

# Global Liner Performance June Report 2014



## **Content**

Executive summary	2
Global developments	3
Top 20 carriers	4
Niche carriers	5
Trade lane reliability	6
Trade lane container delivery	7
Transpacific EB	8
Transpacific WB	11
Asia-North Europe	14
Asia – Mediterranean	17
Europe – Asia	20
Transatlantic EB	23
Transatlantic WB	26
Europe-South America	29
South America – N.Europe	32
South America – Mediterranean	35
North America-South America	38
South America – North America	41
Europe - Oceania	44
North America - Oceania	46

Oceania – North America	48
Asia-Oceania	50
Oceania - Asia	53
Asia-Middle East	56
Middle East – Asia	59
Europe – Middle East	62
Middle East – Europe	65
Asia – Indian Subcontinent	68
Indian Subcontinent – Asia	71
Europe - Indian Subcontinent	74
Indian Subcontinent – Europe	77
Asia – Africa	80
Africa – Asia	83
Europe – Africa	86
Africa – Europe	88
Asia – ECSA	90
ECSA – Asia	93
Asia – WCSA	96
WCSA – Asia	99
Definitions	102
Methodology	103
Disclaimer and Copyright	108

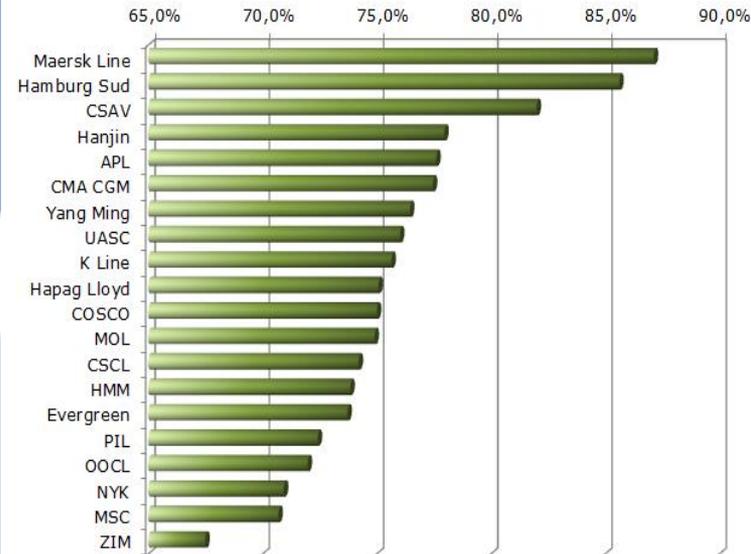
# Global Liner Performance report – June 2014

## Global Executive Summary

Global set... in May, which means that the gap between the year-on-year performance... to 6 percentage points in May. Data from INTTRA shows the... 7 percentage points, as the performance declined from... as their performance increased by 3.7, 4.4 and 4.4... remains unchanged, which means that Maersk Line, performance of 87.1%, 85.6% and 82%, respectively. All... from April to May, as CSAV, Maersk Line and... percentage points, respectively. At the other of the... reliability performance of 67.5%, 70.7% and 70.9%,... y performance of 100% on their single Transpacific

SAMPLE

Global Top 20 carrier ranking - May 2014



Source: SeaIntel - Global Liner Performance report - June 2014

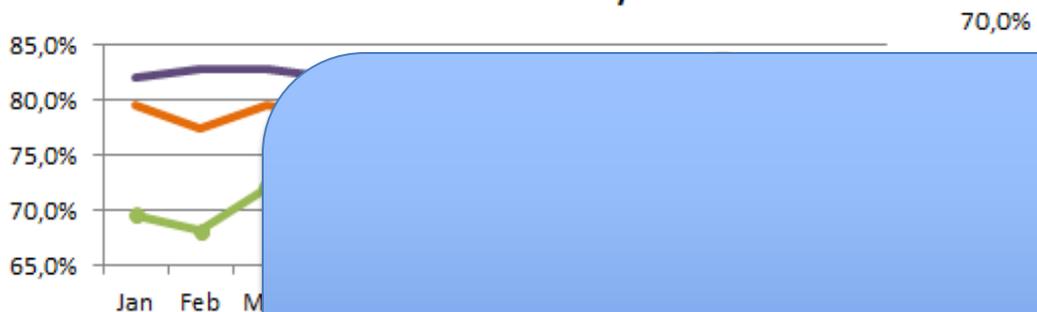
# Global Reliability Developments

## Global developments

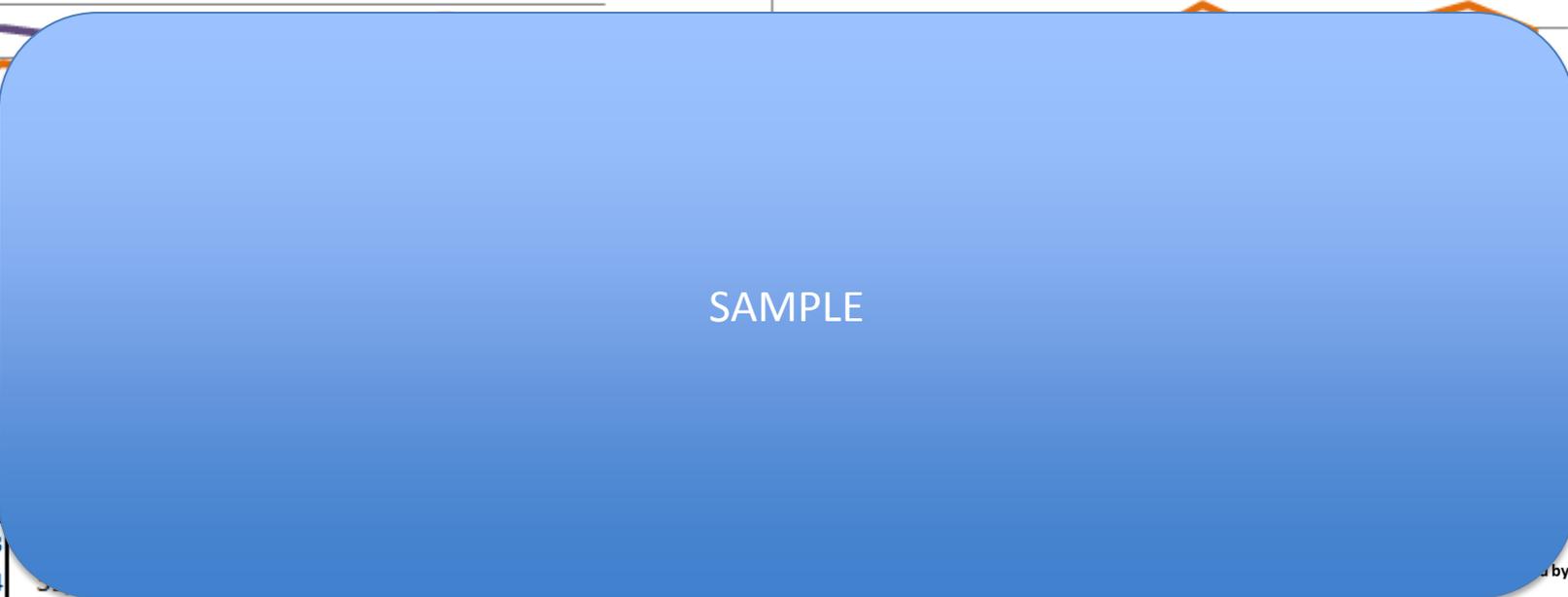
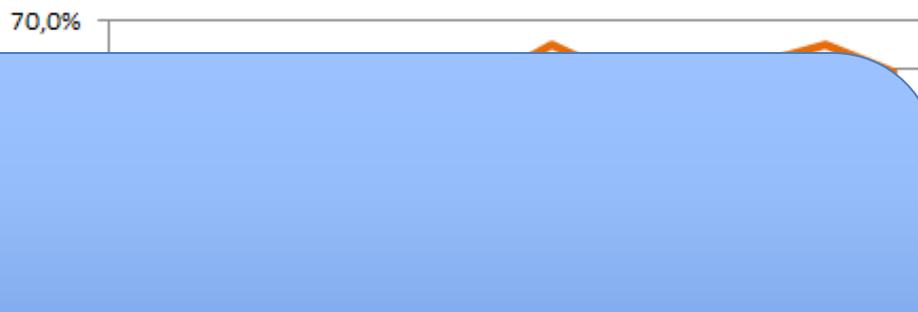
Global schedule reliability improved for the third consecutive month and thus continues to narrow the gap to the performance we recorded a year ago. Global schedule reliability increased from 73.3% in April to 75.5% in May, which means that the gap between the year-on-year performance has been narrowed from 8.8 percentage points in April to 6 percentage points in May. Last year we actually witnessed that global schedule reliability decreased slightly from April to May. Global schedule reliability in May is based on 10,677 vessel arrivals.

Data from INTTRA shows that the timeliness of global container delivery witnessed a decrease of 0.7 percentage points, as the performance declined from 56.2% in April to 55.5% in May. However, the year-on-year development shows that the difference has been narrowed since April as container delivery in May is 8.9 percentage points below the level we recorded a year ago, compared with 9.6 percentage points in April. Global container delivery in May is based on 3,201,419 containers.

Global schedule reliability



Global timely container delivery



SAMPLE

Global		2013	2014	Change	2013	2014	Change
Schedule Reliability							
Timely Container Delivery							
	Change	-10,6%	-14,8%	-5,3%	-9,6%	-8,9%	



# Top 20 carriers - Global performance

## Global developments

The improvement in global schedule reliability continues to be reflected in the Top20 carriers' performance, as 18 of the carriers have managed to improve their performance from April to May. NYK, OOCL and ZIM improved their performance the most, as their performance has increased by 3.7, 4.4 and 4.4 percentage points, respectively. It is for the third consecutive month that these three carriers improve their performance. K Line and MSC were the only two carriers that witnessed a decline in performance from April to May, as they experienced a decline of 0.3 and 0.9 percentage points, respectively.

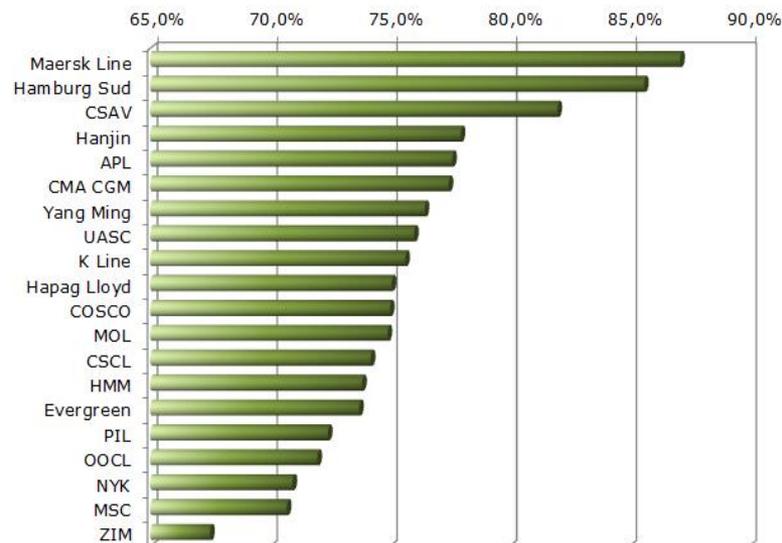
The Top-3 ranking from last month remains unchanged, which means that Maersk Line, Hamburg Süd and CSAV were the most reliable carriers in May, with a performance of 87.1%, 85.6% and 82%, respectively. All three carriers have also recorded solid improvements in their performance from April to May as CSAV, Maersk Line and Hamburg Süd have improved their schedule reliability by 2.4, 2.8 and 3.4 percentage points, respectively.

At the other of the scale we find that ZIM, MSC and NYK have achieved a global schedule reliability performance of 67.5%, 70.7% and 70.9%, respectively.

Top-20 carriers	2012-Q1	2013-Q1	2014-Q1	feb-14	mar-14	apr-14	maj-14
APL							76%
CMA CGM							76%
COSCO							
CSAV							
CSCL							
Evergreen							
Hamburg Sud							
Hanjin							
Hapag Lloyd							
HMM							
K Line							
Maersk Line							
MOL							
MSC							
NYK							
OOCL							
PIL							
UASC							
Yang Ming							
ZIM							77,5%



Global Top 20 carrier ranking - May 2014



Source: SeaIntel - Global Liner Performance report - June 2014

# Niche carriers global performance

## Global developments

Performance across niche carriers is much more diverse than seen across the global top-20 carriers. This greater diversity is partly explained by the lower number of measurements available for niche carriers – and hence uncertainty increases – and partly because niche carriers are exposed to very different markets.

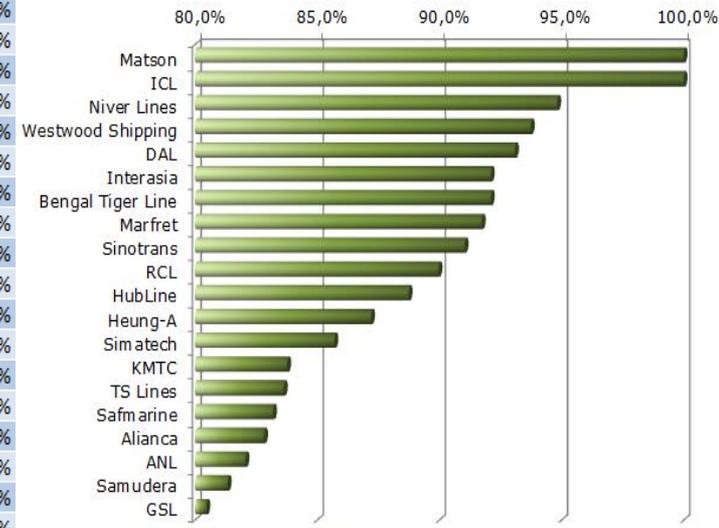
In May, Matson and ICL (Independent Container Lines) are the most reliable niche carriers, followed by Niver Lines. Matson and ICL achieved a performance of 100% on their single services on the Transpacific and Transatlantic, respectively, while Niver Lines reached a performance of 94.8%. This is the 16<sup>th</sup> consecutive month that Matson has recorded a performance of 100%.

At the other end of the scale we find Wallenius-Wilhelmsen, Arkas Line and Turkon Line, where we have recorded a performance of 9.5%, 17.7% and 17.9%, respectively.

	maj-13	mar-14	apr-14	maj-14		maj-13	mar-14	apr-14	maj-14
ACL						86,3%	63,6%	84,1%	91,7%
Alianza						100,0%	100,0%	100,0%	100,0%
ANL						37,5%	60,8%	67,9%	57,1%
Arkas Line						86,5%	92,3%	94,3%	94,8%
ARRC						89,0%	83,4%	84,9%	90,0%
Bengal Tiger Line						81,1%	66,7%	58,8%	64,6%
CCNI						85,0%	82,3%	81,6%	83,2%
DAL						86,4%	82,6%	80,0%	81,3%
Delmas							18,2%	33,3%	22,2%
Emirates						81,0%	85,1%	93,3%	85,7%
FESCO						100,0%	65,4%	64,0%	91,0%
Grimaldi						60,0%	18,2%	38,5%	56,3%
GSL						96,3%	63,0%	74,0%	83,6%
Heung-A						55,0%	36,0%	13,0%	17,9%
HubLine						88,3%	80,4%	70,3%	71,8%
ICL						37,5%	27,3%	22,7%	9,5%
Interasia						78,1%	76,9%	79,3%	77,6%
KMTC							81,3%	83,3%	93,8%
Linea Messina						87,5%	67,8%	69,6%	79,2%

SAMPLE

Top ranking niche carriers - May 2014



Source: SeaIntel - Global Liner Performance report - June 2014

# Trade lane overview – Schedule reliability

## Tradelane developments

The positive development in global schedule reliability is also reflected in the trade lane overview, as 19 trade lanes have witnessed an improvement in the performance from April to May and six trade lanes have reached the same level as in April. This means that only seven trade lanes have experienced a lower performance in May compared to April.

The three largest head haul trade lanes, Transpacific EB, Asia-North Europe and Asia to Mediterranean, have performed very differently. The Transpacific EB trade lane has improved performance by 2 percentage points, the Asia-North Europe trade lane has performed on the same level as in April, whereas the Asia-Mediterranean trade lane has witnessed a 4 percentage points decrease in performance. The development means that the Asia-Mediterranean, Transpacific EB and Asia-North Europe trade lanes remain 8, 9 and 14 percentage points below the performance we have recorded a year ago. The most significant changes we have recorded from April to May are that the WCSA-Asia, Transatlantic WB and Europe-Oceania trade lanes have increased their schedule reliability by 10, 10 and 11 percentage points, respectively.

The most significant changes continue to be seen on a year-on-year level. However, the improvement we have witnessed in schedule reliability over the past three months is also reflected in the trade lanes' annual change figures, as the number of two-digit figures has declined considerably over the past month.

Tradelane	maj-13	apr-14	maj-14	Monthly change	Annual change	Tradelane	maj-13	apr-14	maj-14	Monthly change	Annual change
Transpacific EB	82%	78%	80%	2%	2%	Transpacific WB	82%	78%	77%	3%	-10%
Transpacific WB						Asia - North Europe				2%	-8%
Asia - North Europe						Asia - Mediterranean				5%	3%
Asia - Mediterranean						Europe - Asia				1%	-7%
Europe - Asia						Transatlantic EB				-4%	-4%
Transatlantic EB						Transatlantic WB				5%	-3%
Transatlantic WB						Europe - South America				5%	4%
Europe - South America						South America - N. Europe				4%	-7%
South America - N. Europe						South America - Med.				-6%	-5%
South America - Med.						N. America - South America				-4%	-4%
N. America - South America						South America - N. America				-7%	-8%
South America - N. America						Europe-Oceania				-3%	-17%
Europe-Oceania						N. America - Oceania				3%	-9%
N. America - Oceania						Oceania - N. America				0%	-6%
Oceania - N. America						Oceania - Asia	85%	88%	91%	2%	2%
Oceania - Asia	85%	88%	91%	2%	2%	WCSA-Asia	74%	70%	85%	10%	11%

SAMPLE

# Tradelane overview – Container Delivery

## Trade lane developments

The global decrease in container delivery from April to May is not clearly visible on a trade lane level, as we see a mixed development on the individual trade lanes. Only 14 out of 32 trade lanes have witnessed a decline in performance, whereas 14 trade lanes have improved performance, and four trade lanes have reached the same performance as last month.

On the main east-west trade lanes we find that the Transpacific EB trade lane has recorded an improvement of 1 percentage point compared to April, the Asia-Mediterranean trade lane has reached the same level as in April, whereas the Asia-North Europe trade lane has witnessed a decline of 4 percentage points in the period. In the Transatlantic trade lane both directions have seen a 4 percentage points improvement in container delivery.

It must be noted that in order to allow a straight comparison to the schedule reliability, trade lane container delivery data reflect a 2-month rolling average and thus April performance is the average of March and April performance. In addition to allowing a straight comparison to schedule reliability, this approach also reduces statistical fluctuations and better shows underlying trends.

Tradelane	maj-13	apr-14	maj-14	Monthly change	Annual change	Tradelane	maj-13	apr-14	maj-14	Monthly change	Annual change
Transpacific EB	70%	68%	70%	2%	-2%	Transpacific WB	68%	68%	68%	0%	-17%
Asia - North Europe						Asia - Mediterranean				1%	-12%
Asia - Mediterranean						Europe - Asia				0%	-5%
Europe - Asia						Transatlantic EB				-5%	-10%
Transatlantic EB						Transatlantic WB				-2%	-3%
Transatlantic WB						Europe - South America				-3%	-5%
Europe - South America						South America - N. Europe				-1%	-12%
South America - N. Europe						South America - Med.				-2%	-8%
South America - Med.						N. America - South America				-13%	4%
N. America - South America						South America - N. America				-7%	2%
South America - N. America						Europe-Oceania				-7%	2%
Europe-Oceania						N. America - Oceania				5%	2%
N. America - Oceania						Oceania - N. America				-4%	1%
Oceania - N. America						Oceania - Asia				6%	-3%
Oceania - Asia											

SAMPLE

Container data provided by



# Asia – Oceania – Trade Developments

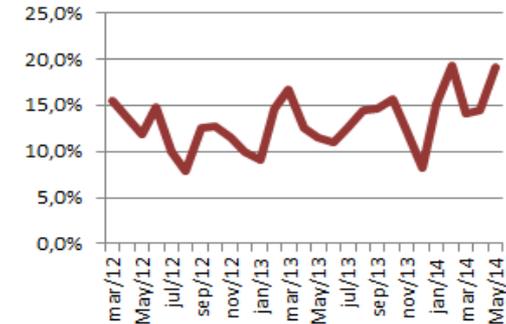
## Oceania - Asia developments

For the first time, we have now included the Asia-Oceania trade lane in the report. Schedule reliability increased for the fifth consecutive month to 90.8% as it increased by 2.4 percentage points. The development means that schedule reliability now is above the level we recorded a year ago. The timeliness of container delivery declined in the same period, as the performance decreased from 74% in April 71.8% in May, which means that the performance remains below the 2013 level.

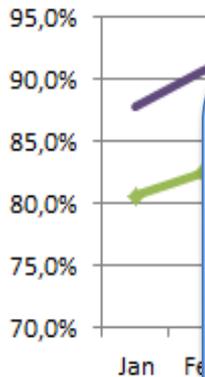
The difference among the two measures remain on a high level and is approaching a difference of 20 percentage points.

CMA CGM, PIL and ANL are the most reliable carriers in the trade lane this month with a performance of 99.3%, 98.5% and 96.6%, respectively.

Difference between schedule reliability and container delivery



Asia - Oceania schedule reliability



Asia - Oceania timely container delivery



SAMPLE

	Change	-13,3%	-12,8%	-5,5%	-5,4%	-5,5%
Schedule Reliability						
Timely Container Delivery						

# Asia – Oceania – Carrier Performance

Asia - Oceania	maj-13	jun-13	jul-13	aug-13	sep-13	okt-13	nov-13	dec-13	jan-14	feb-14	mar-14	apr-14	maj-14	6-month trend
CMA CGM	98,2%													98,2% ↑ Increasing
PIL														Increasing
ANL														Increasing
Yang Ming														Increasing
APL														Increasing
Hanjin														Increasing
Sinotrans														Increasing
OOCL														Increasing
Maersk Line														Increasing
CSCL														Increasing
RCL														Increasing
NYK														Increasing
UASC														Increasing
Hapag Lloyd														Increasing
MOL														Increasing
COSCO														Increasing
MSC														Increasing
K Line														Increasing
HMM														Increasing
Evergreen														Increasing
TS Lines														Increasing
Safmarine														Increasing
Hamburg Sud														Increasing
Swire	55,6%													55,6% ↓ Decreasing

SAMPLE

# Asia – Oceania – service specifics

Carriers	Service	# of arrivals	% on-time	Carriers	Service	# of arrivals	% on-time
ANL / CMA CGM / Maersk Line / OOCL	ANZEX / ANZEX / NZ3 / Asia Star / NZN	27				15	80,0%
COSCO / MOL / OOCL / PIL / Yang Ming	AUSE / AAB / AAA 1 / AAA 1 / AAA 1	38				37	64,9%
COSCO / MOL / OOCL / PIL	AAT / AAT / AAA 2 / AAA 2	20				8	62,5%
ANL / APL / NYK	AAX / AAX / AAX	37				21	90,5%
ANL / CMA CGM / CSCL / OOCL	AANA / AEA 2 / AUS 2 / AEA 2	20				34	88,2%
Hapag Lloyd / MOL / NYK / OOCL / PIL	NZ2 / NZX / NZS / NZS / NZS	52				24	100,0%
COSCO / Evergreen / K Line / MOL / NYK / OOCL	NAE / NEAX / AANA 2 / AEA 3 / AU 2 / ANA 2 / AEA 3	26				45	100,0%
ANL / COSCO / Evergreen / K Line / MOL / NYK / OOCL / RCL	SAS / SAS / SAS / ESACO-B / AU 1 / ANA 1 / AEA 4 / RCA	22				35	100,0%
APL / Evergreen / Hamburg Sud / Hapag Lloyd / HMM / Maersk Line / MOL / MSC / Safmarine	Northern Loop / AAN / FA 1 / Northern Loop / AU2 / New Wallaby Service / Northern Loop	60				47	100,0%
MSC	Capricorn	23				9	88,9%
APL / Hamburg Sud / Hapag Lloyd / HMM / Maersk Line / MSC	CAS / AAUS WK / AAS / FA 2 / Southern Loop / Panda service	20					



**Performance by services for Apr 2014-May 2014**

# Definition of Schedule Reliability and Container Delivery

## **Schedule Reliability:**

Schedule reliability performance is a measure of the actual on-time performance of individual vessel arrivals in ports around the world. Each month SeaIntel, measures more than 10,000 vessel arrivals on average, in more than 270 ports, which is the underlying data for the monthly global performance, as well as the individual trade lane and service performance. Please note, that trade lane and service performance is based on a two month rolling average. This means that the performance in the March report is based on vessel arrivals in both January and February.

The definition of "on time" has in accordance with the widely used calendar-day definition been settled as arrival within plus or minus 1 calendar day from the proforma schedule. While we would prefer to measure performance on a +/- 24-hour basis, this is not possible, as the majority of carriers only publish their schedules on a calendar day basis, and we as thus limited by the available data.

For more detailed information on the methodology used in calculating schedule reliability, we kindly advise our readers to consult the methodology section.

## **Container Delivery**

Container delivery performance is a measure of the actual on-time door-to-door on-time performance of individual containers delivered to customers around the world. Each month, SeaIntel's data partner, INTTRA, tracks the performance of close to 3 million containers, measuring whether the containers are delivered on-time in accordance with what was agreed on the Bill of Lading.

The difference between schedule reliability and container delivery is, that the vessel might arrive on time in the port, but the container will not be delivered to the customer on time e.g. the container cannot get through customs clearance as a number of document is missing or the truck that should deliver the container to customer is picking the container up too late and it get caught in a serious traffic jam on its way to the customer.

Please note, that trade lane performance is based on a two month rolling average. This means that the performance in the March report is based on container delivery in both January and February. The definition of "on time" has in accordance with the calendar-day definition been settled as arrival within plus or minus 1 calendar day from the proforma schedule. For more detailed information on the methodology used, we kindly advise our clients to read the methodology section.

# Methodology – part 1

## **General Methodology**

In order to benchmark the container carriers on schedule reliability, we have established a quantifiable methodology for measuring the reliability performance of ocean carriers.

For users already familiar with our methodology, we can advise that no fundamental changes have been made to the overall methodology since the report issued on 15 June 2012, although with the March 2014 report, some technical changes have been made in the way trade lane performance is calculated. These changes, as detailed below, have not affected the Global carrier scores, and have only had limited impact on trade lane scores.

## **On-time measurement**

The definition of “on time” has in accordance with the calendar-day definition been settled as arrival within plus or minus 1 calendar day from the proforma schedule.

We have from the beginning of November 2011 been recording both schedules and actual arrival times by the hour for carriers which provide this information. Additionally, we have added a fourth data source, namely information concerning actual arrival by the hour directly from some carriers.

We have been in dialogue with a number of carriers particularly on the topic of measuring on calendar day versus measuring arrivals down to the hour or minute. At SeaIntel Maritime Analysis we are of the principal opinion that data should be as detailed as possible, but also that data must be comparable. As the vast majority of container carriers do not provide schedules beyond calendar days, we have chosen to maintain our existing methodology, focusing purely on calendar days in order to ensure comparability across carriers. As more carriers provide schedules by the hour, we may revise the methodology, or include specific analysis of by the hour performance.

# Methodology – part 2

## **Global Performance**

### **\*\*\* UPDATED METHODOLOGY FROM MARCH 2014 REPORT**

Global schedule reliability performance of the container carrier industry is measured on the basis of all vessel arrivals recorded in SeaIntel's Global Liner Performance database, also arrivals not currently covered by a trade lane. Importantly, each vessel arrival is only counted once in the global performance, irrespective of the number of container carriers that may be onboard a given services.

Container delivery performance is based on data supplied by SeaIntel's data partner, INTTRA, and is based on close to 3 million monthly container deliveries. The data is provided on a country-country level, so there may be slight misalignments with the schedule reliability trade lane data which is sourced on a port-port level. Importantly, the data provided by INTTRA does NOT contain information on individual container carriers, and SeaIntel cannot provide container delivery performance for carriers.

As of the March 2014 Global Liner Performance report, a minor change has been implemented in the methodology for calculating the global container delivery performance. In the past, global container delivery performance was calculated as a running two-month average, in line with how trade lane performance is calculated, but as of the March 2014 report, we have changed the methodology so the global container delivery performance is only calculated for the month in question, so it is in line with the calculation of global schedule reliability performance. The effect of changing the calculation method has been minimal, with individual monthly performance changing less than 3% as a result.

## **Carrier Performance**

### **\*\*\* UPDATED METHODOLOGY FROM FEBRUARY 2014 REPORT**

As of the February 2014 Global Liner Performance report, a major technical update has been implemented in the methodology for how individual carrier performance is calculated, although the effect on the actual performance results is very minimal. Up to the February 2014 report, carrier performance has been calculated based entirely on whether a carrier was onboard a service or not, and if a carrier was onboard a service, their performance would be calculated based on all the port calls of the service, irrespective of whether the carrier in question was actually offering a product for the entire round trip.

As an example, Carrier A may offer a service consisting of a specific number of port pairs on competing Carrier B's string, usually through a slot purchase/charter agreement. In the past, both carriers would receive the same performance for those services, although carrier A only offers a product between a specified set of port-pairs of Carrier B's round trip service. This has now been changed, so each carrier are scored exclusively on the services/port pairs/regions they offer.

This is an improvement of the underlying database we have wanted to perform for a long time, but we have simply not been able to do it before, as it has been a major technical undertaking that has taken several months of parallel development, effectively requiring a complete redesign and restructure of the entire GLP database, which already is the World's most comprehensive database of carrier schedule performance. While it has been an absolutely immense technical challenge, the resulting change in performance scores has been absolutely minimal, with monthly global scores changing less than 0.1 percentage points as a result of the change in methodology.

While the effect on results has been minimal, we are very pleased with this comprehensive methodological update, as it is absolutely imperative for SeaIntel that we always strive to provide the best and most correct data and analysis to our customers. If you have any questions or comments to this change in methodology, or any other questions about the GLP report or other SeaIntel services, please do not hesitate to contact Mr. Morten Thomsen at [m.thomsen@SeaIntel.com](mailto:m.thomsen@SeaIntel.com)

# Methodology – part 3

## **Trade Lane Performance**

### **\*\*\* UPDATED METHODOLOGY FROM AUGUST 2013 REPORT**

In the original database design, we assigned each service to an overall trade, e.g. Asia-Europe or Transpacific, and then we would calculate trade lane performance by measuring the number of arrivals that were on-time into a given head haul region, so e.g. for Asia - North Europe we would calculate the number of arrivals on Asia-Europe services into North European ports, and then count the number of arrivals that were on-time.

While this worked fine in the beginning when only measuring a subset of the global network, it has become increasingly difficult to maintain, as some trade lanes require very special attention, e.g. Asia - Middle East, where we would include Asia - Europe services, but only on the westbound call into the Middle East.

The maintenance became even more cumbersome with the increasing service disruptions and restructuring, where a service may change scope for an extended time period. Further, some trades were notoriously difficult to measure, e.g. the Middle East - Europe trade, where we would include Asia - Europe services, but only if they had made a call in the Middle East, which meant that with increasing port omissions and service restructures, we essentially had to monitor each port call on many services, and then trace back all the previous calls, to see if they had called the planned regions. Adding to this were the challenges from butterfly and pendulum services, and an increasing number of services that could not be assigned to a specific trade, but had to be handled manually. With more than 10.000 vessel arrivals each month, this was becoming impossible to do.

## **New Trade Lane Methodology**

As of the August 2013 report, we have instituted a new trade lane methodology, where we do not assign a given service to any specific trade. Instead we trace the previous region calls that each vessel has made, irrespective of the service it is on, and then assign trade lanes based on the rotation. So if a vessel calls a European port, we trace back in the rotation and see what regions it has been to, so if the vessel has called ports in e.g. Asia, ISC and Middle East regions, that European port call is automatically assigned to the Asia-Europe, ISC-Europe and Middle East-Europe trade lanes.

The algorithm that calculates this is very complex, and as of the August 2013 report, we have recorded more than 320.000 scheduled arrivals and more than 275.000 actual arrivals, and this massive size and complexity has required a completely new database system and front end management system to maintain the database.

The benefit of the new methodology and database structure is that we do not have to re-calculate all the trade lane performance scores manually, and we should be able to produce the report much faster going forward. Further, we have been able to include all ports in trade lane calculations, so the basis is now more than 270 ports.

# Methodology – part 4

## **Data Collection**

Most of the carriers have schedules available on their website, which include port rotation (both head haul and backhaul), vessel names and day of arrival. However, some carriers do not have such accurate schedules available on their website. In these cases we have used the carrier's port to port search tool on their websites and composed the schedules through that tool.

The schedule data reflects proforma schedules 15 – 45 days into the future.

We are aware, that in a few instances there might be a discrepancy between some of the schedules a carrier places on their website and the schedules they provide through an EDI or XML feed. To ensure consistency in the measurement methodology, we have elected to focus on the schedule information provided through carrier websites. In cases where we have received data directly from the carriers, and we see a discrepancy between the website proforma and the carrier-submitted proforma, we have used the proforma information which matches the definition of a liner service – namely the regular arrival/departure.

The reason for making this choice is that the schedules on the website are a de-facto display of the carrier's product portfolio towards all potential and existing customers. Data transmitted through EDI or XML, on the other hand, constitute only a partial information flow, as it is designed to reach only a number of existing customers.

This choice of methodology also implies that a small part of the scheduled arrivals might not be part of our analysis, in the cases where they were not stated on carrier websites at all.

We use six different sources to identify the vessels' actual time of arrival: the carriers' own websites, information from ports, Track and Trace data submitted by Shippers, terrestrial AIS data, satellite AIS data, and data provided directly by carriers.

Our primary source to identify the vessels' actual arrival is the carriers' own websites. In those cases where the carriers do not update their websites with actual arrivals, we obtain arrival information from the individual ports, or from Track and Trace data submitted by Shippers with cargo onboard the vessel. If neither of those sources can identify the actual arrival of the vessel, we use AIS data, both terrestrial and satellite, to locate a vessel's geographical coordinates and to determine, when the vessel called the port.

When several carriers are cooperating on the same services through e.g. a vessel sharing agreement, alliance service or on slot charter, the actual schedule reliability will count for all the carriers involved in the relevant service. All carriers participating will be fully measured on the service performance. A more accurate measurement would entail weighting the reliability, in proportion to the share of the vessel assigned to each carrier. However, this information is rarely, if ever, announced by the carriers, hence the only methodologically consistent approach is to assign full value to each carrier using the service.

# Methodology – part 5

## **Coverage**

The Global Liner Performance database covers the majority of the deep sea service identified from 60 different carriers.

## **Services:**

Currently, the GLP database cover more than 260 active services and more than 100 inactive services, based on more than 317.000 individual vessel arrivals, across 33 major trade lanes.

We have elected to exclude very short services, as schedule reliability becomes difficult to calculate with very short round trips. As an example, a very short 7-day round trip would by definition be on-time if the vessel is one day late. If the vessel becomes late by 7 days, it could be argued that it is now back on time, as the rotation has just been shifted by a week. We may include shorter services in the future, as well as additional services

## **Ports**

The GLP is based on actual arrivals in more than 270 different ports around the world.

## **Carriers**

Currently, 60 different carriers are included in the schedule reliability measurement. The 60 carriers include all the Top20 carriers, as well as a range of smaller niche carriers.

## **Vessels**

The schedule reliability report is based on the tracking of more than 3.000 different vessels, in more than 6.000 vessel / service combinations.

## **Data aggregation**

When calculating performance by trade lane we are calculating on the basis of a 2-month rolling window. As an example "February" performance for a tradelane includes data from January and February, whereas "January" includes data from December and January. This methodology is chosen to ensure that measurements best possibly reflect genuine changes in performance, and are not prone to large statistical fluctuations which can be associated with covering only a short timespan. Further, when measuring performance over a two-month period, we ensure that enough data points are available on a service and trade lane level. We only include service and carriers on the trade lane level, if a minimum of five vessels arrivals have been recorded over a two-month period.

# Disclaimer and Copyright

All information contained in this report is believed to be accurate and reliable. Because of the possibility of human and mechanical error as well as other factors, this information is provided "as is" without warranty of any kind and no representation or warranty, expressed or implied, is made, nor should any be inferred, as to the accuracy, timeliness, or completeness of this information. Under no circumstances shall SeaIntel Maritime Analysis have any liability to any person or entity for (a) any loss or damage in whole or part caused by, resulting from, or relating to any error (on account of neglect or otherwise) or other circumstance involved in procuring, collecting, compiling, interpreting, analysing, editing, transcribing, transmitting, communicating or delivering this information, or (b) any direct, indirect, special, consequential, or incidental damages whatsoever, even if SeaIntel Maritime Analysis is advised in advance of the possibility of such damages, resulting from the use of, or inability to use, any such information.

Data concerning container reliability and performance measurements related to the container level are provided by INTTRA. Further information about INTTRA can be found at [www.INTTRA.com](http://www.INTTRA.com)

The report has been provided to you by:

COO and Partner, Mr. Alan Murphy – [alan.murphy@SeaIntel.com](mailto:alan.murphy@SeaIntel.com)

Shipping Analyst, Mr. Morten Berg Thomsen – [m.thomsen@SeaIntel.com](mailto:m.thomsen@SeaIntel.com)

Shipping Analyst, Mr. Kasper Hansen – [k.hansen@SeaIntel.com](mailto:k.hansen@SeaIntel.com)

SeaIntel Maritime Analysis

Vermlandsgade 51, 2. 2300 Copenhagen S. Denmark

[www.SeaIntel.com](http://www.SeaIntel.com)

Tel: +45 6068 77 44 or +45 2825 1478 E-mail: [info@SeaIntel.com](mailto:info@SeaIntel.com)

© Copyright – Global Liner Performance Report is for use exclusively by the subscribing company. Any redistribution outside the subscribing company by any means (including electronically and printed) is strictly prohibited. External redistribution is a violation of the terms and conditions of sale, and an infringement of the copyright conditions. We reserve all rights in case infringements are detected.