

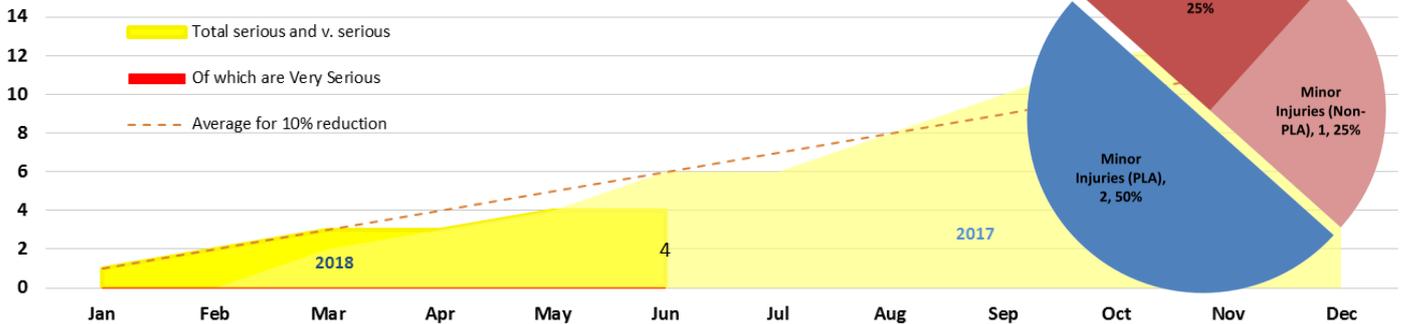


Quarterly report of the marine Safety Management System (SMS) performance and incident statistics Q2 2018

Serious and very serious incidents

There have been **4** serious incidents so far in 2018—which is **below** the trend line to achieve a **10% reduction** on last year

Cumulative Totals of Serious & Very Serious Incidents



Definitions

Minor: do not affect persons and/or have a negligible cost implication (<£5K)

Serious: may involve slight/significant injury to persons and/or have a moderate cost implication (<£500K)

Very Serious: reported to the Board, which involve serious injury or fatality and/or have a serious/major cost implication (>£500K)

- Our target is **12** or fewer Serious or Very Serious incidents over the course of the year to achieve a 10% reduction on 2017.
- **3** serious incidents occurred in Q1 and **1** occurred in Q2—two fewer than this time in 2017.

Commercial Shipping

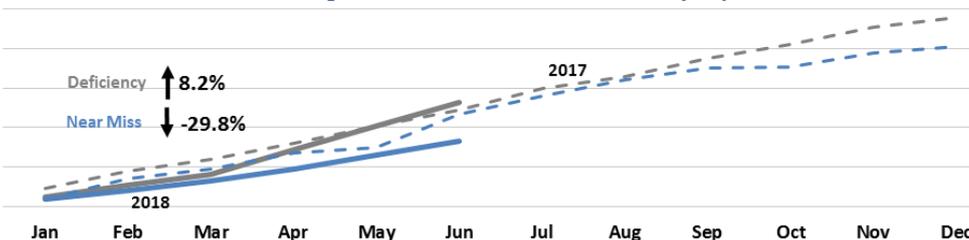
- POLARIS shipping movements are **up 1.7%** compared to this time last year.

Inland Waterways

- Passengers numbers are **down 9.3%** compared to this time last year.
- **Increase** in the number of vessel deficiencies.
- **Decrease** in Incidents and Near Misses
- Non-passenger vessel incidents continue to be higher than this time last year—currently **26% higher**, which may be indicative of the increase in project-related traffic in London.

- Near Miss reports are unfortunately **30% lower** than this time last year.
- Deficiency reports are up 8% - particularly in the Passenger Vessel category. However, Passenger Vessel incidents are lower, which suggests an improving reporting culture and reporting more minor instances to London VTS.
- There have been **19** Pilot Ladder non-compliance reports so far in 2018—4 more than this time last year.

Running Total of Near Miss and Deficiency Reports



Definitions

Incident: All incidents, including breakdowns which result in an incident or near miss occurring.

Deficiency: Breakdowns which did not lead to an incident or near miss. For Commercial Shipping, these are reported to the Maritime & Coastguard Agency (MCA) if they fail to comply with the requirements of international conventions (i.e. SOLAS, MARPOL, STCW)

Near Miss: An instance of a vessel or vessels narrowly avoiding an Incident.

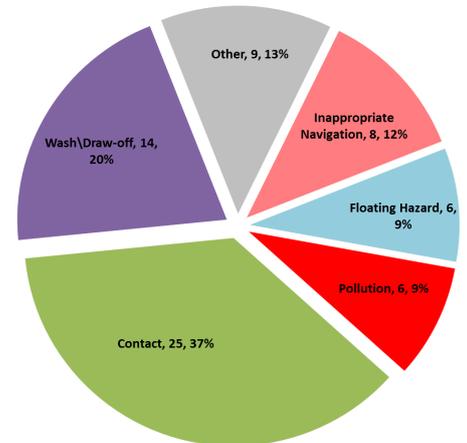
A closer look at the reports so far in 2018

There have been 95 incidents, 33 near misses and 53 deficiencies so far in 2018, and 3 injuries afloat - giving a total of **184** — **9 more** than this time last year which is up 20%

What incident types have shown an increase?

- There have been 95 incidents—
- ‘Contact’ remains the most common type of incident—at 37%. This is up from 16 in 2017 to 25 in 2018. However there has been no serious contact incidents. These are split evenly across Commercial Shipping and Inland Waterway vessel types.
- Floating Hazards have increased from 1 to 6—these are largely mooring breakouts occurring during bad weather at the start of the year (Inland Waterways).

Top 6 incident categories so far this year



What incident types have shown a decrease?

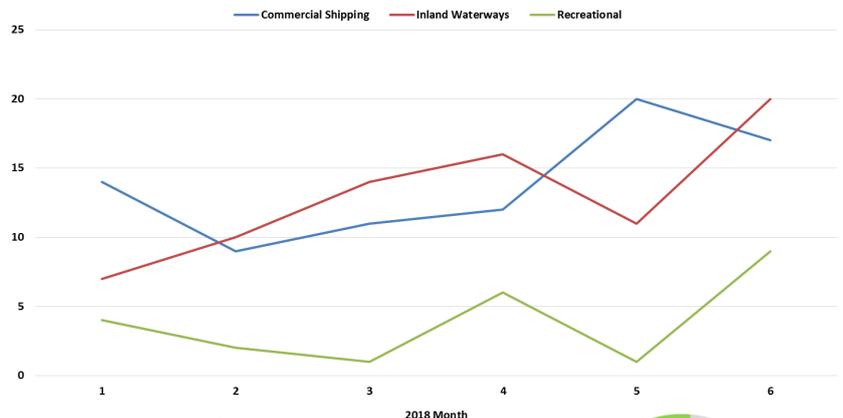
- There are less than half the number of breaches of regulation.
- Fewer groundings and collisions

Deficiency reports are up 8% and Near Miss reports are 30% lower.

See page 4 for further detail on Near Miss reports.

2018 reports by vessel type

- The graph on the right shows the number of reports per vessel type for each month.
- Reports have gradually increased throughout the year, particularly in Inland Waterways and Recreation, likely due to the seasons.
- Commercial Shipping saw fewer reports in the winter / spring months compared to last year.



Incident Investigation Performance

Minor Incidents

- Our target for completing minor incident investigations is 4 weeks.
 - ◊ We have achieved our target for **58%** of investigations to date in 2018, with this second quarter of the year being a marked improvement on the first - **70%** being within the target.

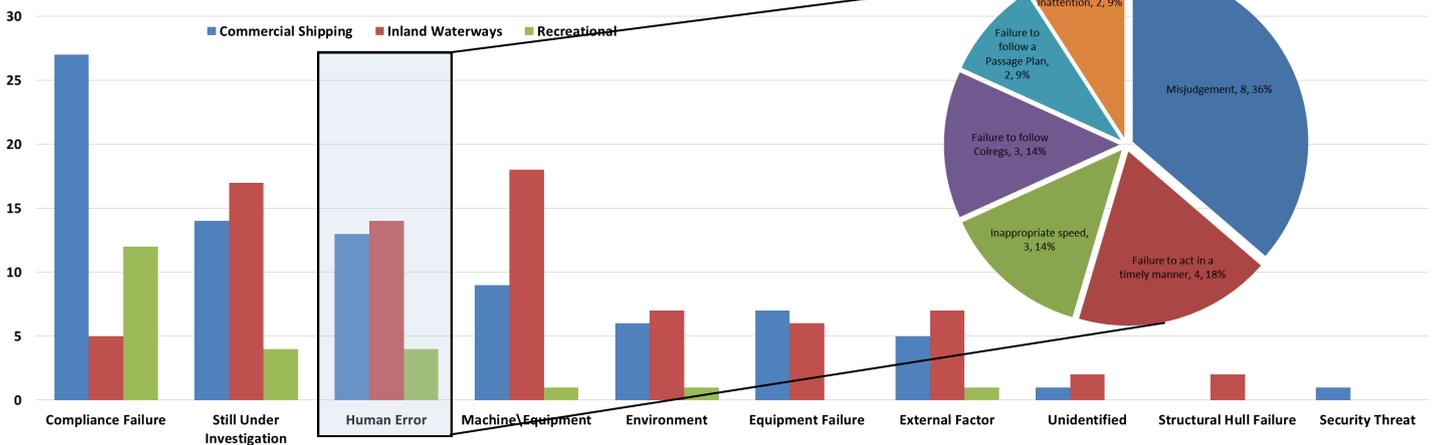
Incident Closeout KPI



Serious / Very Serious Incidents and Prosecutions

- We aim to complete the initial Harbour Master’s Investigation Report for serious or very serious incidents within 6 weeks and complete the actions from the investigation and close out the incident after 10 weeks. Where prosecutions are involved, we also aim to pass the appropriate documentation to our legal team within 10 weeks of the incident.
- 2 out of the 4 serious incidents in 2018 have missed the 10-week closeout target, however all serious incidents have been closed.

Causal analysis — All occurrences in 2018

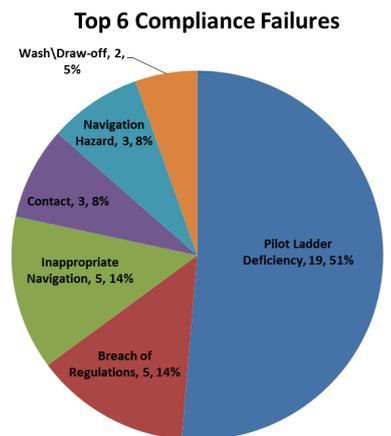


Human Error

- The cause of **17%** of all occurrences so far this year are labelled as Human Error—this proportion is **down 12%** compared to this time in 2017.
- Inland Waterways vessels account for **45%** and Commercial Shipping accounts for **42%** of all Human Error occurrences.
- The top Causal Factors within Human Error are misjudgement and failure to act in a timely manner which have mainly resulted in Contacts and Near Misses during berthing operations.

Compliance Failure

- **24%** of all occurrences are identified as Compliance Failure, which are failures of a Company’s, Ship’s or Club’s procedures or Safety Management System. This is showing an increasing trend, however remains a lower proportion than last year—**down 26%**
- Commercial Shipping accounts for the biggest proportion of Compliance Failures—**61%** of them. This is due to Port State Deficiencies, Pilot Ladder Deficiencies, etc. being categorised under this Causal Factor.
- The number of reported Pilot Ladder Deficiencies is up by **27%**.



Causal factors showing an increasing trend

- A number of incidents in 2018 have been caused by mooring arrangements – either the mooring being in poor condition or of an inadequate arrangement leading to breakouts and in some cases damage. The weather at the start of the year was also a contributing factor here.
- Machinery or equipment failures are also up slightly, largely within Inland Waterways, which range from fouled propellers, overheating, fuel blockages or starvation and shaft failures. Commercial Shipping has seen a decrease in breakdowns compared to 2017.

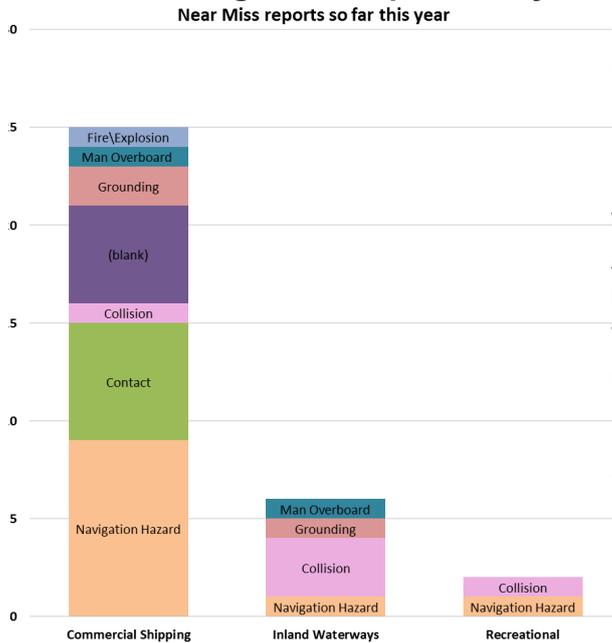
Breakdowns

- As part of Maritime Safety Week, we will be launching a campaign comprising four simple animations around a core message of what to look out for to ensure vessels are in the best condition possible before taking to the Thames.
 - ◇ 40% of Inland Waterways breakdowns are caused by debris in the water – mainly ropes. ‘bin it’,
 - ◇ 18% are caused by electrical faults (wiring and switch faults). ‘check it’,
 - ◇ 10% by overheating (largely failed water pumps) ‘cool it’, and
 - ◇ 8% by fuel problems (for example blocked filters and contamination) ‘clean it’.



Don't dismiss a near miss!

Reporting a near miss today may avoid an incident tomorrow. Report anything you consider dangerous or potentially dangerous



- Near Miss reports are down 30% compared to last year.
- The 'Navigation Hazard' category has the most Near Misses, largely lying within Commercial Shipping, which have been parted mooring lines, lack of mooring gangs or boatmen, and obstructed berthing manoeuvres.

Why report a near miss?

All reports are vital to bringing a problem to the attention of the Harbourmasters. Even small or insignificant problems may indicate a wider safety failing.

- Inform London VTS on the appropriate Port Working Frequency.
- On the [PLA Website](#). Click 'Contact Us' and complete a report.
- Via the PLA App



The following case studies are great examples of reports made by river users which has lead to positive action taken by the Harbourmasters to remedy.

Summer Rush at St Kat's

A fleet of Sunseeker motor cruisers were inbound for St Katherine's Dock from Ramsgate. On their arrival the lock was closed and the vessels had to wait. With no AIS and no radar coverage of the area VTS were unaware of their positions.

A near miss report was received from an inbound Thames Clipper stating the motor yachts were spread across the channel and impeding navigation. The Upper Pool can be a busy area of the river, particularly due to the dock's proximity to the adjacent St Katherine's Pier, No.1 arch of Tower Bridge and regular through traffic of passenger vessels and Reporting Vessels which can be restricted in their ability to manoeuvre.

Action

- As a result of this near miss report the Harbourmasters have worked with the management team at St Katherine's Marina to introduce new procedures.
- Now when St Katherine's receive bookings of 8 or more vessels, London VTS will be notified so they can inform and our Harbour Service Launch can be dispatched to ensure vessels are waiting in appropriate positions and conduct local traffic control if required.

Sparks Fly

During the inbound passage of a containership under pilotage, sparks from the ship's funnel caused ignition to a canvas covered pallet of spares stored on the deck. The cause was the ship's spark / flame arrester being damaged. (The function of the spark arrester is to limit the un-burnt carbon in the exhaust)

The alarm was raised and the ship's crew put the fire out quickly with no casualties or damage to vessel. The vessel then proceeded inbound without further issue.

There have been many bad fires on ships that usually start from something small but due to the nature of a vessel and the hazardous environment it has in the past destroyed whole vessels.

Actions

- The Harbourmaster recommended the vessel reviews general housekeeping procedures and hazard identification. The vessel has since confirmed that new arrangements are now in place to store combustible items away from the spark zone aft of the accommodation.

The port-wide risk assessment and hazard reviews



The top 5 hazards in the Port-wide Risk Database

1. Contact - Standard Vessel During Transit (Middle District)
2. Swamping—Below Gravesend (Lower District)
3. Collision - Vessel at High Speed (Middle District)
4. Collision—Princes Channel (Estuary)
5. Collision—Passenger Vessel (Middle District)

An overview of our Hazard Reviews in Q2 2018

A number of hazards relating to Ultra-Large Containerships have undergone review, due to traffic levels expected to increase within the next 12 months and changes to mooring arrangements at some berths.

Contact—Standard Vessel whilst Manoeuvring / whilst Manoeuvring at Inner Berths have undergone a detailed review following some infrastructure changes to berths and contact incidents whilst berthing / departing.

Collision - Pilot Boarding/Landing Areas has been reviewed, to consider potential changes to secondary estuary routes and reports of near misses involving pleasure vessels near the Princes Outer Buoy.

A number of contact hazards in central London have been reviewed, and consider the increased activity around Tideway Tunnel berths and increasing enforcement action around River Works Licences.

Additionally, *Contact—Thames Barrier* has been reviewed to consider developments made to a dedicated Risk Assessment for large cruise ship transits which is under regular review.

Our port-wide risk assessment

The Port Marine Safety Code requires that all ports must base their management of marine operations (i.e. their powers, policies, plans and procedures) on a formal assessment of the hazards and risks to navigation within the port. Furthermore, port authorities must maintain a formal Safety Management System (SMS) developed from that risk assessment.

Our risk assessment is split into 4 'registers':

- Upper (Teddington to Putney)
- Middle (Putney to Dagenham)
- Lower (Dagenham to Sea Reach 1)
- Estuary (Sea Reach 1 to Outer Limits)

so that river topography, traffic and local conditions can be taken into account when assessing risks.

Enforcement

A summary of the enforcement carried out this quarter, which can be from education and advice, to informal verbal warnings and formal written warnings, through to action in the Courts.

- Various educational discussions have been given by our Marine River Inspectors to river users on a variety of subjects including how to conduct effective passage planning, and the dangers of excessive speed and wash.
- A number of educational letters have been sent regarding the importance of taking early action to avoid a collision (Colregs—Rule 8), maintaining a listening watch on the appropriate VHF channel (PLA General Direction 4), the importance of Agents arranging boatmen for vessel arrival, and the PLA's requirements for Stand-up Paddleboarding.
- One person has been subject to internal disciplinary action from their company for failing to follow proper bunkering procedures.
- **2** Harbourmaster Warnings have been issued in regards to:
 1. Failing to display adequate navigation lights and navigating through a closed bridge arch (S.108 of the PLA Act)
 2. Navigating on incorrect side of fairway (COLREGs—Rule 9) without due care and attention (S.108 of the PLA Act) & failing to keep a listening watch on the appropriate VHF channel (PLA General Direction 4).
- A Harbourmaster's Warning was also issued by a Marine River Inspector on navigating on the incorrect side of fairway (COLREGs—Rule 9) and for navigating without due care and attention (S.108 of the PL Act).

To view our previous prosecutions, visit: <https://www.pla.co.uk/Safety/Regulations-and-Guidance/Enforcement-Action>