Panama Canal Authority Vice Presidency for Operations

Advisory to Shipping No. A-44-2021

December 9, 2021

3654 (OP-I) V. 1/10/2020

TO : All Shipping Agents, Owners, and Operators

SUBJECT: Monthly Canal Operations Summary – NOVEMBER 2021

1. Panama Canal Statistical Summary:

a.	Transit Pilot Force	258
b.	Pilots in Training	32
	Tugs	
	Locomotives	

2. Traffic Statistics:

	Daily Average	<u>High</u>	Low
Arrivals	37.30	54	26
Oceangoing Transits	37.80	41	33
Canal Waters Time (hours)	46.42	66.43	24.67
In-Transit Time (hours)	11.19	14.32	9.72
Oceangoing Transits:	<u>Total</u>	Daily Average	<u>Percentage</u>
Vessels of less than 91' beam	222	7.40	19.58
Vessels 91' beam to under 107' beam	616	20.53	54.32
Neopanamax Vessels (107' beam and over)	296	9.87	26.10
Total:	1,134	37.80	100.00
Booking Slots:	<u>Available</u>	<u>Used</u>	<u>Percentage</u>
Neopanamax Vessels (107' beam and Over)	240*	228*1	95.00
Large Vessels (91' beam to under 107' beam)	390*	370* ¹	94.87
Regular Vessels (less than 91' beam)	180*	162* ¹	90.00
Regular Vessels (up to 300' in length)	0	0	0
Auctioned booking slots	113	100	88.50
* Does not include additional auctioned booking slots			

Does not include additional auctioned booking slots

- 3. The following page provides the scheduled locks maintenance work and other items of interest to the shipping community.
- 4. This advisory will be canceled for record purposes on December 31, 2021.

ORIGINAL SIGNED

Ilya R. Espino de Marotta
Deputy Administrator and Vice President
for Operations

¹ Includes booked transits only

Subject: Monthly Canal Operations Summary - NOVEMBER 2021

SCHEDULE OF PANAMAX LOCKS MAINTENANCE OUTAGES							
Dates	Duration	Miraflores	Pedro Miguel	Gatun	Estimated Capacity	Expected Booking Condition	Status
December 1 and 2, 2021	5 hours per day		West*		30-32	1.a	Completed
December 14 and 15, 2021	4 hours per day		West*		30-32	1.a	Tentative
December 16, 2021	12 hours	West*			25-27	1.a	Tentative
December 20, 2021	12 hours			East*	26-28	1.a	Tentative
December 27 and 28, 2021	4 hours per day		West*		30-32	1.a	Tentative
January 3 and 4, 2022	5 hours per day			East*	30-32	1.a	Tentative
January 6, 2022	8 hours			East*	28-30	1.a	Tentative

SCHEDULE OF NEOPANAMAX LOCKS MAINTENANCE OUTAGES						
Dates	Duration	Agua Clara	Cocolí	Estimated Capacity	Expected Booking Condition	Status
February 15, 2022	5 hours	*		8-9		Tentative
March 15, 2022	6 hours		*	6-8	۸۸	Tentative

The normal transit capacity of the Panamax locks is 34-36 vessels per day, and in the neopanamax locks 9-11 vessels per day, depending on vessel mix, transit restrictions, and other factors. The maximum sustainable capacity of the Panama Canal (panamax and neopanamax locks) is approximately 38-40 vessels per day. This capacity is reduced during locks maintenance work, as indicated in the above table. Consequently, vessels may experience delays in transiting. When the Panama Canal's capacity is expected to be reduced, a corresponding reduction in the number of available reserved transit slots may be ordered by the Canal Authority. Whenever a set of locks requires a major outage of one of its two lanes for dry chamber inspection, miter gate repairs, tow track work or other major maintenance/improvement projects, advantage may be taken to perform simultaneous single lane outages at other locks.

- * In order to perform scheduled maintenance works
- ** In order to perform scheduled dry chamber works
- *** Culvert outage
- ^^ A reduction in the number of available booking slots should be expected

Panama Canal Caps Month of Sustainability Advocacy with Preview of Upcoming Decarbonization Measures and Next Steps on Water Solution

On the heels of COP26, the Panama Canal announces Green Vessel Classification Plan and engagement with the U.S. Army Corps of Engineers for long-term water solution



Five years ago, the Panama Canal's contributions to the reduction of emissions from the international shipping industry were presented during the International Maritime Organization's (IMO) 70th Marine Environment Protection Committee session (MEPC 70). Fast forward to this month, the waterway's efforts have expanded tenfold to respond to the urgency of climate change. This month, the Panama Canal is building on this further, from advocating for shipping decarbonization at the UN Climate Change Conference (COP26) to unveiling a new greenhouse gas emissions classification system aimed at strengthening the waterway's position as a green corridor for global trade.

Expanding Efforts to Support Greener Vessels

The Panama Canal Administrator Ricaurte Vásquez Morales announced that the Canal would take its efforts another step further, in recognition of the urgency of climate change and the need for accelerated industry and global climate action. While speaking at AAPA Latino in Cartagena, Colombia, on November 30, Administrator Vásquez announced the Panama Canal Green Vessel Classification system, which will include a Greenhouse Gas (GHG) Emissions Fee.

These changes will build upon the Canal's existing incentives for sustainable shipping lines, provided through its Green Connection Environmental Recognition Program. This program has evolved from the Green Connection Award, the Environmental Premium Ranking, and the Emissions Calculator.

The urgency to take climate action is here, and the industry must take an accelerated approach to mitigate the already adverse effects of climate change. By implementing this fee, the Canal acknowledges the environmental impacts of shipping, as well as those in the industry, who are paving the way to minimizing emissions.

The fee will support investments to guarantee environmental performance standards and aid in making Canal operations carbon neutral.

Ships will be classified in levels depending on their energy efficiency. The classification and fee will apply to all vessels over 125 feet (38.1 meters) length overall (LOA). This classification system will incorporate the following three factors that will reduce GHG emissions between 20-100 percent during transit through the Canal:

- 1. Energy Efficient Design Index (EEDI)
- 2. Efficient operational measures such as the use of Bow Thrusters
- 3. Use of Zero Carbon Biofuels or Carbon Neutral Fuels

The Canal has held discussions with ship owners directly for transparency, as it evaluates these changes, and will work in partnership with customers to accelerate carbon neutrality. This program will align with the International Maritime Organization regulations that promote international plans for decarbonization in the maritime sector.

Carbon Neutrality and Digital Transformation at the Panama Canal

Meanwhile, Deputy Administrator Ilya Espino de Marotta participated at the TOC Connect Conference on November 3, where she shared updates on the Canal's ongoing process to reach carbon neutrality, including upcoming plans to consolidate Canal facilities to reduce its carbon footprint by 33 percent. She also shared that, as ships transition to cleaner fuels, the Canal is investing in hybrid tugboats, starting with 10 with potential to include more, which reduces 20 percent of tugboat operational carbon emissions. In addition to hybrid tugboats, the Canal will introduce a fleet of electric vehicles as well. Maintaining and modernizing the Canal's infrastructure is also a priority for securing a sustainable future.

For the remainder of the decade, the Canal plans to invest several billion dollars in equipment, infrastructure, technology, and the water solution project, among others. This plan will also include a step towards digitizing Canal operations to provide more value for customers. With more data, the Canal can better anticipate customer needs and tailor its operations to sustainable solutions.

Advocating for Shipping Decarbonization at COP26

At the start of the month, the Panama Canal joined world leaders at COP26 in Glasgow to advance global climate action. On November 4, the Panama Canal participated at the UNFCC's Action Hub, with a TED-style <u>presentation</u> to international delegations and industry leaders on how sustainable maritime routes can drive climate action.

The Canal stressed the importance of having the entire supply chain, from shipping lines to final customers, involved in the sustainable transition.

"We need to understand that being part of the maritime business can and should support the global effort of reducing carbon emissions," said Environmental Specialist Alexis Rodriguez during the presentation at the UNFCC's Action Hub. "Shipping will continue to play a big role in the supply chain, as COVID-19 continues to impact imports. We need to have clear guidelines across all international bodies to reach these goals."

From there, the Panama Canal was also present at the International Chamber of Shipping (ICS) side event "Shaping the Future of Shipping" on November 6, showcasing the advantages of the Panama Canal's green route and the value green corridors provide to international maritime trade.

Finally, Mr. Rodriguez served as a <u>panelist</u> for an IMO event on November 10 that explored opportunities for developing countries to provide zero-carbon fuels to global shipping. He then closed the month's activities by joining the IMO's Marine Environment Protection Committee (MEPC) meetings, where discussions around research and development for shipping decarbonization continued.

Securing the Future of Water Availability

In 2019, the Panama Canal announced plans to invest in a series of solutions to secure water quality and quantity to support the Canal and local population's needs for at least the next 50 years. As the latest step towards this goal, the U.S. Army Corps of Engineers (USACE) will provide technical assistance for the project to ensure operational sustainability, engineering services and overall analysis of the project. USACE will work together with Canal professionals to develop the conceptual design for water alternatives. Both organizations have a longstanding partnership, dating back to the Canal's construction in 1914.