INTERCARGO
International Association of Dry Cargo Shipowners

Benchmarking Bulk Carriers
2018–19

Eleventh Edition

Approved by: United States Coast Guard | IMO International Maritime Organization

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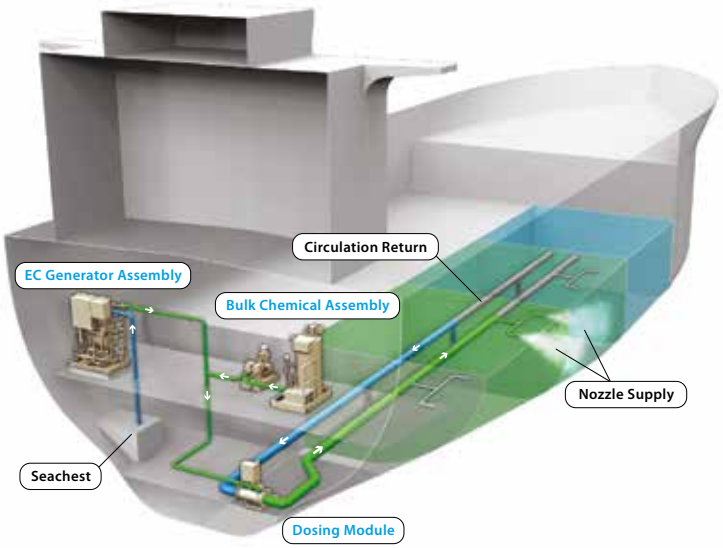

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'Aeschylus Graeca', Angelakos (Hellas) S.A.

INTERCARGO – Who we are

The International Association of Dry Cargo Shipowners (INTERCARGO) is a voluntary non-profit association representing the interests of dry cargo vessels owners. Its first General Meeting took place in 1980 in London and it has had NGO consultative status at the International Maritime Organization (IMO) since 1993.

INTERCARGO provides the forum where quality dry bulk shipowners, managers and operators are informed about, discuss and share concerns on key topics and regulatory challenges, especially in relation to safety, the environment and operational excellence.

INTERCARGO promotes best practices in shipping and represents dry cargo shipping interests at IMO, other industry fora and the broader business context, basing its strategies on the principle of free and fair competition.

Industry Topics

Members gain access to cross-industry sources of knowledge and engage in drafting strategies for both the dry bulk and the wider shipping industry, via INTERCARGO's participation in industry working and correspondence groups and IMO deliberations.

INTERCARGO's working programme is outlined below:

Safety – Security

- Cargoes, Liquefaction
- Design and Construction, Machinery and Operations
  - Class and Statutory Rules
  - Cargo Gear
  - Hatch Covers
  - Loading Rates
- Incidents and Casualties
- Life Saving
- Piracy
- Cyber Risks

Environment – Quality

- Ballast Water
- Coatings
- Emissions
  - Greenhouse Gas – CO_2 Emissions
  - Sulphur Cap – SOx and Particulate Matter (PM) Emissions
  - Other Emissions (NOx, Black Carbon)
- Ports and Terminals
  - Reception Facilities
  - Port State Control and Transparency
  - Corruption, Criminalisation
- Training, Manpower and the Human Element

Regulation

- International Maritime Organization (IMO)
- Other Legislation
- Miscellaneous Issues

'La Solognais', Louis Dreyfus Armateurs

INTERCARGO Membership

There are three categories of membership within INTERCARGO. These are Full, Associate and Consociate and are categorised as follows:

- Full Member – Any company that owns, operates or manages dry bulk carriers of 10,000 dwt and above
- Consociate Member – As for a Full Member, but for bulk carriers below 10,000 dwt
- Associate Member – Any entity that provides goods or services to the dry cargo shipping industry.

Benefits to All Members

- **Being part of an Association dedicated to quality, safety and the environment**.
- **Receiving circulars** of dry bulk shipping specific information.
- **Opportunities to meet** fellow Members at the Association's meetings in Europe and Asia.
- **Special invitations/discounted access** to industry events is regularly offered. Please visit intercargo.org/news/category/member-news for more information
- A **free hardcopy of the latest Bulk Carrier Benchmarking report** is offered to each Member.

For Publications please visit intercargo.org/news/publications

- **Advertising opportunities** in some of the Association's publications and by priority on its website at reduced rates. Please visit intercargo.org/advertising-intercargo-website
- **Opportunities to present** at the Association's events (subject to invitation).
- **Access to the Association's website**: www.intercargo.org (some sections are reserved for Full Members).

Full Membership Benefits

- Companies and Ships registered with INTERCARGO enjoy a **Quality badge** widely recognised by the industry as a marker of excellence. Along with a **Company Certificate** and a **Membership logo**, a **Vessel Certificate** is provided for each registered vessel. Entered ships are tagged on **Equasis** as registered with INTERCARGO. Vessel membership with INTERCARGO is displayed on the vessel dashboard of **RightShip Qi**.
- Members are invited to appoint a representative in INTERCARGO's **Executive Committee** and may be eligible for a representative in the Technical Committee (conditions apply). Details can be found in our Constitution under "Management" at: intercargo.org/constitution
- The **Secretariat** represents the Association at IMO, the Round Table of Shipping Associations, IACS, the Tripartite Forum and other **international shipping fora**.
- Members are invited to the **INTERCARGO hosted events** (2 semi-annual Committee meetings, seminars etc). Please visit intercargo.org/about/meetings for more information
- For INTERCARGO's **feedback and reporting schemes**, please see intercargo.org/members-reporting-surveys
- **Ad-hoc Circulars** via email give information on issues such as cargo updates, as well as alerts on any new developments in the industry.
- **Experience sharing** / (anonymous) consultation within our Membership is our practice, when possible, on reported issues of concern (on cargoes, ports, etc) in order to provide informed feedback.
- Full access to the Association's **Website** (intercargo.org).

Annual fees for 2020:

- Full Member – GBP 4,500 for 1 to 5 ships and GBP 350 for each sixth and subsequent ship up to a capped maximum of GBP 21,000
- Consociate Member – Half the fees that would be paid as a Full Member
- Associate Member – GBP 1,250.

Members joining after the start of the membership year (1st January) are entitled to an initial pro-rata membership fee.

For the latest updates about joining INTERCARGO please visit www.intercargo.org/join/

Enquiries regarding joining should be sent to the Secretariat at info@intercargo.org

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INTERCARGO is committed to safety and quality in ship operations with a focus on operational efficiency and the protection of the marine environment.

'Olympic Glory', Olympic Vision Maritime Co.

Definitions and Abbreviations

Unless otherwise stated, the analysis in this report refers to the global fleet of dry bulk cargo carrying vessels over 10,000 dwt that trade internationally.[1]

DPI	Deficiencies per Inspection Ratio
DTR	Detentions per Inspection Rate
DWT	Deadweight tonnage
IACS	International Association of Classification Societies Ltd
IMO	International Maritime Organization
ISM	International Safety Management Code
ISPS	International Ship and Port Facility Security Code
MoU	Memorandum of Understanding
NPI	Negative Performance Indicators
PSC	Port State Control
USCG	United States Coast Guard

[1] A vessel trading internationally is defined as a ship that has been inspected once in the last three years in either the Paris MoU, Indian Ocean MoU, Tokyo MoU, Viña del Mar Agreement or US Coast Guard areas of jurisdiction.

Bulk Carrier Vessel Sizes*:

Handysize (10,000 to 39,999 dwt)

Handymax (40,000 to 49,999 dwt)

Supramax (50,000 to 59,999 dwt)

Ultramax (60,000 to 64,999 dwt)

Panamax (65,000 to 79,999 dwt)

Kamsarmax (80,000 to 83,999 dwt)

Post-Panamax (84,000 to 99,999 dwt)

Baby Cape (100,000 to 129,999 dwt)

Cape (130,000 to 187,999 dwt)

Newcastlemax (188,000 to 214,999) dwt

Very Large Ore Carrier (>220,000 dwt)

** The above definitions are used for the purposes of this report (otherwise definitions given in the text apply).*

'Nea Tyhi', Fafalios Shipping S.A.

1. Foreword/Executive Summary

INTERCARGO's 2018–2019 Benchmarking Report is published during a time of **much uncertainty in the dry bulk market**. The Baltic Dry Index had reached a high above 1,770 points in August 2018, before retreating down to 600 points in February 2019. It then rose to a peak above 2,500 points in September 2019, before tumbling down to just above 400 points in February 2020. Throughout this period the market has been subjected to international trade and geopolitical tensions, regional infrastructure disaster setbacks, uncertainty over the impact of the IMO 2020 sulphur regulation implementation, and slowing Chinese industrial activity. Most recently, the Coronavirus pandemic has had a dramatic impact on the world and created unprecedented disruptions, threatening to compromise global commerce and economic growth.

The above developments have been taking place in a **broader context of great changes** for the maritime industry and dry bulk cargo shipping. As we enter the 2020s, the impacts of environmental legislation and digital/technological evolution are beginning to be seen. **Our Members, the dry bulk cargo shipowners, remain committed** to operational efficiency and emissions' reduction, for one thing by continuously improving the fuel consumption of their vessels, which is necessary on a day-to-day basis due to the nature of the dry bulk tramp sector.

The efficiency of international shipping is largely due to the scale and efficiency offered by bulk carriers. **We take pride that our sector is probably the most environmentally sound method of transporting cargo**. Under the International Maritime Organization's regulatory umbrella, further environmental improvements to shipping are under way, such as new regulations for greenhouse gas emissions. However, fuel suppliers, fuel distributors, charterers, shipyards and engine suppliers must work together with us to find specific solutions for our sector.

Dry bulk carriers remain the workhorses of international shipping and global trade, serving the essential needs of humankind and necessary for maintaining the desired living standards in developed economies, and enabling less-developed countries to progress towards higher living standards. Main and minor dry bulks include cereals, grains, agricultural and forest products, as well as iron and other mineral ores, coal and fertilisers, and several other basic goods.

INTERCARGO's three reference pillars remain those of **safety**, **efficiency**, and **environmental soundness** with a constant aim for **"quality and operational excellence"**. This benchmarking report refers to past year 2018, as, unfortunately, the process of collecting data from bulk carrier inspections is still subject to such considerable time delay. This is an issue we aim to hopefully resolve next year, in order to reduce delays and errors in identifying areas of concern.

An introductory section looks into the capacity of the global dry bulk fleet, the newbuilding orderbook and other key aspects of **the global dry bulk fleet and market trends** in the period under consideration.

With safety for crews and ships coming first, our sector was pleased to record **no losses of ships**; however losses of lives were reported from other incidents on board including those related to confined space entry and falls. Lessons learnt from past incidents play an important role in determining where additional safety improvement are necessary. We take a look at the incidents recorded in 2018 and the ten-year trends in the annual average number of lives and ships lost within the bulk carrier industry. For one more year, the latter offer us **positive signs of safety improvement. Once again we reiterate the importance of investigating an incident and the subsequent casualty investigation reporting in a quality and timely manner**.

Classification Societies provide valuable services for the design, construction and maintenance of ships, among other technical services, enhancing maritime safety and pollution prevention. IACS members continued to lead the way in terms of market share and quality, as per recorded data.

The number of **Flags** decreased from 85 in 2017 to 84 in 2018, while the number of leading flags increased from 12 to 14. The majority of the 14 leading flags improved their deficiencies record, and it is also encouraging to note that the majority had a positive metric for detentions as a function of market share.

In 2018, **INTERCARGO-entered ships** continued to significantly outperform industry averages in respect of both detentions and deficiencies per inspection. It remains a core requirement of INTERCARGO policy that vessels entered by Members should meet strict acceptance criteria, which is set significantly higher than industry averages.

The **Owners' benchmarking** tables, in the relevant section, apply to the global dry cargo fleet and allow dry bulk companies to compare their fleet performance against their peers, including Detention rates and Deficiencies per Inspection ratio indices.

The **Negative Performance Indicators** section puts into perspective recorded incidents on board bulk carriers in 2018 (such as collisions, groundings, etc) by categorising them accordingly.

The **International Group of P&I Clubs** continued to dominate the market with an almost 84% share, and at the same time outperformed the non-IG P&I providers in terms of quality. However, the non-IG P&I Clubs increased their market share.

The section on **Port State Control (PSC)** provides an updated overview of the most important PSC regimes and looks into self-discipline measures and transparency, inspections and detention data for bulk carriers in 2018, ship targeting systems and performance indicators, measures to harmonise PSC activities and procedures worldwide, and Concentrated Inspection Campaigns.

Members and non-Members of our Association are encouraged to continue participating in **INTERCARGO's Reporting Schemes,** including 'Ship-Terminal Interface Experiences and Problems' and 'Safe Loading/Unloading at Anchorage', as well as 'Benchmarking crew injury frequency and lost time'.

Apart from the annual Benchmarking Report, other **INTERCARGO publications include** our Annual Review and the annual 'Bulk Carrier Casualty Report' (see page 44 of this report). Our Association's **activities** (such as participation in Industry Working and Correspondence Groups, and of course at IMO) are related to specific items of our **work programme**, including Cargoes, Design & Construction, Machinery & Operations, Ballast Water, Emissions, Ports & Terminals, Life Saving, and the Human Element, to name a few.

INTERCARGO provides the forum where dry bulk shipowners, managers and operators are informed about, discuss and share concerns on key topics and regulatory challenges, especially in relation to safety, the environment and operational excellence. The Association takes forward its Members' positions to the IMO, as well as to other shipping and international industry fora, having free and fair competition as a principle. **INTERCARGO is committed to safety and quality in ship operations, with a focus on operational efficiency and the protection of the marine environment.**

Thank you for supporting our mission.

The INTERCARGO Secretariat

February 2020

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Across the World

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2. Global Fleet and Market Trends

In 2018, the dry bulk market recorded a high of 1,773 on the Baltic Dry Index (BDI), before finishing the year at 645. Steady gains during 2019 have seen the BDI peak at 2,462, before falling off again to below 1,000. The graph below shows the BDI from 2015 and is indicative of the vagaries of the market, although it does indicate an upward trend overall.

The deadweight tonnage growth of the global fleet increased to 4.9% in 2018 (from 4.0% in 2017), bringing the global total of bulk carriers to 11,718 and about 856 million dwt. The newbuilding order book remained fairly constant over 2017 – 2019 at around 1,000 vessels per year, equating to some 100 million dwt. In contrast, the demolition market in 2018 saw a decrease of around 75% on 2017 numbers, which equates to a loss of tonnage of some 10 million dwt.

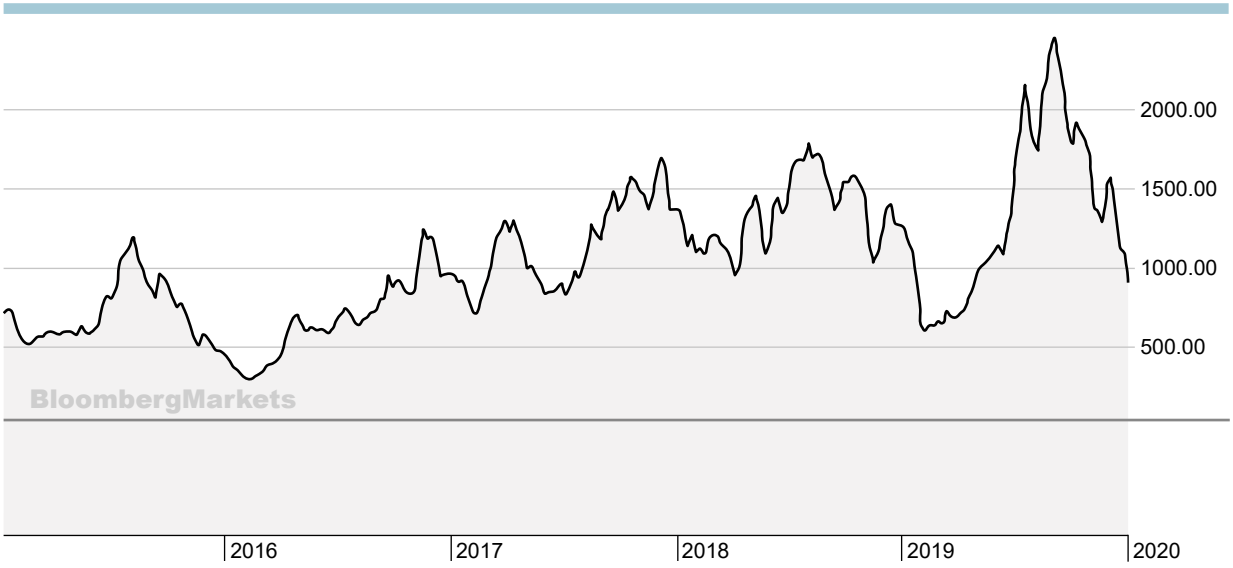

Figure 2.1: BDI trend Feb 2015 - Feb 2020 (source: Bloomberg Markets)

The **deadweight tonnage growth of the global dry bulk fleet** increased to 4.9% in 2018, from 4.0% in 2017 and 3.5% in 2016, bringing the global total of bulk carriers to 11,718 (above 10k dwt; see Table 2.1). Demolition during 2018 significantly reduced from 2017 while demand continues to have a continuous positive momentum.

The market was influenced by a combination of factors in 2018:

- Robust growth in coal; trade in major dry bulks (iron ore, coal and grain) grew at 1.9% in 2018 down from 4.7% in 2017
- Growth in iron ore shipments nearly came to a halt as import demand in China contracted.
- In China, maritime imports of major bulk commodities were estimated at 1.4 billion tons or 43.5% of global maritime bulk trade in 2018.

Through to 2020 Coronavirus has had a significant impact on global trade and the Chinese shipbuilding industry has started to suffer. The long term effects of this are difficult to predict at this time.

The IMO 0.5% sulphur limit effective January 1st 2020 is now in force.

The Baltic dry index had been trading below 450 in February 2020, the lowest level since March 2016 with the capesize segment falling to all-time lows amid weak demand for ships and muted activity in China.

The INTERCARGO-entered bulk carrier fleet has continued to grow year on year since 2015 and as of the end of 2019 comprises 2260 ships with a total capacity of 215 million dwt; see https://www.intercargo.org/statistics/). Compared to the number of bulk carriers registered by Flag, the INTERCARGO-registered fleet on 'Flag equivalent' terms remains second only to Panama at the end of 2019.

The **average age** of the global dry bulk carrier fleet in 2018 increased slightly to 10.3 years, which is the same as the INTERCARGO entered fleet average.

The **orderbook** at the end of 2019 had increased by 13%, but was still only half the number seen in 2015 (174 million dwt) and the majority of newly-delivered vessels continue to come from China, with Japan and Korea following in second and third place respectively.

Deliveries in 2019 equated to 34.3 million dwt versus 28.5 million dwt in 2018 and 38.4 million dwt in 2017.

The following general observations can be made about the global dry bulk carrier fleet in 2018/2019:

- In the first four months of 2019, **yards delivered** 10 million dwt of newbuilt dry bulk shipping capacity. The **demolition** of 3.9 million dwt limited the immediate negative impact and reported **demolitions** in 2018 and 2019 were significantly lower than in previous years. In total, 120 bulk carriers of 10.5 million dwt were scrapped in 2018/19 compared to 219 vessels in 2017.
- **During 2018, Capesize** accounted for 87% of the demolished capacity pushed out of the market, as freight rates fell and the outlook turned bleaker. Year-on-year Capesize fleet growth has been below 3% indicating that, for the moment at least, the supply side is under control. Solid scrapping has led to 22 Capesize vessels, with a cargo carrying capacity of 4.2 m tonnes, leaving the fleet since the start of the year. This has only partly countered the 43 Capesizes that were delivered, including 8 Valemax (380,000 – 400,000 DWT) and 24 VLOCs (200,000 – 350,000 DWT).
- In terms of **Class**, IACS members total market share has decreased slightly from 95.6% to 93.3%. CCS was the only society that managed to increase their fleet, with an increase of the market share from 11.5% to 12.5%. As well as leading in market share growth, in 2018, CCS also led the way in quality with the lowest DPI and only 1.6% of detentions, despite having 12.5% of the market.
- In terms of **P&I Clubs**, Gard continues to top the table with 10.7% of the total dry bulk fleet, followed by North, taking over the number two spot from the Japan Shipowners P&I Association, at 9.2%

Table 2.2 shows the **composition of the global dry bulk fleet** (above 10k dwt) by size and age at the end of 2018. Vessels aged up to 5 years represented 22% of the total (down from 28% in 2017) and up to 10 years represented 44.5% of the total (down from 46.8% in 2017). It is noticeable that the DPI ratio (Deficiencies per Inspection – last column of Table 2) continues to show an increase with age. Although age is one parameter, the following sections demonstrate the importance of quality in operations and maintenance.

End of Year	No. of Bulk Carriers	Tonnage ('000 Dwt)
2018	11,718	855,525
2017	10,946	815,802
2016	10,731	784,314

Table 2.1: Total number and tonnage of bulk carriers at the end of each year (above 10k dwt). (Source: Clarksons Research)

Built	Age	<10,000 dwt	10,000-59,999 dwt	60,000-94,999 dwt	95,000-199,999 dwt	>200,000 dwt	Total	% of fleet	2018 DPI
2018	1	3	94	145	12	39	293		0.41
2017	2	0	135	250	27	47	459		0.61
2016	3	0	176	286	68	37	567		0.74
2015	4	0	253	316	62	31	662		0.86
2014	5	0	270	247	62	41	620		0.99
5 year subtotal							**2601**	**22.20%**	
2013	6	1	427	280	64	60	832		1.04
2012	7	0	688	350	165	68	1271		1.09
2011	8	2	751	271	230	37	1291		1.31
2010	9	3	695	183	193	22	1096		1.45
2009	10	4	527	84	92	18	725		1.38
5 year subtotal							**5215**	**44.50%**	
2008	11	3	296	82	30	15	426		1.41
2007	12	2	219	84	37	20	362		1.60
2006	13	0	181	105	49	10	345		1.43
2005	14	0	192	91	37	10	330		1.82
2004	15	1	141	79	35	7	263		1.63
5 year subtotal							**1726**	**14.73%**	
2003	16	0	112	25	29	2	168		1.74
2002	17	0	138	58	20	1	217		1.81
2001	18	0	157	107	23	0	287		2.34
2000	19	0	83	52	22	0	157		2.38
1999	20	0	97	58	16	1	172		2.18
5 year subtotal							**1001**	**8.54%**	
1998	21	0	104	39	4	0	147		2.49
1997	22	0	150	40	5	3	198		3.00
1996	23	0	126	18	4	2	150		3.00
1995	24	0	120	34	6	9	169		2.76
1994	25	0	55	18	7	11	91		2.97
5 year subtotal							**755**	**6.44%**	
1993	26	0	18	6	6	15	45		4.05
1992	27	0	22	1	1	8	32		3.53
1991	28	0	27	1	4	1	33		2.70
1990	29	0	30	6	0	2	38		2.94
1989	30	0	20	10	0	2	32		1.98
5 year subtotal							**180**	**1.54%**	
1988	31	0	7	2	0	0	9		6.84
1987	32	0	17	1	0	0	18		2.83
1986	33	0	33	2	0	1	36		8.16
1985	34	0	37	1	0	0	38		3.17
1984	35	0	30	1	0	0	31		3.87
5 year subtotal							**132**	**1.13%**	
1983	36	0	13	1	0	0	14		0.25
1982	37	0	15	4	1	0	20		6.51
1981	38	0	13	6	0	0	19		2.57
1980	39	0	4	0	0	0	4		6.50
1979	40	0	6	2	0	0	8		17.13
5 year subtotal							**65**	**0.55%**	
Above 40 years		0	43	0	0	0	43	0.37%	5.60
Grand Total		**19**	**6522**	**3346**	**1311**	**520**	**11718**	**100.00%**	

Table 2.2: Age profile – internationally trading dry bulk fleet by size at the end of 2018 (source: Clarksons Research and INTERCARGO)

3. Casualty and Incident Reporting

From 2009 to 2018, forty eight (48) bulk carriers over 10,000 dwt were identified as total losses. As a consequence, 188 crewmembers have lost their lives. Cargo shift and liquefaction continued to be a great risk to the life of seafarers and the safe carriage of dry bulk cargoes over this period.

In 2018, the INTERCARGO database recorded 331 bulk carrier incidents. Preliminary analysis of the incidents indicated that the top five most common incidents were related to problems of:

- Main engine (65 incidents)
- Machinery and technical (99 incidents)
- Grounding (36 incidents)
- Collision (34 incidents)
- Allision (27 incidents)

The incidents that resulted from problems with the main engine, other machinery or technical issues highlight the importance of in-depth analysis of design, manufacture and maintenance efforts and ensuring that there is sufficient provision of adequate spare parts on board. Serious concerns also arise when referring to the high number of reported incidents of collision and allision.

Tables 3.1 and **3.2** show the losses of bulk carriers and consequential losses of lives during the periods of 2009 to 2018 and 2008 to 2017.

Cargo shift/liquefaction remains a major concern in the dry bulk sector. Of the 48 casualties reported from 2009 to 2018 (shown in **Table 3.3**), there were 9 casualties of suspected cargo failure: 6 bulk carriers carrying nickel ore from Indonesia; 2 vessels with laterite (clay) iron ore from India; and 1 with bauxite from Malaysia. There were 101 lives lost associated with those 9 casualties, against a total of 188 lives lost for all 48 casualties. However, losses of lives were also reported from other incidents on board including those related to confined space entry, falls etc

Losses	In 2018	In the period 2009 to 2018
Lives	0	188
Ships	0	48

Table 3.1: Total losses in 2018

Losses	In 2017	In the period 2008 to 2017
Lives	32	202
Ships	2	53

Table 3.2: Total losses in 2017

Reported cause	Losses of life	Losses of ships	Likely root cause	Losses of ships
Cargo shift/liquefaction	101	9	Cargo failure	9
Collision	0	4	Machinery failure	1
			Unknown	2
			Human element	1
Fire/explosion	16	3	Unknown	2
			Cargo safety	1
Flooding	0	6	Unknown	5
			Machinery failure	1
Grounding	10	19	Machinery failure	4
			Navigation	3
			Unknown	3
			Weather	1
			Human element	8
Structural	0	1	Collision	1
Unknown	61	6	Unknown	5
			Machinery failure	1
Total	**188**	**48**		**48**

Table 3.3: Breakdown causes, 2009 to 2018

Lessons learnt from past incidents play an important role in determining where additional safety improvement is necessary. As shown in **Table 3.4**, at the end of Jan 2019, 25 of the 48 bulk carrier losses in this analysis have had investigation reports made available on IMO GISIS (https://gisis.imo.org/Public/Default.aspx), representing 52.1% of the total. The average time from incident to a report becoming available is 33 months for these investigations.

Table 3.4 analyses flag State reporting on the casualties identified in the 23 investigation reports available on the IMO GISIS database at the end of January 2019.

Flag	No. of cases	GISIS with Reports	Average Months*	GISIS without report
Bahamas	1	1	7	
Belize	1			1
China	2			2
Comoros	1			1
Cyprus	2	1	42	1
Hong Kong, China	5	4	62.5	1
Korea	3	1	12	2
Liberia	2			2
Malta	3	3	42	
Marshall Islands	1			1
Mexico	1	1	37	
Mongolia	1			1
Panama	21	12	23	9
Turkey	3	1	12	2
Vietnam	1	1	12	
Total	**48**	**25**	**33.0**	**23**

**Average months: from the incident date to the date of the reports published on GISIS*

Table 3.4: Flag State investigation reports on bulk carrier casualties

The ten-year trends illustrated below in annual average number of lives and ships lost within the bulk carrier industry show positive signs of safety improvement. Diligent work must continue to retain this.

Rolling 10-year periods	Annual average number of lives lost
1995-2004	42
1996-2005	38
1997-2006	37
1998-2007	32
1999-2008	25
2000-2009	24
2001-2010	26
2002-2011	24
2003-2012	23
2005-2015	23
2007-2016	21
2008-2017	20
2009-2018	19

Table 3.5: Trends – Annual average number of lives lost

Rolling 10-year periods	Annual average number of ships lost
1995-2004	9.6
1996-2005	9.7
1997-2006	8.9
1998-2007	9.6
1999-2008	7.1
2000-2009	6.6
2001-2010	5.9
2002-2011	6.8
2003-2012	6.6
2005-2015	6.5
2007-2016	5.9
2008-2017	5.3
2009-2018	4.8

Table 3.6: Trends – Annual average number of ships lost

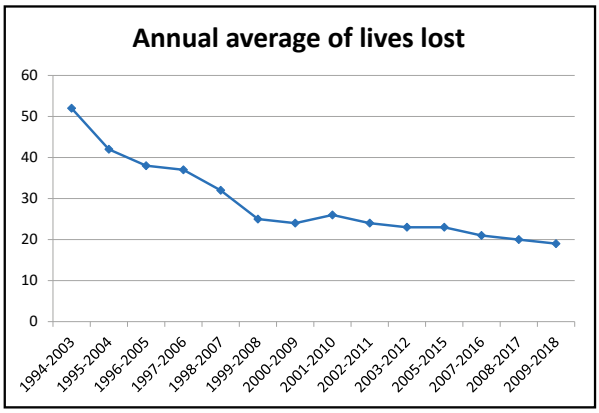

Figure 3.1: Trends – Annual average number of lives lost

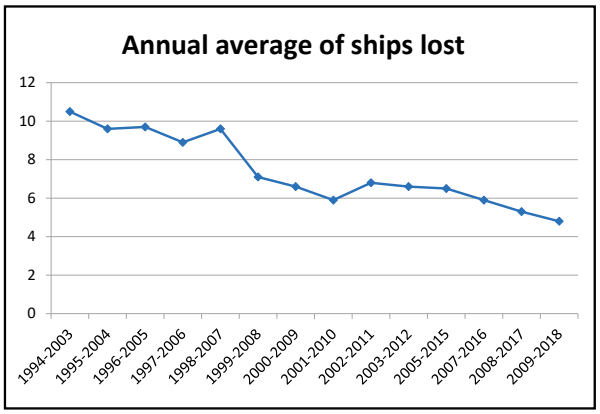

Figure 3.2: Trends – Annual average number of ships lost

'Thisseas', Laskaridis Shipping Co Ltd

4. Class

IACS members lead the way in terms of market share and quality.

Classification Societies are organisations that develop and maintain standards for the construction and operation of ships. These standards are commonly known as Rules and generally each Classification Society produces its own set of Rules.

Classification Societies verify that ships 'classed' with them are designed, constructed and maintained according to their Rules. In addition to verifying conformity with their own Rules, Classification Societies provide other technical services (including confirming that vessels comply with various statutory regulations), which they perform on behalf of flag States.

There are more than 50 organisations that consider themselves Classification Societies, but it is the members of the International Association of Classification Societies (IACS) that are considered to be the leading Class Societies. IACS members have a combined market share of just over 93% of the global bulk carrier fleet (see **Table 4.1**)

IACS, in their charter, state that the purpose of a Classification Society is *"to provide classification, statutory certification and services as a Recognised Organisation acting on behalf of a flag Administration, and assistance to the maritime industry and regulatory bodies as regards maritime safety and pollution prevention, based on the accumulation of maritime knowledge and technology".*

The International Association of Classification Societies Ltd (IACS)

"Dedicated to safe ships and clean seas, IACS Members make a unique contribution to maritime safety and regulation through technical support, compliance verification and research and development. More than 90% of the world's cargo carrying tonnage is covered by the classification design, construction and through-life compliance rules and standards set by the twelve Member Societies of IACS." (Source: IACS Website, About)

IACS membership currently comprises the following 12 members:

- American Bureau of Shipping (ABS)
- Bureau Veritas (BV)
- China Classification Society (CCS)
- Croatian Register of Shipping (CRS)
- Det Norske Veritas Germanischer Lloyd (DNV GL)
- Indian Register of Shipping (IRS)
- Korean Register (KR)
- Lloyd's Register (LR)
- Class NK (NK)
- Polish Register of Shipping (PRS)
- Registro Italiano Navale (RINA)
- Russian Maritime Register of Shipping (RS).

Table 4.1 shows the 2018 bulk carrier market share of IACS members and non-members, the total number of detentions in 2018, the number of detentions as a percentage of the total detentions in 2018, and the Deficiencies per Inspection (DPI) for 2018.

Although the 2017 market share figures are not included, IACS members total market share has decreased slightly from 95.6% to 93.3%. CCS was the only society that managed to increase their fleet with an increase of the market share from 11.5% to 12.5%. As well as leading in market share growth, CCS in 2018 is also leading the way in quality with the lowest DPI and only 1.6% of detentions (despite having 12.5% of the market share).

Year 2018				
Recognised Organisation	Market Share %	Detentions	% of Detentions	DPI
IACS				
ABS	9.12%	47	8.20%	1.18
BV	8.95%	66	11.52%	1.64
CCS	12.45%	9	1.57%	1.01
CRS	0.22%	0	0.00%	1.98
DNV-GL	9.62%	47	8.20%	1.19
IRS	0.69%	4	0.70%	3.92
KR	4.15%	27	4.71%	1.65
LR	10.16%	72	12.57%	1.41
NK	34.37%	231	40.31%	1.32
PRS	0.56%	7	1.22%	2.75
RINA	2.66%	27	4.71%	2.00
RS	0.34%	8	1.40%	5.22
IACS (averages or totals)	**93.29%**	**545**	**95.11%**	**2.11**
Non-IACS/Not Recorded (averages or totals)	**6.71%**	**28**	**4.89%**	**4.72**
Total	100%	573	100%	

Table 4.1: Class Market share, Detentions and DPI for 2018

Table 4.2 shows the DPI of IACS members for the years 2015 to 2018, where it can be seen that the average IACS DPI has improved since 2017.

BV, CCS, CRS, KR, Class NK and PRS have all managed to improve the DPI in their fleets over the last year, with the greatest improvement being made by PRS, who decreased their DPI from 4.05 to 2.75.

Recognised Organisation	2018 DPI	2017 DPI	2016 DPI	2015 DPI
IACS				
ABS	1.18	0.94	1.25	1.17
BV	1.64	2.25	1.64	1.62
CCS	1.01	2.21	1.10	0.95
CRS	1.98	2.02	0.75	1.79
DNV-GL	1.19	0.88	1.18	1.05
IRS	3.92	2.66	4.15	2.52
KR	1.65	2.09	1.66	1.41
LR	1.41	0.72	1.25	1.11
NK	1.32	2.21	1.46	1.35
PRS	2.75	4.05	2.43	1.90
RINA	2.00	1.40	1.91	2.07
RS	5.22	4.53	5.56	5.16
IACS (averages or totals)	**2.11**	**2.16**	**2.03**	**1.84**
Non-IACS/Not Recorded (averages or totals)	**4.72**	**4.68**	**3.97**	**2.71**

Table 4.2: DPI 2015 to 2018

5. Flag

The number of flags decreased from 85 in 2017 to 84 in 2018, but the number of leading flags increasing from 12 to 14, with Indonesia and Norway both having 100 or more bulkers.

The majority of the 14 leading flags have improved their DPI between the years 2017 and 2018.

The present (11th) edition of the Benchmarking Report shows that in 2018 there were 84 Flag registers serving the internationally trading bulk carrier fleet, representing a decrease of one from 2017 (accounted for by the removal of Honduras).

Flags that have 100 or more internationally trading bulk carriers of 10,000 dwt and above are highlighted in bold in **Table 5.1**. There are currently 14 of these flags, an increase of two flags from 2017, due to the addition of Indonesia and Norway. It is worth noting that the 14 leading flags account for 10,470 vessels, which is just over 86.5% of the market.

The most significant change from 2017 is the increase of China's fleet from 884 bulk carriers in 2017 to 1388 in 2018, or from 8.1% of the market to 11.6%.

Quality

Comparing the DPI of 2017 and 2018, it can be seen that the 14 leading flags, with the exceptions of Cyprus, Greece, Indonesia, Malta and Singapore, have managed to improve their DPI scores.

Table 5.2 shows, for the 14 leading flags, the difference between the percentage of total detentions and the percentage of market share. The figures in the 2018 column are calculated by subtracting the 2018 share of detentions from the 2018 share of the market, as shown in **Table 5.1** (eg for The Bahamas, 2.86 % minus 1.40 % gives 1.46). The figures in the 2017 and 2016 columns are calculated in the same way. A positive number in **Table 5.2** shows a positive performance by the flag, but other factors, such as the role of the shipowner, cannot be disregarded.

It is encouraging to see that, for the detentions as a function of market share, the majority of the 14 leading flags have a positive metric.

'Triton', Laskaridis Shipping Co Ltd

Flag State	2018 Fleet Size	% of Total Fleet	2018 Detentions	% of Detentions	2018 DPI	2017 DPI
Albania	1	0.01%	0	0.00%	N/A	15
Antigua & Barbuda	37	0.32%	5	0.87%	2.36	2.24
Australia	4	0.03%	0	0.00%	N/A	N/A
Bahamas	**335**	**2.86%**	**8**	**1.40%**	**0.95**	**1.05**
Bahrain	1	0.01%	0	0.00%	N/A	17
Bangladesh	36	0.31%	2	0.35%	3.14	3.14
Barbados	21	0.18%	3	0.52%	2.39	2.74
Belgium	23	0.20%	0	0.00%	1.19	0.88
Belize	53	0.45%	9	1.57%	3.73	3.72
Bermuda	5	0.04%	0	0.00%	2.57	0.29
Brazil	13	0.11%	0	0.00%	0.44	0.00
Bulgaria	2	0.02%	0	0.00%	1.75	1.83
Canada	18	0.15%	0	0.00%	0.56	0.50
Cayman Islands	28	0.24%	1	0.17%	0.45	0.89
Chile	9	0.08%	1	0.17%	1.77	2.50
China (People's Republic Of)	**1388**	**11.85%**	**0**	**0.00%**	**0.91**	**1.00**
Comoro Islands	7	0.06%	2	0.35%	5.34	5.36
Cook Islands	24	0.20%	6	1.05%	3.31	3.25
Croatia	19	0.16%	0	0.00%	1.84	1.73
Cyprus	**317**	**2.71%**	**27**	**4.71%**	**1.45**	**1.35**
Denmark	7	0.06%	1	0.17%	1.37	1.32
Egypt	14	0.12%	1	0.17%	7.22	3.83
Finland	9	0.08%	1	0.17%	1.61	4.67
Georgia	1	0.01%	0	0.00%	5.00	5.50
Germany	1	0.01%	0	0.00%	0.00	3.00
Gibraltar	10	0.09%	1	0.17%	0.85	0.64
Greece	**194**	**1.66%**	**13**	**2.27%**	**1.35**	**1.28**
Hong Kong	**1213**	**10.35%**	**33**	**5.76%**	**0.92**	**0.95**
India		0.65%	4	0.70%	2.42	2.11
Indonesia	**100**	**0.85%**	**4**	**0.70%**	**5.04**	**3.04**
Iran	31	0.26%	1	0.17%	2.17	2.04
Ireland	9	0.08%	0	0.00%	0.80	0.38
Isle of Man	**109**	**0.93%**	**4**	**0.70%**	**0.87**	**1.04**
Italy	56	0.48%	6	1.05%	2.14	1.87
Jamaica	1	0.01%	0	0.00%	N/A	2.5
Japan	**173**	**1.48%**	**6**	**1.05%**	**0.92**	**0.93**
Kiribati	3	0.03%	0	0.00%	3.13	3.63
Korea (Democratic People's Republic Of)	8	0.07%	0	0.00%	N/A	9.67
Korea (Republic Of)	95	0.81%	5	0.87%	2.14	1.83
Lebanon	1	0.01%	0	0.00%	3.75	0.00
Liberia	**1129**	**9.63%**	**63**	**10.99%**	**1.40**	**1.53**
Luxembourg	6	0.05%	0	0.00%	0.00	0.14
Madeira	23	0.20%	1	0.17%	1.17	1.05
Malaysia	15	0.13%	0	0.00%	0.94	1.38

Flag State	2018 Fleet Size	% of Total Fleet	2018 Detentions	% of Detentions	2018 DPI	2017 DPI
Malta	**661**	**5.64%**	**55**	**9.60%**	**1.58**	**1.50**
Marshall Islands	**1480**	**12.63%**	**67**	**11.69%**	**1.26**	**1.33**
Mexico	6	0.05%	0	0.00%	0.50	5.00
Moldova	3	0.03%	0	0.00%	N/A	4.5
Mongolia	5	0.04%	0	0.00%	8.75	8.27
Montenegro	4	0.03%	1	0.17%	1.08	1.00
Myanmar	1	0.01%	0	0.00%	2.00	N/A
Netherlands	12	0.10%	0	0.00%	1.83	1.02
NIS/Norway	**101**	**0.86%**	**2**	**0.35%**	**1.09**	**1.15**
Niue	1	0.01%	0	0.00%	N/A	10
Pakistan	5	0.04%	0	0.00%	2.91	2.18
Palau	7	0.06%	0	0.00%	4.01	4.48
Panama	**2638**	**22.51%**	**172**	**30.02%**	**1.52**	**1.63**
Philippines	60	0.51%	4	0.70%	1.64	1.82
Portugal	48	0.41%	6	1.05%	1.31	1.02
Qatar	10	0.09%	1	0.17%	2.62	1.13
Russia	18	0.15%	2	0.35%	5.30	4.04
Saudi Arabia	5	0.04%	0	0.00%	0.00	0.00
Sierra Leone	21	0.18%	8	1.40%	5.75	5.72
Singapore	**632**	**5.39%**	**14**	**2.44%**	**1.04**	**1.02**
South Africa	2	0.02%	0	0.00%	4.50	1.33
Spain	1	0.01%	0	0.00%	2.00	2.00
Sri Lanka	9	0.08%	0	0.00%	1.53	2.33
St. Kitts & Nevis	7	0.06%	2	0.35%	3.33	1.83
St. Vincent & The Grenadines	22	0.19%	2	0.35%	2.47	3.07
Switzerland	28	0.24%	1	0.17%	1.57	1.88
Syria	1	0.01%	0	0.00%	5.00	5.33
Taiwan	28	0.24%	0	0.00%	0.82	3.01
Tanzania	6	0.05%	2	0.35%	17.33	8.28
Thailand	27	0.23%	3	0.52%	1.87	1.55
The Maldives	1	0.01%	0	0.00%	6.33	N/A
Togo	7	0.06%	3	0.52%	5.54	6.38
Tonga	1	0.01%	0	0.00%	7.00	1.25
Turkey	61	0.52%	2	0.35%	1.63	2.18
Tuvalu	24	0.20%	3	0.52%	2.28	2.19
United Kingdom	26	0.22%	0	0.00%	1.63	1.77
United States	5	0.04%	0	0.00%	0.00	1.00
Vanuatu	27	0.23%	9	1.57%	2.11	1.73
Venezuela	4	0.03%	0	0.00%	N/A	N/A
Vietnam	85	0.73%	6	1.05%	2.63	2.08
Not Recorded	3	0.03%	0	0.00%	N/A	N/A
Grand Total	**11718**	**100%**	**573**	**100.00%**		

Table 5.1: Flag market share, detentions and DPI

Flag State	2018	2017	2016
Bahamas	1.46	0.10	1.09
China (People's Republic Of)	11.85	7.17	8.93
Cyprus	-2.00	-0.75	1.21
Greece	-0.61	1.04	0.65
Hong Kong	4.59	7.28	6.47
Indonesia	0.15	N/A	N/A
Isle of Man	0.23	0.22	N/A
Japan	0.43	1.09	1.06
Liberia	-1.36	-2.69	-2.72
Malta	-3.96	-3.23	-0.66
Marshall Islands	0.94	1.85	-1.37
NIS/Norway	0.51	N/A	N/A
Panama	-7.51	-10.43	-12.13
Singapore	2.95	3.25	1.96

Table 5.2: Leading Flags; market share vs detention metric (see text for explanation)

'Astra Centaurus', Rethymnis & Kulukundis Ltd

6. INTERCARGO – Entered Ships Performance

INTERCARGO and its Members commit themselves to a safe, efficient, high quality and environmentally friendly dry cargo shipping industry. It remains a core requirement of INTERCARGO policy that vessels entered by Members should meet a strict acceptance criteria that significantly outperforms the industry averages. In 2018, INTERCARGO-entered ships continued to significantly outperform industry averages in respect of both detentions and deficiencies per inspection.

As shown in **Table 6.1**, 573 bulk carrier detentions occurred in 2018 due to deficiencies found during PSC inspections. Of these, 92 were associated with INTERCARGO-entered ships, accounting for 16.1% of the total detentions. This figure shows an upward trend since 2016 and, as such, is one of the highest recorded in recent years.

However, to put this into context, it is noteworthy that the INTERCARGO registered fleet has been dramatically increasing year on year since 2016, and, as of the end of 2018, represented 24.6% of the Global fleet on a DWT basis (up from 11.5% in 2016).

In terms of the Equasis recorded detention rates (i.e. detentions per inspection % rates), as set out in **Table 6.2**, it is worth noting that the performance of INTERCARGO-entered ships has remained fairly steady over the last few years, and is constant at about 50% of the non-entered fleet, showing the positive impact that Members have on improving the Global bulk carrier fleet record (see last column of the table).

In 2018, detention rates for the INTERCARGO-entered and the non-INTERCARGO-entered fleet stood at 1.6% vs 3.6% respectively, i.e. the INTERCARGO-entered fleet outperformed the non-INTERCARGO-entered fleet by a 58% lower detention rate (compared to 63% lower in 2017).

Year	INTERCARGO-entered fleet detentions (Column A)	Total Dry Bulk fleet detentions (Column B)	% Ratio of Column A to B (Column C)	INTERCARGO-entered fleet as % of total fleet Number - based (Dwt-based)
2010	38	646	5.9%	(12.6%)
2011	45	621	7.2%	(11.7%)
2012	51	594	8.6%	(12.5%)
2015	37	449	8.2%	10.1% (12.9%)
2016	22	605	3.6%	9.5% (11.5%)
2017	70	550	12.7%	16.2% (19.9%)
2018	92	573	16.1%	18.7% (24.6%)

Table 6.1: Detentions of INTERCARGO-entered ships, Global fleet detentions, and comparisons (source: INTERCARGO Annual Benchmarking reports; Clarksons Research data for the global fleet size)

Year	INTERCARGO-entered fleet detention rate as %	Non-INTERCARGO fleet detention rate as %	Global bulk carrier fleet detention rate %
2014	1.8	3.0	2.9
2015	1.8	3.4	3.3
2016	1.3	3.3	3.1
2017	1.5	4.1	3.8
2018	1.6	3.6	3.3
Average	**1.6**	**3.5**	**3.3**

Table 6.2: Detention rates of the INTERCARGO-entered fleet, the non-INTERCARGO fleet and the global bulk carrier fleet (the above table reports annual data according to Equasis 'World merchant fleet – statistics', available at http://www.emsa.europa.eu/equasis-statistics/items.html?cid=95&id=472)

Table 6.3 shows the deficiencies per Inspection (DPI) ratio associated with the INTERCARGO-entered fleet, the non-INTERCARGO-entered fleet and the global bulk carrier fleet in the last 4 years. As in previous years the INTERCARGO-entered fleet outperformed the non-INTERCARGO fleet with a DPI of 1.12 vs 1.48 respectively.

The figures in 2017 were 1.17 and 1.51 respectively, i.e. marginally worse than in 2018, so an improvement is witnessed across the board and is especially significant for the INTERCARGO-entered fleet.

Year	INTERCARGO-entered fleet deficiencies per inspection ratio (DPI)	Non-INTERCARGO fleet deficiencies per inspection ratio (DPI)	Global bulk carrier fleet deficiencies per inspection ratio (DPI)
2015	1.04	1.39	1.36
2016	1.16	1.49	1.46
2017	1.17	1.51	1.45
2018	1.12	1.48	1.40
Average	**1.12**	**1.47**	**1.42**

Table 6.3: Deficiencies per inspection ratio (DPI) rates of the INTERCARGO-entered fleet, the non-INTERCARGO fleet and the global bulk carrier fleet (data source: INTERCARGO)

As in the past, the priority for INTERCARGO and its members is to ensure that the above Port State Control statistics show a continuous improvement year on year as a result of the efforts of all involved.

INTERCARGO applies strict criteria for its membership and when accepting new members, and this is always consistent with improving the industry standards.

'Pacific Logger', Pacific Basin Shipping (HK) Ltd

7. Owners' Benchmarking

As depicted in the previous section, in 2018, INTERCARGO-entered vessels once again outperformed the rest of the dry bulk cargo fleet in terms of Detention rates (DTR) and Deficiencies per Inspection ratios (DPI). The benchmarking tables in this section, which apply to the global dry cargo fleet, allow owners (dry bulk companies) to compare their fleet performance against their peers.

The Deficiencies per Inspection ratio (DPI) scoring shown in **Table 7.1** can be used as a metric to assess a company's fleet performance in that respect. For this purpose, an individual company needs to first calculate its fleet DPI (according to its records or from publicly available data on Equasis) by adding the total number of deficiencies recorded across its dry cargo ships during 2018 and then dividing the sum by the total number of inspections.

Once this DPI ratio has been obtained, it can be benchmarked against the scores listed in **Table 7.1**, which are broken down into 10 percentile ranges from best (top percentile) to worst (bottom percentile) of DPI ratios. For example, a company with a DPI between 0.00 and 0.52 would position itself in the top 10% of the global dry cargo fleet performance (Company DPI Category 1). Out of about 1,650 ship owning/managing companies subjected to this scoring, 18% were positioned in this top DPI Category 1 (slightly worse than the 20% in this category in 2017).

DPI ratios of up to 1.45 correspond to the top 50% of the best DPI ratios among the global dry cargo fleet (51% of companies were positioned in DPI Categories 1 to 5, a slight decrease from 54% in 2017). At the lower end are companies with the worst 10% of scores in the DPI range (ie from 4.53 to 38.00 or Company DPI Category 10), where 9% of companies were positioned; their vessels recorded the highest average ratio of deficiencies per inspection (this is again worse when compared with the 5% in this category in 2017). It is noted though that the DPI distribution is positively skewed to the upside: 18% of companies in Category 1 vs 9% (i.e. half in number) in Category 10.

It should be noted however, that a recorded DPI ratio also depends on the inspection regimes that are associated with different Port State Control authorities. As a result, fleets with vessels calling in and subjected to more stringent Port State Control regimes could be expected to experience higher DPI ratios.

DPI ratio	Percentile of DPI ratio	Company DPI Category
0.00 – 0.52	1-9 (top 10% of DPI ratios)	1 (top)
0.53 – 0.78	10-19	2
0.79 – 0.99	20-29	3
1.00 – 1.19	30-39	4
1.20 – 1.45	40-49 (middle point of DPI scores)	5
1.46 – 1.73	50-59	6
1.74 – 2.20	60-69	7
2.21 – 3.00	70-79	8
3.03 – 4.50	80-89	9
4.53 – 38.00	90-100 (bottom 10% of DPI ratios)	10 (bottom)

Table 7.1: Benchmarking companies basis their Deficiencies per Inspection (DPI)

The Detentions per inspection rates (DTR) shown in **Table 7.2** can be used as a second metric to assess a company's fleet performance. For fleet performance, a company needs to calculate its detentions per inspection rate by adding the total number of detentions recorded across its dry cargo ships during 2018 and then dividing the sum by the total number of inspections; the resulting ratio is then expressed as a percentage.

Once this figure has been obtained, it can be benchmarked against the rates listed in **Table 7.2** broken down again into 10 percentile ranges from best (top percentile) to worst (bottom percentile) of DTR rates. For example, a company with a detentions rate between 0.0 and 0.7% would position itself in the top 10% of the global fleet performance. Out of about 1,650 ship owning/managing companies subjected

to this scoring, the significant majority (8%) were positioned in Company DTR category 1 in 2018. This figure was similar to that reported in 2017, a much more positively skewed distribution compared to the DPI ratio scoring examined above.

Detention rates of up to 3.1% correspond to the top 50% of best rates among the global fleet, with as many as 84% of companies positioned in DTR Categories 1 to 5. This percentage is the same as 2017. At the lower end are companies with the worst 10% of rates in the whole range (ie DTR above 19.8% or Company Category 10), only 4% of companies were positioned here. However, this is worse than 2017, when only 2% were positioned in this bottom category (the range of values for this category was also higher in 2017, starting at 26.7%).

Detentions per Inspection rate (DTR)	Percentile of DTR	Company DTR Category
0 – 0.7 %	1-9 (top 10% of Detention rates)	1 (top)
0.7 – 1.3 %	10-19	2
1.3 – 1.6 %	20-29	3
1.7 – 2.2 %	30-39	4
2.3 – 3.1 %	40-49 (middle point of Detention rates)	5
3.2 – 4.3 %	50-59	6
4.4 – 6.3 %	60-69	7
6.7 – 10.5 %	70-79	8
11.1 – 19.4 %	80-89	9
19.8 – 100 %	90-100 (bottom 10% of Detention rates)	10 (bottom)

Table 7.2: Benchmarking companies basis their Detentions per Inspection rate (DTR)

'La Briantais', Louis Dreyfus Armateurs S.A.S

8. Negative Performance Indicators

This section puts in perspective recorded incidents, (such as collisions, groundings, etc) on board dry bulk carriers, by categorising them as Negative Performance Indicators (NPI).

The data collection techniques used to produce these figures are subject to continuous improvement and, therefore, the results should be treated cautiously. However, it is useful to note what the data collected for 2018 could suggest.

Comparing 2018's figures against the two previous Benchmarking Reports in **Table 8.1**, the following indicator percentages have increased:

- Allision
- Crew
- Fire/Explosion
- Pollution
- Propulsion
- Structural Damage.

At the same time, the most noticeable and consistent reductions are within the following indicator percentages:

- Anchoring and Mooring
- Cargo
- Collision
- M Engine Problem
- Groundling.

Closer monitoring and in-depth analysis may reveal whether there is a statistical correlation between the performance of owners – as measured through their DPI rating and their ranking in the 'Owners' Benchmarking' section of this publication – and their propensity to become involved in NPI incidents.

Negative Performance Indicator Description	No. of NPIs in 2018	% of NPIs in 2018	% of NPIs in 2017	% of NPIs in 2016
Allision	27	8.16%	6.05%	6.99%
Anchoring & Mooring	8	2.42%	4.90%	3.15%
Cargo	1	0.30%	2.31%	1.75%
Collision	34	10.27%	17.29%	18.88%
Crew	18	5.44%	2.59%	0.35%
M. Engine Problem	65	19.64%	20.75%	22.38%
Fire/Explosion	13	3.93%	2.59%	2.10%
Grounding	36	10.88%	17.58%	18.88%
Pollution	9	2.72%	0.29%	1.75%
Propulsion	14	4.23%	0.00%	2.80%
Structural	10	3.02%	2.02%	1.75%
Other	96	29.00%	23.63%	20.62%
Total	**331**	**100.00%**	**100.00%**	**100.00%**

Table 8.1: Negative performance indicators

9. Protection and Indemnity

The International Group of P&I Clubs continue to dominate with almost 84% of the market share, while at the same time outperforming non-IG P&I providers in terms of quality.

Non-IG P&I Clubs increased their market share from 11.7% to 16.2%

Protection and indemnity (P&I) cover is a form of mutual marine insurance that provides cover for broader indeterminate risks that marine insurers do not cover, such as third-party liabilities. Marine insurers, on the other hand, provide cover for known quantifiable risks, mainly hull and machinery insurance for shipowners and cargo insurance for cargo owners.

The International Group of P&I Clubs (IG P&I Clubs), made up of the 13 leading P&I Clubs "…whilst individually competitive, share between them their large loss exposures, and also share their respective knowledge and expertise on matters relating to shipowners liabilities and the insurance and reinsurance of such liabilities."[1]

Although the IG P&I Clubs have collectively increased the number of vessels they provide cover for, their total market share has decreased from 88.3% to 83.8%, while non-IG P&I clubs have made a not insignificant increase of their fleet. Gard continues to be the market leader providing cover for 10.7 % of the global bulk carrier fleet.

In terms of quality, as in 2017, the IG P&I Clubs outperform non-IG P&I Clubs; in 2018, the IG P&I Clubs had an average DPI of 1.49 compared to a DPI of 3.53 for non-members. It should also be noted that the average DPI for both the IG P&I Clubs and non-IG P&I Clubs decreased in 2018 compared to 2017.

	No. of ships in 2018	% of total fleet in 2018	DPI in 2018	No. of ships in 2017	% of total fleet in 2017	DPI in 2017
American Steamship	245	2.1%	2.64	201	1.8%	2.66
Britannia	796	6.8%	1.06	806	7.4%	1.17
Gard	1253	10.7%	1.19	1225	11.2%	1.24
Japan Shipowners' P&I Association	1037	8.8%	1.01	1072	9.8%	1.15
London P&I Club	686	5.9%	1.83	610	5.6%	1.84
North	1080	9.2%	1.13	1058	9.7%	1.19
Shipowners' Mutual	41	0.3%	2.77	32	0.3%	2.88
Skuld	802	6.8%	1.27	790	7.2%	1.38
Standard P&I	768	6.6%	1.26	762	7.0%	1.16
Steamship Mutual	579	4.9%	1.30	584	5.3%	1.38
Swedish Club	453	3.9%	1.27	424	3.9%	1.44
UK P&I Club	1106	9.4%	1.07	1130	10.3%	1.21
West of England	979	8.4%	1.62	969	8.9%	1.63
IG P&I Totals and Averages	**9825**	**83.8%**	**1.49**	**9663**	**88.3%**	**1.56**
Non IG P&I Totals and Averages	**1893**	**16.2%**	**3.53**	**1283**	**11.7%**	**3.99**
Total	**11718**	**100.0%**	**2.51**	**10946**	**100.0%**	**2.78**

Table 9.1: P&I 2018 and 2017 market share and DPI

[1] *IG Group Website, About IG P&I*

10. Port State Control

Introduction to PSC

Port State Control (PSC) has its origins in the 1978 'Hague Memorandum', which was developed by a number of maritime authorities in Western Europe to enforce onboard living and working conditions as required by ILO Convention No. 147. However, the public reaction to the oil spill from the grounded VLCC *'Amoco Cadiz'* off the coast of Brittany in March 1978 resulted in a far more stringent memorandum, extended to cover safety of life at sea and the prevention of pollution by ships.

In January 1982, a new Memorandum of Understanding on Port State Control was signed by 14 European countries at a Ministerial Conference held in Paris, France. The 'Paris MoU' came into operation on 1st July 1982 and has formed the model for the regional MoU regimes we have today.

PSC has become the global action in the defence against substandard shipping. Port State inspectors visit foreign ships to verify their condition and to ensure they comply with international rules on safety, pollution prevention and seafarers' living and working conditions. It is a means of enforcing compliance where the shipowner and flag State have failed in their responsibilities to implement required standards.

PSC ship inspections are subject to the provisions of the 'Procedures for Port State Control' adopted in 2011 under IMO Assembly Resolution A.1052(27). The resolution contains a comprehensive compilation of guidelines relevant to Port State Control. The 31st session of the IMO Assembly in December 2019 revised these procedures and adopted the 'Procedures for Port State Control, 2019' under Resolution A.1138(31). The revisions include a new appendix 18 on 2019 Guidelines for port State control under MARPOL Annex VI chapter 3 (MEPC.321(74)).

List of Dominating PSC Regimes

The ten dominating PSC regimes are listed below, in order of when they were established:

Nine regional PSC regimes:

1. Paris Memorandum of Understanding on Port State Control (Paris MoU)*, signed in Paris, France on 26th January 1982
2. Latin American Agreement on Port State Control (Viña del Mar or Latin-America Agreement)*, signed in Viña del Mar, Chile on 5th November 1992
3. Memorandum of Understanding on Port State Control in the Asia-Pacific Region (Tokyo MoU)*, signed in Tokyo, Japan on 1st December 1993
4. Memorandum of Understanding on Port State Control in the Caribbean Region (Caribbean MoU)*, signed in Christ Church, Barbados on 9th February 1996
5. Memorandum of Understanding on Port State Control in the Mediterranean Region (Mediterranean MoU)*, signed in Valletta, Malta on 11th July 1997
6. Indian Ocean Memorandum of Understanding on Port State Control (Indian Ocean MoU)*, signed in Pretoria, South Africa on 5th June 1998
7. Memorandum of Understanding on Port State Control for West and Central African Region (Abuja MoU)*, signed in Abuja, Nigeria on 22nd October 1999
8. Memorandum of Understanding on PSC in the Black Sea Region (Black Sea MoU)*, signed in Istanbul, Turkey on 7th April 2000
9. Riyadh Memorandum of Understanding on Port State Control (Riyadh MoU)**, signed in Riyadh, Saudi Arabia on 30th June 2004

One national PSC regime:

10. United States Coast Guard (USCG).*

Notes:
** Data providers to Equasis.*
*** Data Exchange with Equasis is under process.*

Self-discipline measures and transparency

Complaints have reached INTERCARGO about Port State Control Officers (PSCOs) at some ports of certain PSC MoU regimes demanding payment for allowing vessels to sail. This practice does not just cause off-hire, but also other high costs, interruption of normal operation and decreased confidence of crew on board.

More feedback from members would help us to strengthen our collective effort in pushing relevant MoU regimes and their members to take stricter control, be more transparent with their internal self-discipline measures and to allow industry representatives to be observers during their auditing and review processes.

Table 10.1 summarises the detention review procedures of the different regimes.

PSC Scheme	Detention Review	Reference
Paris MoU	Detention Review Panel	https://www.parismou.org/inspections-risk/appeal-procedure
Viña del Mar Agreement	Detention Review (by each Member)	https://alvm.prefecturanaval.gob.ar/cs/Satellite?c=Page&cid=1459056094692&pagename=CIALA%2FPage%2FtemplateSeccionCialaFULLTEXT
Tokyo MoU	Detention Review Panel	http://www.tokyo-mou.org/inspections_detentions/appeal_procedures.php
Caribbean MoU	Detention Review Panel	http://www.caribbeanmou.org/sites/default/files/Appeal_Review%20Procedure%20for%20CMOU.pdf
Mediterranean MoU	Detention Review Panel	http://197.230.62.214/Manual/1.1%20Mediterranean%20MoU%20Text%20and%20Annexes.pdf
Indian Ocean MoU	Detention Review Panel	https://www.deutsche-flagge.de/de/redaktion/dokumente/dokumente-sonstige/indian-ocean-mou.pdf
Abuja MoU	Detention Review Panel	http://www.abujamou.org/post/409eng.pdf
Black Sea MoU	Detention Review Board	http://www.bsmou.org/detention-review-board/
Riyadh MoU		
USCG	46 CFR 1.03 contains appeal procedures	https://www.law.cornell.edu/cfr/text/46/part-1/subpart-1.03

Table 10.1: Detention review procedures

Inspections and Detention of Bulk Carriers in 2018

Table 10.2 summarises the PSC inspection data in 2018, specifically related to bulk carriers.

Observations:

- In 2018, the Caribbean MoU was the only PSC scheme a where the bulk carrier detention rate of 1.79% was higher than the overall average of 1.73%.
- Tokyo MoU members carried out the highest number of PSC inspections on bulk carriers among all regimes, with a detention rate of 2.96%.
- The Indian Ocean MoU had the highest bulk carrier detention rate at 4.14%.
- Among all the PSC inspections carried out by the Paris MoU, 79.33% of them were conducted on ship types other than bulk carriers, but the detention rate of bulk carriers was still significantly high, the fourth highest among the 10 regimes.
- The figures of the Deficiencies per Inspection (DPI) were between 0.22 and 3.33, with an average of 1.53. The DPI of the USCG was 0.54, which may indicate the overall satisfactory conditions of bulk carriers visiting US ports.
- Around 32.90% of PSC inspections were conducted on bulk carriers across all the PSC MoU regimes.

PSC Scheme	Bulk carrier inspections/total inspections of all ship types	Bulk carriers with deficiencies/detained	Total deficiencies of bulk carrier inspections/ deficiencies per inspection (DPI)	Rate of bulk carrier detentions/overall rate of detentions for all ship types (%)
Abuja MoU	981/2409	74/1	215/0.22	0.1/0.58
Black Sea MoU	1850/5214	878/66	6158/3.33	3.57/5.33
Caribbean MoU	56/635	12/1	62/1.11	1.79/1.73
Indian Ocean MoU	2657/5697	1346/110	5297/1.99	4.14/4.42
Mediterranean MoU*	1415/5200	535/14	2023/1.43	0.99/3.33
Paris MoU	3711/17952	1873/97	7685/2.07	2.6/3.15
Riyadh MoU	1036/3214	222/7		0.68/0.87
Tokyo MoU	11470/31589	6508/339	24591/2.41	2.96/2.96
USCG	3350/9883	832/37	1820/0.54	1.10/1.12
Viña del Mar Agreement (Latin American Agreement)	3558/9661	842/14	2379/0.67	0.18/0.79

Table 10.2: Inspections and Detention of Bulk Carriers in 2018

** Refer to the Annual Report of Port State Control (Mediterranean MoU) 2017*

Ship Targeting Systems and Performance Indicators

Following the example of Paris MoU for introducing its 1st version of targeting system "New Inspection Regime" on 1 Jan 2012 and the 2nd version "Inspection and Selection Scheme" on 1 Jul 2014, Tokyo MoU in 2014, Black Sea MoU in 2016 and Indian Ocean MoU in 2018 all introduced their "New Inspection Regime" which follow the same concept and structure of the Paris MoU's "Inspection and Selection Scheme".

A different approach has been taken by the USCG. Its PSC inspection targeting systems consist of 3 elements:

- Safety and Environmental Protection Compliance Targeting Matrix (Safety Matrix)
- Security Compliance Targeting Matrix (Security Matrix)
- Quality Shipping for the 21st Century (QUALSHIP21) and E-Zero Programs

Table 10.3 summarises PSC targeting systems and performance indicators.

PSC scheme	Performance indicators	Target inspection rate
Paris MoU	White - Grey - Black Lists	The scope, frequency and priority of inspections determine the basis of a ship's risk profile
Viña del Mar Agreement		20% six-month inspection rate per country
Tokyo MoU	White - Grey - Black Lists	80% annual regional inspection rate
Caribbean MoU		15% annual inspection rate per country within 3 years
Mediterranean MoU		15% annual inspection rate per country within 3 years
Indian Ocean MoU	Watch List	10% annual inspection rate per country within 3 years
Abuja MoU		15% annual inspection rate per country within 3 years
Black Sea MoU	Monthly Ship Watch List	75% annual regional inspection rate
Riyadh MoU		15% annual inspection rate per country within 3 years
USCG	Targeting Lists	100% annual inspection rate per vessel, safety risk and ISPS risk matrix applied to all arriving vessels

Table 10.3: PSC targeting systems and performance indicators

Paris MoU Ship Risk Profile

A new methodology is expected to be introduced to the existing Paris MoU system: a calculation of flag state performance based on the average detention rate and recognised organization (RO) fleet performance based on detainable deficiencies. When the new methodology is implemented, performance tables will be listed alphabetically and categorized as high, medium and low performance.

At present, 4 PSC MoUs – Black Sea, Indian Ocean, Paris and Tokyo MoUs – implement targeting systems to decide two priorities:

- Priority I: ships must be inspected because either the *time window* has closed or there is an overriding factor
- Priority II: ships may be inspected because they are within the *time window*, or the port State considers an unexpected factor that warrants an inspection

Ships become due for periodic inspection in the following *time windows*:

- For High Risk Ships (HRS) – between 5-6 months after the last inspection in the Paris MoU region.
- For Standard Risk Ships (SRS) – between 10-12 months after the last inspection in the Paris MoU region.
- For Low Risk Ships (LRS) – between 24-36 months after the last inspection in the Paris MoU region.

When quality ships are rewarded with a "low risk ship" status, the inspection interval may be up to 36 months. Even "standard risk ships" benefit from the new system extending inspection intervals up to 12 months.

The computerized ship targeting system will estimate the risk levels of ships, based on 7 factors of PSC performances:

1. Type of ships: bulk carriers together with tankers, and passenger ships are targeted with an extra 2 points added
2. Age of ship: >12 years targeted
3. Flag: flag State performance is established annually, taking account of the inspection and detention history over the preceding three calendar years. USCG, Paris MoU and Tokyo MoU has a list of black, grey and white flags.
4. Class or RO: The performance of all Recognized Organizations is established annually, taking account of the inspection and detention history over the preceding 3 calendar years.
5. Company performance: Company performance takes account of the detention and deficiency history of all ships in a company's fleet while that company was the ISM company for the ship. Companies are ranked as having a "very low", "low", "medium" or "high" performance. The calculation is made daily on the basis of a running 36-month period. There is no lower limit for the number of inspections needed to qualify except a company with no inspections in the last 36 months will be given a "medium performance".
    a. Deficiency Index: When counting deficiencies each ISM-related deficiency is weighted at 5 points. Other deficiencies are valued at 1 point.
    b. Detention Index: Detention Index is the ratio of the number of detentions of all ships in a company's fleet to the number of inspections of all the ships in the company's fleet within the last 36 months.
6. Number of deficiencies recorded in each inspection within the previous 36 months.
7. Number of detentions within the previous 36 months.

The targeting system of the Abuja MoU (W & C African regions) reflects the history of PSC MoU systems before 2012, i.e. the percentage of visiting ships to be inspected. At present, Abuja MoU's target is 15%. Before 2012, the Paris MoU implemented "25% inspection commitment" and 6 month inspection intervals, which was said to be overburdening the shipping industry and port State control Authorities with inspections.

USCG targeting systems

- Safety and Environmental Protection Compliance Targeting Matrix (**Safety Matrix**)

Under Safety Matrix, there are 3 levels of control:

a. **Priority (P)I Vessel:** 17 or more points on the Matrix; ships involved in a marine casualty that may have affected seaworthiness; USCG Captain of the Port (COTP) determines a vessel to be a potential hazard to the port or the environment; ships whose Recognized Organization

(classification society) has a detention ratio equal to or greater than 2%. Port entry may be restricted until the Coast Guard examines the vessel.

b. **Priority (P)II Vessel:** 7 to 16 points on the Matrix; outstanding requirements from a previous examination in this or another US port that require clearing; the vessel has not been examined within the past 12 months per column IV. Cargo operations or passenger embarkation/debarkation may only be restricted if the COTP determines that the vessel poses a safety or environmental risk to the port.

c. **Non-Priority Vessel (NPV):** 6 or fewer points on the Matrix. Vessel poses a low safety and environmental risk. The Coast Guard may select and examine vessel using the Port State Control random selection process.

If a vessel has scored either a PI or PII and has had a USCG PSC examination within the previous 6 months with no serious deficiencies, the USCG Captain of the Port (COTP) may downgrade the vessel to NPV.

- Security Compliance Targeting Matrix (**Security Matrix**)

There are also 3 levels of control:

a. **ISPS I vessels:** Vessels that score 17 points or higher are ISPS I vessels examined at sea prior to entering port

b. **ISPS II vessels:** Vessels that score between 7-16 points are ISPS II vessels examined in port

c. **ISPS III vessels:** Vessels scoring fewer than 7 points are ISPS III vessels usually not subject to examination unless selected randomly

- Quality Shipping for the 21st Century (**QUALSHIP 21**) and E-Zero Programmes

QUALSHIP 21 is reward for companies, operators, and vessels demonstrating the highest commitment to quality and safety through the highest level of compliance with international standards and United States laws and regulations.

The E- Zero (Zero Environmental Deficiencies or Violations) programme was introduced in July 2017 as a new addition to the existing QUALSHIP 21 programme. The intent of E-Zero is to recognize those exemplary vessels that have consistently adhered to environmental compliance, while also demonstrating an immense commitment to environmental stewardship.

Measures to Harmonise PSC Activities and Procedures Worldwide

The seventh workshop for PSC MoU/Agreement Secretaries and Database Managers and Member States (PSCWS 7) was held at the IMO in London in 2017. The workshop agreed the following recommendations:

- To develop statistical output and to look into the compatibility of their systems
- To consider moving away from black/grey/white lists towards expanding an individual ship risk profile approach
- To develop and maintain, in their information systems, a coordinated list of underperforming ships
- To develop a common platform for interregional exchange to facilitate informal exchange among PSC regimes, as well as the development of joint working policies
- The IMO to consider developing a harmonised training manual for use by flag State inspectors and PSCOs.

Taking into account the recommendations of the Seventh IMO Workshop for PSC MoU/Agreement Secretaries and Database Managers, a new work programme to develop a voluntary training manual for new PSC personnel is expected to be submitted to MEPC 75 and MSC 102 in 2020 for approval.

The eighth workshop for PSC MoU/Agreement Secretaries and Database Managers and Member (PSCWS 8) is planned to take place in the second half of 2020, with the following possible items to be discussed:

- in-depth analysis of annual PSC reports
- duplication of inspection information in a port of a State that is a member of more than one PSC regime on the Equasis information system and existing data sharing agreements
- possible harmonisation of Review Procedures in case of detention
- possible harmonisation of Ship Risk Profile, Targeting Factors for PSC and RO Responsibility
- assessment of merits and disadvantages of the use of body cameras during PSC inspections, both by PSCOs and ship crew.

Concentrated Inspection Campaigns (CIC)

Each year, the major PSC regions carry out a Concentrated Inspection Campaign (CIC) on an agreed topic.

During the CIC, PSC will focus on particular equipment or documentation on board, in addition to carrying out a routine PSC inspection. The work is normally conducted using a checklist, which is prepared on a regional basis.

Each CIC normally lasts for three months in all countries of the region, and during the last few years, the main PSC regions have agreed to carry out each CIC simultaneously.

Table 10.4 lists the CICs of regional MoU regimes in the years 2017 to 2019.

MoU	Concentrated inspection campaign over the last three years		
	2017	2018	2019
Abuja MoU	Same as Paris MoU	CIC on Life-saving appliances (SOLAS Ch. I & Ch. III)	Same as Paris MoU
Black Sea MoU	Same as Paris MoU	Same as Paris MoU	
Caribbean MoU	Life-saving appliances and arrangements	No Concentrated Inspection Campaign for 2018	Same as Paris MoU
Indian Ocean MoU	Same as Paris MoU	Same as Paris MoU	Same as Paris MoU
Mediterranean MoU	Same as Paris MoU	–	Same as Paris MoU
Paris MoU	Safety of navigation and compliance with SOLAS Chapter V, ECDIS in particular	MARPOL Annex VI, prevention of air pollution from ships	CIC on Emergency Systems and Procedures
Riyadh MoU	Pilot transfer arrangement	Propulsion & Auxiliary Machinery	Same as Paris MoU
Tokyo MoU	Same as Paris MoU	Same as Paris MoU	Same as Paris MoU
Viña del Mar Agreement	Same as Paris MoU	Safety of auxiliary machinery and related systems	Same as Paris MoU

Table 10.4: Concentrated Inspection Campaigns, 2017 to 2019

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11. INTERCARGO Reporting Schemes

To help INTERCARGO benchmark and build an accurate picture of problems experienced in ports globally, Masters of bulk carriers are invited to share their experiences by completing the INTERCARGO Reporting Forms of 'Ship-Terminal Interface Experiences and Problems' and 'Safe Loading/Unloading at Anchorage' (available online at https://www.intercargo.org/members-reporting-surveys/), along with benchmarking crew injury frequency rates and lost time incidents

COMPANY SPECIFIC REQUIREMENTS: We encourage companies to bring the Forms to the attention of their Masters. Companies may add their own requirements for copying, filing or other record keeping here as a method of incorporating the Forms into their company procedures.

Information supplied will be treated in the strictest confidence.

Bulk Carrier Terminal Reporting: Ship-Terminal Interface Experiences and Problems

All reports received from bulk carrier Masters are regularly added to the INTERCARGO database. The database has entries from 592 ports in more than 100 regions/countries, recording issues encountered by bulk carriers during the ship-terminal interface. Most of the reports came directly from the Masters of INTERCARGO members' fleets. The database highlights the following common problems experienced by bulk carriers:

- Inadequate port reception facilities
- Cargo shortage
- Ports and corruption behaviour of authority officials
- Crew shore access
- Depth of berth
- Length of berth
- Loading/unloading
- Mooring

In addition to the port entries, the database also records various national and regional requirements affecting import/export, voyage planning, berthing, and loading/unloading operations.

Analysis and summaries will be circulated periodically to INTERCARGO members for reference, as well as given in INTERCARGO meetings and published on the INTERCARGO website.

Both INTERCARGO members and non-members are encouraged to complete this Form "Terminal Report v.6:24.May.2018", so that we have sufficient feedback to help influence regulatory issues, such as Port State Control and Port Reception Facilities.

'Port Alice', Pacific Basin Shipping (HK), Ltd.

INTERCARGO Bulk Carrier Reporting Form (I)

Ship-Terminal Interface Experiences and Problems

(v.6 : 24.May.2018)

Masters of Bulk Carriers are invited to share their experiences by completing this Form. Information supplied will be treated confidentially.

COMPANY SPECIFIC REQUIREMENTS: We encourage companies to bring this Form to the attention of their Masters. You are also encouraged to provide feedback to us from your offices ashore.

1. GENERAL INFORMATION (strictly confidential)

Name of Port/Terminal .....

Ship Name/IMO Number .....

Date of Port Call .....

Loading, discharging or both? .....

Cargo (Bulk Cargo Shipping Name) .....

2. TERMINAL OPERATIONS

1. Damage to ship? – No/Yes
2. Excessive loading rate? – No/Yes
3. Limitation imposed by the Terminal on deballast/ballast operations? – No/Yes

3. CARGO DECLARATION (Especially for Cargoes Hazardous in Bulk)

1. Does Shipper's Declaration indicate correct Bulk Cargo Shipping Name? – No/Yes
2. Is the Cargo declared Harmful to the Marine Environment (HME)? – No/Yes

4. RECEPTION FACILITIES

1. Reception facilities available for HME cargo residues (dry)? – No/Yes
   - Reception facilities available for non-HME cargo residues (dry)? – No/Yes
2. Reception facilities available for hold washing water with HME substances? – No/Yes
   - Reception facilities available for hold washing water without HME substances? – No/Yes
3. Inadequate or excessively expensive? – No/Yes

5. PORT STATE CONTROL

1. Port State Control problem? – No/Yes
2. Other (BWM, MLC, ECA) problems? – No/Yes

Details if yes: .....

6. ANY OTHER PROBLEMS?

1. Does water sediment at the Terminal affect operation of the ballast water treatment system (BWTS)? – No/Yes
2. Problems with mooring facilities, bunkering, vetting, pilot facilities, shore access, storing restrictions, shorter length of quay vs length of ship, etc.? – No/Yes
3. Are there any navigation limitations from the anchorage to the Terminal? – No/Yes
4. What are the water depth, current and wave conditions at the anchorage? – No/Yes

Details if yes: .....

PLEASE RETURN FORM TO : info@intercargo.org

International Association of Dry Cargo Shipowners (INTERCARGO)
Address: 4th Floor, 123 Minories, London, UK EC3N 1NT

INTERCARGO Safe Loading/Unloading at Anchorage

This INTERCARGO project was introduced in 2018 through the "INTERCARGO Bulk Carrier Reporting Form (II) - Safe Loading/Unloading at Anchorage" reporting scheme in response to the increasing concerns of some members on issues related to safe loading/unloading at anchorage. The new reporting project will follow the successful model of the existing reporting scheme of "Ship-Terminal Interface Experiences and Problems".

This INTERCARGO project aims are:

- Collecting feedback directly from Masters of bulk carriers of INTERCARGO members
- Experiences and lessons learnt will help raise awareness of all members and implement new company safety procedures on board those bulk carries involved in loading/unloading at anchorage
- Common issues, concerns and problems, if relevant, may be brought up by INTERCARGO Secretariat with national Administration and/or local port safety Authorities to implement or remedy safety measures.

Experiences shared among INTERCARGO members:

- Double Banking with barges is common in many global ports. Water pressure keeps the two ships separated – especially when current is present, such as in NOLA. NOLA barges frequently do not have fendering nor is it required.
- Not enough equipment for the operation and the amount of "Fendering" to minimise hull damages during landing of approaching vessel. Safety during ship to ship cargo transfer (STS) is critical, Masters need experience, and it is useful to have fendering and tug assistance. Companies need to vet operation to be done, including weather conditions, etc. Risk is a bit higher than say in port, but not significant.
- Pollution and hull damage risk is high.
- Adequate/suitable ladders are typically not carried on board.
- Discussion is made between the Master and the Foreman, not the Masters of two working vessels, and likely short of proper planning of the operation. Adjoining ships come and go.
- Environmental issues – difficult to deal with the rejected cargoes or presence of water in the barge. This is common in Southeast Asia, especially areas such as Indonesia and the Southern Philippines where rains are common.
- Standard of cleaning of holds should be higher than normal stevedoring standards for residue removal; ships are faced with no facilities to take washwater; actual hours spending on cleaning are likely higher.
- Since issues that arise from STS in the bulk carrier sector are less commonplace, bulk carriers that perform STS are less familiar/less well scrutinised in the way tanker lightering companies are.

The INTERCARGO "Safe Loading and Unloading at Anchorage" database records the first-hand experience of the Masters of Members' fleets. Version 2.1 of the database contains feedback on 78 anchorage areas in 31 countries/regions.

INTERCARGO Bulk Carrier Reporting Form (II)

Safe Loading/Unloading at Anchorage

(v.1.1, 10 Sept 2018)

MASTERS OF BULK CARRIERS are invited to share their experiences by completing this form. Information supplied will be treated confidentially.

1. GENERAL INFORMATION (strictly confidential)

Name of Port/position of anchorage .....

Ship Name/IMO Number .....

Date at anchorage .....

Loading, or unloading or both? .....

Cargo (Bulk Cargo Shipping Name) .....

Least Depth of Water below Keel ..... (meters)

2. CARGO OPERATIONS (at anchorage)

1. Is the agreed Loading/Unloading Plan followed (SOLAS reg. VI/7.3)? **Yes/No and Comments**
2. Is there double banking with barge or floating loading/unloading unit?
   Barges: **No/Yes;** floating unit: **No/Yes and Comments**
3. Sufficient and adequate "fendering" to minimise hull/paint damages? **Yes/No and Comments**
4. Any hull damages? **No/Yes and Comments**
5. Are there any concerns with loading/unloading equipment? **No/Yes and Comments**
6. Suitable weather condition for loading/unloading as per "WEATHER PRECAUTIONS" of relevant SCHEDULE with IMSBC Code? **Yes/No and Comments**
7. Problems with communication and information exchange with the barge/floating unit? **No/Yes and Comments**
8. Effective spillage prevention of cargo at sea (especially HME cargo)? **Yes/No and Comments**
9. Availability of tug support? **No/Yes**
10. Close proximity to other vessels and/or shore obstruction? **No/Yes and Comments**
11. Use of **(A)** one anchor or **(B)** two anchors or **(C)** ships mooring lines to floating buoys? **A/B/C**

3. SAFETY OF PERSONNEL (at anchorage)

1. Adequate/suitable personnel transfer ladders? **Yes/No and Comments**
2. Any security issues including unauthorised boarding? **No/Yes and Comments**

4. ANY OTHER PROBLEMS (at anchorage)

1. Problems with anchoring, shore access, mooring with barge or floating unit, etc.? **No/Yes**
2. Please send 2-3 photos showing general overview beneficial to understanding issues.
3. Detailed comments if any answering 1) as "yes".
   (please use scale 1-10 (10-highest) in relationship to scale for each issue/damage/or general comments)

PLEASE RETURN completed Form to: info@intercargo.org

- Please refer to IMO *Code of Practice for the Safe Loading and Unloading of Bulk Carriers* **(BLU Code)**.
- Please use second page if required to explain issues.

International Association of Dry Cargo Shipowners (INTERCARGO)
Address: 4th Floor, 123 Minories, London, UK EC3N 1NT

Benchmarking crew injury frequency and lost time

The project was introduced in 2018, aiming to assess industry averages for crew injury frequency and lost time and assist Members in benchmarking themselves.

Crew injury is one of the internal key performance indicators. This aspect is assessed by:

- Lost Time Injury Frequency (LTIF): LTIF is the number of Lost Time Injuries per unit exposure hours. The most common unit in respect of LTIF is one million man hours.
- Total Recordable Case Frequency (TRCF): TRCF is the number of Total Recordable Cases per unit exposure hours. The most common unit in respect of TRCF is 1 million man hours.

By filling and sending back the table below, members will be able to get an immediate result of the LTIF and TRCF of their fleet, together with a general average across INTERCARGO members.

Cases, dates from … to …	Number of cases	Notes
1. Million man hrs/exposure hrs:		The average total crew on whole fleet of bulk carriers;
2. Fatal accidents		On whole fleet of bulk carriers;
3. Repatriation cases due to injury		Ditto
4. Other lost time cases		Ditto
5. Medical Treatment Cases		Ditto, and the total number = “Medical Treatment Cases” + “Restricted Work Cases”
6. First aid cases		

Contact info@intercargo.org for further information.

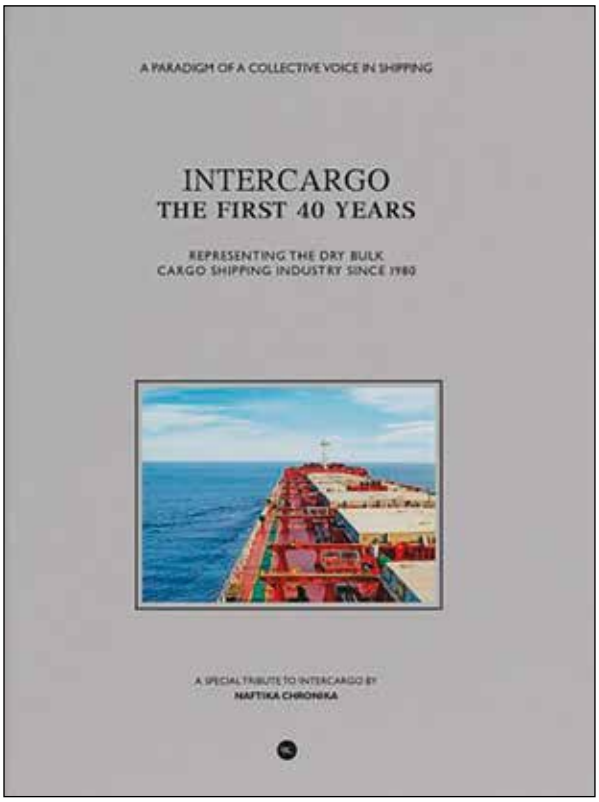
‘Nea Tyhi’, Fafalios Shipping SA

INTERCARGO The First 40 Years

INTERCARGO is celebrating its 40th anniversary in 2020!

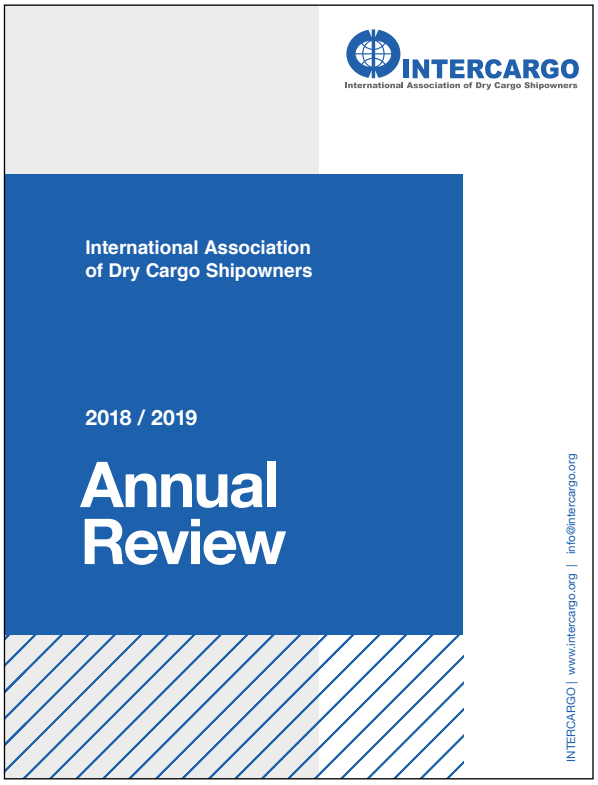
Free copies of this **special anniversary publication** will be distributed to all our Members during events within 2020.

For more information and online orders, please refer to https://www.intercargo.org/first-forty-years/



Annual Review 2018/2019

The Association's Membership has practically doubled over the last three years. INTERCARGO now represents at least 25% of the global dry bulk fleet, offering a Quality Badge widely recognised by the industry. We feel proud to claim that INTERCARGO's membership, although optional, is in practice a 'must' for any quality dry bulk shipping company. Therefore, the real question for a non-Member dry bulk shipping company to answer is, not why it should join our Association, but why it has not joined so far!



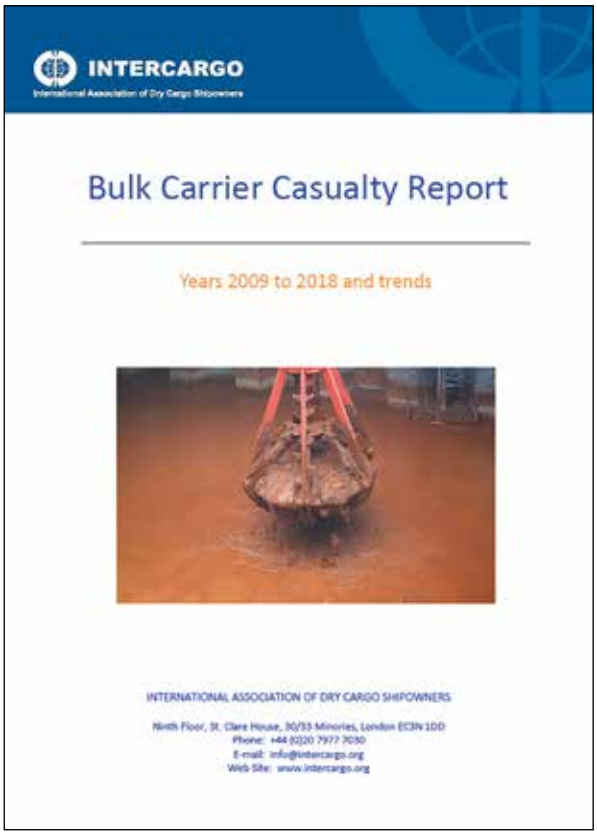
You are welcome to view INTERCARGO's Annual Review for 2018/2019 at this link (https://www.intercargo.org/annual-review-20182019/)

Bulk Carrier Casualty Report

This edition of the Bulk Carrier Casualty Report covers reported bulk carrier casualties from 2009 to 2018 and provides an analysis on **statistics and trends over the last 10 years**. Forty eight (48) bulk carriers over 10,000 dwt have been identified as total losses over this 10 year period. Cargo failure and liquefaction continue to be a major concern for dry bulk shipping. There were 9 casualties of suspected cargo failure among the 48, consisting of 6 bulk carriers carrying nickel ore from Indonesia, 2 vessels with laterite (clay) iron ore from India and 1 with bauxite from Malaysia, and there were 101 lives lost associated with those 9 casualties, against a total of 188 lives lost for all 48 casualties.

The INTERCARGO Bulk Carrier Report for 2018 can be viewed at the following link (https://www.intercargo.org/bulk-carrier-casualty-report-2018/)

INTERCARGO stresses the importance of timely submission of the casualty investigation reports to IMO from the relevant flag States, as a means of identifying the causes of the incidents and enabling corrective actions.



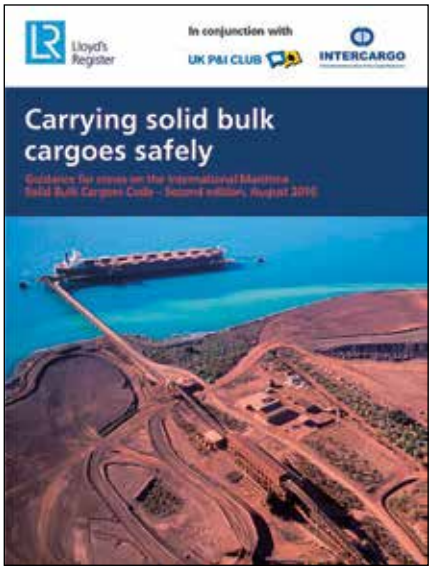
Carrying Solid Bulk Cargoes Safely

Guidance for crews on the International Maritime Solid Bulk Cargoes (IMSBC) Code

The main legislation governing safe carriage of solid bulk cargoes is the International Maritime Solid Bulk Cargoes (IMSBC) Code, which became mandatory on 1st January 2011, under the SOLAS Convention.

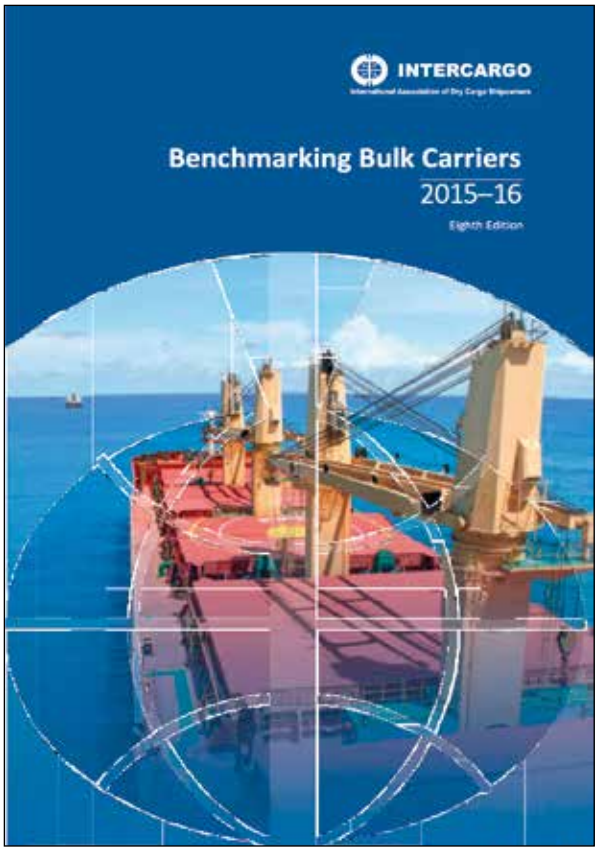
This pocket guide will help you understand the IMSBC Code's key requirements and give you greater confidence in managing the risks of carrying solid bulk cargoes and achieving compliance with SOLAS.

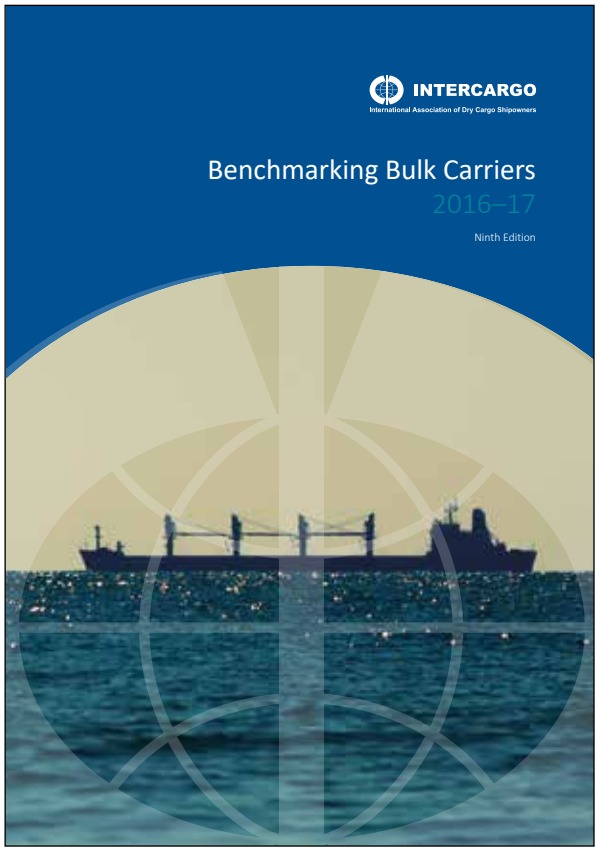
It outlines the precautions you should take before accepting cargoes for shipment and the procedures you should follow for safe loading and carriage, and details the primary hazards associated with the different types of solid bulk cargo.

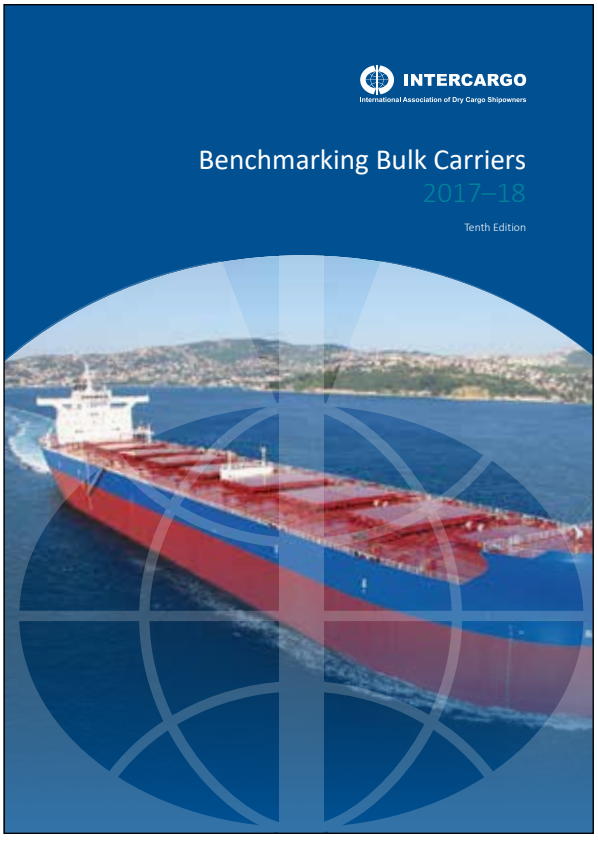


If you are interested in obtaining this pocket sized booklet, please contact INTERCARGO at info@intercargo.org.

Past Benchmarking Reports







For more information please refer to www.intercargo.org/about/benchmarking

Older Benchmarking Reports can be viewed at the following link (https://www.intercargo.org/bulk-carrier-benchmarking-reports/)

If you are interested in obtaining a copy of these reports, please contact INTERCARGO at info@intercargo.org or place an order with Witherby Publishing Group at www.witherbys.com

Acknowledgements

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Credit card orders should be addressed to Witherby Publishing Group – www.witherbys.com

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INTERCARGO is committed to safety and quality in ship operations with a focus on operational efficiency and the protection of the marine environment.

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