



STATE OF WASHINGTON
BOARD OF PILOTAGE COMMISSIONERS

2901 Third Avenue, Suite 500 | Seattle, Washington 98121 | (206) 515-3904 | www.pilotage.wa.gov

MEMORANDUM

TO: Board of Pilotage Commissioners
FROM: BPC Staff
DATE: March 9, 2023
SUBJECT: Key Performance Indicators (KPI) Workshops Plan

Board members,

Below is a proposed schedule for KPI workshops:

Workshop/Meeting	Attendees	Topics
Workshop #1 March 16, 2023 Board meeting	BPC & Public	<ul style="list-style-type: none">• KPI Overview and Matrix• Identify KPIs utilizing BPC programs: Safety, Diversity Equity Inclusion, Training & Licensing, Investigation, Regulation, Public Service• Plan Workshop #2
Workshop #2 April 20, 2023 Board meeting	BPC & Public	<ul style="list-style-type: none">• Quantify and implement KPIs identified at Workshop #1• Establish evaluation criteria
Workshop #3 July 20, 2023 Board meeting	BPC & Public	<ul style="list-style-type: none">• Assess/adjust, as needed, KPIs implemented at Workshop #3

The following documents are included in your packets for consideration during Workshop #1:

1. KPI Development Matrix
2. BPC Strategic Plan
3. Pacific Pilotage Authority (PPA) 3rd Quarter 2022 Key Performance Indicators
4. PPA 2021 Annual Report (pages 14-15 shows same KPIs for entire year)
5. SF BOPC Annual Report

The KPI Development Matrix is intended as a starting place for considering possible KPIs. It gathers selected goals from the BPC Strategic Plan, and some of the quantitative information already reviewed by the Board. Each item is identified as being from Strategic Plan, current BPC Reporting, or Pacific Pilotage Authority (PPA) KPI reporting. Again, the matrix is for brainstorming and considering what makes a meaningful KPI. Not every item will be included in the final product, and different KPIs might be identified during the workshop.

KPI Development Matrix for BPC KPI Workshop March 16,2023 (page 1)

<i>Program</i>	<i>Associated BPC Committee(s)</i>	<i>Selected Goal(s) from Strategic Plan</i>	<i>Possible Metrics/Actions</i>	<i>KPI calculation</i>	<i>Target</i>	<i>Aligned w/ Strategic Plan</i>	<i>BPC Currently Tracks This</i>	<i>Other District(s) Track This</i>
Safety	Pilot Safety Committee	Washington state pilotage services are conducted in a safe and efficient manner consistent with the Board's mission of safety.	Quarterly Review of Rest Exceptions	Count of exceptions		✓	✓	
			Number of incidents	Count	Zero	✓	recorded in BPC annual report	✓ specifies 3 types of incidents
Diversity, Equity, & Inclusion	Diversity, Equity, & Inclusion Committee	Establish a pilot corps that reflects the people of Washington state by increasing diversity among state licensed pilots	Develop/maintain women and BIPOC mariners contact list			✓		
		Establish and maintain regular communications with current and future women and BIPOC pilotage pipeline mariners.	Continued BPC presence at conferences promoting DEI			✓		
Training & Licensing	Trainee Evaluation Committee Exam Committee (Periodic)	Provide 56 licensed pilots as authorized in the Puget Sound Pilotage District and 3 in the Grays Harbor Pilotage District	Trainees Licensed per year? Upcoming mandatory retirements?	Count		✓	✓	
Investigations	Commission Investigation Committee		Trigger investigation process for any incident(s)			✓		
Regulation	Vessel Exemption Committee	Refine requirements, improve communication, and assess appropriate fees	Number of interim exemptions	Interim exemptions divided by total exemptions		✓		
		Ensure rules and regulations regarding pilotage reach a wide audience for understanding and compliance	Number of violations	Count of violations		✓		
Public Service	Various	Identify agency risks and mitigation actions regarding the BPC's major programs				✓		

KPI Development Matrix for BPC KPI Workshop March 16,2023 (page 2)

Program	Associated BPC Committee(s)	Selected Goal(s) from Strategic Plan	Possible Metrics/Actions	KPI calculation	Target	Aligned w/ Strategic Plan	BPC Currently Tracks This	Other District(s) Track This
<p>These possible metrics include things currently tracked at board meetings that are not specifically mentioned in the strategic plan.</p>			Total Assignments	Count			✓	✓
			Percentage off watch assignments.	Count of off watch assignments divided by total assignments			✓	✓
			Count of Pilots and Pilots NFFD	Licensed pilots minus prez minus NFFD = available pilots		relates to training program	✓	
			Work load vs number of pilots	Assignments divided by number of available pilots			✓	✓
			"Not Piloting" i.e. Cancellations, Repos, Training, Upgrade Trips, Meetings, 3&outs	Counts? Hours?			✓	cancels only
			Hours of delays ~ pilot delays ~ customer delays ~ terminal delays	Percentage by hours? (Need to figure out denominator)			✓	✓
			Comp days earned and comp days used (licensed pilots only)	Total each month			✓	✓



Washington State Board of Pilotage Commissioners

The Washington State Board of Pilotage Commissioners (BPC or Board) is the regulatory authority for state compulsory pilotage on Washington's inland waters. The Board develops and proposes statutory language for legislative adoption to ensure safe and compulsory pilotage, adopts rules to administer state pilotage laws, and enforces pilot and public adherence to the Pilotage Act. The Board also administers testing, training, and licensing of marine pilots, and establishes standards for reporting and investigating incidents involving state-piloted vessels.

The Board of Pilotage Commissioners (BPC) was created in 1935 Legislature and includes members who are appointed by the Governor, confirmed by the Senate and serve staggered four-year terms. The members include a designee of the Director of Washington State Ferries, who is the Chairperson, two (2) Public members, one (1) American shipping representative, one (1) Foreign shipping representative, two (2) licensed Pilots, one (1) Marine Environment member, and one (1) designee of the Department of Ecology.

The BPC has a long record of regulating compulsory pilotage in Washington State. This is accomplished through careful selection of qualified pilot trainees through a competitive and psychometrically validated examination process. Pilot trainees spend between 18 months to 3 years in the Training Program where they are supervised by licensed pilots. After successful training, newly licensed pilots have a limited license that is upgraded as they gain experience, over 5 years. After 5 years, the pilot may be awarded an unlimited license. The BPC requires continuing education for all licensed pilots. The BPC also monitors the fitness-for-duty of each pilot through annual physicals by Board-Designated physicians.

STRATEGIC PLAN 2023-2025



OUR VISION

Safe and efficient passage of foreign-flag cargo, tanker, passenger, and recreational vessels through Washington state's inland waters.



OUR MISSION

Ensure against the loss of lives, loss of or damage to property and vessels, and to protect the marine environment by maintaining efficient and competent compulsory pilotage services in Washington State; and to not place in jeopardy Washington's position as an able competitor of waterborne commerce from other ports and nations of the world, but rather to continue to develop and encourage such commerce.

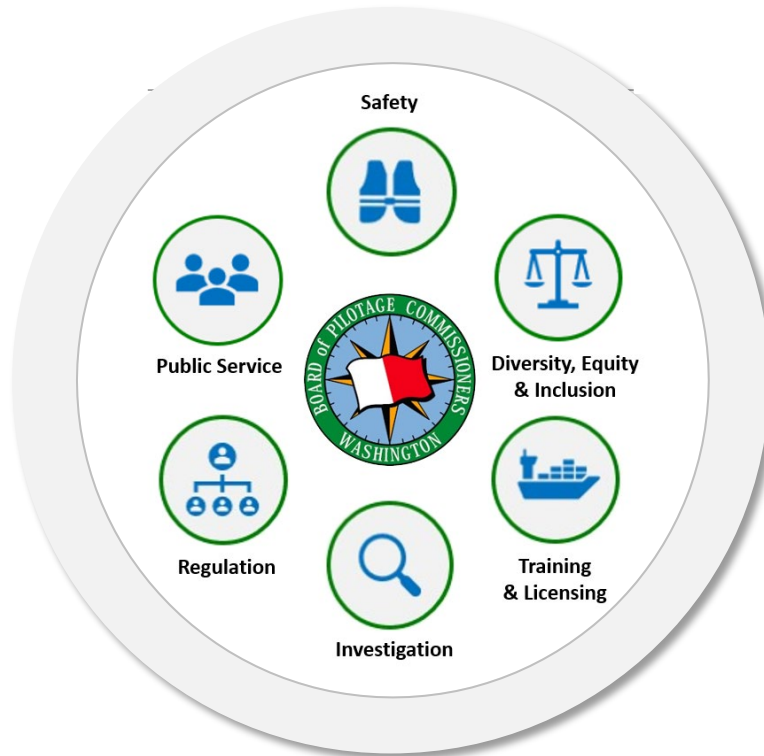


OUR VALUES

Transportation Safety
Environmental Stewardship
Diversity, Equity, & Inclusion
Integrity & Transparency



The BPC currently has six major programs to deliver safe and efficient compulsory pilotage under the statutory requirements of the Pilotage Act, Chapter [88.16 RCW](#), and Pilotage Rules, [WAC 363-116](#).



To focus on the objectives of the programs, the BPC established several committees. Committee participations includes BPC members, pilots, industry representatives, other maritime stakeholders, local Government, and Tribes. These committees are advisory only and are supported by BPC staff.

Safety

- Pilot Safety Committee (PSC)

Diversity, Equity, & Inclusion

- BPC Diversity, Equity, & Inclusion Committee (DEIC)

Training & Licensing

- Trainee Evaluation Committee (TEC)
- Exam Committee (periodic)

Investigations

- Commission Investigation Committee (CIC)

Regulation

- Vessel Exemption Committee (VEC)

Public Service

- Various

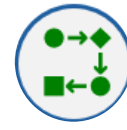




OBJECTIVES



GOALS



ACTIONS

Safety



Oil Transportation Safety

Complete the deliverables in 2019 legislation, ESHB 1578 *Reducing the risk to southern resident killer whales by improving the safety of oil transportation.*

- Consultation and Analysis of Ecology’s Tug Escort Risk Model by 9/1/2023;
- Secure resources, such as a project position, for rulemaking effort in partnership with Ecology, and
- Adopt Tug Escort rules by 12/31/2025.



Pilot Safety and Efficiency

Washington state pilotage services are conducted in a safe and efficient manner consistent with the Board’s mission of safety.

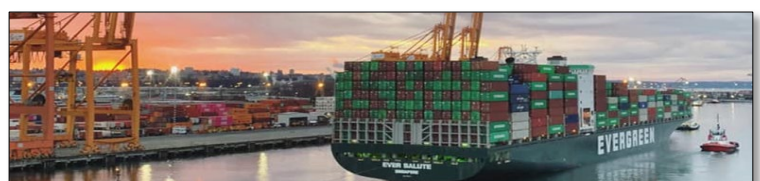
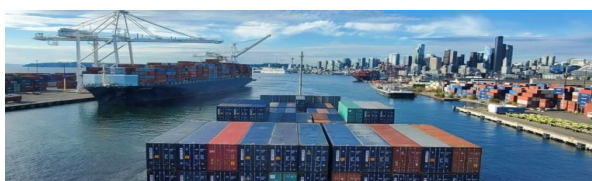
- Review safety concerns in ongoing Pilot Safety Committee meetings;
- Implement new policies, update WAC 363-116 as necessary, and propose legislation as needed;
- Collect and review data concerning improper pilot ladder transfer arrangements; and
- Strive for operational efficiencies and continual improvement

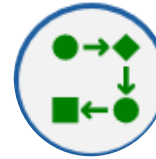


Outreach and Engagement

Establish and maintain regular communications with other pilotage districts, maritime stakeholders and Tribal partners with a focus on safe pilotage.

- Continue to utilize pilot ladder form to communicate problematic arrangements with other districts; and
- Communicate with maritime organizations regarding waterway hazards as necessary.





Diversity, Equity, & Inclusion



BPC Diversity Action Plan

Establish a pilot corps that reflects the people of Washington state by increasing diversity among state licensed pilots

- Expand outreach to develop a diverse pool of applicants with required qualifications for pilotage;
- Minimize subjectivity and eliminate bias in the application, training, and licensing process;
- Support/participate in educational activities that develop youth interest in maritime careers; and
- Continue to improve the Diversity Action Plan



Pro-Equity and Anti-Racist (PEAR)

*Drive pro-equity and social justice for all, Center racial justice, Ensure equitable access, Build a culture of belonging, End disparities, including racial and ethnic disparities, and improve outcomes statewide across state government

**As established by the Washington State Office of Equity*

- Partner with Washington State Ferries (WSF) through the WSF Diversity Advisory Group (DAG) for focus on diversity, equity, and inclusion in Washington's maritime industry; and
- Complete deliverables as outlined by the Washington State Office of Equity

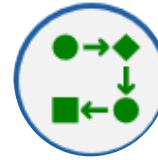


Outreach and Engagement

Establish and maintain regular communications with current and future women and BIPOC pilotage pipeline mariners.

- Maintain a presence at conferences promoting DEI;
- Create and distribute promotional material to provided information regarding pilotage; and
- Continue to utilize social media to reach aspirants





Training & Licensing



Number of Pilots

Provide 56 licensed pilots as authorized in the Puget Sound Pilotage District and 3 in the Grays Harbor Pilotage District

- Conduct competitive bid contract process for one or more marine pilot exams;
- Develop, publicize, and administer exams and publish Training Program Waiting Lists; and
- Monitor pilot retirements, mandatory and projected, to align training start dates

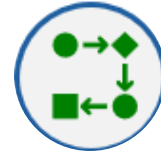


Pilot Training Program

Explore additional training opportunities and align rules and program practices

- Review and update corresponding WAC 363-116-078 and WAC 363-116-082 as needed;
- Assess simulator training as an added component of the pilot training program;
- Procure training equipment necessary for trainee success;
- Continue to improve the trainee handbook and training materials;
- Research best practices in other pilotage districts; and
- Continue to evaluate the effectiveness of the current Training Program Trip Report (TPTR)





Investigations



Pilot's Report of Marine Safety Occurrences

Bring awareness of situations where an issue on a piloted vessel threatened navigational safety

- Track and monitor reasons for MSO reports;
- Identify recurring equipment failures; and
- Inform the USCG on vessels of concern



Incident Investigators

Establish a list of qualified marine investigators for incidents that qualify for a third-party investigation

- Identify maritime professionals who are engaged in marine investigations; and
- Make inquiries to determine interest

Regulation



Exemptions from Pilotage

Refine requirements, improve communication, and assess appropriate fees

- Review ongoing pilotage exemption issues in Vessel Exemption Committee meetings;
- Create standards for consistent conditions and restrictions;
- Explore Agency Request Legislation; and
- Redesign website exemption page to be clearer and more user friendly

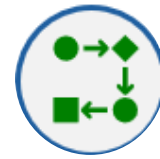


Outreach and Engagement

Ensure rules and regulations regarding pilotage reach a wide audience for understanding and compliance

- Increase social media presence; and
- Seek publications for opportunities to share exemption information.





Public Service



Agency Documentation

Modernize BPC-required forms, where applicable

- Explore online tools such as JotForm; and
- Secure security review and permissions from the state

Enterprise Risk Management

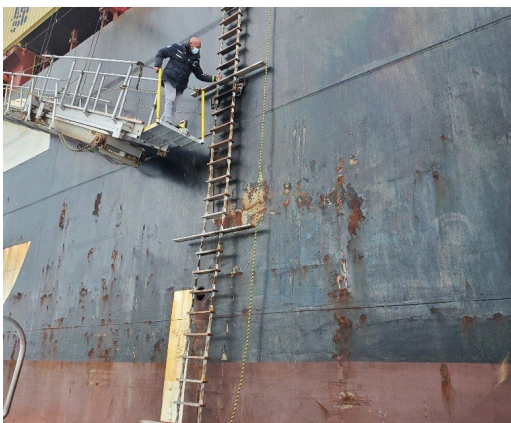
Identify agency risks and mitigation actions regarding the BPC’s major programs

- Review risks and risk mitigations frequently; and
- Update state risk management software, Origami, quarterly

Outreach and Engagement

Amplify Washington state pilotage

- Social media posts via Twitter, Instagram, and LinkedIn;
- Continued presence at local maritime organization events including Puget Sound Harbor Safety Committee, Grays Harbor Safety Committee, and Maritime Blue; and
- Continued engagement with other national and international pilotage districts and organizations.





CONTACT INFORMATION

Mailing Address	2901 3 rd Avenue, Suite 500 Seattle, WA 98121
Chair	Sheri J. Tonn (206) 515-3904 TonnS@wsdot.wa.gov
Executive Director	Jaimie C. Bever (206) 515-3887 BeverJ@wsdot.wa.gov
General Inquiries	(206) 515-3904 PilotageInfo@wsdot.wa.gov
Website	www.pilotage.wa.gov

Social Media



[@WA_Pilotage](https://twitter.com/WA_Pilotage)



[@wa_pilotage](https://www.instagram.com/wa_pilotage)



[@Washington State Board of Pilotage Commissioners](https://www.linkedin.com/company/washington-state-board-of-pilotage-commissioners)



[@WASStatePilotage](https://www.facebook.com/WASStatePilotage)



Pacific Pilotage Authority
KEY PERFORMANCE INDICATORS
Q3 2022

Safety		2022	2021
1.	Incidents on vessels under pilotage [0]	6	5
2.	Incidents on pilot launches [0]	0	0
3.	Pollution incidents on pilot launches [0]	0	0
Reliability			
4.	Number of delays (hours) caused by pilots [0]	1(2.5)	2(6.5)
5.	Number of delays (hours) caused by dispatch errors [0]	0	0
6.	Number of delays (hours) caused by launches [0]	0	0
7.	Total number of delays (Total hours delayed) [0]	1(2.5)	2(6.5)
Efficiency: General			
8.	Maintain an average of 5 working days to resolve all complaints [≤ 5 days]	1.8 days	6.3 days
9.	Maintain an average of 5 working days to resolve all invoice disputes [≤ 5 days]	2.2 days	2.4 days
Efficiency: Pilots			
10.	Complaints regarding pilot service level [0%] [number of complaints/number of assignments]	0.1%	0.1%
11.	Callbacks as percentage of assignments [$\leq 2.5\%$]	3,0%	0.5%
12.	Annualized assignments per pilot		
	a) Coastal [≥ 119]	117	104
	b) Fraser River [≥ 122]	120	123
13.	Utilization of pilots – terminal delays [$\leq 5\%$] [hours delayed at terminal/total hours on assignment]	2%	2%
14.	Utilization of pilots – cancellations [$\leq 8\%$] [number of cancellations/number of assignments]	8%	9%
Financial			
15.	Annual average revenue/cost per assignment		
	a) Revenue [\$7,726]	\$8,379	\$6,979
	b) Cost [7,699]	\$8,423	\$ 7,093
	c) Profit (loss) [27]	\$ (44)	\$ (114)
16.	Maintain an adequate contingency fund [$\geq \$2.3M$]	\$1.9M	\$2.1M
17.	Accounts receivable - % of invoices under 30 days [$\geq 95\%$]	93%	99%
18.	Working capital ratio - current assets/current liabilities [1.0]	1.03	1.05

[]: goal



PACIFIC PILOTAGE AUTHORITY



Annual Report 2021



Board Members



Mrs. Lorraine Cunningham
Chair*



Mr. Peter G. Bernard, Q.C.
Member



Ms. Victoria Withers
Member*



Mr. James Marshall
Member



Ms. Billie V. Raptis
Member*



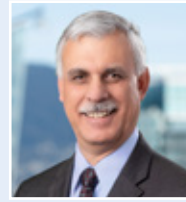
Captain Al Ranger
Member



Ms. Katherine Bright
Member*

* Member of Finance
and Audit Committee

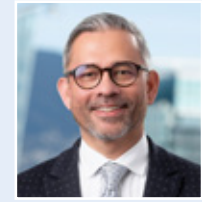
Management



Kevin Obermeyer
CEO



Stuart Mackenzie
Chief Financial Officer



Brian Young
Director, Pilotage and
Industry Liaison



Paulo Ekkebus
Director, Pilot Stations
and Simulations



Danielle Lewis
Director, People and
Organizational Development



Bruce Northway
Manager, Operations
and Labour Relations



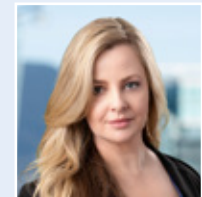
Teresa Lei
Director, Finance
and Administration



Alan Wheatley
Manager, Information
Technology



Isabelle Forget
Executive Assistant



Alexandra Deffense
Senior Administrative
Assistant

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CONTACT

HEAD OFFICE

1000 - 1130 West Pender Street
Vancouver, BC V6E 4A4
Tel: 604.666.6771
Dispatch Fax: 604.666.6093
Administration Fax: 604.666.1647
Email: info@ppa.gc.ca
www.ppa.gc.ca

DISPATCH OFFICES

1000 - 1130 West Pender Street
Vancouver, BC V6E 4A4
211 Dallas Road
Victoria, BC V8V 1A1

PILOT BOARDING STATIONS

Sand Heads, off Steveston
Brotchie Ledge, off Victoria
Cape Beale, off Port Alberni
Triple Island, off Prince Rupert
Pine Island, off Port Hardy



Corporate Information

WHAT IS THE PACIFIC PILOTAGE AUTHORITY?

Commercial vessels greater than 350 gross tons, while travelling in the pilotage waters of the west coast of Canada, are legally obliged to use the services of a Canadian marine pilot as per the *Pacific Pilotage Regulations*, which are enabled by the *Pilotage Act*. The Pacific Pilotage Authority (“the Authority”) is a federal Crown corporation whose mandate is to administer this marine pilotage service in the waters of Western Canada. Our area of jurisdiction encompasses the entire British Columbia coast, extending approximately two nautical miles from every major point of land. This jurisdiction includes the Fraser River and stretches from Alaska in the north to Washington State in the south and is one of the largest mandatory pilotage areas in the world. This unique coast wide pilotage model enables the Authority to efficiently respond to the needs of more remote ports.

Marine pilotage is all about safety as it serves to protect the environment and thus the interests of the Canadian people. We hold ourselves accountable to the Canadian public in this regard.

MANDATE

The mandate of the Authority is to establish, operate, maintain, and administer, in the interests of safety of navigation, an efficient pilotage service within the region set out in respect of the Authority, whilst aligning with the principles set out in the *Pilotage Act*.

The *Pilotage Act* sets out a framework for the provision of pilotage services in accordance with the following principles:

1. that pilotage services be provided in a manner that promotes and contributes to the safety of navigation, including the safety of the public and marine personnel, and that protects human health, property and the environment;
2. that pilotage services be provided in an efficient and cost-effective manner;
3. that risk management tools be used effectively and that evolving technologies be taken into consideration; and
4. that an Authority’s pilotage charges be set at levels that allow the Authority to be financially self-sufficient

VISION STATEMENT

The Authority's vision is to lead a world-class marine pilotage service on the west coast of Canada.

The Authority has been very thoughtful and deliberate in setting our sights on leading a world-class marine pilotage service on the west coast of Canada. Our vision is by its very definition bold and ambitious – just like the team members who make up the Authority and our strategic partners. To achieve our vision the Authority must demonstrate:

- *An industry-leading safety record*
- *A culture of operational efficiency where customers receive value for fees paid and the Authority is financially self-sustaining*
- *A leadership role in the industry – regionally and nationally*

MISSION STATEMENT

The Authority is dedicated to providing safe, efficient and cost-effective marine pilotage. We will do this by working in partnership with the pilots, the shipping industry and the communities in which we operate, to protect the environment and advance the interests of Canada and its people

CORPORATE OBJECTIVES

1. Provide safe, reliable and efficient marine pilotage

To provide safe, reliable and efficient marine pilotage and related services in the coastal waters of British Columbia, including the Fraser River, by embracing a culture of continuous improvement.

2. Ensure financial self-sufficiency

To provide the services within a commercially oriented framework, by maintaining financial self-sufficiency, through a combination of cost management and fees that are fair and reasonable.

3. Promote organizational and environmental sustainability

To implement sustainable practices within the Authority with a focus on quality assurance, and to contribute to the federal government's environmental, social and economic policies as they apply to the marine industry on the Pacific coast of Canada.

4. Demonstrate leadership

To assume a leadership role in the marine industry we serve, by demonstrating national influence and engaging the community in order to facilitate decisions that result in improvements to navigational safety and the efficiency of marine operations.

5. Manage risk

To ensure that risk management tools are used in all safety related decisions for both the organization and its operations and that evolving technologies are taken into consideration.

6. Focus on the future

By using early warning indicators, ensure that the Authority is prepared, both financially and operationally, to deal effectively with changes to the marine industry, the changing regulatory landscape and the complex environment within which we operate.

CORPORATE VALUES

Management and Board members review the Authority's corporate values periodically to ensure their continued relevance and applicability. The Authority's corporate values are:

1. Honesty/Integrity - We will ensure honesty and integrity in everything that we do. We share responsibility for being effective, accountable and acting appropriately. We consider the outcome of decisions for all those affected before we implement change. We act with visible integrity and openness, and support each other in these actions.

2. Positive Stakeholder Relations - We will work hard to maintain positive relations with all stakeholders including the shipping industry, the pilots and their respective organizations, our employees, the communities in which we operate and all other related individuals and organizations.

3. Service Quality - We strive for excellence in all our activities. We continuously learn, develop and improve. We take pride in our work and in the services we provide to our clients and partners.

4. Accountability/Responsibility - We are accountable, as individuals, team members and as an organization for our actions and our decisions. We make effective and efficient use of the resources provided to us. We adhere to our policies and procedures, our mission and objectives, and to the regulations governing us. When our commitment to innovation is at odds with existing procedures, we will work within the system to achieve positive change and improvement.

5. Adaptability and Innovation - We value innovation and creativity. We encourage and support originality and diversity of thought. As individuals and as teams, working with our internal and external partners, we welcome new ideas and methods to enhance our service and the use of our resources.

Letter from Board Chair and CEO

March 24, 2022

The Honourable Omar Alghabra
Minister of Transport
Tower C – Place de Ville
330 Sparks Street
Ottawa, ON K1A 0N5



Dear Minister:

On behalf of the Board of Directors and management of the Pacific Pilotage Authority, we are pleased to submit our Annual Report for the year ended December 31, 2021.

The Pacific Pilotage Authority has once again more than met its mandate of providing a safe and efficient marine pilotage service on the west coast of Canada. The overriding theme of the year is probably similar to that of every other Canadian operation, in that the pandemic defined how we had to operate in order to keep the pilots, our staff and the customers we serve safe. With the pandemic as a constant backdrop, we delivered the service with minimal delays and a negligible number of incidents.

Operationally the Alaskan cruise season was again cancelled in 2021, which negatively affected our assignment numbers, as did the reductions in container vessels and bulk vessels. The loss in container vessels numbers was largely because of the ongoing supply chain issues and backlogs of container ships on the West Coast specifically in LA Long Beach. The reduction in bulk ship assignments was largely due to a drop in grain tonnage shipped through Vancouver in 2021, compared to the record amounts shipped in 2020. Overall, the Authority saw a decrease of approximately 5% in assignment numbers compared to 2020. We are pleased, however, with recent news of an imminent return of cruise ships in 2022 and acknowledge the Minister's efforts in facilitating this.

While 2021 was another challenging year due to the pandemic there were some very important highlights, not least amongst them being the completion of the new pilot launch for the Victoria station, replacing one that is now 50 years old. In addition, we were able to restart the apprentice program as well as complete much of the training that had been postponed from 2020.

Our ongoing success is largely a result of the open and transparent communication and the excellent relationships we enjoy with our shareholder, the industry we serve, and the pilots' commitment to moving the vessels safely on the west coast of Canada. We wish to express our appreciation and gratitude to our dedicated staff, pilots and Board of Directors for the incredible work they did and continue to do through this pandemic.

Respectfully submitted,

Lorraine Cunningham
Chair

Kevin Obermeyer
Chief Executive Officer

Corporate Governance

Corporate governance is the process of establishing and monitoring the policies and procedures which will ensure the appropriate stewardship of the business and affairs of the Authority, including financial viability.

As a Crown corporation, the Authority operates at arm’s length from the Government of Canada. While the federal government provides policy direction for the Authority’s ongoing operations, the Authority’s Board of Directors ensures that the Authority fulfils its mandate by setting the strategic direction, organizational goals, and monitoring their implementation. The Authority reports to Parliament through the Minister of Transport.

The Chair of the Board is appointed by the Governor in Council on the recommendation of the Minister of Transport, and the Board Directors are appointed by the Minister of Transport with the approval of the Governor in Council. There are seven members on the Authority’s Board of Directors.

The Authority’s Board of Directors has representation from Vancouver and Vancouver Island, with backgrounds in marine services, accounting, law, education, and technology.

The Authority complies with the Treasury Board guidelines on corporate governance practices (guidelines on Board responsibilities, public policy objectives, communications, Board and management relations, Board independence, the position of the Chief Executive Officer (“CEO”), renewal of the Board, education of directors, compensation, and the responsibility for corporate governance). The Board has developed a skills framework to assess the skills of Directors that are currently on the Board as well as those skills that are required for the future. The Board assesses its performance as well as the performance of committees and individual Board members annually.

The Board has constituted several committees to focus on the major areas of the Authority. These committees are chaired by a Board member, have terms of reference and mandates and report directly to the Board on a regular basis.

The Authority is led by the CEO who reports to the Board through the Chair. The Authority’s governance chart below indicates the reporting structure.

Pacific Pilotage Authority Governance Chart



BOARD COMMITTEES

Finance and Audit Committee (FAC) – the Chair and at least three Board members are designated as members of this Committee. This Committee meets six times per annum and additionally, as required. Members are expected to be financially literate. Its mandate includes oversight of financial matters, financial reporting, external audit, internal audit, and the Authority’s enterprise risk management framework.

Governance and Nominating Committee (GNC) – this Committee meets on an as needed basis, at the call of the Committee Chair. The GNC is comprised of Board members appointed by the Board and is chaired by the Board Vice-Chair. The Corporate Secretary serves on the GNC as a non-voting member. The GNC also identifies and recruits candidates who meet the merit-based selection criteria for appointment to the Board.

Human Resources Committee (HRC) – this Committee meets on an as needed basis, at the call of the Committee Chair. Its mandate includes ensuring the Chief Executive Officer (CEO) evaluation and executive development planning is in place at the Authority. The HRC is also mandated to review the compensation of the CEO, including the annual performance management plan and to oversee the establishment of safety standards and safe operation of the Authority’s Vancouver office. The HRC is comprised of the Board Chair, Board Vice-Chair and other Board Directors appointed by the Board. The CEO serves on the HRC as a non-voting member.

Pilot Training and Examination Committee (PTEC) – this Committee meets four times per annum and additionally, as required, to conduct pilot examinations. Its mandate is to conduct pilot examinations and review ongoing training programs for pilots. It is chaired by a Board member and includes members of the Authority’s management and BC Coast Pilots. A Committee of Examiners is established for the purpose of conducting pilot examinations.

Safety and Operating Review Committee (SORC) – this Committee meets four times per year with a mandate to review and assess pilotage practices and areas of concern and to seek solutions which result in improved safety and efficiency. It is chaired by a Board member and comprised of Authority management, BC Coast Pilots and members of the marine industry.

Pilot Transportation Safety Committee (PTSC) – this Committee meets at least twice per annum or more frequently as required. The Committee is responsible for establishing safety standards and monitoring the safe operation of pilot launches, water taxis, airplanes and helicopters utilized in the transfer of pilots to/from ships and ensuring that the Authority adheres to regulations and safe practices issued by Transport Canada. It is chaired by a Board member and composed of BC Coast and Fraser River pilots, Authority management and pilot launch personnel.

Information Technology Oversight Committee (ITOC) – this sub-Committee of the Finance and Audit Committee meets four times per annum, or more frequently as required. The Committee is responsible for overseeing the identification and mitigation of risks arising from the implementation and use of information technology. It is chaired by a Board member and includes members of Authority management.

CEO Search Committee – this sub-Committee of the HR Committee was established in the first quarter of 2022 and sets the Terms of Reference and roles and responsibilities with respect to a search for a replacement for the present CEO, whose expected retirement is in 2023. It is chaired by the Board Vice-Chair and composed of other Board members.



ORGANIZATIONAL STRUCTURE OF THE AUTHORITY

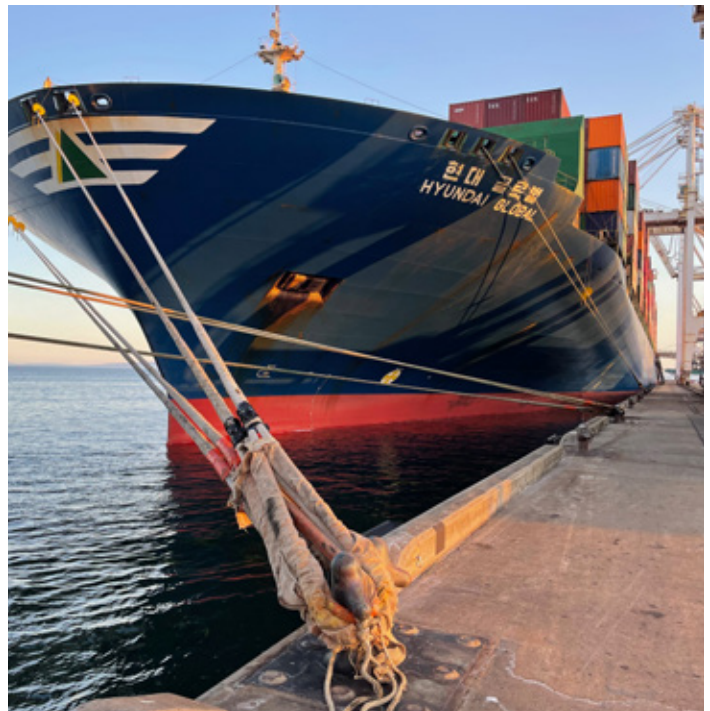
The Authority is managed by the CEO who reports to the Board.

There are 10 management employees, nine employee pilots, 11 full-time and eight casual dispatchers, eight full-time and four casual/part-time administrative staff, and 27 full-time and 35 casual launch employees.

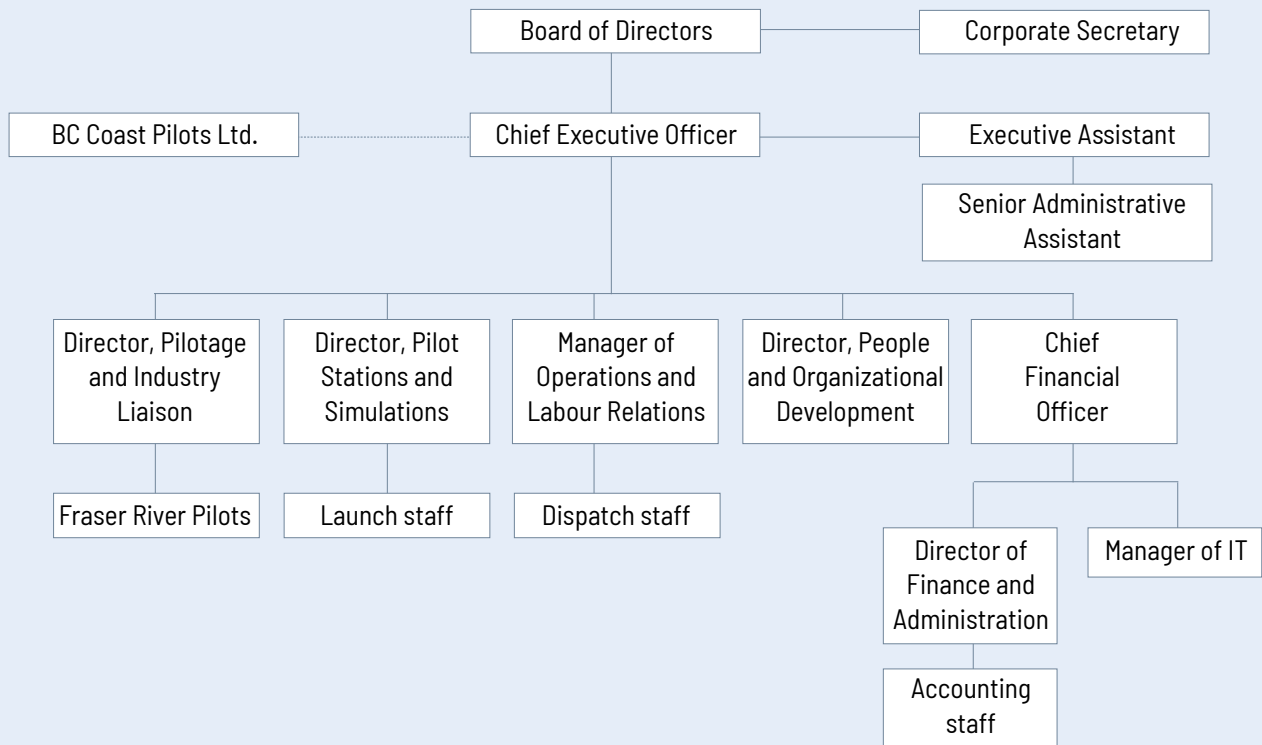
In addition, 117 marine pilots provided coastal pilotage services to the Authority during 2021 through their company, the British Columbia Coast Pilots Ltd (“BCCP”).

The Authority’s organization chart below illustrates its reporting structure.

The Authority has prepared succession plans for senior management positions. These plans outline the recruitment process, skills criteria, and timelines in the event of personnel change.



Pacific Pilotage Authority Organizational Chart



CONSULTATION WITH STAKEHOLDERS

The Authority's management team places a high degree of emphasis on customer contact and feedback each year. Customer surveys and service levels expected of the Authority are measured on a regular basis.

During 2021, the Authority's management team met monthly with the Chamber of Shipping, Shipping Federation, International Ship-Owners Alliance of Canada and Cruise Lines International Association representatives. Quarterly meetings were held for all the Authority customers, ports and associations. The Authority's financial position is evaluated in detail at these meetings as well as a review and discussion of safety and operational issues.



Management Discussion and Analysis

OVERVIEW OF OPERATIONS IN 2021

For the second consecutive year, and for a full year, pilotage operations were significantly impacted by the COVID-19 global pandemic. The cruise ship season which was cancelled for a second year and the impact of flooding on transportation networks in the Fraser Valley late in the year, combined to see assignment volumes drop by 5.1% over the prior year to levels not seen since 2012.

As British Columbia experienced successive waves of COVID variants, we continued to make use of chartered flights for transporting pilots safely to/from their assignments to reduce exposure to potential infection. With the mandating of vaccinations for federal employees and operations, and on scheduled passenger flights, we returned to using scheduled flights in December in an effort to reduce increased transportation costs. However, with the arrival of the Omicron variant and a rapidly increasing number of infections amongst the public, we returned to using chartered flights at the start of 2022 to maintain pilot safety.

Fortunately, with the re-opening of manned model training schools in Europe, we were able to resume pilot training during the year and begin to catch up with scheduled training that was deferred from 2020 because of the pandemic. As a result, 27 pilots attended training courses in Warsash (UK), Port Revel (France) and Ilawa (Poland) in 2021. In addition, we continued to hire new apprentice pilots to ensure a future stream of trained and experienced pilots. Six coastal apprentices started in January and a further four in July. We also hired two new apprentices for the Fraser River.

A positive highlight of the year was the completion of our new pilot launch, the Pacific Guardian, at a boatyard in Campbell River, BC. The launch was put into service in October 2021 at the Victoria pilot station. It features engines that meet International Maritime Organization Tier III standards, resulting in significantly reduced emissions.

The proponents of the Trans Mountain Expansion Project (Westridge terminal in Burnaby) and the LNG Canada terminal in Kitimat require a helicopter hoisting program to transfer pilots to/from vessels. The Authority initiated a request for proposals during the year from helicopter operators to provide services both in the south off Vancouver Island and in the north off the coast near Prince Rupert. The helicopter operators' proposals have been reviewed and a front runner identified. The Authority will commence contractual dialogue in 2022 with the RFP front runner and the marine terminal proponents.

Investments in technology and systems continued to be a focus of the Authority to maintain safety and operational effectiveness. In August 2021, the existing Kongsberg simulator's visual display

was enhanced with larger horizontal and vertical fields of view. The supporting hardware was also upgraded under the Long-Term System Support Program and the software upgraded to Kongsberg's latest version of K-SIM Navigation. This integrates a sophisticated physics engine, which in addition to offering advanced hydrodynamic modeling, allows vessels, objects, and equipment to behave and interact realistically, significantly improving the quality of training and port studies. We were also able to utilize the simulator to provide 579 hours of training to pilots during the year.

We commenced the design and build phase of a new Pilot Dispatch and Accounting Management System ("PDAMS") with a local software development company. Once implemented, the Authority will move from using paper-based source cards for recording pilot assignments to electronic source cards which can be entered remotely through a mobile application. By the end of 2021 we had begun initial testing of a beta version of the system and look forward to a rollout of the full system in 2022.

Stakeholder engagement continued to be prominent during the year with ongoing meetings with Transport Canada, First Nations and industry. As part of the Authority's own outreach, we met with a number of communities and continued to identify the needs, issues and concerns of First Nations' groups and through this dialogue identify possible solutions. We also created a new profile for the Authority on LinkedIn¹ to provide another medium to connect with industry and the broader public.

The service contract between the Authority and the BCCP ended on December 31, 2021. Both parties started negotiations on a new contract in advance of the contract expiry date. Although we had many positive and effective discussions resulting in several changes to the current contract, not all terms for a new contract were agreed upon during the mediation phase. Consequently, the Authority, in consultation with industry, and the BCCP presented their proposals to an arbiter for a Final Offer Selection. In February 2022, the arbiter decided in favour of the BCCP's final offer, which sets contract rates with BCCP for the next four years.

The detailed review of the tonnage limit for compulsory pilotage (which would impact the waiver system) that began in 2020 concluded in a report with recommendations, which were approved by the Authority's Board in 2021. The full report was provided to Transport Canada with next steps to be consultation between First Nations and the Federal government.

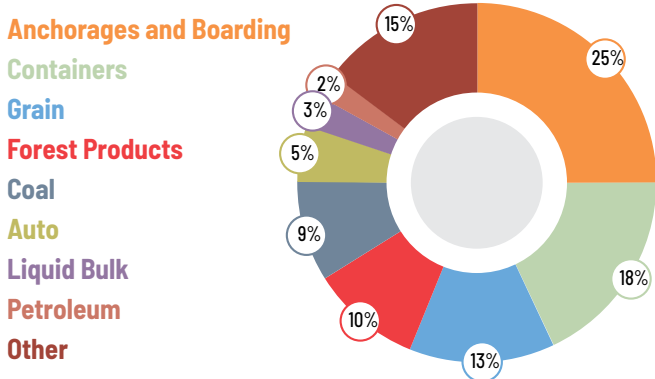
We also successfully completed our sixth consecutive annual International Standards Organization (ISO) and International Safety Management (ISM) audits.

1: <https://www.linkedin.com/company/pacific-pilotage-authority-administration-de-pilotage-du-pacifique/mycompany/>

TRAFFIC ANALYSIS

The chart and table below highlight pilotage assignments by product sector. The container ship sector is the largest and accounted for 18% of our assignment volumes in 2021. The Anchorages and Boarding category represents the movement of vessels between anchorages. The impact on assignments of the absence of cruise ships in both 2021 and 2020 can be seen in the table below.

Product sectors by number of assignments in 2021



Pilotage trips in excess of eight hours or 105 nautical miles require the services of a second pilot. Safety considerations remain paramount as the pilot is allowed to work a maximum of eight hours before an appropriate rest break is required. Most cruise ships heading north or south through the Inside Passage fall into this category, along with certain northern assignments, such as vessels bound to/from Kitimat and Stewart.

During 2021, BCCP, a private company of 117 entrepreneur pilots under contract to the Authority, completed 11,101 coastal assignments (excluding second pilot assignments). Fraser River assignments were performed by nine employee pilots who completed 988 River assignments.

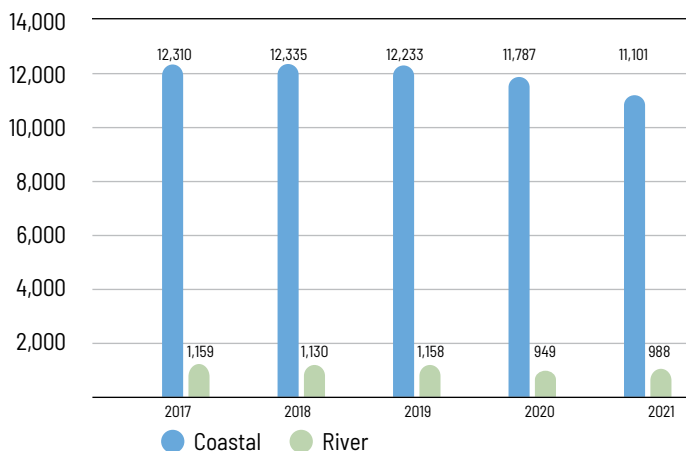
The Authority’s monthly pilotage assignment pattern is usually very consistent year over year. Normally there is a seasonal spike in the coastal assignments due to the cruise ship sector during the months of May through September (particularly on Vancouver Island and the Port of Vancouver). However, due to the pandemic and the absence of cruise ships in 2021 there was less seasonality this year.

Annual Assignments¹ by Product Sector

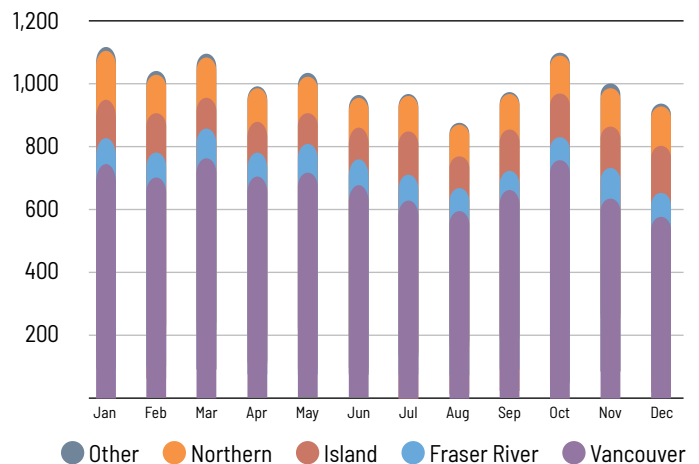
	2017		2018		2019		2020		2021	
Anchorages & Boarding	2,714	20%	2,843	21%	2,898	22%	3,133	25%	3,030	25%
Containers	2,331	17%	2,355	17%	2,325	17%	2,219	17%	2,143	18%
Grain	1,766	13%	1,581	12%	1,660	12%	2,010	16%	1,576	13%
Forest Products	1,582	12%	1,371	10%	1,394	10%	1,372	11%	1,249	10%
Coal	985	7%	1,081	8%	1,141	9%	1,055	8%	1,074	9%
Auto	748	6%	755	6%	744	6%	563	4%	585	5%
Liquid Bulk	438	3%	477	4%	412	3%	443	3%	385	3%
Petroleum	333	2%	376	3%	273	2%	241	2%	283	2%
Other	1,517	12%	1,601	11%	1,430	11%	1,700	14%	1,764	15%
Cruise	1,055	8%	1,025	8%	1,114	8%	-	0%	-	0%
GRAND TOTAL	13,469	100%	13,465	100%	13,391	100%	12,736	100%	12,089	100%

¹ Coastal and Fraser River assignments

Annual Pilotage Assignments



Assignments by Month (2021)



The Authority categorizes its assignments into four key traffic areas: Port of Vancouver (VFPA), Vancouver Island (Island), Prince Rupert and Fraser River.

The Port of Vancouver (VFPA -Vancouver Fraser Port Authority), which includes the Roberts Bank and Deltaport terminals, is the largest assignment area accounting for 67% (2020 - 67%) of all assignments performed by the Authority. This area represents 51 berths and 34 anchorages that we service on a regular basis. The VFPA area traffic in 2021 decreased by 416 assignments compared to the prior year. This decrease was primarily attributed to fewer grain shipments in 2021 and the disruptions to the B.C. transportation network from flooding in the Fraser Valley in 2021.

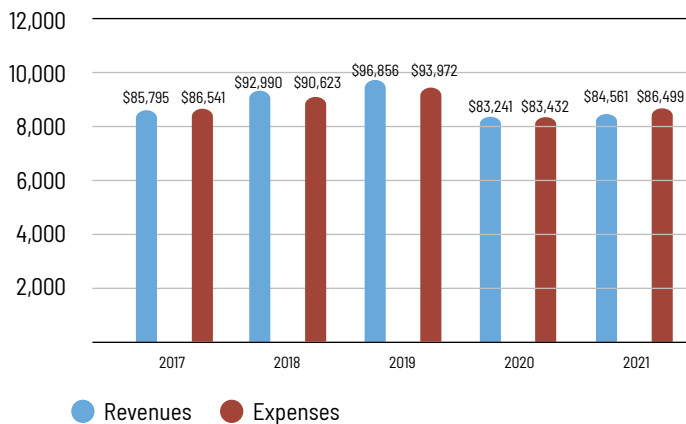
Fraser River ("River") traffic for 2021 increased to 988 assignments (2020 - 949). The River has an automobile terminal and a multi-use terminal, which handles containers, bulk, and break-bulk products. Ships bound to or from the River also require the services of a coastal pilot for their coastal transit to and from the Sand Heads boarding station which is located at the mouth of the Fraser River. Once inside the Fraser River, an employee pilot is responsible for the pilotage transit to and from the berths. In total this area has 10 active berths.

The Northern area, which includes Prince Rupert, Kitimat and Stewart, accounted for 12% (2020 - 12%) of the Authority's coastal pilotage assignments. Currently this area has 11 berths and 36 anchorages. Most of these assignments are in the Prince Rupert region which primarily handles containers, grain, coal, logs and wood pellets. The traffic in 2021 decreased by 146 assignments compared to the prior year, also as a result of the drop in grain shipments and closure of a local coal mine.

FINANCIAL COMMENTARY

For 2021 the Authority recorded revenues of \$84.6 million and a loss of \$(1.9) million.

Revenues and Expenses by Year (in \$'000's)



On March 5, 2021, the Authority implemented a 2.5% increase in service charge rates (2.25% in 2020) and a temporary surcharge of \$175 per assignment to mitigate the financial impacts of the pandemic. The implementation of the temporary surcharge offset some of the additional costs and decline in revenue, but not sufficiently to avoid the loss for the year. The increases in charges were planned with consultation and support from the industry we serve.

The 2021 financial results were impacted by several factors related to the global pandemic and resulted in a significant loss for the year. The principal changes compared to prior year are explained below:

1. Coastal pilotage revenues in 2021 were below the prior year by \$1.4 million, or 2%. This was due to a decrease in assignments of 5%, notably in grain shipments after a record harvest in 2020.

The decrease in coastal revenues noted above were offset by lower contract pilot fees as the coastal pilots are paid per assignment. Coastal pilotage expenses for 2021 were \$1.8 million, or 3%, lower than 2020.

Coastal pilot and apprentice training costs were above the prior year by \$1.5 million, or 205%, as training schools in Europe re-opened and we were able to resume pilot and apprentice training. Also, twelve apprentices were hired in 2021.

The contribution margin for coastal pilotage revenues ended the year at 10%, compared to 11% in 2020, largely as a result of the increase in training costs with the resumption of full training. The contribution from coastal pilotage for 2021 was \$5.8 million.

2. River pilotage revenues were higher than 2020 by \$0.2 million, or 5%. This was due to an increase in the number of assignments of 4% from additional traffic on the Fraser River.

The costs of the River pilots were \$0.3 million, or 9%, higher than the prior year as a result of the increased volumes and contractual increases in wages.

The contribution margin for River pilotage was 15%, compared to 18% in 2020, and amounted to \$0.6 million.

3. Travel revenues were unchanged over the prior year, with the effect of the drop in assignments offset by service fee increases. Associated pilot transportation expenses increased significantly by \$1.3 million, or 15%, as we used charter aircraft for virtually the whole year to maintain the safety of our pilots rather than use the few scheduled flights available, compared to using charter flights only partially the prior year. As a result of the increased costs, we incurred a loss on travel operations for the year of \$3.1 million.

4. Launch revenues, from the employee-crewed stations at Brotchie, Sand Heads and Triple Island as well as the contractor-crewed station in Port Hardy experienced a small increase in 2021 of \$0.3 million, or 3%, largely because of an increase in service fees. The related costs increased by \$1.0 million (11%) and were primarily driven by an increase in wage, fuel, and maintenance costs.

In total this sector’s contribution margin was in a breakeven position for the year, because of the increased costs.

5. The increase in other income of \$2.3 million over the prior year includes \$1.7 million collected through the temporary surcharge introduced in 2021. Furthermore, an additional \$0.4 million was collected to recover a charge for the administration of regulations related to the Pilotage Act.

6. In 2021 we incurred overhead expenses of \$9.3 million, an increase of \$0.9 million over the prior year. This includes an increase of \$0.4 million in the administration charge referred to above. 2021 was the first full year of the administration charge.

The table below details the comparisons of the major revenue and expense categories from the Authority’s unaudited operating statements for 2021 and 2020.

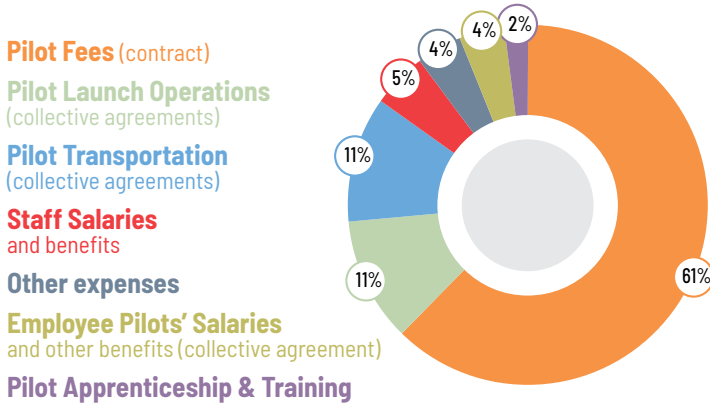
	2021	2020	Change	
Revenue categories	\$'000	\$'000	\$'000	%
Coastal pilotage	60,512	61,875	(1,363)	(2)%
River pilotage	3,799	3,614	185	5%
Travel	6,401	6,440	(39)	(1)%
Launch	9,773	9,513	260	3%
Other income	4,076	1,799	2,277	126%
Total Revenues	84,561	83,241	1,320	2%
Expense categories				
Contract pilots’ fees	52,743	54,494	(1,751)	(3)%
Pilot launch costs	9,815	8,843	972	11%
Pilot transportation ⁽¹⁾	9,508	8,233	1,275	15%
Staff salaries and benefits	4,851	4,620	231	5%
Employee pilots’ salaries and benefits	3,245	2,978	267	9%
Pilot training	1,935	477	1,458	205%
Other expenses	4,402	3,787	615	16%
Total Expenses	86,499	83,432	3,067	4%
Loss	(1,938)	(191)	(1,747)	
Other Comprehensive Income (Loss)	57	(67)	124	
Total Comprehensive Loss	(1,881)	(258)	(1,623)	

(1) : excluding third party launch expenses.



The following chart compares the major expense categories as a percentage of total expenses for the year 2021.

Actual Expense Categories 2021

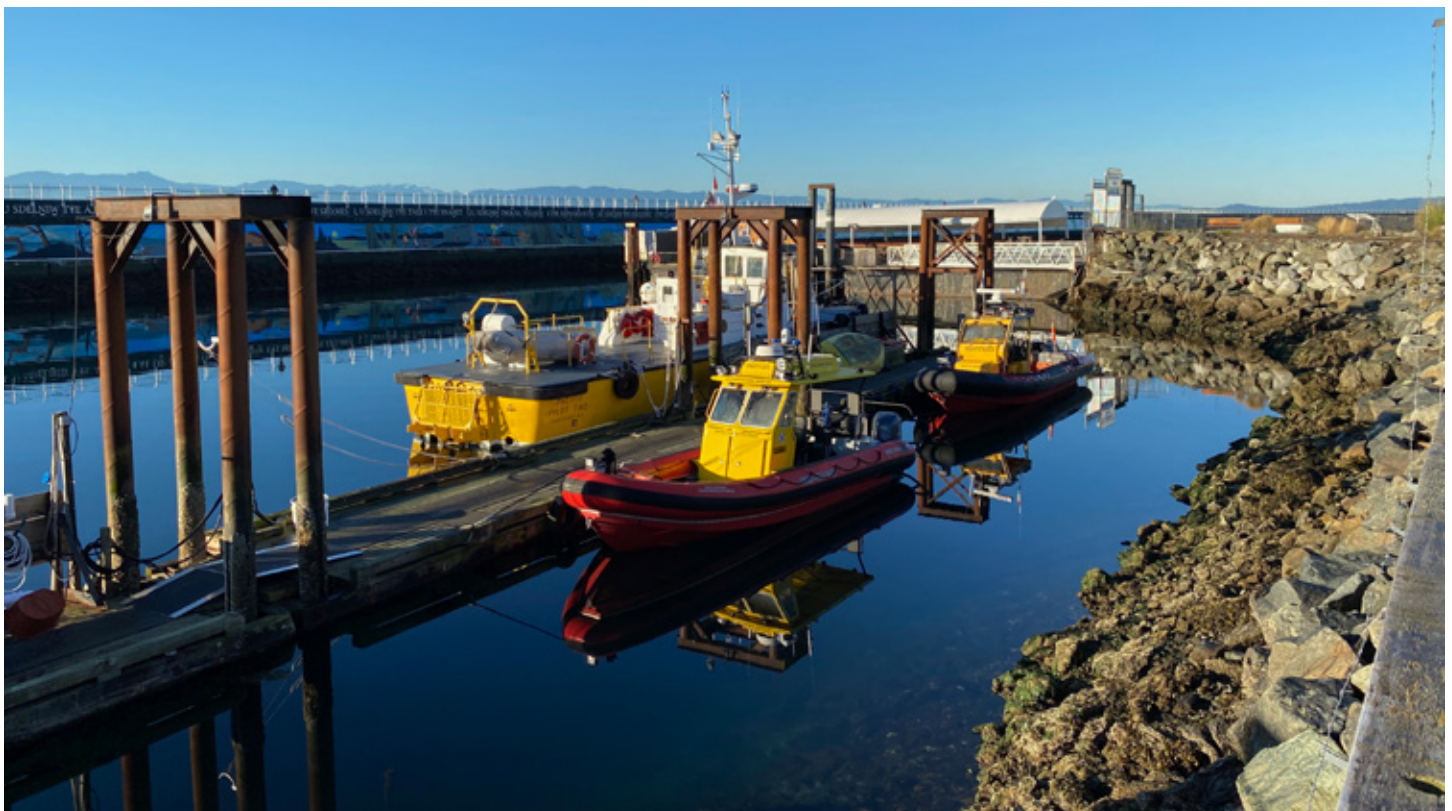


Similar to prior years, approximately 80 percent of the Authority's total annual expenditures for the year were covered by either a service contract or collective agreements.

Since inception in 1972 the Authority has been financially self-sufficient and continues to manage its finances to maintain this position.

The table below provides a historical financial summary of the Authority for the past five years from 2017 through 2021.

	2017	2018	2019	2020	2021
Financial Results (\$'000)					
Revenues	85,795	92,990	96,856	83,241	84,561
Expenses	86,541	90,890	93,972	83,432	86,499
Profit (Loss)	(746)	2,100	2,884	(191)	(1,938)
Financial Position (\$'000)					
Current Assets	11,671	14,049	16,500	14,817	13,988
Current Liabilities	(11,266)	(12,398)	(12,874)	(13,747)	(13,291)
Net Working Capital	405	1,651	3,626	1,070	697
Net Capital Assets	10,614	10,898	12,329	13,547	16,600
Average Number of Pilots					
Coastal	114	118	123	123	112
River	8	8	9	9	9
Number of Assignments					
Coastal	12,310	12,335	12,233	11,787	11,101
River	1,159	1,130	1,158	949	988
Revenue per Assignment					
Coastal	\$ 5,006	\$ 5,441	\$ 5,665	\$ 5,249	\$ 5,451
River	\$ 3,115	\$ 3,364	\$ 3,585	\$ 3,808	\$ 3,845



KEY PERFORMANCE INDICATORS

The performance indicators of the Authority are regularly reviewed and assessed by the Board of Directors. Part of the

assessment is based upon certain key performance indicators (KPIs) which are listed below. The Authority shares the KPIs with its stakeholders.

Results for 2021

Safety	Goal	Actual	Prior Year
1. Incidents on vessels under pilotage	0	7	13
2. Incidents on pilot launches	0	0	1
Reliability			
3. Number of delays (hours) caused by pilots	0	3 (9 hours)	1 (2 hours)
4. Number of delays (hours) caused by dispatch errors	0	1 (14 hours)	1 (1 hour)
5. Number of delays (hours) caused by launches	0	0	1 (1 hour)
6. Total number of delays (Total hours delayed)	0	4 (23 hours)	3 (4 hours)
Efficiency: General			
7. Pollution incidents on pilot launches	0	0	0
8. Average number of working days to resolve all complaints	5 days	6 days (7 complaints)	2 days (13 complaints)
9. Average number of working days to resolve all invoice disputes	5 days	3 days (32 disputes)	4 days (22 disputes)
Efficiency: Pilots			
10. Complaints regarding pilot service level [no. of complaints/number of assignments]	0%	0.1%	0.1%
11. Callbacks as percentage of assignments	2.5%	0.6%	0.5%
12. Annual assignments per pilot			
a) Coastal	92	103	100
b) Fraser River	138	124	119
13. Annual average cost per assignment			
a) Revenue		\$6,995	\$6,531
b) Cost		\$7,154	\$6,553
c) Profit (loss)		\$(159)	\$(15)
14. Annual utilization of pilots – terminal delays [hours delayed at terminal/total hours on assignment]	5%	2%	2%
15. Annual utilization of pilots – cancellations [number of cancellations/number of assignments]	8%	9%	11%
Financial			
16. Maintain an adequate contingency fund	\$2.3M	\$2.4M	\$1.7M
17. Accounts receivable – % of invoices under 30 days	95%	99%	98%



INCIDENT REPORTING

The Authority categorizes incidents and accidents into three classes. An incident or accident will not be classified until sufficient facts are available to assess the potential for safety improvements and may require on site evaluation or interviews.

Class “A” Incidents

Defines an incident that causes damage or losses as below:

- Human: Multiple Deaths or multiple people with serious long-term injury
- Property: Damage to property that ceases operations for a period exceeding one month or financial loss exceeding \$50 million
- Vessel(s): Vessel sinks or sustains so much damage that it is a constructive total loss
- Environmental: Incident causes sustained long term harm to environment (i.e. damage lasts greater than a month)

Class “B” Incidents

Defines an incident that causes damages or losses as below:

- Human: Some people with serious long-term injury and multiple minor injuries
- Property: Damage to facilities is such that the operations cease for not more than one month or financial loss of up to \$50 million
- Vessel(s): Vessel grounds or sustains significant damage with dry docking required and loss of operations for not more than one month
- Environmental: Incident causes medium term harm to environment, (i.e. damage lasts not more than one month)

Class “C” Incidents

Defines an incident that causes damage or losses as below:

- Human: Single or multiple minor injuries requiring on site First Aid and/or off-site treatment
- Property: Minor damage to facilities with no effect or damage of a minor nature causing operations to cease for no longer than 72 hours
- Vessel(s): Minor damage with no effect or damage resulting in a loss of operations of no more than 72 hours
- Environmental: Incident causes minimal or intermittent harm to environment over a period of time, (i.e. damage lasts no greater than a day)

The table below shows the actual number of incidents the Authority has recorded over the last seven years.

Year	Incident Free Assignments	Total Incidents	Class A	Class B	Class C	Total Assignments
2015	99.99%	1	-	-	1	12,359
2016	99.96%	5	-	-	5	12,646
2017	99.97%	4	-	-	4	13,469
2018	99.96%	5	-	-	5	13,465
2019	99.96%	6	-	2	4	13,391
2020	99.90%	13	-	-	13	12,736
2021	99.94%	7	-	-	7	12,089

The terms of reference for the Authority’s Pilot Training and Examination Committee (PTEC) include reviewing incidents to determine training/familiarization opportunities for pilots. Also, through the industry representatives on the Safety and Operating Review Committee (SORC), the Authority liaises with the relevant stakeholders to share information and modify/enhance operating practices.

HUMAN RESOURCES

The Authority has a highly effective and proactive management team supported by skilled operations and administrative staff. Our management team and staff have effectively navigated through the uncertainty of the global pandemic and ensured that our operations continue to run safely and effectively.

We continue to experience low employee turnover and attribute that to a supportive and inclusive working environment. The psychological health and safety of our staff has been of paramount importance since the start of the global pandemic and remains a key focus for 2022. Open communication with staff has been fostered through town hall meetings, virtual team meetings, and employee surveys. We have taken steps to educate our staff on available wellness resources and encourage the use of our Employee and Family Assistance Program.

The Authority is committed to fostering a diverse and inclusive work environment in which all persons have equal access to opportunities within our organization. Following the recruitment during the year of our new Director, People and Organizational Development, we created a diversity policy and hiring protocol to help remove barriers to employment and ensure that any

recruitment, training, and professional development initiatives are equitable and inclusive. We have achieved gender balance across the administrative team, management team and Board, and enhanced the diversity of the management team through the appointment of two women to director-level staff roles this year.

Our CEO is due to retire in 2023 and succession plans are well underway to develop and select a replacement. We anticipate that a new CEO will be announced by the third quarter of 2022 to provide an opportunity for a successful transition and transfer of knowledge.

The Authority's relationship with most of its employees is supported through collective agreements with the following:

- the Canadian Merchant Service Guild, representing all employee pilots (nine employees), expires January 31, 2023;
- the Canadian Merchant Service Guild, representing all launch masters and engineers (34 employees), expires March 31, 2023;
- the International Longshore & Warehouse Union, Local 520, representing all deckhands, dispatchers and administrative staff (28 employees), expires March 31, 2022.



RECRUITMENT AND TRAINING OF PILOTS

The Authority places major emphasis on the selection and training of marine pilots to ensure a highly qualified and skilled workforce. The selection and training process for marine pilots involves:

- reviewing the potential candidates' medical fitness, maritime qualifications, and local area sea time for compliance with the Pacific Pilotage Regulations;
- potential candidates' participation in the Pilot Familiarization Program as required by the Pacific Pilotage Regulations;
- examination of candidates who meet the requirements in 1. and 2. above;
- apprenticeship and training before licensing the candidates; and
- progression and recurrent training during their piloting career.

Candidates who meet the pre-requisites are enrolled into the Pilot Familiarization Program which is administered by the Authority. This program is restricted to a maximum enrolment of 40 candidates. The program allows the potential pilot candidates to complete familiarization trips along with licensed pilots; it also helps enhance their coast-wide knowledge and improves their performance in the examinations. At the end of 2021 enrolment in the program was at capacity, however, it was in a suspended status due to the pandemic restrictions. The Authority expects to restart the program as soon as restrictions relax and it is safe to do so.

Marine pilot entry exams are conducted once or twice each year to assess potential candidates for the necessary knowledge, experience, and skills to perform the job. The exam process consists of three parts: viz. a three-hour written exam on general ship knowledge, a three-hour exam paper on local coastal knowledge, and a three- and one-half-hour oral exam session.

The minimum durations of the apprenticeship for BC coast pilots and Fraser River pilots are nine and one-half months and five months, respectively. Both apprenticeship durations can be extended up to a maximum of twenty-four months.

The Pilot Training and Examination Committee (PTEC) regularly examines and compares training facilities on a worldwide basis to ensure our training standards and the instruction level is relevant, effective, and valid.

The cost for training each apprentice is approximately \$200,000, which includes remuneration, travel and course fees and is borne entirely by the Authority. If the apprenticeship period extends to 24 months, the costs increase to approximately \$400,000 per pilot, but at this point such extension is not necessary to equip our new pilots with the skills they need.

The Authority has projected the coastal pilots' demographics through its 2022 – 2025 Corporate Plan years (the "Plan") and is working with BCCP to ensure sufficient apprentices start in each of the Plan years to compensate for retirement as well as required numbers to maintain an efficient operation. Ten apprentice coast pilots and three apprentice river pilots were taken on during 2021. One river apprentice pilot resigned during his apprenticeship.

The Authority budgets for licensed pilot training each year. The pilots are provided with familiarization and skills-enhancement training.

Apprentice pilot (coast and river) training during the year included:

- Ten coast apprentices received training for tethered tug manoeuvres
- Ten coast and three river apprentices received training for azimuth podded propulsion systems, Bridge Resource Management (Pilots), ship handling training using manned ship-models, ship handling training using a simulator, and for Portable Piloting Units.

Licensed pilot training during the year included:

- Panamax-size ship handling training using manned ship models for 17 coast pilots and one river pilot
- Advanced ship handling training using manned ship models for 10 unrestricted coast pilots
- Azimuth propulsion system refresher training for 12 fourth-year coast pilots

Pilot Examinations and Eligibility List

During 2021, five coastal pilots received their Class I licence.

As of December 31, 2021, there were two candidates on the coast pilot eligibility list, those who had passed their exams and awaiting apprenticeship, and none on the river pilot eligibility list.

The Authority conducted two coast pilot examination sessions in 2021. Sixteen candidates attempted the examinations of which four were successful.

ENTERPRISE RISK MANAGEMENT

An Enterprise Risk Management and Safety (ERMS) program is incorporated into the Authority’s strategy, which helps in cultivating a culture of risk awareness throughout the organization. A comprehensive Risk Framework has been developed and all risks are assessed, ranked and monitored regularly.

Risks are designated by an ERMS Committee as either operational or strategic. Most operational risks are assigned to the appropriate management staff for mitigation and review. Strategic and significant operational risks (together defined as Key Risks) are overseen by the Board or an appropriate Board Committee.

The Authority is committed to ensuring that all risks have appropriate mitigation measures in place and are reviewed comprehensively on a regular basis. Detailed risk descriptions and mitigation measures are kept current by the risk owners.

Currently, the seven highest rated key risks for the Authority are:

- Interruption of operations due to a pandemic
- Changing economic/fiscal conditions that affect vessel traffic
- Upgrade of Pilot Dispatch and Accounting Management System
- Disruption from cybersecurity breach
- Implementation of helicopter hoisting program
- Recruitment and training of pilots
- Inadequate response to a major disaster

The Authority considers risk management to be a shared responsibility. Accordingly, members of the Board of Directors, its committees, the CEO, and all employees are accountable for managing risk within their area of responsibility. Risk management policies ensure a consistent, comprehensive and enterprise-wide risk management approach is integrated into planning, decision making, and operational processes.



The Authority has adopted the following risk profile and tolerance matrix:

Risk Impact Ranking Methodology

	INDIGENOUS		OPERATIONAL					STRATEGIC	
	Cultural	Disruption of Community	Financial	Human	Property	Vessel(s)	Environmental	Disruption of Business	Reputational
Extreme 5	Incident causes long-term harm for more than one month to traditional food sources, cultural or ceremonial practices	Community projects, programs, businesses or employment disrupted for more than one month	Above \$10 million cash impact on the Authority	Multiple deaths And multiple people with serious long-term injury Intensive care	Damage to property is such that it ceases operations for a period of time exceeding one month or financial loss exceeds \$10 million	Vessel sinks or sustains so much damage that it is a constructive total loss	Incident causes sustained long term harm to environment (i.e. damage lasts greater than a month)	Threatens long-term viability of Authority (Operational cessation or major operational issues lasting more than one month)	Sustained front page adverse national media coverage International media coverage
Very High 4	Incident causes medium-term harm for up to one month to traditional food sources, cultural or ceremonial practices	Community projects, programs, businesses or employment disrupted for up to one month	Impact on the Authority between \$5 and \$10 million	Single death And multiple people with serious long-term injury Intensive care	Damage to facilities is such that operations cease for up to one month or financial loss of \$5 - \$10 million	Vessel sustains damage significant enough to result in towing to dry dock and loss of operations of up to one month	Incident causes sustained medium term harm to environment (i.e. damage lasts up to one month)	Threatens viability of Authority in the medium term (Operational cessation or major operational issues lasting up to one month)	Front page adverse national media coverage And intermittent international coverage
High 3	Incident causes medium-term harm for up to three weeks to traditional food sources, cultural or ceremonial practices	Community projects, programs, businesses or employment disrupted for up to three weeks	\$1 million - \$5 million cash impact	Some people with serious long-term injury and multiple minor injuries	Damage to facilities is such that the operations cease for up to two weeks or financial loss of \$1 - \$5 million	Vessel sustains significant damage with dry docking and loss of operations for two weeks	Incident causes medium term harm to environment (i.e. damage lasts up to two weeks)	Threatens viability of Authority in the short term (Operational cessation or major operational issues lasting up to two weeks)	Intermittent adverse national media coverage
Medium 2	Incident causes short-term harm for up to two weeks to traditional food sources, cultural or ceremonial practices	Community projects, programs, businesses or employment disrupted for up to two weeks	Between \$500,000 to \$1 million cash impact	One person with serious long-term injury Some minor injuries	Damage to facilities cause operations to cease for up to one week Or financial impact of \$500,000 - \$1 million	Vessel sustains damage resulting in loss of operations for one week	Incident causes short term harm to environment (i.e. damage lasts no greater than one week)	Operational issues lasting up to one week but no cessation of business	Sustained front page adverse local media coverage Board and Ottawa receive complaints from industry associations and major clients
Low 1	Incident causes short-term harm for up to one week to traditional food sources, cultural or ceremonial practices	Community projects, programs, businesses or employment disrupted for up to one week	Up to \$500,000 cash impact	Single or multiple minor injuries requiring on site First Aid and/or off-site treatment	Damage to facilities cause operations to cease for up to 72 hours Or a financial impact up to \$500,000	Minor damage with no effect or damage resulting in a loss of operations of no more than 72 hours	Incident causes minimal or intermittent harm to environment over a period of time (i.e. damage lasts no greater than a day)	No operational issues or operational issues lasting up to 72 hours	Intermittent adverse local media coverage Complaints received from industry and/or clients

Risk Likelihood Ranking Criteria

Likelihood	Risks that are ongoing	Risks that are one off
EXTREME 5	We expect that the risk will occur many times a month. The risk is happening.	We fully expect the risk to occur. The risk is already occurring (i.e. It is an issue).
VERY HIGH 4	We expect that the risk will occur at least once a year.	We expect the risk will most probably occur.
HIGH 3	We expect that the risk will occur once in three years.	We expect that the risk may occur at some time and we think it more likely than not.
MEDIUM 2	We expect that the risk will occur once in 10 years.	We expect that the risk may occur at some time and we think it less likely than not.
LOW 1	We expect that the risk will occur once in 50 years.	We expect that the risk may occur only in exceptional circumstances but that it is highly doubtful that it will.

Risk Ranking Score Key

To achieve the risk’s score, multiply the Impact score by the Likelihood score. The overall rankings are the following:

25 Extreme	20 Very High	15 High	10 Medium	5 Low
24 Extreme	19 Very High	14 High	9 Medium	4 Low
23 Extreme	18 Very High	13 High	8 Medium	3 Low
22 Extreme	17 Very High	12 High	7 Medium	2 Low
21 Extreme	16 Very High	11 High	6 Medium	1 Low





NO SMOKING

LOOKING AHEAD TO 2022

The Authority's annual financial results remain linked to the traffic in our ports. Annual traffic levels and thus finances are driven by the economics of the industry we serve. It remains very difficult to accurately forecast traffic levels for upcoming years as there are many factors involved, well outside the control of the Authority.

In preparing forecasts, the Authority analyzes prior year's traffic patterns, data and announcements from industry associations, port authorities, terminal expansion plans and general financial conditions. The Authority also reaches out to terminal operators and agents across the province to solicit feedback on expected 2022 cargo throughput and ship-call volumes.

In determining its proposed service charge increases for 2022, the Authority based its most recent forecast of revenues and expenditures on 11,296 coastal and 988 Fraser River assignments, resulting in a forecast surplus for 2022 of \$0.5 million.

The outlook for shipping traffic during the pandemic is still unclear. We have assumed a partial return of cruise ships during 2022 at 75% of pre-pandemic levels. We have also assumed other traffic will decline 5% below 2021 levels due to continued effects of the pandemic; unusually high grain shipments at the start of 2021 which are not expected to recur in 2022; and potentially adverse impacts related to the conflict in Ukraine on global trade.

Pilot transportation costs will continue to be unusually high in the first quarter of 2022 as we resumed chartered flights to

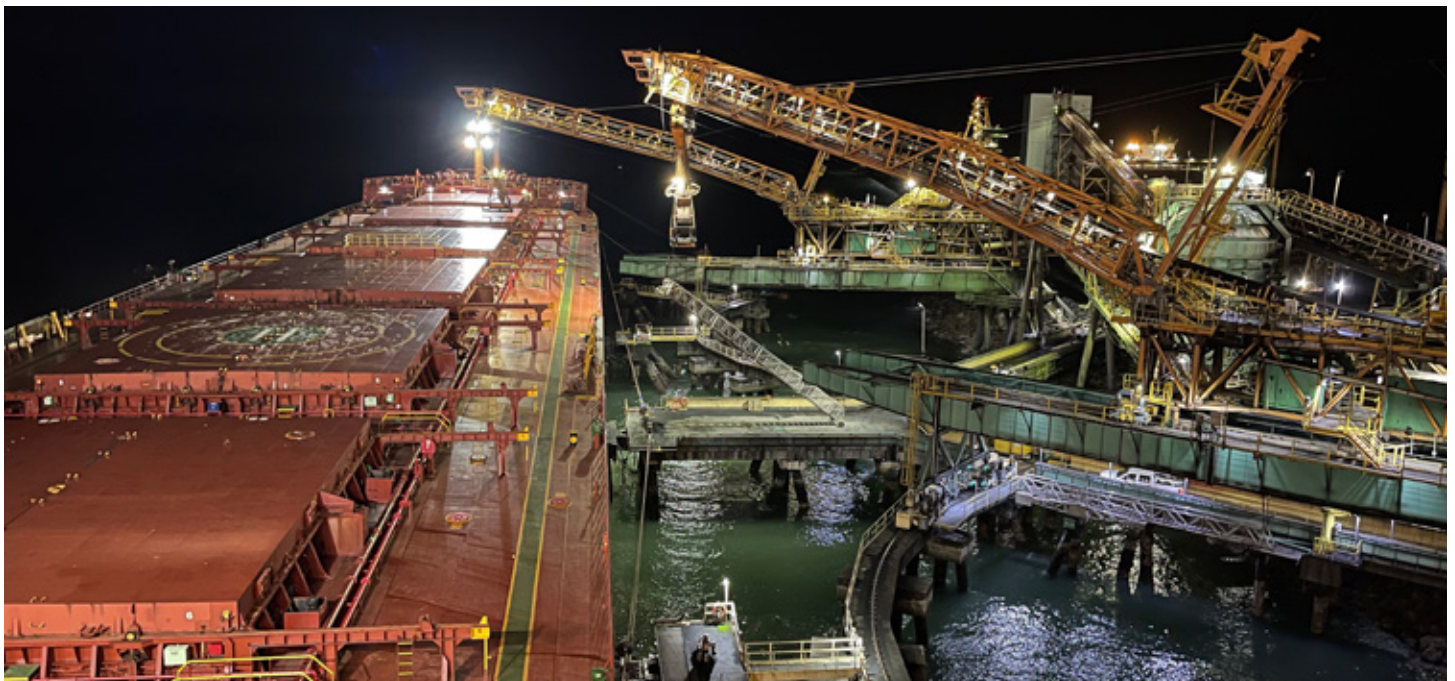
maintain pilot health and safety during the most recent wave of the pandemic. However, we are planning to cease the charter operations in March and revert back to using commercial airlines.

The extent to which we can continue full training of apprentice and licensed pilots will also be a key driver to our financial results for 2022. We expect continued higher than normal training costs in 2022 as we catch up with training deferred from 2020.

Service Charges for 2022

To fund our activities and be financially self-sustaining, the Authority determines pilotage charges for the services it provides. Consistent with the principles set out in the *Pilotage Act*, the service charges are intended to be fair, reasonable and sufficient to allow for a safe and efficient service. The Authority continues to place great emphasis on a full and comprehensive engagement process by consulting at length with industry prior to any changes in service charges.

With a new contract with BCCP determined through Final Offer Selection at the beginning of February 2022, we are now able to establish the service charges for 2022. With a consultation and notice period of four months, the earliest new service charges could be effective is the beginning of June 2022. Since the new BCCP contract is effective January 1, 2022, we would not be able to recover the cost of increases under the new contract for at least five months. The financial impact for this period is estimated to be approximately \$1 million. We have completed our consultation with industry on proposed increases in service charges and have posted a notice advising industry of the proposed increases, which would be effective in June 2022.



Strategic Focus Areas in 2022

On an annual basis, the Authority engages in strategic planning sessions involving the Board of Directors and management. At the planning session for 2022-2026, the Authority endorsed the following objectives, priorities and activities for 2022.

Objectives and associated strategic priorities and activities

1. Provide safe, reliable and efficient marine pilotage

To provide safe, reliable and efficient marine pilotage and related services in the coastal waters of British Columbia, including the Fraser River, by embracing a culture of continuous improvement.

STRATEGIC PRIORITIES

- Safe - to meet or exceed the Authority's commitments to safety through a combination of training and the application of continuous improvement initiatives.
- Reliable - to minimize delays caused by the Authority and/or pilots by embracing the use of relevant technology.
- Efficient - to ensure that pilotage services are managed and delivered in the most practical, efficient and cost-effective manner.

ACTIVITIES FOR 2022

- Upgrade the in-house simulator databases in partnership with the BCCP and the guidance of PTEC.
- Expand the in-house simulator in partnership with the BCCP to include one tug and one full mission bridge simulators.
- Implement a new dispatch and accounting system and introduce e-source cards for pilots.
- Complete the RFP process and contract negotiations with the successful proponent for helicopter service in both the north and the south coasts.

2. Ensure financial self-sufficiency

To provide the services within a commercially oriented framework, by maintaining financial self-sufficiency, through a combination of cost management and fees that are fair and reasonable.

STRATEGIC PRIORITIES

- Self-sufficiency - to ensure that the Authority remains financially self-sufficient on an ongoing basis.
- Cost management - to ensure that the Authority maintains a cost structure that does not increase as a proportion of revenue.
- Fair and reasonable fees - to develop, enhance and refine forecasting and modelling tools to ensure that fees are directly based on assumptions about the future of the Authority's business.

ACTIVITIES FOR 2022

- Undertake a review of the pilot transportation network coast wide, including launches, taxis and aircraft.

3. Promote organizational and environmental sustainability

To implement sustainable practices within the Authority with a focus on quality assurance, and to contribute to the federal government's environmental, social and economic policies as they apply to the marine industry on the Pacific coast of Canada.

STRATEGIC PRIORITIES

- Organizational sustainability - to create, implement and maintain practices that are in alignment with and in support of the federal government's initiatives.
- Quality assurance - to operate the business with a commitment to the long term, by having the appropriate policies, plans and practices in place to deliver the right skills at the right time.
- Environmental sensitivity - to ensure that the Authority meets or exceeds all environmental regulatory requirements and follows best practices to reduce its carbon footprint.

ACTIVITIES FOR 2022

- Select a new CEO to replace the retiring CEO.
- Continue developing the program and hiring protocol for enhancing consideration of equity, diversity and inclusion within the Authority.
- Establish a Pay Equity Committee to take necessary steps to ensure that compensation practices provide men and women with equal pay for work of equal value.
- Implement procedures to address any emerging cybersecurity issues and concerns.



4. Demonstrate leadership

To assume a leadership role in the marine industry we serve, by demonstrating national influence and engaging the community in order to facilitate decisions that result in improvements to navigational safety and the efficiency of marine operations.

STRATEGIC PRIORITIES

- Develop national influence - to influence national and regional discussions on marine safety and operational issues facing the west coast of Canada in order to improve outcomes for pilotage, the community and industry.
- Facilitate decision-making - to actively participate in all relevant marine initiatives and lead the decision-making process regarding pilotage on the west coast of Canada.
- Engage stakeholders and the community - to expand the Authority’s stakeholder engagement strategy and community outreach program to ensure national and regional understanding of the Authority’s role in ensuring safe pilotage.

ACTIVITIES FOR 2022

- Actively engage with First Nations communities on the west coast of Canada that are affected by the movement of piloted vessels and ensure a thorough understanding of the roles and responsibilities of the Authority and pilots.
- Work with regional Transport Canada safety and security teams on the West Coast regarding the enforcement of Pilotage Act Regulations.
- Utilize social media as a medium to further develop the Authority’s stakeholder engagement.

5. Manage risk

To ensure that risk management tools are used in all safety related decisions for both the organization and its operations and that evolving technologies are taken into consideration.

STRATEGIC PRIORITIES

- Manage organizational risk - to ensure adequate processes are in place to minimize the strategic risks faced by the organization.
- Manage operational risk - to ensure that effective risk management tools are in place to adequately address or mitigate all identified operational risks.

ACTIVITIES FOR 2022

- Develop a safety and operational procedures manual for all ports not located within a port authority and publish the information on the PPA website.

6. Focus on the future

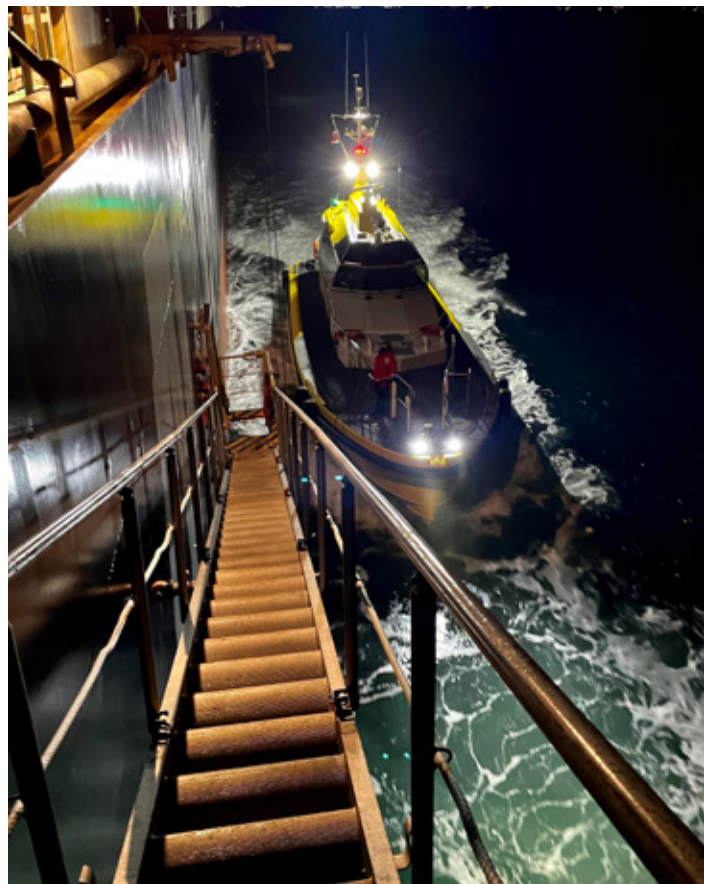
By using early warning indicators, ensure that the Authority is prepared, both financially and operationally, to deal effectively with changes to the marine industry, the changing regulatory landscape and the complex environment within which we operate.

STRATEGIC PRIORITIES

- Early warning - to engage with the appropriate parties to anticipate and monitor the relevant indicators for early warning of factors that have a positive or negative impact on PPA’s financial and operational position.
- Positive positioning - to position the Authority with ‘a foot in today’ - focused on current matters, and ‘a foot in tomorrow’ - ensuring the Authority’s ability to deliver safe, reliable and affordable solutions in the future.

ACTIVITIES FOR 2022

- Engage with the appropriate parties to anticipate and monitor the relevant indicators for early warning of factors that have a positive or negative impact on PPA’s financial and operational position.
- Work with Transport Canada to establish the roles and responsibilities of the Authority arising from the transition of the administration of regulations to Transport Canada.



LOOKING AHEAD – BEYOND 2022

The potential of the projects and terminals proposed for the West Coast continues to show promise every year. We continue to actively monitor and remain aware of all projects proposed in our jurisdiction by analyzing the impact they might have on assignments, pilot numbers and pilot deployment methodologies. Some of the major projects currently being monitored are:

- The Prince Rupert container facility expansion will increase throughput to 1.8 million TEU by 2024 compared to 1 million TEU's moved in 2021
- Expansion of the existing Trans Mountain pipeline to increase crude oil shipment capacity in Burrard Inlet, expected to be operational in 2023
- A new terminal at Roberts Bank, Delta which would double container volumes. An environmental assessment process is still in progress
- The Vancouver Airport Fuel Facility on the Fraser River which is expected to be fully operational in 2023
- Various LNG terminals, including a new large terminal under construction in Kitimat (expected to be in operation in 2024) and a smaller terminal proposed in Squamish
- Various LPG terminals, including two in construction in Prince Rupert

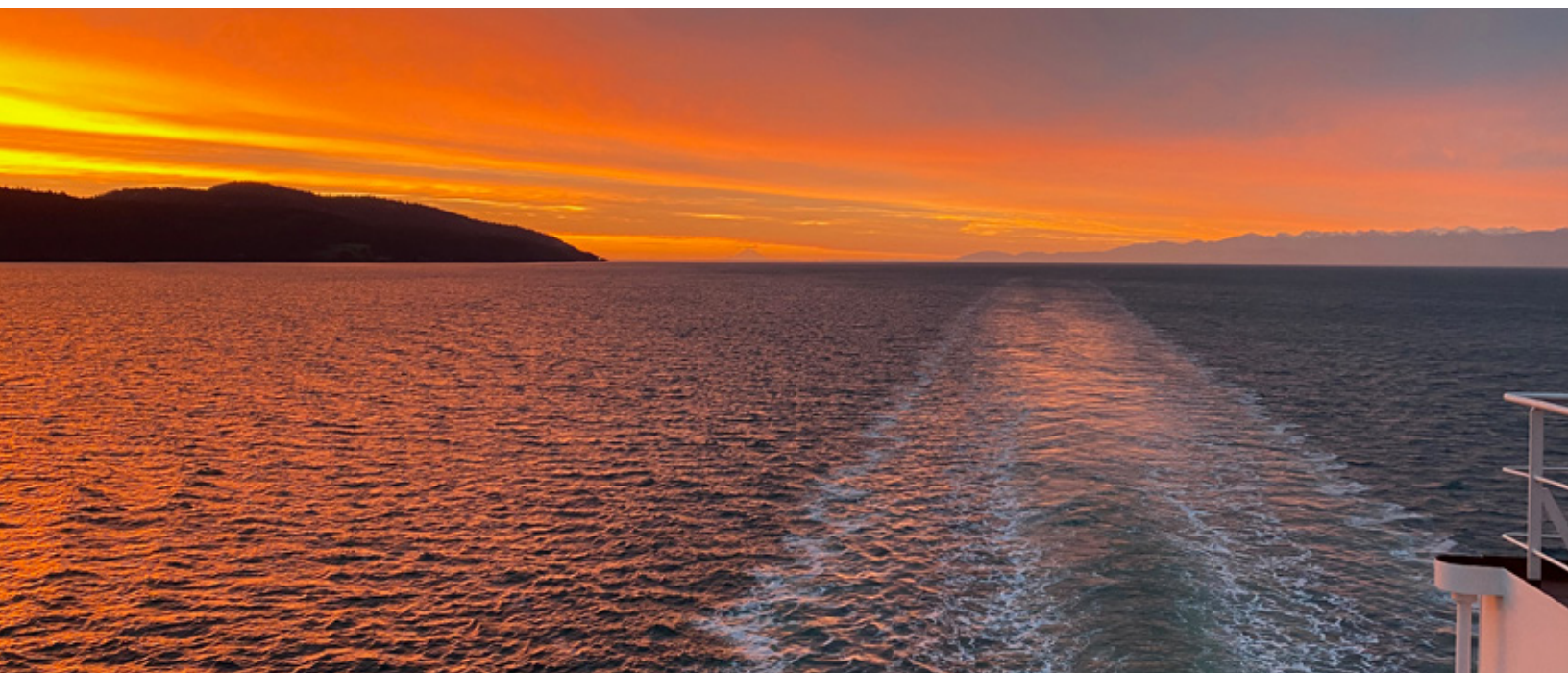
The Authority, along with the BC Coast Pilots and Fraser River pilots, are active participants when new terminals or docks are proposed in our jurisdiction. Our views on design, location and navigational access are regularly sought out prior to construction.

Our monitoring includes many other events, negotiations, legislation and similar activities that may affect our area of jurisdiction. Many of these events are outside of our control yet they may have implications for our jurisdiction. Some of these major events are:

- discussions regarding replacement of a major tunnel in the Vancouver area that would affect vessel traffic in and out of the Fraser River;
- world health epidemics and the related effects on trade with Canada;
- changing global trading patterns;
- escalating conflict in Ukraine and potential impact on global trade

Our efforts in the coming years continue to be directed towards our vision of

leading a world-class
marine pilotage service
on the west coast of Canada.



Statement of Management Responsibility

These financial statements have been prepared by the Authority's management in accordance with International Financial Reporting Standards, using management's best estimates and judgments, where appropriate. The Authority's management is responsible for the integrity and objectivity of the information in the financial statements and annual report.

Management maintains a system of internal control designed to provide reasonable assurance that assets are safeguarded and controlled, transactions comply with relevant authorities and accounting systems provide relevant and reliable financial information.

The Board of Directors of the Authority is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal control. The Board exercises this responsibility through an Audit Committee, which meets regularly with management and the auditor. The financial statements and annual report are reviewed and approved by the Board of Directors on the recommendation of the Audit Committee.

The independent auditor, the Auditor General of Canada, is responsible for auditing the transactions and financial statements of the Authority and for issuing her report thereon.



K. G. Obermeyer
Chief Executive Officer



S. M. Mackenzie
Chief Financial Officer

March 22, 2022



Office of the
Auditor General
of Canada

Bureau du
vérificateur général
du Canada

INDEPENDENT AUDITOR'S REPORT

To the Minister of Transport

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of the Pacific Pilotage Authority (the Authority), which comprise the statement of financial position as at 31 December 2021, and the statement of comprehensive income, statement of changes in equity and statement of cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Authority as at 31 December 2021, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRSs).

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Authority in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Other Information

Management is responsible for the other information. The other information comprises the information included in the annual report, but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with IFRSs, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the Authority's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Authority or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Authority's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Authority's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Authority's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's

report. However, future events or conditions may cause the Authority to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Report on Compliance with Specified Authorities

Opinion

In conjunction with the audit of the financial statements, we have audited transactions of the Pacific Pilotage Authority coming to our notice for compliance with specified authorities. The specified authorities against which compliance was audited are Part X of the *Financial Administration Act* and regulations, the *Pilotage Act* and regulations, the by-laws of the Pacific Pilotage Authority, and the directive issued pursuant to section 89 of the *Financial Administration Act*.

In our opinion, the transactions of the Pacific Pilotage Authority that came to our notice during the audit of the financial statements have complied, in all material respects, with the specified authorities referred to above. Further, as required by the *Financial Administration Act*, we report that, in our opinion, the accounting principles in IFRSs have been applied on a basis consistent with that of the preceding year.

Responsibilities of Management for Compliance with Specified Authorities

Management is responsible for the Pacific Pilotage Authority's compliance with the specified authorities named above, and for such internal control as management determines is necessary to enable the Pacific Pilotage Authority to comply with the specified authorities.

Auditor's Responsibilities for the Audit of Compliance with Specified Authorities

Our audit responsibilities include planning and performing procedures to provide an audit opinion and reporting on whether the transactions coming to our notice during the audit of the financial statements are in compliance with the specified authorities referred to above.



Lana Dar, CPA, CA
Principal
for the Auditor General of Canada

Vancouver, Canada
22 March 2022

Statement of financial position

As at December 31

(thousands of Canadian dollars)

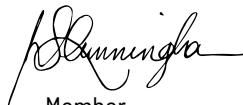
	2021	2020
	\$	\$
Assets		
Current		
Cash and cash equivalents	6,594	7,707
Trade accounts receivable	4,986	4,902
Investments (Note 5)	1,170	1,258
Prepaid expenses and other receivables	1,238	950
	13,988	14,817
Non-current		
Investments (Note 5)	1,191	472
Other receivables	149	156
Property and equipment (Note 6)	16,600	13,547
Intangible assets (Note 7)	587	149
	18,527	14,324
	32,515	29,141
Liabilities		
Current		
Accounts payable and accrued liabilities	12,105	10,126
Borrowings (Note 8)	710	2,986
Other employee benefits (Note 10)	174	283
Lease liabilities (Note 11(d))	302	352
	13,291	13,747
Non-current		
Borrowings (Note 8)	5,285	601
Other employee benefits (Note 10)	655	606
Lease liabilities (Note 11(d))	1,303	325
	7,243	1,532
	20,534	15,279
Equity		
Retained earnings	11,981	13,862
	32,515	29,141

Commitments (Note 14)

The accompanying notes are an integral part of these financial statements.



Member



Member

Statement of comprehensive income

Year ended December 31
(thousands of Canadian dollars)

	2021	2020 (Note 15)
	\$	\$
Revenues		
Revenue from contracts with customers		
Pilotage charges	84,308	83,087
Other revenue		
Investment and other revenues	253	154
	84,561	83,241
Expenses		
Contract pilots' fees	52,743	54,494
Salaries and benefits	14,186	13,119
Pilots' transportation	10,297	9,043
Pilots' training	1,935	477
Depreciation - property and equipment	1,610	1,655
Fuel	1,602	1,281
Professional and special services	1,456	936
Repairs and maintenance	1,160	881
Computer services	562	480
Utilities, materials, supplies and other	277	337
Rentals	183	241
Insurance	148	130
Travel	138	83
Finance costs	114	194
Communications	75	81
32 Amortization - intangible assets	13	—
	86,499	83,432
Loss for the year	(1,938)	(191)
Other comprehensive income (loss), not to be reclassified to profit or loss in subsequent periods:		
Actuarial income (loss) on other employee benefits (Note 10)	57	(67)
	57	(67)
Total comprehensive loss for the year	(1,881)	(258)

The accompanying notes are an integral part of these financial statements.

Statement of changes in equity

Year ended December 31 (thousands of Canadian dollars)	2021	2020
	\$	\$
Retained earnings, beginning of year	13,862	14,120
Loss for the year	(1,938)	(191)
Other comprehensive income (loss)	57	(67)
Total comprehensive loss	(1,881)	(258)
Retained earnings, end of year	11,981	13,862

The accompanying notes are an integral part of these financial statements.

Statement of cash flows

Year ended December 31 (thousands of Canadian dollars)	2021	2020
	\$	\$
Cash flows from operating activities		
Cash receipts from customers	84,224	84,017
Cash paid to employees	(14,122)	(13,198)
Cash paid to suppliers and others	(69,165)	(70,670)
Other income received	259	138
Net cash provided by operations	1,196	287
Cash flows from investing activities		
Purchase of investments	(1,890)	(1,440)
Proceeds on disposal of investments	1,252	840
Acquisition of property and equipment	(3,561)	(2,665)
Acquisition of intangible assets	(172)	(149)
Net cash used in investing activities	(4,371)	(3,414)
Cash flows from financing activities		
Proceeds from borrowings	2,827	2,573
Principal repayment of borrowings	(419)	(406)
Principal repayment of leases	(346)	(347)
Net cash provided by financing activities	2,062	1,820
Net decrease in cash and cash equivalents	(1,113)	(1,307)
Cash and cash equivalents, beginning of year	7,707	9,014
Cash and cash equivalents, end of year	6,594	7,707
Represented by:		
Cash	6,594	7,707
Cash equivalents	—	—

The accompanying notes are an integral part of these financial statements.

Notes to the financial statements

Year ended December 31, 2021 (thousands of Canadian dollars)

1. Authority and objectives

The Pacific Pilotage Authority (the "Authority") was established in 1972 pursuant to the *Pilotage Act* (the "Act"). The objectives of the Authority are to establish, operate, maintain and administer a safe and efficient pilotage service within designated Canadian waters.

The pilotage charges that are applied by the Authority to vessels subject to compulsory pilotage are governed by the Act and must be established in accordance with the charging principles within the Act. The Act provides that pilotage charges shall be set at levels that are fair and reasonable and allow the Authority to be financially self-sufficient.

Coastal pilotage services are provided by British Columbia Coast Pilots Ltd. under an agreement for services. Pilotage services on the Fraser River are provided by employee pilots.

The Authority is a Crown corporation named in Part I of Schedule III to the *Financial Administration Act* and is not subject to any income taxes. In fiscal 2015, the Authority was issued a directive (P.C. 2015-1114) pursuant to section 89 of the *Financial Administration Act* to align its travel, hospitality, conference and event expenditure policies, guidelines and practices with Treasury Board policies, directives and related instruments on travel, hospitality, conference and event expenditures in a manner that is consistent with its legal obligations, and to report on the implementation of this directive in

the Authority's next corporate plan. The Authority's policies were in alignment throughout 2021.

The principal registered address and records office of the Authority are located at 1000 - 1130 West Pender Street, Vancouver, BC, V6E 4A4.

2. Significant Accounting Policies

2.1 Statement of compliance

The financial statements have been prepared in compliance with International Financial Reporting Standards (IFRS).

The financial statements were authorized for issue by the Board of Directors on March 22, 2022.

2.2 Basis of preparation

The financial statements have been prepared on the historical cost basis, as explained in the accounting policies below.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

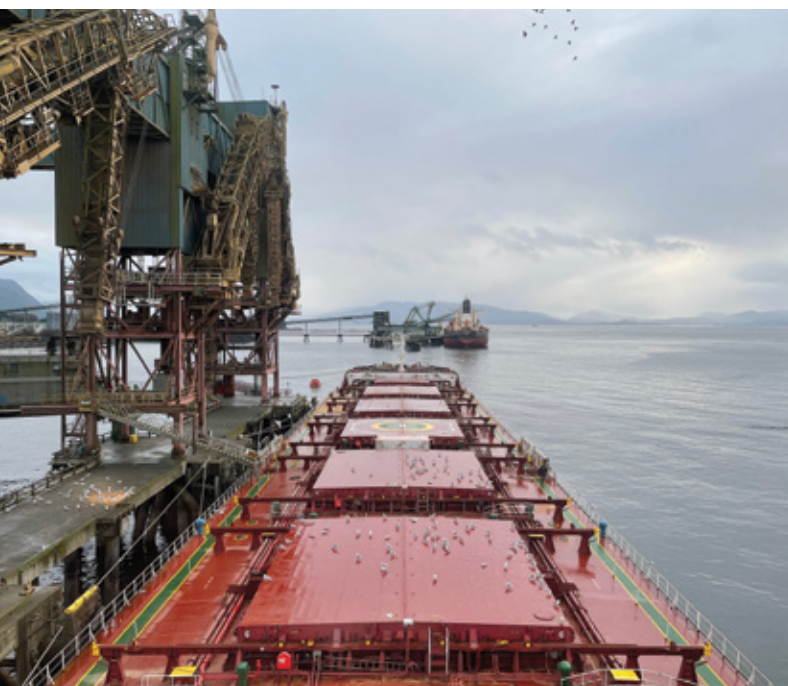
Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, regardless of whether that price is directly observable or estimated using another valuation technique. In estimating the fair value of an asset or liability, the Authority takes into account the characteristics of the asset or liability if market participants would take those characteristics into account when pricing the asset or liability at the measurement date. Fair value for measurement and/or disclosure purposes in these financial statements is determined on such a basis.

2.3 Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, Canadian dollar deposits held at Canadian chartered banks, and short-term, highly liquid investments that are readily convertible into known amounts of cash and subject to an insignificant risk of changes in value.

2.4 Revenue recognition

The Authority recognizes revenue upon the transfer of control of promised services to customers in an amount that reflects the consideration to which the Authority expects to collect in exchange for the pilotage services it provides. The Authority applies a five-step model framework for all of its contracts with customers:



1. Identification of the contract with its customer
2. Identification of the performance obligations in the contract
3. Determination of the transaction price
4. Allocation of the transaction price to the performance obligations in the contract
5. Recognition of revenue when the Authority satisfies its performance obligation

Requests by customers for pilotage services are recognized as contracts in accordance with IFRS 15; in which enforceable rights and obligations are created. The Authority is bound to provide pilotage services by the *Pilotage Act*, and does not have a unilateral enforceable right to terminate a wholly unperformed contract.

When a pilotage assignment is complete and there are no other billable services to the customer as part of the assignment, the performance obligation is considered satisfied and revenue is recognized as a bundle of services promised in the contract (transportation, pilot boat, fuel, pilotage and time charges). The transaction price of each assignment is based on a published service charge and payment terms are 15 days. Contracts with customers do not include non-cash consideration; there are no significant financing components, no refund liabilities and contracts do not include variable consideration.

The Authority satisfies its performance obligations at a point in time as control is only passed once an assignment is complete because regulations prevent a ship from navigating in pilotage waters without a pilot designated by the Authority on board. Receivables related to contracts with customers are presented in the Authority's statement of financial position as trade accounts receivable and are accounted for in accordance with IFRS 9. The Authority has elected to apply a practical expedient that removes the requirement to disclose information about unsatisfied (or partially unsatisfied) performance obligations at year-end where such obligations are part of a contract with an original expected duration of one year or less.

2.5 Interest Income

Interest income from a financial asset is recognized when it is probable that the economic benefits will flow to the Authority and the amount of income can be measured reliably. Interest income is accrued on a time basis, by reference to the principal outstanding and at the effective interest rate applicable, which is the rate that exactly discounts estimated future cash receipts through the expected life of the financial asset to the asset's net carrying amount on initial recognition.

2.6 Foreign currencies

In preparing the financial statements of the Authority, transactions in currencies other than the Authority's functional currency (foreign currencies) are recognized at the rate of exchange prevailing at the dates of the transactions. At the end of each reporting period, monetary items denominated in foreign currencies are translated at the rates prevailing at that date. Non-monetary items carried at fair value that are denominated in foreign currencies are retranslated at the rates prevailing at the date when the fair value was determined. Non-monetary items measured at historical cost denominated in a foreign currency are translated at the exchange rate in effect at the date of initial recognition.

2.7 Employee benefits

i. Pension benefits

All eligible employees of the Authority participate in the Public Service Pension Plan (the "Plan"), a multi-employer contributory defined benefit plan established through legislation and sponsored by the Government of Canada.

Contributions are required by both the employees and the Authority to cover current service cost. Pursuant to legislation currently in place, the Authority has no legal or constructive obligation to pay further contributions with respect to any past service or funding deficiencies of the Plan. Consequently, contributions are recognized as an expense in the year when employees have rendered service and represent the total pension obligation of the Authority.

ii. Other employee benefits

Management, unionized employees, and Fraser River pilots are entitled to sick leave benefits as provided for under collective agreements or employment contracts. Unionized employees are entitled to severance benefits accumulated up to March 31, 2018. The liability for these benefits is estimated and recorded in the financial statements as the benefits accrue to the employees.

The costs and the defined benefit obligation are actuarially determined using the projected unit credit method prorated on service that incorporates management's best estimate assumptions.

Actuarial gains and losses are recognized immediately in other comprehensive income (OCI).

2.8 Leases

A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments.

i. Determining whether an arrangement contains a lease

At the inception of an arrangement, the Authority assesses whether the arrangement is, or contains, a lease. An arrangement is, or contains, a lease if the arrangement conveys the right to control the use of an identified asset for a period of time in exchange for consideration. To assess whether an arrangement conveys the right to control the use of an identified asset, the Authority assesses whether:

- the arrangement involves the use of an identified asset;
- the Authority has the right to obtain substantially all of the economic benefits from use of the asset throughout the period of use; and
- the Authority has the right to direct the use of the asset.

For practical expediency, the Authority has elected to:

- account for leases with a remaining term of less than 12 months as short-term leases and expense on a straight-line basis over the lease term; and
- account for lease payments as an expense and not recognize a right-of-use ("ROU") asset if the underlying asset is of low dollar value.

ii. Recognition and measurement of the right-of-use asset

For arrangements that contain a lease, the Authority recognizes a right-of-use asset and a lease liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset to its originally condition, less any lease incentives received.

The right-of-use asset is subsequently depreciated using the straight-line method from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. The estimated useful lives of right-of-use assets are determined on the same basis as those of property and equipment.

iii. The lease term

The lease term includes periods covered by an option to extend if the Authority is reasonably certain to exercise that option as well as periods covered by an option to terminate the lease if the Authority is reasonably certain not to exercise that option. In addition, the right-

of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

iv. Recognition and measurement of the lease liability

The lease liability is initially measured at the present value of the lease payments that are unpaid at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined the Authority's incremental borrowing rate will be used. All extension options have been included in the measurement of lease obligations where applicable. Payments for optional renewals or purchase options are included if they are reasonably certain to be made. Variable lease payments that depend on sales or usage are excluded from the lease liability and recognize in income as incurred. Variable payments that depend on an index or rate are included in the lease liability based on the index or rate existing at each balance sheet date.

The lease liability is subsequently measured at amortized cost using the effective interest rate method. It is re-measured when there is a change in the Authority's estimate of the amount expected to be payable under a residual value guarantee, when there is a change in future lease payments arising from a change in a rate used to determine those payments, or if the Authority changes its assessment of whether it will exercise a purchase, extension or termination option.

When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

2.9 Property and equipment

Property and equipment are initially recorded at cost, and subsequently carried at cost less accumulated depreciation and any accumulated impairment losses. The cost of assets constructed by the Authority includes design, project management, legal, materials, interest on directly attributable construction loans, and construction costs. Spare engines are carried at cost and will be depreciated when put in service.

Depreciation is recognized so as to allocate the cost or valuation of the assets less their residual values over their useful lives, on a straight-line basis. The estimated useful lives, residual values and depreciation methods are reviewed at the end of each reporting period, with the effect of any changes in estimate accounted for on a prospective basis. The estimated useful lives of the Authority's assets are as follows:

Buildings and floats	10 - 20 years
Pilot boats	25 years
Pilot boat engines	10,250 running hours
Pilot boat generators	10 years
Equipment	
communication and other	4 - 10 years
computers	3 years
simulators	5 years
Leasehold improvements	shorter of 10 years or remaining term of lease
Right of use assets	remaining term of lease

In addition, the Authority reviews the carrying amount of its non-financial assets, which include property and equipment, at each financial year-end to determine whether there is any indication of impairment. If any such indication exists, then the asset's recoverable amount is estimated.

For the purpose of impairment testing, assets that cannot be tested individually are grouped together into the smallest group of assets that generates cash inflows from continuing use that are largely independent of the cash inflows from other assets or groups of assets (the "cash generating unit", or "CGU").

The recoverable amount of an asset or a CGU is the greater of its value in use and its fair value less costs to sell. In assessing value in use, the estimated future cash flows are discounted to their present value by applying a discount rate that reflects current market assessments of the time value of money and the risks specific to the asset.

An impairment loss is recognized if the carrying amount of an asset or a CGU exceeds its estimated recoverable amount. Impairment losses are recognized in comprehensive income.

Impairment losses recognized in prior periods are assessed at each financial year-end for any indications that the loss has decreased or no longer exists. An impairment loss is reversed if there has been a change in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation and amortization, if no impairment loss had been recognized.

With regard to simulators, the Authority's proportion of costs of software purchased for its own use and which is integral to the hardware (because without that software the equipment cannot

operate), is treated as part of the cost of the computer hardware and capitalized to property and equipment.

2.10 Intangible assets

Acquired computer software is recorded at cost and amortized on a straight-line basis over its estimated useful life of 10 years.

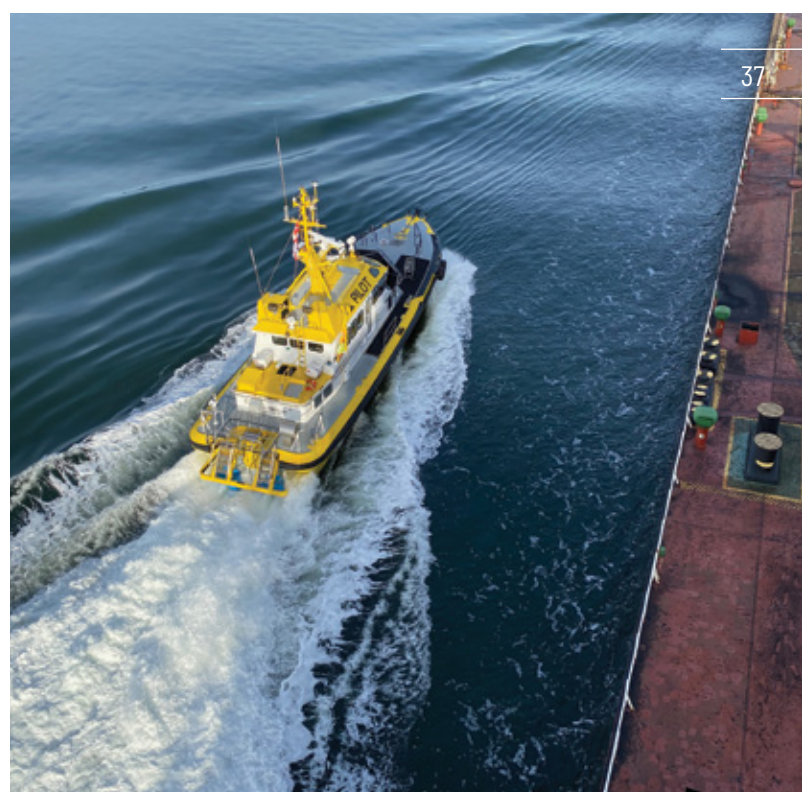
2.11 Financial Instruments

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities measured at fair value through profit and loss) are added to or deducted from the fair value of the assets or liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities measured at fair value through profit or loss are recognized immediately in profit or loss.

Financial Assets

The Authority's financial assets include cash and cash equivalents, trade accounts receivable, certain other receivables and investments which include GIC's and corporate bonds.

On initial recognition, the Authority classifies its financial assets as measured at amortized cost, fair value through other comprehensive income (FVOCI), or fair value through profit or loss (FVTPL).



Financial assets are reclassified subsequent to their initial recognition when the Authority changes its business model for managing those financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

Financial assets that are not designated as being measured at FVTPL are recorded at amortized cost or FVOCI as appropriate.

Financial assets are measured at amortized cost when both of the following conditions are met:

- (a) the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- (b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Financial assets are measured at FVOCI when both of the following conditions are met:

- (a) the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling financial assets; and
- (b) the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

The Authority's cash and cash equivalents are initially recognized at fair value and subsequently measured at amortized cost.

Since the objective of the Authority's investment policy is to hold investments and collect contractual cash flows on specified dates that are solely principal and interest on amounts outstanding, the Authority's investments are measured at amortized cost.

Investments classified as measured at amortized cost are initially recognized at fair value and subsequently measured at amortized cost using the effective interest rate method. When required, the Authority recognizes a loss allowance for expected credit losses.

Such losses are included in other comprehensive income and reduce the carrying value of the related investments. Interest income and any gain or loss on derecognition is included in other comprehensive income.

Trade accounts receivable are initially recognized at the transaction price; certain other receivables are initially recognized at fair value; and both are subsequently measured at amortized cost using the effective interest method, less a provision for impairment when applicable. Receivables are considered individually for impairment when they are past due or when other objective evidence is received that a specific counterparty will default. Receivables that are not considered to be individually impaired are reviewed for impairment in groups, which are determined by reference to the industry and region of the counterparty and other shared credit risk characteristics. The impairment loss estimate is then based on recent historical counterparty default rates for each identified group.

Financial liabilities

Financial liabilities are recognized when the Authority becomes a party to the contractual provisions of the financial instrument and are classified as measured at amortized cost, except for financial liabilities measured at fair value through profit or loss.

The Authority's financial liabilities include accounts payable and accrued liabilities, lease liabilities and borrowings and are all classified as measured at amortized cost using the effective interest method. Financial liabilities are removed from the balance sheet when the obligation specified in the contract is either discharged, cancelled or expires.

3. Significant accounting judgments and estimates

The preparation of financial statements requires the use of judgment in applying accounting policies and in making critical accounting estimates that affect the reported amounts of assets, liabilities, revenues and expenses. These judgments and estimates are based on management's best knowledge of the relevant facts

and circumstances, having regard to previous experience, but actual results may differ from the amounts included in the financial statements. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which estimates are revised and in any future periods affected.

(a) Significant accounting judgments

Leases (notes 2.8 and 11)

The application of IFRS 16, "Leases", requires the Authority to make judgments that affect the valuation of lease liabilities and right-of-use assets. These include determining contracts in scope of IFRS 16 and determining the contract term.

The lease term determined by the Authority comprises the non-cancellable period of lease contracts, periods covered by an option to extend the lease if the Authority is reasonably certain to exercise that option and periods covered by an option to terminate the lease if the Authority is reasonably certain not to exercise that option. This same term is applied to determine the depreciation rate of right-of-use assets.

(b) Significant accounting estimates

Depreciation - property and equipment (notes 2.9 and 6)

Significant components of property and equipment are depreciated over their estimated useful lives. Useful lives are determined based on current facts and past experience. While these useful life estimates are reviewed on a regular basis and depreciation calculations are revised accordingly, actual lives may differ from the estimates. As such, assets may continue in use after being fully depreciated, or may be retired or disposed of before being fully depreciated.

4. Financial Instruments

(a) Risk management

The Authority, through its financial assets and financial liabilities, is exposed to the following risks from its use of financial instruments: credit risk, liquidity risk, and market risks (i.e. interest rate risk, currency risk and other price risk). The Authority manages these risk exposures on an ongoing basis.

(b) Credit risk

Credit risk on financial instruments arises from the possibility that the issuer of a financial instrument fails to meet its obligation.

The carrying amount of cash and cash equivalents, trade accounts receivable, certain other receivables and investments represents the maximum credit exposure.

The credit risk related to cash and cash equivalents is minimized as these assets are held with a Canadian chartered bank.

The Authority's trade accounts receivable had a carrying value of \$4,986 (2020 - \$4,902) and certain other receivables and prepaid travel had a carrying value of \$167 (2020 - \$160). There is no significant concentration of accounts receivable with any one customer. As at December 31, 2021, 0% (2020 - 0%) of accounts receivable were over 90 days past due. Historically, the Authority has not incurred any significant losses with respect to bad debts. The risks of default are considered to be low, as the Authority has the ability to deny pilotage services to a customer who has not paid the Authority for past service. The cost of pilotage services is considered to be insignificant as compared to the value of a vessel, or the costs of delays from denial of pilotage due to lack of payment. The Authority has performed an analysis of expected credit losses on accounts receivable, and the result is an allowance of nil as at December 31, 2021 (2020 - nil).

Credit risk associated with investments at year end is considered to be low. The Authority has recognized an expected credit loss allowance of nil (2020 - nil) related to its investments, which are all investments in either GIC's or corporate bonds (rated BBB- or higher).

(c) Liquidity risk

Liquidity risk is the risk that the Authority will not be able to meet its financial obligations as they become due. The Authority's objective is to have sufficient liquidity to meet these liabilities when due. The Authority monitors its cash balances and cash flows generated from operations on a frequent basis to meet its requirements.

The carrying amount of accounts payable, accrued liabilities, lease liabilities and borrowings represents the maximum exposure to liquidity risk.

Within the Authority's accounts payable and accrued liabilities, trade payables and accrued liabilities had a carrying value of \$6,671 (2020 - \$4,759) and are all due within 60 days. The Authority's wages, employee deductions, and banked time payable had a carrying value of \$5,434 (2020 - \$5,367) and are due on demand.

The Authority has credit facilities with a Canadian chartered bank (Note 8).

(d) Market risks

(i) Interest rate risk

Interest rate risk arises because of the fluctuation in interest rates. The Authority is subject to interest rate risk on its cash and cash equivalents and the investments portfolio. Interest rate risk is minimized by managing the duration of the fixed-term investments portfolio. The interest rates on the investments are fixed. The investments will mature over the next two years.

Cash and cash equivalents held during the year yielded a weighted average interest rate of 0.47% (2020 - 0.96%).

As at December 31, 2021, a shift in interest rates of 100 basis points, assuming that all other variables had remained the same, would have resulted in an increase of \$70 (2020 - \$74) or a decrease of \$70 (2020 - \$74) in the Authority's profits on cash and investments for the year.

The Authority has limited exposure to interest rate risk on its borrowings. Borrowed funds are from a Canadian chartered bank, of which \$5,995 has fixed rates of between 2.70% and 2.86% which cannot be changed between maturity dates without financial penalty.



(ii) Currency risk and other price risk

The Authority is not presently exposed to any significant currency risk or other price risk. Accrued payables denominated in foreign currencies at year end were nil (2020 - nil).

(e) Fair values

For financial reporting purposes, fair value measurements related to financial instruments which are measured subsequent to initial recognition at fair value are categorized into Level 1, 2 or 3. These levels are based on the degree to which the inputs to the fair value measurements are observable and the significance of the inputs to the fair value measurement in its entirety. These are described as follows:

- Level 1 Inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date;
- Level 2 Inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly; and
- Level 3 Inputs are unobservable inputs for the asset or liability.

The Authority's cash and cash equivalents are Level 1 at all dates presented.

The carrying values of the Authority's trade accounts receivable, certain other receivables and accounts payable and accrued liabilities approximate their fair values due to their short-term to maturity.

The fair value of the Authority's borrowings is determined by discounting the future cash flows of these financial obligations using December 31, 2021 market rates for debts of similar terms (Level 2).

At December 31, 2021, the fair value of borrowings before deferred financing costs, is estimated to be equivalent to its carrying value of \$5,995 (2020 - \$3,587). The fair value of the borrowings varies from the carrying value when there are fluctuations in interest rates since their issue.

At December 31, 2021, the fair value of lease liabilities is estimated to be equivalent to its carrying value of \$1,605 (2020 - \$677). The fair value of the lease liabilities varies from the carrying value when there are fluctuations in the Authority's borrowing rate since their initial recognition.

5. Investments and investment revenue**(a) Portfolio investments**

As at December 31	2021		2020	
	Fair Value	Face Value	Fair Value	Face Value
	\$	\$	\$	\$
Current				
GIC's	633	631	858	856
Government of Canada bonds	—	—	291	285
Corporate bonds	534	539	118	117
	1,167	1,170	1,267	1,258
Non-current				
GIC's	551	549	—	—
Corporate bonds	637	642	477	472
	1,188	1,191	477	472
Total	2,355	2,361	1,744	1,730

As at December 31, 2021, the investments have interest rates of 0.70% to 4.93% and have the remaining terms to maturity as follows:

	Remaining term to maturity		
	Within 1 year	1-2 years	Total
	\$	\$	\$
GIC's	631	549	1,180
Corporate bonds	539	642	1,181
	1,170	1,191	2,361

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(b) Investment revenue

Year Ended December 31	2021	2020
	\$	\$
Interest	19	15
Gains and losses		
Realized gains in the year	—	—
	19	15

(c) Investment performance

The time weighted calendar rate of return during the year on these investments was 0.95% (2020 - 1.18%). The return is inclusive of realized gains and losses, deposit and coupon payments (interest), accrued interest received and paid for sales and purchases of bonds, and accrued interest as at December 31, 2021.

6. Property and equipment

	Buildings and floats	Pilot boats*	Pilot boat engines*	Spare engines	Pilot boat generators*	Equipment	Leasehold Improvements	Right-of-use assets (Note 11(b))	Total
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Cost									
At January 1, 2020	876	14,836	2,034	—	415	3,761	261	1,308	23,491
Asset acquired	72	2,329	—	125	—	338	—	36	2,900
Transfers	—	—	54	(54)	—	(15)	—	—	(15)
Disposals	(313)	(23)	—	(32)	(23)	(624)	(81)	(22)	(1,118)
At December 31, 2020	635	17,142*	2,088	39	392	3,460	180	1,322	25,258
Assets acquired	60	1,734	700	—	350	545	—	1,274	4,663
At December 31, 2021	695	18,876*	2,788*	39	742*	4,005	180	2,596	29,921
Accumulated Depreciation									
At January 1, 2020	394	6,355	647	—	107	3,121	195	343	11,162
Depreciation	57	573	299	—	37	322	18	349	1,655
Disposals	(313)	(12)	(31)	—	(23)	(624)	(81)	(22)	(1,106)
At December 31, 2020	138	6,916	915	—	121	2,819	132	670	11,711
Depreciation	65	588	289	—	41	262	18	347	1,610
At December 31, 2021	203	7,504	1,204	—	162	3,081	150	1,017	13,321
Carrying amounts									
At December 31, 2020	497	10,226	1,173	39	271	641	48	652	13,547
At December 31, 2021	492	11,372	1,584	39	580	924	30	1,579	16,600

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* In 2019, the Authority began construction of a new pilot boat. As of December 31, 2021, \$5,570 (2020 - \$2,786) of expenditures were recognized during the course of construction and within the carrying amount of pilot boats, pilot boat engines, and pilot boat generators in property and equipment.



7. Intangible assets

	Software	Total
	\$	\$
Cost		
At January 1, 2020	665	665
Assets acquired	134	134
Transfers	15	15
At December 31, 2020	814	814
Assets acquired	451	451
At December 31, 2021	1,265	1,265
Accumulated Amortization		
At January 1, 2020	665	665
Amortization	—	—
At December 31, 2020	665	665
Amortization	13	13
At December 31, 2021	678	678
<i>Carrying amounts</i>		
At December 31, 2020	149	149
At December 31, 2021	587	587

8. Borrowings

The Authority has an operating credit facility of up to \$3,500 available at an interest rate equivalent to the bank's prime lending rate. The Authority has not drawn on this facility at all dates presented. The credit facility is available to the Authority as required and has no renewal date or fixed term.

On July 22, 2014, the Authority entered into an unsecured committed reducing term loan facility for the acquisition and retrofitting costs of property and equipment. The \$1,700 loan has a term of 8 years and 2 months and bears an annual interest rate of 2.72%. As at December 31, 2021, the principal outstanding is \$257 (2020 - \$506).

On October 13, 2015, the Authority drew on its unsecured committed reducing term loan facility in order to provide a second tranche of financing for the acquisition and retrofitting costs of property and equipment. The \$1,300 loan has a term of 8 years and 2 months and bears an annual interest rate of 2.70%. As at December 31, 2021, the principal outstanding is \$338 (2020 - \$508).

On October 18, 2019, the Authority entered into an uncommitted operating loan facility to provide interim financing for the construction of a new pilot boat. The \$5,400 facility had no term, was payable on demand, and had a maximum of six permitted draws. The loan bore an annual interest rate of the lending-chartered bank's prime rate. Once the new pilot boat was delivered in 2021, the operating loan was converted to an unsecured committed reducing term loan on December 22, 2021 with a contractual term of 120



months and an annual interest rate of 2.86%. As at December 31, 2021, the principal outstanding is \$5,400 (2020 - \$2,573 under the operating loan facility).

Estimated principal repayments on outstanding borrowings as of December 31, 2021 are as follows:

Year	\$
2022	710
2023	472
2024	310
2025	319
2026 and thereafter	4,184

9. Pension benefits

Substantially all of the employees of the Authority are covered by the Plan. Contributions are required by both the employees and the Authority. The President of the Treasury Board of Canada sets the required employer contributions based on a multiple of the employees' required contributions.

The Plan was amended during 2013 which raised the normal retirement age and other age-related thresholds from age 60 to age 65 for new members joining the plan on or after January 1, 2013. For members with start dates before January 1, 2013, the normal retirement age remains 60.

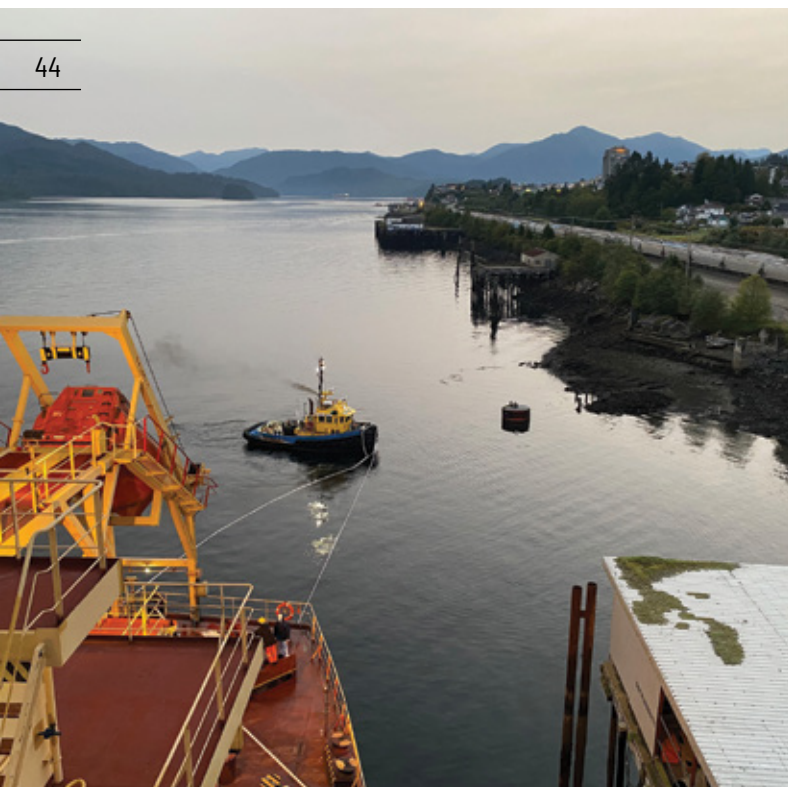
Effective January 1, 2021, the general contribution rate for the year was \$1.01 (2020 - \$1.01) for every dollar contributed by the employee, and \$3.59 (2020 - \$3.80) for every dollar contributed by the employee for the portion of the employee's salary above \$182 (2020 - \$173). For new employees participating in the Plan on or after January 1, 2013, the general contribution rate effective for the year was \$1.00 (2020 - \$1.00) for every dollar contributed by the employee and \$3.59 (2020 - \$3.80) for every dollar contributed by the employee for the portion of the employee's salary above \$182 (2020 - \$173).

Total contributions of \$946 (2020 - \$898) were recognized as an expense in the current year. The Authority expects to make employer contributions of \$965 during 2022.

The Government of Canada holds a statutory obligation for the payment of benefits relating to the Plan. Pension benefits generally accrue up to a maximum period of 35 years at an annual rate of 2 percent of pensionable service times the average of the best five consecutive years of earnings. The benefits are coordinated with Canada/Québec Pension Plan benefits and they are indexed to inflation.

10. Other employee benefits

Management, unionized employees and Fraser River pilots are entitled to sick leave benefits as provided for under collective agreements or employment contracts (the "Benefits Plans"). Unionized employees are entitled to severance benefits accumulated up to March 31, 2018. The benefits are fully paid for by the Authority and require no contributions from employees. The Benefits Plans are funded on a pay-as-you-go basis and no assets have been segregated and restricted to provide for the benefits. The Authority measures the defined benefit obligation of its Benefits Plans for accounting purposes as at December 31 of each year.



Information about the Benefits Plans is as follows:

Year ended December 31	2021	2020
	\$	\$
Reconciliation of defined benefit obligation		
Defined benefit obligation, beginning of year	889	984
Current service cost	53	49
Interest cost	16	26
Benefits paid	(72)	(237)
Actuarial (gain) loss	(57)	67
Defined benefit obligation, end of year	829	889
Reconciliation of plan assets		
Fair value of plan assets, beginning of year	—	—
Employer contributions	72	237
Benefits paid	(72)	(237)
Fair value of plan assets, end of year	—	—
Amounts recognized in profit or loss		
Current service cost	53	49
Interest cost	16	26
Net defined benefit cost recognized in profit and loss	69	75
Amounts recognized in other comprehensive income		
Actuarial (gain) loss from financial assumption changes	(57)	67
Net defined benefit cost recognized in other comprehensive income	(57)	67
Reconciliation of funded status		
Defined benefit obligation, end of year	829	889
Fair value of plan assets, end of year	—	—
Deficit	829	889
Liability recognized on statement of financial position	829	889
Classification of defined benefit obligation		
Current portion	174	283
Non-current portion	655	606
Defined benefit obligation, end of year	829	889

The weighted average of the maturity of the Benefits Plans as at December 31, 2021 is 6.1 years (2020 – 9.0 years).

The significant assumptions used in the actuarial valuation of the defined benefit obligation were as follows:

Weighted-average assumptions for expense		
Year ended December 31	2021	2020
Discount rate	2.00%	2.90%
Salary escalation rate	2.00%	2.00%
Weighted-average assumptions for obligation		
Year ended December 31	2021	2020
Discount rate	2.60%	2.00%
Salary escalation rate	2.00%	2.00%

A quantitative sensitivity analysis for significant assumptions as at December 31, 2021 is as shown below:

Assumptions	Discount rate		Salary scale	
	1% increase	1% decrease	1% increase	1% decrease
Sensitivity level				
Impact on defined benefit obligation	\$ (49)	\$ 56	\$ 52	\$ (47)

The Authority expects to make employer contributions of \$120 (2021 - \$72) to the Benefits Plans during the 2022 financial year.

11. Leases

(a) Leases as a lessee

The Authority leases facilities, including office space and hotel rooms held for pilots, and leases of berthage and moorage space for pilot boats.

(b) Right-of-use assets

	Facilities	Berthage and moorage space	Total
Balance at January 1, 2020	\$ 839	\$ 126	\$ 965
Additions	—	36	36
Depreciation	(306)	(43)	(349)
Disposals	—	—	—
Balance at December 31, 2020	533	119	652
Additions	1,274	—	1,274
Depreciation	(315)	(32)	(347)
Disposals	—	—	—
Balance at December 31, 2021	1,492	87	1,579

(c) Amounts recognized in profit or loss and in statement of cash flows

Interest expense on lease obligations is \$26 (2020 - \$32).

Expenses and cash paid for leases of low-dollar value items and short-term leases are \$120 (2020 - \$88). Variable lease payments not included in the measurement of the lease obligation were nil (2020 - nil).

Interest payments of \$26 (2020 - \$32) and principal payments of \$346 (2020 - \$347) are classified in the statement of cash flows as cash paid to suppliers and principal payments on leases, respectively.

(d) Lease liabilities

The Authority's lease obligations consist of:

	2021	2020
	\$	\$
Balance at beginning of year	677	988
Additions during the year	1,274	36
Principal repayments	(346)	(347)
Total lease obligations	1,605	677
Less: current portion of lease obligations	(302)	(352)
Long-term portion of lease obligations	1,303	325

The annual lease obligations for the next five years and thereafter are as follows:

2022	\$	349
2023		321
2024		350
2025		325
2026 and thereafter		391
Total undiscounted lease obligations	\$	1,736

12. Capital management

The Authority's capital is its equity, which is comprised of retained earnings. Equity is represented by net assets.

The Authority is subject to the financial management and accountability provisions of the *Financial Administration Act* which imposes restrictions in relation to borrowings. On an annual basis the Authority must receive approval of all borrowings from the Minister of Finance. During the years ended December 31, 2021 and 2020, the Authority complied with these restrictions.

On August 7, 2019, section 37 of the *Pilotage Act* was amended to give the Authority the right to invest any moneys not immediately required for the purposes of the Authority in any class of financial asset.

Approval for the Authority to invest in either Government of Canada, provincial or municipal government bonds, fixed income instruments with at least a BBB- credit rating, or GIC's was granted by the Minister of Finance through approval of the Authority's 2021-2025 Corporate Plan.

The Authority manages its equity as a by-product of managing its revenues, expenses, assets, liabilities, and general financial dealings to ensure that its objectives are achieved efficiently.

13. Related party transactions

Details of the transactions between the Authority and other related parties are disclosed below.

(a) Trading transactions

The Authority is related in terms of common ownership to all Government of Canada created departments, agencies and Crown corporations. The Authority enters into transactions with these entities in the normal course of business, under the same terms and conditions that apply to unrelated parties. The transactions are recorded at the exchange amount, which approximates fair value, and do not have a material effect on these financial statements.

(b) Compensation of key management personnel

Key management personnel of the Authority include the members of the Board of Directors and senior executives of the Authority. The remuneration of key management personnel included the following:

Year ended December 31	2021	2020
	\$	\$
Executive management compensation		
Short-term employee benefits, including salaries	1,139	937
Post-employment benefits	121	112
	1,260	1,049
Board compensation		
Retainer and per diem	207	203

14. Commitments

The Authority has an agreement with a software developer to build custom software for the Authority by the end of the second quarter of 2022. Total payments are expected to be approximately \$1,000 before taxes, of which \$187 had been expended by December 31, 2021 and the balance is to be expended in 2022.

Pursuant to section 37.1 of the *Pilotage Act*, the Authority is required to pay \$755 for the year ending March 31, 2022 (2021 - \$441) to Transport Canada, of which \$563 had been included in accrued liabilities at December 31, 2021 (2020 - \$275). Payments for subsequent years will be determined by Transport Canada on an annual basis.

The Authority also has a commitment to Coast Hotels for pilot accommodation in Vancouver. Payments in 2022 are expected to be approximately \$375 (2021 - \$375).

The Authority has a month-to-month commitment to Alkan Air Ltd. for daily chartered flights. Payments in 2022 are expected to be approximately \$83 (2021 - \$2,639).

15. Comparative information

Comparative figures for certain line items have been reclassified in the statement of comprehensive income to conform to the current year's presentation and to better reflect the nature of the expenses.

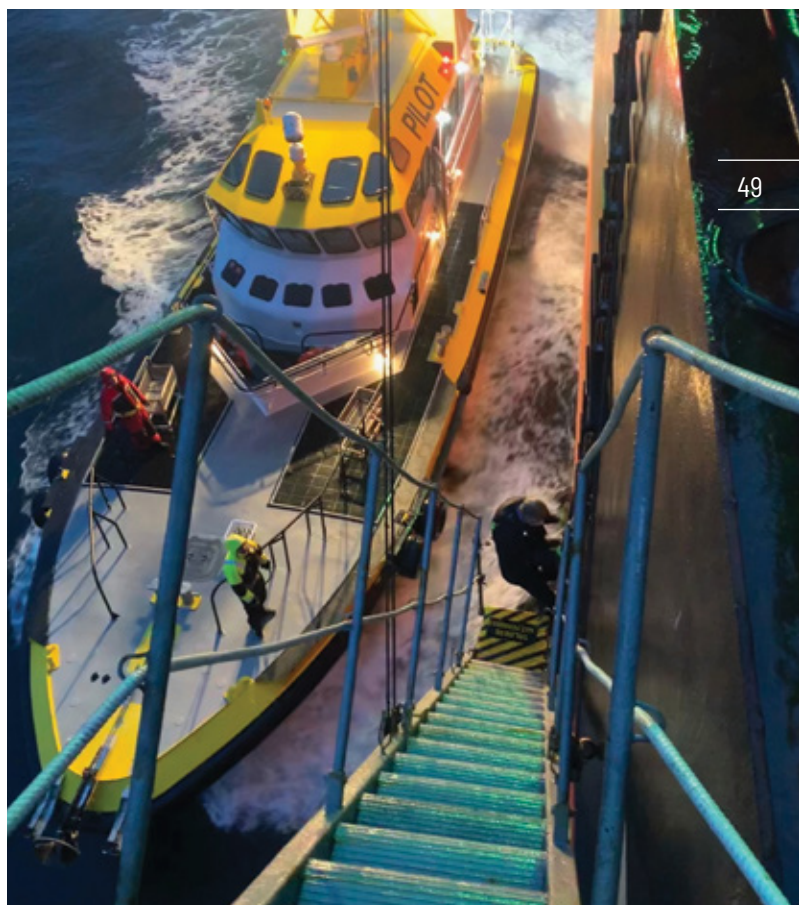


The line items impacted by the reclassification are as follows:

	Previously reported 2020	Reclassification	After reclassification 2020
	\$	\$	\$
Operating costs of pilot boats	8,843	(8,843)	—
Pilots’ transportation	8,319	724	9,043
Salaries and benefits	7,598	5,521	13,119
Professional and special services	856	80	936
Utilities, materials, supplies and other	315	22	337
Rentals	233	8	241
Repairs and maintenance	81	800	881
Fuel	—	1,281	1,281
Finance costs	—	194	194
Insurance	—	130	130
Travel	—	83	83
	26,245	—	26,245

16. COVID-19

The COVID-19 global pandemic is expected to continue to have an impact on the Authority’s business in 2022 and beyond. The extent of the potential future impact of the pandemic on the Authority’s business is unclear but may have a material impact on its results of operations. Direct disruptors to business operations can potentially be through quarantines of pilots, restrictions in ship services, and closures of terminals. Indirect disruptors to business operations, which are more difficult to estimate and predict, include changes in consumer spending and impacts on trade flow volumes across the commodity sectors. Recent increases in infections from the Omicron variant may also impact the availability of staff required for operations. Given the continued uncertainty, an estimate of the financial impact of the pandemic on the Authority’s future results of operations cannot be made at this time.



**Board of Pilot Commissioners
for the Bays of
San Francisco,
San Pablo, and Suisun**



2021

Annual Legislative Report

**Board of Pilot Commissioners
for the Bays of San Francisco, San Pablo, and Suisun**

**Commissioners
(as of December 31, 2021)**

Joanne Hayes-White, President, Public Member
Jennifer Ferrera Schmid, Vice President, Public Member
Karen Tynan, Public Member
Captain Oscar Prada, Tanker Industry Member
Captain Einar Nyborg, Pilot Member
Captain Robert Carr, Pilot Member
David S. Kim, Secretary of the California State Transportation Agency
succeeded by Secretary Toks Omishakin (as of 2/28/2022)

Board Staff

Allen Garfinkle, Executive Director
Jennifer Barton, Assistant Director (as of 2/1/2022)
Brenda Pugh, Staff Services Manager I (Vacant as of 2/3/2022)
Alethea Wong, Administrative Assistant II

Report Date: April 15, 2022

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I. Introduction

The Board of Pilot Commissioners for the Bays of San Francisco, San Pablo, and Suisun (Board) – also known as the BOPC or Pilot Commission – licenses, trains, and regulates up to 60 maritime pilots (pilots or Board-licensees) who guide ships of 750 gross tons or greater on the Bays of San Francisco and Monterey, and tributaries to ports in Stockton and Sacramento. The pilots are organized for private business operational purposes as the “San Francisco Bar Pilots.”

The Board consists of eight members (also known as Commissioners), seven of whom are appointed by the Governor with the consent of the Senate, and one ex officio, non-voting member who is also a Governor appointee in a full-time state position as follows:

- Two are pilots licensed by the Board.
- Two are shipping industry members—one from the tanker industry and one from the dry cargo industry.
- Three are public members who are neither pilots nor work for companies that use pilots.
- The Secretary of the California Transportation Agency, who serves as the ex officio non-voting member.

The Board was created by the first legislative session of the new state of California in 1850 and has been serving continuously ever since. The current Board is a part-time board that meets monthly. The Board also has many committees that assist it with the review of important matters. Committees are made up of Board members and volunteers who may provide expertise on a specific subject. Committees meet at varying times during the year at public meetings and make recommendations to the Board. The Board is the decision-making body.

Statutory references to the Board can be found in the Harbors and Navigation Code §1100 *et seq.* Board regulations can be found in California Code of Regulations, Title 7, §201 *et seq.*

The Legislature, based upon a recommendation by the Board, sets pilotage rates that are charged by the Board-licensees for the delivery of pilotage services. Board-licensees also charge, collect, and remit or expend various surcharges as set and directed by the Board. These surcharges fund the Board’s operations and programs, pilot boats and navigation technology owned and used by Board-licensees, and the San Francisco Bar Pilot Pension Plan.

Section 1157.5 of the Harbors and Navigation Code was added by Senate Bill 1217 (2008), and mandates that the Board annually submit a report to the Secretary of the Senate, the Chief Clerk of the Assembly, and the Secretary of the California

Transportation Agency on or before April 15th of each year describing the Board's activities for the preceding calendar year, and providing certain specified information.

The statutory annual reporting requirements include the following data: the number of vessel movements across the bar (a sand bar approximately 11 miles west of the Golden Gate Bridge), on the bays, and on the rivers within the Board's jurisdiction; the names of pilots and trainees and license status; and, summaries of closed and open navigational incident or misconduct reports involving a pilot or pilot trainee. The following report is hereby submitted in compliance with the statutory requirements.

II. Summary of Major Board Activities in Calendar Year 2021

Below is a summary of major Board activities in calendar year 2021.

1. COVID-19 Pandemic and the Board

The novel coronavirus — also known as COVID-19 — became a declared pandemic in 2020, causing businesses and residents of the state to alter their daily lives. Since the maritime pilots licensed and regulated by the Board are essential workers, the work of the Board was also essential and continued throughout 2021.

In response to the pandemic Governor Newsom signed several Executive Orders to reduce the spread and mitigate the impacts of COVID-19. The following Executive Orders impacting the Board were in place during all or part of 2021.

Early in the pandemic, Governor Newsom signed Executive Order N-29-20 on March 17, 2020, in which certain provisions of the Bagley-Keene Open Meeting Act were suspended or waived during the State of Emergency that was declared by the Governor on March 4, 2020. This Executive Order allowed the Board to continue to hold public meetings without members being physically present or advertising the members' location in the meeting agenda.

On June 11, 2021, Governor Newsom issued Executive Order N-08-21 to extend the waiver of requirements that public meetings of state bodies occur in person through September 30, 2021. Subsequently, on September 16, 2021, Governor Newsom signed into law Assembly Bill 361 (AB 361), which provided additional flexibility for state bodies to conduct public meetings via teleconference through January 31, 2022. In light of the surge in cases due to the Omicron variant, and to protect the public health and safety, Governor Newsom signed Executive Order N-1-22 on January 5, 2022 to temporarily extend the option of conducting public meetings remotely beyond January 31, 2022. Executive Order N-1-22 expires on April 1, 2022.

On April 16, 2020, Governor Newsom signed Executive Order N-52-20 temporarily waiving the training requirements specified in title 7, California Code of Regulations, § 215 relating to continuing education for BOPC-licensees required to complete training in 2020 until June 30, 2021. Pilot continuing education resumed after June 30, 2021.

Additionally, Executive Order N-52-20 extended the three-year maximum length of the training program for pilot trainees specified in Harbors and Navigation Code section 1171 .5 (c) and California Code of Regulations, title 7, section 214 (c) by one year for trainees who have been unable to train on vessels due to the pandemic. This provision was in place through June 30, 2021. Subsequently, Executive Order N-08-21 modified the extension to the extent an individual has commenced a training program prior to June 30, 2021, that was interrupted by COVID-19, that individual shall be entitled to the extended timeframe.

Board staff nimbly and capably carried out all mission critical duties during the year. To ensure the safety of Board staff, Executive Director Garfinkle carried out office safety protocols, and enabled Board staff to telecommute as much as possible during the year. With the exception of monthly Pilot Evaluation Committee meetings, that are not conducive to be conducted remotely, Board staff also adeptly conducted all scheduled committee and monthly Board meetings during the year by teleconference or virtually online.

2. Pilot Fitness

The Board, under a contract with the Regents of the University of California on behalf of the San Francisco Department of Occupational and Environmental Medicine, continues to administer the most comprehensive and advanced pilot and pilot trainee medical assessment program in the nation, with requirements that exceed the U.S. Coast Guard's medical guidelines for maritime pilots.

After several years of implementation, it became apparent that additional refinements needed to be made to the pilot and trainee fitness regulations¹, which had been in place since April 2014. Committees of the Board met extensively in 2018 to review the fitness regulations, made recommendations to the Board, and the Board instructed staff in October 2018 to update the fitness regulations consistent with the committee recommendations. The Board subsequently reviewed and approved additional proposed fitness regulatory changes in September 2020 and updated its request to Board staff to commence the rulemaking process.

The rulemaking process was completed, and the regulation amendments became operative October 1, 2021. The amended regulations do the following: clarify the timetable to complete a fitness evaluation; allow for a fitness determination by Board-appointed physicians for a period of less than one year; mandate periodic re-evaluation of pilots on disability leave, amend the minimum qualifications for a Board-appointed examining physician to potentially ensure the sufficient availability of physicians; and, update various terms and forms. The updated fitness regulations further enhance the rigorousness of the Board's oversight of pilot and pilot trainee fitness.

3. Progress Implementing Senate Bill 1408 (2012)—Pilot Fatigue Study

The Board has been working diligently to meet the legislative mandate of Senate Bill 1408 (chaptered on September 29, 2012) to conduct a study of the effects of work and rest periods on the psychological ability and safety of pilots, and to provide recommendations on how to prevent pilot fatigue and ensure the safe operation of vessels. As mandated by the legislation, the Board is to promulgate regulations establishing requirements for adequate pilot rest periods intended to prevent fatigue based on the study results and recommendations.

¹ California Code of Regulations, sections 217 through 217.45

Integral to that effort, the Board issued a request for proposal in December 2014, for a researcher to conduct a pilot fatigue study, and in March 2015, the Board selected a proposal involving researchers from the San Jose State University Research Foundation (Foundation) that also included research assistance from researchers at the National Aeronautical and Space Administration at no additional cost to the Board. The Board subsequently approved clarifications to the study scope of work originally proposed by the Foundation in August 2015, and the Board entered a contract for the study in June 2016. The pilot fatigue study officially commenced in August of 2016 and was completed in July 2018. The study made nineteen recommendations, some of which are amenable to regulatory actions.

In 2018 and 2019, the Board's Pilot Fitness Committee commenced a thorough review of the study and all study recommendations. In February 2020, the Board subsequently approved the Pilot Fitness Committee's pilot fatigue mitigation policies that will guide the development of regulations, one of which was to require the BOPC-licensees to develop a Fatigue Risk Management System for Board review and approval.

The Pilot Fitness Committee proceeded with the development of pilot fatigue mitigation regulations in 2021. The draft pilot fatigue mitigation regulations propose to add: limits on the maximum work period, minimum rest periods between jobs, an item in the Incident Review Committee's written report which describes the assessment of whether or not fatigue contributed to an incident; fatigue related topics in the Pilot Trainee Training Program and the Pilot Continuing Education Program; a fatigue risk management system (FRMS) to ensure the operations of the San Francisco Bar Pilots support effective rest opportunities and fatigue mitigation measures; and a description of the duties of pilot trainees to comply with work-hour limitations and rest-period requirements set forth for the pilots.

In February 2022, the Pilot Fitness Committee's draft pilot fatigue mitigation regulations were approved by the Board and the Board requested staff to commence the rulemaking process.

4. Pilot Rate Setting Process

Global supply chain impacts mainly due to the COVID-19 pandemic have decreased shipping volumes, negatively impacting pilot revenues. In response, pilotage rate legislation has been amended and continues to be evaluated.

Effective September 2021, Assembly Bill (AB) 807 amended Harbor Navigation Code (HNC) Section 1190 to authorize the Board to approve a temporary surcharge in order to recover the pilots' costs associated with catastrophic events. Additionally, the legislation added temporary surcharges to recover costs for a new pilot dispatch system and costs for deferred and current maintenance for pilot vessels.

In February 2021, the Board approved the formation of an Ad Hoc Committee to Review the Pilotage Rate Setting Process. The Committee was comprised of three

Commissioners, a pilot member, an industry member, as well as a public member. The mission of the Committee was to evaluate the efficiency and effectiveness of the current State legislative processes at other state pilotage commissions, and to determine whether changes to the current pilotage rate setting process would be beneficial to the State, Board-licenses, and the shipping industry.

In February 2022, after twelve months of Committee deliberations, conducted with significant stakeholder input, the Committee presented a final independent report with the following recommendations to the Board: have rate hearings conducted by an impartial Administrative Law Judge (ALJ); have the Board review the ALJ's decision (adopt, adopt with minor changes, reject and refer back to ALJ, or reject with a written explanation), add the Secretary of the California State Transportation Agency (CalSTA) as a final approver of the rate adjustment; and adopt a rate-setting formula for determining revenue requirements. This recommendation would relieve the Legislature from the rate setting process. The Board approved the final report and in March 2022, the final report was delivered to both the Assembly and Senate Transportation Committee Chairpersons, the Secretary of CalSTA, and the Governor.

4. Pilot Trainee Program

The Board administers a Pilot Trainee Training Program (Training Program) for qualifying mariners who wish to obtain the knowledge, skills, and abilities to be licensed as a pilot by the Board. Approximately every two-to-three years, the Board conducts a rigorous Pilot Trainee Training Program Selection Exam to establish a ranked list of eligible candidates from which to select qualified Training Program participants. Candidates on the eligibility list are offered a spot in the Training Program as space becomes available.

In July 2021, an Ad Hoc Committee on Pilot Diversity was convened to review and evaluate training candidate eligibility and testing requirements and determine if changes in requirements might serve to broaden the diversity of the candidate pool while still maintaining experience requirements necessary for success in the Training Program.

The Committee proposed the following changes to the pilot trainee candidate requirements: a candidate can qualify by demonstrating two years sailing in the capacity of Chief Mate of self-propelled vessels not less than 1600 gross tons and holds an Unlimited Masters License; a commercial pilot in another jurisdiction can qualify for the exam; and proposed relaxing the eligibility requirements for towing experience.

The Training Program selection exam process consists of assessing the candidates professional experience, for which points are awarded, a scored written exam component, and for candidates who pass the written exam, a simulator exam component. The Committee recommended amending the regulations to include a fourth component to the exam; an interview.

The Committee's recommendations were approved by the Board, and Board staff submitted the regulation changes to the Office of Administrative Law (OAL). The amended regulations were approved by OAL and filed with the Secretary of State in March 2022, becoming effective for the June 2022 Pilot Trainee Training Selection Examination process.

The Board conducted the last Training Program selection exam in June 2019. The 2019 selection exam resulted in an eligibility list of 19 candidates. Four candidates on this list entered the Training Program in 2019, three more entered the program in 2020, and six more entered the program in 2021. One candidate requested to be removed from the eligibility list and two requested to defer to the bottom of the list². As of December 31, 2021, there were seven trainees in the Training Program and three candidates remaining on the eligibility list. The June 2019 eligibility list will expire on June 27, 2022. The Board is conducting the next Training Program selection exam in June 2022.

A trainee can be in the Training Program for a minimum of one year to no more than three years. Trainees are paid a \$7,000 stipend per month to participate in the program. Board-licensed pilots provide on-the-job training to trainees on ships transiting waters in the Board's jurisdiction. A trainee's progress in the Training Program is overseen by the Board's Pilot Evaluation Committee, which consists of five Board-approved Board-licensed pilots who have been licensed for ten or more years.

To determine the number of trainees in the Training Program, the Board's Pilot Power Committee reviews a semi-annual confidential pilot retirement survey along with pilot work and minimum rest period violation data, and recommends to the Board the timing and the number of new trainees from the available eligibility lists to induct into the Training Program.

5. Personnel Matters

All Board members are Governor appointees. The Board consists of two pilots licensed by the Board, two members representing the shipping industry, and three members of the public, along with the Secretary of the Transportation Agency, who is a non-voting member.

During calendar year 2021, Governor Newsom appointed a public Board member in January and re-appointed a pilot member in April. The public and pilot Board member positions were filled for the entire year. The industry (dry cargo) member position was vacant for the entire year and remains vacant as of the date of this report.

The Board has four full-time staff positions. One position was vacant seven months in 2021. The vacant position was subsequently filled in February 2022.

² Board regulations allow candidates to defer to the bottom of the list if an offer is made to participate in the Training Program and the candidate is not ready to enter the program.

Due to the small number of Board staff, the Board receives necessary administrative, program and technical support through agreements with other governmental entities and private contractors including:

- The Department of Justice.
- California Highway Patrol.
- Department of Transportation.
- California Department of Human Resources.
- State Controller's Office.
- Department of Technology.
- California State University Maritime Academy.
- Regents of the University of California.
- Commission Investigators.
- San Francisco Bar Pilots.

6. Litigation Involving the Board in 2021

David C. Burchard vs. California State Transportation Agency (CalSTA) and Board of Pilot Commissioners (BOPC)

On July 17, 2017, Captain David C. Burchard (Captain Burchard) entered into a Pilot Trainee Training Program Agreement with the BOPC. On July 16, 2020, the three-year contract between Burchard, the trainee, and the BOPC expired. Based on a written recommendation by the Pilot Evaluation Committee, on December 21, 2020, the Board made a written final decision on whether Captain Burchard successfully completed the Pilot Trainee Training Program and whether he should be issued a certificate of completion. The Board declined to determine that Captain Burchard successfully completed the Pilot Trainee Training Program and declined to issue him a certificate of completion.

On May 11, 2021, David C. Burchard filed a Claim for Damages, claiming the BOPC violated Title 7 (Harbors and Navigation), Division 2 (BOPC), Article 4, Sections 213 & 214, and the obligation of the BOPC to administer a fair and objective training program for all participants.

III. Number of Vessel Movements in 2021

Subdivision (a) of Section 1157.5 of the Harbors and Navigation Code mandates that the Board report the number of vessel movements across the bar, on the bays, and on the rivers within the Board's jurisdiction. The following are the 2021 vessel movement³ statistics:

Number of vessel movements across the San Francisco Bar	4,797
Number of vessel movements within the Bays of San Francisco, San Pablo and Suisun	1,641
Number of vessel movements on the Sacramento and San Joaquin Rivers	741
Total Moves	7,179

³ Billing data as reported by the San Francisco Bar Pilots to the Board.

IV. Status of Pilot Licensees and Trainees in 2021

1. Status of Pilot Licensees as of December 31, 2021

Pilot	Original License Date	Last Date Licensed	Licensed and Fit for Duty Dates	Licensed and Not Fit for Duty Dates ⁴	Licensed and on Authorized Manned Model Training Dates	Licensed and on Authorized Combination Course Training Dates
Alden, Bruce	7/2/1993		1/1/2021-04/29/2021	4/30/2021-12/31/2021		
Alfers, Douglas	9/28/2017		1/1/2021-12/31/2021			
Aune, Drew	4/1/2009		1/1/2021-12/31/2021			
Benedict, William	1/29/2021		1/29/2021-12/31/2021		9/9/2021-9/18/2021	11/14/2021-11/18/2021
Billingsley, Neil	4/28/2016		1/1/2021-12/31/2021			
Boriolo, Dan	10/1/1995	6/30/2021	1/1/2021-6/30/2021			
Bridgman, Daniel	4/1/2010		1/1/2021-12/31/2021			
Carlier, John	1/20/1989		11/9/2021-12/31/2021			
Carr, Robert	6/27/2013		1/1/2021-12/31/2021			
Corbett, David	4/25/2019		1/1/2021-12/31/2021			
Crowl, Casey	7/25/2019		1/1/2021-12/31/2021			
Cvitanovic, David	6/22/2017		1/1/2021-12/31/2021			
D'Aloisio, Samuel	7/1/2014		1/1/2021-12/31/2021			
Deisher, Nicholas	5/28/2021		5/28/2021-12/31/2021		9/9/2021-9/18/2021	
Epperson, Dylan	12/15/2016		1/1/2021-12/31/2021			
Favro, Orrin	12/14/2012		1/1/2021-12/31/2021			
Fawcett, Erik	6/23/2011		1/1/2021-12/31/2021			11/14/2021-11/18/2021
Freese, Kevin	11/15/2018		1/1/2021-12/31/2021			
Greger, Ronald	1/24/2019		4/13/2021-12/31/2021	1/1/2021-4/12/2021		
Haggerty, Mark	7/1/1998		3/25/2021-6/13/2021; 8/11/2021-12/31/2021	1/1/2021-3/24/2021; 6/14/2021-8/10/2021		
Hirschfeld, Jubal	2/25/2016		1/1/2021-12/31/2021			
Horton, Bruce	5/8/1991	12/15/2021	1/1/2021-12/15/2021			
Johnson, Eric	12/13/2012		1/1/2021-12/31/2021			
Kasper, Drue	3/22/2016			1/1/2021-12/31/2021		

⁴ These dates include both absences for medical reasons reported to the Port Agent and longer absences reported to the Board's physicians.

Pilot	Original License Date	Last Date Licensed	Licensed and Fit for Duty Dates	Licensed and Not Fit for Duty Dates ⁴	Licensed and on Authorized Manned Model Training Dates	Licensed and on Authorized Combination Course Training Dates
Kellerman, Zachary	1/28/2011		1/1/2021-12/31/2021			11/14/2021-11/18/2021
Kirk, Roger	4/1/2007			1/1/2021-5/26/2021		
Laakso, Kristopher	8/26/2011		1/1/2021-12/31/2021			
Larwood, Dan	7/1/1998		1/1/2021-12/31/2021			
LeSieur, Cevan	9/26/2014		1/1/2021-12/31/2021			
Lingo, Matthew	2/22/2013		1/1/2021-12/31/2021			
Livingstone, George	4/24/2008	3/31/2021	1/1/2021-3/31/2021			
Long, Joe	7/1/2008		1/15/2021-12/31/2021			
Lowe, Jeremy	11/21/2016		1/1/2021-12/31/2021			
Manes, Mark	6/28/2012		1/1/2021-12/31/2021			
McCloy, David	6/1/2008		1/1/2021-4/19/2021; 11/22/2021- 12/31/2021	4/20/2021-11/21/2021		
Merritt, David	8/26/2010		1/1/2021-12/31/2021		9/9/2021-9/18/2021	
Murney, James	9/24/2021		1/1/2021-12/31/2021			
Murray, Andrew	4/28/2016		1/1/2021-12/31/2021			
Nyborg, Einar	7/1/1995		1/1/2021-12/31/2021		9/9/2021-9/18/2021	11/14/2021-11/18/2021
Pate, David	4/1/2007	9/30/2021	1/1/2021-9/30/2021			
Pullin, Jesse	1/24/2019		1/1/2021-12/31/2021			
Pyne Mercier, Christopher	3/26/2020		1/1/2021-4/24/2021; 7/29/2021-12/31/2021	4/25/2021-7/28/2021	9/13/2021-9/17/2021	
Ridens, Raymond	1/1/2007		1/1/2021-12/31/2021			
Robinson, Eric	1/1/2004		1/1/2021-12/31/2021			
Rocci, Reuben	1/1/2008		1/1/2021-12/31/2021			
Rogers, Nicholas	1/29/2021		1/29/2021-12/31/2021		9/9/2021-9/18/2021	11/14/2021-11/18/2021
Rubino, Michael	3/22/2017		1/1/2021-12/31/2021			
Ruff, Paul	1/27/2011		1/1/2020-12/31/2020			
Slack, Dustin	7/1/2008		1/1/2021-12/14/2021	12/15/2021- 12/31/2021		
Starnitzky, Maximilian	8/22/2019		1/1/2021-12/31/2021			
Stevens, Matthew	1/29/2021		1/29/2021-12/31/2021		9/9/2021-9/18/2021	11/14/2021-11/18/2021
Stultz, Joshua	2/24/2012		1/1/2021-12/31/2021			
Teague, Steve	1/1/2007		1/1/2021-12/31/2021			
Vogel, Jason	11/16/2017		1/1/2021-12/31/2021			

Pilot	Original License Date	Last Date Licensed	Licensed and Fit for Duty Dates	Licensed and Not Fit for Duty Dates ⁴	Licensed and on Authorized Manned Model Training Dates	Licensed and on Authorized Combination Course Training Dates
Weber, Eric	12/10/2021		12/10/2021-12/31/2021			
Wehr, Shane	6/1/2008		1/1/2021-12/31/2021			
Weiss, David	9/10/1993		1/1/2021-12/31/2021			

Active Pilots During the Year: 57

Pilots No Longer Licensed During the Year: 4

No pilots passed away during the year.

There were no licensed pilots on active military duty during 2021.

There were no licensed pilots on leave of absence during 2021.

There was one licensed pilot suspended during 2021. Captain Roger Kirk was suspended from 6/01/2021 through 12/31/2021.

2. Status of Pilot Trainees as of December 31, 2021

Name of Trainee	Training Program Entrance Date	Status on 12/31/2021
Stevens, Matthew	1/14/2019	Graduated 1/28/2021
Benedict, William	8/12/2019	Graduated 1/28/2021
Rogers, Nicholas	8/12/2019	Graduated 1/28/2021
Adams, Scott	10/1/2019	In Training
Deisher, Nicholas	10/1/2019	Graduated 5/27/2021
James Murney	5/1/2020	Graduated 9/23/2021
Eric Weber	8/5/2020	Graduated 12/9/2021
Jonathan Olmsted	10/1/2020	In Training
Mark Barnum	3/15/2021	In Training
Spencer Snapp	3/15/2021	In Training
Bart Sappington	3/15/2021	In Training
James Pascucci	5/10/2021	In Training
Mathew Burns	11/2/2021	In Training
Elizabeth Bunch	11/2/2021	Resigned

V. Summary of Reports of Navigational Incidents Acted on or In Progress in 2021

Subdivision (c) of Section 1157.5 of the Harbors and Navigation Code requires the Board to provide summaries of each report of misconduct or navigational incidents involving pilots, or other matters for which a license issued by the Board may be revoked or suspended. The summaries must provide a description of findings made by the Board's Incident Review Committee, the resulting action taken by the Board, as well as a summary of any prior reportable incidents of which a finding of pilot error was made for the pilots involved. For those cases that are still under investigation, the summary shall include a description of the reported incident and an estimated completion date for the investigation.

1. M/V POLAR DISCOVERY

Pilot	Captain Roger Kirk
Incident Description	The T/V POLAR DISCOVERY was docking at the Richmond Long Wharf, and on approach allided with the previously moored T/V TORM RESILIENCE. The allision resulted in damage to the pier, cargo loading arms on the pier, and to both the hulls of the T/V POLAR DISCOVERY and the T/V TORM RESILIENCE. Total estimated damage was greater than \$6 million.
Location	Richmond, CA
Date of Event	November 24, 2019
Incident Review Committee Finding	<p><input type="checkbox"/> No Pilot Error/Misconduct <input checked="" type="checkbox"/> Pilot Error/Misconduct</p> <p>The Incident Review Committee determined that the pilot, Captain Kirk, lost situational awareness as evidenced by him appearing to lose track of both the geographic position of the ship in the turning basin and the rate of turn of the ship, that there was excessive speed that ultimately reduced the effectiveness of the tugs in use, and that the incident was compounded by the pilot's lapses in effective bridge resource management, as evidenced by the failure to utilize the ship engines, rudders, bridge personnel, and tugs. The Incident Review Committee also determined that the pilot failed to build contingencies into the transit plan, and that fatigue could have been a contributing factor.</p> <p>The Incident Review Committee recommended to the Board to find for pilot misconduct, and that the Board file an accusation for suspension of Captain Kirk's license for a period of three months.</p>

Board Action/Date	<input type="checkbox"/> No Pilot Error/Misconduct <input checked="" type="checkbox"/> Pilot Error/Misconduct <p>On January 28, 2021, the Board issued a written decision that agreed with the Incident Review Committee’s finding of pilot misconduct, and accepted the recommendation that an accusation should be filed to suspend the Captain Kirk’s license. However, the Board determined the suspension period should be for twelve months instead of the three months recommended by the Incident Review Committee. Furthermore, separate from the license suspension, the Board’s decision required the pilot to obtain training at his own cost before his license could be restored. The Board specified that the training was to include manned model training, bridge resource management training, and training on reducing or avoiding fatigue. The Board delegated to Board staff the selection of the training providers.</p> <p>On March 15, 2021, an Accusation was filed against Captain Kirk. On May 27, 2021, the Board adopted the Stipulated Settlement and Disciplinary Order regarding the Accusation against Captain Kirk. The agreed upon terms included: a one-year suspension of pilot license 2553, manned-model training can be obtained in the United States, the Bridge Resource Management course will be American Pilots’ Association (APA) approved, and the Fatigue Management course will be required. Captain Kirk requested the suspension start on June 1, 2021. The Board approved the suspension start date.</p>
Prior Pilot Error Reportable Incidents	None.

2. M/V VINCENT GENESIS

Pilot	Captain Drew Aune supervising trainee Captain Brett Nelson
Incident Description	The M/V VINCENT GENESIS was departing Richmond with the trainee conning, and due to the restricted confines of the channel, the trainee's apparent uncertainty, and communication issues with one of the tugs, Captain Aune took the conn after the ship had moved astern approximately 20 feet. Shortly after Captain Aune took the conn, the midsection of the vessel made unintended contact with the corner of the Levin Terminal (RCH20). There was minor damage to the wooden pier structure, and a scraped vessel hull, totaling less than \$10,000 in damages.
Location	Richmond, CA
Date of Event	December 13, 2019
Incident Review Committee Finding	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct The Incident Review Committee recommended to the Board that the Board find for no pilot error or misconduct due to the pilot affording the trainee an opportunity to train on a difficult maneuver, that the pilot took over the conn as soon as was practicable, and that the damages were minor. The Incident Review Committee also recommended to the Board that the case be closed with no further action.
Board Action/Date	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct On February 25, 2021, the Board determined that there was no misconduct on the part of the pilot, and closed the case with no further action.
Prior Pilot Error Reportable Incidents	None.

3. M/V CHAMPION CONCEPT

Pilot	Captain Samuel D'Aloisio
Incident Description	The M/V CHAMPION CONCEPT made unintended contact with the corner of the dock while shifting between two berths. The vessel's shell plating was deflected, and there was concrete damage to the corner of the dock.

Location	Shifting from Berth 8 (SCK 8) to Berth 9 (SCK 9) in Stockton, California.
Date of Event	April 28, 2020
Incident Review Committee Finding	<p><input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct</p> <p>In this case, the CHAMPION CONCEPT was shifting from an inner berth in Stockton to a berth around the corner of the pier. During the shift, the pilot became concerned about the position of the assist tug, due to the tight quarters of the berth. The pilot offered the tug the option of “touching down” on the hull of the ship to hold its position and keep the tug out of harm’s way. When the tug did so, the pilot perceived movement toward the corner of the pier.</p> <p>When the pilot attempted to monitor the effects of this movement, he encountered a locked wheelhouse door. During the time it took for the ship’s crew to unlock the wheelhouse door, the situation had deteriorated enough, so that after action by the pilot was not sufficient to correct the movement and unintended contact was made with the corner of the pier, denting the hull of the ship and damaging the concrete edge of the pier.</p> <p>The IRC Committee found, to the extent that it contributed to the damage to the ship, the pilot’s failure to discover the locked door prior to the exigency requiring him to pass through it quickly, was an error in judgment. The IRC Committee concluded there is a lesson to be learned from this experience and caution all pilots to assess and ensure full access to locations that may be required during the maneuvering of the vessel well before they are needed. They suggested this can be done as part of the master-pilot exchange or added to the pilot’s personal pre-departure checklist.</p> <p>The IRC recommended:</p> <ol style="list-style-type: none"> 1. The Board find for no misconduct on the part of pilot. 2. That the IRC Committee’s report be shared with “all licensees of the board” as a lesson learned, to raise awareness of having clear access to all areas necessary for the safe navigation of the vessel.

Board Action/Date	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct On May 27, 2021, the Board accepted the IRC Committee's recommendation and found no pilot misconduct and closed the investigation.
Prior Pilot Error/Misconduct Reportable Incidents	None

4. M/V HYUNDAI NEPTUNE and the M/V THALASSA AVRA

Pilot	Captains Drew Aune
Incident Description	The passing of the M/V HYUNDAI NEPTUNE and the M/V HANOVER EXPRESS caused an interaction and damage to the moored M/V THALASSA AVRA. The damage to the M/V THALASSA AVRA consisted of parted lines, and possible damage to a container crane.
Location	Berth 37, Oakland, California.
Date of Event	May 21, 2020
Incident Review Committee Finding	INVESTIGATION PENDING Estimated Completion Date—March 2022
Board Action/Date	INVESTIGATION PENDING
Prior Pilot Error/Misconduct Reportable Incidents	INVESTIGATION PENDING

5. M/V JIANGMEN TRADER and the M/V STRATEGIC ALLIANCE

Pilot	Captain Kristopher Laasko
Incident Description	The M/V JIANGMEN TRADER interacted with the moored M/V STRATEGIC ALLIANCE causing the M/V STRATEGIC ALLIANCE to have one parted line.

Location	Berth 6, Pittsburg, California.
Date of Event	July 23, 2020
Incident Review Committee Finding	<p>The IRC looked at both the conduct of the passing vessel and the mooring of the vessel that suffered damage from the interaction. The passing vessel has a duty to pass carefully and prudently, which the IRC concluded they did. The moored vessel has a duty to be properly moored so as to resist normal swells where traffic can be anticipated. The evidence indicated that the single parted mooring line showed excessive wear, and there was some evidence to indicate that the mooring lines were slack at the time of the incident, allowing the moored vessel to move excessively, and thus not meeting their burden of proper mooring. Based on the evidence and analysis of the case, the IRC Committee recommended the following actions to the Board:</p> <ol style="list-style-type: none"> 1. The Board find for no misconduct on the part of the pilot. 2. The case be closed with no further action.
Board Action/Date	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct On June 23, 2021, the Board accepted the IRC Committee's recommendation and found no misconduct on the part of the pilot and closed the case with no further action.
Prior Pilot Error/Misconduct Reportable Incidents	None.

6. M/V GLOBE PEGASUS

Pilot	Captain Zackary Kellerman
Incident Description	The M/V GLOBE PEGASUS was departing Levin Terminal in Richmond, CA and made unintended contact with the pier, possibly damaging pilings.
Location	Richmond, CA
Date of Event	April 8, 2021
Incident Review Committee Finding	INVESTIGATION PENDING Estimated Completion Date—March 2022

Board Action/Date	INVESTIGATION PENDING
Prior Pilot Error Reportable Incidents	INVESTIGATION PENDING

7. M/V VECCO

Pilot	Captain Ray Ridens
Incident Description	The M/V VECCO made momentary contact with the bottom, while downbound on the San Joaquin River in the vicinity of Light 36. Following a sounding of the ship's voids and tanks, it was determined that there was no damage.
Location	San Joaquin River, CA
Date of Event	April 22, 2021
Incident Review Committee Finding	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct <p>The Incident Review Committee, in an acknowledgement that the river environment is in a constant state of flux due to runoff and subsequent silting/erosion, found that the evidence indicated a momentary grounding due to an uncharted high spot in the river, and this constituted a "bump and go" grounding. The USCG states, in part, an incident can be classified as a "bump and go" if there was no damage to the ship, the vessel is able to get off the bottom without assistance, and is only there for a short duration. During the evidence gathering phase of this incident the Committee found that the USCG had reviewed the event and also classified it as a "bump and go," The Committee agreed with the USCG, and also deemed the incident "a bump and go," where there was "clearly no pilot error" and discontinued the investigation.</p>
Board Action/Date	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct <p>On May 27, 2021, the Board agreed with the Committee's analysis that this incident was a "bump and go." And no further action was taken.</p>
Prior Pilot Error Reportable Incidents	N/A

8. M/V JULIA L

Pilot	Captain Jubal Hirschfeld
Incident Description	The M/V JULIA L was anchored east of the Union Pacific Railroad (UPRR) Bridge when the bridge failed to open. During the anchoring, the pilot reported the ship made contact with the side of the Bull's Head Channel. The ship was able to summon two tugs to aid in turning back upriver and proceeded under its own power to Pittsburg to await the resolution of the UPRR Bridge opening issues. The ship eventually passed under the bridge and with no incidents. There was no damage to the ship or adjacent structures.
Location	Bull's Head Channel.
Date of Event	September 9, 2021
Incident Review Committee Finding	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct The Incident Review Committee determined there was clearly no pilot error, and reported to the Board at the September 23, 2021 Board meeting that the investigation was discontinued.
Board Action/Date	None
Prior Pilot Error/Misconduct Reportable Incidents	N/A

9. T/S CHALLENGE

Pilot	Captain Jeremy Lowe
Incident Description	The T/S CHALLENGE made momentary contact with the bottom while upbound in the Sacramento River Deep Water Ship Channel. During the transit, the vessel took a sheer from the starboard bank and began turning to port. After some oscillation, the pilot lowered the port anchor to two shackles to steady the bow. After dredging the anchor for a short while, the speed was reduced, the anchor brought home and they resumed normal transit to Sacramento. The ship never stopped and needed no assistance to complete its passage. There was no damage to the ship or structures.
Location	Sacramento River Deep Water Ship Channel
Date of Event	September 12, 2021
Incident Review Committee Finding	<input checked="" type="checkbox"/> No Pilot Error/Misconduct <input type="checkbox"/> Pilot Error/Misconduct The Incident Review Committee determined there was no damage and the momentary touching of the bottom comports with the USCG's definition of a "bump and go" grounding. The Incident Review Committee determined that there was clearly no pilot error, and reported to the Board at the September 23, 2021, Board meeting that the investigation was discontinued.
Board Action/Date	None.
Prior Pilot Error/Misconduct Reportable Incidents	N/A

10. M/V CHARLIE

Pilot	Captain Sam D'Aloisio
Incident Description	The M/V CHARLIE interacted with the moored M/V EVA SHANGHAI in the Port of Stockton
Location	Port of Stockton.
Date of Event	October 17, 2021
Incident Review Committee Finding	INVESTIGATION PENDING Estimated Completion Date—March 2022
Board Action/Date	INVESTIGATION PENDING
Prior Pilot Error/Misconduct Reportable Incidents	INVESTIGATION PENDING

WA State Board of Pilotage Commissioners

Industry Update: March 16, 2023 BPC Meeting

Vessel Arrivals February 2023 YTD

Container Arrivals Still Low – Annualized Rate Lowest On Record

✚ Containers down 10	✚ Car Carriers up 12
✚ Bulkers down 17	✚ Tankers down 8
✚ General down 1	✚ ATB's – no change
✚ RoRo down 5	✚ Passenger down 1

Note: Overall arrivals down YTD and markedly down in February. Container Sector arrivals are down significantly. The peak was 1,386 arrivals – current annualized rate now less than 650.

Quiet Sound and ECHO and Orca Protection Bill

PMSA continues to work with both groups (on QS leadership team) to provide feedback to ocean carriers on the results of recent slowdowns and to improve communications, education and participation rates when schedules, safety and port call dynamics allow.

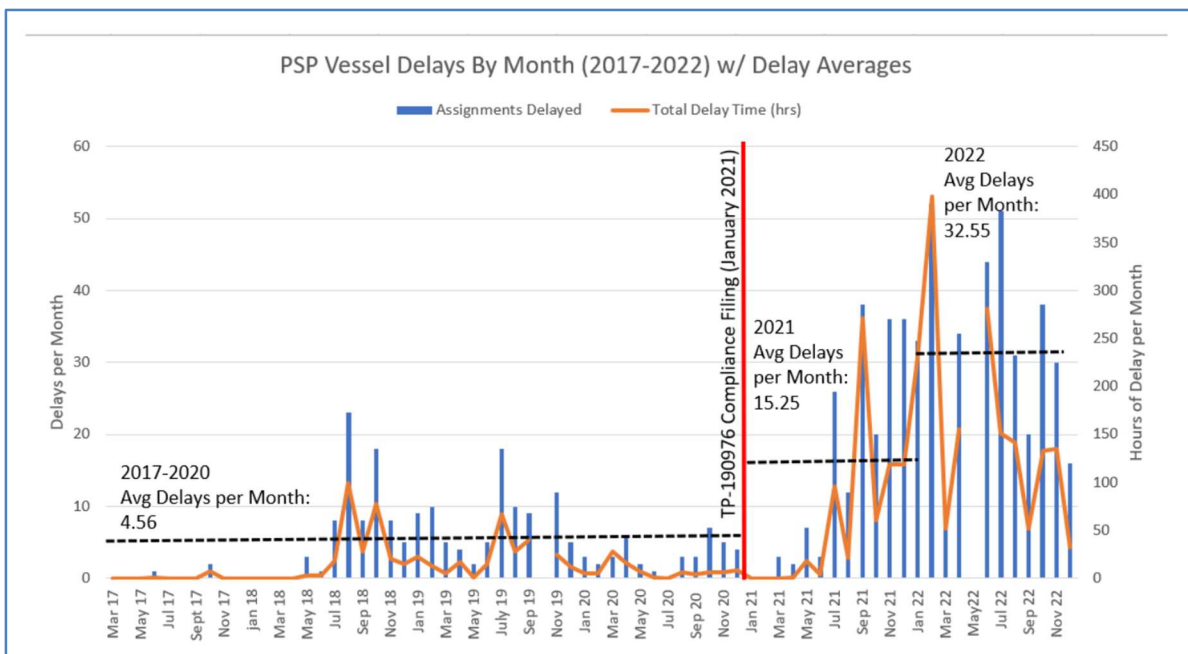
Orca Protection Bill

A Senate bill is advancing (cutoff March 8) seeks to decrease impacts of vessels. PMSA sought, and the Chair agreed to sponsor an amendment clarifying exempted vessels to include those in traffic scheme, following VTS/COTP, Rules of the Road and departing/entering lanes to/from destination.

Pilot Service Supply, Demand, Delays

(Repeated as issues still exist)

See prior industry updates, briefings, letters to the BPC regarding efficiencies/inefficiencies. Specifically, please see PMSA letter dated Jan 19, 2022 sent to Chair Tonn & BPC and this:

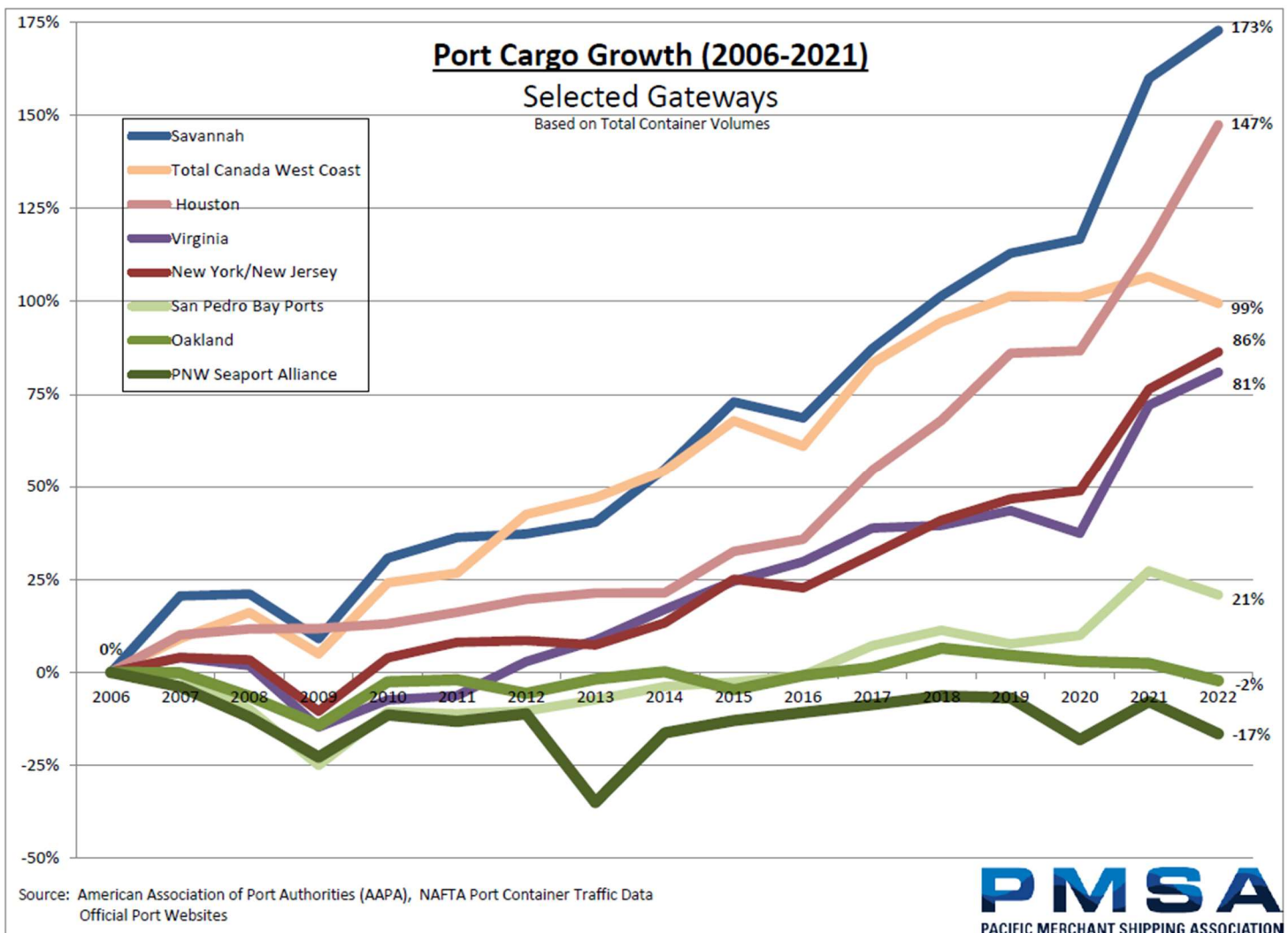


Recall the Special to the Times article of February 7th by Jordan Royer titled

To keep WA competitive, lawmakers must invest in our ports

On a related note, see this chart put together by PMSA – it sums up the bottom line on the container gateway competitiveness and unfortunately the NWSA is still below the peak of 2006.

Correction - The Title should read from 2006 – 2022.



January 2023 – Partial Container Tallies

As a reminder to our readers, we only cite the container volumes that are reported by the ports themselves, not all of which have posted their latest monthly tallies before our publication date. Readers should also note that, unless otherwise indicated, the container numbers appearing in this report represent TEUs.

America's container trade continued its easterly drift in January, with volumes through U.S. West Coast (USWC) ports plunging to some of their lowest levels in years. One indication of this is that this January's container traffic at the major U.S. and Canadian ports on the Pacific Coast was uniformly down from pre-pandemic January 2019, while the opposite tended to be the case at U.S. East and Gulf Coast ports.

This trend was especially evident at the **Port of Long Beach** where inbound loads this January (263,394) were off by 32.3% from the previous January and down 18.7% from January 2019. Apart from 2015, when a labor dispute gummed up operations at USWC ports, this January saw the lowest volume of inbound loads at Long Beach in any previous January since 2012. Again setting aside January 2015, outbound loads this January (105,623) were the fewest in any January since 2009. The total of 573,772

loads as well as empties this January was the lowest January total since 2016.


Things were better — but only relatively — at the neighboring **Port of Los Angeles**. Inbound loads (372,040) were not merely down 12.9% from a year earlier, they were the fewest of any January at the port since January 2016. Outbound loads (102,723) were up 2.5% year-over-year but otherwise represented the port's lowest number of outbound loads since January 2006. Total container traffic through the port in January (726,014) was down 16.1% from a year earlier. It was also the port's least busy January since it handled 704,398 loads and empties during the first month of 2016.

As we go to press, neither the **Port of Oakland** or the **Port Authority of New York/New Jersey** have released their January container statistics.

Up in the Pacific Northwest, negative numbers proliferated on both sides of the border. At the **Northwest Seaport Alliance Ports of Tacoma and Seattle**, import loads in January (79,067) plunged 30.0% from a year earlier and were down 38.5% from the pre-pandemic month of January 2019. Export loads (38,637), while up 3.8% year-over-year, were down 47.0% from the same month in 2019. Total traffic, including domestic as well as international shipments, amounted to 213,095, a 21.7% fall-off from a year earlier and a 34.7% drop from January 2019.

Across the border in British Columbia, January's numbers were mildly less disappointing. Inbound loads (121,081) at the **Port of Vancouver** were down 8.2% from a year earlier but also 28.9% below January 2019's volume. Outbound loads (59,966) did rise by 20.1% year-over-year but that only served to mask the fact that January 2019 saw the port ship 31,432 more outbound loads than it did this January. Counting empties and loads, January's total volume (247,473) was down 21.1% from January 2019.

Even further north, the **Port of Prince Rupert** recorded 39,012 inbound loads, down 5.9% year-over-year and down 28.4% from January 2019. Outbound loads (11,215) were



196

The U.S. exported \$196 billion of farm and food products last year – topping the previous record set in 2021 by 11%.
USDA Foreign Agriculture

NUMBER OF THE MONTH



January Tallies Continued

down 13.5% from the same month in 2022 and down 34.6% from January 2019. Total traffic (76,564) was off by 3.6% from a year earlier and down 6.0% from January 2019.

Along the East Coast, the **Port of Virginia** posted the highest January numbers in the port's history. Inbound loads (134,589) were up 5.5% from a year earlier, while outbound loads (96,431) jumped by 38.6%. Total container traffic (288,380) was up 10.1% year-over-year and up 20.1% over pre-pandemic January 2019.

The **Port of Charleston** saw a 7.2% year-over-year drop in inbound loads (108,786). Otherwise, this January saw the highest volume of inbound loads in any previous January in the port's history. Outbound loads at the South Carolina port in January (59,965) were up 10.5% from a year earlier but down 9.9% from pre-pandemic January 2019. January saw 215,238 loads and empties transit the port, a 4.9% dip from a year earlier but 4.7% over its total throughput in January 2019.

January was also a more leisurely month for the **Port of Savannah**. Inbound loads (210,084) were down 15.9% from a year earlier and just 0.6% higher than in pre-pandemic January 2019. Outbound loads, by contrast, leapt by 21.4% year-over-year. Even that, however, was 11.3% less than in January 2019. Combining loads and empties (421,714), the Georgia port handled 11.5% fewer boxes than the previous January and 1.9% fewer boxes than in January 2019.

Down along the Gulf Coast, the **Port of Houston** sustained a 5.8% fall-off in inbound loads in January (149,400). Still, the volume of inbound loads this January was up 22.9% from January 2021 and up 56.7% from January 2019. Outbound loads through the Texas port in January (113,875) soared by 31.0% year-over-year. Other than a January 2020 surge in polymer exports through the port, this January was the port's top month for outbound loads. Total traffic (319,990) was down by 1.1% from the preceding January but up 48.9% from pre-pandemic January 2019.

For the Record: Complete December 2022 and CY2022 TEU Numbers

Starting our review in Southern California, San Pedro Bay continued to be an unhurried gateway for container trade as 2022 concluded. The **Port of Los Angeles** reported handling 352,046 inbound loads in December, the most in any month since August but still 8.6% fewer than in December 2021 and down 23.6% from the hyperactive 2020. Outbound loads, however, bounced up 36.2% from December 2021 to 96,518 but that was still down 19.7% from December 2020.

Over at the **Port of Long Beach**, the 241,643 inbound loads in December were down 32.6% from a year earlier and off 40.5% from December 2020. Outbound loads (115,782) were up 1.6% year-over-year but down 12.5% from December 2020. Total traffic at the port YTD (9,133,657) was down 2.7% from 2021 but up 12.6% from 2020.

Collectively, inbound loads through the two **San Pedro Bay** ports in December (593,689) were down 20.2% from the previous December and off by 31.5% from December 2020. For the year as a whole, inbound loads (9,334,525) were down 7.5% from 2021 but up 5.8% from a chaotic 2020. Outbound loads through the two ports (212,300) in December were up 14.9% year-over-year but down 16.0% from December 2020. For all of 2022, outbound loads (2,601,967) were off 0.8% and down 13.5% from 2020. Counting both loaded and empty containers, total traffic through the San Pedro Bay gateway in 2022 (19,044,816) was down 5.1% from a year earlier but up 9.9% from 2020.

The San Pedro Bay ports' chief East Coast rival, the **Port of New York/New Jersey**, saw a 22.6% year-over-year fall-off in inbound loads in December to 303,596, well shy of the 352,046 that arrived at the Port of LA. Outbound loads at PNYNJ (102,866) were off by 3.1% from the previous December. Altogether, PNYNJ's December volumes of loads and empties totaled 613,011, which placed it behind both of the Southern California gateways in terms of total container volumes handled in December. For the entire year, the 9,493,664 loads and empties that passed



December 2022 TEU Numbers *Continued*

over the docks at PNYNJ ranked it as the nation's second busiest port in 2022 behind Los Angeles but ahead of Long Beach.

At the **Port of Oakland**, the 65,566 inbound loads that arrived in December were the fewest in any December dating back to 2013. Outbound loads (58,302) did represent a 4.6% year-over-year gain, but otherwise this past December was the least busy December for outbound loads since 2001. On a YTD basis, Oakland's 990,820 inbound loads were down 6.1% from 2021 and down 0.5% from 2020. Total container traffic through the Bay Area port last year amounted to 2,337,125, a 4.5% drop from the previous year. Oakland officials attributed the drop in inbound loads to high levels of domestic inventories curbing demand for new imports.

The **Northwest Seaport Alliance (Ports of Tacoma and Seattle)** recorded 85,183 import loads in December, the lowest number for any December since the two ports began operating jointly. This December's container import volume was down 12.4% from a year earlier and down 30.4% from December 2020. For the year as a whole, import loads (1,258,631) were 14.1% lower than in 2021 but were up 0.4% from 2020. Export loads in December (46,781) were up 14.9% year-over-year but down 26.7% from December 2020. For the entire year, the NWSA reported 555,556 export loads, down 19.7% from 2021 and 29.7% from 2020. Total container traffic through the ports in 2022 (3,384,018) was off by 9.4% from a year earlier. It was also 10.9% below the peak set in 2018.

At British Columbia's **Port of Vancouver**, inbound loads in December plummeted by 32.3% to 98,438 from 145,373 a year earlier and by 41.2% from the 167,466 inbound loads

the port handled in December 2020. YTD, however, the 1,835,407 inbound loads handled in all of 2022 were down just 3.9% from 2021's tally. By contrast, outbound loads (53,397) in December were up 8.8% from the last month of 2021 but down by 39.5% from December 2020. For the year, outbound loads (703,005) were down 20.0% from 2021 and down 32.6% from 2020. Total container traffic in 2022 amounted to 3,557,294, a 3.3% fall-off from a year earlier.

Further north, the **Port of Prince Rupert** continued to underperform its past in December. Inbound loads (43,045) were not just down by 25.3% from December 2021, it was the lowest volume since December 2016. For the year, inbound loads amounted to 535,969, the lowest annual volume since 2017. Export loads (12,274) in December and 136,531 for the year were the fewest in any year since... well, the port's online records don't go back before 2013. Counting loads and empties, total container traffic in 2022 (1,035,639) was at the lowest level since 2017.

The **Port of Virginia** saw a 20.5% year-over-year drop in inbound loads in December to 125,715 from 157,590. For the entire year, inbound loads (1,728,911) were up 2.9% over 2021. Outbound loads (90,838) were meanwhile up 2.4% in December and 2.5% for the year as a whole. Total container traffic (3,703,230) in 2022 was up 5.1% from 2021.

At the **Port of Charleston**, inbound loads in December (104,336) were down 12.1% year-over-year, while outbound loads (63,320) were up 10.8% over the last month of 2021. For all of 2022, inbound loads (1,383,490) were up 6.8% from 2021, but outbound loads (665,458) were down 18.3% from 2021. Total YTD traffic of 2,792,313 represented a modest 1.5% gain over 2021, but a 20.9% jump over 2020.

We Make Cargo Move



**The Port
OF HUENEME**



Exhibit 1

December 2022 - Inbound Loaded TEUs at Selected Ports

	Dec 2022	Dec 2021	% Change	Dec 2020	% Change	Dec 2022 YTD	Dec 2021 YTD	% Change	Dec 2020 YTD	% Change
Los Angeles	352,046	385,251	-8.6%	460,865	-23.6%	4,975,735	5,513,286	-9.8%	4,827,040	3.1%
Long Beach	241,643	358,687	-32.6%	406,072	-40.5%	4,358,790	4,581,848	-4.9%	3,998,340	9.0%
San Pedro Bay Total	593,689	743,938	-20.2%	866,937	-31.5%	9,334,525	10,095,134	-7.5%	8,825,380	5.8%
Oakland	65,566	79,055	-17.1%	90,218	-27.3%	990,820	1,055,614	-6.1%	995,977	-0.5%
NWSA	85,183	97,285	-12.4%	122,469	-30.4%	1,258,631	1,464,662	-14.1%	1,253,818	0.4%
Hueneme	11,310	11,070	2.2%	4,591	146.4%	137,373	102,892	33.5%	49,278	178.8%
USWC Total	755,748	931,348	-18.9%	1,084,215	-30.3%	11,721,349	12,718,302	-7.8%	11,124,453	5.4%
Boston	8,669	5,401	60.5%	12,114	-28.4%	88,214	92,267	-4.4%	137,098	-35.7%
NYNJ	303,596	392,348	-22.6%	358,325	-15.3%	4,804,436	4,586,988	4.7%	3,920,686	22.5%
Maryland	44,103	49,438	-10.8%	45,041	-2.1%	535,899	506,299	5.8%	523,266	2.4%
Virginia	125,725	157,590	-20.2%	123,218	2.0%	1,728,911	1,679,528	2.9%	1,316,976	31.3%
South Carolina	104,336	118,710	-12.1%	93,568	11.5%	1,383,490	1,294,901	6.8%	1,033,001	33.9%
Georgia	217,628	238,309	-8.7%	224,625	-3.1%	2,873,100	2,801,201	2.6%	2,306,625	24.6%
Jaxport	26,776	29,584	-9.5%	27,906	-4.0%	321,511	316,942	1.4%	317,626	1.2%
Port Everglades	30,316	32,688	-7.3%	27,913	8.6%	385,989	365,722	5.5%	299,038	29.1%
Miami	42,075	51,154	-17.7%	43,066	-2.3%	527,510	548,331	-3.8%	439,305	20.1%
USEC Total	903,224	1,075,222	-16.0%	955,776	-5.5%	12,649,060	12,192,179	3.7%	10,293,621	22.9%
New Orleans	8,356	11,656	-28.3%	12,362	-32.4%	116,458	128,039	-9.0%	138,450	-15.9%
Houston	136,055	148,301	-8.3%	128,593	5.8%	1,916,586	1,634,025	17.3%	1,296,522	47.8%
USGC	144,411	159,957	-9.7%	140,955	2.5%	2,033,044	1,762,064	15.4%	1,434,972	41.7%
Vancouver	98,438	145,373	-32.3%	167,466	-41.2%	1,835,407	1,909,972	-3.9%	1,797,582	2.1%
Prince Rupert	43,045	57,596	-25.3%	59,141	-27.2%	535,969	546,962	-2.0%	643,575	-16.7%
British Columbia Total	141,483	202,969	-30.3%	226,607	-37.6%	2,371,376	2,456,934	-3.5%	2,441,157	-2.9%

Source Individual Ports



Exhibit 2

December 2022 - Outbound Loaded TEUs at Selected Ports

	Dec 2022	Dec 2021	% Change	Dec 2020	% Change	Dec 2022 YTD	Dec 2021 YTD	% Change	Dec 2020 YTD	% Change
Los Angeles	96,518	70,872	36.2%	120,265	-19.7%	1,187,085	1,184,145	0.2%	1,531,406	-22.5%
Long Beach	115,782	113,918	1.6%	132,374	-12.5%	1,414,882	1,437,917	-1.6%	1,475,888	-4.1%
San Pedro Bay Totals	212,300	184,790	14.9%	252,639	-16.0%	2,601,967	2,622,062	-0.8%	3,007,294	-13.5%
Oakland	58,302	55,724	4.6%	75,330	-22.6%	760,796	852,374	-10.7%	927,799	-18.0%
NWSA	46,781	40,703	14.9%	63,849	-26.7%	555,556	691,446	-19.7%	790,620	-29.7%
Hueneme	3,638	2,516	44.6%	1,147	217.2%	40,476	30,796	31.4%	12,314	228.7%
USWC Totals	321,021	283,733	13.1%	392,965	-18.3%	3,958,795	4,196,678	-5.7%	4,738,027	-16.4%
Boston	4,564	3,222	41.7%	7,211	-36.7%	37,920	64,266	-41.0%	79,133	-52.1%
NYNJ	102,866	106,136	-3.1%	103,891	-1.0%	1,299,070	1,358,730	-4.4%	1,321,043	-1.7%
Maryland	20,549	22,102	-7.0%	22,269	-7.7%	243,209	251,054	-3.1%	226,621	7.3%
Virginia	90,838	88,667	2.4%	82,670	9.9%	1,076,146	1,049,588	2.5%	940,684	14.4%
South Carolina	63,320	57,136	10.8%	67,239	-5.8%	665,458	814,964	-18.3%	774,811	-14.1%
Georgia	107,724	84,800	27.0%	105,796	1.8%	1,348,850	1,382,233	-2.4%	1,414,891	-4.7%
Jaxport	43,785	41,669	5.1%	44,804	-2.3%	545,300	575,669	-5.3%	512,203	6.5%
Port Everglades	33,831	34,703	-2.5%	32,889	2.9%	409,641	391,095	4.7%	343,572	19.2%
Miami	22,812	26,827	-15.0%	27,051	-15.7%	303,575	338,696	-10.4%	343,267	-11.6%
USEC Totals	490,289	465,262	6.0%	493,820	-0.4%	5,929,169	6,226,295	-4.8%	5,956,225	-0.8%
New Orleans	14,973	17,657	-15.2%	22,792	-34.3%	224,886	438,459	-48.7%	487,885	-53.9%
Houston	107,576	90,660	18.7%	106,908	0.6%	1,268,440	1,068,982	18.7%	1,230,921	103.0%
USGC Totals	122,549	108,317	13.1%	129,700	-5.5%	1,493,326	1,507,441	-0.9%	1,718,806	-13.1%
Vancouver	53,397	49,084	8.8%	88,192	-39.5%	703,005	878,429	-20.0%	1,043,069	-32.6%
Prince Rupert	12,274	14,999	-18.2%	18,762	-34.6%	136,531	158,861	-14.1%	193,642	-29.5%
British Columbia Totals	65,671	64,083	2.5%	106,954	-38.6%	839,536	1,037,290	-19.1%	1,236,711	-32.1%

Source Individual Ports

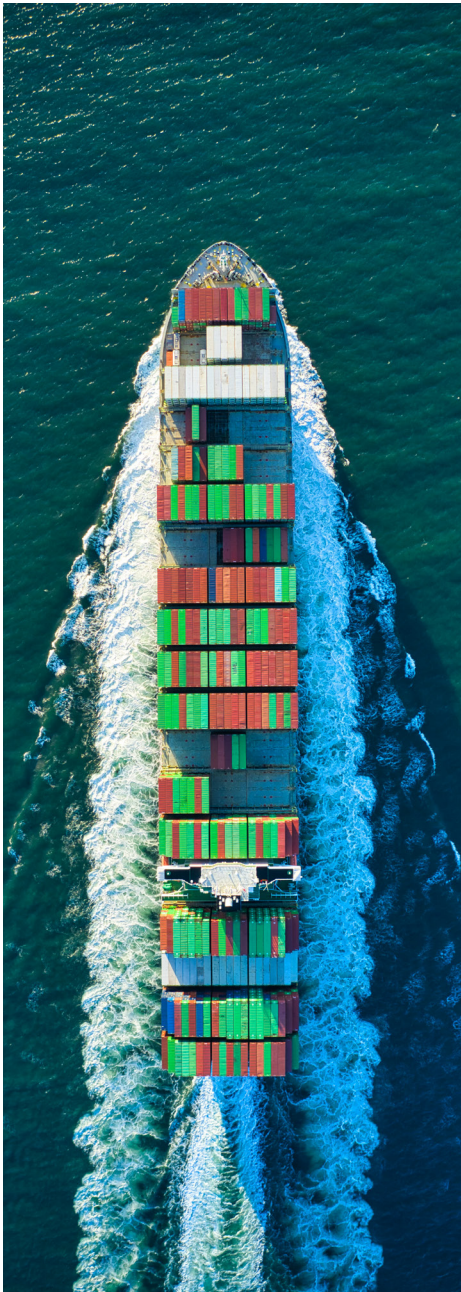


Exhibit 3

December 2022 YTD Total TEUs

	Dec 2022 YTD	Dec 2021 YTD	% Change	Dec 2020 YTD	% Change
Los Angeles	9,911,159	10,677,610	-7.2%	9,213,396	7.6%
NYNJ	9,493,664	8,985,931	5.7%	7,585,819	25.2%
Long Beach	9,133,657	9,384,368	-2.7%	8,113,318	12.6%
Georgia	5,892,131	5,613,163	5.0%	4,682,249	25.8%
Houston	3,974,901	3,453,266	15.1%	3,001,164	32.4%
Virginia	3,703,230	3,522,834	5.1%	2,813,415	31.6%
Vancouver	3,557,294	3,680,581	-3.3%	3,467,521	2.6%
NWSA	3,384,018	3,736,206	-9.4%	3,320,379	1.9%
South Carolina	2,792,313	2,751,442	1.5%	2,309,995	20.9%
Oakland	2,337,125	2,448,243	-4.5%	2,461,262	-5.0%
Montreal	1,722,704	1,728,114	-0.3%	1,607,289	7.2%
JaxPort	1,323,805	1,377,417	-3.9%	1,295,289	2.2%
Miami	1,184,776	1,244,090	-4.8%	1,070,615	10.7%
Port Everglades	1,091,288	1,066,016	2.4%	933,431	16.9%
Maryland	1,069,421	1,019,407	4.9%	1,051,840	1.7%
Prince Rupert	1,035,639	1,054,836	-1.8%	1,141,390	-9.3%
Philadelphia	772,082	739,323	4.4%	640,709	20.5%
Mobile	563,191	502,623	12.1%	423,540	33.0%
New Orleans	430,215	488,119	-11.9%	572,221	-24.8%
Hueneme	265,749	220,186	20.7%	169,412	56.9%
Boston	173,926	187,902	-7.4%	268,418	-35.2%
Portland, Oregon	171,481	105,989	61.8%	58,066	195.3%

Source Individual Ports



Moving Day and Night

24/7 operation is critical to the future of the supply chain.



Port of **LONG BEACH**
THE PORT OF CHOICE



December 2022 TEU Numbers *Continued*

Down at the **Port of Savannah**, inbound loads (217,628) were down 8.7% from a year earlier, while outbound loads (107,724) surged by 27.0% from December 2021. For the entire year, inbound loads (2,873,100) were up 2.6%, while outbound loads (1,282,233) slipped by 2.4%. Total traffic through the port in December (440,759) was down 5.2% from December 2021. Total container traffic for the year amounted to 5,892,131, a 5.0% increase over 2021.

At the **Port of Houston**, inbound loads (136,055) in December were down 8.3% year-over-year, while outbound loads (107,576) were up by 18.7%. YTD, inbound loads (1,916,586) topped the previous year by 17.3% and 2020 by a remarkable 47.8%. Outbound loads in all of 2022 (1,268,440) similarly exceeded the 2021 total by 18.7%. Total container traffic through the Texas gateway in 2022 amounted to 3,974,901 loads and empties, a 15.1% gain over 2021 and a 32.4% increase over 2020.

Nationally, containerized import volumes turned out to be much lower than some analysts had earlier surmised. In a January 9 press release, the National Retail Federation's Global Port Tracker had projected that December would see the arrival of 1.88 million inbound loads, which would be down 10.1% from a year earlier. However, in its February 7 update, the Global Port Tracker conceded that inbound loads in December actually totaled 1.73 million.

The Year 2022 Totals by Coast

For the first time in decades, more inbound loads entered USEC than USWC ports in 2022, while the Atlantic Seaboard ports maintained their customary wide lead in outbound loads.

U.S. East Coast ports saw a 3.7% (+456,881) gain in inbound loads over 2021 but a 4.8% (-297,126) decline in outbound loads from a year earlier. Along the Gulf Coast, the Port of Houston alone recorded a year-over-year bump of 17.3% (+282,561) in inbound loads and an 18.7% (+199,458) jump in outbound loads. USWC ports, meanwhile, sustained a 7.8% drop (-996,953) in inbound loads along with a 5.7% (-237,883) decline in outbound loads.

In terms of all of the loads and empties moving in and out of the ports we track, the five major USWC ports saw a collective 5.6% (-1,480,468) decline in total volume, while USEC ports together posted a 3.7% (+989,111) gain. The

three Gulf Coast ports meanwhile posted a combined 11.8% (+534,299) gain in total containers handled in 2022.

Weights and Values

Here we offer an alternative to the customary TEU metric for gauging containerized trade. The percentages in **Exhibits 4 and 5** represent U.S. West Coast shares of the box trade through mainland U.S. ports. They are derived from data compiled by the U.S. Commerce Department from documentation submitted by the importers/exporters of record. Both exhibits provide evidence in terms of both cargo weight and dollar value of the

Exhibit 4 Major USWC Ports Shares of U.S. Mainland Ports Worldwide Container Trade, December 2022

	Dec 2022	Nov 2022	Dec 2021
Shares of U.S. Mainland Ports Containerized Import Tonnage			
USWC	32.7%	30.5%	32.6%
LA/LB	23.5%	21.4%	23.6%
Oakland	3.8%	3.4%	3.1%
NWSA	3.5%	4.0%	3.8%
Shares of U.S. Mainland Ports Containerized Import Value			
USWC	37.6%	36.0%	39.3%
LA/LB	29.2%	27.4%	30.0%
Oakland	2.8%	2.7%	2.8%
NWSA	4.4%	4.7%	5.0%
Shares of U.S. Mainland Containerized Export Tonnage			
USWC	31.7%	34.1%	33.0%
LA/LB	19.4%	20.7%	20.1%
Oakland	5.5%	5.8%	5.7%
NWSA	5.7%	6.4%	6.2%
Shares of U.S. Mainland Containerized Export Value			
USWC	26.7%	28.4%	26.3%
LA/LB	17.0%	18.0%	15.8%
Oakland	5.7%	5.7%	6.1%
NWSA	3.2%	3.6%	3.6%

Source: U.S. Commerce Department.



December 2022 TEU Numbers *Continued*

Exhibit 5 Major USWC Ports Shares of U.S. Mainland Ports Containerized Trade with East Asia, December 2022

	Dec 2022	Nov 2022	Dec 2021
Shares of U.S. Mainland Ports Containerized Import Tonnage			
USWC	51.0%	47.9%	51.7%
LA/LB	39.8%	36.5%	39.9%
Oakland	4.2%	3.6%	4.0%
NWSA	5.8%	6.6%	6.1%
Shares of U.S. Mainland Ports Containerized Import Value			
USWC	57.2%	54.5%	57.3%
LA/LB	45.7%	43.0%	45.0%
Oakland	3.3%	3.1%	3.4%
NWSA	6.9%	7.2%	7.4%
Shares of U.S. Mainland Containerized Export Tonnage			
USWC	51.9%	56.3%	54.5%
LA/LB	32.8%	35.5%	35.3%
Oakland	7.8%	8.1%	7.5%
NWSA	9.8%	11.2%	10.6%
Shares of U.S. Mainland Containerized Export Value			
USWC	52.9%	57.1%	53.3%
LA/LB	34.9%	37.2%	34.5%
Oakland	9.5%	9.8%	9.8%
NWSA	7.3%	8.3%	7.9%

Source: U.S. Commerce Department.

diminishing role West Coast ports generally have been playing in handling containerized imports, especially with respect to shipments arriving from East Asia.

The Top Three U.S. Container Ports

As **Exhibit 6** reveals, inbound loads through the nation's three busiest container ports have been declining since last spring.

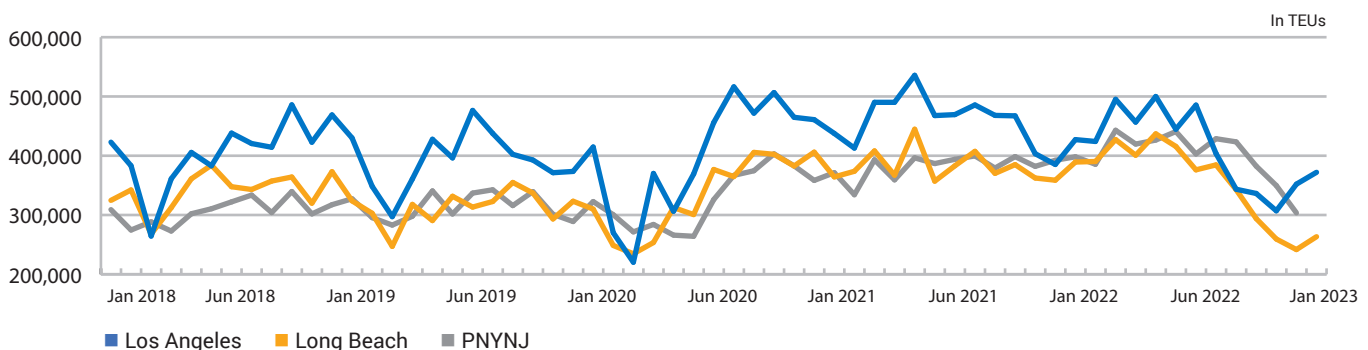
On the other side of the trade ledger, the volume of outbound loads leaving the three major gateways has been waning since before the pandemic, as **Exhibit 7** indicates.

Dry Bulk Exports in the Pacific Northwest

Trade in containerized goods gets a lot of media attention, most of which focuses on inbound traffic. Much less ink is spilled over the nation's dry bulk trade. So, it's likely that few people would expect that the leading USWC port for handling dry bulk tonnage is not Los Angeles or Long Beach or Oakland or Seattle or Tacoma. Rather, according to the U.S. Transportation Department's January 2023 Port Performance report to Congress, that distinction goes to the **Port of Kalama** on the Columbia River in southwestern Washington State. Kalama ranks 15th in the nation, two places ahead of the nearby Port of Portland, which is six places ahead of the Port of Seattle. Another Columbia River terminal, the Port of Longview (Washington) ranks 24th.

Exhibit 6 Five Years of Inbound Loads at LA, Long Beach, and PNYNJ

Source: Individual Ports





December 2022 TEU Numbers *Continued*

Exhibit 7

Five Years of Outbound Loads at LA, Long Beach, and PNYNJ

Source: Individual Ports

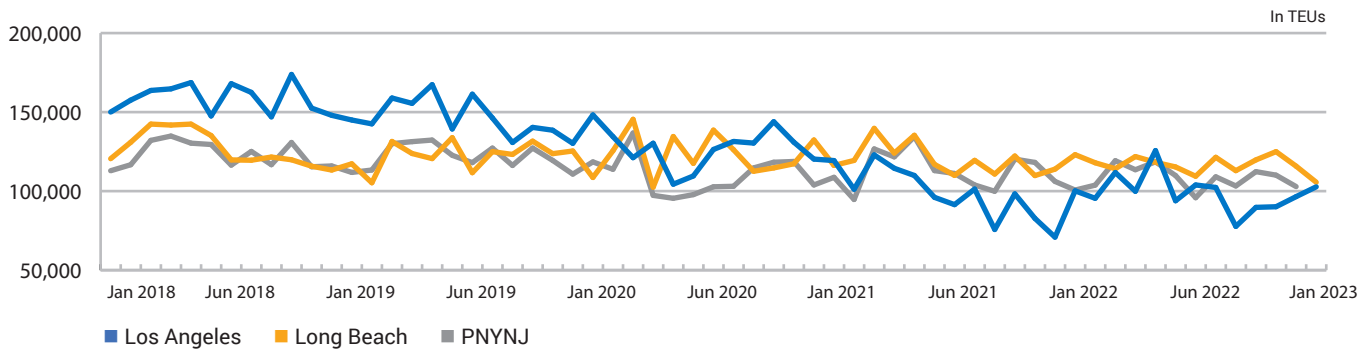
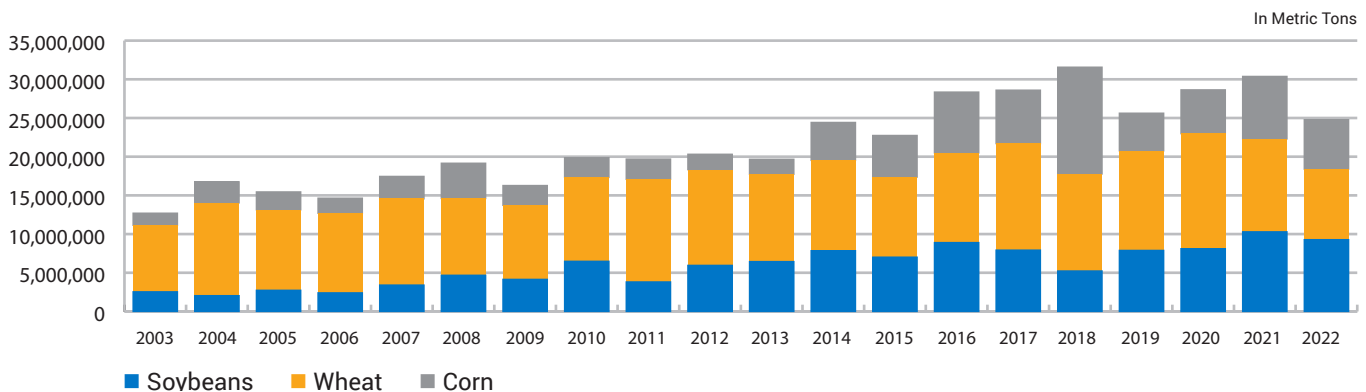


Exhibit 8

Bulk Agricultural Export from Columbia River Ports: 2003-2022

Source: U.S. Commerce Department



The high ranking of the Columbia River Ports of Kalama, Longview, Portland, and Vancouver derives from the outsized role they play in shipping agricultural produce, notably wheat, corn (maize), and soybeans, to Asian markets. However, even though bulk soybean exports to East Asia increased by 9.2% last year, their share of that trade declined by 9.3%. Picking up the slack, the Northwest Seaport Alliance Ports of Tacoma and Seattle posted a 19.6% gain in their bulk exports of soybeans to East Asia. Still, despite the issues shippers had last year with low water levels in the Mississippi River, the ports of the Pacific Northwest failed to capitalize.

Wine Imports

There was an item in the *American Journal of Transportation* last spring about a new intermodal service

using the Port of Virginia to deliver transatlantic import cargo to California. It reportedly involves Hapag-Lloyd partnering with the Norfolk Southern Railway to transport several hundred containers a week to Chicago, where they would be handed off to the Union Pacific Railroad for delivery to Los Angeles and Oakland.

California accounts for 11.7% of the U.S. population and a somewhat larger share of the nation's wine drinkers. More wine is consumed in the Golden State than in Florida, Texas, and Nevada combined, according to the National Institutes for Health. While California produces about 85% of the nation's wines, its residents also number among the most avid drinkers of wines from the vineyards of France and Italy. So how do all those fine European wines get here?



December 2022 TEU Numbers *Continued*

In terms of import value, California's ports rank behind PNYNJ in containerized wine imports from France and Italy. Last year, the big East Coast gateway handled 56.1% of the \$4.81 billion trade. The Port of Oakland was the main port-of-entry on the West Coast, handling a 10.4% share, while the two San Pedro Bay ports and the Northwest Seaport Alliance held 4.4% and 0.4% shares, respectively.

As much as we would prefer to have more of these liquid assets routed from Europe to West Coast consumers through West Coast ports, part of us sincerely hopes this new venture succeeds in getting delivery times and prices down...so long as the shipments stay on track.

Keeping Tabs on Farm Exports in a Fast-Moving World

Data are important assets to sound decision-making. Unfortunately, data are often incomplete or out-of-date. In 1997, the Agricultural Issues Center (AIC) at the University of California at Davis entered into a partnership with the California Department of Food and Agriculture to devise more accurate estimates of California's agricultural exports. In 2019, this partnership shifted from AIC to the UC Davis Department of Agricultural and Resource Economics, which has apparently dropped the ball or fumbled the baton. The last and most recent report is for 2019. Our calendar reads February 2023.

Apart from our normal fetish for punctuality, our principal complaint with the tardiness of official state statistics on its agricultural export trade is that it opens the door to those who traffic in anecdotes and, at times, misrepresentation. We think the farmers and ranchers of California deserve better from their state government.

As if the value of accurate, timely statistics needed any further emphasis, we wish to join with U.S. Agriculture Secretary Tom Vilsack in congratulating America's growers, ranchers, and food producers on another record year of exporting. According to the U.S. Department of Agriculture press release on February 10th, ***"the American agricultural sector posted its best export year ever in 2022, with international sales of U.S. farm and food products reaching \$196 billion"***.

Now this may come as shocking or even fake news to a lot of people inside and outside of policymaking circles, particularly those who have been persuaded that farm exporters have been facing nearly insurmountable logistical hurdles in the past couple of years.

The triumphant USDA release went on to share some useful details about just how successful a year it was for exporters of farm products. For one thing, U.S. agricultural exports increased 11 percent, or \$19.5 billion, from the previous record set in 2021. It then noted that 2022 was the second consecutive year of record-setting agricultural exports. The value of sales, the release also pointed out, increased in all of the United States' top 10 agricultural export markets – China, Mexico, Canada, Japan, the European Union, South Korea, Taiwan, the Philippines, Colombia and Vietnam, with sales in seven of the 10 markets (China, Mexico, Canada, South Korea, Taiwan, the Philippines and Colombia) setting new records.

We would urge Secretary Vilsack to share all this good news widely, especially with the Members of Congress who have just re-introduced the "American Port Access Privileges Act". It's a measure that would essentially hold imported goods bound for American consumers and manufacturers hostage to the demands of exporters, especially those shipping agricultural produce to overseas markets.

According to a February 15 press release from one of the measure's congressional sponsors: "Our legislation would put American exports at the front of the line at our ports to support American businesses and workers." How this prioritizing of one interest group over nearly everyone else in the country would work is anyone's guess.

That said, we'll take this opportunity to update readers on the very latest (January) export numbers from California's almond, walnut, and pistachio shippers. Let's start with the report from the Administrative Committee for Pistachios, which recorded that exports in January were up 63.5% year-over-year, while domestic shipments slipped by 9.6%. Meanwhile, the Almond Board of California reports that January exports were up 47.5% from a year earlier, but domestic shipments essentially remained unchanged. As for walnuts, the California Walnut Board tells us that exports increased by 24.9% year-over-year, while domestic shipments rose 30.3%.

In case anyone is wondering, California's tree nut growers are exceedingly dependent on overseas sales. In their respective crop years through this January, exports accounted for 64.1% of all walnut shipments (domestic as well as foreign). Similarly, exports accounted for 70.7% of all pistachio shipments, just ahead of export's 71.4% share of all almond shipments.



Jock O’Connell’s Commentary: A Half-Century of Change on Route 29

A recent spasm of housecleaning turned up a dusty cardboard box stuffed with paraphernalia from fifty years ago. It was the proverbial time capsule. Aside from a number of truly epic bar receipts, the contents included reams of dissertation research notes, a copy of a U.S. Maritime Administration report on containerized cargo statistics for 1973, and a letter from my draft board advising me that I was not eligible for a government-sponsored tour of Vietnam.

Why I had hung on to the bar tabs may be only slightly less puzzling than why I still have the MARAD report. But, since it is now again in hand, let’s see what it tells us about the changes that have occurred in the nation’s box trade over the past half-century, especially with Vietnam.

One big difference between then and now was that America actually ran a trade surplus in 1973, with \$71.314 billion in merchandise exports more than balancing out the \$69.121 billion in goods we imported. That was more or less reflected in the nation’s containerized trade, which amounted to 17.2 million long tons of cargo carried in 1,398,000 loaded containers. (MARAD would not begin using the TEU or twenty-foot equivalent unit to enumerate container trade until 1978.) 48.8% of those boxes were outbound and 51.2% inbound.

Perhaps even more remarkable was that U.S. flagged carriers handled 33.4% of all that container traffic, with Japanese shipping lines handling another 14.4%.

The busiest trade routes fifty years ago were those linking

America’s East and Gulf Coast ports with Europe and the Mediterranean. Altogether, 662,000 containers crossed the Atlantic in 1973. By comparison, the transpacific trade amounted to 564,000 containers.

MARAD identified three transpacific shipping lanes, the most prominent of which was **Trade Route 29**, which linked U.S. Pacific Coast ports with the Far East. In 1973, 377,000 containers were shipped via TR 29. Of those, 195,000 were inbound and 182,000 were outbound. Another 135,000 containers sailed that year along **Trade Route 12** between East and Gulf Coast ports and the Far East by way of the Panama Canal. 82,000 of those containers were inbound, while 53,000 were outbound. In addition, 52,000 containers, with 22,000 inbound and 30,000 outbound, were shipped along **Trade Route 16** between East and Gulf Coast ports and Australasia via Panama.

Altogether, U.S. container trade along those three transpacific routes in 1973 amounted to 564,000 boxes, of which USWC ports held a 66.8% share.

Given the volumes crossing the Atlantic, it’s not surprisingly that “America’s Port” was then the Port of New York/New Jersey with 523,000 containers. It was followed at some distance by Los Angeles (147,000 containers) and then by Norfolk (96,000), Baltimore (95,000), Oakland (83,000), Seattle (76,000), Long Beach (61,000), Philadelphia (36,000), Charleston, (32,000), and Houston (31,000). Savannah, today one of the nation’s busiest container ports, processed 19,000 containers

Protecting Blue Whales and Blue Skies
Vessel Speed Reduction Incentive Program
 A partnership for cleaner air,
 safer whales, and a quieter ocean
www.bluewhalesblueskies.org



Commentary *Continued*

in 1973. The Port of San Francisco, which was still then in the container business, handled 67,000 containers. MARAD did not break out the volume of box trade through the Port of Tacoma, but it did report that the Port of Portland (Oregon) moved some 20,000 containers.

Some things have not much changed, though. Then and now, containerized trade largely involved imports of industrial goods and consumer items and exports of agricultural produce and raw materials. Motor vehicles and parts, telecommunications apparatus, iron and steel plates, fresh or slightly preserved fish, and clothing were the major commodities in the inbound transpacific trade. Waste and scrap paper, animal feed, wheat, cotton, and wood in the rough were the leading containerized export commodities.

Other than the enormous increase in the volume and value of our containerized trade with East Asia over the past half-century, the most conspicuous change involved the cast of trading partners.

U.S. trade statistics fifty years ago did not feature even cursory data on trade with China, then caught up in a catastrophic cultural revolution. Japan was America's largest Asian trading partner. Not just that, many analysts expected Japan to ultimately overtake the U.S. as the world's largest economy. Treatises explaining how the soundly defeated World War II foe could so quickly reverse the table, at least economically, filled bookstore shelves in the 1970s and 1980s. Today, scarcely anyone in official circles worries about Japan as a serious challenger to America's economic supremacy. That role has instead been handed to China.

Contemporary U.S. trade statistics date back to 1985. (Changes in data collection methodologies make looking further back a more dubious exercise.) Still, just five years after the initiation of Deng Xiaoping's economic reforms, Japan's \$94.41 billion in two-way trade with the United States easily eclipsed our \$7.72 billion in trade with China.

As one who grew up in the shadow of the draft, I came to have mixed views of Vietnam. After all the rhetoric about falling dominoes, two examples of the triumph of communism impressed me during a visit there a few years back: the bronze bull in front of the stock exchange in Hanoi, and the local teenagers who were using a monument honoring V.I Lenin as a skate board park.



Saigon Port. (2022, July 7). In Wikipedia. https://en.wikipedia.org/wiki/Saigon_Port

The U.S. Census Bureau's Foreign Trade Division didn't begin publishing data on trade with Vietnam until 1992, when the value of two-way trade amounted to all of \$4.6 million. It didn't cross the billion-dollar mark until 2000. Last year, though, Vietnam nearly overtook the United Kingdom as America's seventh largest trading partner. As a source of America's containerized imports, Vietnam now ranks second only to China in terms of both tonnage and value.

Although China is and will likely remain the dominant force in East Asia, Vietnam's rise has been astonishing. Over the past twenty years, while U.S. containerized import tonnage grew by 87.5%, import tonnage from Vietnam soared by 1780.8%.

How Vietnam's exports get to U.S. markets offers a microcosm of the trends that have affected transpacific trade.

Just twenty years ago, Vietnam accounted for a reedy 0.6% share of all containerized import tonnage offloaded at U.S. mainland ports. That volume represented just a shade over 1.0% of the \$353.25 billion in America's containerized import trade that year. By last year (2022), the Southeast Asian country's share of the trade had increased to 6.1% in terms of tonnage and 8.1% in terms of value, as **Exhibit A** indicates. We now import more containerized merchandise by sea from Vietnam – in terms of both tonnage and value – than from any other country in the world except China. Twenty years earlier, Vietnam ranked 35th in tonnage and 17th in value.



Commentary Continued

Exhibit A

Vietnam's Share of U.S. Containerized Imports: 2003-2022

Source: U.S. Commerce Department

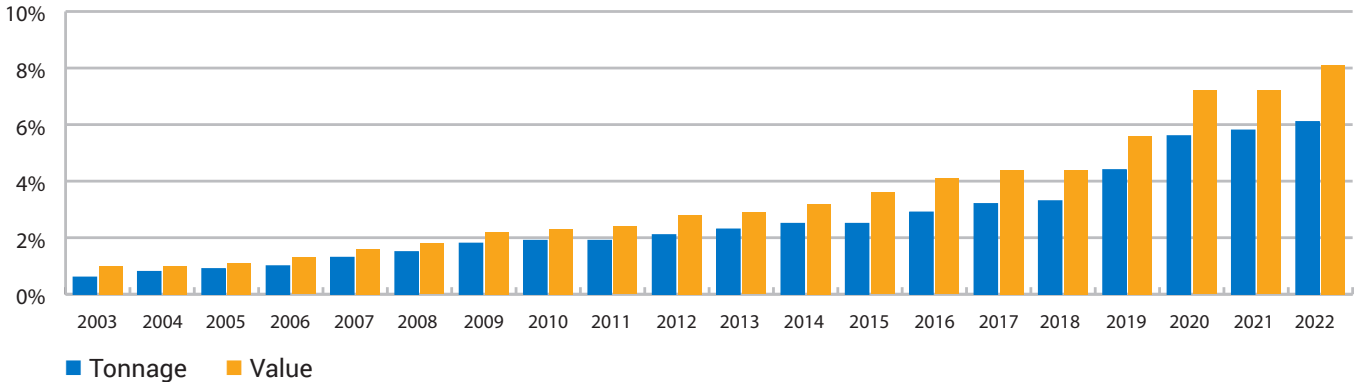


Exhibit B

USWC Share of Containerized Imports from Vietnam: 2003-2022

Source: U.S. Commerce Department

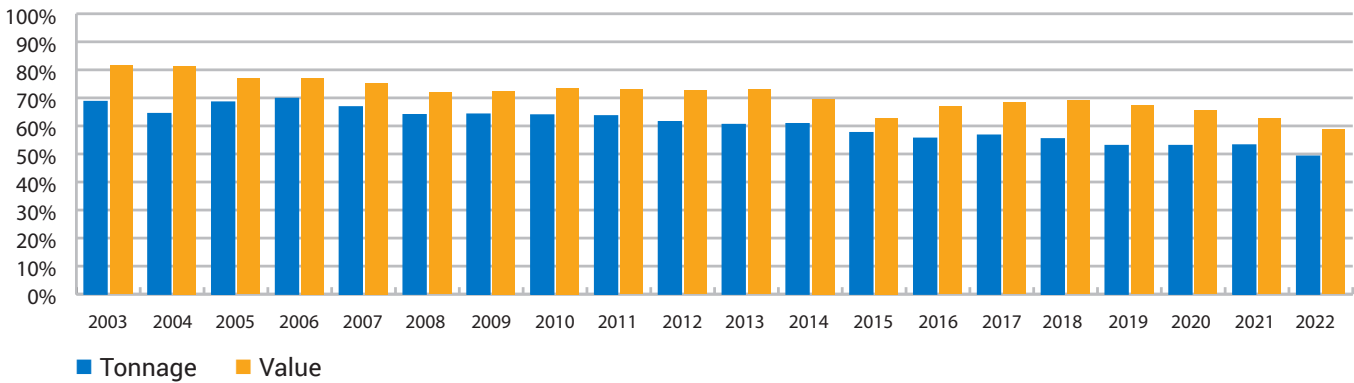
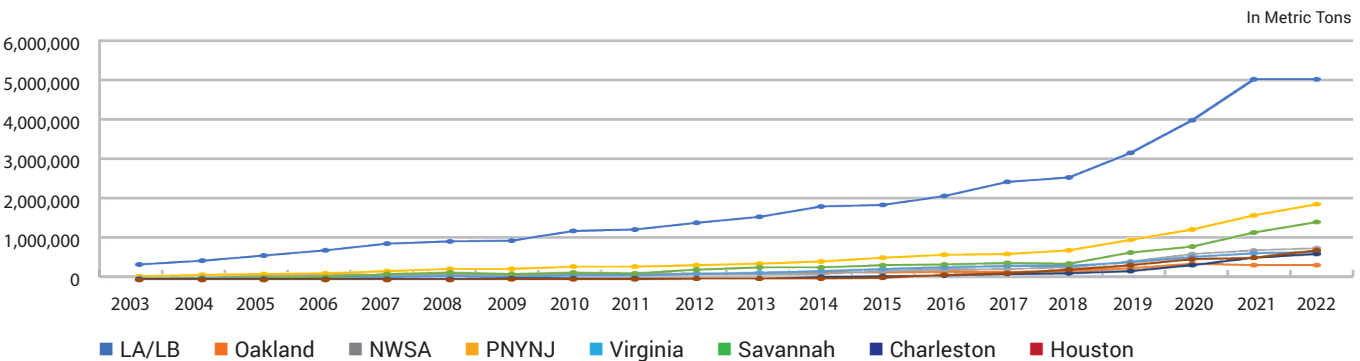


Exhibit C

Containerized Import Tonnage from Vietnam at Major U.S. Ports

Source: U.S. Commerce Department





Commentary Continued

The routes Vietnam’s containerized exports take to U.S. markets have shifted over the past two decades. Twenty years ago, 68.7% of the import tonnage went through U.S. West Coast ports, but, as Exhibit B reveals, the USWC share has been in almost steady decline (to 49.2% last year) as other ports on other coasts vied for greater pieces of the trade.

As Exhibit C shows, all of the major U.S. ports have seen their containerized imports from Vietnam grow in the past two decades. Nationally, containerized imports from Vietnam increased from 693,157 metric tons of cargo in 2003 to 13,036,930 metric tons in 2022. The San Pedro ports remain the principal gateways for containerized goods entering U.S. mainland ports from Vietnam. But, while tonnage has grown from 395,245 metric tons in 2003 to 5,081,116 metric tons last year, the two ports’ combined share of the trade has slipped from 57.2% to 39.3%. Remarkably, the portion of the trade through the Northwest Seaport Alliance ports has remained stable, 6.3% in 2003 and 6.4% last year. The Port of Oakland, however, has seen its share of the trade slip from 4.6% in 2003 to 2.9% in 2022.

Savannah, with its share rising from 3.2% to 11.3%, showed the sharpest increase. Other ports seeing their share of the business grow are Houston (0.7% to 5.8%), Charleston (2.4% to 5.0%), the Port of New York/New Jersey (13.5% in 2003 to 15.0%), and Norfolk (4.9% share to 5.6%).

Finally, did I mention Vietnam’s crucial role in promoting the use of containers to ship goods around the world? Marc Levinson’s *The Box* contains a whole chapter about how the U.S. Navy’s Military Sea Transportation Service came to hire Malcom McLean to help sort out the logistics of supplying the buildup of American forces in Vietnam only a decade after McLean shipped his first container. It’s a great story.

Disclaimer: The views expressed in Jock’s commentaries are his own and may not reflect the positions of the Pacific Merchant Shipping Association.

Rust Never Sleeps

What is the current condition of the ill-fated Queen Mary? While we aren’t metallurgists, we are pretty sure that steel sitting in salt water for over 86 years doesn’t strengthen over time. Left unsaid in all the glowing press releases touting the ship’s potential as a profitable tourist attraction is who will ante up the \$289 million in needed structural repairs identified in a 2016 marine survey, a cost estimate that is now nearly seven years old. Hopefully, the ship won’t go down before policymakers finally resolve the problem.



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The Year Ahead

By John McLaurin, President, Pacific Merchant Shipping Association

For those in California's supply chain, the following issues will be discussed, debated and in some cases, litigated in the coming year.

Clean Trucks Fee

The ports of Los Angeles and Long Beach currently collect a \$10 per TEU fee to fund their Clean Trucks Program. The Mayor of Long Beach has proposed doubling the fee – though it is uncertain whether this proposal will go forward. Currently, the ports are having difficulty spending the money they are collecting due to a lack of demand.

TEU Tax

The South Coast Air Quality Management District (SCAQMD) is looking for an author in the California Legislature to impose a \$100 per TEU tax on containers that move through the ports of San Diego, Long Beach, Los Angeles, Hueneme and Oakland. It is estimated that it would amount to \$1 billion per year to fund unspecified environmental programs.

Indirect Source Rules

The SCAQMD adopted a warehouse indirect source rule (ISR) in 2021. Under such a rule, a facility such as a warehouse is responsible for the air emissions associated with the facility's operation – whether there is contractual relationship or not with the emissions source. The rule is currently being litigated by the California Trucking Association. Cost of implementation of this rule is estimated at \$1 billion per year.

The SCAQMD is moving forward with developing an ISR for new intermodal rail facilities. The concept is to set emission caps on new intermodal rail facilities. Rule development and adoption is expected later this year. Cost of compliance is unknown at this time.

The SCAQMD has begun rulemaking for an ISR for commercial marine ports. Depending on how it is written, the proposed regulation could hold marine terminal operators liable for emissions from trucks, ships, locomotives and tugs.

Advanced Clean Fleets Rule

The California Air Resources Board (CARB) is expected to approve a rule in which new diesel trucks would be banned from entering service in California ports. Instead, only zero-emission trucks would be permitted to be added to the State Drayage Truck Registry. Final approval of this rule is expected this Spring, with litigation to follow.

At-Berth Regulation

CARB has adopted an amended At Berth Rule. They are currently seeking an authorization from the US EPA, which is needed to finalize and enforce the new rule. PMSA and CARB are currently in discussions about the applicability of the US EPA authorization requirement and retroactivity of rule enforcement.

Harbor Craft Regulation

CARB adopted a rule that requires the repowering or replacement of harbor craft vessels with Tier 3 or Tier 4 engines, as well as zero emission harbor craft in specific applications. Similar to the At Berth Rule amendments, CARB applied late (January 31, 2023) for a US EPA authorization. CARB contends that while the agency cannot currently enforce the rule, CARB reserves the right to retroactively enforce the rule upon receipt of the authorization. The tug industry disagrees.

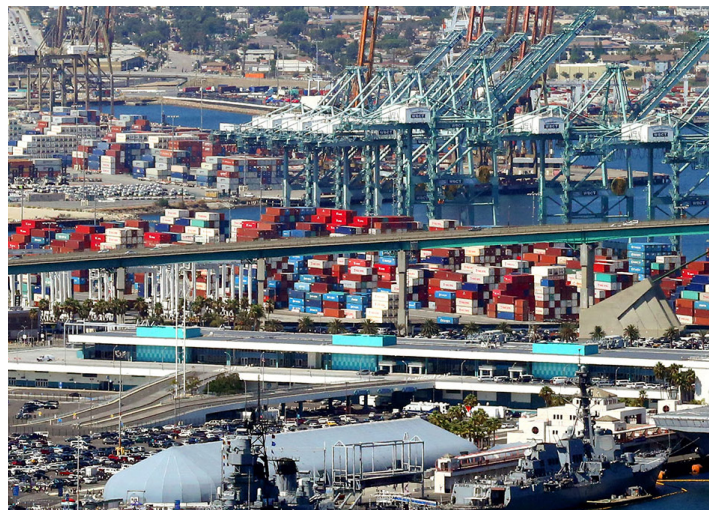
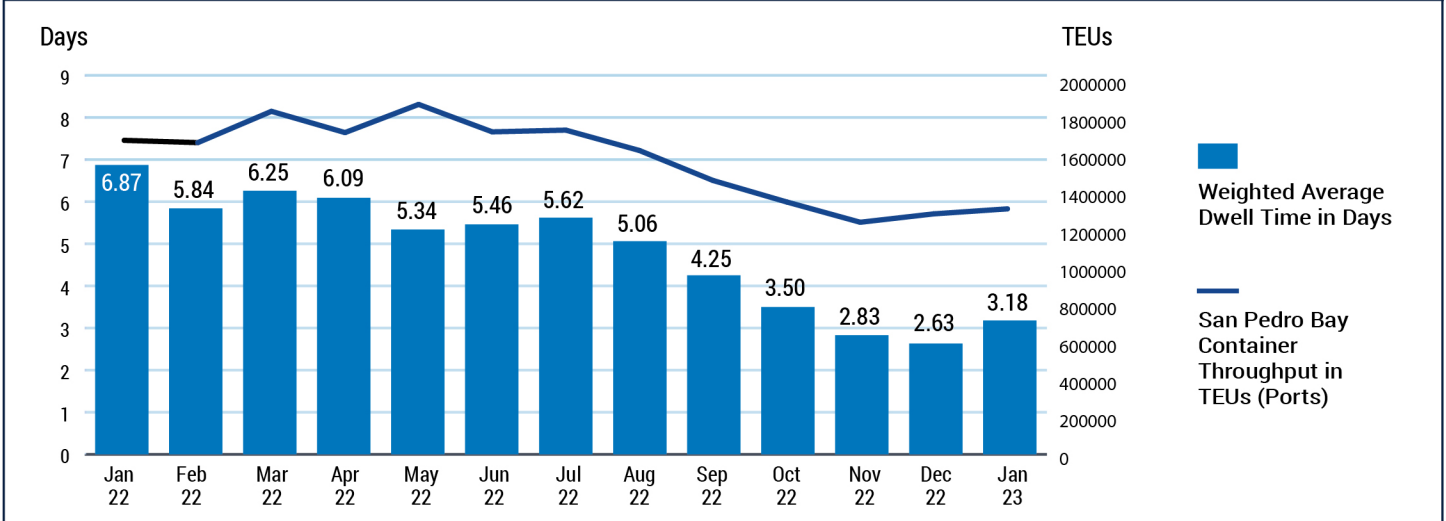


Photo courtesy Port of Los Angeles

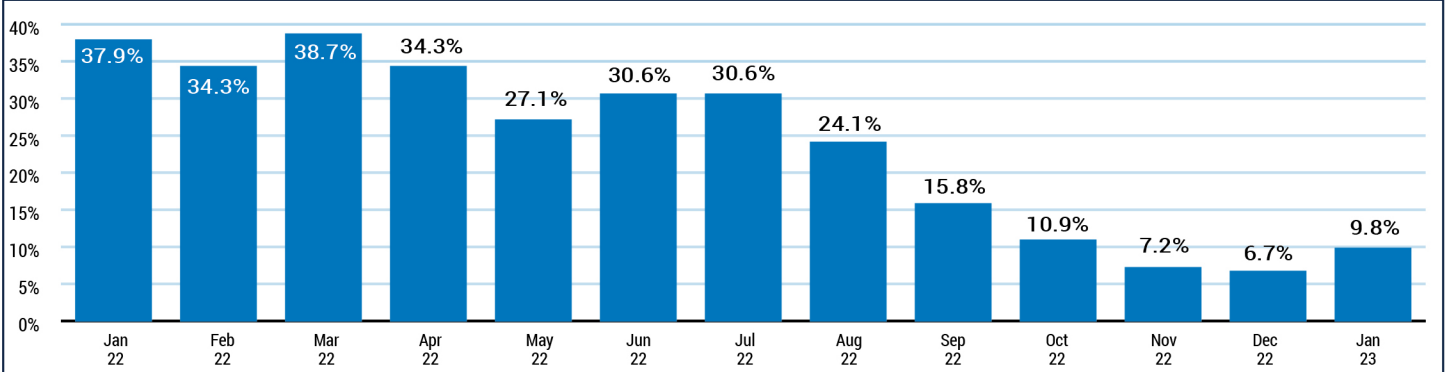


Container Dwell Time Stabilizing

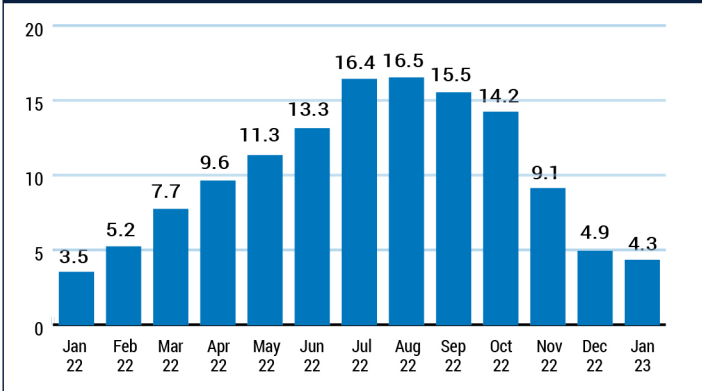
San Pedro Bay Weighted Average Inbound Laden Container Dwell Time in Days



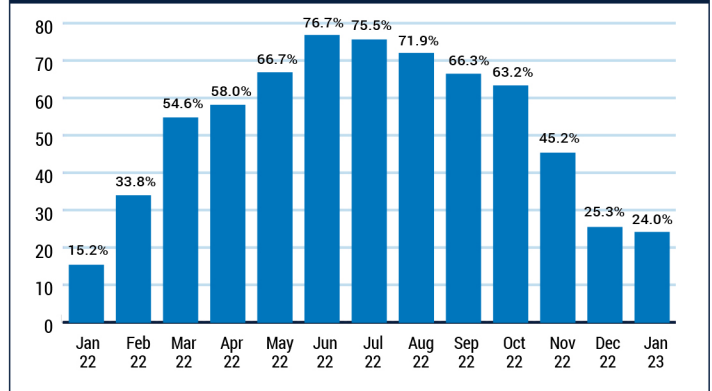
Dwell Time in Days % > 5 Days

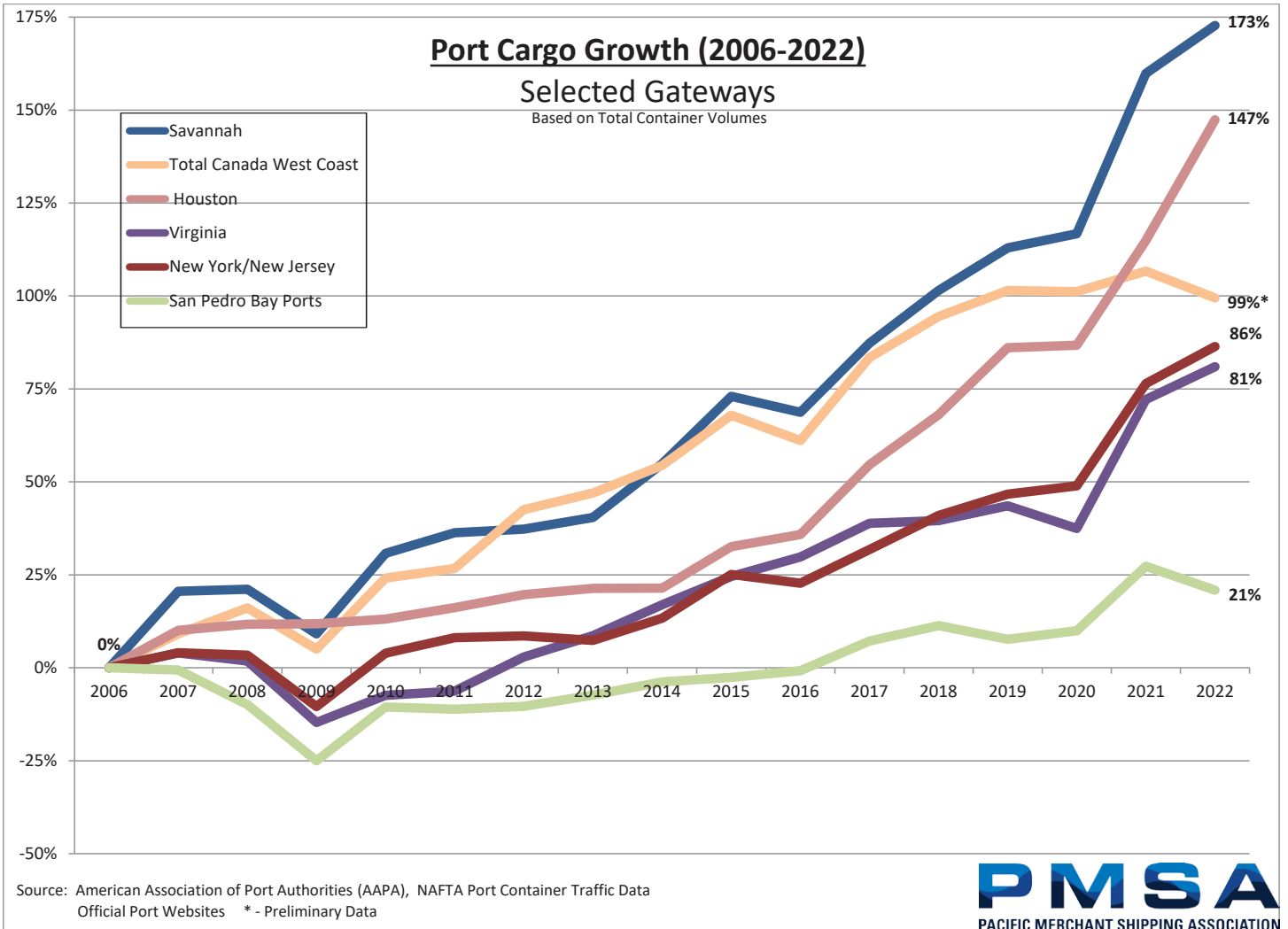


Rail Dwell Time in Days



Rail Dwell Time in Days % > 5 Days





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PUGET SOUND PILOTAGE DISTRICT ACTIVITY REPORT PAGE 1

Feb-2023

The Board of Pilotage Commissioners (BPC) requests the following information be provided to the BPC staff **no later than two working days prior to a BPC meeting** to give Commissioners ample time to review and prepare possible questions regarding the information provided.

Activity

Total pilotage assignments:	466	Cancellations:	18						
Total ship moves:	448	Cont'r:	129	Tanker:	152	Genl/Bulk:	82	Other:	85
Assignments delayed due to unavailable rested pilot:		8		Total delay time:	24				
Assignments delayed for efficiency reasons:		10		Total delay time:	16.5				
Billable delays by customers:		32		Total delay time:	87				
Order time changes by customers:		105							
2 pilot jobs:	37	Reason:	PSP GUIDELINES FOR RESTRICTED WATERWAYS						
Day of week & date of highest number of assignments:	THU 2/2, THU 2/9, WED 2/15							23	
Day of week & date of lowest number of assignments:	SUN 2/12							11	
Total number of pilot repositions:	84	Upgrade trips	8	YTD	35				
3 consecutive night assignments:	30	YTD	46						

Callback Days/Comp Days

	Starting Total	Call Backs (+)	Used (-)	Burned (-)	Ending Total
Licensed	2683	54	99		2638
Unlicensed	85			28	57
Total	2768	54	99	28	2695

On watch assignments 409 Call back assignments 57 CBJ ratio 12.23%

Pilots Out of Regular Dispatch Rotation (pilot not available for dispatch during "regular" rotation)

A. Training & Continuing Education Programs

Start Dt	End Dt	City	Facility	Program Description	Pilot Attendees		
16-Feb	27-Feb	New South Wales	Port Ash	Manned Model Shiphandling	ANA(6on*,5off), KEA(4on*,7off), KEP(6on*,5off)		
					*On watch	Off watch	** paired to assign.
					16	17	

B. Board, Committee & Key Government Meetings (BPC, PSP, USCG, USACE, Port & similar)

Start Dt	End Dt	City	Group	Meeting Description	Pilot Attendees
2-Feb	2-Feb	Olympia	PSP	Outreach	MEL, SID, VON*
2-Feb	2-Feb	Seattle	PSP	Pension	ANA, GRD**, GRK*, HUP*
6-Feb	6-Feb	Seattle	PSP	Outreach	BEN, BOZ
6-Feb	6-Feb	Seattle	PSP	Legislative	VON*
7-Feb	13-Feb	Seattle	PSP	Administrative	KLA*
7-Feb	7-Feb	Olympia	PSP	Legislative	VON*
8-Feb	12-Feb	Seattle	PSP	President	GRK(5on*)
8-Feb	8-Feb	Seattle	BPC	Pilot Safety Committee	ANA, SCR*
8-Feb	8-Feb	Seattle	PSP	Outreach	NIN
13-Feb	15-Feb	Seattle	PSP	Administrative	GRK(3on*)
14-Feb	14-Feb	Seattle	PSP	BOD	COR, GRK*, HAM, HUP, KLA*, MYE

Puget Sound District Activity Report Dashboard

2023 February

Licensed Pilots
Including President

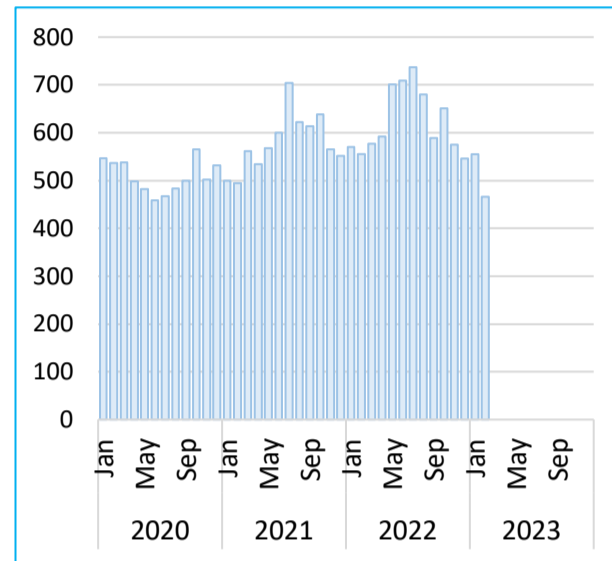
53

PS District
Trainees

8

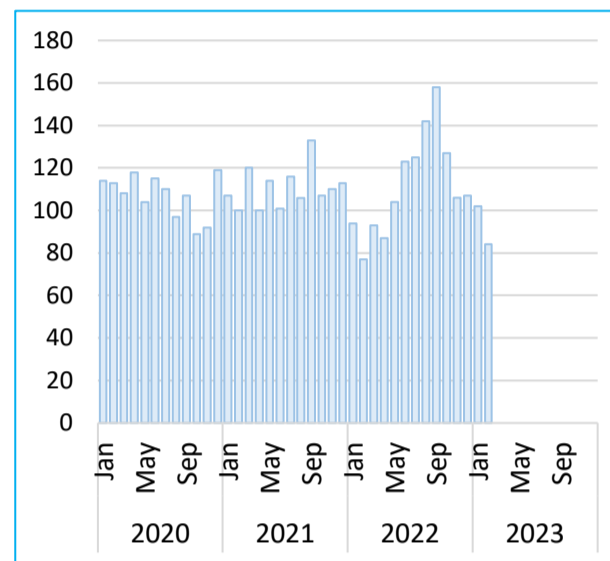
Total Assignments

466



Repositions

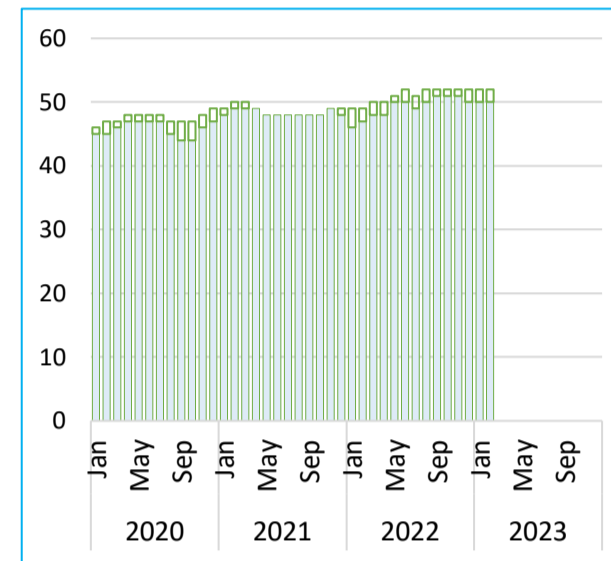
84



Licensed Pilots w/o Pres 52

Pilots NFFD entire month 2

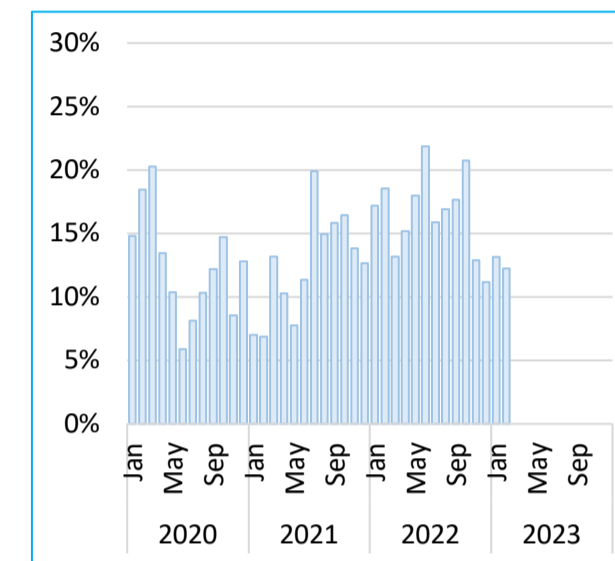
Available Pilots 50



Off-Watch Assignments

(Callbacks)

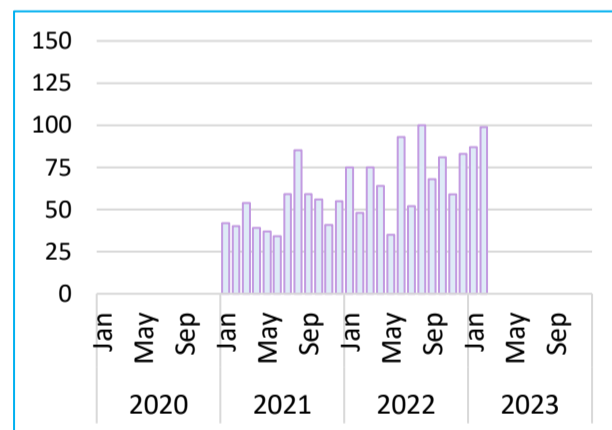
12%



Comp Days Used

(Licensed Pilots)

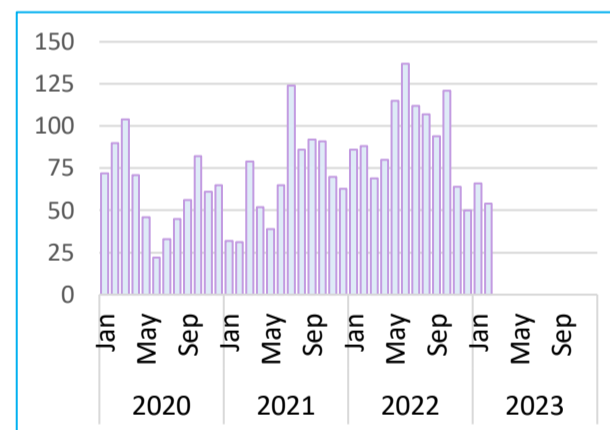
99



Comp Days Earned

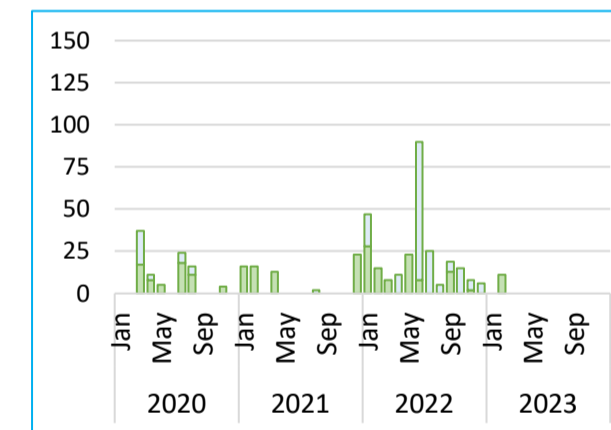
(Callbacks)

54



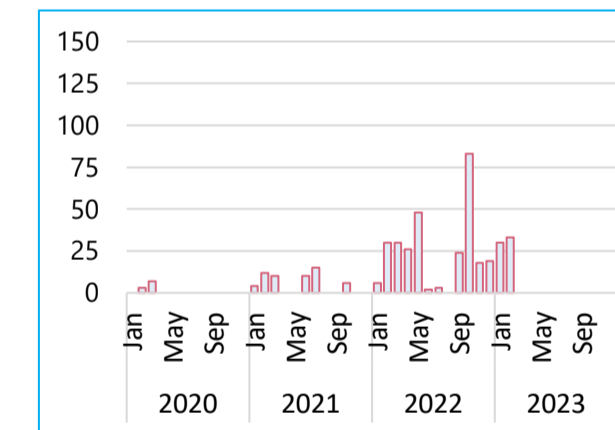
COVID Days* 0

NFFD Days* 11



Training Days

33

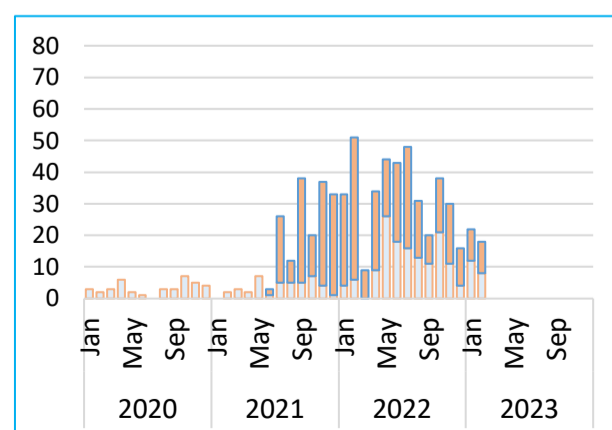


active/retired not reported separately prior to 2021

* count days if pilot(s) not NFFD whole month

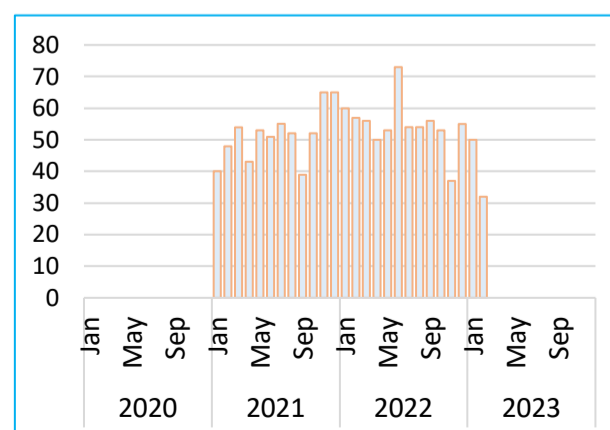
Pilot Delays (Count)
combined total

18



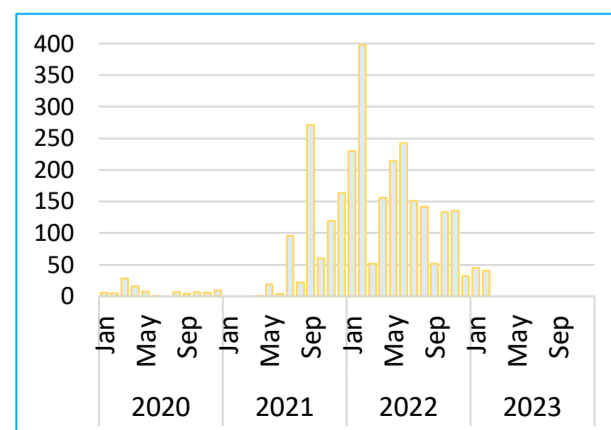
Billable Delays (Count)
by Customers

32



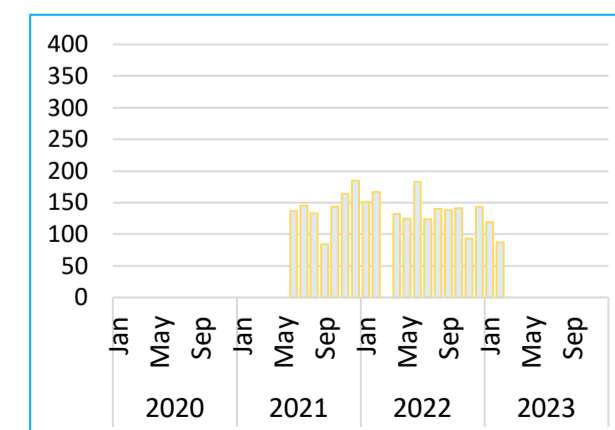
Pilot Delay Hours Total
Pilot Shortage & Efficiency

41



Billable Delay Hours
by Customers

87



efficiency delay counts stacked on top
of pilot shortage delay counts on bottom

pilot delay hours not separated into
efficiency & pilot shortage components

**State of Washington
Pilotage Commission
March 16, 2023**

Grays Harbor District Report

There were 6 arrivals in February for a total of 21 jobs. There are 6 vessels scheduled for March: 1 liquid bulk and 5 dry bulkers.

Pilot Trainees

Pilot Captain Ryan Leo worked the second half of February and completed 3 jobs that were within his limit of 32,000 GT for his first year.

Pilot Trainee Captain Colby Grobschmit started the Evaluation Phase in February and had 12 successful trips.

Terminal 4 Expansion

A pre-application meeting was held with US Fish & Wildlife, National Marine Fisheries Service and the Washington State Department of Ecology on 3/1 at 11:00 AM, plus an a site visit on 3/7 at 1:00 PM. A representative from MARAD also joined the group for the 3/7 site visit.

Staff have received the 30% design of Port improvements and have been meeting with the broader team regarding cost reduction strategies and key changes in direction and team to keep the project within schedule and budget.

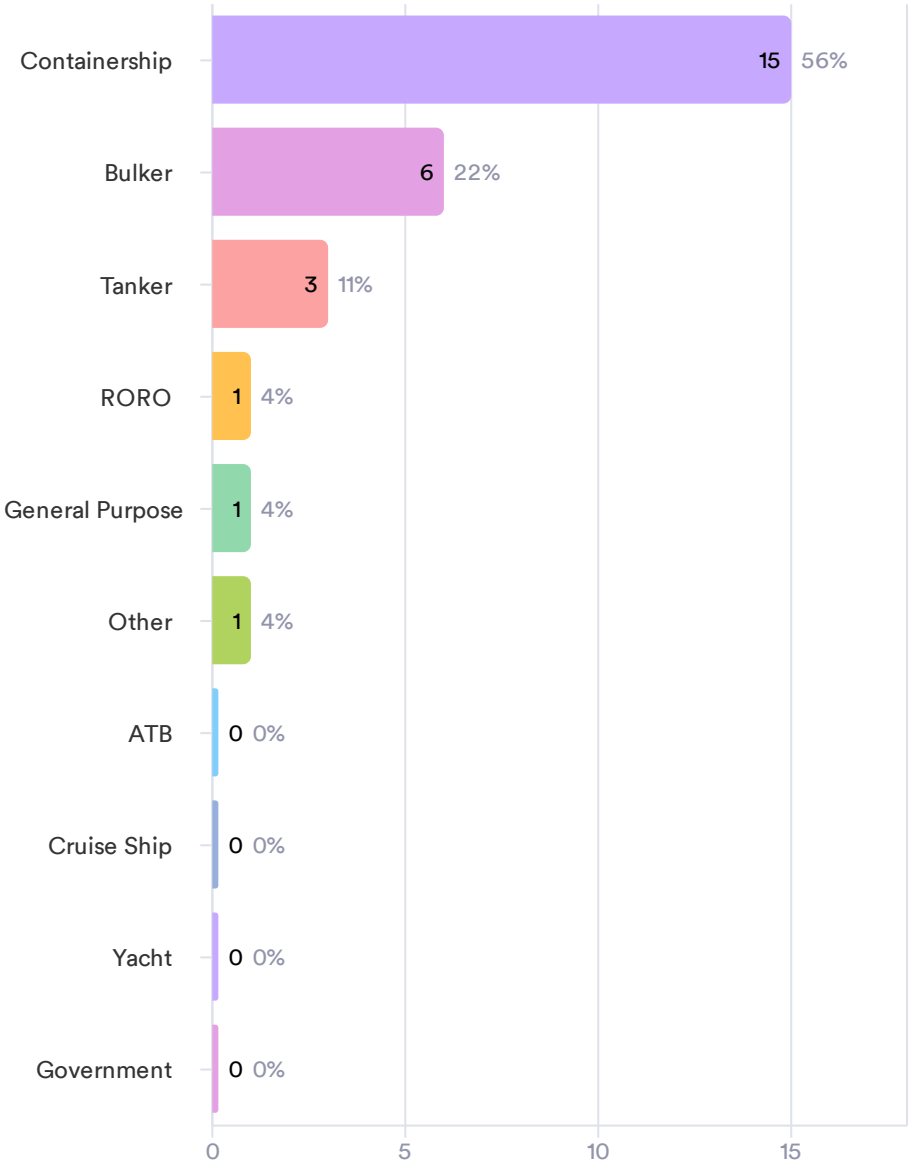
Pilot Ladder Safety Summary

Washington State (PS & GH): 10/1/22-12/31/22

Pilot Ladder Safety Report

Vessel Type:

27 Responses



Vessel Name:

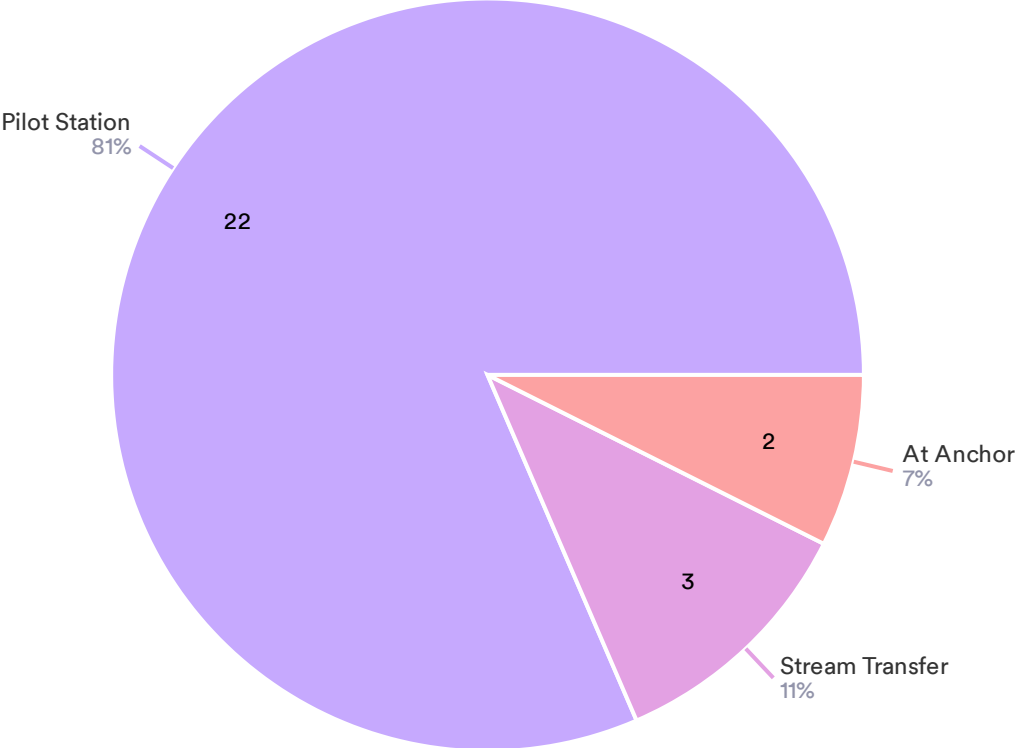
27 Responses

Data	Responses
Seamax Mystic	1
Ever Strong	1
Honiara Chief	1
SM Long Beach	1
MSC Nitya B	1
USNS Bob Hope	1
Torm Helvig	1
APL Gwangyang	1
Ardmore Chinook	1
Eirini P	1
One Magdalena	1
Wellington Star	1
GH Glory	1

Pilot Ladder Safety Report

Geographic Location:

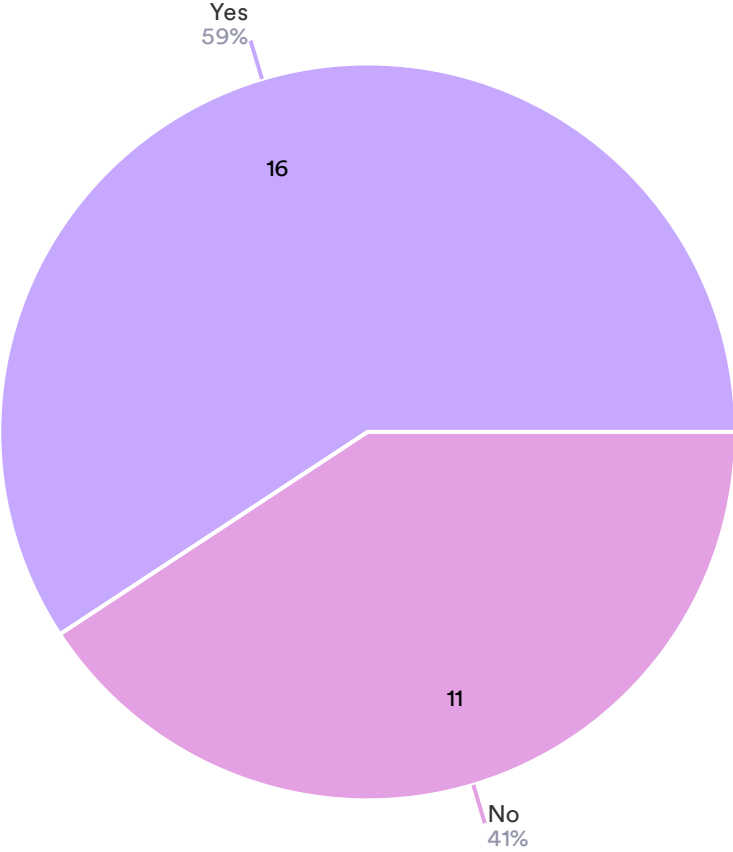
27 Responses



● Pilot Station ● Stream Transfer ● At Anchor

Master Notified:

27 Responses

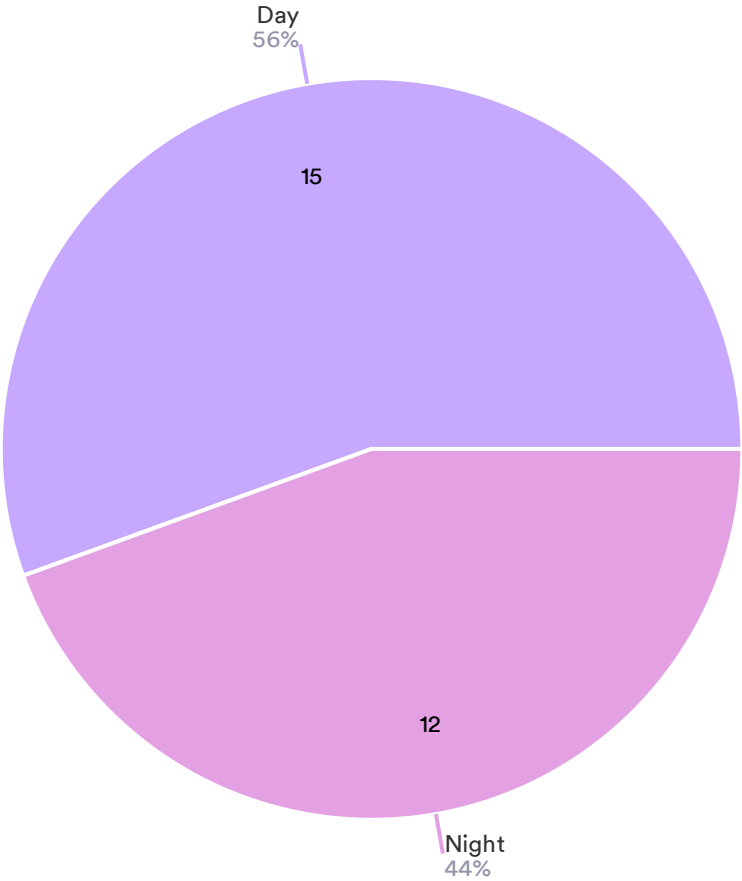


● Yes ● No

Pilot Ladder Safety Report

Day/Night:

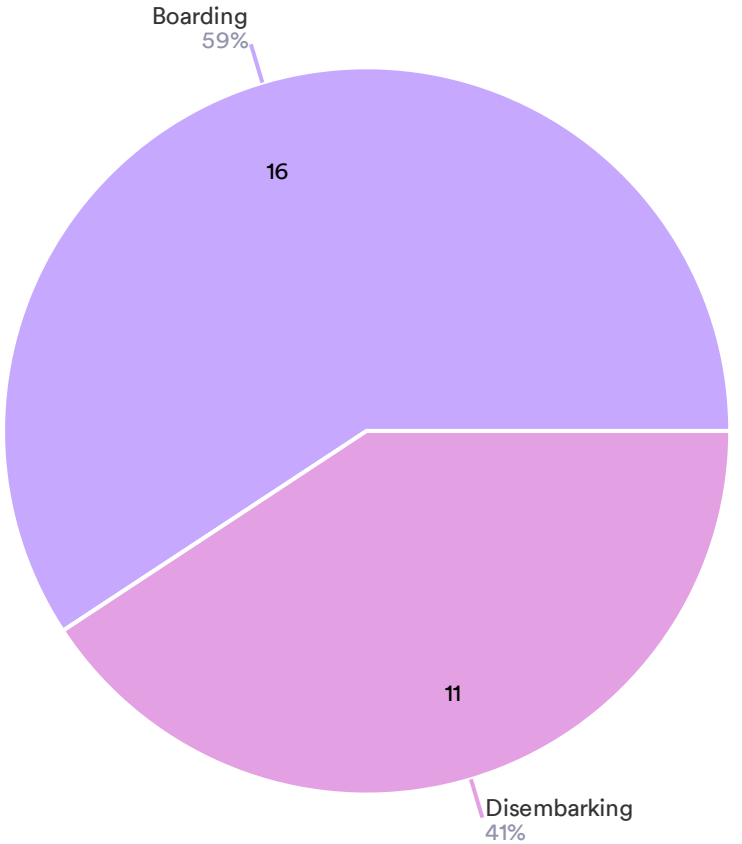
27 Responses



● Day ● Night

Boarding/Disembarking:

27 Responses

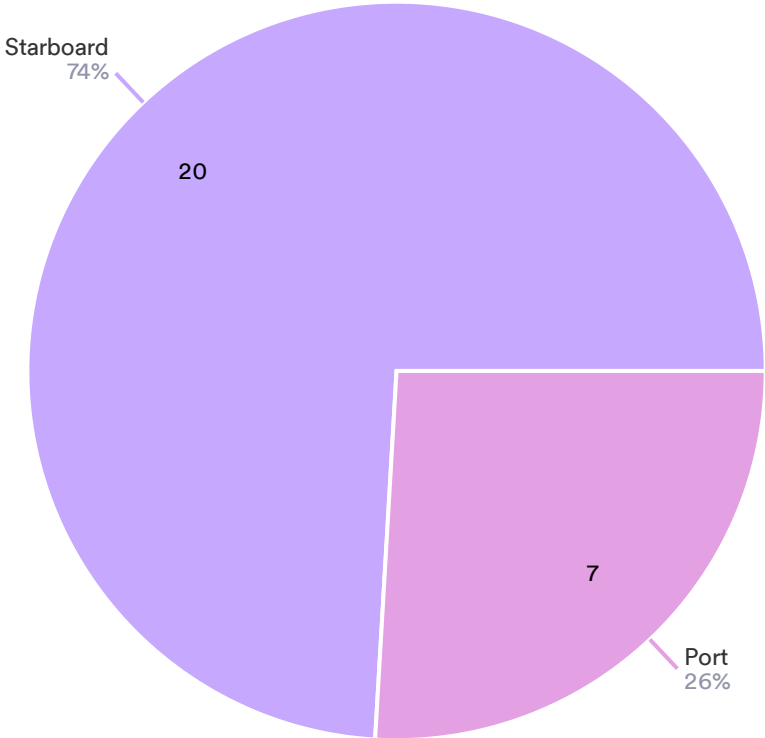


● Boarding ● Disembarking

Pilot Ladder Safety Report

Port/Starboard:

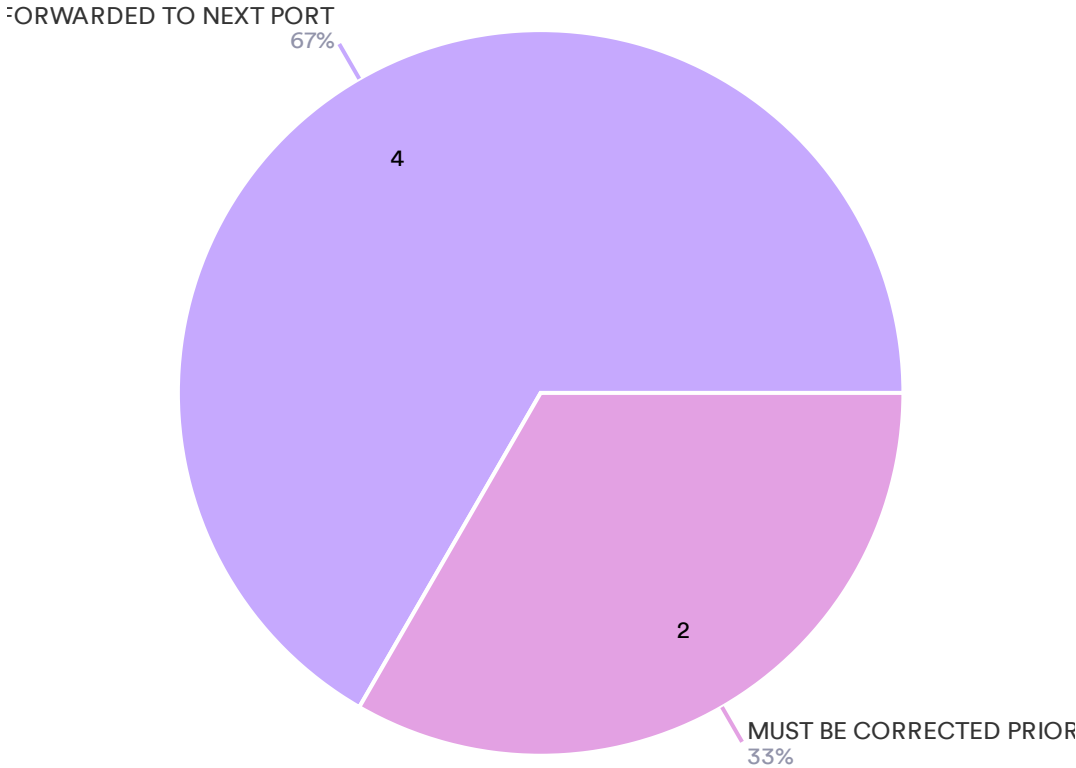
27 Responses



● Starboard ● Port

Notification:

6 Responses

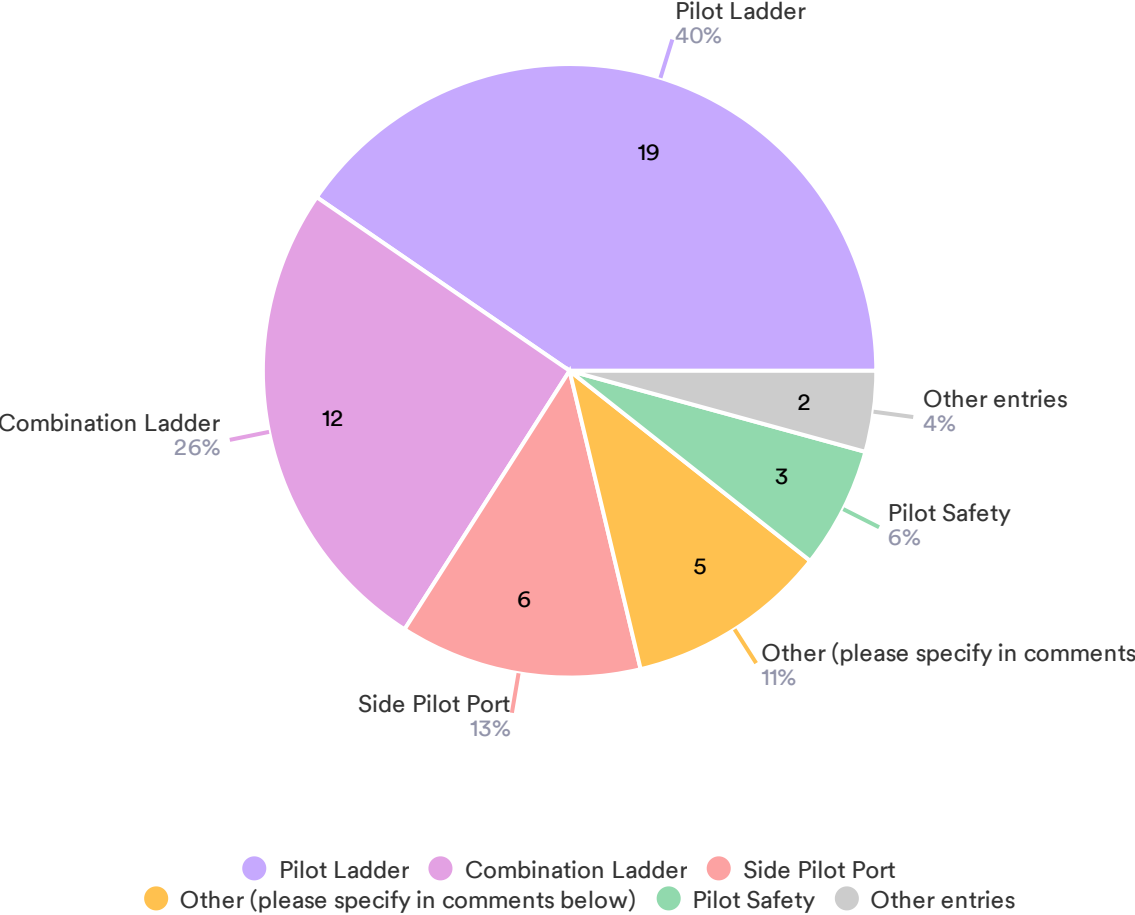


● FORM TO BE FORWARDED TO NEXT PORT
● MUST BE CORRECTED PRIOR TO SAILING OR NEXT TRANSFER

Pilot Ladder Safety Report

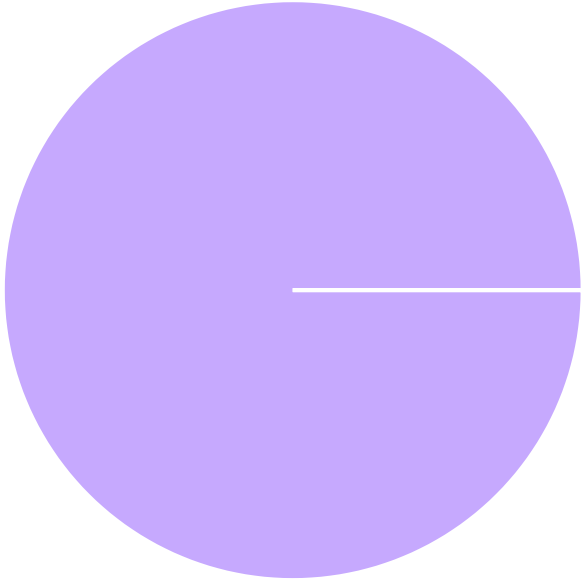
Non-Compliance:

47 Responses



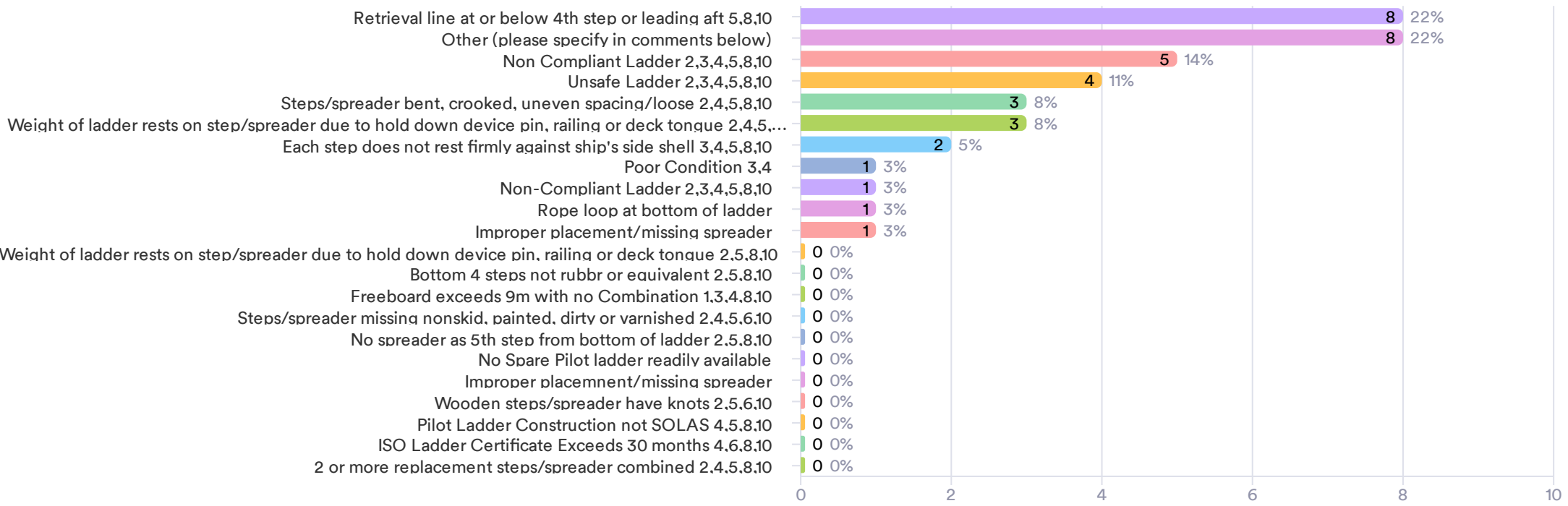
Gangway:

0 Response

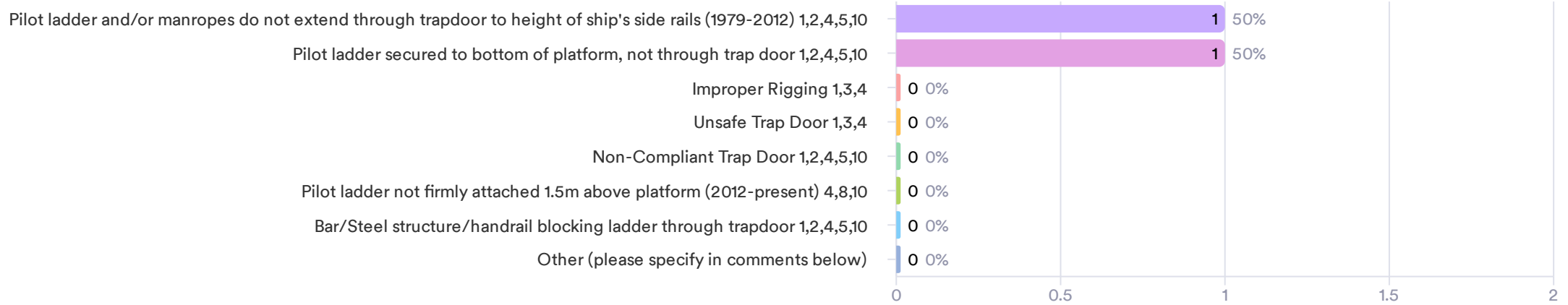


Pilot Ladder Safety Report

Pilot Ladder:

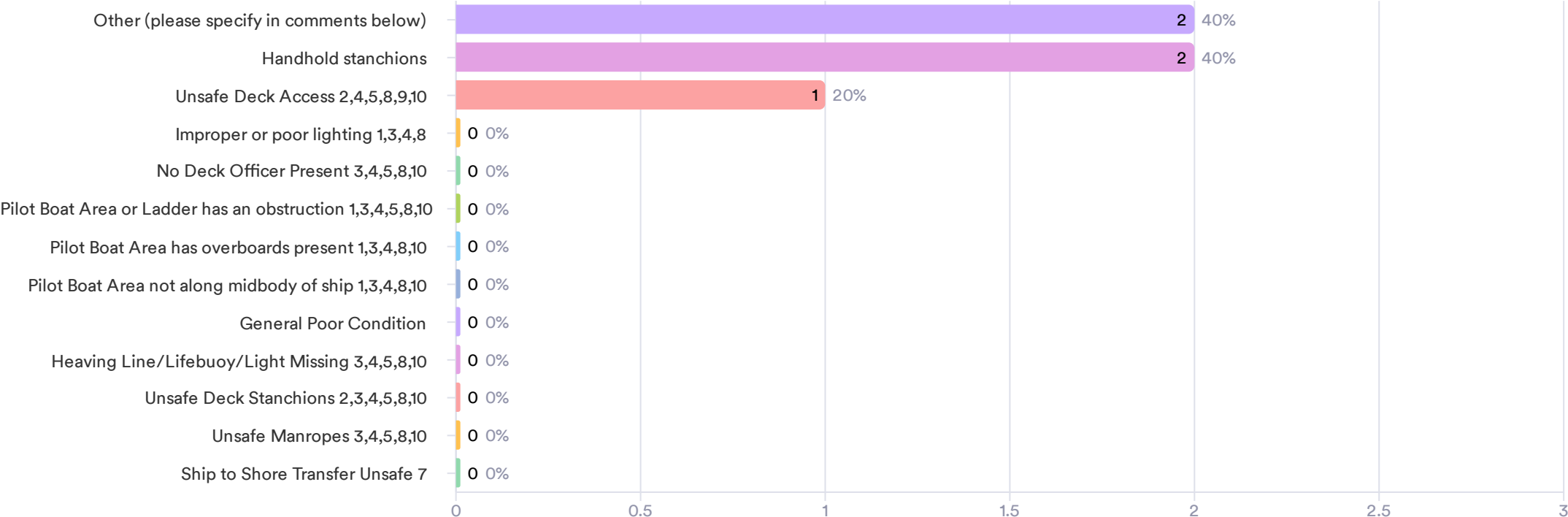


Trap Door Combination Ladder:

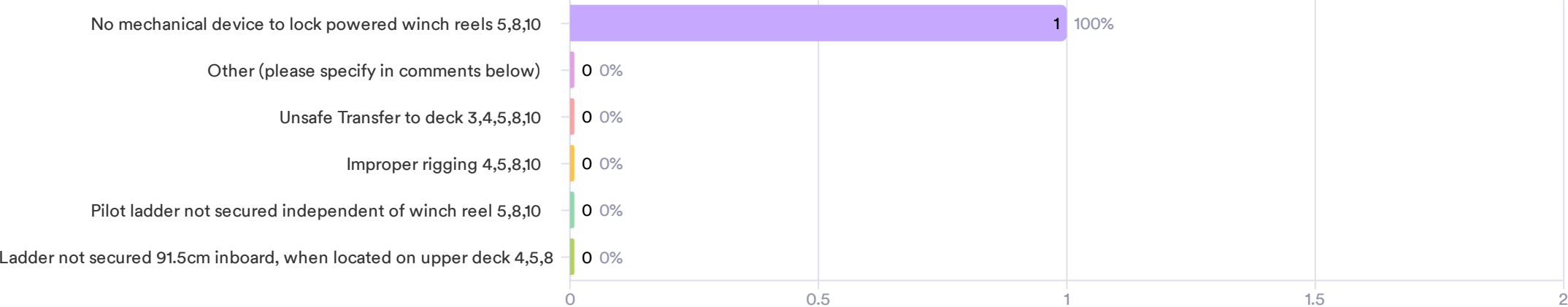


Pilot Ladder Safety Report

Pilot Safety:

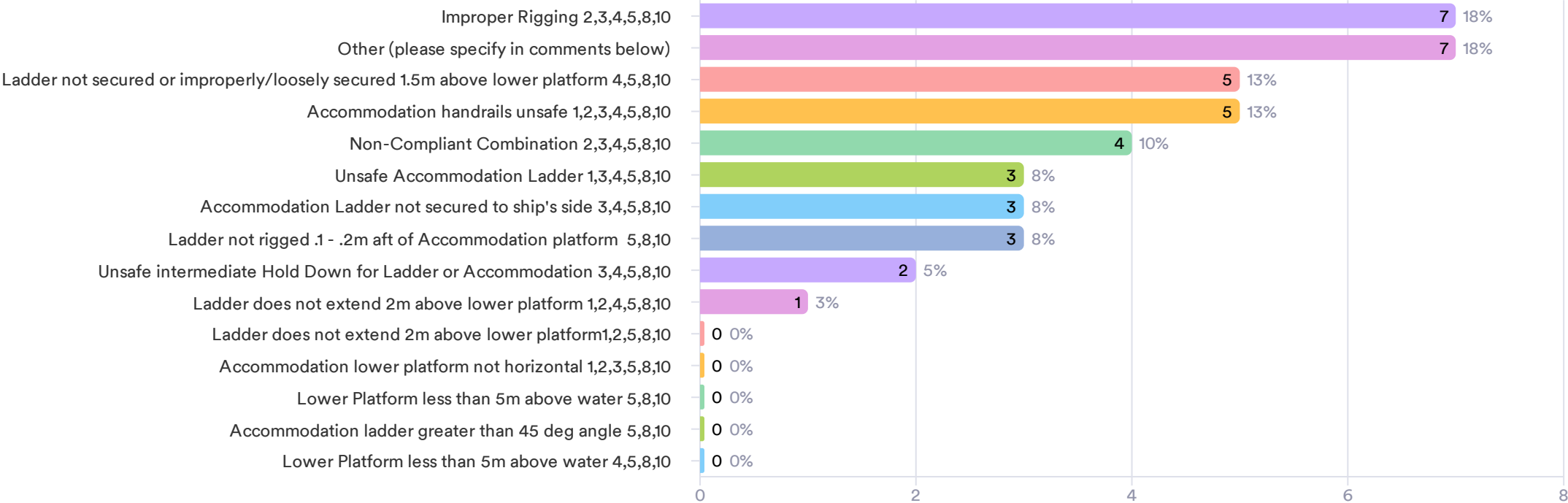


Ladder Winch Reel:



Pilot Ladder Safety Report

Combination Ladder:



Side Pilot Port:

