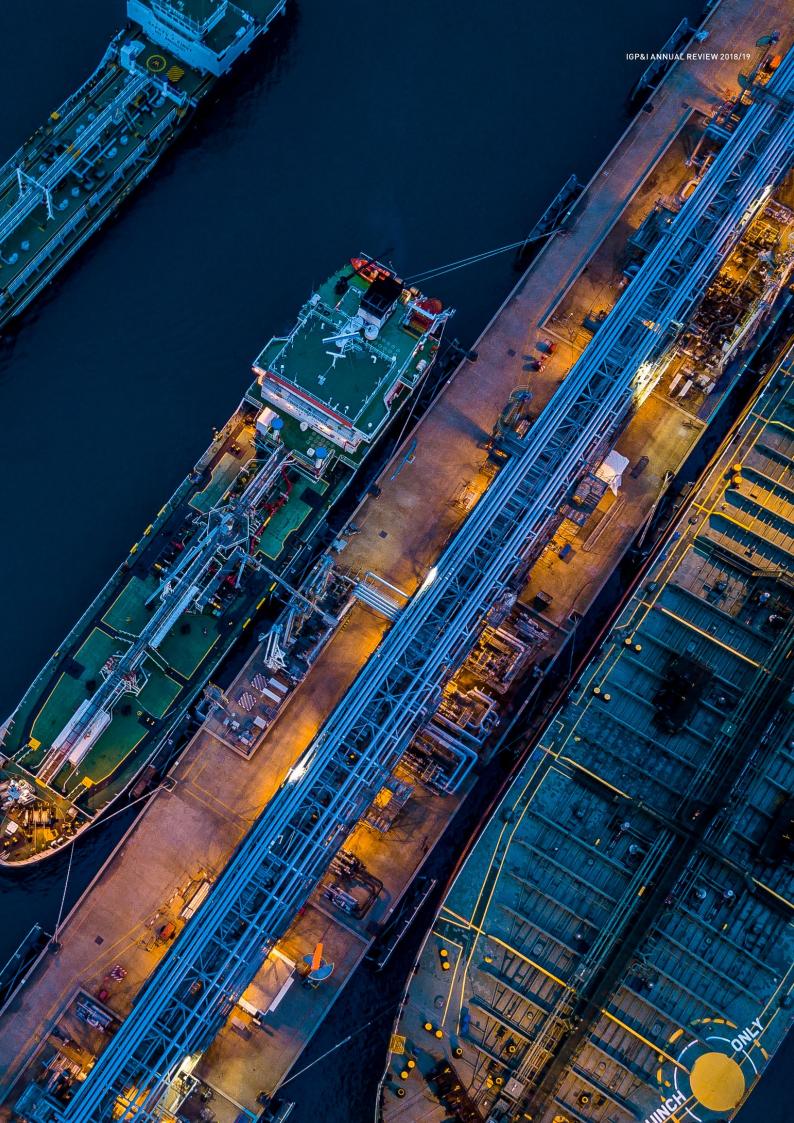
Fleet Ownership by Region



The average size of vessels in Group clubs has increased by around

19%

over the last five years





CHAIRPERSON'S STATEMENT (CONT'D)

Brexit

With Brexit seeming more likely than not in the near future, all 6 UK-regulated Group clubs have established corporate entities within various EU member states to enable them to provide continuity of service to their EU domiciled members post-Brexit. Similarly, those clubs which are not UK regulated, but which write business in the UK, have put in place measures to facilitate the continuation of such business after the departure date.

Calm seas or choppy waters ahead?

Brexit, global trade uncertainty, the escalation of sanctions impacting on the maritime sector, and an increasing focus on the environmental effects of shipping are but some of the factors which are likely to impact, potentially disruptively, on the Group clubs and their shipowner members over the coming years. For over 150 years the mutual club system has proved itself resilient and responsive to meeting shipowner's marine liability insurance cover needs and has innovated to develop better and more comprehensive solutions for shipowners. The Group has proved itself to be adept at harnessing the individual expertise and financial strengths of its member clubs to promote and facilitate the cover needed by their collective shipowner memberships to ensure the availability of prompt and certain compensation for the victims of maritime accidents. "Future proofing" the Group is not a novel concept, but will be a key focus within the Group going forward, and whilst looking ahead, the only certainty is uncertainty, the Group and its member clubs will be there to deliver the necessary solutions for their shipowners and to protect third-party interests.

120 years



Future proofing the Group is not a novel concept, but will be a key focus within the Group going forward.

Paul Jennings, Chairperson





CEO STATEMENT

Nick Shaw

CEO

The International Group of today can trace its origins back to 1899 when the so-called London Group was formed, composed of six British P&I mutual marine insurance associations, to share the increasingly larger liabilities to which they were individually exposed. Today, these founding associations, or their successors, together with a number of new associations comprising 13 associations/clubs in total, continue to share exposure through the claims pooling arrangements.

Commercial maritime transportation, and the resultant insurance needs of the global shipping community have changed beyond recognition since the inception of the Group. However, the underlying three core objects of the Group remain largely unchanged from the original concept.

Claims Pooling

Claims pooling has proven to be a very effective way of sharing risk across the clubs and the insurance market ensuring that owners can continue to trade in the knowledge that they have an insurance safety blanket to rely on.

In this respect each club bears the initial US\$10 million of each claim. Then, for the amount of any claim in excess of US\$10 million, the clubs come together to share the risk between US\$10 million and US\$100 million through pooling arrangements linked to each club's previous record and the tonnage they have entered into the Group each year.



Claims pooling has proven to be a very effective way of sharing risk across the clubs and the insurance market, ensuring that owners can continue to trade in the knowledge that they have an insurance safety blanket to rely on.

Nick Shaw, CEO

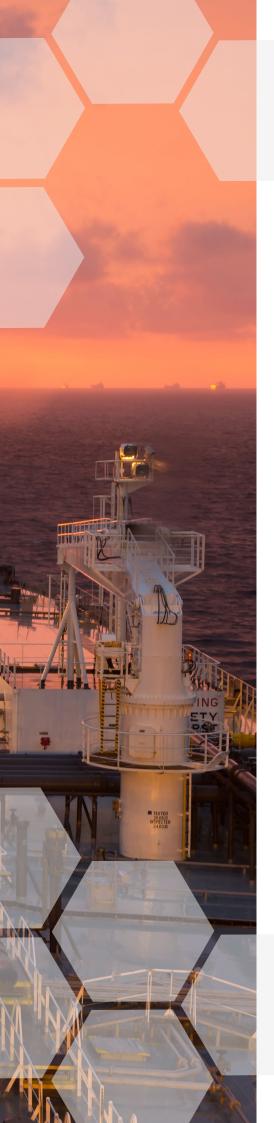


Finally, as cover for the very largest claims, the Group collectively purchases reinsurance from the commercial market. In this way, not only are claims paid but also each club is able to survive even a very considerable hit on its individual reserves and reinsurance programme.

The scale of the pool, and of the collective reinsurance purchase, both in breadth of cover and financial limits, has grown very significantly over the years in line with the increase in shipowners' potential liabilities, including those arising under the International Maritime Conventions and regional liability regimes. Through the pool, and supported by the collective reinsurance purchase, the Group clubs are able to offer the highest limits and broadest range of P&I cover to meet the needs of the global shipping community.







CEO STATEMENT (CONT'D)

A unique forum

The second core function of the Group is to provide a forum for sharing information, knowledge and expertise between the member clubs on issues relating to shipowners' liabilities, and the insurance of such liabilities. The structures of the mutual club managers, and the underwriting, technical/loss prevention and legal expertise which reside within individual club managements is very extensive, and, when combined through the Group structure, provides a unique and unparalleled pool of knowledge and expertise which is harnessed and promoted through the very extensive network of dedicated Group subcommittees and working groups. There are over 40 such subcommittees constantly looking at key industry issues such as Sanctions, Pollution and Safety. This in turn leads to circulars to shipowners to help them trade safely and efficiently. The Group has a unique collective claims data set, and this must be harnessed to further enhance safety at sea and the protection of the marine environment, for the benefit of the Group's members and the wider global maritime community.

A voice for the industry

The third core function of the Group is the external representation of the views and interests of the Group clubs and their shipowner members with governments, intergovernmental organisations, shipping and insurance industry associations, the media and the public at large. With around 90% of the world's ocean-going tonnage entered in the Group clubs, the collective voice of the Group, particularly when working with governments and other bodies seeking to regulate the shipping industry, represents not only a very powerful lobby, but also one which, through the scale and scope of the cover and compensation which the member clubs provide, is very widely respected.

To the horizon and beyond

History, and in particular the last 30 or so years, have shown the Group to be increasingly responsive and innovative in the face of the ever-changing needs of shipowners in relation to their liability insurance requirements. But it is not just about addressing shipowners needs. Of equal importance is the need to ensure a robust and sustainable system which can be guaranteed to respond to compensate those affected by maritime accidents, whether they be private or public interests.

Increased shipowner exposure resulting from ever-larger and more expensive vessels, from the increased focus on the environment and from initiatives on sustainability will, undoubtedly raise fresh challenges which the Group will need to prepare for and address as it has so adeptly in the past. But equally important will be to raise levels of understanding amongst both public and private stakeholders of the very fundamental and important role which the Group clubs play in facilitating global maritime transportation.

Promoting the brand and message of the Group is an initiative already underway, which will be an increasing focus in the year to come and will include initiatives in North, Central and South America and in Asia amongst others.

Whilst being respectful of what has been achieved so far by the Group, I am very excited about the many challenges and opportunities for the Group in the future.



REINSURANCE

Mike Hall

Chairperson, Reinsurance Subcommittee

Following the Group reinsurance broker tender process carried out in 2018, the 2019/20 Group General Excess Loss and Collective Overspill reinsurance programme renewals were for the first time handled by the Group appointed co-brokers, Miller Insurance Services and Aon Benfield. Historically, Miller had been responsible for placing the General Excess Loss programme and Aon Benfield had, since their appointment in 2009, been responsible for the placement of the reinsurance programme for the Group captive Hydra. Both broking teams worked very effectively together in concluding another successful placement of the General Excess Loss and Collective Overspill programmes, achieving a further consecutive year of reductions in shipowners' reinsurance costs across all vessel types.

Claims environment

The 2018/19 policy year largely mirrored the higher claims exposure of the previous year, with the overall claims severity proving slightly higher. The number of pool claims also slightly increased with 26 claims engaging the pool reported to date.

Pool Structure changes

A number of changes in the programme structure were introduced for 2019/20, including the introduction of an Annual Aggregate Deductible (AAD) in the first layer of the GXL programme, and changes in the attachment points of the upper layers of the programme.

There has been no change for 2019/20 in the individual club retention (US\$10 million per claim).



The number of pool claims also slightly increased with

26 claims

engaging the pool reported to date

Bulkcarrier Spot Earnings (\$,000's/Day)



Source: Clarksons

- Capesize Average Spot
- Panamax Average Spot
- Supramax Tripcharter



REINSURANCE (CONT'D)

The lower pool layer attaches from US\$10 million to US\$50 million and the upper pool layer attaches from US\$50 million to US\$100 million. The GXL reinsurance and private placements attach excess of US\$100 million and a US\$100 million horizontal AAD has been introduced in the first layer GXL market share.

Hydra participation

Hydra's participation remains the same as for 2018/19 for the Lower and Upper Layers of the Pool up to US\$100 million. The change introduced for 2019/20 is that in place of its previous co-insurance within the first GXL layer, Hydra now fully reinsures the US\$100 million AAD in the first GXL Layer market share for both Owners and Chartered entry P &I and Oil Pollution claims.

Private placements

Two of the three existing private placements covering 5% each of the Group GXL programme remain in place for the 2019/20 policy year. The third private placement, which expired on 20 February 2019, has been replaced by a new three-year private placement for 10% within the first GXL layer.

2019/20 Group GXL and Collective Overspill Structure changes

The diagram (on the right) shows the revised pool layer and GXL structure. As well as the changes outlined above, the first layer of the GXL market share has been increased to US\$750 million excess of US\$100 million (subject to the US £100 million AAD), and the second layer GXL market share has been increased to US\$750 million excess of US\$750 million. The third layer now attaches at US\$1.5 billion with an upper limit of US\$2.1 billion. As previously, the Collective Overspill layer of US\$1 billion attaches excess of US\$2.1 billion

Looking ahead

As ever, market conditions and the Group programme's track record will provide the backdrop to the upcoming renewal. The hardening of the market in some areas, and the impact of the performance reviews in Lloyd's, may present a challenge. However, with the Group's global reach and long proven track record, it's enhanced broker expertise and the strength and support of the programme leaders as well as the continued interest in competitively priced private placements, the Group is confident of delivering another strong renewal for shipowners in 2020.





SANCTIONS

Mike Salthouse

Chairperson, Sanctions Subcommittee

Sanctions regimes have become a common feature of foreign policy at the United Nations, European Union and unilaterally in the US, UK and other countries. There is a plethora of sanctions regimes against individuals, companies, States and State entities or arms of government. We cannot cover every aspect of this complex web of multilateral and unilateral measures in this short article, nor can we assess the impact they have on their intended target.

It is clear, however, that sanctions regimes have become the foreign policy tool of choice for the purpose of exerting economic pressure on target countries. Specifically, over the course of the year, US sanctions policy has toughened towards its intended targets and this has been characterised by a willingness to pursue and quickly implement foreign policy objectives distinct from those of its traditional allies in the European Union, for example. This has contributed to a more complex compliance environment within which shipowners and the Group clubs are expected to operate.

These legitimate shipping activities and the wider maritime services sector is at heightened risk of an inadvertent breach of sanctions legislation, and this has led to the adoption of more rigorous compliance protocols within the industry. There

is a perception among some policy makers at the multilateral and unilateral level, that industry could do more to mitigate the risk of sanctions evasion and identify these activities before they occur. This increases expectations on clubs, who are now expected to develop and evolve their sanctions risk mitigation tools; this in turn raises the bar of expectation among State and supranational bodies.

Notwithstanding these significant challenges, the Group clubs are committed to a policy of full compliance with all applicable sanctions' legislation. They also seek to interpret and guide their shipowner and charterer Members, so that lawful trade can continue in accordance with legislation that is often ambiguous and on occasions contradictory.

The Group has sought to address such contradictions by engaging with States and other agencies, to ensure that new legislation and the accompanying guidance enable shipowners to understand what is required by way of compliance. The Group and many club managers have made significant efforts to engage key policy makers in these discussions and have participated in several high-level state and industry events. Such engagement has allowed the Group to explore best practice in terms of compliance procedures, whilst at the same time explaining to policymakers and legislators the unintended consequences that can arise following the withdrawal of a vessel's P&I insurance.

In this regard, it is concerning that significant operational difficulties can now be experienced by clubs when handling claims that are seen to present an enhanced risk of contravening sanctions. Increasingly, banks will refuse to handle transactions associated with some jurisdictions even where the transaction is in connection with a lawful trade or claim.

In a similar vein, payment under the Group's pooling arrangements and Excess of Loss contracts are now subjected to additional layers of scrutiny by reinsurer





compliance teams. There is now a material risk that claims deemed to carry an enhanced sanctions' risk may not be paid, either because the reinsurer is unwilling to make the payment or a bank refuses to handle the transaction. The Group has continued to raise awareness of these important considerations, noting that because of sanctions, all or part of the liabilities and undertakings provided under international conventions, such as the CLC or Bunker Oil Convention, and the Blue Card regime in general, may prove legally or practically impossible to discharge.

The range and scope of sanctions has also increased significantly. During 2019, the US Government introduced significant new measures against Cuba, Iran, North Korea and Venezuelan interests. Shipowners and the wider maritime services sector now run a significant risk of an inadvertent breach of sanctions, and the US has shown a willingness to interpret its own legislation broadly where it supports a political objective.

The Group remains willing to work with States and other multilateral organisations to ensure that compliance procedures in the maritime sector remain practical and proportionate. The vast majority of vessels entered in the Group clubs do not engage in trade that breaks sanctions and whilst the publication by the US Office of Foreign Assets

66

The Group recognises that the current sanctions landscape is here to stay for the foreseeable future.

Mike Salthouse, Chairperson

Control, or OFAC, of its Compliance Framework is welcome, it is right to expect that it is applied in a manner proportionate to the risk posed by individual shipowners and their insurer.

Many of the sanctions infractions that the Group comes across are inadvertent and many could not reasonably have been avoided by the shipowner concerned. It is worth reflecting that deliberate state-sponsored sanctions breaking is not carried out openly and often relies on deceit to disguise the origin, nature and purpose of the goods. It is an unfortunate aspect of insurer sanctions compliance that the primary means of protecting the insurer is a cover exclusion, which in the case of P&I harms not only the innocent shipowner but also the third party claimant which has suffered a loss.

The Group recognises that the current sanctions landscape is here to stay for the foreseeable future and so-called smart sanctions which are designed to target specific countries, trades or people are now a common feature of foreign policy with which the business environment must comply or face stringent financial and even criminal penalties.

Whilst the Group has no sympathy for those that deliberately break sanctions and face ever more rigorous enforcement, we would urge restraint for those innocent shipowners and charterers which become involved, often through no fault of their own, in a technical breach of sanctions legislation. As the law is currently enforced, it often fails to differentiate between these two categories of sanctions breakers.

The Group's continued input into policy considerations is an important one and the Group will continue to engage at a diplomatic and policy level with relevant stakeholders and decision-makers. Through this engagement it is hoped that we will continue to build understanding, trust and confidence that in itself may lead to greater clarity in future sanctions regimes.



POLLUTION

Tony Paulson

Chairperson, Pollution Subcommittee

The insurance cover provided, and the financial guarantees issued, by Group clubs continues to underpin the framework of Conventions governing liability and compensation for ship sourced pollution damage as adopted by the International Maritime Organization (IMO). The statistics continue to point towards a significant decrease in the number of large spills (>700 tonnes) over the last few decades and since 2010 is now averaging 1.9 per year.

The Group continues to work closely with the IMO and the International Oil Pollution Compensation Funds (IOPC Funds) to promote this international framework of Conventions and, as part of an ongoing outreach programme to assist States on practical application of the Conventions, claims handling, assessment and admissibility of claims, has engaged in workshops with governments in Australasia, North and South America and the European Union over the course of the last twelve months. This outreach work will continue to be an important focus for the Group going ahead. The cooperation in this regard highlights the importance of sharing expertise and experience between the Group, the IMO and the IOPC Funds.

The Group also recognises that both the US and the People's Republic of China (PRC) maintain their own compensation fund system for the payment of claims for oil pollution damage



within these jurisdictions. In order to cement the relationship between the Group and the Chinese Ship-source Oil Pollution Compensation Fund' (the COPC Fund), the Group signed a Memorandum of Understanding in April 2019 with the COPC Fund that will enhance co-operation between the Group clubs and the Fund in the event of ship sourced pollution damage in Chinese waters. The Group welcomes this initiative with the COPC Fund and looks forward to working closely together in the future, sharing expertise and co-operating in future ship sourced oil spills to enhance the protection of the marine environment in China. In a similar vein, the Group is also working closely with the US National Oceanic and Atmospheric Administration (NOAA) to update the MoU signed between the Group and NOAA in 2007 to further co-operation between the Group clubs and NOAA and to promote expeditious and costeffective restoration of injured natural resources and services resulting from ship-source oil spills in the US.

The so-called final piece of the IMO liability and compensation framework yet to enter into force remains the 2010 HNS Convention governing liability and compensation for ship sourced damage arising from the carriage of Hazardous & Noxious Substances by sea. South Africa's recent ratification adds to those by Turkey, Canada, Denmark and Norway and it is hoped that these will provide an impetus for other States and the Convention to enter into force in the near future. The Group continues to lead an inter-industry Group to identify and monitor progress on implementation of the Convention and is also leading industry work on promoting the Convention

as part of its collaborative outreach with the IMO and IOPC Funds. In addition, the Group will be providing updated historical HNS claims data to the IMO in 2020 to assist States in their progress towards implementation.

The framework of Conventions is built on the principles of strict liability, channelling of liability, rights of direct action against the provider of financial security and limitation of liability (along with shared liability within the (persistent) oil (as cargo) and HNS regimes). The Group has recently sought to reaffirm these principles in the IMO, particularly with respect to the shipowner's right to limit liability, given (a) the fundamental importance of this right which underpins the conventions and (b) that the long-term sustainability of the liability and compensation system depends upon uniform implementation consistent with the intention of the conventions, rather than an application or interpretation that varies from country to country. The Group recognises that, as with all international instruments, the continuing success of this international framework is dependent upon all States Parties implementing and applying the Conventions in a uniform manner that is consistent with the aims and objectives agreed at the time of adoption, in order to ensure that the system remains fair for all parties and, most importantly, that it is applied equally and equitably to all claimants. As a result, the Group is pleased to be leading work, with the International Chamber of Shipping, in the IMO to seek to ensure consistency among States Parties while continuing to recognize that the courts in States Parties are ultimately the final arbiters.





The 2020 Global Sulphur Cap does not require any amendments to be made to existing Club Rules and, as has always been the case, Clubs do not condone breaches of MARPOL.

Tony Paulson, Chairperson



The framework of Conventions is built on the principles of strict liability, channelling of liability, rights of direct action against the provider of financial security and limitation of liability.

Tony Paulson, Chairperson

POLLUTION (CONT'D)

The Group also recognises that owners are faced with new regulatory requirements from 1st January 2020 on sulphur emissions from ships by means of the 2008 amendments to Annex VI of the IMO's International Convention for the Prevention of Pollution from Ships 1973 (as modified by the Protocol of 1978) (MARPOL). The amendments will ensure a significant reduction in the sulphur emissions from ships (the 2020 Global Sulphur Cap) and thereby demonstrate that the shipping industry is committed to meeting its environmental obligations. The Group clubs recognise that the 2020 Global Sulphur Cap presents important challenges to the shipping industry and have been closely monitoring discussions at the IMO and issuing guidance accordingly to Members and guidance on club cover. Penalties for noncompliance are likely to include fines, detentions and possibly, in extreme cases, Port State Control banning orders. The 2020 Global Sulphur Cap does not require any amendments to be made to existing club Rules and, as has always been the case, clubs do not condone breaches of MARPOL. However, liabilities, including fines for purely accidental discharge of non-compliant emissions, are capable of P&I cover subject always to the Rules and any terms and conditions of cover.







Electronic trading platforms

When the Group approved the electronic bills of lading developed by Bolero and essDOCS, paperless trading systems and platforms were considered relatively novel concepts. Since then, the sophistication and security of such systems has leapt forward and it is now inconceivable that world trade and commerce would revert to its previous methods of doing business. In one way or another, computerised systems dominate the way in which global trade is facilitated, and shipping is a crucial component in this.

Bolero and essDOCS have been delivering electronic documents, bills of lading and other cargo related documentation to the shipping community for many years. More recently the Group has approved Global Share S.A.'s edoxOnline platform.

In the past twelve months, several new electronic bill of lading providers have entered the market offering blockchain security and the promise of speedier, less bureaucratic systems to shipowners and counterparties in the maritime transport chain. Blockchain based systems are commonplace in commercial and trade activities and it seems inevitable that the paper bill will eventually be phased out to be replaced by web-based and computerised systems. Arguably, this will lead to greater levels of security and the scope for misdelivery will diminish.

The Group is committed to supporting systems that will deliver more effective, more secure and faster transacting between counterparties and which will ultimately lead to potentially significant costs savings for ship-owners. However, the Group is also under an obligation to protect Members' P&I cover arrangements and ensure that the use of such systems do not expose Members to liabilities that would not arise under a paper bill. Members will want the Group to approve new systems efficiently, but not at the expense of compromising cover.

The Group Bills of Lading Subcommittee has therefore established a dedicated working group that has been tasked to examine these new platforms in a consistent and fair manner, and ensure that they are capable of performing (or not interfering with) the three functions of a paper bill of lading which customarily underpin P&I cover, namely a receipt for the goods, a document of title, and evidence of a contract of carriage which incorporates the Hague or Hague Visby Rules.

The Group is currently working with several system developers and guiding them through the process of achieving Group approved status. The Group envisages that more systems will come on line in 2020 and there will be more applications for Group approved status. The Group is ready to meet this challenge and embark on what will be an exciting and fast developing period of change in the shipping industry.

P&IQ

It's been an exciting year for the P&I Qualification. The course, which has grown to have active participants across all Group clubs, was rolled out to club correspondents in 2017. They have been signing up in encouraging numbers, with around 400 correspondents registered on the programme by the end of 2019.

