



Port Marine Safety Code-2022 Annual Performance Review

Forth and Dundee Ports Authorities

Introduction

The Forth and Dundee Port Authorities aim to undertake and regulate marine operations so as to safeguard the harbours, rivers, river users, the public and the environment. Forth Ports comply with the requirements of the Port Marine Safety Code when carrying out all marine operations as confirmed by the annual audit conducted by our independent Designated Person. Our compliance to the Port Marine Safety Code was confirmed to the Maritime and Coastguard Agency and is next due in March 2024.

The Annual Performance Review is prepared in order that the Forth and Tay Port Authorities can report on the performance of the Authorities to the Board of Forth Ports Limited as required by the Port Marine Safety Code. This report is a summary of the activities over the year and is prepared in addition to the annual report that the Designated Person presents to the Board. The review will report on the main activities of the marine operations under the following headings:

1. Vessel Activity Report
2. Forth and Tay Navigation Service
3. Pilotage
4. Conservancy
5. Towage
6. Marine Reports
7. PMSC Meetings
8. PMSC Audit and statement of compliance
9. Pollution Report
10. Review of Marine Safety Plan
11. Summary

1. Vessel Activity Report

During 2022 there were 2,013 vessel calls to the Forth and 245 vessel calls to the Tay consisting of a range of size and type of vessels from coasters to tankers, including VLCC's, gas carriers, container vessels, general cargo vessels, ferries, cruise liners, naval vessels, oil rigs and North Sea support craft.

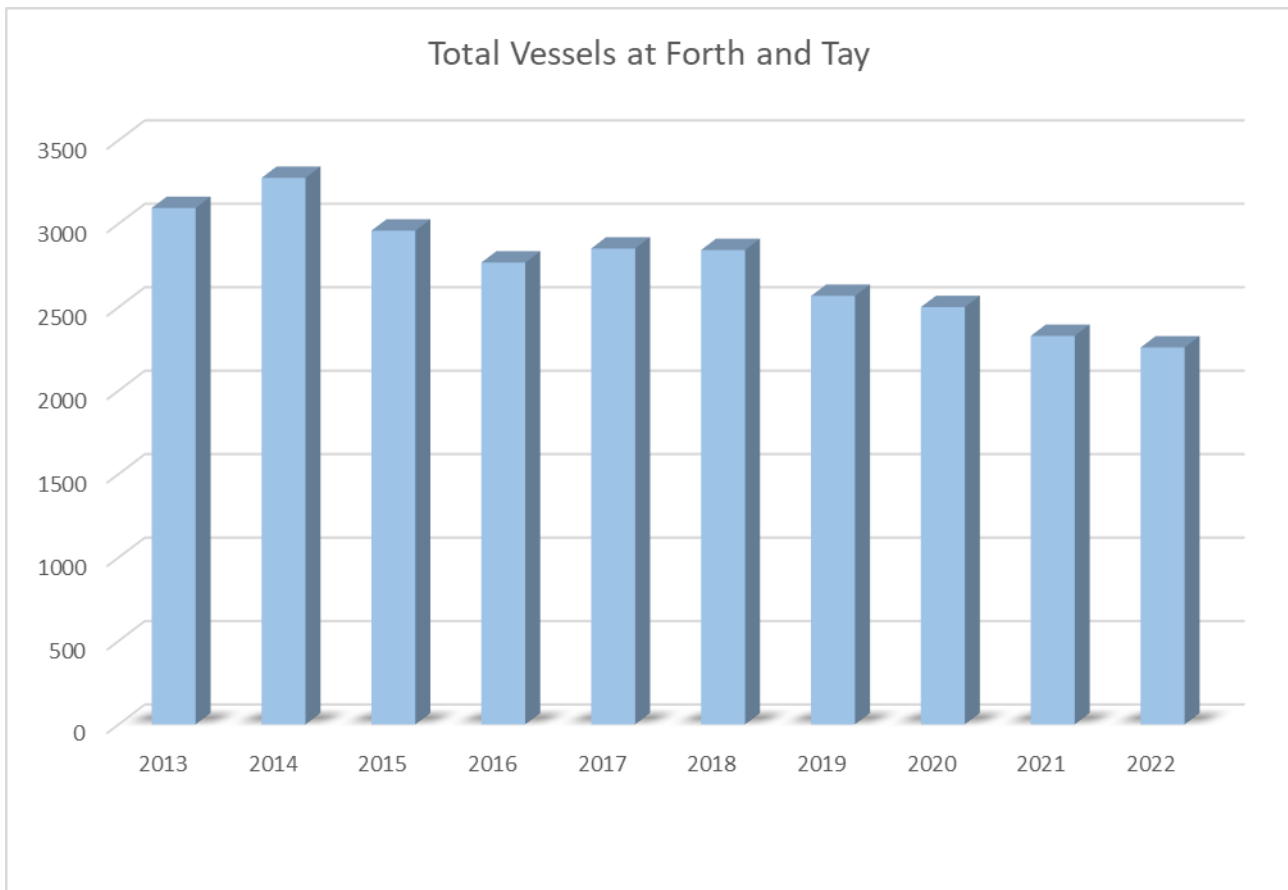
Vessels calling at the Forth were destined for a number of locations including Grangemouth, Leith, Rosyth, Hound Point, Braefoot Bay, Methil, Burntisland, Kirkcaldy and Inverkeithing. Vessels handled on the River Tay were destined for either Dundee or Perth. The table below records the number of vessel calls per location together with a comparison for the previous 10 years.

The number of semi-submersible rigs on the Forth for cold stacking (long term layup) was one.

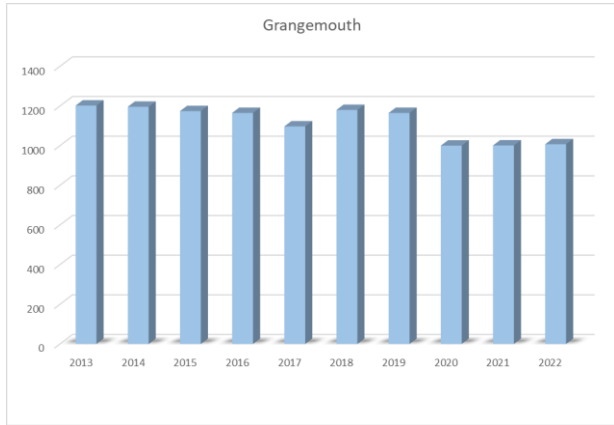
Vessel Sailings Per Port 2013-2022

| Number of Voyages | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | Variance 20-21 | % |
|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|----------------|------------|
| BABCOCK | 86 | 118 | 91 | 36 | 49 | 38 | 30 | 45 | 41 | 30 | -11 | -27% |
| BRAEFOOT | 199 | 216 | 242 | 286 | 270 | 284 | 194 | 217 | 141 | 158 | 17 | 12% |
| BURNTISLAND | 45 | 56 | 39 | 41 | 72 | 67 | 38 | 50 | 80 | 36 | -44 | -55% |
| CONSERVANCY* | 113 | 144 | 107 | 102 | 130 | 169 | 64 | 148 | 137 | 160 | 23 | 17% |
| CROMBIE | 15 | 10 | 10 | 0 | 2 | 5 | 11 | 10 | 13 | 11 | -2 | -15% |
| DUNDEE | 339 | 408 | 286 | 231 | 338 | 373 | 310 | 276 | 296 | 245 | -51 | -17% |
| GRANGEMOUTH | 1202 | 1196 | 1174 | 1165 | 1097 | 1180 | 1165 | 1000 | 1001 | 1007 | 6 | 1% |
| HOUND POINT | 150 | 136 | 124 | 111 | 89 | 78 | 76 | 87 | 54 | 108 | 54 | 100% |
| INVERKEITHING | 67 | 69 | 104 | 82 | 64 | 61 | 57 | 48 | 62 | 48 | -14 | -23% |
| KIRKCALDY | 35 | 48 | 45 | 45 | 43 | 41 | 42 | 45 | 41 | 43 | 2 | 5% |
| LEITH | 456 | 481 | 415 | 356 | 347 | 345 | 360 | 444 | 295 | 222 | -73 | -25% |
| METHIL | 43 | 63 | 34 | 34 | 36 | 33 | 34 | 17 | 30 | 19 | -19 | -37% |
| METHIL ENERGY PARK | 25 | 22 | 6 | 2 | 38 | 18 | 20 | 8 | 12 | 2 | -10 | -83% |
| NEWHAVEN | 0 | 0 | 0 | 0 | 0 | 0 | 30 | 0 | 8 | 35 | 27 | 100% |
| PERTH | 48 | 52 | 55 | 27 | 20 | 14 | 22 | 17 | 8 | 5 | -3 | -38% |
| ROSYTH | 271 | 255 | 226 | 249 | 256 | 136 | 92 | 88 | 108 | 112 | 4 | 4% |
| SOUTH QUEENSFERRY | 0 | 0 | 0 | 0 | 0 | 0 | 22 | 0 | 0 | 17 | 17 | 100% |
| Terminal | 3094 | 3274 | 2958 | 2767 | 2851 | 2842 | 2567 | 2500 | 2327 | 2258 | -69 | -3% |

There was a slight decrease in the number of vessels handled during 2022. Dundee, Burntisland and Leith saw decreased vessel numbers offset by return of Cruise with over 100 vessels.

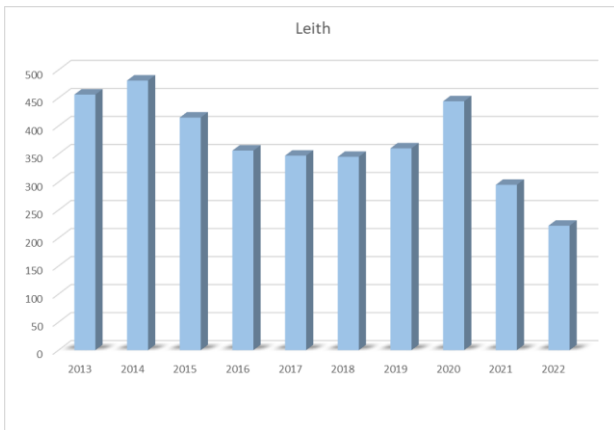


The following graphs provide a trend for vessel movements on a port-by-port basis:

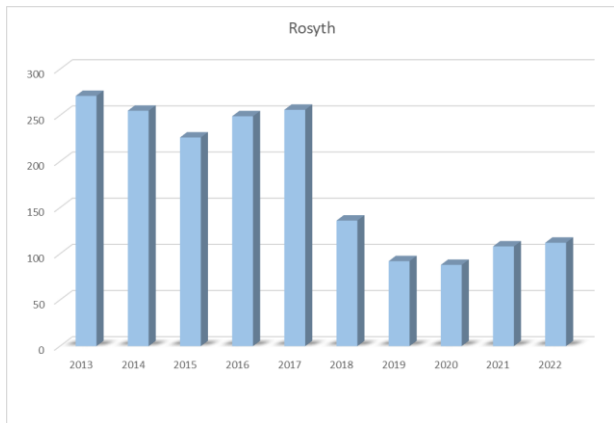


Main Ports

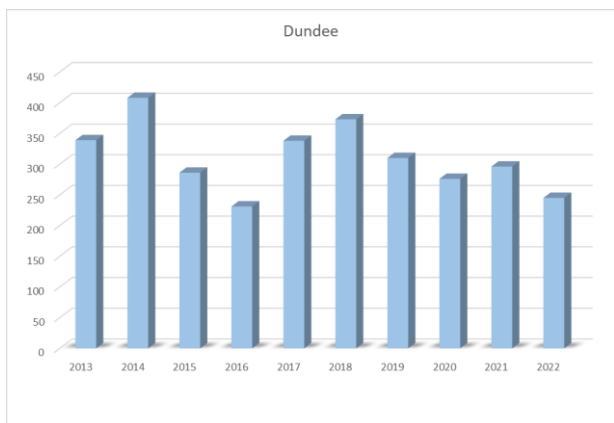
Grangemouth has remained steady over the last 3 years



Traffic in Leith continued to decline in 2022



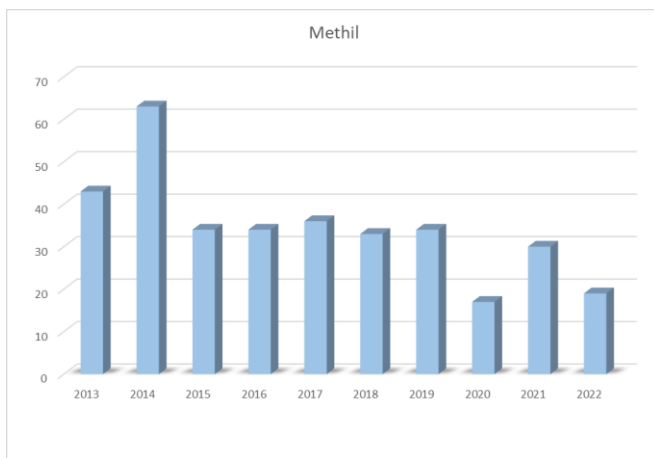
Rosyth traffic continues to increase following the loss of the ferry service and COVID.



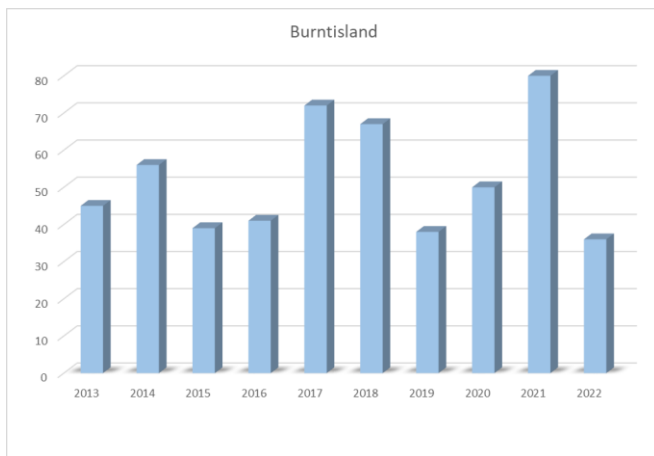
Dundee vessels decline again.

Fife Ports

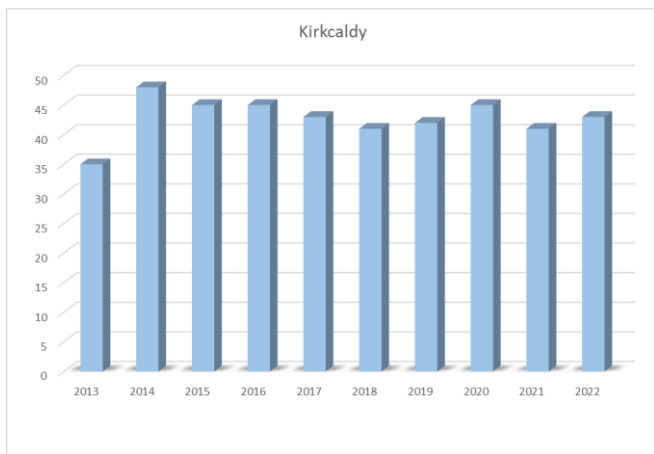
The smaller Fife ports account for around 7% of the total traffic on the river.



Methil numbers drop off again in 2022.

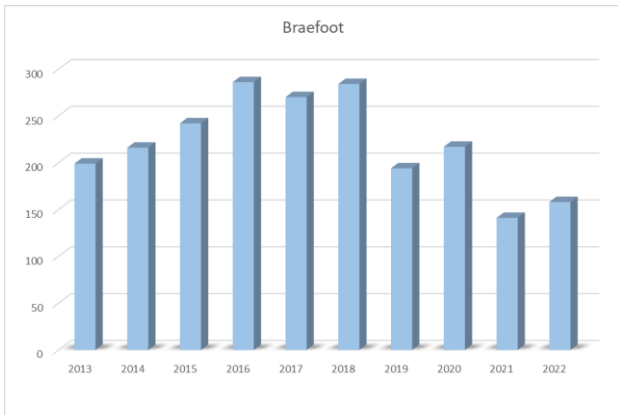


Burntisland decreased as Briggs activity decreased

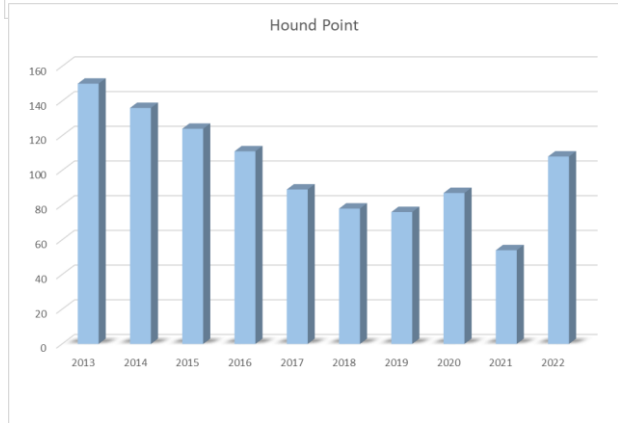


Kirkcaldy continues to be steady, larger vessels anticipated for 2023

Terminals

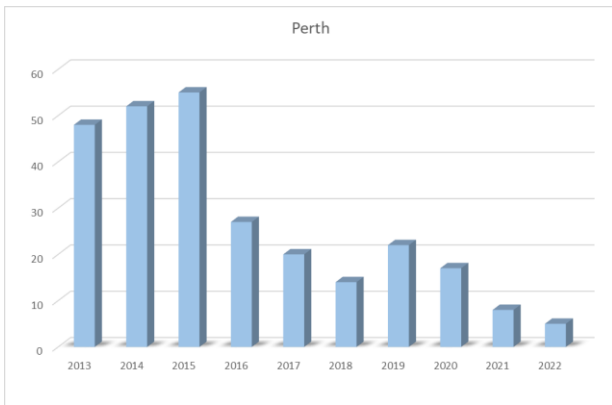


Braefoot increased on 2021 but still behind where it was mainly due to reduced Exxon tonnage.

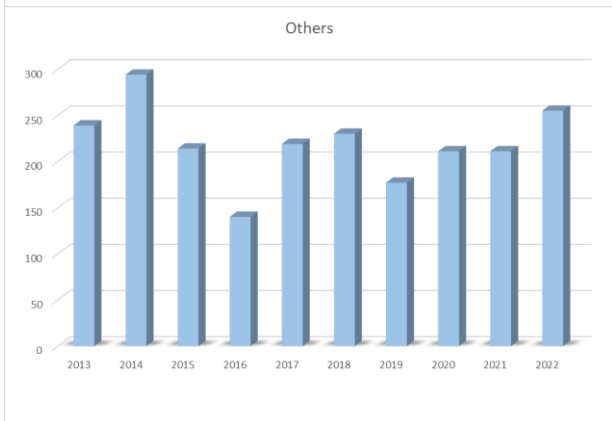


Hound Point traffic doubled in 2022 due to return to Aframax size vessels

Others and Perth



Perth decline continues, only 5 vessels in 2022



This includes anchorages and Babcock and Methil Energy Park. Numbers increased, mainly due to Cruise.

2. Forth and Tay Navigation Service (FTNS)

The marine team has continued to conduct internal audits on all elements of the marine operations on both rivers from pilotage, towage, FTNS, boatmen etc. No significant issues were identified. Where observations for improvement were made an action plan was instigated and all items were re-audited and closed out.

The Marine Management Team meet weekly to discuss marine issues, with one of these weekly meetings each month being focused on marine issues, incidents, progressing action points and a general review of the Forth Ports Marine Safety Management System.

The UK Harbour Masters Association (UKHMA) and Ports Skills and Safety (PSS) have developed an MCA endorsed Harbour Master Certificate. This is administered through Port Training Ltd. All but one of the Harbour Masters in the Marine Management Team have been awarded this certificate.

FTNS is manned 24/7 to provide a VTS service for both the Forth and the Tay, as such they plan, schedule and oversee all vessel movements. FTNS is manned by Assistant Harbour Masters who are all either Class 1 Master Mariners or have obtained Harbour Master certification and VTS Operators who all hold the MCA V103 certificate.

To carry out its function of regulating and scheduling vessel movements, together with safeguarding vessels, personnel and the environment FTNS have at their disposal a range of state of the art equipment. This includes Kongsberg radar and tracking systems, VHF coverage, Automatic Identification System (AIS), CCTV and meteorological and tide monitoring equipment. The radar, AIS and VHF coverage not only allows for real time information to be provided to FTNS but also provides redundancy cover in the event of a malfunction of any of the systems, all of which enhances the safety of navigation on the river. VHF transmissions of all the main marine VHF channels operated in both rivers are recorded together with telephone conversations in the Operations Room and the Marine Emergency Centre. CCTV at the entrances to the four main ports is also recorded along with a radar picture playback facility.

Regular meetings are held with all stakeholders throughout the year, from Pilots and berth operators to leisure users on the Forth and Tay.

Forth Ports continues to engage with organisations, which have an interest in marine issues, and has continued to conduct presentations to such bodies. Presentations have been made to local authorities, yacht clubs and environmental bodies.

Notices to Mariners are issued when required to promulgate information to interested parties. These notices are e-mailed direct to an established list of known river users, in addition the Notice to Mariners which are in force are displayed on the Forth Ports website.

Meteorological and tidal data for both the Forth and the Tay is available on the Forth Ports website.

3. Pilotage

Forth Pilotage

The number of Authorised Pilots on the Forth at the end of the year was 23 of which 21 were Senior 1st Class Pilots and the remaining being junior 1st Class pilots. Pilotage services are provided to vessels utilising 3 pilot vessels, operating out of Granton.

Training refresher courses for senior pilots were suspended due to Covid 19 restrictions, but returned in 2022. The Association of Forth Pilots is accredited by Lloyds for the ISPO (International Standard for Maritime Pilot Organisation) certification. This provides a safety management system specific to pilotage operations which supplements Forth Ports PMSC safety management system.

The Port Authority, Pilots and tug operators met formally on a regular basis to ensure the highest levels of safety are maintained, full minutes of these meetings are kept.

Pilotage Management Committee (PMC) – Chief Harbour Master, Marine Manager, and three Senior 1st Class Pilots met 6 times to discuss operational matters.

There were 4,012 acts of pilotage carried out on the Forth during 2022 compared with 4,641 in 2021, a decrease of 14%. The average number of pilotage acts carried out per pilot was 174 compared to 185 for 2021.

A formal procedure is in place to ensure pilots maintain their expertise, this includes not only an Authorisation re-validation process but also an annual review of the number of individual pilotage acts completed at each location, training, incidents and overall performance.

3.2 Forth Pilotage Exemption Certificates (PEC's)

There were no valid PEC's on the Forth at the end of the year.

There were no vessel movements carried out during 2022 under the authority of a pilotage exemption certificate, a decrease of 1 from 2021.

Tay Pilotage

The number of authorised pilots on the Tay at the end of 2021 was three, all 1st Class Pilots. Pilotage services are provided utilising 2 pilot vessels.

There were 4 Pilotage Management Committee meetings held during 2022.

There were 405 acts of pilotage carried out on the Tay for Dundee in 2022 compared with 427 in 2021. Perth vessels have their own authorised pilots.

Tay Pilotage Exemption Certificates

At the end of 2022 there were not any valid PEC's on the Tay no acts were conducted during the year under the authority of a PEC.

4. Conservancy

Forth Ports mark and maintain appropriate navigational channels to all ports within their jurisdiction on both the Forth and Tay. Depths of channels and navigational marks are agreed through consultation following risk assessment to ensure that the channels provide a safe passage to all the ports and berths.

Dredging in all ports continued to be carried out under a five year contract by UK Dredging, all ports and channels continue to be maintained to their published depths.

A total of 72.23 days were utilised by the trailer suction dredger and 82 days for grab dredging in areas that fall under the responsibility of Forth Ports, with a total of 1,113,339 m3 being dredged. This is an increase in volume of 1.3% on 2021. Forth Ports also conducted ploughing operations over all ports in 2022.

Surveys continued to be conducted using Forth Ports in-house hydrographic survey facilities, with support from the GIS function.

The maintenance of Aids to Navigation was conducted under contract by Briggs Marine who follow a routine maintenance programme as well as responding to emergency call outs.

In 2022 the 3 year availability of the navigation lights and aids has been as follows:

River Forth and Tay



Aton Availability By Category

| IALA Category | No Of Aids | Total Hours | No Of Failures | OOS Hours | MTTR | MTBF | Availability | Target Availability |
|----------------------------|------------|-------------|----------------|-----------|--------|-----------|--------------|---------------------|
| Forth Ports Limited | | | | | | | | |
| CAT 1 | 16 | 420,864 | 3 | 99:48 | 33:16 | 140254:44 | 99.98% | 99.80% |
| CAT 2 | 87 | 2,243,904 | 14 | 585:58 | 41:51 | 160237:00 | 99.97% | 99.00% |
| CAT 3 | 24 | 620,256 | 4 | 180:34 | 45:08 | 155018:52 | 99.97% | 97.00% |
| No Category | 0 | 0 | 0 | 0:00 | 0:00 | 0:00 | 0.00% | 0.00% |
| Totals | 127 | | | | | | | |
| Port of Dundee Ltd | | | | | | | | |
| CAT 1 | 4 | 105,216 | 2 | 41:36 | 20:48 | 52587:12 | 99.96% | 99.80% |
| CAT 2 | 27 | 685,464 | 8 | 1363:06 | 170:23 | 85512:37 | 99.81% | 99.00% |
| CAT 3 | 3 | 78,912 | 2 | 555:00 | 277:30 | 39178:30 | 99.30% | 97.00% |
| No Category | 0 | 0 | 0 | 0:00 | 0:00 | 0:00 | 0.00% | 0.00% |
| Totals | 34 | | | | | | | |

All navigation lights and navigation aids met the availability criteria for 2022

5. Towage

Towage services on the Forth are provided by two main operators with a total of 10 tugs licensed by Forth Ports providing coverage for all areas of the Forth as well as emergency cover. Details of these tugs are provided below. Guidelines for tug requirements are in place for all the main ports and terminals.

Targe Towing also provides towage operations at Dundee.

Visiting tugs engaged in one off projects were audited and licensed as required on a case by case basis.

Collie T was sold at the end of 2022 and left Dundee.

| Company | Tug Name | Bollard Pull | Type | LOA | Beam | Draft |
|---|-------------------|---------------------|-------------|------------|-------------|--------------|
| Targe Towing Forth | Craigleith | 70t | ASD | 28.0m | 13.0m | 5.0m |
| | Fidra | 50t | Voith | 30.0m | 11.0m | 5.3m |
| | Inchcolm | 70t | ASD | 24.0m | 11.0m | 5.0m |
| | | | | | | |
| INEOS/Targe Towing – Hound Point | Hopetoun | 124t | ASD | 43.5m | 13.5m | 6.7m |
| | Queensferry | 70t | ASD | 24.0m | 11m | 5.0m |
| | Dalmeny | 62t | ASD | 34.3m | 10.5m | 4.6m |
| | Corringham | 67t | ASD | 32.2m | 11.6m | 4.3m |
| | | | | | | |
| Svitzer Towage - Grangemouth | Rosebery Cross | 37t | Voith | 30.6m | 9.8m | 4.5m |
| | Svitzer Lyndhurst | 42t | Voith | 33.0m | 10.0m | 5.0m |
| | | | | | | |
| Targe Towing - Dundee | Kittiwake | 60t | ASD | 24m | 11m | 4.5m |
| | Collie T | 20t | Twin screw | 28.7m | 7.4m | 2.8m |
| | Petrel | 70t | ASD | 24m | 11m | 4.5m |

6. Marine Reports

Marine Reports

| MAIB Report Category | Current Year | | | | | Previous Year | | |
|---|--------------|-----------|-------------|------------------------------|----------------------------|---------------|-------------|------------------------|
| | Month | YTD | Vessels YTD | Rate per 1,000 Vessels month | Rate per 1,000 Vessels YTD | YTD | Vessels | Rate per 1,000 Vessels |
| <i>Does not include Pollution Reports</i> | | | | | | | | |
| Very Serious Marine Casualty | 0 | 0 | 2227 | 0.00 | 0.00 | 0 | 2360 | 0.00 |
| Serious Marine Casualty | 0 | 0 | | 0.00 | 0.00 | 0 | | 0.00 |
| Marine Casualty | 0 | 0 | | 0.00 | 0.00 | 0 | | 0.00 |
| Marine Incident | 3 | 68 | | 17.54 | 30.53 | 73 | | 30.93 |
| Total Marine Reports | 3 | 68 | | | 17.54 | 30.53 | | 73 |
| POLREP's | 0 | 7 | 2227 | 0.00 | 3.14 | 9 | 2360 | 3.81 |
| Total Incidents | 3 | 75 | 2227 | 17.54 | 33.68 | 82 | 2360 | 34.75 |

Marine Reports-Primary Cause

| Incident Primary Cause | Current Year | | | | | Previous Year | | |
|--|--------------|-----------|-------------|-----------------------------|----------------------------|---------------|---------|------------------------|
| | Month | YTD | Vessels YTD | Rate per 1000 vessels month | Rate per 1,000 Vessels YTD | YTD | Vessels | Rate per 1,000 Vessels |
| Weather/Environmental conditions | 1 | 9 | 2227 | 5.85 | 4.04 | 10 | 2360 | 30.93 |
| Mechanical/Technical failure | 2 | 27 | | 11.70 | 12.12 | 22 | | |
| Failure to follow procedures/regulations 3rd party | 0 | 5 | | 0.00 | 2.25 | 11 | | |
| Failure to follow procedures/regulations FP | 0 | 0 | | 0.00 | 0.00 | 1 | | |
| Failure of Seamanship/Good Practice | 1 | 15 | | 5.85 | 6.74 | 20 | | |
| Suitability of Infrastructure | 0 | 1 | | | | 3 | | |
| Communications | 0 | 8 | | 0.00 | 3.59 | 4 | | |
| To be determined | 0 | 3 | | 0.00 | 1.35 | 2 | | |
| TOTAL INCIDENTS | 4 | 68 | | | 23.39 | 30.53 | | |

Reported incidents fell compared to 2021, and there was a greater percentage of Near Miss reporting. Mechanical/Technical failure continues to be the greatest cause of incidents, followed by Failure of Seamanship/Good practice.

Marine Reports by Consequence

| Incident Consequence | Current Year | | | | | Previous Year | | |
|---|--------------|------------|-------------|-----------------------------|----------------------------|---------------|---------|------------------------|
| | Month | YTD | Vessels YTD | Rate per 1000 vessels month | Rate per 1,000 Vessels YTD | YTD | Vessels | Rate per 1,000 Vessels |
| Pollution | 0 | 7 | 2227 | 0.00 | 3.14 | 9 | 2360 | 30.93 |
| Damage | 0 | 11 | | 0.00 | 4.94 | 20 | | |
| Injury | 0 | 0 | | 0.00 | 0.00 | 3 | | |
| Near Miss | 3 | 57 | | 17.54 | 25.59 | 50 | | |
| | | | | | | | | |
| | | | | | | | | |
| TOTAL (excluding pollution reports*) | 3 | 68 | | 17.54 | 30.53 | 73 | | |
| Near Miss Ratio* | 100% | 84% | | | | 68% | | |

The greatest consequence of incidents resulted in a near miss. Near miss reporting decreased compared to 2021. The next biggest consequence was damage. This was all fairly minor damage such as damage to quays, vessel hulls and fenders resulting in relatively low cost repairs. There were no injuries in 2022.

7. Port Marine Safety Code Meetings

Regular marine safety meetings were held covering both policy and operational matters, full minutes of all meetings were maintained. Reports were held remotely by Teams due to the restrictions.

Leith PMSC Liaison Meeting - Port Authority, Pilots, Tug Operators, Boatmen and agents met three times to discuss safety and operational matters.

Grangemouth PMSC Liaison Meeting - Port Authority, Pilots, Tug Operators, Boatmen, DM Crombie, Ineos and agents met three times to discuss safety and operational matters.

Fife Ports PMSC Liaison Meeting - Port Authority, Pilots, agents, DFDS Ferries, Babcock's, Briggs Marine, FCBC, FETA, Inverkeithing Berth Operators, Forth Rail Bridge Authority met three times to discuss safety and operational matters.

Dundee PMSC Liaison Meeting - Dundee Port Authority, Dundee Pilots, Perth Port Authority, Tug Operators, Boatmen and agents met four times to discuss safety and operational matters.

Braefoot Marine Panel and Hound Point Liaison - Shell, BP, Port Authority, Pilots, tug operator and boatmen met four times to discuss safety and operational matters.

Boat Clubs and Leisure Craft Liaison – stakeholders from the boat clubs and leisure craft met with Forth Ports met once to discuss a variety of matters relating to the leisure industry.

Forth to Borders and Tayside/North Fife Sub Committee – This meeting, which is chaired by the MCA, was again cancelled, a decision taken by the MCA due to a lack of agenda items.

8. PMSC Audit and Statement of Compliance

The independent Designated Person conducted the annual audit of Forth Port's Safety Management System and Port Marine Safety Code. From the audit a number of mainly administrative observations were made without any non-conformances being identified. The audit report confirmed our compliance with the PMSC, this was again confirmed by the Designated Person at his annual report to the Duty Holder (the Forth Ports Board).

The next letter of PMSC compliance is due in 2024.

9. Pollution Report

Clearwater Forth was held in person. The incident was based off Grangemouth. Participants from the Coastguard, Local Authority and emergency services participated.

There were 7 pollution reports recorded during 2022. The most serious was a derelict crane which fell into the water in Burntisland whilst being dismantled.

10. Review of 2022 Marine Safety Plan

The following targets had been set for completion in 2022:

Permanent targets

| | Activity | Target |
|----|--|---|
| 1. | Vessel Traffic Service | Maintain an effective VTS in accordance with UK National, IALA and IMO standards. Ensure infrastructure is properly maintained and upgrade to ensure continued operation. |
| 2. | Navigational and Marine Incidents | Through reporting, investigation and analysis ensure all risk assessments, procedures and guidelines are appropriate to prevent any major navigation or pollution incident. |
| 3. | Provide trained and qualified pilots to ensure an effective 24/7 pilotage service. | 24/7 pilotage services maintained (subject to weather) without any serious or very serious incidents. |
| 4. | Conservancy and Hydrographic Service | Ensure survey programme is maintained and survey charts are published and relevant data sent to UKHO within 8 weeks of survey. Through appropriate maintenance and response ensure ATON availability meets NLB targets. |
| 5. | Liaison and Consultation with river users | Routine PMSC meetings held with stakeholders at least 3 times a year. |

All the above listed targets were met in 2022.

Temporary targets

| | Activity | Target |
|----|--|--|
| 1. | Restructure of marine department talking on a Group Role | Integrated systems in place and audited |
| 2. | Development of PPU's | In place and in use |
| 3. | Integration of FET and Targe | Working as one company |
| 4. | Plough dredger in operation | Reduction in dredging days and improved response |
| 5. | Partnership working | Supporting partners in emergency planning and exercises especially around COP 26 |

All the above targets were met in 2022.

2023 Targets

| | Activity | Target |
|----|---|---|
| 1. | New system to replace IPOS | New system in place |
| 2. | Manage traffic around the construction of the Leith outer berth | No delays to shipping using Leith |
| 3. | Procurement of new Pilot vessel | Vessel ordered and in build |
| 4. | Plough dredger in operation | Reduction in dredging days and improved response to depth reduction |
| 5. | Partnership working | Developing PMSC in non-Forth Ports locations |

11. Summary

2022 saw the decrease of COVID restrictions but the start of the pressures brought on by the Russia/Ukraine war. This affected traffic, along with enforcing restrictions on Russian assets using the Forth.

The return of cruise was a welcome boost to shipping and the economy of the area.



Alan McPherson

Chief Harbour Master.

January 2023