PROPOSAL TO MODIFY
THE PANAMA CANAL TOLLS SYSTEM AND THE REGULATIONS FOR THE ADMEASUREMENT OF VESSELS

June 2019

CANAL DE PANAMÁ

CANAL DE PANAMÁ

Message from the Administrator/CEO of the Panama Canal

The Board of Directors of the Panama Canal Authority (ACP) has approved a proposal to modify the Panama Canal tolls system and the regulation for the admeasurement of vessels and will go into effect on January 1, 2020 to provide our customers with sufficient time to adjust to the proposed changes. It is important to note that the last toll structure change went into effect almost two years ago, on October 1, 2017.

This proposal includes modifications for most of the Canal's market segments, with the exception of the general cargo, refrigerated cargo, and "others" segments.

For the container vessel segment -the main user of the Neopanamax locks- we are offering an improved Loyalty program, which includes two new levels, applicable to those shipping lines that deploy in a year between two and three million TEU, and an additional incentive for those lines that deploy over three million TEU. The objective of this program is to retain and incentivize the container volumes that are shipped through the waterway. The extension of the loyalty program is made in response to comments received during meetings with container shipping lines that are interested in benefitting from the deployment of larger ships through the expanded Panama Canal. It is important to note that the tolls incentives implemented in October 2017 for the return voyages will remain in effect.

The opening of the expanded Canal, in June 2016, brought important changes to the service patterns of vessels that use the waterway, and which include the migration of container liner services to the new locks through the deployment of vessels of larger size and capacity. In addition, there has been a similar migration of LPG gas carriers, which rank as the second largest users of the new locks, followed by LNG gas carriers, a segment that is expected to experience an increase in demand in the short and medium term.

Between April and June 2019, we visited customers and stakeholders -mainly from these two segments- to obtain their feedback on future deployment plans and transit service needs. We have been working closely with customers to ensure the adequate use of the transit reservation system and to make the most of the increase in capacity obtained through the execution of the expansion program. The proposal that we are presenting today includes an increase in tolls for the liquid bulk segments to approximate them to the value of the route.

For the passenger segment, we are redefining the unit of measurement, from the maximum berth capacity to maximum passenger capacity, which adds transparency to the structure and facilitates the transfer of the Panama Canal transit cost to the final customer.

For the dry bulk segment, the proposed changes will apply to Neopanamax vessels loaded with iron ore. In this case, the tariffs are set to match those that apply for vessels transporting grain and "other dry bulks". We are also proposing an increase in the ballast tariff applicable to the Neopanamax vessels of this segment.

In the Vehicle Carriers and Ro-Ro segment, we are introducing a new tariff applicable to Neopanamax vessels, and we are adjusting the tolls for the different ranges of Panamax vessels in the tariff structure of the segment. This modification will allow a more transparent structure and a more equitable system.

In addition, and after seven years, we are proposing modifications to the tolls applicable to small vessels and the local tourism market of the intra maritime cluster segment, to take into account the costs, water used to lock these small vessels, and resources associated to the transit service as well as the complexity of accommodating these vessels in the Panamax locks chambers.

With the publication of this proposal, we open the public consultation period which will extend until July 15, 2019 at 4:15 p.m. local time. We invite you to participate in this process and in the public hearing scheduled for July 24, 2019.

Jorge L. Quijano
Administrator/CEO
Panama Canal Authority

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ANNEXES

PROPOSAL TO MODIFY THE PANAMA CANAL TOLLS SYSTEM AND THE REGULATIONS FOR THE ADMEASUREMENT OF VESSELS

I. BACKGROUND

In August 2017, The Republic of Panama's Cabinet Council approved the tolls structure of the Panama Canal Authority (ACP) which became effective on October 1, 2017.

This new structure included incentive tariffs for the full container segment in the return leg via the Panama Canal. In addition, the container/breakbulk vessels formerly in the "others" segment were reclassified to be part of the general cargo segment for the sake of billing and market analysis. Furthermore, the tolls of LPG and LNG gas tankers were adjusted in light of the changing demand of the route and the utilization and productivity levels of the neopanamax locks.

The current tariffs and structures of the markets segments involved are as follow:

Table No. 1

Full container Vessel Tolls				
Locks	**TEU Range**	**Tariff for Total TEU Allowance (TTA)**	**Tariff for Total TEU Loaded on board (TTL)**	**Tariff for Total TEU Loaded on board in the return voyage (TTLR)**
Panamax	< 1,000	$60	$30	N/A
	≥1,000 < 2,000	$60	$30	
	≥ 2,000 < 3,500	$60	$30	
	≥ 3,500	$60	$30	
Neopanamax	< 6,000	$60	$40	N/A
	≥6,000 < 7,000	$50	$40	$30
	≥ 7,000 < 8,000	$50	$40	$30
	≥8,000 < 9,000	$50	$40	$25
	≥9,000 < 10,000	$50	$35	$25
	≥10,000 < 11,000	$50	$35	$20
	≥11,000 < 12,000	$50	$35	$20
	≥ 12,000	$50	$35	$20

• The vessel size must be neopanamax. The vessel must perform a northbound transit and return in the southbound direction through the Panama Canal.
• On the northbound transit, the vessels must carry 70 percent or more of total TEU loaded (TTL – loaded containers onboard) of the Total TEU Allowed (TTA - maximum capacity) at the Panama Canal. Empty containers (empty TEU) on board during the northbound transit will not be taken into consideration when determining the percentage utilization of the vessel.
• The time from vessel´s departure from Canal waters (sea buoy) after completion of the northbound transit and its arrival to Canal waters (sea buoy) prior to the southbound transit should not be greater than 28 days. The time spent by a vessel at the anchorage or in port activities in the Atlantic side of the Canal will be discounted from this time.
• The proposed tariff will be effective October 1, 2017 for all vessels transiting southbound which comply with the aforementioned conditions.

Table No. 1a
Loyalty Program for full container vessels

"Category 4 Tariff (from 0 - 450,000 TEU)"			
Locks	TEU Range	Tariff for TTA maximun capacity (TTA)	Tariff for Loaded containers on board (TEU)
Panamax 1/	< 1,000	$60	$30
	≥1,000 < 2,000	$60	$30
	≥ 2,000 < 3,500	$60	$30
	≥3,500	$60	$30
Neopanamax 2/	< 6,000	$60	$40
	≥6,000 < 7,000	$50	$40
	≥7,000 < 8,000	$50	$40
	≥8,000 < 9,000	$50	$40
	≥ 9,000 < 10,000	$50	$35
	≥ 10,000 < 11,000	$50	$35
	≥11,000 < 12,000	$50	$35
	≥ 12,000	$50	$35

"Category 3 Tariff (from 450,001 - 999,999 TEU)"			
Locks	TEU Range	Tariff for TTA maximun capacity (TTA)	Tariff for Loaded containers on board (TEU)
Panamax 1/	< 1,000	$59	$30
	≥1,000 < 2,000	$59	$30
	≥ 2,000 < 3,500	$59	$30
	≥3,500	$59	$30
Neopanamax 2/	< 6,000	$59	$40
	≥6,000 < 7,000	$49	$40
	≥7,000 < 8,000	$49	$40
	≥8,000 < 9,000	$49	$40
	≥ 9,000 < 10,000	$49	$35
	≥ 10,000 < 11,000	$49	$35
	≥11,000 < 12,000	$49	$35
	≥ 12,000	$49	$35

"Category 2 Tariff (de 1,000,000 - 1,499,999 TEU)"			
Locks	TEU Range	Tariff for TTA maximun capacity (TTA)	Tariff for Loaded containers on board (TEU)
Panamax 1/	< 1,000	$58	$30
	≥1,000 < 2,000	$58	$30
	≥ 2,000 < 3,500	$58	$30
	≥3,500	$58	$30
Neopanamax 2/	< 6,000	$58	$40
	≥6,000 < 7,000	$48	$40
	≥7,000 < 8,000	$48	$40
	≥8,000 < 9,000	$48	$40
	≥ 9,000 < 10,000	$48	$35
	≥ 10,000 < 11,000	$48	$35
	≥11,000 < 12,000	$48	$35
	≥ 12,000	$48	$35

"Category 1 Tariff (from 1,500,000 or more TEU)"			
Locks	TEU Range	Tariff for TTA maximun capacity (TTA)	Tariff for Loaded containers on board (TEU)
Panamax 1/	< 1,000	$57	$30
	≥1,000 < 2,000	$57	$30
	≥ 2,000 < 3,500	$57	$30
	≥3,500	$57	$30
Neopanamax 2/	< 6,000	$57	$40
	≥6,000 < 7,000	$47	$40
	≥7,000 < 8,000	$47	$40
	≥8,000 < 9,000	$47	$40
	≥ 9,000 < 10,000	$47	$35
	≥ 10,000 < 11,000	$47	$35
	≥11,000 < 12,000	$47	$35
	≥ 12,000	$47	$35

Table No. 2

TEU tolls for non-container vessels that carry containers on deck	$90

Table No. 3

Tolls - Tankers						
Panamax locks		Neopanamax locks				Ballast Tariff per PC/UMS
PC/UMS Bands	$ per PC/UMS	PC/UMS Bands (capacity)	Capacity tariff $ per PC/UMS	Cargo Bands in MT 3/	Cargo transported $/MT(cargo)	
First 10,000	$5.00	First 10,000	$5.17	First 20,000	$0.30	$4.14
Next 10,000	$4.90	Next 10,000	$5.00	Next 20,000	$0.20	$3.99
Next 15,000	$4.85	Next 15,000	$5.10	Next 20,000	$0.35	$3.80
Next 10,000	$4.75	Next 10,000	$4.00	Next 20,000	$0.18	$3.60
Rest	$4.55	Rest	$3.25	Rest	$0.10	$3.45

Table No. 4

Tolls - Chemical Tankers		
PC/UMS Bands	Laden	Ballast
First 10,000	$5.31	$4.52
Next 10,000	$5.23	$4.44
Rest	$5.13	$4.36

Table No. 5

Tolls - LPG Vessels				
Bands in m3	Panamax Locks		Neopanamax Locks	
	Laden	Ballast	Laden	Ballast
First 5,000	$6.49	$5.19	$8.25	$6.60
Next 20,000	$2.70	$2.16	$3.06	$2.44
Next 30,000	$2.60	$2.08	$2.88	$2.30
Rest	$2.25	$1.80	$2.21	$1.77

Table No. 6

Tolls - LNG Vessels			
Bands in m^3	Laden	Ballast	Ballast (Roundtrip)
First 60,000	$2.88	$2.56	$2.30
Next 30,000	$2.47	$2.16	$2.01
Next 30,000	$2.38	$2.07	$1.84
Rest	$2.25	$1.97	$1.73

Table No. 7

Tolls - Vehicle Carriers and RoRo					
Load Factor (Cargo Weight MT/DWT)		Capacity Tariff ($ per PC/UMS)			
		PC/UMS Ranges			
Start	Finish	Start →	0	25,001	62,501
		Finish →	25,000	62,500	Over
0.00%	9.99%		$3.67	$3.46	$3.43
10.00%	19.99%		$4.97	$4.26	$4.21
20.00%	29.99%		$5.01	$4.31	$4.28
30.00%	39.99%		$5.06	$4.34	$4.34
40.00%	49.99%		$5.15	$4.38	$4.35
50.00%	over		$5.21	$4.45	$4.43

Table No. 8

Tolls - Passenger Vessels								
Market Segment		Panamax locks			Neopanamax locks		
		Tariff per Berth					
Passenger Vessels 1/	Laden	$138.00			$148.00		
	Ballast	$111.00			$119.00		
		Tolls per PC/UMS					
		1st 10K	2nd 10K	Rest	1st 10K	2nd 10K	Rest
Passenger Vessels 1/	Laden	$4.75	$4.65	$4.58	$5.08	$4.98	$4.90
	Ballast	$3.81	$3.72	$3.67	$4.07	$3.98	$3.92

Table No. 9

Tolls - Dry Bulk													
DWT Bands 3/	Laden Transits By Commodity												Ballast Tariff ($/DWT MT)
	Grains			Coal			Iron Ore			ODB			
	Panamax locks ($/DWT MT) 1/	Neopanamax locks 2/		Panamax locks ($/DWT MT)	Neopanamax locks		Panamax locks ($/DWT MT)	Neopanamax locks		Panamax locks ($/DWT MT)	Neopanamax locks		
		Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT) 4/		Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)		Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)		Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)	
1st 5,000	$4.09	$5.74	$0.35	$3.42	$5.15	$0.30	$3.40	$4.85	$0.28	$4.09	$5.74	$0.35	$2.75
Next 5,000	$3.23	$4.97	$0.34	$2.74	$4.12	$0.29	$2.52	$3.88	$0.27	$3.23	$4.97	$0.34	$2.40
Next 10,000	$2.57	$4.21	$0.33	$2.45	$3.61	$0.28	$2.13	$2.91	$0.26	$2.57	$4.21	$0.33	$2.00
Next 20,000	$2.38	$2.68	$0.30	$2.15	$3.09	$0.27	$2.04	$2.62	$0.24	$2.38	$2.68	$0.30	$1.80
Next 20,000	$2.09	$1.91	$0.25	$2.05	$2.06	$0.26	$1.94	$1.84	$0.20	$2.09	$1.91	$0.25	$1.75
Next 25,000	$1.71	$0.77	$0.20	$1.96	$0.82	$0.25	$1.84	$0.78	$0.16	$1.71	$0.77	$0.20	$1.25
Next 35,000	$1.28	$0.38	$0.15	$1.47	$0.26	$0.20	$0.97	$0.24	$0.10	$1.28	$0.38	$0.15	$0.45
Rest	$0.86	$0.38	$0.10	$0.78	$0.10	$0.15	$0.49	$0.10	$0.05	$0.86	$0.38	$0.10	$0.25

Table No. 10

Minimum Tolls		
Length Range (actual)		Minimum Tolls
Meters	Feet	
≤15.24	≤50	$800
>15.24 ≤24.384	>50 ≤ 80	$1,300
> 24.384 ≤30.480	> 80≤100	$2,000
> 30.480	> 100	$3,200

Table No. 11

Tolls - Local Tourism Vessels	
Market Segment	Tariff
Local Tourism	$2,000

The expanded Canal opened at the end of June 2016. Since then, more than sixty-three hundred neopanamax vessels have transited the new locks. Around 50 percent of the neopanamax transits are from the full container vessel segment; on the other hand, LPG gas carriers account for almost 26 percent of the neopanamax transits. The new segment of LNG gas carriers represents approximately 11 percent of the neopanamax transits.

The demand for the expanded Canal services has been greater than anticipated as attested by the 7.5 neopanamax transits per day, depending on the traffic mix and resource availability on a given day. In addition, new service patterns have emerged, new strategic alliances among shippers have taken place, and new trade routes for different types of cargo have been established for the Canal route.

II. RATIONALE OF THE PROPOSAL

1. The Panama Canal price policy and the economic criteria that serve as its basis:

- Tolls will be established so that they reflect the value provided by the Canal to its users.
- Tolls will be set so that their relative value is maintained over time and will be periodically adjusted for inflation.
- Tolls will be established at appropriate levels to uphold the competitiveness of the Panama route at all times and to reach a profitability level in accordance with the risk levels, investment amounts and the value added by the Canal to its users. Thus, payments to the National Treasury and the benefits to Panama could be increased in a sustainable manner.

2. Value of the route by segment

The evolution of the maritime transportation industry entailed the design of specialized vessels for the transportation of different types of cargo. The ACP considered this heterogeneity in 2002 when it established market segments based on ship type –according to industry parameters- and the result was eight specific market segments: general cargo, refrigerated cargo, dry bulk, liquid bulk, full containers, vehicle carriers, passenger vessels and others. In 2012, the number of market segments was increased to 10 and in 2015 to 12, as follows: full containers vessels, dry bulk vessels, tankers, chemical carriers, LPG carriers, LNG carriers, vehicle carriers/RoRo, passenger vessels, refrigerated cargo, general cargo, others and the intracluster maritime sector.

The segmentation scheme has been a key element in the design of the Panama Canal price structure. The ACP is continuously evaluating the value of the route through Panama against other alternatives for each segment. These alternatives might include -depending on the segment- rail costs for containers and dry bulk goods, transit costs through other waterways and the availability of pipelines for liquid bulk products, among others.

Over time, segmentation has allowed the development of segment-specific value propositions, as is the case with the Total TEU Allowed (TTA - maximum capacity) tariff and total TEU loaded (TTL – loaded containers onboard) tariff applicable to full container vessels, a charge per TEU for vessels able to carry containers on-deck, the per berth toll for the passenger vessel segment and the inclusion of the tariff for total TEU loaded in the return voyage for container vessels (TTLR) that comply with certain conditions. These adjustments have taken place as a result of clients' requests, and in consultation with the industry. More recently, a loyalty program was established for the full container vessel segment as an incentive for customers, seeking to increase volume and maintain the Canal's competitiveness. This proposal includes an enhanced loyalty program for the full container vessel segment.

The value of the route through Panama lies both in the competitiveness of the Canal, the connectivity and value-added benefit of the various elements that comprise the transportation and logistics hub of the country. In addition to the time and distance savings, the Panama route allows the operator to utilize Panama as a consolidation and distribution center of regional cargo, which means improved vessel utilization and profitability for vessel operators. The key components of this transportation and logistics hub are modern and efficient ports at both entrances of the Canal, shipping agencies, ship chandlering services, bunkering services, storage, logistics services, financial services, the Colon Free Zone and the transisthmian railroad.

3. Canal expansion

The benefits that the Canal expansion has provided to its users can be summarized as follows: increase in the operating capacity of the Canal, improvement in the flow of goods between important markets, and economies of scale resulting from the deployment of larger vessels. In addition, the Canal expansion has allowed Panama to become the transportation and logistics hub of the Americas, thereby strengthening the all-water route through the Panama Canal.

The Panama Canal has been successful in managing the expanded Canal, even surpassing initial projections, due to its efficiency, productivity and resourcefulness. The ACP continues to gain valuable experience in the administration of the expanded Canal, which along with its capital improvements program, allows greater capacity, flexibility and transit efficiency for its users.

Considering the ACP commitment to enhance the value of the route to its users, this proposal fulfills the criteria that tolls shall be established at appropriate levels to maintain the competitiveness of the Panama route at all times and to reach a profitability level in accordance with the risk levels, investment amounts and the value added to its users.

The ACP has been receptive to the needs of the industry; however, the dynamic nature of the industry gives rise to new needs to be met. As a result, the ACP continuously analyzes market developments and trends to anticipate and fulfill future market needs.

III. PROPOSAL

The proposed adjustments include enhancements to the loyalty program for the full container segment, a differentiation of the loaded TEU tariff applicable to non-container vessels which carry containers on deck; tolls adjustments to the tanker, chemical, LPG, LNG, vehicle carrier/RoRo, passenger and dry bulk segments; tolls adjustments for small vessels' minimum tolls and the local tourism segment of the intra-maritime cluster. Furthermore, this proposal contain adjustments to the regulations for the admeasurement of vessels.

The proposed modifications will ensure that the Canal competitiveness is maintained, while adapting to the current market situation, thereby allowing the Canal to continue providing a safe, reliable and efficient service to world trade.

1. Proposed toll modifications to the containers vessels

Loyalty Program update proposal to the container vessels

On April 1, 2016, the Panama Canal implemented a loyalty program for ACP customers in order to retain and increase TEU capacity volumes of full container vessels that transit the Canal. This program consists of four loyalty categories where customers can achieve savings of up to $3.00 on their capacity tariff (TTA).

After more than three years since its initial implementation, the loyalty program has been a success. ACP customers have benefitted by more than $95[1] million on toll rates as a result of the additional capacity deployed. The ACP proposes to implement two new loyalty categories to address customer´s needs and encourage TEU capacity through the deployment of more liner services or the increase in vessel sizes.

The loyalty program's aim is to encourage more TEU capacity volumes in full container vessels transiting the Panama Canal by applying a preferential tariff system. The preferential tariffs are applied based on the existing tariffs.

Currently, the program includes four loyalty categories, based on TEU volumes of total TEU allowance (TTA) set by the customer:

- **Category 4:** Applies to all customers with a registered TTA volume from 0 to 450,000. Regular tariff, without variation.

- **Category 3:** Applies to all customers with a registered TTA volume from 450,001 to 999,999. Tariff reflects a $1.00 reduction in the total TEU allowance (TTA) tariff.

- **Category 2:** Applies to all customers with a registered TTA volume from 1,000,000 to 1,499,999. Tariff reflects a $2.00 reduction in the total TEU allowance (TTA) tariff.

[1] Benefits offered by the loyalty program between April 1, 2016 and May 31, 2019.

- **Category 1:** Applies to all customers with a registered TTA volume of 1,500,000 or more. Tariff reflects a $3.00 reduction in the total TEU allowance (TTA) tariff.

This proposal modifies the current category 1 and includes two new loyalty categories:

- **Category 1:** The upper limit of the cumulative volume of Total TEU Allowance (TTA) is modified, and applies to all customers with a registered Total TEU Allowance (TTA) cumulative volume from 1,500,000 to 2,000,000. This category maintains the $3.00 reduction in the total TEU allowance (TTA) tariff.

- **Category 1a:** Applies to all customers with a registered cumulative volume of Total TEU Allowance (TTA) over 2,000,000 to 3,000,000. This category reflects a $3.25 reduction in the total TEU allowance (TTA) tariff.

- **Loyalty Plus**: Applies to all customers with a registered cumulative volume of Total TEU Allowance (TTA) over 3,000,000. This category reflects a $5.00 reduction in the total TEU allowance (TTA) tariff and only applicable to TEU exceeding 3,000,000 TEU. To calculate this benefit, the program will use the total exceeding TEU registered during the corresponding month according to the guidelines established in the current loyalty program. The exceeding cumulative TEU registered at the end of each month will be divided by 12, equivalent to the 12 consecutive months used by the program to determine the categories.

To determine the customer category, the cumulative TEU volume of total TEU allowance (TTA) transited by a customer through the Panama Canal during a maximum period of 12 consecutive months is used, starting from the approval date of the Panama's Cabinet Council. The result is applied during a one-month period, allowing a one-month break starting from the moment a category is achieved and the moment that the preferential tariff is applied. Example: If a customer reaches during the month of July (whether it happens at the beginning or at the end of the month) 500,000 TEU allowing him to qualify for category 3, he will pay the category 3 tariff during the month of September, being August the intermediate month used to confirm and carry out the necessary processes.

The following tables illustrate how tariffs are modified under the new toll structure:

Table No. 12
Tolls Proposal - Full Container Vessels - Effective January 1st 2020
Category 1: reflects a price reduction amounting to $3.00 in the TTA tariff

"Category 1 Tariff (from 1,500,000 - 2,000,000 TEU)"				
Locks	TEU Range	Tariff for Total TEU Allowance (TTA)	Tariff for Total TEU Loaded on board (TTL)	Tariff for Total TEU Loaded on board in the return voyage (TTLR)
Panamax	< 1,000	$57	$30	N/A
	≥1,000 < 2,000	$57	$30	
	≥ 2,000 < 3,500	$57	$30	
	≥ 3,500	$57	$30	
Neopanamax	< 6,000	$57	$40	N/A
	≥6,000 < 7,000	$47	$40	$30
	≥ 7,000 < 8,000	$47	$40	$30
	≥8,000 < 9,000	$47	$40	$25
	≥9,000 < 10,000	$47	$35	$25
	≥10,000 < 11,000	$47	$35	$20
	≥11,000 < 12,000	$47	$35	$20
	≥ 12,000	$47	$35	$20

Table No. 13
Tolls Proposal - Full Container Vessels - Effective January 1st 2020
Category 1a: reflects a price reduction amounting to $3.25 in the TTA tariff

"Category 1a Tariff (from 2,000,001 - 3,000,000 TEU)"				
Locks	TEU Range	Tariff for Total TEU Allowance (TTA)	Tariff for Total TEU Loaded on board (TTL)	Tariff for Total TEU Loaded on board in the return voyage (TTLR)
Panamax	< 1,000	$56.75	$30	N/A
	≥1,000 < 2,000	$56.75	$30	
	≥ 2,000 < 3,500	$56.75	$30	
	≥ 3,500	$56.75	$30	
Neopanamax	< 6,000	$56.75	$40	N/A
	≥6,000 < 7,000	$46.75	$40	$30
	≥ 7,000 < 8,000	$46.75	$40	$30
	≥8,000 < 9,000	$46.75	$40	$25
	≥9,000 < 10,000	$46.75	$35	$25
	≥10,000 < 11,000	$46.75	$35	$20
	≥11,000 < 12,000	$46.75	$35	$20
	≥ 12,000	$46.75	$35	$20

Table No. 14
Tolls Proposal - Full Container Vessels - Effective January 1st 2020
Loyalty Plus Category: reflects a price reduction amounting to $5.00 in the TTA tariff and only applicable to TEU exceeding 3,000,000

"Category Loyalty Plus (only applicable to TEU exceeding 3,000,000)"				
Locks	TEU Range	Tariff for Total TEU Allowance (TTA)	Tariff for Total TEU Loaded on board (TTL)	Tariff for Total TEU Loaded on board in the return voyage (TTLR)
Panamax	< 1,000	$55	$30	N/A
	≥1,000 < 2,000	$55	$30	
	≥ 2,000 < 3,500	$55	$30	
	≥ 3,500	$55	$30	
Neopanamax	< 6,000	$55	$40	N/A
	≥6,000 < 7,000	$45	$40	$30
	≥ 7,000 < 8,000	$45	$40	$30
	≥8,000 < 9,000	$45	$40	$25
	≥9,000 < 10,000	$45	$35	$25
	≥10,000 < 11,000	$45	$35	$20
	≥11,000 < 12,000	$45	$35	$20
	≥ 12,000	$45	$35	$20

To illustrate, if we use an example of a vessel with an allowed capacity of 10,000 TEU transiting with 80 percent utilization, it would pay the following tolls:

- Category 4: $500,000 based on the vessel TTA tariff and $280,000 based on the TTL tariff, for a total tolls charge of $780,000.
- Category 3: $490,000 based on the TTA tariff and $280,000 based on the TTL tariff, for a total tolls charge of $770,000.
- Category 2: $480,000 based on the TTA tariff and $280,000 based on the TTL tariff, for a total tolls charge of $760,000.
- Category 1: $470,000 based on the vessel TTA tariff and $280,000 based on the TTL tariff, for a total tolls charge of $750,000.
- Category 1a: $467,500 based on the vessel TTA tariff and $280,000 based on the TTL tariff, for a total tolls charge of $747,500.
- Loyalty Plus Category: if the customer exceeds 3,000,000 TEU capacity (TTA), the benefit would be calculated as follows:

The customer achieves a 12 month cumulative total of 3,045,477 TEU capacity (TTA) applicable in the month of July, where the exceeding TEU corresponds to 45,477.

To calculate the amount of TEU to be applied as the incentive benefit for the month of July, the total exceeding TEU amount is divided by 12 months, which is the number of months the program uses as reference for the determination of categories: 45,477 TEU / 12 = 3,790 TEU for the month of July.

The "Loyalty Plus" category incentive of $5.00 is applied to the resulting 3,790 TEU in client's first July transit. The vessel's TTA difference would receive the $3.25/TTA incentive offered by the category 1a. If the first transit's TTA is less than the calculated TEU, the difference is stored, to be applied to the client's next transit.

For this example, let's take a 10,000 TEU (TTA) and 8,000 loaded TEU (TTL):

3,790 TEU (TTA) x $45.00	=	$170,550.00
6,210 TEU (TTA) x $46.75	=	$290,317.50
Total TTA tolls	=	$460,867.50

The TTA charge would be $460,867.50 and the TTL charge would be $280,000 (total TEU loaded) for a grand total of $740,867.50. In this case, due to vessel size, the incentive applies to a portion of the vessel's TTA.

To calculate the loyalty program category, a customer must provide the "customer code" to which a TEU capacity for each container vessel that transits the Panama Canal. The TEU capacity per transit is not transferable between customers; the client code it will only be applied to one customer code, be it the vessel owner, the vessel operator or the company that charters the vessel that makes the transit.

2. Differentiation of the TEU tariff applicable to non-container vessels carrying containers on-deck:

This proposal applies to non-container vessels carrying containers on-deck operationally known as hybrid vessels as we show on table No. 15. This proposal considers to maintain the current tariff per PC/UMS and displacement tons for general cargo, refrigerated cargo and others vessels, and to apply a differentiated TEU toll tariff for empty, loaded dry and loaded reefer TEU for non-container vessels that carry containers on-deck.

Table No. 15

TEU tariff effective January 1st, 2020			
TEU tolls for non-container vessels that carry containers on deck	**Empty TEU**	**Dry TEU**	**Reefer TEU**
	$60.00	**$100.00**	**$110.00**

TEU Loaded Dry: general cargo, dangerous cargo, full flat rack.
TEU Empty: includes empty containers and empty flat racks.

Flat racks will be categorized based on their dimension and their equivalence will be obtained from the current conversion table included in the rules for admeasurement and "Notice to Shipping" 01-2019.

To simplify the concept of the new tariff, we include an example of a general cargo vessel with a carrying capacity of 11,174 PC/UMS + 21 TEU transported on deck: 1 loaded reefer, 19 loaded dry and 1 empty TEU.

- A general cargo vessel pays for the first 10,000 PC/UMS the tariff of $5.25 and the rest 1,174 CP/SUAB $5.14 giving a total of $58,534.36 in revenue for PC/UMS. (This tariff remains unchanged).

- This vessel carries on deck 21 TEU:

1 loaded reefer TEU:	1	x $110.00	=	$ 110
19 loaded dry TEU:	19	x $100.00	=	$ 1,900
1 empty TEU:	1	x $ 60.00	=	$ 60
		Total	=	$ 2,070

Total Toll: $58,534.36 + $2,070.00 = $60,604.36

3. Proposed modification for liquid bulk vessels

Liquid bulk vessels are divided by specific ship types: tankers, which transport crude oil and oil products; chemical tankers, utilized to carry chemicals and petrochemicals, LPG carriers, which transport liquefied petroleum gas and LNG carriers that transport liquefied natural gas.

This proposal recommends a tolls adjustment for tankers, chemical tankers, LPG and LNG carriers. This adjustment reflects the value of the Canal in the main routes, the utilization level and the locks productivity. At the same time, this adjustment leads to the assessment of a fair price while maintaining the competitiveness of the route. The proposed adjustments are as follows:

a. Proposed toll modifications to tanker vessels:

The new proposal suggests an increase of the actual toll structure and maintains the PC/UMS unit to bill an oil tanker vessel. The tanker vessels transiting the panamax locks will maintain the current toll structure based on the PC/UMS of the vessel as is shown in Table No. 16. The tanker vessels transiting the neopanamax locks will maintain the actual toll structure based on the PC/UMS of the vessel (fixed structure) and the toll structure based on the cargo transported in metric tons by the vessel (variable structure) as is shown in Table No. 17.

Table No. 16

Tolls - Tanker Vessels effective January 1, 2020 Panamax Locks		
PC/UMS Bands	**Laden**	**Ballast**
First 10,000	$5.50	$4.55
Next 10,000	$5.39	$4.39
Next 15,000	$5.34	$4.18
Next 10,000	$5.23	$3.96
Rest	$5.01	$3.80

Table No. 17

Tolls - Tanker Vessels effective January 1, 2020 Neopanamax Locks				
PC/UMS Bands	**Laden Vessels**			**Ballast Tariff per PC/UMS**
	Capacity tariff $ per PC/UMS	Cargo Bands in metric tons (mt)	Cargo Transported $/mt (cargo)	
First 10,000	$5.58	First 20,000	$0.34	$4.64
Next 10,000	$5.40	Next 20,000	$0.22	$4.47
Next 15,000	$5.51	Next 20,000	$0.39	$4.26
Next 10,000	$4.32	Next 20,000	$0.20	$4.03
Rest	$3.51	Rest	$0.11	$3.86

The proposal maintains the actual toll structure for panamax and neopanamax vessels that includes several bands applicable to the capacity of the vessel: the first two bands of 10,000 PC/UMS, the next band of 15,000 PC/UMS, another band of 10,000 PC/UMS and a last band for the rest of the PC/UMS of the vessel. The cargo structure bands in the neopanamax locks will continue to use four bands of every 20,000 metric tons and one last band for the rest of the cargo. Likewise, the toll structure for tanker vessels transiting in ballast is differentiated for the vessels transiting the panamax locks and the neopanamax locks.

The proposal for tanker vessels in the panamax locks intends to increase the current PC/UMS tariff by 10% for laden vessels and vessels in ballast. The proposed tolls for neopanamax tanker vessels transiting laden increases the existing tariff per PC/UMS by 8% and the variable portion per metric tons of cargo by 12%. The new toll for neopanamax tanker vessels transiting ballast increases the existing tariff per PC/UMS by 12%.

To better understand the application of the tariff, the following example is provided:

- A laden panamax tanker vessel / LR1 of 33,346 PC/UMS, will pay $180,168 (one hundred and eighty thousand one hundred and sixty-eight dollars) applying the PC/UMS toll structure for the panamax locks.

- An Aframax[2] tanker vessel of 46,136 PC/UMS with 60,000 metric tons of cargo through the neopanamax locks, will pay a total of $258,637 (two hundred and fifty-eight thousand six hundred thirty-seven dollars) applying the PC/UMS toll structure for the neopanamax locks. Utilizing the PC/UMS toll structure for the capacity portion ($239,637) and variable structure in metric tons for the total cargo carried by the vessel ($19,000).

b. Proposed toll modifications for chemical tanker vessels:

The proposal is an increase of the current tolls, maintaining the PC/UMS unit to bill a chemical tanker vessel. The chemical tanker vessels transiting the Canal will maintain the current toll structure based on the PC/UMS of the vessel that includes several bands applicable to its capacity: the first two bands of 10,000 PC/UMS and a last band for the rest of the PC/UMS of the vessel, as is shown in Table No. 18.

Table No. 18

Tolls - Chemical Tanker Vessels effective January 1, 2020		
PC/UMS Bands	**Laden**	**Ballast**
First 10,000	$5.73	$4.88
Next 10,000	$5.65	$4.80
Rest	$5.54	$4.71

The toll proposal for chemical tanker vessels increases the existing tariff per PC/UMS by 8% for laden and ballast vessels.

To better understand the application of the tariff, the following examples are provided:

- A chemical tanker vessel of 24,611 PC/UMS, transiting laden would pay $139,345 (one hundred and thirty-nine thousand three hundred and forty-five dollars) applying the PC/UMS toll structure for laden vessels.

- A chemical tanker vessel of 24,611 PC/UMS, transiting ballast will pay $118,518(one hundred eighteen thousand five hundred and eighteen), applying the PC/UMS toll structure for ballast vessels.

[2] Aframax vessel: medium-sized crude tanker with a deadweight tonnage (DWT) ranging between 80,000 and 120,000

c. Proposed toll modifications to LPG Gas carriers:

The proposal for this segment is an increase in the current tolls while keeping the cubic meter (m^3) unit of cargo capacity to bill an LPG vessel transiting the Panama Canal. It maintains the current toll structure for the panamax and neopanamax locks, based on the cargo capacity by cubic meter (m^3) in four bands that includes the first 5,000 m^3, the next 20,000 m^3, the next 30,000 m^3 and a last band for the rest of the cargo capacity, as illustrated in Table No. 19

Table No. 19

Tolls - LPG Vessels for January 1, 2020				
Bands in m^3	Panamax Locks		Neopanamax Locks	
	Laden	Ballast	Laden	Ballast
First 5,000	$7.01	$5.61	$9.49	$7.59
Next 20,000	$2.92	$2.33	$3.52	$2.81
Next 30,000	$2.81	$2.25	$3.31	$2.65
Rest	$2.43	$1.94	$2.54	$2.04

The toll proposal for panamax LPG gas carriers increases the existing tariff per cubic meters (m^3) by 8% for laden and ballast vessels. For neopanamax LPG gas carriers increases the existing tariff per cubic meters (m^3) by 15% for laden and ballast vessels.

The ballast rate maintains its application to LPG gas carriers carrying up to a maximum of 2 percent of the total cubic meters (m^3) of cargo capacity for vessels transiting through both locks, the panamax and neopanamax.

To better understand the application of the tariff, the following examples are provided:

- A panamax LPG tanker of 65,000 cubic meters of cargo capacity, laden, would pay $202,050 (two hundred two thousand fifty dollars), applying the toll structure in bands of cubic meters for laden vessels through the panamax locks.

- A neopanamax LPG tanker of 84,000 cubic meters of capacity, laden, would pay $290,810 (two hundred ninety thousand eight hundred and ten dollars), applying the toll structure in bands of cubic meters for laden vessels through the neopanamax locks.

d. Proposed toll modifications to LNG Gas carriers:

The proposal for this segment is an increase to the current tolls while maintaining the cubic meter (m^3) of cargo capacity to bill an LNG vessel transiting the Panama Canal. It keeps the actual toll structure based on the cargo capacity by cubic meter (m^3) in four bands that

includes the first 60,000 m^3, the next two bands of 30,000 m^3, and a last band for the rest of the cargo capacity, as illustrated in Table No. 20

Table No. 20

Tolls - LNG Vessels effective January 1, 2020			
Bands in m3	**Laden**	**Ballast**	**Ballast (Roundtrip)**
First 60,000	**$3.12**	**$2.79**	**$2.48**
Next 30,000	**$2.68**	**$2.35**	**$2.17**
Next 30,000	**$2.58**	**$2.26**	**$1.99**
Rest	**$2.44**	**$2.15**	**$1.87**

m^3: carrying capacity in cubic meters

The new toll for LNG gas carriers increases the existing tariff per cubic meters (m^3) of cargo carrying capacity by 8.5% for laden vessels and by 9.0% for ballast vessels, respectively. The roundtrip ballast rate for LNG gas carriers increases the existing tariff per cubic meters (m^3) by 8.0% in their return leg through the waterway.

The ballast rate maintains its application to LNG gas carriers carrying up to a maximum of 10 percent of the total cubic meters (m^3) of the vessel cargo capacity. Likewise, it preserves the roundtrip ballast structure for shippers that use the same vessel for a voyage to and return through the Panama Canal, if the ballast transit through the Panama Canal is within 60 days after the laden transit is completed.

To better understand the application of the tariff, the following examples are provided:

- LNG gas carrier of 170,000 cubic meters capacity, laden, would pay $467,000 (four hundred sixty-seven thousand dollars) applying the toll structure in bands of cubic meters for laden vessels through the neopanamax locks.

- LNG gas carrier ship of 170,000 cubic meters capacity, in ballast, would pay $413,200 (four hundred thirteen thousand two hundred dollars) applying the toll structure in bands of cubic meters for ballast vessels through the neopanamax locks.

- LNG gas carrier of 170,000 cubic meters capacity, round trip, would pay $834,100 (eight hundred and thirty-four thousand one hundred dollars) for the laden and ballast transit. For the laden transit the vessel would pay $467,000 (four hundred sixty-seven thousand dollars) applying the toll structure in bands of cubic meters for laden vessels through the neopanamax locks and for the ballast transit $367,100 (three hundred and sixty-seven thousand one hundred dollars) applying the round trip toll structure in bands of cubic meters for ballast transits within 60 days after the laden transit is completed.

4. Proposed tolls modifications to vehicle carriers and Ro-Ro:

The proposed modification to the current tolls structure is an increase to the current tariffs, an expansion of the PC/UMS range and a differentiation between the panamax and neopanamax locks.

The proposed modifications are as follow:

- Adjustment of the prices to the tier 0-25,000 PC/UMS tons to establish an equivalency to vessels that are not PPC/PCTC/LCRC or RoRo:
  - Load Factor (0-9.99%): 15% increase.
  - Rest of Load Factors tiers (10% to 50% or higher): 5% increase.
- Modification of the PC/UMS ranges to include the neopanamax category to differentiate between the panamax and neopanamax locks.
- 5% increase on the size ranges starting at 25,001 and 64,501 to update the tolls structure to the current fleet.
- 10% differentiation on the neopanamax locks, over the range 64,501 or higher.

Table No. 21

Tolls for Vehicle Carrier and RoRo Segment effective January 1, 2020						
Load Factor (Cargo Weight MT/DWT)		Capacity Tariff ($ per PC/UMS)				
Start	Finish	PC/UMS Ranges				
		Panamax				Neopanamax
		Start →	0	25,001	64,501	
		Finish →	25,000	64,500	Over	
0.00%	9.99%		$4.22	$3.63	$3.60	$3.96
10.00%	19.99%		$5.22	$4.47	$4.42	$4.86
20.00%	29.99%		$5.26	$4.53	$4.49	$4.94
30.00%	39.99%		$5.31	$4.56	$4.56	$5.01
40.00%	49.99%		$5.41	$4.60	$4.57	$5.02
50.00%	Over		$5.47	$4.67	$4.65	$5.12

The following examples are provided to facilitate a better understanding of the proposed structure:

- A vehicle carrier/RoRo vessel of 7,201 PC/UMS tons with nine percent (9%) of utilization would be billed $30,388.22 (thirty thousand three hundred eighty-eight dollars and twenty-two cents).

- A neopanamax vehicle carrier of 65,000 PC/UMS tons with thirty-five percent (35%) of utilization would be billed $325,650.00 (three hundred twenty-five thousand six hundred fifty dollars).

5. Proposed tolls modification to passenger vessels

This modification seeks to strengthen the concept of maximum capacity and provide transparency on the passenger fee for this segment, meeting the customers' expectations. Additionally, it broadens the list of official documents accepted by the Panama Canal as source documents to support passenger ship measurements. Such documents include the Stability Declaration, Code of Intact Stability, Life Saving and Evacuation Plan or Escape Plan or any other official document or certificate that indicates the Maximum Passenger Capacity (PAX) and is endorsed by the International Convention for the Safety of Life at Sea, 1974 and amendments (SOLAS), which should guarantee compliance with admeasurement rules established by the ACP.

The proposed change would replace the current unit of measurement (maximum berth capacity) for maximum passenger capacity (PAX), thus the proposal of a tariff structure based on number of passengers. In addition, the proposal maintains the parameter in which vessels greater than 30,000 gross tonnages (ITC 69), whose (PC/UMS)/PAX ratio is less than or equal to 33 shall pay tolls on a maximum passenger capacity basis.

Following are the proposed modifications:

- Tariff per passenger:
  - Increase of 3% on ships laden and 2% in ballast in the panamax locks.
  - Increase of 12% in the neopanamax locks.

- Tariff per PC/UMS tons:
  - Increase of 5% on ships laden and ballast in the panamax locks.
  - Increase of 26% in the neopanamax locks.
  - Increase of the PC/UMS tonnage ranges of panamax locks from 10,000 at the first and second tier to 20,000 and 40,000 at the first and second tier, respectively, in order to update the tolls structure to the current panamax fleet.
  - Increase of the PC/UMS tonnage ranges of neopanamax locks from 10,000 at the first and second tier to 40,000 and 60,000 at the first and second tier, respectively, in order to update the tolls structure to the current neopanamax fleet.

Table No. 22

Tolls - Passenger Vessels effective January 1, 2020									
Market Segment		Maximum Passenger Capacity Ranges	Panamax locks			Neopanamax locks		
			Tariff per Maximum Passenger Capacity					
Passenger Vessels 1/	Laden							
		<1000	$153.00			$166.00		
		1000-1999						
		2000-2999 2/	$151.00					
		3000-3999 3/	$146.00					
		≥ 4000 4/	$142.00			$179.00		
	Ballast							
		<1000	$123.00			$133.00		
		1000-1999						
		2000-2999 2/	$121.00					
		3000-3999 3/	$117.00					
		≥ 4000 4/	$113.00			$144.00		
			Tolls per PC/UMS					
			Panamax locks			Neopanamax locks		
			1st 20K	Next 40K	Rest	1st 40K	Next 60K	Rest
Passenger Vessels 1/	Laden		$5.06	$4.75	$4.83	$6.10	$6.04	$6.67
	Ballast		$4.05	$3.80	$3.86	$4.88	$4.83	$5.34

1/ Vessels above 30,000 gross tons (GRT) and whose PC/UMS tonnage divided by the maximum passenger capacity (PAX) ratio is less than or equal to 33, shall pay tolls on a per maximum passenger capacity basis. If such a ratio is greater than 33, tolls shall be paid on the basis of PC/UMS tonnage. Vessels below or equal to 30,000 GRT shall also pay on the basis of PC/UMS tonnage.

2/ For the range from 2,000 to 2,999, the minimum toll amount to be charged shall be $305,847.00 if laden and $245,877.00 if in ballast.

3/ For the range from 3,000 to 3,999, the minimum toll amount to be charged shall be $452,849.00 if laden and $362,879.00 if in ballast.

4/ For the range higher than or equal to 4,000, the minimum toll amount to be charged shall be $583,854.00 if laden and $467,883.00 if in ballast.

The following examples are included to facilitate a better understanding of the application of the proposed tariff:

- A laden panamax passenger ship of 91,740 GRT, 81,188 PC/UMS tons, with a maximum passenger capacity of 3,000 and a PC/UMS tonnage divided by the maximum passenger capacity of 27, would pay $438,000.00 ($146.00 x 3,000). However, since it falls in the range of 3,000 to 3,999, it would pay the minimum fee established of $ 452,849.00 (four hundred and fifty-two thousand, eight hundred and forty-nine dollars).

- A laden neopanamax passenger ship of 113,562 GT, 92,592 PC/UMS tons, with a maximum passenger capacity of 3,754 and a PC/UMS tonnage divided by the maximum passenger capacity ratio of 25 would pay $166.00 per passenger, resulting in a bill of $623,164.00 (six hundred and twenty-three thousand one hundred and sixty-four dollars).

6. Proposed tolls modifications for dry bulk vessels

The tolls proposal for dry bulk vessels maintain the current unit of measurement equivalent to the summer deadweight tonnage or the timber summer deadweight tonnage (DWT), whichever is greater, for the calculation of tolls. The most important commodities transported on dry bulk vessels through the Panama Canal for the last three fiscal years were grains, coal and other dry bulk. These commodities are mostly low value raw materials with little industrial processing level. The main commercial routes for grains, coal and other dry bulks via the Panama Canal are from the Gulf of Mexico and the United States to Asia, Central and South America; from Colombia to Mexico and Chile, and from Chile to the east coast of the United States, respectively.

To maintain the value of the route and preserve the validity of the panamax locks, it is proposed to establish the following modifications to the iron ore and ballast vessels tolls for the neopanamax locks. Tolls for neopanamax vessels carrying iron ore will be matched with those currently applied to vessels that transport grain and other dry bulk. The tolls for grains, coal, other dry bulk and deadweight tonnage bands are maintained according to the tolls structure approved for fiscal year 2016.

Table No. 23
Panamax Vessels – Dry Bulk

Tolls - Dry Bulk effective January 1st 2020						
DWT MT Bands 1/		Laden Transits By Commodity				Ballast Tariff ($/DWT MT)
		Panamax locks				
		Grains	Coal	Iron Ore	ODB	
		$/DWT MT				
1st	5,000	$4.09	$3.42	$3.40	$4.09	$2.75
Next	5,000	$3.23	$2.74	$2.52	$3.23	$2.40
Next	10,000	$2.57	$2.45	$2.13	$2.57	$2.00
Next	20,000	$2.38	$2.15	$2.04	$2.38	$1.80
Next	20,000	$2.09	$2.05	$1.94	$2.09	$1.75
Next	25,000	$1.71	$1.96	$1.84	$1.71	$1.25
Next	35,000	$1.28	$1.47	$0.97	$1.28	$1.00
Rest		$0.86	$0.78	$0.49	$0.86	$0.75

1/ DWT: *Deadweight ton*, equivalent to the summer deadweight ton or the timber summer deadweight ton, whichever is greater.

Table No. 24
Neopanamax Vessels – Dry Bulk

Tolls - Dry Bulk effective January 1st 2020										
DWT MT Bands 1/		Laden Transits By Commodity								Ballast Tariff ($/DWT MT)
		Neopanamax locks								
		Grains		Coal		Iron Ore		ODB		
		Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT) 2/	Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)	Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)	Fixed Tariff ($/DWT MT)	Variable Tariff ($/ Cargo MT)	
1st	5,000	$5.74	$0.35	$5.15	$0.30	$5.74	$0.35	$5.74	$0.35	$2.75
Next	5,000	$4.97	$0.34	$4.12	$0.29	$4.97	$0.34	$4.97	$0.34	$2.40
Next	10,000	$4.21	$0.33	$3.61	$0.28	$4.21	$0.33	$4.21	$0.33	$2.00
Next	20,000	$2.68	$0.30	$3.09	$0.27	$2.68	$0.30	$2.68	$0.30	$1.80
Next	20,000	$1.91	$0.25	$2.06	$0.26	$1.91	$0.25	$1.91	$0.25	$1.75
Next	25,000	$0.77	$0.20	$0.82	$0.25	$0.77	$0.20	$0.77	$0.20	$1.25
Next	35,000	$0.38	$0.15	$0.26	$0.20	$0.38	$0.15	$0.38	$0.15	$1.00
Rest		$0.38	$0.10	$0.10	$0.15	$0.38	$0.10	$0.38	$0.10	$0.75

1/ DWT: *Deadweight ton*, equivalent to the summer deadweight ton or the timber summer deadweight ton, whichever is greater.
2/MT: Metric Ton.

To facilitate the understanding of the application of these tolls, the following examples are provided:

- For a vessel transporting iron ore on the neopanamax locks with a beam greater than 140 feet, deadweight tonnage of 114,751 metric tons and carrying 111,500 metric tons of cargo, that is, 96 percent utilization; the vessel, due to its cargo capacity and applying the corresponding rates to the respective DWT bands, would pay $ 218,005.38 dollars. In addition, for its variable cargo transported and applying the rates corresponding to the respective DWT bands, it would pay $ 26,725 dollars, a total of $ 244,730.38 dollars.

- For a vessel in ballast with a beam greater than 140 feet with a deadweight tonnage of 177,173 and applying the corresponding rates to the respective DWT bands, the vessel would pay a toll of $ 225,879.75 dollars.

7. Proposed modifications to small vessels' minimum tolls

The aim of these adjustments is to recover the direct costs incurred by the Panama Canal in the transit of these small vessels. These costs are still considerably higher than the tolls collected for these vessels.

Table No. 25

Minimum Tolls - effective January 1st 2020		
Length Range (actual)		Proposed Tariff
Meters	Feet	
< 19.812	<65	$1,600
≥19.812 ≤ 24.384	≥65 ≤80	$2,400
> 24.384≤ 30.480	> 80 ≤100	$3,500
> 30.480	> 100	$4,100

- The proposal to modify small crafts includes new upper maximum tonnage limits for small vessels that pay tolls based on length overall by means of a fixed fee:
  - Up to 863 PC/UMS net tons when transporting passengers or cargo (currently 583)
  - Up to 990 PC/UMS net tons when in ballast (currently 735)
  - Up to 1,067 PC/UMS maximum displacement tons (currently 1,048)

- The proposal to modify small crafts includes adjustments in length ranges for the first two ranges. The first range is less than 65 feet and the second is equal to or greater than 65 feet up to 80 feet.

The amounts of the 4 length ranges are increased (100 percent, 85 percent, 75 percent and 28 percent, respectively); it reflects an average increase of 72 percent.

8. Proposed modifications to the intra-maritime cluster segment

The proposal is an increase of the local tourism rate to $3,500, a 75 percent increase.

Table No.26

Tariff for intra-maritime cluster – local tourism segment effective January 1st 2020	
Market segment	Tariff
Local tourism	$3,500

IV. IMPLEMENTATION

The proposed adjustments would be effective January 1, 2020.

V. IMPACT ANALYSIS

The Authority regularly analyzes the manner in which Canal costs affect total voyage costs of the main routes, vessel types, and commodities. This analysis also considers commodity prices, other elements that are part of maritime transportation costs and its fluctuations over the last few years, its impact on foreign trade, as well as the historical evolution of both traffic and cargo through the Canal. The analysis also considered the deployment of the existing fleet in the various market segments and the evolution of the order book and vessels new buildings to obtain a glimpse of the trends in the neopanamax vessels fleet.

During visits to customers in Asia and Europe in the third quarter of fiscal year 2019, extremely valuable industry information was gathered, allowing us to better understand the challenges faced by individual market segments. As a result of a thorough analysis of the feedback obtained during these meetings it was deemed necessary to adjust some of our tariffs and provide additional benefits as presented in part III of this proposal.

Impact analyses have been conducted to gauge the effect upon our clients and users of the waterway, taking into consideration the competitive position of the Canal vis-a-vis other transportation routes or modes, the interests of the principal users and their merchant fleets, their different geographical areas and regions and their economies. It has been concluded that the proposed adjustments do not affect the competitiveness of the products in their respective markets. Annex C contains a more detailed analysis of the impact by market segment.

This English translation is intended solely for the purpose of facilitating an overall understanding of the content of the original Spanish version. In those cases where differences may be found between the two, the Spanish document must be considered as the official version.

AGREEMENT No. 347
(of May 30th, 2019)

"Whereby the proposal to modify the Panama Canal Tolls system and the rules of admeasurement for the use of the Panama Canal is approved"

THE BOARD OF DIRECTORS
OF THE PANAMA CANAL AUTHORITY

WHEREAS:

In accordance with article 319.2 of the Republic of Panama Political Constitution, and article 18.3 of the Panama Canal Authority Organic Law (No. 19 of June 11, 1997), the Panama Canal Authority Board of Directors must establish the tolls, rates, and fees for the use of the Canal and related services, subject to final approval of the Cabinet Council.

The Panama Canal Authority Administration has submitted for consideration by the Board of Directors a proposal to modify the Panama Canal tolls system and the rules of admeasurement of vessels for the use of the Panama Canal, which is enclosed to be part of this Agreement.

The proposal submitted contains a justification of the reasons and factors taken into consideration for its formulation, in accordance with the provisions of the Panama Canal Authority Agreements issued by the Board of Directors for this purpose:

- Agreement No. 3 of November 12, 1998 which regulates the Procedure to Revise the Panama Canal Tolls Rates and Rules of Admeasurement, modified by Agreement No. 127 of January 19, 2007.
- Agreement No. 4 of January 7, 1999, which regulates the establishment of tolls, rates, and fees for the transit of vessels through the Canal, and the rendering of related services and complimentary activities, modified by Agreements No. 58 of August 16, 2002, No. 94 of March 30, 2005, No. 141 of June 21, 2007, No. 220 of November 25, 2010, No. 269 of October 30, 2014, No. 295 of May 26, 2016 and No. 316 of September 28, 2017.
- Agreement No. 292 of May 26, 2016, which regulates the Rules of Admeasurement of Vessels for the setting of Tolls for the use of the Panama Canal, modified by Agreement No. 317 of September 28, 2017.

Article 79 of the Organic Law prescribes that the Authority shall give interested parties an opportunity to participate in the consultation processes for the purpose of revising tolls and admeasurement rules by submitting, in writing, data, opinions, or arguments, and participating in

a public hearing to be held at least 30 days after the date of publication of a notice in the official publication of the Authority in which said hearing is called.

The Board of Directors of the Panama Canal Authority is in agreement with the contents of the submitted proposal, and considers that it should be processed appropriately, pursuant to the applicable law and regulations.

AGREES:

ARTICLE ONE: To approve the proposal submitted by the Panama Canal Authority's Administration to modify the Panama Canal Tolls system and the rules of admeasurement of vessels for the use of the Panama Canal, which is enclosed to be part of this Agreement.

ARTICLE TWO: To order the initiation of the consultation and public hearing process established by the Organic Law, through publication in the Canal Record of the notification of the proposal, which is enclosed to be part of this Agreement.

ARTICLE THREE: To appoint the following members of the Board of Directors as members and officers of the Committee that shall conduct the consultation and public hearing process:

Ricardo M. Arango	Chairman
Oscar Ramírez	Vice chairman
Lourdes del C. Castillo	Member
Henri Mizrachi	Member
Alberto Vallarino C.	Member

ARTICLE FOUR: To designate Mr. Jorge L. Quijano, Administrator, Panama Canal Authority, as Secretary of the Committee that will conduct the consultation process and public hearing.

ARTICLE FIVE: This Agreement will take effect as of the date of its publication in the Panama Canal Record.

AUTHORITY: Article 319 of the Republic of Panama Political Constitution; articles 9, 18, and 79 of Law 19 of June 11, 1997, Panama Canal Authority Organic Law; and Panama Canal Agreements Nos. 3, 4, 58, 94, 127, 140, 141, 182, 220, 269, 292, 295, 316 and 317 issued by the Panama Canal Authority Board of Directors.

Given in the City of Panama, on the thirtieth (30th) of May, two thousand and nineteen (2019).

TO BE PUBLISHED AND ENFORCED.

Roberto R. Roy — Chairman of the Board of Directors

Rossana Calvosa de Fábrega — Secretary

PROPOSAL TO MODIFY THE PANAMA CANAL TOLLS SYSTEM AND THE RULES OF ADMEASUREMENT OF VESSELS FOR THE USE OF THE PANAMA CANAL

THE BOARD OF DIRECTORS OF THE PANAMA CANAL AUTHORITY

ANNOUNCES:

1. PROPOSAL TO MODIFY THE PANAMA CANAL TOLLS SYSTEM AND THE RULES OF ADMEASUREMENT OF VESSELS FOR THE USE OF THE PANAMA CANAL.

During an ordinary session, the Board of Directors of the Panama Canal Authority approved Agreement No. 347 of May 30th, 2019, whereby the proposal to modify the Panama Canal tolls system and the rules of admeasurement of vessels for the use of the Panama Canal is approved, the initiation of the consultation and public hearing process established by law is ordered, the members of the Panama Canal Authority Board of Directors' Committee that shall conduct the consultation and public hearing are designated, and the Secretary of the Committee is appointed.

This Agreement, which is an integral part of the proposal to modify the Panama Canal tolls system and the rules of admeasurement of vessels for the use of the Panama Canal, will be available to the interested parties as of the date of this publication.

2. ESSENCE OF THE PROPOSED CHANGE.

The Panama Canal Authority proposes an adjustment in the tolls and structure of certain market segments, small vessels, intra-maritime cluster and changes to the Regulation for the Admeasurement of Vessels to Assess Tolls for the Use of the Panama Canal.

2.1. The Panama Canal Authority proposes the modification of the tolls system of certain market segments (see enclosed tables), which takes into consideration the effect of the transit cost of the Panama Canal over the goods transported in the vessels, the vessels' operating costs, and alternate transportation routes. This proposal also takes into consideration, the competitive position of the Panama Canal, its users and their merchant fleets, their different geographical areas and their economies. Therefore, it has been concluded that the proposed adjustments do not constitute a relevant part of the total cost of transport and do not affect the competitiveness of the products in their respective markets.

1. Proposed toll modifications to the containers segment:

Loyalty Program update proposal to the container vessels:

The loyalty program's aim is to retain and encourage TEU capacity volumes in full container vessels transiting the Panama Canal by applying a preferential tariff system. The preferential tariffs are applied based on the established tariffs. At this

time, the program includes four categories based on the cumulative TEU volumes of the Total TEU Allowance (TTA) deployed by the customer.

This proposal to update the loyalty program modifies the current category 1 and includes two new loyalty categories:

- **Category 1**: The upper limit of the cumulative volume of Total TEU Allowance (TTA) is modified, and applies to all customers with a registered Total TEU Allowance (TTA) cumulative volume from 1,500,000 to 2,000,000. This category maintains the $3.00 reduction in the Total TEU Allowance (TTA) tariff.
- **Category 1a**: Applies to all customers with a registered cumulative volume of Total TEU Allowance (TTA) of 2,000,001 to 3,000,000. This category reflects a $3.25 reduction in the Total TEU Allowance (TTA) tariff.
- **Loyalty Plus**: Applies to all customers with a registered cumulative volume of Total TEU Allowance (TTA) of 3,000,001 or more. This category reflects a $5.00 reduction in the Total TEU Allowance (TTA) tariff and only applicable to TTA exceeding 3,000,000 TEU.

Tolls - Full Container Vessels - Effective January 1st 2020
Category 1: reflects a price reduction amounting to $3.00 in the capacity tariff

"Category 1 Tariff (from 1,500,000 - 2,000,000 TEU)"				
Locks	**TEU Range**	**Tariff for Total TEU Allowance (TTA)**	**Tariff for Total TEU Loaded on board (TTL)**	**Tariff for Total TEU Loaded on board in the return voyage (TTLR)**
Panamax	**< 1,000**	**$57**	**$30**	**N/A**
	>= 1,000 < 2,000	**$57**	**$30**	
	>= 2,000 < 3,500	**$57**	**$30**	
	>= 3,500	**$57**	**$30**	
Neopanamax	**< 6,000**	**$57**	**$40**	**N/A**
	>= 6,000 < 7,000	**$47**	**$40**	**$30**
	>= 7,000 < 8,000	**$47**	**$40**	**$30**
	>= 8,000 < 9,000	**$47**	**$40**	**$25**
	>= 9,000 < 10,000	**$47**	**$35**	**$25**
	>= 10,000 < 11,000	**$47**	**$35**	**$20**
	>= 11,000 < 12,000	**$47**	**$35**	**$20**
	>= 12,000	**$47**	**$35**	**$20**

Tolls - Full Container Vessels - Effective January 1st 2020
Category 1a: reflects a price reduction amounting to $3.25 in the capacity tariff

"Category 1a Tariff (from 2,000,001 - 3,000,000 TEU)"				
Locks	TEU Range	Tariff for Total TEU Allowance (TTA)	Tariff for Total TEU Loaded on board (TTL)	Tariff for Total TEU Loaded on board in the return voyage (TTLR)
Panamax	< 1,000	$56.75	$30	N/A
	≥1,000 < 2,000	$56.75	$30	
	≥ 2,000 < 3,500	$56.75	$30	
	≥ 3,500	$56.75	$30	
Neopanamax	< 6,000	$56.75	$40	N/A
	≥6,000 < 7,000	$46.75	$40	$30
	≥ 7,000 < 8,000	$46.75	$40	$30
	≥8,000 < 9,000	$46.75	$40	$25
	≥9,000 < 10,000	$46.75	$35	$25
	≥10,000 < 11,000	$46.75	$35	$20
	≥11,000 < 12,000	$46.75	$35	$20
	≥ 12,000	$46.75	$35	$20

Tolls - Full Container Vessels - Effective January 1st 2020
Category Loyalty Plus: reflects a price reduction amounting to $5.00 in the capacity tariff and only applicable to TEU exceeding 3,000,000

"Category Loyalty Plus (only applicable to TEU exceeding 3,000,000)"				
Locks	TEU Range	Tariff for Total TEU Allowance (TTA)	Tariff for Total TEU Loaded on board (TTL)	Tariff for Total TEU Loaded on board in the return voyage (TTLR)
Panamax	< 1,000	$55	$30	N/A
	≥1,000 < 2,000	$55	$30	
	≥ 2,000 < 3,500	$55	$30	
	≥ 3,500	$55	$30	
Neopanamax	< 6,000	$55	$40	N/A
	≥6,000 < 7,000	$45	$40	$30
	≥ 7,000 < 8,000	$45	$40	$30
	≥8,000 < 9,000	$45	$40	$25
	≥9,000 < 10,000	$45	$35	$25
	≥10,000 < 11,000	$45	$35	$20
	≥11,000 < 12,000	$45	$35	$20
	≥ 12,000	$45	$35	$20

2. **Differentiation of the TEU on-deck tariff applicable to non-container vessels carrying containers on-deck:**

The current tariff is $90 per TEU carried on-deck on non-container vessels and is a single tariff applicable without differentiation. The proposal is to apply a differentiated TEU toll tariff for Empty, Loaded Dry and Loaded Reefer TEU for non-container vessels that carry containers on-deck.

TEU Tariff effective January 1, 2020			
TEU tolls for non-container vessels that carry containers on deck.	Empty TEU	Dry TEU	Reefer TEU
	$60.00	$100.00	$110.00

TEU Loaded Dry: general cargo, dangerous cargo, full flat rack.
TEU Empty: includes empty containers and empty flat racks.

3. **Proposed toll modifications for tanker vessels:**

The proposal for tanker vessels in the Panamax locks intends to increase the current PC/UMS tariff by 10% for laden vessels and vessels in ballast.

Tolls - Tanker Vessels effective January 1, 2020 Panamax Locks		
PC/UMS Bands	Laden	Ballast
First 10,000	$5.50	$4.55
Next 10,000	$5.39	$4.39
Next 15,000	$5.34	$4.18
Next 10,000	$5.23	$3.96
Rest	$5.01	$3.80

The proposed tolls for tanker vessels transiting laden in the Neopanamax locks increases the existing tariff per PC/UMS by 8% and the variable portion per metric tons of cargo by 12%. The new toll for Neopanamax tanker vessels transiting ballast increases the existing tariff per PC/UMS by 12%.

Tolls - Tanker Vessels effective January 1, 2020 Neopanamax Locks				
PC/UMS Bands	Laden Vessels			Ballast Tariff per PC/UMS
	Capacity tariff $ per PC/UMS	Cargo Bands in metric tons (mt)	Cargo Transported $/mt (cargo)	
First 10,000	$5.58	First 20,000	$0.34	$4.64
Next 10,000	$5.40	Next 20,000	$0.22	$4.47
Next 15,000	$5.51	Next 20,000	$0.39	$4.26
Next 10,000	$4.32	Next 20,000	$0.20	$4.03
Rest	$3.51	Rest	$0.11	$3.86

4. Proposed toll modifications for chemical tanker vessels:

The toll proposal for chemical tanker vessels increases the existing tariff per PC/UMS by 8% for laden and ballast vessels.

Tolls - Chemical Tanker Vessels effective January 1, 2020		
PC/UMS Bands	**Laden**	**Ballast**
First 10,000	**$5.73**	**$4.88**
Next 10,000	**$5.65**	**$4.80**
Rest	**$5.54**	**$4.71**

5. Proposed toll modifications for LPG Gas carriers:

The toll proposal for Panamax LPG gas carriers increases the existing tariff per cubic meters (m^3) by 8% for laden and ballast vessels. The ballast rate will apply to LPG gas carriers carrying up to a maximum of 2% of total cubic meters (m^3) of cargo capacity, of spaces designed and certified for that matter.

Tolls - LPG Vessels effective January 1, 2020 Panamax Locks		
Bands in m^3	**Laden**	**Ballast**
First 5,000	**$7.01**	**$5.61**
Next 20,000	**$2.92**	**$2.33**
Next 30,000	**$2.81**	**$2.25**
Rest	**$2.43**	**$1.94**

The new toll proposal for Neopanamax LPG gas carriers increases the existing tariff per cubic meters (m^3) by 15% for laden and ballast vessels. The ballast rate will apply to LPG gas carriers carrying up to a maximum of 2% of total cubic meters (m^3) of cargo capacity, of spaces designed and certified for that matter

Tolls - LPG Vessels effective January 1, 2020 Neopanamax Locks		
Bands in m^3	**Laden**	**Ballast**
First 5,000	**$9.49**	**$7.59**
Next 20,000	**$3.52**	**$2.81**
Next 30,000	**$3.31**	**$2.65**
Rest	**$2.54**	**$2.04**

6. Proposed toll modifications for LNG gas carriers:

The new toll for LNG gas carriers increases the existing tariff per cubic meters (m^3) of cargo carrying capacity by 8.5% for laden vessels and by 9.0% for ballast vessels. The ballast rate applies to the LNG gas carriers transporting up to a maximum of 10% of the total cubic meters (m^3) of cargo carrying capacity, of spaces designed and certified for that matter. The roundtrip ballast rate for LNG gas carriers increases the existing tariff per cubic meters (m^3) by 8.0% in their return leg through the waterway. The roundtrip ballast rate applies for shippers that use the same vessel for a voyage to and return through the Panama Canal, pay the tariff for laden vessels and have the option to receive a special discount per roundtrip ballast fee, if the transit in ballast through the Panama Canal is made within 60 days after the laden transit was completed.

Tolls - LNG Vessels effective January 1, 2020			
Bands in m3	**Laden**	**Ballast**	**Ballast (Roundtrip)**
First 60,000	**$3.12**	**$2.79**	**$2.48**
Next 30,000	**$2.68**	**$2.35**	**$2.17**
Next 30,000	**$2.58**	**$2.26**	**$1.99**
Rest	**$2.44**	**$2.15**	**$1.87**

7. Proposed toll modifications for vehicle carriers and Ro-Ro:

This modification to the current tolls structure proposes an increment to the current tariffs, and also seeks to expand the PC/UMS range and differentiate between the Panamax and Neopanamax locks.

The proposed modifications are as follow:

- Adjust the prices to the range 0-25,000 PC/UMS tons to establish an equivalency to vessels that are not PPC/PCTC/LCRC or RoRo:

- Load Factor (0-9.99%): 15% increase
- Rest of Load Factor tiers from 10% to 50% or higher: 5% increase

- Modification of the PC/UMS ranges to include the Neopanamax category to differentiate between the Panamax and Neopanamax locks.
- 5% increase on the size ranges starting at 25,001 and 64,501 to update the tolls structure to the current fleet.
- 10% differentiation on the Neopanamax locks, over the range 64,501 or higher.

Tolls for Vehicle Carrier and Ro-Ro Segment effective January 1, 2020						
Load Factor (Cargo Weight MT/DWT)		Capacity Tariff ($ per PC/UMS)				
Start	Finish	PC/UMS Ranges				
		Panamax				Neopanamax
		Start →	0	25,001	64,501	
		Finish →	25,000	64,500	Over	
0.00%	9.99%		$4.22	$3.63	$3.60	$3.96
10.00%	19.99%		$5.22	$4.47	$4.42	$4.86
20.00%	29.99%		$5.26	$4.53	$4.49	$4.94
30.00%	39.99%		$5.31	$4.56	$4.56	$5.01
40.00%	49.99%		$5.41	$4.60	$4.57	$5.02
50.00%	Over		$5.47	$4.67	$4.65	$5.12

8. Proposed toll modifications to passenger vessels:

This modification seeks to strengthen the concept of maximum capacity and the Panama Canal transparency on the passenger fee for this segment, meeting the customers´ expectations. Additionally, it broadens the list of official documents accepted by the Panama Canal Authority as source documents to support the unit of measurement used to collect tolls for passenger ships. Such documents include the Stability Declaration, Code of Intact Stability, Life Saving and Evacuation Plan or Escape Plan or any other official document or certificate that indicates the Maximum Passenger Capacity (PAX), endorsed by "SOLAS" (International Convention for the Safety of Life at Sea), which should guarantee compliance with admeasurement rules established by the Panama Canal Authority.

The proposed change would replace the current unit of payment (maximum berth capacity) for maximum passenger capacity (PAX), thus the proposal of a tariff structure based on number of passengers. In addition, the proposal maintains the parameter in which vessels greater than 30,000 gross tonnages (ITC 69), whose (PC/UMS)/PAX ratio is less than or equal to 33 shall pay tolls on a per passenger basis.

Following are the proposed increases:

- Tariff per passenger:
  - Increase of 3% and 2% on ships laden and ballast, respectively.
  - Increase of 12% in the Neopanamax locks.

- Tariff per PC/UMS tons:
  - Increase of 5% on ships laden and ballast, respectively.
  - Increase of 26% in the Neopanamax locks.

Tolls - Passenger Vessels effective January 1, 2020									
Market Segment		Maximum Passenger Capacity Ranges	Panamax locks			Neopanamax locks		
			Tariff per Maximum Passenger Capacity					
Passenger Vessels 1/	Laden							
		<1000	$153.00			$166.00		
		1000-1999						
		2000-2999 2/	$151.00					
		3000-3999 3/	$146.00					
		≥ 4000 4/	$142.00			$179.00		
	Ballast							
		<1000	$123.00			$133.00		
		1000-1999						
		2000-2999 2/	$121.00					
		3000-3999 3/	$117.00					
		≥ 4000 4/	$113.00			$144.00		
			Tolls per PC/UMS					
			Panamax locks			Neopanamax locks		
			1st 20K	Next 40K	Rest	1st 40K	Next 60K	Rest
Passenger Vessels 1/	Laden		$5.06	$4.75	$4.83	$6.10	$6.04	$6.67
	Ballast		$4.05	$3.80	$3.86	$4.88	$4.83	$5.34

1/ Vessels above 30,000 gross tons (GRT) and whose PC/UMS tonnage divided by the maximum passenger capacity (PAX) ratio is less than or equal to 33, shall pay tolls on a per passenger basis. If such a ratio is greater than 33, tolls shall be paid on the basis of PC/UMS tonnage.
Vessels below or equal to 30,000 GRT shall also pay on the basis of PC/UMS tonnage.
2/ For the range from 2,000 to 2,999, the minimum toll amount to be charged shall be $305,847.00 if laden and $245,877.00, if in ballast.
3/ For the range from 3,000 to 3,999, the minimum toll amount to be charged shall be $452,849.00 if laden and $362,879.00 if in ballast.
4/ For the range higher than or equal to 4,000, the minimum toll amount to be charged shall be $583,854.00 if laden and $467,883.00 if in ballast.

9. Proposed toll modifications for dry bulk vessels in the Neopanamax locks:

In order to maintain the value of the route and to preserve the relevance of the Panamax locks, it is proposed that the dry bulk implement changes in the iron ore tariffs and the size differentiation bands for Neopanamax vessels transiting in ballast. The tolls for Neopanamax vessels carrying iron ore are proposed to be set at the same level as the current tolls for grains, coal and other dry bulks. The grains, coal, other dry bulks and the deadweight bands remain the same as in the tolls structure for this segment approved for fiscal year 2016.

Tolls – Panamax Dry Bulk Vessels - Effective January 1st 2020

Tolls - Dry Bulk effective January 1st 2020						
DWT MT Bands 1/		Laden Transits By Commodity				Ballast Tariff ($/DWT MT)
		Panamax locks				
		Grains	Coal	Iron Ore	ODB	
		$/DWT MT				
1st	5,000	$4.09	$3.42	$3.40	$4.09	$2.75
Next	5,000	$3.23	$2.74	$2.52	$3.23	$2.40
Next	10,000	$2.57	$2.45	$2.13	$2.57	$2.00
Next	20,000	$2.38	$2.15	$2.04	$2.38	$1.80
Next	20,000	$2.09	$2.05	$1.94	$2.09	$1.75
Next	25,000	$1.71	$1.96	$1.84	$1.71	$1.25
Next	35,000	$1.28	$1.47	$0.97	$1.28	$1.00
Rest		$0.86	$0.78	$0.49	$0.86	$0.75

1/ DWT: Deadweight ton, equivalent to the ship´s summer loaded deadweight or timber summer deadweight, whichever is higher.

Tolls – Neopanamax Dry Bulk Vessels - Effective January 1st 2020

Tolls - Dry Bulk effective January 1st 2020										
DWT MT Bands 1/		Laden Transits By Commodity								Ballast Tariff ($/DWT MT)
		Neopanamax locks								
		Grains		Coal		Iron Ore		ODB		
		Capacity Tariff ($/DWT MT)	Cargo Tariff ($/ Cargo MT) 2/	Capacity Tariff ($/DWT MT)	Cargo Tariff ($/ Cargo MT)	Capacity Tariff ($/DWT MT)	Cargo Tariff ($/ Cargo MT)	Capacity Tariff ($/DWT MT)	Cargo Tariff ($/ Cargo MT)	
1st	5,000	$5.74	$0.35	$5.15	$0.30	$5.74	$0.35	$5.74	$0.35	$2.75
Next	5,000	$4.97	$0.34	$4.12	$0.29	$4.97	$0.34	$4.97	$0.34	$2.40
Next	10,000	$4.21	$0.33	$3.61	$0.28	$4.21	$0.33	$4.21	$0.33	$2.00
Next	20,000	$2.68	$0.30	$3.09	$0.27	$2.68	$0.30	$2.68	$0.30	$1.80
Next	20,000	$1.91	$0.25	$2.06	$0.26	$1.91	$0.25	$1.91	$0.25	$1.75
Next	25,000	$0.77	$0.20	$0.82	$0.25	$0.77	$0.20	$0.77	$0.20	$1.25
Next	35,000	$0.38	$0.15	$0.26	$0.20	$0.38	$0.15	$0.38	$0.15	$1.00
Rest		$0.38	$0.10	$0.10	$0.15	$0.38	$0.10	$0.38	$0.10	$0.75

1/ DWT: Deadweight ton, equivalent to the ship´s summer loaded deadweight or timber summer deadweight, whichever is higher.
2/MT: Metric Ton.

10. Proposed modifications to small vessels minimum tolls:

The aim of these modifications is to partially recover the direct costs incurred by the Panama Canal in the transit of these small vessels, which are still considerably higher that the tolls paid.

Minimum Tolls - Effective on January 1st 2020		
Length Range (actual)		Proposed Tariff
Meters	Feet	
< 19.812	<65	$1,600
>=19.812 <= 24.384	>=65 <= 80	$2,400
> 24.384 <= 30.480	> 80 <= 100	$3,500
> 30.480	> 100	$4,100

- New upper maximum tonnage limits are proposed for small vessels that pay tolls based on length overall by means of a fixed fee:
  - Up to 863 PC/UMS net tons when transporting passengers or cargo (previously 583).
  - Up to 990 PC/UMS net tons when in ballast (previously 735).
  - Up to 1,067 PC/UMS maximum displacement tons (previously 1,048).

- The modification proposal to small vessels minimum tolls includes adjustments in the length overall sizes for the first two ranges. The first range is less than 65 feet; the second range is from 65 feet to 80 feet.
- The proposed increases to the tolls tariffs in the four length overall ranges are 100%, 85%, 75% and 28%, respectively, for an average increase of 72%.

11. Proposed modification for the intra-maritime cluster – local tourism segment:

Tariff for intra-maritime cluster – local tourism segment effective January 1st 2020	
Market segment	**Tariff**
Local tourism	**$3,500**

- This proposal reflects and adjustment of this tariff to $3,500 which amounts to a 75% increase.

2.2 Proposed modifications to the rules of admeasurement of vessels.

The proposal considers the existing tolls basis parameters: PC/UMS Net Tonnage, Total TEU Allowance (TTA), Summer Loaded Deadweight Tonnage (DWT) or Timber Summer Deadweight Tonnage, Maximum Displacement, Maximum Cargo Capacity (m3), Maximum Displacement, Total TEU on-deck applicable to non-container vessels carrying containers on-deck (NTT), and introduces Maximum Passenger Capacity (PAX) for passenger vessels. The proposed changes would be implemented through the subsequent modification of the Regulation for the Admeasurement of Vessels to Assess Tolls for Use of the Panama Canal as the proposal is approved.

The proposed changes are summarized in the following points:

- A new tolls parameter for containers transported on deck (NTT) for those vessels not classified as container vessels, classifying the containers as: dry, refrigerated or empties.
- Modification of the text to correct the acronyms of Total TEU Loaded during a transit (TTL) for Full Containers Vessels.
- In the Passengers segment, replacing the Maximum Berth Capacity (PAX) with Maximum Passenger Capacity (PAX).
- Wording modifications in certain Rules of Admeasurement of Vessels related to passenger vessels whereby the term "berths" is replaced by "passengers". This change seeks to strengthen the concept of maximum capacity and to emphasize the transparency the Canal wishes to reflect in relation to the charge by passengers in this segment enabling us to satisfy our customer's expectations. In addition, the list of official source documents accepted by the Panama Canal Authority to determine the Tolls Basis for Passengers Vessels is extended to include the Stability

Declaration, Intact & Damage Stability, Life Savings Appliances or any other official document or plan which shall indicate the Maximum Passenger Capacity (PAX) certified by SOLAS. This enhancement will guarantee the compliance with the Rules of Admeasurement of Vessels established by the Panama Canal Authority.

- Wording modifications in certain Rules of Admeasurement of Vessels to include the term Maximum Displacement as a Tolls basis and the term Transitional Relief Measure applicable to some vessels.

3. IMPLEMENTATION OF PROPOSED CHANGES.

3.1. The proposed adjustments in tolls for the full container, tanker, chemical, LNG, LPG, vehicle carriers/Ro-Ro, dry bulk and passenger segments, as well as small vessels minimum tolls, intra maritime cluster (local tourism segment) and tariff differentiation for TEU transported in vessels other than full container, will be effective January 1st , 2020.

4. INVITATION TO PARTICIPATE IN THE CONSULTATION AND PUBLIC HEARING.

Interested parties are invited to participate in the consultation and public hearing of the proposal to modify the Panama Canal tolls system and the rules of admeasurement of vessels for the use of the Panama Canal. The following dates are established:

4.1. Public Consultation: There will be a public consultation period that begins on the date of this publication and expires on July 15, 2019, at 4:15 p.m., local time.

4.2. Public Hearing: A public hearing will be held on July 24, 2019, at the "Ascanio Arosemena" complex, as indicated in paragraph 7.

5. FORM OF PARTICIPATION OF THE INTERESTED PARTIES.

The interested parties may participate in the consultation period and public hearing in accordance with the following rules:

5.1. As of the publication date of this notification, the consultation period is open, and the interested parties may present data, opinions, and statements in writing, in English or Spanish, which must be received by the Panama Canal Authority with a deadline of July 15, 2019, at 4:15 p.m., local time.

5.2. All who have participated in the consultation process described above in paragraph 4.1 may participate in the public hearing, to be held on the date indicated in paragraph 4.2, directly or through their duly accredited representatives, provided that they have announced in writing, during the consultation period, their intent to participate in the

hearing. This notification must be sent to the addresses indicated in paragraph 6.4 of this document, and shall contain the name and address of the interested party and the capacity under which he/she shall present himself/herself. The announcement of participation in the public hearing must be received in writing or by email to the address ***customerelations@pancanal.com***, in English or Spanish, no later than July 15, 2019 at 4:15 p.m., local time, and the recorded date and time of receipt of notification shall determine the order in which the interested party shall participate in the public hearing.

6. REQUEST AND FORWARDING OF INFORMATION.

6.1. Persons interested may access an electronic copy of the proposal, both in Spanish and English, in the direct link: www.pancanal.com/peajes, or request a copy in person from the Panama Canal Authority's Customer Relations Section, located in house #123, Erasmo Méndez Icaza Street in Balboa, or by mail to the address indicated in paragraph 6.4.

6.2. Those interested in expressing their comments, opinions, information, or arguments during the consultation period, shall submit them in writing or by email to the address ***customerelations@pancanal.com***, in English or Spanish, in person, or by sending them via Courier or mail before the date indicated in paragraph 4.1 of this document.

6.3. Those interested in participating in the public hearing must announce their interest in writing or by email to the address ***customerelations@pancanal.com***, in English or Spanish, in person, or by sending them via Courier or mail before the date indicated in paragraph 4.1 of this document.

Information sent via email, letters with comments or indicating intent to participate in the public hearing mentioned in paragraphs 6.1 and 6.2 above, shall be submitted in "pdf", "jpeg" or "png" format. Letters or information in the body of the email will not be considered.

Likewise, a printed copy of the presentation content is required, if possible, before attendance to the hearing.

6.4. Address to send the above-mentioned documentation:

Personal or via courier in Panama:

Panama Canal Authority
PROPOSAL TO MODIFY THE PANAMA CANAL TOLLS SYSTEM AND THE RULES OF ADMEASUREMENT OF VESSELS FOR THE USE OF THE PANAMA CANAL
Erasmo Méndez Icaza Street, Balboa – House #123
Vice Presidency for Transit Business
Customer Relations Section (NTAE)

Balboa, Ancon, Republic of Panamá

Email: ***customerelations@pancanal.com***

7. PLACE AND TIME OF THE PUBLIC HEARING.

The public hearing shall be held on Wednesday, July 24, 2019 in the "Ascanio Arosemena" complex, Balboa, Republic of Panamá, and shall begin at 9:00 a.m., local time.

8. PUBLIC HEARING PROCEDURE.

The Board of Directors of the Panama Canal Authority has designated the following Board members as members and officers of the Committee that shall conduct the consultation and public hearing process (referred to from here on as the Committee):

Ricardo M. Arango	Chairman
Oscar Ramírez	Vice chairman
Lourdes del C. Castillo	Member
Henri Mizrachi	Member
Alberto Vallarino C.	Member

The Board of Directors of the Panama Canal Authority has appointed Mr. Jorge L. Quijano, Administrator of the Panama Canal Authority, as secretary of the Committee.

8.1. The Committee shall examine all the information that has been properly and timely presented, relative to the comments, data and information provided by the interested parties during the consultation period.

8.2. The Committee shall commence the public hearing in the established place, and on the established date and time. The President of the Committee shall inform the participants the purpose of the hearing is to hear the arguments in favor or against the proposal.

8.3. The President of the Committee shall announce the order of each participant's presentation, in accordance with the provisions of paragraph 5.2 of this document, and each one shall begin his/her presentation in that order.

8.4. Participants in the public hearing shall be called upon individually to make their statements and express their points of view on the proposal, for a maximum of five (5) minutes. The Committee shall analyze and decide on the appropriateness of extending this period of time as they deem convenient, on a case-by-case basis, and shall inform the participants of their decision. Presentations with visual aids, slides, "PowerPoint" or any other devices, shall not be allowed.

8.5. The purpose of individual participation is merely expository; therefore, no debates or questions and answers shall be admitted between the members of the Committee and the participants, or between participants.

8.6. The members of the Committee shall receive the testimony or statements of the interested parties in relation to the proposed modification.

8.7. After the public hearing, the Committee shall analyze the documentation presented, and the presentations of the participants, and shall submit a report to the Board of Directors of the Panama Canal Authority, within a reasonable time, of the proceedings and the pertinent recommendations.

PANAMA, REPUBLIC OF PANAMA, JUNE FOURTEEN (14), TWO THOUSAND AND NINETEEN (2019).

ANNEX B. LEGAL REFERENCES

Regulation on the Procedure to Revise the Panama Canal Tolls Rate and Admeasurement Rules (Approved by the Board of Directors of the Panama Canal Authority by Agreement No.3 of November 12, 1998; modified by Agreement No.127 of January 19, 2007).

Article 1. Modifications to the Panama Canal admeasurement rules and the tolls rate shall be subject to a previous consultation and public hearing process, pursuant to this regulation.

Article 2. The proposal to revise [the tolls rate and the admeasurement rules] shall be opened to public consultation, and all interested parties may participate. Any proposal must be explained, with the inclusion of all the factors that would have been object of the revision by the Authority, for the effects of its issuance.

Article 3. The Authority shall make an official announcement of the proposal by means of its publication in the Panama Canal Register, with at least thirty (30) days in anticipation of the date of the public hearing.

Article 4. This Announcement shall contain:
1. The essence of the proposed change;
2. The date, place and procedures for receiving information and opinions, and participation in the hearing;
3. The date in which the interested parties must submit their notice of attendance to the public hearing.

Article 5. Following publication of the announcement, the Authority shall make available to the public the explained proposal referred to in Article 2 of this regulation.

Article 6. The Board of Directors shall designate a minimum of three of its members to form part of the Committee that shall conduct the process of consultation and hearings, and shall appoint one of its members to chair this Committee.

Article 7. The Committee shall apply this regulation, and its functions shall include the following:
1. Conduct the process of consultation and hearings;
2. Request or receive opinions, presentations or additional information;
3. Decide on procedural or similar matters;
4. Dispense with any irrelevant, immaterial, or excessively repetitive material expounded by the parties;
5. Dispense with any participant whose behavior interferes with the process of the hearing.
6. The Committee should submit to the Board of Directors the complete file of its activities, with the pertinent recommendation.

Article 8. The interested parties shall have the opportunity to participate in the process of the admeasurement rules and tolls rate revision by submitting information, opinions, or statements in

writing to the Chairman of the Committee, within the time limits established in the announcement.

The opinions, information and oral expositions that this regulation refers to may be in Spanish or English.

Article 9. The interested parties that have participated in the process of consultation shall also have the opportunity to participate in the public hearing. The hearing shall be held on the date and place prescribed by the announcement, and the parties in attendance may present additional information in writing on any material they have already incorporated, as well as make any statements or oral presentations concerning the admeasurement rules or the tolls rate, as appropriate.

Article 10. The hearing may be attended by the interested parties in person or by their representatives. They must give notice of their attendance in writing to the Chairman of the Committee within the time limits prescribed in the announcement of the hearing, and they must include the following information:

1. The names and addresses of the parties, and the condition under which they attend.
2. The place where they wish to make their presentation, if the hearings are scheduled to be held in more than one place.

Article 11. After considering the Committee's conclusions and recommendations, the Authority shall analyze the proposed admeasurement rules or tolls rate, as appropriate. However, in the case of tolls, if the rates proposed during the analysis are higher than the original proposal, the process shall be repeated. This requirement shall apply to any subsequent revision in which higher rates than those contemplated in the previous proposal are proposed.

Article 11a. Notwithstanding the dispositions of Article 11, in the case of proposals to revise tolls rates to be implemented in several phases or several years, and the Authority, considering the issues raised by participants during the hearing, considers pertinent of modify its original proposals, shall proceed to make the corresponding adjustments and grant and additional consultation period of no less than 15 calendar days starting on the date of publication of the modified proposal in the Canal Register, to afford the interested parties an opportunity to submit to the Authority, in writing, data, opinions, information, or arguments, regarding said proposal.

Article 12. Any interested party may have access to the transcript of the presentations made in the hearing, provided they submit previous request thereto, and pay the costs established by the Authority.

Article 13. Changes to the tolls rate and admeasurement rules shall become effective on the date determined by the Board of Directors.

[1] Article introduced by Agreement No. 127 of January 19, 2007.

Regulation for the Admeasurement of Vessels to Assess Tolls for Use of the Panama Canal
(Approved by the Board of Directors of the Panama Canal Authority by Agreement No.292 of May 26, 2016 and its modifications)

Chapter I
General Standards and Definitions

Article 1: These regulations establish the procedures and rules for the admeasurement of vessels, to assess the tolls to be charged by the Panama Canal Authority for the use of the Panama Canal, pursuant to its Organic Law.

Article 2: The words, expressions and acronyms used in these regulations shall have the following definitions:
Appendix. Complementary rules for the determination of the Panama Canal Universal Measurement System (PC/UMS) Net Tonnage, which is an integral part of these regulations.

Dry bulk vessel. Vessel designed to carry dry bulk (such as grain, coal and iron ore).
Vessels with the Capacity to Carry Containers above the Deck. A vessel that is not classified as a full container vessel, but has the capacity to transport containers above the deck. The Authority shall determine whether a vessel belongs in this category, taking into account the information provided by the ship.

Warship. Ship belonging to the naval forces of a State bearing the distinctive exterior insigne of warships of its nationality, under the command of a duly commissioned officer by the government and registered in the Naval List, and operated by a crew on a regular naval discipline.

Passenger vessel. A vessel whose main activity is passenger transportation, which is subject to fixed routes and common knowledge. Normally this type of vessel offers accommodation for more than twelve (12) passengers. Those vessels have been designed exclusively for passenger transportation are eligible for the implementation of a toll per berth. Those passenger vessels, that in addition to passengers carry other cargo, remain under the current PC/UMS toll scheme.

Gas Carrier Vessel. Cargo vessel constructed or adapted and used for carrying any liquefied gas in bulk or other products listed in the table corresponding to the Chapter of the International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk or the Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk (IGC Code). There are two types of gas carriers: the LPG, transporting liquefied petroleum gas and the LNG, which transports liquefied natural gas.

Full Container Vessel. A vessel specifically designed or converted to transport containers above the deck and that has permanently affixed cellular guides in its holds. The Authority shall

determine whether a vessel belongs in this category, taking into account the information provided by the client.

Vehicle Carrier. Ship with multiple decks designed to carry cars and trucks by means of ramps.

Chemical Tanker. Ship constructed or adapted for carrying in bulk any liquid product listed in the Chapter corresponding to the IBC Code or the BC Code, as applicable.

Ro-Ro Vessel. Vessel specially designed to carry wheeled cargo, such as trucks, trailers or rolling containers that are loaded and unloaded by means of rolled transshipment (roll on-roll off) with towing vehicles in several decks with connecting ramps or lifts.

Maximum Draft. Deepest point of immersion (in meters) allowed for the hull of a ship when fully loaded.

Cubic Meters of Cargo Carrying Capacity (m^3). A vessel's maximum carrying capacity in cubic meters.

Maximum Berth Capacity (PAX). Total berths for passenger use on a passenger vessel.

Passenger Ship Safety Certificate. Safety certificate issued to every passenger ship.

International Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk or Certificate of Fitness for the Carriage of Dangerous Chemicals in Bulk. Certificate issued to all chemical tankers engaged in international voyages that complies with the relevant provisions of the International Bulk Chemical Code or the Bulk Chemical Code, as appropriate.

International Convention on Tonnage Measurement of Ships, 1969 (ITC 69). International Tonnage Certificate issued according to the International Convention on Tonnage Measurement of Ships, 1969.

Gas Carrier Code (IGC Code). The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, which is generally applicable to ships built after December 31, 1976, but before July 1, 1986.

Bulk Chemical Code (BC Code). The Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, which applies to ships built after April 12, 1972, inclusive, but before July 1, 1986.

International Gas Carrier Code (IGC Code). The International Code for the Construction and Equipment of Ships Carrying Liquefied Gases in Bulk, which is generally applicable to ships built after July 1, 1986.

International Bulk Chemical Code (IBC Code). The International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk, which is generally applicable to ships built after July 1, 1986.

Deck. The uppermost complete deck exposed to weather and sea, which has permanent means of weathertight closing of all openings in the weather part thereof, and below which all openings in the sides of the vessel are fitted with permanent means of watertight closing.
In a stepped deck vessel, the deck will be taken as the lowest line of the deck exposed to weather and its extension parallel to the highest part of the deck.

Summer Displacement. Is defined as the vessel's total weight in metric tons when loaded to its summer draft consisting of the sum of light displacement plus summer deadweight tonnage.

Light Displacement. Is defined as the vessel's weight in metric tons as delivered by the shipyard; that is, excluding fuel, stores, supplies and crew.

Maximum Displacement. Is defined as the vessel's weight in metric tons on a fully loaded condition to its maximum allowable draft with stores, cargo, water, fuel, ammunition, the weight of officers, crew members, passengers and their belongings.

Enclosed Spaces. Those bounded by the vessel's hull, by fixed or portable partitions or bulkheads, by decks or coverings other than permanent or movable awnings. No break in a deck, nor any opening on the vessel's hull, in a deck or in a covering of a space, or in the partitions or bulkheads of a space, nor the absence of a partition or bulkhead, shall preclude a space from being included in the enclosed space.

Excluded Spaces. Notwithstanding the definition of enclosed spaces, the spaces referred to in Part C of Appendix, which are not included in the volume of the enclosed spaces. However, they shall be considered enclosed spaces when they meet any of the conditions stated in the first paragraph of the aforementioned Part.

Weathertight. Water does not penetrate in the vessel, regardless of the condition of the sea.

Watertight. Condition where the vessel is capable of preventing the passage of water through the structure or closure in any direction under a waterspout for which the surrounding structure is designed.

Berth. Bed or sofa bed to be used by a passenger on a passenger vessel. A bed or sofa bed that accommodates two people counts as two berths.

Breadth or moulded breadth (MB). The maximum breadth of the vessel, measured amidships to the moulded line of the frame in a vessel with a metal shell and to the outer surface of the hull in a vessel with a shell of any other material.

Number of TEU Carried During a Transit (NTT). Is the product of combining the various sizes of containers carried in open spaces above the deck of vessels that are not full container vessels, but have the capacity to carry containers above the deck, maximizing the volumetric space, expressing such volume in TEU units according to the conversion table in Article 10. The Authority reserves the right to verify the NTT to ensure that this data complies with the degree of accuracy required by the Authority.

Passenger. Every person on board, other than the master, members of the crew or other persons employed or engaged in any capacity on board on the business of that vessel.

Complimentary passenger. Person traveling on board the ship, whose financial remuneration is not received or whose transport does not represent commercial benefits for the vessel. This definition does not apply to passenger ships.

Moulded Depth (D). The vertical distance measured from the top of the keel to the underside of the deck at side, with the variations described in Part A of Appendix of these regulations.

Universal Measurement System (UMS). The set of rules, measurements and calculations applicable for determining the gross and net tonnage, adopted in accordance with the 1969 International Convention on Tonnage Measurement of Vessels.

Panama Canal Universal Measurement System (PC/UMS). The system based on the Universal Measurement System, 1969, using its parameters for determining the total volume of a vessel with the additional variations established by the Authority.

TEU (20-foot Container). A unit of measurement or reference equivalent to a 20-foot container whose external length, width, and height measurements are 20, 8, and 8.5 feet, respectively. A TEU represents a volume equal to 1,360 cubic feet.

Number of TEU Carried During a Transit (NTT). Is the product of combining the various sizes of containers carried with cargo transported by full container ships, maximizing the volumetric space, expressing such volume in TEU units according to the conversion table in Article 10. The Authority reserves the right to verify the NTT to ensure that this data complies with the degree of accuracy required by the Authority.

Total TEU Allowance. It is the total sum of the TEU allowance above deck and TEU allowance below deck.

TEU Allowance below Deck. The total container capacity in TEU that a full container vessel is able to carry in enclosed spaces, including those that may be transported in enclosed spaces above the deck. This capacity is determined by using the combination of the various sizes of the containers that maximize the volume of the space, expressing that volume in TEU units.

TEU Allowance above Deck. The total container capacity in TEU that a vessel is able to carry in open spaces above the deck, not including those containers that may be carried in enclosed spaces above said deck. This capacity is determined by using the combination of the various

sizes of the containers that maximize the volume of the space, expressing that volume in TEU units, which shall be adjusted to a condition of visibility of a length, regardless of the visibility requirements established by the Authority.

Summer Deadweight Tonnage (DWT). Maximum load capacity of a ship in metric tons when fully submerged to its summer freeboard. It includes the weight of the cargo, fuel, lubricating oils, supplies, fresh water in tanks, passengers and baggage, crew members and their belongings.

Total volume (V). The enclosed space of the vessel, expressed in cubic meters.

Total loaded TEU during transit in the return voyage (TTLR). It is the total of loaded TEU during transit (TTL), applicable to a neopanamax container vessel on its return voyage, with a utilization percentage in the northbound transit equal to or greater than 70 percent of the total TEU allowed at the Canal. The vessel must return in a time period not greater than 28 days, and this period accounts from the time the vessel leaves Canal waters (sea buoy) in its northbound transit until the time its arrival to Canal waters (sea buoy) for its southbound transit. These 28 days do not include the time spent by vessels in anchorage and ports of the Republic of Panama that are between the official exit of the Canal (sea buoy) in a northbound direction and the official arrival (sea buoy) at the Panama Canal in the southbound direction. In case the vessel requires to conduct port activities in Panamanian terminals located outside these points, the documentation supporting the visit must be submitted to the Authority.

Article 3: The following shall be subject to measurement:
1. The enclosed spaces below deck.
2. The enclosed spaces above deck
3. The maximum capacity of the vessel to carry containers below and above the deck
4. The maximum berth capacity
5. Cubic meters of cargo carrying capacity.
6. Summer deadweight tonnage
7. Maximum displacement.

Article 4: The Administrator of the Authority shall interpret and administer the rules of admeasurement established by these Regulations.

Chapter II
Determination of the Admeasurement of Vessels to Assess Tolls for Use of the Panama Canal

First Section
Requirements

Article 5: For the purpose of admeasurement, any vessel transiting the Canal shall present an ITC 69, or a substitute document deemed acceptable by the Authority, based on a system substantially similar to the one adopted by the aforementioned agreement. In addition, these

same vessels shall provide plans, classification certificates and documents with information stating the Total Volume of the vessel, DWT, m³ and PAX or documentation to determine this volume through mathematical calculations.
Passenger vessels, in addition to the previously mentioned requirements, shall provide the Panama Canal Authority with a copy of the Passenger Ship Safety Certificate or a document accepted by the Authority where the maximum berth capacity is determined. In the event these documents do not meet the accuracy guidelines acceptable by the Authority, the alternate method of admeasurement set forth in this Regulations shall be followed.
The chemical tanker shall present, in addition, the International Certificate of Fitness for the Carriage of Dangerous Chemical in Bulk or the Certificate of Fitness for the Carriage of Dangerous Chemical in Bulk, as appropriate, to determine the type of chemical tanker (1, 2, 3 or the combination that may arise).
Vessels, that based on the overall length and Net PC/UMS tonnage pay fixed minimum tariffs, shall be exempted from presenting the documentation stated in this article.

Article 6: In addition to the requirements of the previous article, vessels with the capacity to carry containers shall provide plans, classification certificates, and documentation with sufficient information to determine TEU allowance below deck and TEU allowance above deck, as defined in Article 2 of this Regulation.
The information to which the preceding paragraph makes reference shall be obtained from the Cargo Securing Manual (CSM) and the General Arrangement Plan (GA), or any official document or plan which shall indicate the total number of containers and their measurements. In the event these documents do not meet the accuracy guidelines acceptable by the Authority, the alternate method of admeasurement set forth in this Regulation shall be followed.
All information referenced in this article and the preceding shall be submitted to the Authority when it is requested.

Article 7: Vessels that fail to provide the documentation required in the preceding articles, as well as those with documentation that does not comply with the precision required by the Authority, shall be subject to inspection by the Authority to determine its **V**, pursuant to the PC/UMS Net Tonnage, m³, DWT, PAX, or total TEU allowance, as set forth in this Regulation.

Article 8: The Authority shall establish **V** to calculate the PC/UMS Net Tonnage; further, the Authority shall establish the values of TEU allowance below deck and TEU allowance above deck, as may be applicable. For passenger vessels, the Authority shall establish the **V**, PAX and PC/UMS to PAX ratio. The Authority shall determine the DWT for dry bulk vessels; and m³ for gas carriers.

In calculating the PC/UMS Net Tonnage, TEU allowance below deck and TEU allowance above deck, PAX, DWT, m³ and maximum displacement, the Authority may request and use complementary vessel information. Notwithstanding the above, calculations may be adjusted based on inspections for the accuracy required by the Authority.

If the requested documentation is not provided or does not comply with the precision required by the Authority, the user shall accept the figures resulting from the calculation by the Authority, which, in its judgment, reflects it measurements, as may be applicable.

Second Section
Admeasurement

Article 9: The tonnage of a vessel shall consist of the PC/UMS Net Tonnage, TEU allowance below deck and TEU allowance above deck, m^3, DWT, PAX and the PC/UMS /PAX ratio, as may be applicable. These will be determined on the basis of the provisions set forth in this Regulation.

The tonnage of novel types of vessels whose construction features make application of the rules unreasonable or impossible shall be determined in a manner that is acceptable to the Authority.

Article 10: PC/UMS Net Tonnage of vessels, shall be calculated by the following formula:
PC/UMS Net Tonnage = $K_4(V) + K_5(V)$
For all vessels classified by the Authority as passenger vessels, passengers and their luggage shall be considered as cargo; therefore, all areas that have been identified and certified for use, or possible use by passengers, such as balconies, pools and walkways will be included in **V**. For this type of vessel, in the calculation of PC/UMS Net Tonnage, the definition of "excluded spaces", according to section 5 of Regulation 2 of the ITC 69, does not apply to such spaces.
For all vessels classified by the Authority as full container vessels, the admeasurement shall be based on the total TEU allowance, which shall be calculated by the following formula:

Total TEU allowance = TEU allowance above deck + TEU allowance below deck

To determine TEU allowance below deck, TEU allowance above deck, NTT and TTL as may be applicable, the following conversion table will be used.

SIZE	CALCULATION	EQUIVALENCE
20' x 8'x 8.5'	1360/1360	1.00 TEU
20' x 8'x 9.5'	1520/1360	1.12 TEU
40' x 8' x 8.5'	2720/1360	2.00 TEU
40' x 8' x 9.5'	3040/1360	2.24 TEU
45' x 8' x 9.5'	3420/1360	2.51 TEU
48' x 8' x 9.5'	3648/1360	2.68 TEU
54' x 8' x 9.5'	4104/1360	3.02 TEU

Any container whose size is not listed in the preceding table shall obtain its equivalence using the same method of calculation.

For a passenger vessel, toll collection will be applied based on PAX or PC/UMS Net Tonnage. The application of a toll is determined by two design parameters: (a) net tonnage as determined by the ITC 69 and (b) the PC/UMS to PAX ratio.

Vessels above 30,000 gross tons (ITC 69) and whose PC/UMS to PAX ratio is less than or equal to 33, shall pay tolls on a per berth basis. Passenger vessels not complying with these two criteria and those passenger vessels that in addition to the passengers transport other types of cargo, will continue to pay on the basis of PC/UMS tonnage.

For dry bulk vessels, tolls shall be charged using DWT according to what is shown in the capacity plan, deadweight scale, stability book, hydrostatic table or any other document acceptable to the Authority.
DWT will be calculated by the following expression:
Summer Deadweight Tonnage (DWT) = Summer displacement – Light displacement

For gas carriers, tolls shall be charged on the basis of m^3, according to what is shown in the capacity plan, deadweight scale, stability book, cargo securing manual, any other document acceptable to the Authority.
Article 11: Vessels whose PC/UMS Net Tonnage is determined in accordance with Article 10, may be subject to a new admeasurement if there is a change in the **V**.

Article 12: The full container vessel whose PC/UMS Net Tonnage allowance is determined in accordance with Article 10, shall maintain said total as long as they have not undergone a structural or documentation change affecting the total TEU allowance. In the event of a significant structural or documentation change affecting their carrying capacity, the total TEU allowance shall be determined in accordance with said article.

Vessels with the capacity to carry containers on or above the deck, whose TEU allowance above deck has been calculated as defined in this Regulation and which undergo structural or documentation changes affecting said TEU allowance above deck, shall be determined using the conversion table in Article 10.

Passenger vessels whose PAX was calculated pursuant to Article 10 shall maintain said capacity as long as they have not undergone a structural change or a change in the number of berths. In case there is a change in V, PAX and the PC/UMS to PAX ratio will be determined using the relation established in Article 10. In case there is a change in V, without affecting the amount of previously established berths, the change will be audited to determine whether or not it has affected the berth capacity.

Vessels whose DWT has been calculated pursuant to Article 10 shall maintain said total as long as they have not undergone structural, stability or hydrostatic property changes that affect the dead weight scale or the waterline.

Vessels whose m^3 has been calculated pursuant to Article 10 shall maintain said total as long as they have not undergone structural changes in the cargo tanks or in their hydrostatic properties that impact their capacity.

Article 13: All volumes included in the calculation of the PC/UMS Net Tonnage shall be measured, irrespective of the fitting of insulation or the like, to the inner side of the shell or

structural boundary plating in vessels constructed of metal, and to the outer surface of the shell or to the inner side of structural boundary surfaces in vessels constructed of any other material.
The **V** shall include the volume of the appendages of the vessel and may exclude the spaces open to the sea.

Article 14: All measurements used in the calculation of volumes shall be taken to the nearest centimeter or to one-twentieth of a foot.
The volumes shall be calculated by generally accepted methods for the space concerned, and with the degree of accuracy accepted by the Authority, verifying the calculations in a detailed manner, so that their precision may be corroborated.

Chapter III
Alternative Method for the Admeasurement of Vessels

Article 15: When the ITC 69 or suitable substitute or the necessary documentation to calculate **V** have not been presented, or when these documents do not meet the standards of accuracy acceptable by the Authority, the vessels will be measured to include the entire cubic contents of **V**, as is defined in this chapter.
In the event the vessels classified by the Authority as full container vessels or vessels with the capacity to carry containers on or above the deck that have not submitted the Cargo Securing Manual and the General Arrangement Plan, their equivalents, or when these documents do not comply with the standards of accuracy acceptable to the Authority, the TEU allowance below deck and TEU allowance above deck, as may be applicable, shall be established using any other method acceptable to the Authority.

In the event the vessel classified by the Authority as a passenger vessel does not present the documents listed in the first paragraph of this article and/or the Passenger Ship Safety Certificate, or when the documents provided do not meet the standards of accuracy acceptable by the Authority, the Authority will determine V, PAX and the PC/UMS to PAX ratio, using any other method acceptable to the Authority.
In the case that a vessel classified by the Authority as dry bulk vessel does not present the stability book, hydrostatic tables or the capacity plan or when the documents provided do not meet the standards of accuracy acceptable by the Authority, the Authority will determine DWT, using any other method acceptable to the Authority.
In the case that a vessel classified by the Authority as gas carrier does not present the stability book, hydrostatic tables or the capacity plan or when the documents provided do not meet the standards of accuracy acceptable by the Authority, the Authority will determine m^3, using any other method acceptable to the Authority.

Article 16: The Authority shall endeavor to determine **V**, TEU allowance below deck and TEU allowance above deck, DWT, m^3, PAX and PC/UMS to PAX ratio as may be applicable, as accurately as possible, on the basis of information available at the time of the calculation, using

generally accepted methods for the space concerned and/or for determining allowable TEU within the parameters of accuracy acceptable to the Authority.

Article 17: Vessels that do not present the documentation prescribed by the previous article shall be measured as follows:

1. The volume of structures above the deck may be determined by any method or combination of methods that are acceptable to the Authority. These methods shall include simple geometric formulas, Simpson's rules and other standard mathematical formulas. If special procedures are used, they must be identified.
2. The volume of the hull under the deck (UDV) shall be determined by using the formula:

UDV = {0.91 x [(LOA x MB) x (D - SLD)]} + (SLDISP/1.025)

If the previous formula proves unworkable, the **V** of the hull below the deck shall be determined by multiplying the product of the LOA, MB and D, as defined in Part G of the Appendix, by the corresponding coefficient indicated in the following table:

LOA in meters	COEFFICIENT
>0 to 30	.7150
>30 to 60	.7250
>60 to 90	.7360
>90 to 120	.7453
>120 to 150	.7328
>150 to 180	.7870
>180 to 210	.8202
>210 to 240	.7870
>240 to 270	.7328
>270	.7453

2. The **V** of a vessel is the sum of the volume of the structures above the deck as determined in accordance with (1) above, and the volume of the hull below the deck, as determined in accordance with the parameters established in (2) above.

4. The figures of the parameters used to calculate the collection of tolls may be determined by any method or combination of methods that are acceptable to the Authority.

Article 18: Vessels which have had their measurement determined in accordance with Article 15, may apply for re-admeasurement when they present new corrected plans or other pertinent documents acceptable to the Authority to recalculate the vessel's admeasurement.

Chapter IV
Certificate of Admeasurement

Article 19: The admeasurement of vessels shall be carried out by the Authority's specialized personnel, or by agents authorized by it. Each transiting vessel shall present to the Authority a complete set of plans, documents, breakdown of total volume and calculation sheets, with the dimensions that served as the basis for obtaining its ITC 69 or its equivalent, and a copy of the same.
In the case of vessels whose tonnage is made based on the parameters of capacity (DWT, m^3 and PAX), the vessel shall provide the Authority with plans, deadweight scale, stability book, hydrostatic tables and any other document that provides the corresponding parameter.

Article 20: The Authority shall provide each vessel or its representative or agent, the Certificate of Admeasurement, which shall be carried on board the vessel as proof that it has been inspected and measured.

Article 21: The Authority may correct the Certificates of Admeasurement when a difference is found in the documents or in the inspection for admeasurement, as applicable.

Chapter V
Warships, Dredges and Floating Drydocks

Article 22: The toll on warships, dredges and floating drydocks shall be based on their tonnage of actual displacement. To this effect, these vessels shall be required to present documents stating accurately the displacement tonnage at each possible mean draft.

Article 23: The fully loaded displacement of these vessels shall be determined in a manner acceptable to the Authority, and shall be expressed in metric tons.

Article 24: If the user does not produce the necessary documents, the Authority may use any acceptable and practicable method to determine the displacement tonnage.

Chapter VI
Final Provisions

Article 25: For the purpose of the preparation of the documents required by the Authority, the vessel that fulfills the following conditions shall be considered to be in ballast:

1. It may not carry passengers, with the exception of complimentary passengers. The vessel may not carry cargo, except for effects on the functioning of the ship or for use or consumption by the crew on board, as determined by the Authority.
2. It may not carry fuel for its own consumption in quantities that exceed the capacity of the spaces designed and certified for that use, as shown in the vessel's capacity plan or official documents.
3. The spaces certified and marked as sedimentation tanks to store lubricants or liquid fuels and tanks or fixed compartments shall not be used to load cargo or supplies.
4. Notwithstanding the abovementioned, a vessel of any segment may be considered to be in ballast when it transits with a minimum percentage of vessel utilization as determined

by the Board of Directors at the proposal of the Administration. For this purpose, the Administration shall submit beforehand to the Board of Directors the corresponding duly defended and reasoned proposal indicating vessel segment and type, minimum percentage of vessel utilization required to be considered in ballast, and period of time or season of the year during which the present provision is proposed to be applied.

Article 26: Vessels passing through the locks at either end of the Panama Canal and returning to the original point of entry without passing through the locks at the other end of the Canal, shall be considered as having made a full transit. Re-entry of the same vessel shall be considered a new transit.

Article 27: Vessel whose overall length and Net PC/UMS Tonnage is paid according to the minimum fixed tariffs, except those cases provided for in other regulations, shall not be admeasured.

APPENDIX

A. EXPANSION ON THE DEFINITION OF MOULDED DEPTH:

In wood and composite vessels the distance is measured from the lower edge of the keel rabbet. Where the form at the lower section of the midvessel section is of a hollow character, or where thick garboards are fitted, the distance is measured from the point where the line of the flat of the bottom continued inwards cuts the side of the keel.
In vessels having rounded gunwales, the moulded depth shall be measured to the point of intersection of the moulded lines of the deck and side shell plating, the lines extending as though the gunwales were of angular design.
Where the deck is stepped and the raised section of the deck extends over the point at which the moulded depth is to be determined, the moulded depth shall be measured to a line of reference extending from the lower section of the deck along a line parallel with the raised section.

B. MEANING OF THE SYMBOLS USED WITH THE FIGURES IN THIS REGULATION:

O = excluded space
C = enclosed space
I = space to be considered as an enclosed space.

Hatched in parts to be included as enclosed spaces.

B = breadth of the deck in way of the opening

In vessels with rounded gunwales the breadth is measured as indicated in Figure 11.

C. DEFINITION OF EXCLUDED SPACES:

Are the spaces described below, unless they meet any of the following three conditions, in which case they shall be considered enclosed spaces:

- The space is fitted with shelves or other means for securing cargo or stores.
- The openings are fitted with any means of closure.
- The construction provides any possibility of such openings being closed.

1.a. A space within an erection opposite an end opening extending from deck to deck except for a curtain plate of a depth not exceeding by more than 25 millimeters (one inch) the depth of the adjoining deck beams, such opening having a breadth equal to or greater than 90 percent of the breadth of the deck at the line of the opening of the space. This provision shall be applied so as to exclude from the enclosed spaces only the space between the actual end opening and a line drawn parallel to the line or face of the opening at a distance from the opening equal to one-half of the width of the deck at the line of the opening (Figure 1):

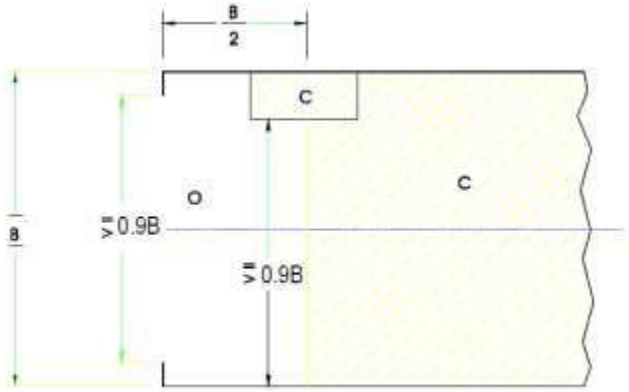


Fig. 1

1.b. Should the width of the space because of any arrangement except by convergence of the outside plating, become less than 90 percent of the breadth of the deck, only the space between the line of the opening and a parallel line drawn through the point where the athwarships width of the space becomes equal to or less than 90 percent of the breadth of the deck shall be excluded from the volume of enclosed spaces. (Figures 2, 3 and 4):

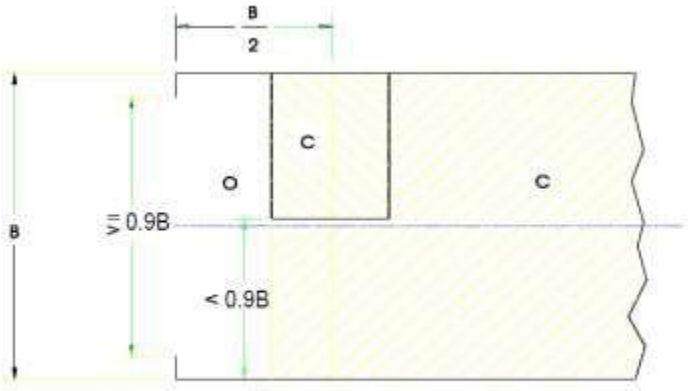


Fig. 2

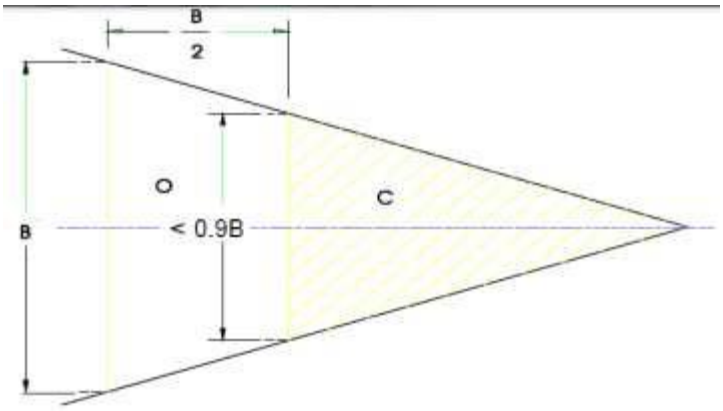


Fig. 3

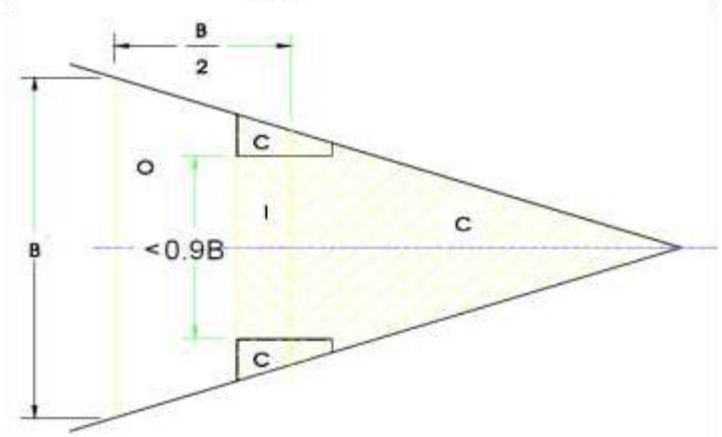
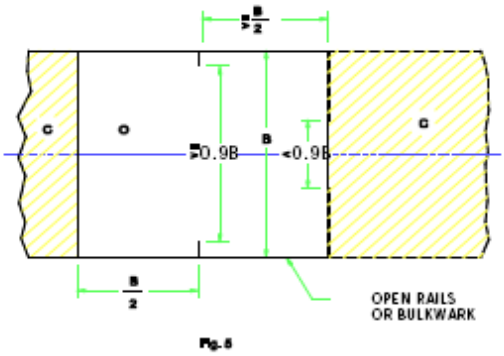
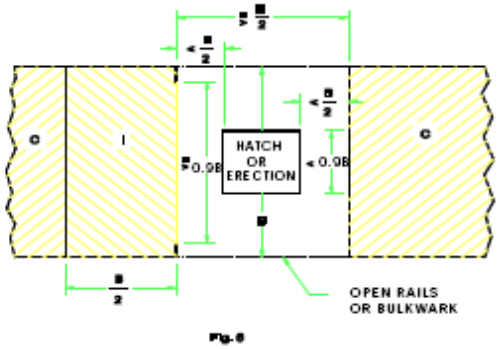


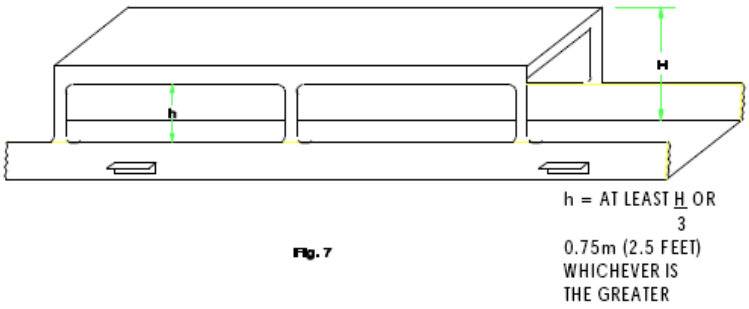
Fig. 4

1.c. Where an interval which is completely open except for bulwarks or open rails separates any two spaces, the exclusion of one or both of which is permitted under paragraphs 1.a and 1.b, such exclusion shall not apply if the separation between the two spaces is less than the least half breadth of the deck in way of the separation. (Figures 5 and 6):





2. A space under an overhead deck covering open to the sea and weather, having no other connection on the exposed sides with the body of the vessel than the stanchions necessary for its support. In such a space, open rails or a bulwark and curtain plate may be fitted or stanchions fitted at the vessel's side, provided that the distance between the top of the rails or the bulwark and the curtain plate is not less than 0.75 meters (2.5 feet) or one-third of the height of the space, whichever is the greater. (Figure 7).



3. A space in a side-to-side erection directly in way of opposite side openings not less in height than 0.75 meters (2.5 feet) or one-third of the height of the erection, whichever is the greater. If the opening in such an erection is provided on one side only, the space to be excluded from the volume of enclosed spaces shall be limited inboard from the opening to a maximum of one-half of the breadth of the deck in way of the opening (Figure 8).

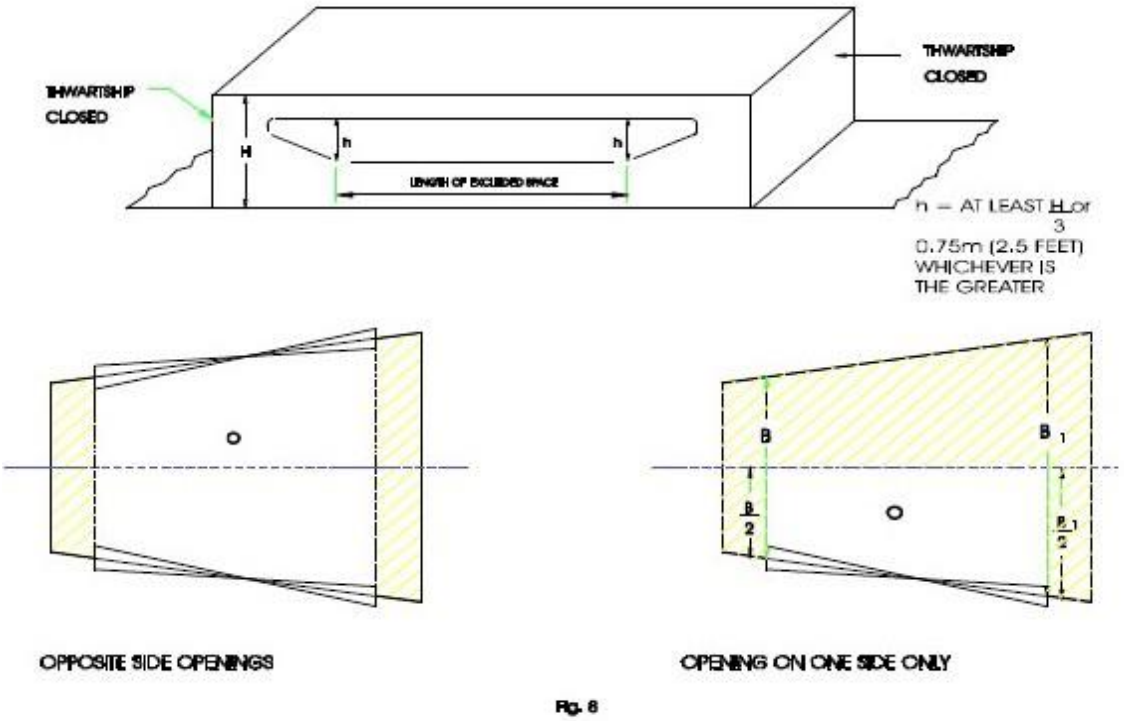


Fig. 8

4. A space in an erection immediately below an uncovered opening in the deck overhead, provided that such an opening is exposed to the weather and the space excluded from enclosed spaces is limited to the area of the opening. (Figure 9).

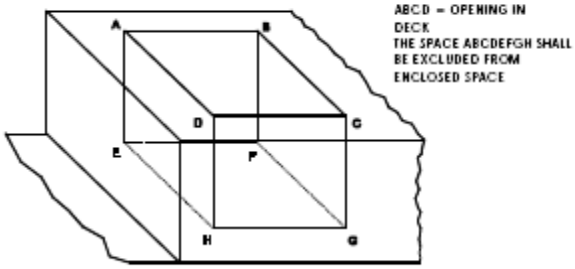


Fig. 9

5. A recess in the boundary bulkhead of an erection which is exposed to the weather and the opening of which extends from deck to deck without means of closing, provided that the interior width is not greater than the width at the entrance and its extension into the erection is not greater than twice the width of its entrance. (Figures 10 and 11).

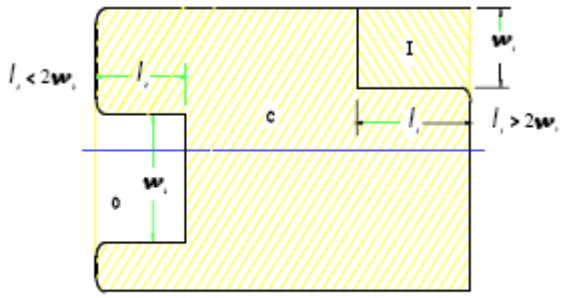


Fig. 10

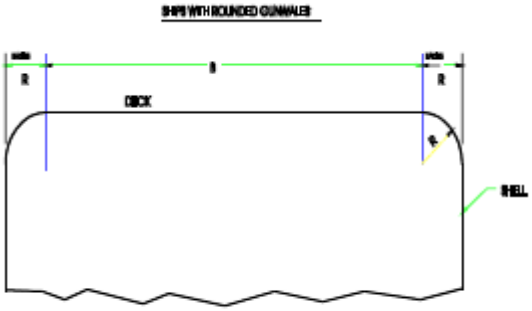


Fig. 11

D. EXPANSION OF THE DECK:

In a vessel having a stepped deck, the lowest line of the exposed deck and the continuation of that line parallel to the upper section of the deck is taken as the deck.

E. DETERMINATION OF THE PC NET TONNAGE IN ACCORDANCE WITH THE UMS:

Explanation of the component of the formula as stated in Article 10:
PC/UMS Net Tonnage = $K_4(V) + K_5(V)$
a. $K_4 = \{0.25 + [0.01 \times \text{Log10}(V)]\} \times 0.830$
b. $K_5 = [\text{Log } 10(DA-19)]/\{[\text{Log } 10(DA-16)] \times 17\}]$
If the number of passengers (N1 + N 2) is greater than 100 or DA is equal to or less than 20.0 meters, then K5 is equal to zero.
c. V = Total volume of all enclosed spaces of the vessel in cubic meters and is identical to V as specified in the 1969 International Convention on Tonnage Measurement of Ships (ITC 69).

d. DA (Average depth) = The result of the division of the V by the product of the length in meters multiplied by the moulded breadth in meters. DA = V/(L x MB).

e. L (Length) is defined as 96 percent of the total length on a waterline at 85 percent of the least moulded depth measured from the top of the keel, or the length from the fore side of the stem to the axis of the rudder stock on that waterline, if that be greater. In vessels designed with a rake

of keel, the waterline on which this length is measured shall be parallel to the designed waterline.

f. MB = Moulded breadth is defined in Article 2.

g. N1 = Number of passengers in cabins with no more than 8 berths.

h. N2 = Number of other passengers.

i. N1 + N2 = Total number of passengers the vessel is permitted to carry as indicated in the vessel's passenger certificate.

F. CHANGE IN THE PC/UMS NET TONNAGE:

The Authority shall perform a fair and equitable volumetric comparison where a vessel does not have total comparative volumes according to ITC 69, or other suitable source of volumetric comparison, to determine if the vessel's structure has undergone a significant change.

G. MEASUREMENT OF VESSELS WHEN TONNAGE CANNOT BE OTHERWISE ASCERTAINED:

For vessel whose net tonnage in calculated based on PC/UMS:

UDV = {0.91 x [(LOA x MB) x (D - SLD)]} + (SLDISP/1.025)

Where:

UDV = Volume of the hull below the deck, in cubic meters.

LOA = The Length overall, i.e., the length of the vessel in meters from the foremost to the aftermost points, including a bulbous bow if present.

MB = Moulded breadth in meters as defined in Article 2.

D = Moulded depth in meters as defined in Article 2.

SLD = Summer loaded draft (in meters) i.e., the maximum depth to which the vessel's hull may be immersed when in a summer zone

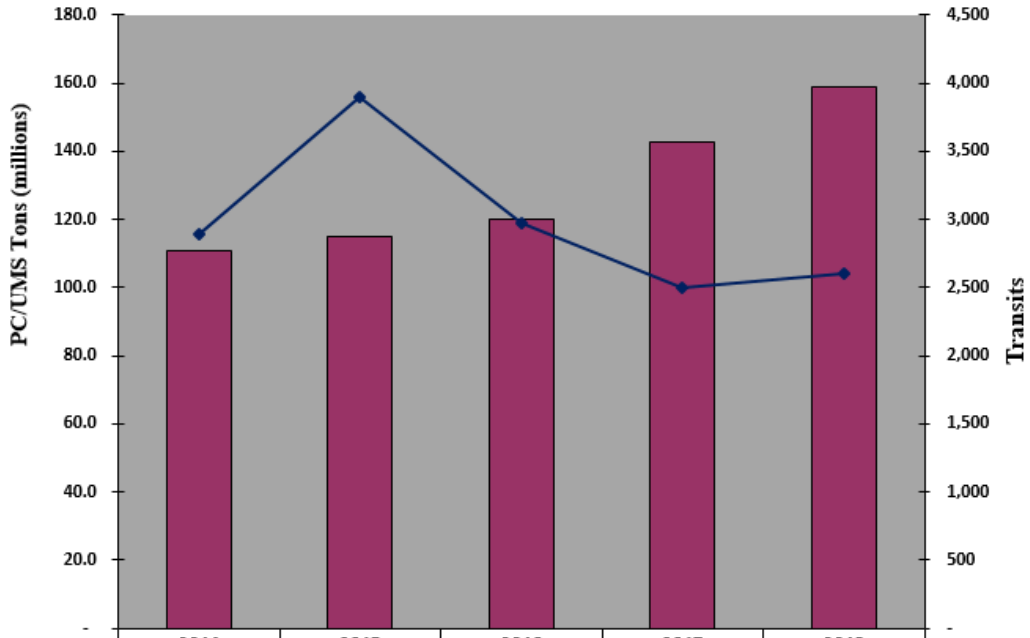
SLDISP = Summer loaded displacement, i.e., the actual weight in metric tons of the water displaced by the vessel when immersed to her SLD.

IMPACT ANALYSIS BY MARKET SEGMENT

FULL CONTAINER VESSELS

The full container vessels segment is most important contributor to the main traffic indicators of the Panama Canal. Cumulative statistics for fiscal years 2014 to 2018 show that the full container vessels segment showed an average of 47.5 percent of the total tolls revenue, 35.1 percent of the total PC/UMS tons and 20.7 percent of the total transits registered during this period.

Historical Traffic Data for Full Container Segment
Fiscal Years 2014 - 2018



	2014	2015	2016	2017	2018
PC/UMS Tons	111.0	115.1	120.0	142.6	159.0
Transits	2,891	3,892	2,977	2,493	2,604

Source: ACP Corporate Data Warehouse

Fiscal year 2016 was a period of opportunities and accomplishments, such as the deployment of new panamax liner services within some trade routes prior to the expanded Canal inauguration; the opening of the Panama Canal Third Set of Locks, the culmination of one of the greatest infrastructure projects in the continent; the implementation of a new tolls structure, including the loyalty program for full container vessels, which offers shippers many benefits in their transits though the waterway; the deployment of neopanamax liner services, of up to 10,200 TEU of capacity, providing shippers with economies of scale; and the attraction of new markets as the result of the migration of services from the Suez Canal. After only 3 months of operations of the expanded Panama Canal, fiscal year 2016 ended with a total of 8 full container neopanamax services.

During fiscal year 2017, the first complete year with the expanded Panama Canal in operation, the shipping lines continued with the substitution of panamax vessels in their liner services while migrating to larger-size vessels. On August 22, 2017, a milestone was achieved with the transit of a containership vessel with a capacity of 14,863 TEU, thus setting a TEU capacity and toll revenues record. Also, during this year, some important restructurings of the main container cargo operators took place, such as the creation of the three major alliances "OCEAN Alliance", "THE Alliance" and the "2M", as well as agreements and acquisitions of shipping lines by strongly positioned companies. In 2017, the customer loyalty program proved to be successful, while providing 88.4 percent of the transits with some savings incentive. As a result, the fiscal year closed with one customer in category 1, four in category 2 and five in category 3.

Fiscal year 2018 started with 15 liner services of neopanamax-size vessels transiting through the Panama Canal. Throughout the year, there were service network restructurings and variations in vessel sizes. As a result, the fiscal year concluded with a deployed annual capacity in both directions of 16.0 million TEU, approximately 1 million TEU more than at the outset. During this 12-month period, the new tariff for loaded TEU transported on the southbound return voyage for neopanamax-size vessels was successfully implemented. This measure encouraged the progressive increase in vessel sizes and at the end of the fiscal year, contributed to the redeployment of a neopanamax liner service through the Panama Canal that had previously used an alternate route. Anew, the loyalty program generated valuable savings for the Canal customers closing the year with four customers in category 1, two in category 2 and three in the category 3.

Since the opening of the expanded Panama Canal and during the course of fiscal year 2019, the container segment has recorded double-digit growth in container capacity volumes and loaded containers transported through the waterway. Between fiscal years 2016 and 2018, the compound annual growth rate (CAGR) for capacity volumes and loaded containers transported showed 14 and 20 percent increases, respectively, as a result of ship size increases, improved time charters, freight rates, fuel prices, and global trade growth, which boosted the United States' volume of imports and exports.

Over the years, the Panama Canal route has been an advantageous alternative for maritime operators. Currently, there are 28 liner services deployed through the waterway, 16 of which are neopanamax-size vessels and 12 panamax-size vessels. Asia - East Coast of the United States continues to be the most important trade route for this market segment, with approximately 40 percent of transits, 54 percent of PC/UMS tons and TEU capacity, 61 percent of loaded TEU and 55 percent of tolls revenue. During May of this fiscal year, a vessel with more than 15,300 TEU capacity transited the Canal, setting a new record for vessel traffic through the Panama Canal.

New tolls proposal

The loyalty program offers preferential tariffs based on the cumulative TEU volume of total TEU allowance (TTA) carried by a customer through the Panama Canal during a maximum period of 12 consecutive months, with the encouragement to maintain and increase the total TEU volume through the Canal. The program entails six categories, with increasing benefits on the vessel capacity tariffs up to $ 5.00/TEU.

This proposal modifies current Category 1 and includes two new loyalty categories:

- **Category 1:** The upper limit of the cumulative volume of Total TEU Allowance (TTA) is modified, and applies to all customers with a registered Total TEU Allowance (TTA) cumulative volume from 1,500,000 to 2,000,000.
- **Category 1a:** This is a new category applicable to all customers with a registered cumulative volume of Total TEU Allowance (TTA) greater than 2,000,000 and up to 3,000,000.
- **Loyalty Plus:** Applicable to all customers with a registered cumulative volume greater than 3,000,000 Total TEU Allowance (TTA).

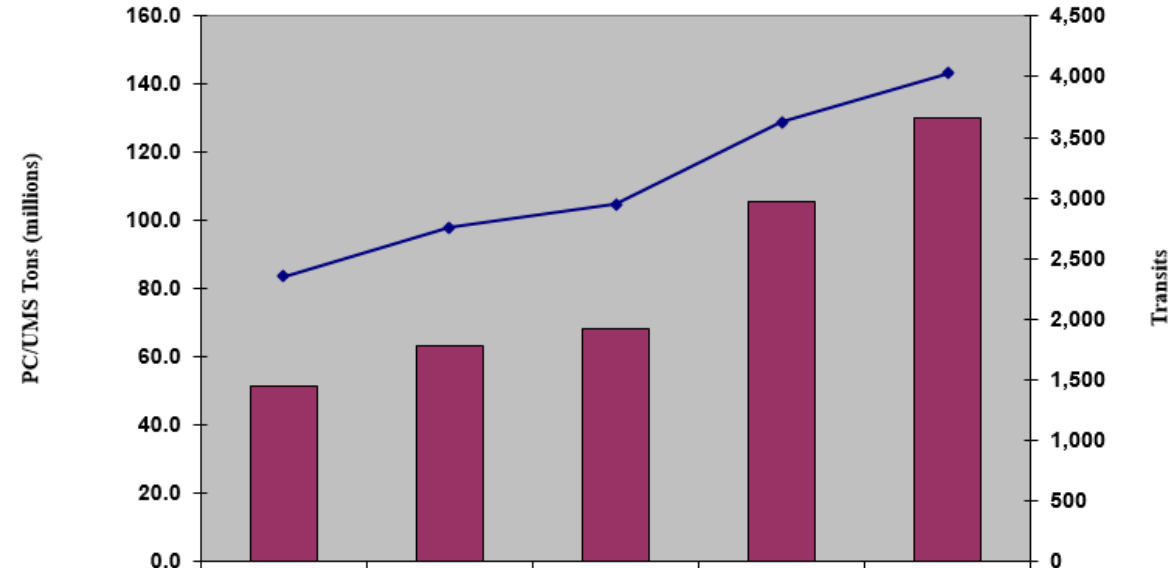
The enhanced loyalty program seeks to provide tariff benefits to the full container segments customers in light of today's market conditions in the maritime industry, while improving the competitiveness of the Panama Canal in the main trade routes. Furthermore, this program encourages TEU volume traffic growth by means of additional service deployments or increase in vessel size. The new categories in this program improve the offer of this segment making the Canal route more attractive to clients.

The proposed adjustments provide additional incentives for this segment. The tolls structure for the full container segment, which includes a reduced tariff for total TEU loaded onboard neopanamax vessels in the return voyage (southbound transit), remains the same. This structure will continue to encourage the deployment of neopanamax vessels, delivering savings to clients in their overall voyage costs by means of economies of scale derived from the use of larger vessels.

LIQUID BULK VESSELS

The liquid bulk segment includes tankers, chemical tankers, LPG and LNG gas carriers. These vessels transported annually nearly 28.8 per cent of the total cargo that transited the waterway during fiscal years 2014 to 2018. Likewise, this segment generated around 23.1 per cent of the total transits and an average of 22.1 per cent of PC/UMS tonnage for this period.

Historical Traffic Data for Liquid Bulk Segment
Fiscal Years 2014 - 2018



	2014	2015	2016	2017	2018
PC/UMS Tons	51.4	63.3	68.2	105.4	130.3
Transits	2,353	2,755	2,947	3,626	4,028

Source: ACP Corporate Data Warehouse

This segment has recorded an excellent growth performance from fiscal year 2014 to 2018. During this period and average growth of 27.2 percent of PC/UMS tons was registered mainly because of the beginning operations of the neopanamax locks, which has allowed larger vessel transits through the waterway.

In fiscal year 2014, the liquid bulk segment transit statistics improved from the previous fiscal year, registering a total of 2,353 transits and 51.4 million PC/UMS tons, reflecting an increase of 3 percent in the total cargo. Crude exports from Ecuador through the Panama Canal to the United States Gulf refineries and the increased exports of LPG from the United States to the west coast of Central and South America were the main drivers of this growth.

In fiscal year 2015, the liquid bulk segment registered a historical record in all its traffic indicators compared with fiscal year 2014, showing increases of 17.1 and 23.2 percent in its transits and PC/UMS tons, respectively. This milestone was due to the significant increase in laden and ballast transits with beam greater than 100 feet. Crude oil was the main cargo transported by tankers during fiscal year 2015, from movements from Ecuador to the Gulf of Mexico. Likewise, the propane growth production in North America (United States and Canada) contributed to this growth. During fiscal year 2015, LPG cargo through the Panama Canal grew by 63.9 percent compared to fiscal year 2014, from 3.2 to 5.2 million long tons of cargo, mainly for North American exports to Panama, Guatemala, Chile, Ecuador, Japan, South Korea and China.

Operations in the expanded Canal began during fiscal year 2016. As a result, panamax vessel traffic increased around 10.7 percent, especially in the 100 to 107 feet of beam range, alongside the additional neopanamax laden and ballast transits.

The liquid bulk segment was ranked in fiscal year 2017 as the second most important segment in terms of PC/UMS tonnage for the Panama Canal. Traffic statistics increased over the previous fiscal year, by 23.0 percent in transits and 54.5 percent in PC/UMS tons, mostly due to neopanamax transits of VLGC and LNG vessels.

The liquid bulk segment continued to be the second most important segment in the Canal in fiscal year 2018 in terms of PC/UMS tons. During this fiscal year, the segment registered a record transits of 4,028, surpassing the 3,966 transits of the dry bulk segment established in fiscal year 1996. This record was the result of an excellent performance in the traffic of panamax and neopanamax vessels transporting oil crude oil, LNG and LPG.

New tolls proposal

Tanker Vessels. Keep the PC/UMS unit for billing and the band toll structure of the panama and neopanamax locks, and an increase toll tariffs.

The oil tanker vessels transiting through the Panamax locks will continue to use the fixed structure based on the PC/UMS tons of the vessel. Oil Tanker vessels transiting through the neopanamax locks will continue to use a fixed-and-variable toll structure, in which the fixed toll structure is applied to the total PC/UMS of the vessel and the variable toll structure is applied to the amount of cargo in metric tons. The proposed increases are 10 percent for laden and ballast vessel in the panama locks, and 8 percent in the fixed portion of the tolls structure for vessels in the neopanamax locks in the fixed toll structure and 12 percent for the variable toll structure. The proposed increase for ballast vessels transits in the neopanamax locks is 12 percent.

The descending scale of the PC/UMS bands is designed to promote the use of larger vessels and has contributed to improve transportation efficiency as a result of economies of scale.

The main route of a panamax oil tanker vessels carrying petroleum products is United States Gulf to Chile in a vessel of approximately 48,000 deadweight tons, equivalent to 25,000 PC/UMS tons, carrying approximately 38,000 metric tons of cargo. On this route, the panamax vessel tolls would be around 0.9 percent of the cargo price on its destination.

Commodity	Vessel Size	Locks	CIF Price	Unit	Canal Cost with New Toll[3]	% of impact
Diesel[1]	48,000 DWT	Panamax	$466.47	MT	$4.03	0.9%

[1] Diesel CIF Price of the Chile National Energy Commission, June 2019. Average diesel price from the US Gulf Coast imported to Chile (January to September 2018)

[2] Other Marine Services (OMS) are not included

The main routes for a neopanamax oil tanker vessels are Colombia to ports located in the west coast of the United States and United States Gulf to Chile in vessels of approximately 110,000 deadweight tons, equivalent to 50,600 PC/UMS tons, carrying approximately 70,000 metric tons of crude oil. On these routes, the neopanamax vessel tolls would be approximately 0.8 percent of the crude oil price on its destination.

Commodity	Vessel Size	Locks	CIF Price	Unit	Canal Cost with New Toll[3]	% of impact
Crude Oil[1]	110,000 DWT	Neopanamax	$67.17	Barrel	$0.54	0.8%
Crude Oil[2]	110,000 DWT	Neopanamax	$63.96	Barrel	$0.54	0.8%

[1] Crude Oil CIF price of the Energy Information Administration, Junio 2019. Average crude oil price from Colombia imported to the United States (January to December 2018)

[2] Crude Oil CIF price of the Chile National Energy Commission, June 2019. Average crude oil price from the US Gulf Coast imported to Chile (January to September 2018)

[3] Other Marine Services (OMS) are not included

The savings from the use of the shortest route through the Panama Canal are maintained in the main oil tanker routes. This toll proposal focuses on the value provided by the Panama Canal route to the oil tanker segment without significant impact in the competitiveness of this trade.

Chemical tankers. The proposal maintains the PC/UMS unit to bill a chemical tanker vessel on its transits through the Panama Canal. It also maintains the categorization of a chemical tanker vessel based on the IMO type classification. The proposed increase is 8 percent for laden and ballast chemical tankers transits.

The main route of a panamax chemical tanker vessel carrying benzene, a chemical product transported through the waterway, is South Korea to the United States Gulf in a vessel of approximately 49,000 deadweight tons, equivalent to 24,500 PC/UMS tons, carrying approximately 38,000 metric tons of benzene. On this route, panamax vessel tolls would be around 0.4 percent of the benzene price on its destination.

Commodity	Vessel Size	Locks	CIF Price	Unit	Canal Cost with New Toll[2]	% of impact
Benzene[1]	49,000 DWT	Panamax	$855.14	MT	$3.60	0.4%

[1] Benzene CIF price. Source: Platts January 2019. Route: South Korea to the US Gulf in a chemical vessel of 49,000 DWT

[2] Other Marine Services (OMS) are not included

The toll proposal for chemical vessels is predicated upon the value provided by the Panama Canal route and does not significantly impact the competitiveness of the chemical products through the Panama Canal.

LPG Vessels. The proposal maintains the cubic meter (m^3) unit to charge an LPG vessel on its transits through the Panama Canal. It also maintains the actual band toll structure in both locks. The new proposal suggests an increase of 8 percent of the actual toll structure for laden and ballast vessels through the panama locks and 15 per cent for vessels laden and ballast transiting through the neopanamax locks.

The main route of a panamax LPG vessel originates in the US Gulf coast destined to the ports on the west coast of America, in a vessel of approximately 60,000 cubic meters of cargo capacity. On this route, the panamax vessel toll through the Panama Canal will represent around 3.4 percent of the LPG price on its destination. On the other hand, one main route for a neopanamax LPG vessels through the waterway originates in the Gulf of Mexico destined to Asia, in a vessel of approximately 84,000 cubic meters of cargo capacity. On this route, the transit through the Panama Canal will represent approximately 1.1 percent of the LPG price on its destination.

Commodity	Vessel Size	Locks	CIF Price	Unit	Canal Cost with New Toll[3]	% of impact
LPG[1]	60,000 m^3	Panamax	$156.49	TM	$5.29	3.4%
LPG[2]	84,000 m^3	Neopanamax	$551.54	TM	$6.32	1.1%

[1] LPG CIF price of the Chile National Energy Commission, June 2019. Average LPG price from the US Gulf Coast imported to Chile (January to September 2018)

[2] LPG CIF Price. Source: Global NGL Long Term Price Outlook, IHS Markit, March 2019. Average LPG price from the US Gulf Coast imported to Japan in 2018

[3] Other Marine Services (OMS) are not included

The toll proposal for LPG vessels focuses on the value provided by the Panama Canal route. The savings benefits from using the shortest route through the Panama Canal are maintained in this toll proposal for LPG vessels and it does not significantly impact the competitiveness of the LPG trade routes through the waterway.

LNG vessels. It is proposed to keep the cubic meter (m^3) unit to bill LNG vessels transits. Likewise, it is proposed maintain the current band toll structure in both locks. The proposed increase is 8 percent for laden vessels and 9 percent for ballast vessels. Likewise, an 8 percent increase is proposed for special round trip tariff.

The main route of an LNG is United States Gulf coast to Asia, in a vessel of approximately 180,000 cubic meters (m^3) of cargo capacity. On this route, the neopanamax vessel toll through the Panama Canal the proposed increase would represent around 2.4 percent of the LNG price on its destination.

Commodity	Vessel Size	Locks	CIF Price	Unit	Canal Cost with New Toll[3]	% of impact
LNG[1]	170,000 m^3	Neopanamax	$9.70	MMbtu	$0.14	1.4%

[1] LNG CIF Price. Source: LNG Waterborne Trade IHS Markit, June 2019. Average LNG price imported in Asia in 2018. Route: US Gulf Coast to Japan in a vessel of 170,000 m^3

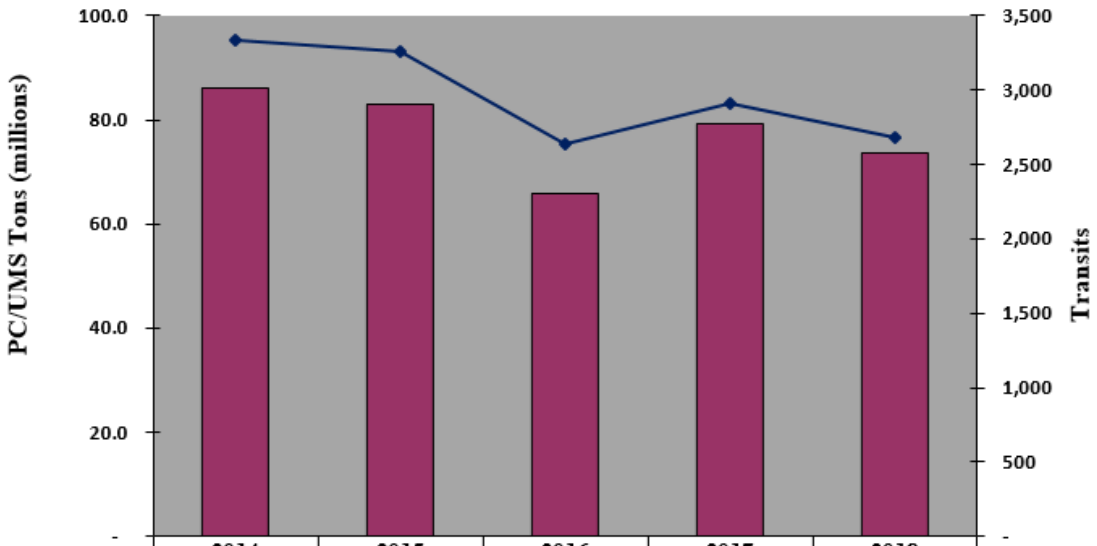
[2] Other Marine Services (OMS) are not included

The savings from using the shortest route through the Panama Canal are maintained with this proposal for laden LNG vessels from the US Gulf to the main destinations through the Panama Canal. This toll proposal is based on the value route and it does not significantly impact the competitiveness of the LNG trade through the waterway.

DRY BULK VESSELS

Dry bulk vessels contributed an average of 21.7 percent of the total PC/UMS tonnage of the vessels that transited the Panama Canal in the last five fiscal years. Bulk carriers mobilized an annual average of 43.9 percent of the total cargo through the waterway and ranked second in importance in the total of revenues. This segment is influenced by multiple commercial variables and market conditions that have an effect on the segment's performance. The value of this segment for the Panama Canal lies in its continued use of the panamax locks where 92.2 percent of its traffic is deployed. The dry bulk vessels' usage of the neopanamax locks has been modest since the opening of the expanded Canal and remains low to date, compared to other segments.

Historical Traffic Data for Dry Bulk Segment
Fiscal Years 2014 - 2018



	2014	2015	2016	2017	2018
PC/UMS Tons	86.0	82.9	65.8	79.1	73.7
Transits	3,339	3,264	2,634	2,915	2,686

Source: ACP Corporate Datawarehouse

During fiscal years of 2014 to 2018 the dry bulk segment showed mixed results with a downward trend. The maritime dry bulk cargo market has been impacted by external and internal variables affecting its share and performance on the Canal route. The PC/UMS tonnage and transits decreased mostly due to the use of alternate routes such as the Cape of Good Hope and more recently, Cape Horn and the Strait of Magellan. The use of alternate routes is a response to external variables such as fleet overcapacity – which impacts charter rates - in addition to low fuel prices. The aforementioned variables decrease the competitiveness of the Canal route relative to other trade routes.

Of the dry bulk segment commodities that mostly use the Panama Canal route, grains from the Gulf of Mexico to Asia have recorded the greatest deviation since fiscal year 2015. The operational maximum draft limitations in both panamax and neopanamax locks has been

detrimental to the use of the route, since vessels must lower their utilization to comply with the established drafts, impacting the parcel size of the shipments of some commodities such as coal and grains.

After three fiscal years since the opening of the expanded Canal, shipments of iron ore have concentrated in vessels that use the panamax locks; however its use of the Panama Canal is low compared to other commodities.

Ballast vessels in the dry bulk segment recorded mixed results during the period, mostly deploying in the panamax locks. For the neopanamax locks, ballast vessels in the dry bulk segment represent almost half (approximately 47 percent) of the transits with beam ranges of 120 to 140 feet and 140 feet or more.

New tolls proposal

The tolls adjustments implemented in 2016, just before the opening of the expanded Canal, intended to increase the demand for this new infrastructure by encouraging new commercial routes and ballast vessels repositioning. The iron ore tolls rates implemented then were highly competitive. Likewise, very attractive rates were implemented for vessels in ballast to encourage the use of both locks for vessels repositioning.

After three years of operation of the expanded Canal, the Panama Canal has gained valuable experience in its operation and understanding of the trade dynamics related to this segment. Consequently, it was deemed necessary to adjust this segment's tolls.

This proposal seeks to maintain service levels at the neopanamax locks and focus efforts on meeting the demand of those market segments that use it regularly. To this end, it is proposed to adjust neopanamax rates for vessels that transport iron ore, equating its tolls to those of grains and other, an approximate increase of 14 and 17 percent, depending on the volume of cargo transported. The Panama Canal remains hopeful that the proposed adjustment maintain the optimum levels of service required for safe and expeditious transits. Iron ore deployments through the neopanamax locks is low relative to other commodities and not likely to improve due to the current market dynamics, its origin sources, top-off operations in Trinidad and Tobago and Panama Canal operational restrictions.

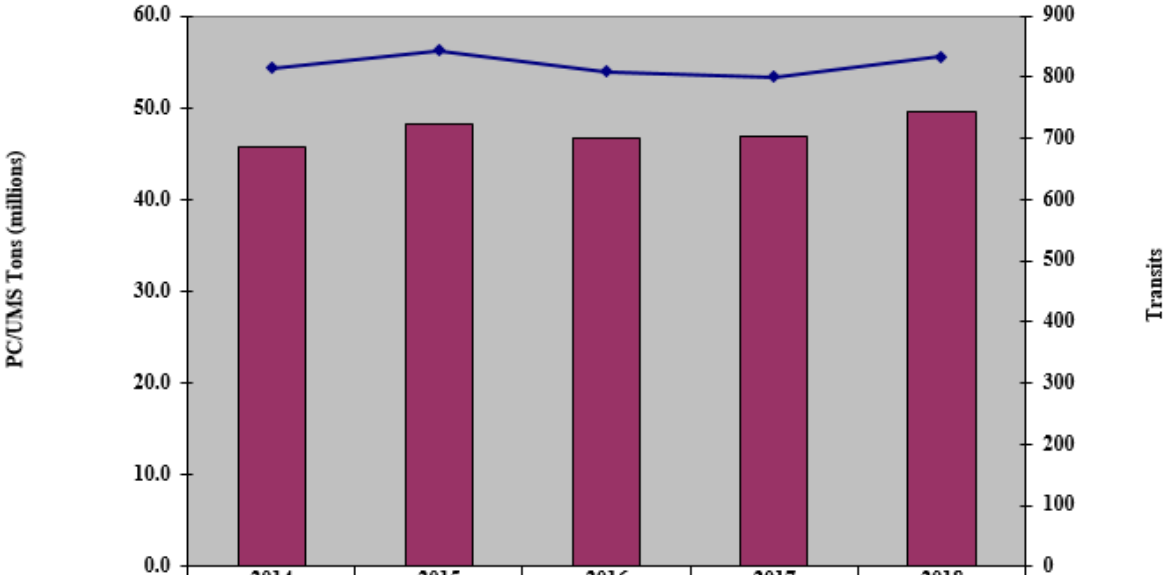
For vessels in ballast, an increase of around 25 to 27 percent is proposed in the last two bands, which mainly impacts the neopanamax vessels, in order to maintain service levels at the locks, while establishing a toll more attuned with the reality Canal operations and the resources used to provide an expeditious and safe transit service.

The proposal does not include any adjustment on the tolls for the panama locks in order to preserve the competitiveness of the route by continuing to encourage the use of these locks in the transportation of dry bulk commodities.

VEHICLE CARRIERS AND RORO VESSELS

During fiscal years 2014 to 2018, vehicle carriers and RoRo vessels accounted for 13.0 percent of the total PC/UMS tons of the Panama Canal tonnage and generated on average 6.1 percent of total transits.

Historical Traffic Data for Vehicle Carrier / RoRo Segment
Fiscal Years 2014 - 2019



	2014	2015	2016	2017	2018
PC/UMS Tons	45.8	48.2	46.8	46.8	49.6
Transits	815	844	809	801	834

Source: ACP Corporate Data Warehouse

The vehicle carriers/RoRo segment has shown an upward trend for aforementioned 4-year period, the major driver being the rebound of light vehicle and heavy equipment sales in the United States. A comparison of fiscal year 2014 and fiscal year 2018, shows 2.4 million long tons transported via the Panama Canal to the U.S. market in 2018, a 0.4 million long tons increase relative to fiscal year 2014.

Fiscal year 2018 was an outstanding period for the vehicle carriers/RoRo segment in the Canal, relative to fiscal year 2017, with record-setting PC/UMS tonnage. Transits and tonnage for fiscal year 2018 were 834 transits and 49.5 million PC/UMS tons, reflecting increases of 4.1 and 5.9 percent, respectively, relative to the prior year.

Cargo transported via the Panama Canal increased relative to fiscal year 2017. The segment registered 5.3 million long tons in fiscal year 2018, a 9.9 percent increase over the 4.8 million long tons registered the previous year.

Although the performance recorded in fiscal year 2018 compared to the same period of the previous fiscal year was due to the increase in exports of heavy equipment and cars, it is noteworthy that this trend may be transitory. Auto sales in the United States decreased 2.8 percent in 2017 compared to the same period in the prior year, registering 17.2 million vehicles sold, a sign that the automotive boom cycle of seven consecutive years had ended.

New toll proposal

The last tolls adjustment in this segment was in 2015, which included a significant change in the structure of this segment - the introduction of a matrix considering utilization and vessel size. In light of fleet and market conditions at the time, no locks differentiated tariffs were implemented; however, an incentive was established for vessels with low utilization.

For this proposal the competitive analysis of this segment were updated along with the analysis of the vehicle carrier world fleet, including traffic evolution for the last three years. Based on this update, the proposed adjustments are in line with market conditions of the automobile and heavy equipment trade.

This proposal adjusts the tolls structure and in addition, brings forth the following changes:

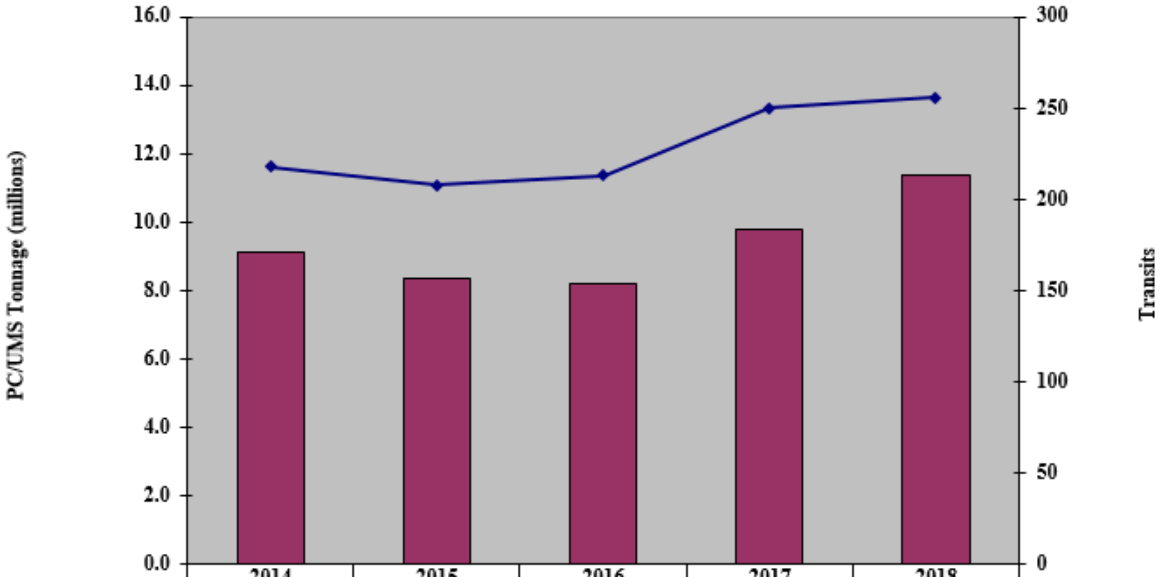
- Adjustment in the second and third vessel size ranges in PC/UMS to reflect current deployment in the segment.
- Creation of a new neopanamax range.

The proposed adjustments differ in magnitude attuned for factors such a size and utilization ranges, segment competitiveness, vessel characteristics in the various size ranges and trade patterns involved. For example, for vessels with utilization in the 0 to 9.99% range, the lower tariff incentive is maintained but adjusted 15 percent upward. Furthermore, vessels in the size range 0 – 25,000 PC/UMS tons are also adjusted upward to reflect a similarity to vessels that are not “PCC/PCTC/LCTC or RoRo” according to their market trade activities. The neopanamax differentiation reflects a 10 percent increase in the size range equal to or greater than 64,501 PC/UMS.

PASSENGER VESSELS

During fiscal years 2014 to 2018, passenger vessels accounted for 2.5 percent of the total PC/UMS Panama Canal tonnage and generated on average 1.7 percent of total transits.

Historical Traffic Data for Passenger Segment
Fiscal Years 2014 - 2018



	2014	2015	2016	2017	2018
PC/UMS Tons	9.1	8.4	8.2	9.8	11.4
Transits	218	208	213	250	256

Source: ACP Corporate Data Warehouse

The passenger segment showed an upward trend for the fiscal period 2014-2018, with the exception of fiscal years 2015 and 2016, when PC/UMS tonnage decreased due to a traffic reduction of panamax vessels. In 2015, there was a sharp decrease in the number of transits and PC/UMS tonnage, mainly due to itinerary adjustments by some cruise lines. In 2015 and continuing into 2016, the PC/UMS tonnage remained stable at 8 million tons.

During the cruise season 2017-2018, the passenger ship traffic through the Panama Canal experienced a boom performance when compared to the previous period. The segment recorded 256 transits (204 full transits and 52 turnarounds), 6 transits more than the 250 transits during the previous fiscal year (190 full transits and 60 turnarounds). Total number of passengers was in 299,363 or 23.8 percent more than the 241,843 registered during fiscal year 2017.

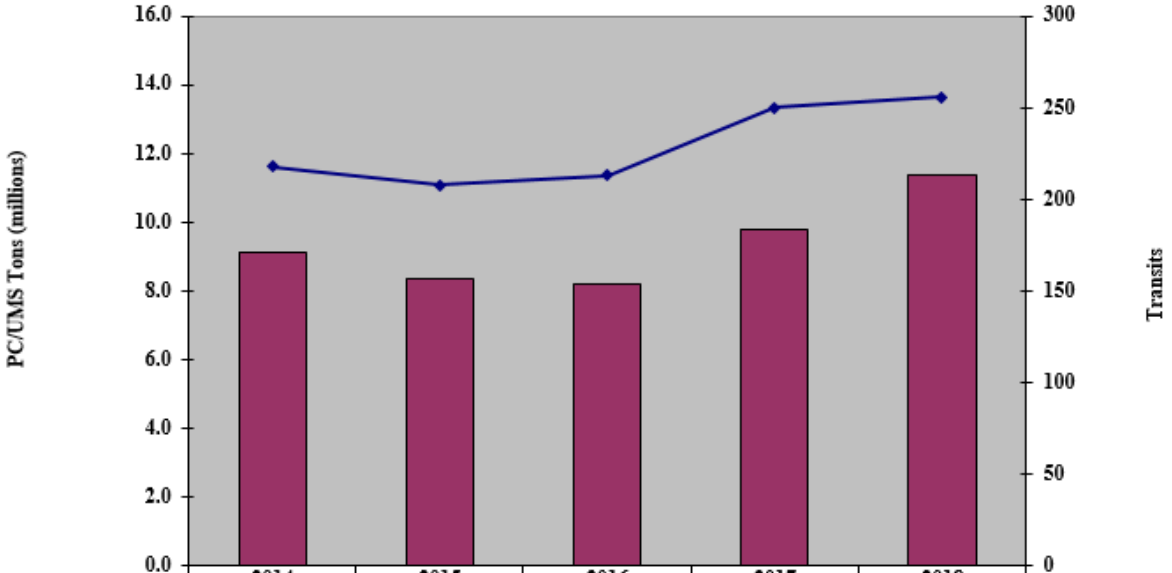
New toll proposal

During this year feedback was received from important clients in this segment, mostly about the measurement unit in use since 2007. The passenger vessels tolls are currently calculated based on berth maximum capacity, which according to the latest feedback, is not necessarily aligned with the trade parameters needed to properly transfer the costs involved. Therefore, it is proposed that this unit of measurement be changed to maximum passenger capacity (PAX) to add transparency to the tolls structure of this segment.

The proposed modification entails a tolls structure based on passenger number ranges which required a thorough analysis of transit statistics in this segment for a proper transition from the current structure. It is proposed that the parameter in which vessels greater than 30,000 gross tonnages (ITC 69), whose (PC/UMS)/PAX ratio is less than or equal to 33 shall pay tolls on a per maximum passenger capacity basis (PAX).

To summarize, the proposed changes entail increases in the tariffs per passenger in the panamax locks of 3 percent and 2 percent for laden vessels and vessels in ballast, respectively; and a 12 percent increase in the neopanamax locks. The tolls based on PC/UMS for the panamax locks would be increased 5 percent for vessels in laden and ballast conditions. Likewise, there are proposed adjustments in the PC/UMS bands to better reflect the representative size of these vessels.

Historical Traffic Data for Passenger Segment
Fiscal Years 2014 - 2018



	2014	2015	2016	2017	2018
PC/UMS Tons	9.1	8.4	8.2	9.8	11.4
Transits	218	208	213	250	256

Source: ACP Corporate Data Warehouse

TEU ON DECK

Differentiation of the TEU tariff applicable to non-container vessels carrying containers on-deck

Currently, there is a single tariff of $ 90.00 per TEU carried on-deck on non-container vessels regardless the container condition or type. This tariff applies mainly to the following vessels: general cargo, refrigerated cargo, and others; although this tariff is also applicable with less frequency to dry bulk carriers, vehicle carriers and passenger vessels.

The traffic indicators of general cargo and refrigerated cargo segments have showed a downward trend in recent years due mainly to their fleet age and the high competition from container vessels. This is reflected by the increased capacity allocated by the neopanamax liner services that serve the route from the West Coast of South America to Europe and Asia to the East Coast of the United States, routes of greater relevance for the segment of refrigerated cargo and general cargo, respectively.

These vessels operate under a "tramp" scheme, in which they usually strive in the return voyage to transport any type of cargo, including empty containers that may contribute to cover their voyage costs. The main operators of these segments in the last toll proposal requested a differentiated TEU tariff rate for empty TEU in order to improve their profitability.

New toll proposal

It is proposed to maintain the current structure based on PC/UMS and displacement tons ranges, and to apply a differentiated TEU toll tariff for empty, loaded dry and loaded reefer TEU for non-container vessels that carry containers on-deck. By keeping the current tariff per PC/UMS ton for general cargo, refrigerated cargo and others vessels, and differentiating the tariff by TEU empty and TEU loaded dry and reefer, the tariff applied would be better aligned to trade patterns without affecting its competitiveness.

The impact of this proposal will depend on the segment and the TEU type transported.

For example, for a general cargo vessel with 11,174 PC/UMS and 21 TEU on deck: 1 TEU loaded reefer, 19 TEU loaded dry and 1 TEU empty, the impact would be less than 0.30 percent of the total toll. Accordingly, we consider that the proposed new toll do not affect the competitiveness of the route for the products transited through in such vessels.