

# MOL ACE

## PROFILE

2018-2019  
Guide to MOL ACE Service





# REDESIGNING THE SHIPPING BUSINESS

## Designing a New Model for Ocean Transport

At MOL ACE, we believe the essence of ocean transport is to add value to products and services, not simply to collect freight charges from customers and carry automobiles, trucks, construction machinery, and so on from Point A to Point B.

All over the world, vessels sailing under the MOL ACE brand are united in creating, or we like to think, designing the optimum services not only for our business partners, but also for society and consumers, by maximizing the value of every cargo aboard every vessel.



**GOOD DESIGN  
AWARD 2018**

MOL ACE next-generation car carrier FLEXIE series  
receive "Good Design Award 2018."



# WHO IS MOL?

An excellent and resilient multi-modal transport group that leads the world shipping industry

MOL is a multi-modal transport group that meets the needs of the times in the various fields—operating car carriers, of course, but also a full range of bulkships that transport iron ore, coal, woodchips, and so on, tankers that carry crude oil, petroleum products, and chemicals, and liquefied natural gas (LNG) carriers that supply energy to the world. MOL's activities—continually expanding with the world's largest fleet, backed by a solid track record, the most advanced technology, and 130 years of history—have no national borders. We contribute to the growth of the global economy, while always evolving into an excellent and resilient corporate group, building an ever-larger presence on the world stage.

## MOL Group Corporate Philosophy

As a multi-modal transport group, we will:

- + actively contribute to global economic growth and development, anticipating the needs of our customers and the challenges of this new era
- + strive to maximize corporate value through creativity, operating efficiency and promotion of ethical and transparent management
- + nurture and protect the natural environment by maintaining the highest standards of operational safety and navigation

## What is MOL ACE?

The MOL Group operates its car carrier services under the global brand of MOL Auto Carrier Express (MOL ACE)



MOL ACE is the MOL Group's unified global brand for its car carrier services, drawing upon the group's worldwide marketing capabilities and an ongoing commitment to safe, reliable, high-quality services that precisely meet customer needs. MOL ACE brand car carriers build on the MOL Group tradition of ongoing advances in environmental protection and new technology, and set the stage for further expansion in today's global market.

## About Our Services

### A car carrier network crisscrossing the globe

The MOL ACE fleet is comprised mainly of Panamax-class\* vessels that can call at ports all over the world.

※The largest vessels that can transit the Panama Canal.

### MOL ACE services don't stop at the water's edge

MOL offers a wide variety of global value-added services that go beyond ocean transport.

- Europe: Intra-Europe short-distance services by Euro Marine Logistics NV (EML)
- Asia: Logistics services such as terminal operation, cargo handling, and land transport

# WHAT'S FLEXIE?

Redesigned inside and out. A flagship to highlight the new MOL ACE brand

FLEXIE is the new flagship of MOL ACE, launched in 2018, designed to address drastic changes in the ocean shipping market brought about by worldwide economic shifts and diversifying customer needs. This complete re-designing of the conventional car carrier delivers the flexibility to more effectively serve customers and offer new value to society. The redesign covered three aspects of "customers (society)," "hardware," and "software."

Even the hull, with its conventionally simple design, was visually renewed with a bold look, featuring the letter "A", and a white line, which expresses MOL's determination to connect its long history of customer service to the future in a seamless manner.

### What is a Car Carrier?

Car carriers are specially designed to transport various types of vehicles, from passenger cars to construction machinery.

○Size

Length: 200m/Breadth: 32m/Height: 50m ≒ Same height as MOL Head Office building (16 floors)

○Capacity

6,800 units (standard passenger cars) ≒ Same capacity as Tokyo Disneyland parking area



## 1 Design for Customers (Society)

Completely new visually, more functional, allowing greater flexibility in cargo loading. (Loading efficiency is 6.25% higher)

- Number of liftable decks was increased
- Bulkhead (BHD)-free design, giant ramp structure were introduced

## 2 Design from Hardware Aspect

Environment-friendly vessel encompassing MOL's latest eco technologies. (CO2 emissions per vehicle are 13.7% lower than conventional car carriers)

- FLEXIE adopts many environment-friendly technologies that were developed in the MOL Group's "Senpaku-ISHIN" technology and development project.

## 3 Design from Software Aspect

Full adoption of the latest IoT technologies to optimize vessel safety and reliability.

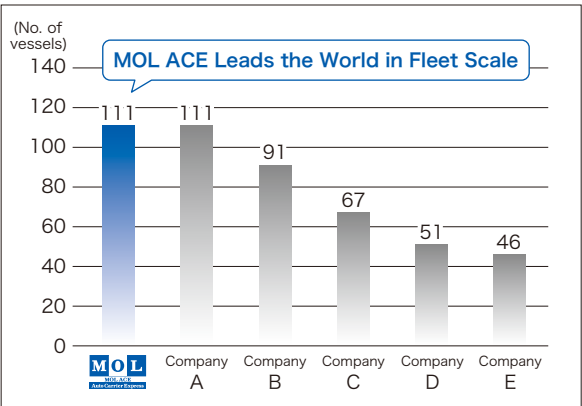
- Steering support by augmented reality (AR)
- Advanced engine vibration diagnosis technology

## FLEET LIST

NO	VESSEL NAME	RT	BUILT	NO	VESSEL NAME	RT	BUILT	NO	VESSEL NAME	RT	BUILT
1	COUGAR ACE	6400	Oct-1993	36	PRIMROSE ACE	6400	Apr-2007	71	VIOLET ACE	4900	Apr-2011
2	PEARL ACE	4900	Mar-1994	37	WISTERIA ACE	6400	May-2007	72	NOBLE ACE	6400	Jun-2011
3	LUMINOUS ACE	4900	Jan-1995	38	SANDERLING ACE	6400	Jun-2007	73	AZALEA ACE	3900	Jun-2011
4	POLARIS ACE	4900	Oct-1997	39	ANDROMEDA SPIRIT	3900	Jul-2007	74	MERCURY ACE	6400	Jul-2011
5	EURO SPIRIT	4900	Mar-1998	40	ISTRA ACE	4900	Aug-2007	75	ETERNAL ACE	6400	Jul-2011
6	PEGASUS ACE	3600	May-1998	41	NORDIC ACE	2100	Nov-2007	76	VICTORIOUS ACE	6400	Aug-2011
7	WORLD SPIRIT	3800	Oct-1998	42	SWALLOW ACE	6400	Nov-2007	77	GARDENIA ACE	3900	Sep-2011
8	COSMOS ACE	4900	Oct-1998	43	SWAN ACE	6400	Feb-2008	78	CATTLEYA ACE	6400	Sep-2011
9	BRAVERY ACE	5400	Jan-2000	44	AQUAMARINE ACE	6400	Mar-2008	79	IRIS ACE	3900	Sep-2011
10	PALMELA	6000	Feb-2000	45	ORCHID ACE	6400	Apr-2008	80	OPAL ACE	6400	Nov-2011
11	COMET ACE	3600	Feb-2000	46	SWIFT ACE	6400	May-2008	81	CARNATION ACE	6400	Nov-2011
12	TRIUMPH ACE	6000	Mar-2000	47	AMETHYST ACE	6400	Jun-2008	82	SUPREME ACE	6400	Dec-2011
13	FRONTIER ACE	5400	Mar-2000	48	SERENITY ACE	6400	Aug-2008	83	GLOVIS CLIPPER	6400	Feb-2012
14	UNITED SPIRIT	3900	Apr-2000	49	SALVIA ACE	4100	Aug-2008	84	ONYX ACE	6400	Feb-2012
15	ASTRAL ACE	3600	May-2000	50	LAVENDER ACE	6400	Oct-2008	85	GENUINE ACE	6400	Mar-2012
16	MERIDIAN ACE	6000	Jun-2000	51	CLOVER ACE	6400	Nov-2008	86	CRYSTAL ACE	6400	Apr-2012
17	PRESTIGE ACE	6000	Sep-2000	52	SUNRISE ACE	6400	Dec-2008	87	LEO SPIRIT	6400	Jun-2012
18	HEROIC ACE	6400	Jun-2003	53	PLEIADES SPIRIT	6400	Dec-2008	88	GRACIOUS ACE	6400	Jun-2012
19	COURAGEOUS ACE	6400	Mar-2003	54	SUNSHINE ACE	6400	Mar-2009	89	EMERALD ACE	6400	Jun-2012
20	SPLENDID ACE	6400	Sep-2003	55	ADRIA ACE	4900	Mar-2009	90	VALIANT ACE	6400	Aug-2012
21	MARTORELL	6400	Sep-2003	56	SUNLIGHT ACE	6400	Jun-2009	91	GLOVIS CARAVEL	6400	Sep-2012
22	PROGRESS ACE	6400	Nov-2003	57	SINCERITY ACE	6400	Sep-2009	92	GALAXY ACE	6400	Oct-2012
23	PROMINENT ACE	6400	Jan-2004	58	TRITON ACE	6400	Oct-2009	93	DIVINE ACE	6400	Jan-2013
24	PARADISE ACE	6400	Sep-2004	59	MARGUERITE ACE	6400	Oct-2009	94	WISDOM ACE	6400	Jun-2013
25	LIBERTY ACE	6400	Nov-2004	60	TRANQUIL ACE	6400	Nov-2009	95	PRIME ACE	6400	Mar-2014
26	FREEDOM ACE	6400	Feb-2005	61	RUBY ACE	6400	Dec-2009	96	BROOKLANDS	7400	Jan-2017
27	EMINENT ACE	6400	May-2005	62	ELEGANT ACE	6400	Feb-2010	97	BELUGA ACE (FLEXIE)	6800	Mar-2018
28	FELICITY ACE	6400	Oct-2005	63	MERMAID ACE	6400	Mar-2010	98	ORCA ACE (FLEXIE)	6800	Jul-2018
29	EUPHONY ACE	6400	Nov-2005	64	GARNET ACE	6400	Jun-2010	99	WALRUS ACE (FLEXIE)	6800	Nov-2018
30	GRAND COSMO	6400	Jan-2006	65	BERGAMOT ACE	4100	Jul-2010	100	Before Delivery (FLEXIE)	6800	Mar-2019
31	MARVELOUS ACE	6400	Jan-2006	66	PRECIOUS ACE	6400	Jul-2010				
32	GRAND ORION	6400	Feb-2006	67	GLORIOUS ACE	6400	Jul-2010				
33	MIRACULOUS ACE	6400	Jun-2006	68	DIGNITY ACE	6400	Sep-2010				
34	FIRMAMENT ACE	6400	Aug-2006	69	NEPTUNE ACE	6400	Oct-2010				
35	LUNA SPIRIT	3900	Apr-2007	70	BRILLIANT ACE	6400	Mar-2011				

As of September 2018

Car Carrier Fleet Scale (as of March 2018) ※Source: MOL survey



# WORLD WIDE MOL ACE NETWORK

## MOL ACE offers the highest-quality services all over the world

The MOL ACE office and agency network covers about 140 countries of the world, supporting operations of its world-leading car carrier fleet (about 110 vessels group-wide) on a global scale. Four offices in Japan, the U.S., Germany, and Thailand are positioned as Area Management Offices, managing MOL ACE offices in each area to promote smooth cooperation and share information.

### HEAD OFFICE

## HEAD OFFICE/TOKYO

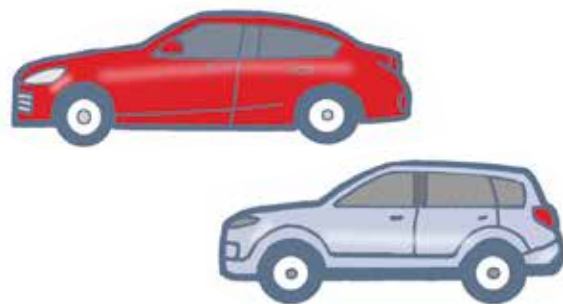
- Americas Team
- Europe Team
- Asia•Oceania Team
- Middle East•Africa Team
- Atlantic Team
- AutoLogistics&ITSolutionTeam
- Business Co-ordination Team
- Operation Team
- Safety & Quality Control Team
- Fleet Quality Control Team
- Cargo Planning Team

<b>[JAPAN]</b>	TOKYO	WORLD TRANSPORT
<b>[CHINA]</b>	GUANGZHOU	MOL(CHINA)
	SHANGHAI	MOL(CHINA)
<b>[KOREA]</b>	SEOUL	MOL(KOREA)

### Americas

## MOL ACE (AMERICAS)/NEW JERSEY

<b>[USA]</b>	LOS ANGELES	MOBUSA
<b>[MEXICO]</b>	MEXICO CITY	MOBUSA
<b>[BRAZIL]</b>	SAO PAULO	MOL(BRASIL)



### Europe/Africa

## MOL ACE (EUROPE AFRICA)/ HAMBURG

<b>[BELGIUM]</b>	BRUSSELS	MOLEA
<b>[UK]</b>	LONDON	MOLEA
<b>[SOUTH AFRICA]</b>	DURBAN	MOL ACE(SOUTH AFRICA)

### Asia/Oceania

## MOL ACE (ASIA OCEANIA)/ BANGKOK

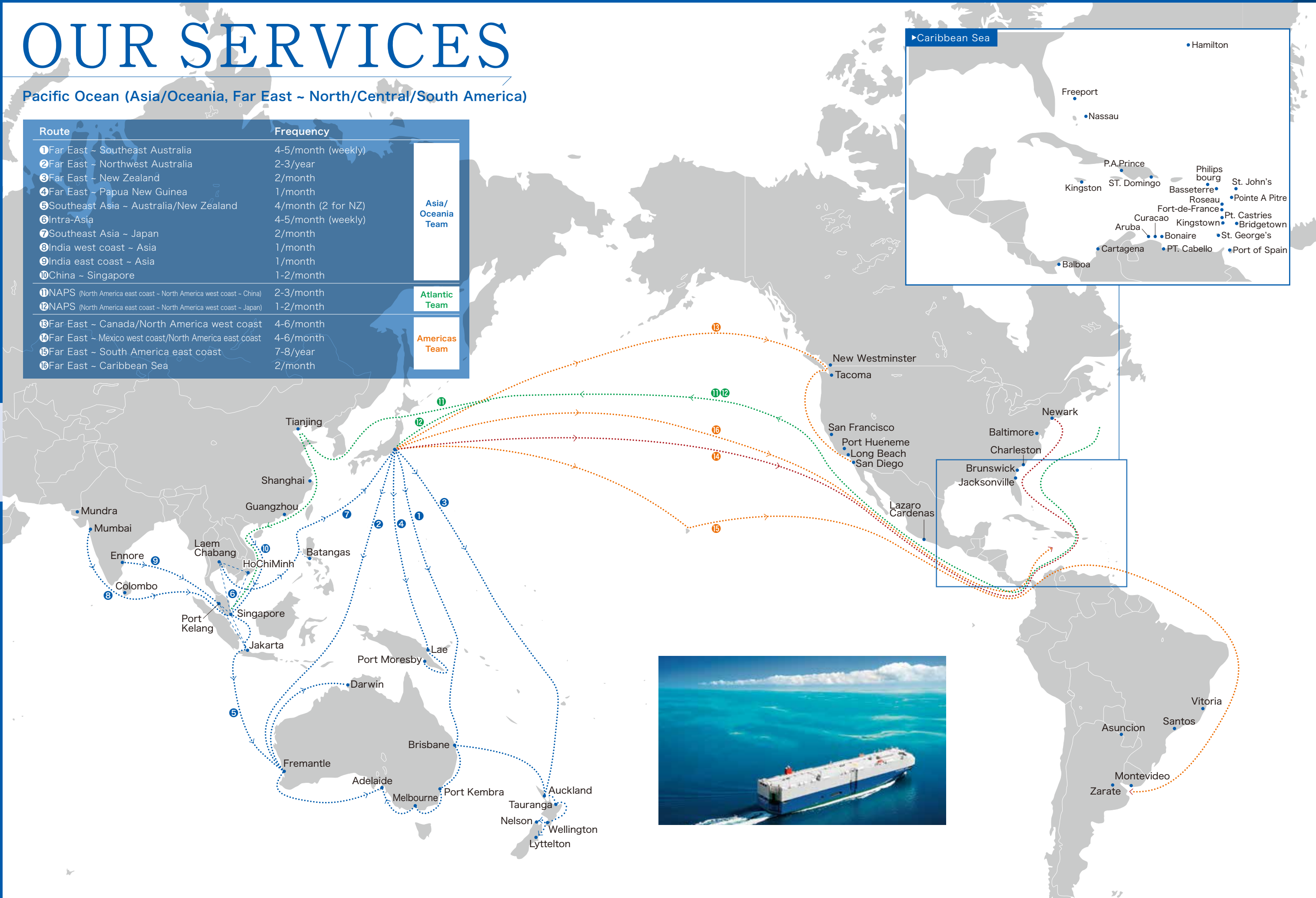
<b>[THAILAND]</b>	LAEM CHABANG	MOLBS(THAILAND)
<b>[INDIA]</b>	CHENNAI	MOLBS(INDIA)
	MUMBAI	MOLBS(INDIA)
<b>[UAE]</b>	DUBAI	MOL MIDDLE EAST FZE
<b>[SINGAPORE]</b>	SINGAPORE	MOLAO
<b>[MALAYSIA]</b>	KUALA LUMPUR	MLG(MALAYSIA)
<b>[INDONESIA]</b>	JAKARTA	MOL(INDONESIA)
<b>[VIETNAM]</b>	HO CHI MINH	MOL(VIETNAM)
	HANOI	MOL(VIETNAM)
<b>[PHILIPPINES]</b>	MANILA	MLG(PHILIPPINES)
<b>[AUSTRALIA]</b>	MELBOURNE	MOL(AUSTRALIA)
	FREMANTLE	MOL(AUSTRALIA)
<b>[NEW ZEALAND]</b>	AUCKLAND	MOL(NEW ZEALAND)



# OUR SERVICES

Pacific Ocean (Asia/Oceania, Far East ~ North/Central/South America)

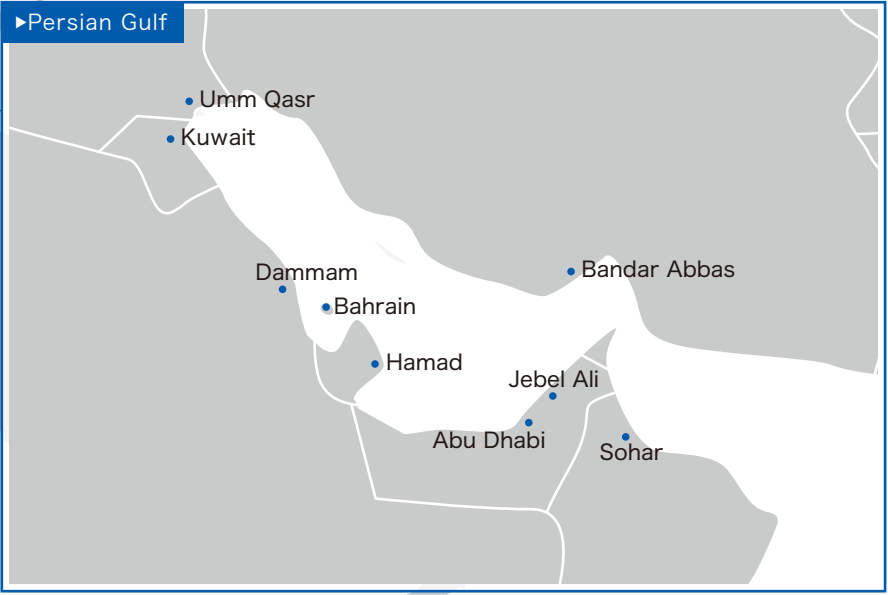
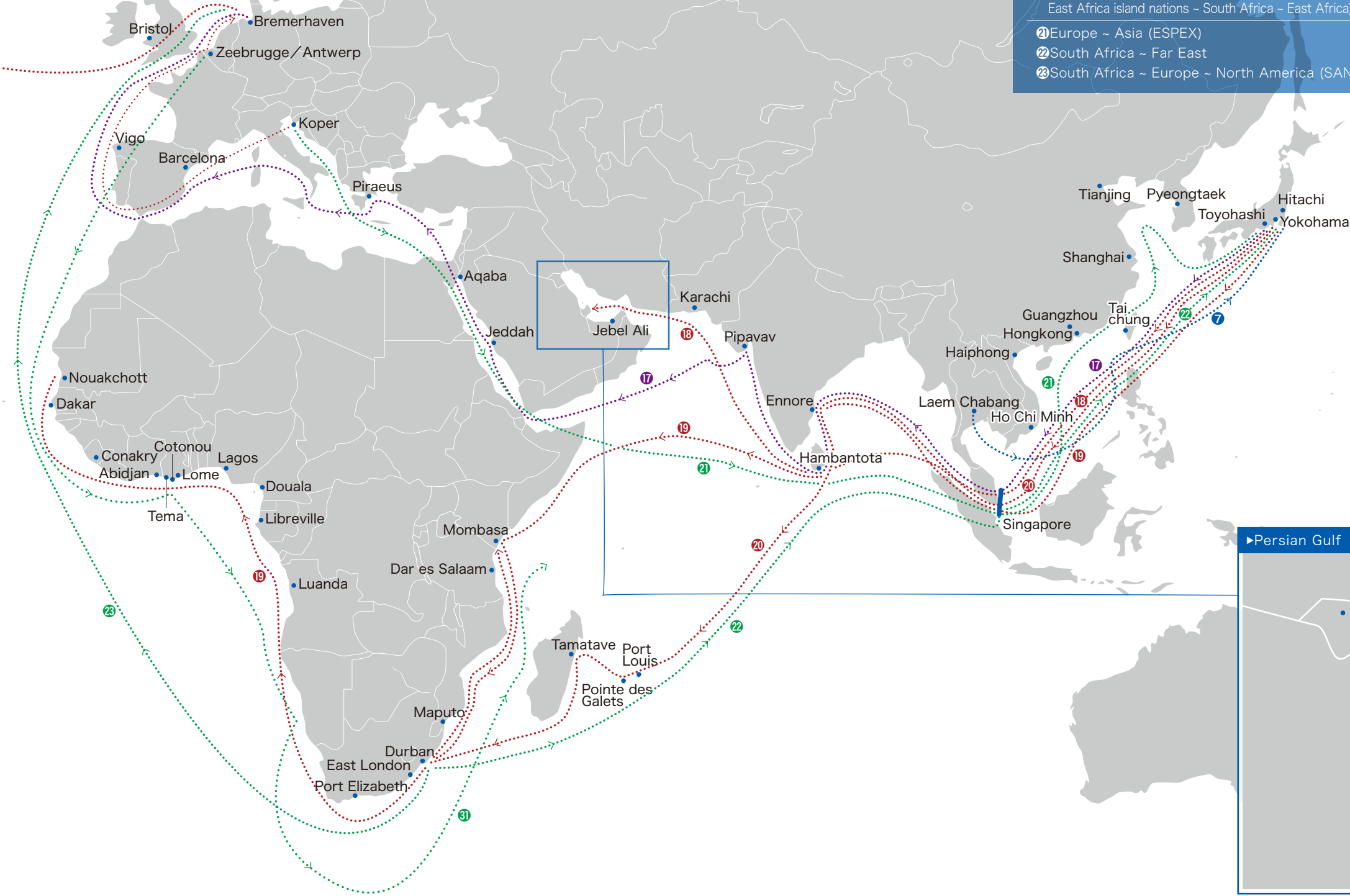
Route	Frequency	
1 Far East ~ Southeast Australia	4-5/month (weekly)	Asia/ Oceania Team
2 Far East ~ Northwest Australia	2-3/year	
3 Far East ~ New Zealand	2/month	
4 Far East ~ Papua New Guinea	1/month	
5 Southeast Asia ~ Australia/New Zealand	4/month (2 for NZ)	
6 Intra-Asia	4-5/month (weekly)	
7 Southeast Asia ~ Japan	2/month	
8 India west coast ~ Asia	1/month	
9 India east coast ~ Asia	1/month	
10 China ~ Singapore	1-2/month	
11 NAPS (North America east coast ~ North America west coast ~ China)	2-3/month	Atlantic Team
12 NAPS (North America east coast ~ North America west coast ~ Japan)	1-2/month	
13 Far East ~ Canada/North America west coast	4-6/month	Americas Team
14 Far East ~ Mexico west coast/North America east coast	4-6/month	
15 Far East ~ South America east coast	7-8/year	
16 Far East ~ Caribbean Sea	2/month	



# OUR SERVICES

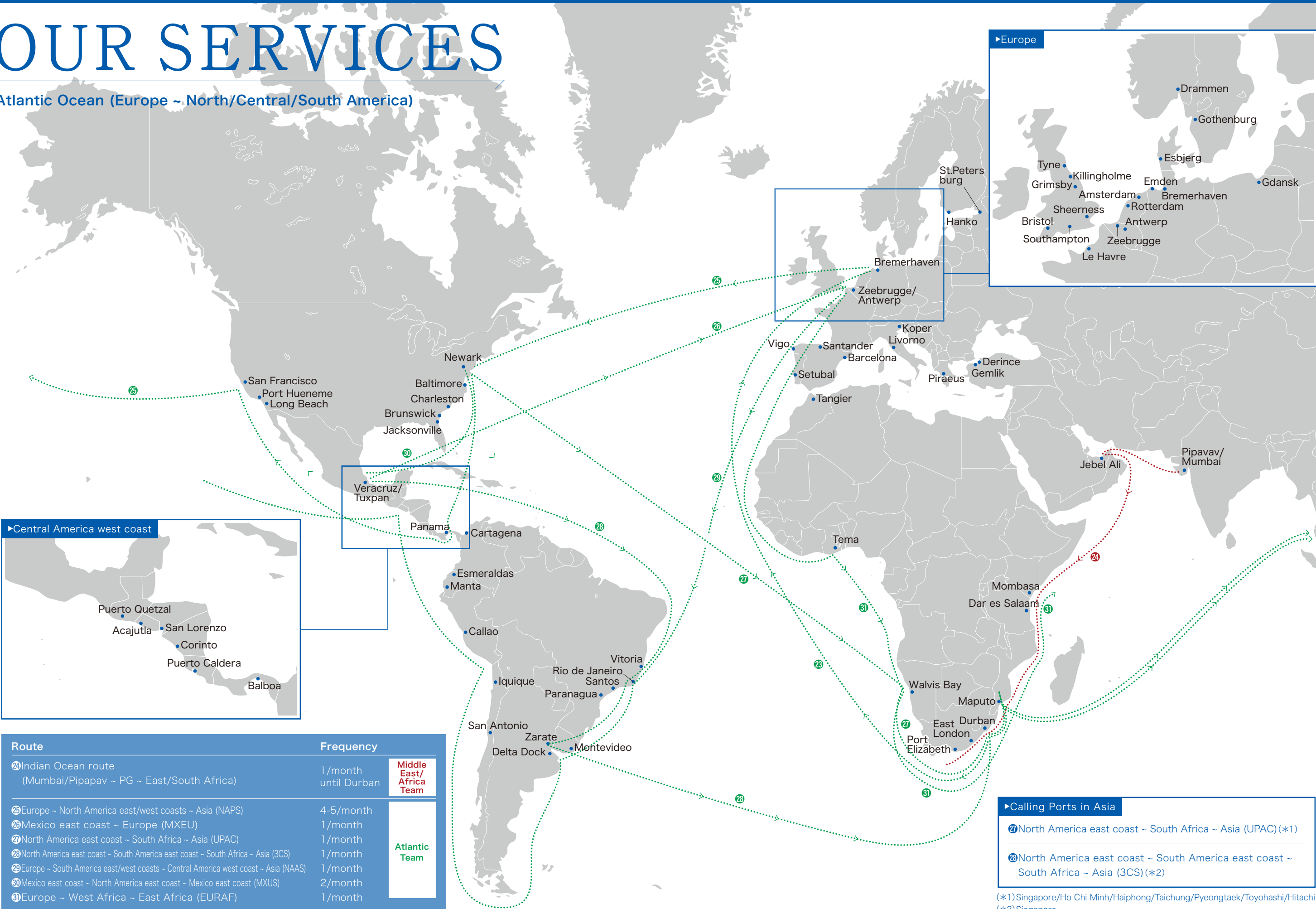
Indian Ocean (Far East ~ Europe/Africa)

Route	Frequency	
17 Far East ~ Europe	2/month	Europe Team
18 Far East ~ Middle East (Japan ~ Singapore ~ (Ennore) ~ Middle East)	2/month	Middle East/Africa Team
19 Southeast-west Africa (Japan ~ Singapore ~ Ennore ~ Southeast-west Africa)	SAF-EAF 1/month WAF 8/year	
20 Southeast Africa (Japan ~ Singapore ~ Ennore ~ East Africa island nations ~ South Africa ~ East Africa)	1/month	Atlantic Team
21 Europe ~ Asia (ESPEX)	4-5/month	
22 South Africa ~ Far East	2/month	
23 South Africa ~ Europe ~ North America (SANAPS)	2/month	



# OUR SERVICES

Atlantic Ocean (Europe ~ North/Central/South America)



Route	Frequency	
24 Indian Ocean route (Mumbai/Pipavav ~ PG ~ East/South Africa)	1/month until Durban	Middle East/Africa Team
25 Europe ~ North America east/west coasts ~ Asia (NAPS)	4-5/month	Atlantic Team
26 Mexico east coast ~ Europe (MXEU)	1/month	
27 North America east coast ~ South Africa ~ Asia (UPAC)	1/month	
28 North America east coast ~ South America east coast ~ South Africa ~ Asia (3CS)	1/month	
29 Europe ~ South America east/west coasts ~ Central America west coast ~ Asia (NAAS)	1/month	
30 Mexico east coast ~ North America east coast ~ Mexico east coast (MXUS)	2/month	Atlantic Team
31 Europe ~ West Africa ~ East Africa (EURAF)	1/month	



# OUR SERVICES

Beyond Ocean Transport

## MOL ACE services don't stop at the water's edge

### ●EML Intra Europe Route Services

Euro Marine Logistics NV (EML; located in Brussels, Belgium), which was established as a joint venture of MOL and Hoegh Autoliners AS in 2011, offers service on eight routes throughout Europe. EML meets diverse customer needs as a market leader, transporting about 1.5 million units per year with its 18 operated vessels.

EML website (<http://euro-marine.eu/>)

### ●Intra Asia Logistics Services

MOL ACE also engages in land transport of completed cars in China, Thailand, India, and other areas, terminal operation, pre-delivery inspection (PDI) services, and so on. These services can meet customer needs with made-to-order solutions that combine ocean and land transport, warehousing, and other services.



### ●Logistics Business Network

- ①Sinotrans-MOL Shipping Co., Ltd.
- ②Zero SCM Logistics (Beijing) Co., Ltd.
- ③Auto Carrier (Thailand) Co., Ltd.
- ④MOL Bulk Shipping (India) Pvt. Ltd.
- ⑤Ennore Automotive Logistics Pvt. Ltd.
- ⑥Car Terminal – Thailand (Laem Chabang)
- ⑦Car Terminal – Indonesia (Tanjung Priok)



## Initiatives on Safe Operation

### ●Establishing the Safety Operation Supporting Center (SOSC)

Four serious marine incidents involving MOL Group vessels occurred in 2006. After those incidents, MOL thoroughly investigated the causes, and in 2007, we established the SOSC, with the motto "Never let the captain get isolated." The center monitors the movement of operated vessels 24 hours a day, 365 days a year to appropriately respond to various risks associated with ship operation including external factors such as weather and sea conditions.

### ●MOL Sets the Industry Standard in Seafarer Training

Filipino seafarers serve as the core of the workforce aboard our operated vessels, and we inaugurated a new maritime academy, MOL Magsaysay Maritime Academy Inc. (MMA) in 2018, laying the groundwork for them to play an even more critical role as technology advances. MOL strives to recruit and train top-quality seafarers as it forges ahead to become the world leader in safe operation, and establishing its maritime academy in the Philippines represents a major milestone in its initiatives on safe operation. In addition, MOL operates eight MOL Training Centers throughout the world. These centers provide a variety of training, ranging from classroom lectures on theory to practical instruction using real engines and equipment and various simulators.



## Initiatives on Using LNG as Fuel

MOL takes a proactive stance in introducing LNG fuel for merchant vessels, which have the potential to significantly reduce the shipping industry's environmental impact.

### ●MOL starts development of next-generation LNG-powered coal carrier

December 6, 2017 MOL press release

### ●MOL signs deal for construction of LNG-fueled tugboat

January 26, 2018 MOL press release

September 28, 2018 MOL press release

### ●Total and MOL sign a long-term charter contract for a pioneering LNG bunker vessel

February 6, 2018 MOL press release



## Initiatives for Society

### MOL Hosts Car Carrier Tour of FLEXIE Vessel in Cooperation with Japanese Shipowners' Association (Marine Day in 2018)

MOL hosted a tour of the car carrier in cooperation with the Japanese Shipowners' Association (JSA) with the goal of giving as many people as possible—the general public, and children in particular—a deeper understanding of ships and the sea, which supports everyday life in Japan, and help them gain greater knowledge of ocean shipping. During this annual tour, children get a rare opportunity to experience this massive vessel in an up-close and personal way. MOL is honored to hear comments from some of the happy youngsters after their visit, such as, "I had the chance to actually touch equipment I would never see ordinarily," "I was amazed at how fast they loaded the vehicles, and how little space there is between them," and "I learned how many seafarers work to move such a big ship."



海と日本  
PROJECT

