



Study on Timeline of Export and Import of Containers through JNPT

August 2017



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Introduction

For a developing country of India's size and potential, undertaking trade facilitation reforms is an urgent need today to match pace with the growing global trade. This requires simplification and harmonization of procedures in order to reduce the time and cost taken for trading across borders.

With India's ratification of WTO's Trade Facilitation Agreement (April 2016), there is an extended onus on the government for identifying action areas in order to simplify trade procedures and the associated time and cost. Various steps have been undertaken for this- there are fewer

restrictions on foreign direct investment, tax holidays are given to developers, public-private partnerships (PPPs) are promoted for infrastructural projects and the Single Window for Trade Facilitation (SWIFT) has been launched by the Central Board of Excise and Customs (CBEC). It is also estimated that there is a requirement of around USD 1 trillion towards infrastructural investment in India during the 12th Five Year Plan period, 2012-2017, to maintain India's growth trajectory. With Indian economy on an exponential growth curve and Indian government's strong inclination to enhance trade and investment, foreign companies are turning to India for emerging market deals. At a point when the world is tending towards India, the country is likely to witness an increasing flow of rail, road and port traffic.

Table 1: India's Ease of Doing Business Ranking

Parameter/Year	2015	2016	2017
Overall Ranking	134	131	130
Trading Across Borders	126	144	143

Table 2: World Bank's Estimate of Trading Across Borders through Mumbai				
Parameter	Time to Export (Hours)		Time to Import (Hours)	
	Documentary Compliance	Border Compliance	Documentary Compliance	Border Compliance
2016	61	88	67	311
2017	58	85	65	307

Source: www.doingbusiness.org

However, India's performance in World Bank's Ease of Doing Business Report has only shown a marginal improvement over the last few years (Table 1). Further, Table 2 shows the time to export and import through Mumbai, Maharashtra, as represented in the World Bank Doing Business Report (2017).

This report undertakes a comprehensive and analytical study of the various procedures and agencies involved in the supply chain for export and import through JNPT. It involves an analytical assessment of the time taken at various intervention points - dissecting the dwell time of containers from/to Container Freight Stations (CFS), Inland Container Depot (ICD) as well as Direct Port Entry/Delivery- entailing transportation of containers and other operational aspects, the process of assessment, registration and examination, among others. Further, the role of partner government agencies (PGAs) and shipping lines in the process have also been analysed.

Objectives

- To track supply chain of import/export at JNPT through identification of all the procedures, agencies and stakeholders
 - ✓ Inclusive of all formats of port entry and delivery such as Direct Port Delivery, Direct Port Entry, CFS facilitated, Factory stuffed and ICD facilitated through rail, etc.
- To calculate the time taken for import and export of Containers through JNPT on a monthly basis.
- To specifically identify dwell time at various agencies in the process. These would include, but not be restricted to, the following:

Border Compliance

- ✓ Customs Clearance and Inspections: Time taken by the Customs for export and import clearances.
- ✓ Port Handling: Time taken by Terminal, CFS's and ICD's for export and import.

- ✓ Allied Agencies: Time taken by agencies such as FSSAI, PQ, etc. during the course of import and export.

Documentation Compliance

- ✓ Time taken to obtain, prepare and submit documents required during export and import but not to be restricted to Clearance, Inspection, Port Handling, etc.
4. Parking lots and Port gate: Time taken for entry and exit through these areas
 5. Data from various agencies would be collected and analyzed to calculate the time taken for movement of export & import containers from JNPT.
 6. Identification of action areas and measures for reducing dwell time during the course of export and import of containers from JNPT aiming to meet specified Government targets:
 - ✓ Procedure-wise area of intervention
 - ✓ Stakeholder-wise area of action
 7. To critically analyze the various stages in the export and import cycles with a view to reduce the dwell time at each stage, with the principal aim of facilitating the reduction in export and import cycles from the current stage to the targets set by the government. Stage wise approach in terms of reaching the target will be suggested.
 8. To analyze the transaction cost borne by the trade at each stage, with a view to mobilize reduction of the same
 9. To provide incisive insights and recommendations on the improvement areas at various stages of the value chain, with focus on improving operations and reducing delays

Stakeholders

1. **Customs Broker:** Also known as Customs House Agent (CHA), a customs broker is a representative or an agent of the importer/exporter, and prepares and submits documents for clearing goods through Customs. He/she holds a customs licence for practise and is well versed with customs rules, regulations and tariffs.
2. **Customs:** It is the official department of the government with the authority to check goods and travellers. In international trade, the customs department collects duty on imported goods as levied by the government, and provides requisite clearances for both export and import goods.
3. **Container Freight Station (CFS) and Inland Container Depot (ICD):** A container freight station is an extension of the port. It is the custodian of goods after they are cleared from the terminal. The process of customs clearance takes place inside the CFS.
4. **Port/Terminal:** A port is the point of entry of goods and travellers into the country. It provides facilities for berthing of vessels, and loading/unloading of cargo. A terminal is part of the port wherein different berths may be a part. It may be cargo-specific or designed to handle all types of cargo.
5. **Shipping Line:** A shipping line is a company that operates fleet of ships which transport cargo to different parts of the world. While most shipping lines are owners of the containers they carry, some lines lease the same from an external organisation.

Methodology

1. **Preliminary assessment** of parameters related to border compliance and documentary compliance at JNPT
2. **Data collection** from stakeholders such as terminal operators, customs – Jawaharlal Nehru Customs House (JNCH) and ICD Tughlakabad, CFS operators and CONCOR
3. **Data analysis** entailing the process of data cleaning and analysis of the collected data through SAS, STATA and MS Excel. It would entail stakeholder-wise calculation of dwell time and finally,

consolidation of the same in the process chain of EXIM trade

4. **Report** preparation describing average timelines for export and import value chains, and qualitatively indicating areas of improvement. The following parameters have been considered during analysis and report preparation:
 - a. Out of the total number of containers imported and exported at JNPT, the sample size considers the containers under the import and export category and not the containers meant for transshipment. Further, only Full Container Load (FCL) containers have been considered for this study.
 - b. The time in the tables is recorded in the hour format that is $[h]:mm:ss$. However, in the figures and charts, it is recorded in a decimal format. For example, a time of 04:30:00 recorded in a table is represented as 4.5 hours in the chart.
 - c. The total time taken in each agency is calculated as the average time taken from the first process at the agency to the final process (and not as a linear addition of time consumed in all processes recorded at an agency, as it August lead to inflated overall dwell time).

Limitations of the study

- a. **Transit time calculation for port to CFS:** Due to issues faced in determining unique container numbers, it was difficult to calculate transit time. Hence, based on observation and various previous researches conducted, we have used an average time of 12 hours as transit time for CFS.
- b. **Missing entries in data sets:** Many entries in the data sets were missing or not recorded by the agencies. For instance, out of 05CFS', only 01CFS' recorded the time of shipping line delivery order. For the month of August the transit time could not be calculated for Import and export containers for ICD Tughlakabad, as the relevant timestamps were not provided by the agency.
- c. **Data error:** At a number of agencies, data errors were recorded. For instance, at certain CFS', the gate-out time was before the gate-in time. Further, duplication of data was observed in the data provided by the PGAs.
- d. **Missing time stamps in OOC entries:** The Out of Charge (OOO) entries in the CFS datasets did not have time stamps. As such, time difference between seal cutting (which has both date and time) and OOC taking place on the same day came out to be negative. For instance, for a seal cutting entry of 01-03-2017 at 13:56:45 and a corresponding OOC entry of 01-03-2017 only, the time taken from seal cutting to OOC would be negative. To overcome this challenge, the difference between seal cutting and OOC was calculated using only the date stamps for seal cutting.

IMPORT DWELL TIME

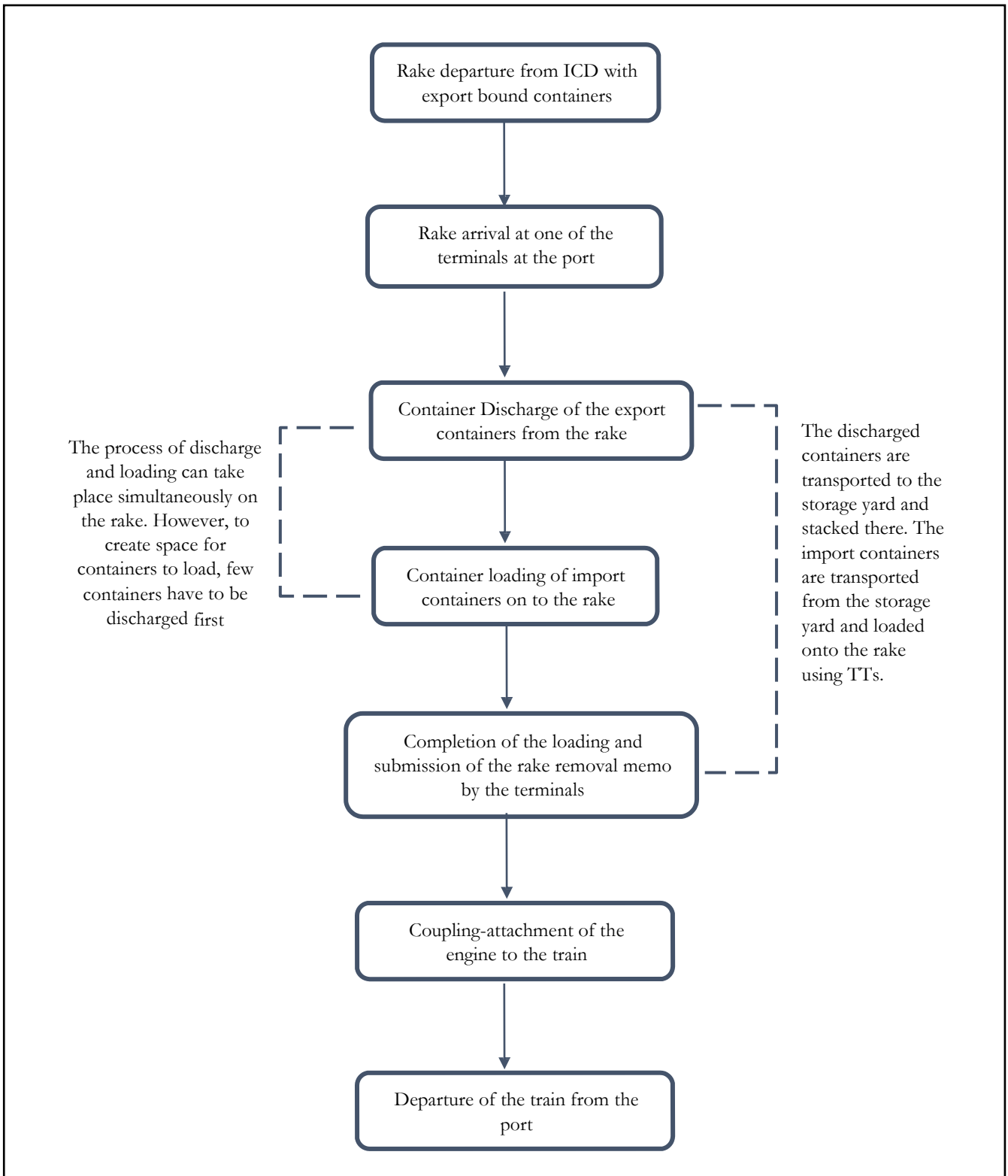
PORT DWELL TIME	Port Dwell Time	58:55 Hr
	Port Dwell Time for CFS Bound Containers	44:57 Hr
	Port Dwell Time for ICD Bound Containers	108:48 Hr
	Port Dwell Time for DPD Containers	61:47 Hr
CUSTOMS RELEASE TIME	Customs Release Time at the JNCH	39:10 Hr
	Customs Release Time at ICD TKD	35:36 Hr
CUSTODIAN DWELL TIME	Dwell Time at CFS	159:10 Hr
	DWELL Time at ICD TKD	219:06 Hr
TOTAL IMPORT TIME	Total Import Time for CFS Bound Containers	216:17 Hr
	Total Import Time for ICD Bound Containers	327:54 Hr
	Total Import Time for DPD Containers	61:47 Hr

EXPORT DWELL TIME

PORT DWELL TIME	Total Port Dwell Time	99:40 Hr
	Port Dwell Time for CFS Bound Containers	90:01 Hr
	Port Dwell Time for ICD Bound Containers	131:42 Hr
	Port Dwell Time for DPE Containers	89:50 Hr
CUSTOMS RELEASE TIME	Customs Release Time at the JNCH	05:07 Hr
	Customs Release Time at the ICD TKD	15:02 Hr
CUSTODIAN DWELL TIME	Dwell Time at CFS	121:13 Hr
	DWELL Time at ICD TKD	112:12 Hr
TOTAL EXPORT TIME	Total Export Time for CFS Bound Containers	223:14 Hr
	Total Export Time for ICD Bound Containers	243:57 Hr
	Total Export Time for DPE Containers	94:57 Hr

Rake Handling

Figure1: Rake Handling Process at the Jawaharlal Nehru Port-EXIM



RAKE HANDLING TIME

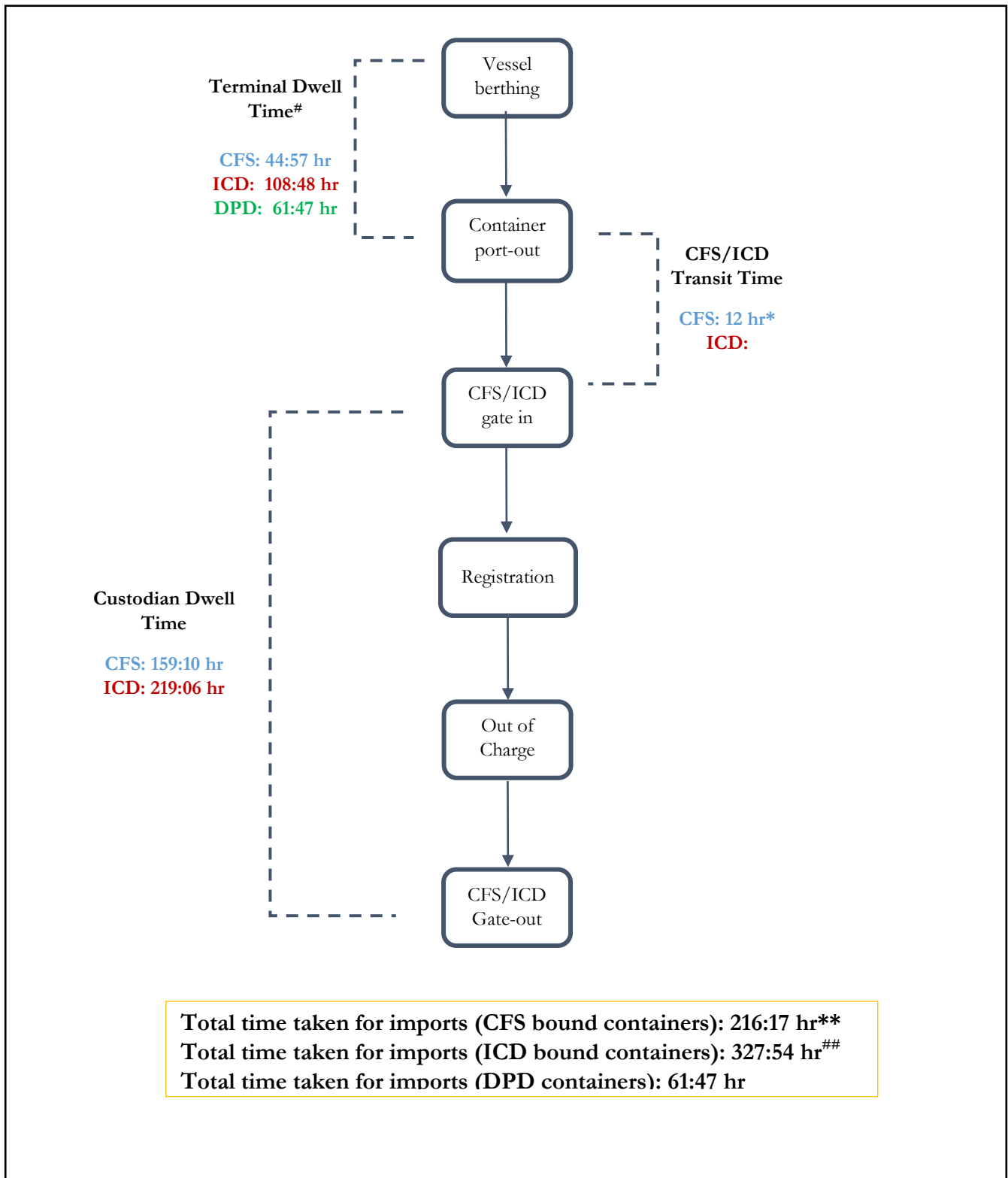
RAKE HANDLING TIME	<i>Average time taken from the arrival of the rake to the departure of the rake from the terminal at the JNP</i>	11:11 Hr
HAULAGE DELAY	<i>Average time taken from the completion of the container loading process to the attachment of the engine</i>	04:19 Hr
ARRIVAL TO COMPLETION TIME	<i>Average time taken from the arrival of the rake to the completion of loading of containers at the terminal</i>	06:53 Hr
DECLARATION DELAY	<i>Average the time taken by Railways to declare the back loading destination for a rake post arrival of the rake at the terminal</i>	00:36 Hr
TERMINAL HANDLING TIME	<i>Average time required for discharge and loading of a rake excluding delays like Reefer Unplugging, Low or No Pendency Delay, Declaration Delay, etc.</i>	05:49 Hr
Total Number of Rakes	426(345 CONCOR, 81 Pvt Operators)	
Discharged TEUS	34657	
Loaded TEUS	35109	
Dedicated Rakes for terminals	12	
Mixed Rakes from ICDs	414	
Empty Rakes from ICDs	08	
Rakes arriving at JNPCT	136	
Rakes arriving at NSICT	110	
Rakes arriving at GTICT	180	
Discharged TEUS at Terminals	JNPCT-11145, NSICT-8655, GTICT-14857	
Loaded TEUS from Terminals	JNPCT- 10671, NSICT-9446, GTICT-14992	

Observations

- There is a sharp decrease in the dwell time figures of August as compared to previous two months as the systems and processes are slowly getting back to normalcy after the cyber-attack on GTICT. However, the numbers for the month of August are still on a higher side as compared to the average dwell time for last 10 months.
- The reasons for an inflated dwell time are:
 - One of the main reasons for the increase in the dwell time has been that heavy rains during the month of August have disrupted processes at the port.
 - Cascading effect of cyber-attack at GTICT hampered their operations leading to increase in the dwell time. The dwell time of other terminals, NSICT and NSIGT also increased as they had to accommodate GTICT vessels.
 - There were frequent break downs of ICEGATE system during last week of August, 2017 which resulted in trailers getting stuck for long hours in queue leading to unavailability of sufficient trucks for import deliveries.
 - Heavy rains and floods in parts of Gujarat resulted in disruption of port activities at Mundra and Pipavav ports. As a result some of the ICD bound EXIM traffic from these ports was diverted to the JNP. This led to increase in the pendency and dwell time of rail bund containers.
 - The Average Parcel Size of container vessels increased from 2,490 TEUs in FY 2016-17 to 2,738TEUs in April-August, 2017, growing by 10.97%. Therefore, for road containers which is having a gate window time of 4 days, shipping lines ensured that more containers were entering during initial days of gate window period to avoid the risk of shut-out.
- The customs release time for the month of August is on a higher side as compared to previous months. The reason for the increased customs release tie has been that the ICEGATE System has not been functionally properly. Modules such as document tracking, e payment are affected, due to which, bill of entry numbers are not getting generated and GSTIN details are not appearing in Custom EDI System. Further, there is also an issue with processing of Shipping Bills, due to which all shipping bills are marked for appraising and are going for examination which is causing tremendous delays and increasing the dwell time for clearance. Shipping Bills duly assessed or facilitated under RMS are not reflecting in ICEGATE system

IMPORT

Figure 2: Import process at the Jawaharlal Nehru Port



*Assumed

#Weighted averages

** Inclusive of assumed transit time

Exclusive of transit time

1. Import Process

The import cycle starts with the shipping line filing an Import General Manifest (IGM) - electronically in the ICES, within 72 hours prior to arrival of the vessel at the port - to the time the goods are out for delivery from a CFS, ICD or through DPD. In between, various processes take place and a minimum of five agencies play a role, which can be assessed in terms of terminal dwell time, road/rail transit time, customs release time and custodian (CFS/ICD) dwell time (Figure 1 above). Further, in the overall process of imports, the time taken by the shipping line and the partner government agencies (PGAs) has also been calculated.

1.1. Terminal Dwell Time

Terminal dwell time is the calculation of the time a container is at the terminal. It is calculated as the average time taken from berthing of vessel to the time of container evacuation from port gate. Terminal dwell time varies with respect to the destination of the container – Container Freight Station (CFS), Inland Container Depot (ICD) or Direct Port Delivery (DPD) to the importer.

The total dwell time of container at Jawaharlal Nehru Port Container Terminal (JNPCT), Gateway Terminal International Container Terminal (GTICT), Nhava Sheva International Container Terminal (NSICT) and Nhava Sheva International Gateway Terminal (NSIGT) is close to 57:17 hours, 58:40 hours, 58:49 hours and 64:39 hours respectively. Further categorisation of containers and analysis of time taken – overall and stage-wise -have been provided in Table 3, Table 4, Table 5 and Table 6. It may be noted that in case of DPD, the dwell time of the container at the terminal is its total time taken for import.

Parameter	JNPCT (n)	GTICT (n)	NSICT (n)	NSIGT (n)
Total number of import containers	37,896	57,497	11,598	13,307
Number of CFS bound containers	28,047 (74.01%)	39,363 (68.46%)	8,142 (70.20%)	9,129 (68.60%)
Number of ICD bound containers	6,931 (18.29%)	12,953 (22.52%)	2,455 (21.17%)	2,834 (21.30%)
Number of Direct Port Delivery (DPD) containers	2,918 (7.70%)	5,181 (9.02%)	1,001 (8.63%)	1,344 (10.10%)
<i>Note: a) The 'n' values represent Full Container Load (FCL) containers only, They also take into account only import containers and not re-import and transshipment containers</i>				
<i>b) Figures in brackets represent percentage share</i>				

Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD
Average dwell time (vessel berthing to container out of port) (hr)	49:28:09	97:40:31	43:46:18	42:49:05	113:42:39	57:53:12	41:10:32	108:03:47	57:53:12	43:40:49	115:02:40	100:52:43
Average terminal dwell time (hr)	57:17:57			58:40:21			58:49:44			64:39:21		
Average port dwell time (hr)	58:55:46											
<i>Note: Average port dwell time is the weighted average for all four terminals in terms of import FCL containers handled</i>												

Table 5: Vessel Berthing to Container Discharge - Import Containers for August 2017												
Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD
Average time taken from vessel berthing to container discharge (hr)	11:30:49	11:10:10	10:38:58	9:57:32	9:51:05	9:49:15	8:13:23	8:03:45	8:19:44	12:27:55	13:12:39	11:41:09
Terminal average (hr)	11:23:03			9:55:20			8:11:54			12:32:43		
Port Average (hr)	10:30:24											
<i>Note: Average time for port is the weighted average for all four terminals in terms of import FCL containers handled</i>												

Table 6: Container Discharge to Container Out of Port - Import Containers for August 2017												
Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD	CFS	ICD	DPD
Average time taken from container discharge to container out of port (hr)	37:58:07	86:32:21	33:06:54	32:51:59	103:52:57	48:04:55	32:57:13	100:00:02	73:20:24	31:12:54	101:50:01	89:11:34
Terminal average (hr)	45:55:41			48:45:34			50:37:53			52:06:38		
Port Average (hr)	48:25:31											
<i>Note: Average time for port is the weighted average for all four terminals in terms of import FCL containers handled</i>												

1.2. Transit Time - CFS and ICD

Transit time is the time taken for the container to reach the custodian- which can either be a CFS or an ICD. The rail transit time for ICD has been calculated as the difference between the time of loading on rail and time of arrival (gate-in) of the container at the ICD (Table 7). The CFS transit time is taken from the time of exit of a container from port to its arrival (gate-in) at the CFS. The same has been arrived at on the basis of field observations. For the month of August the transit time for ICD Tughlakabad could not be calculated for import containers as the relevant timestamps were not provided by the relevant agency.

Table 7: Transit Time of Import Containers from JNPCT for August 2017		
Parameter	CFS	ICD Tughlakabad
Average time taken (hr)		12*
* assumed		

1.3. Customs Release Time

1.3.1 Jawaharlal Nehru Customs House (JNCH)

Customs release time is the time taken by the customs authorities, be it at the dock, at CFS or at ICD, to give Out-of-Charge (OOC) to a bill of entry for delivery of container(s) to the importer. It is calculated as the average time between submission of bill of entry to assessment and registration of goods to OOC [in case of RMS and Group B/E]; and registration of a container to assessment and duty payment to OOC [in case of Group (First Check) B/E]. It must be noted that the process of customs release is not linear; many agencies play a parallel role such as the PGAs, the importer/customs broker for duty payment, shipping line for delivery order and the CFS. The total number of containers under the bills of entry received for all the categories have been summarised in Table 8.

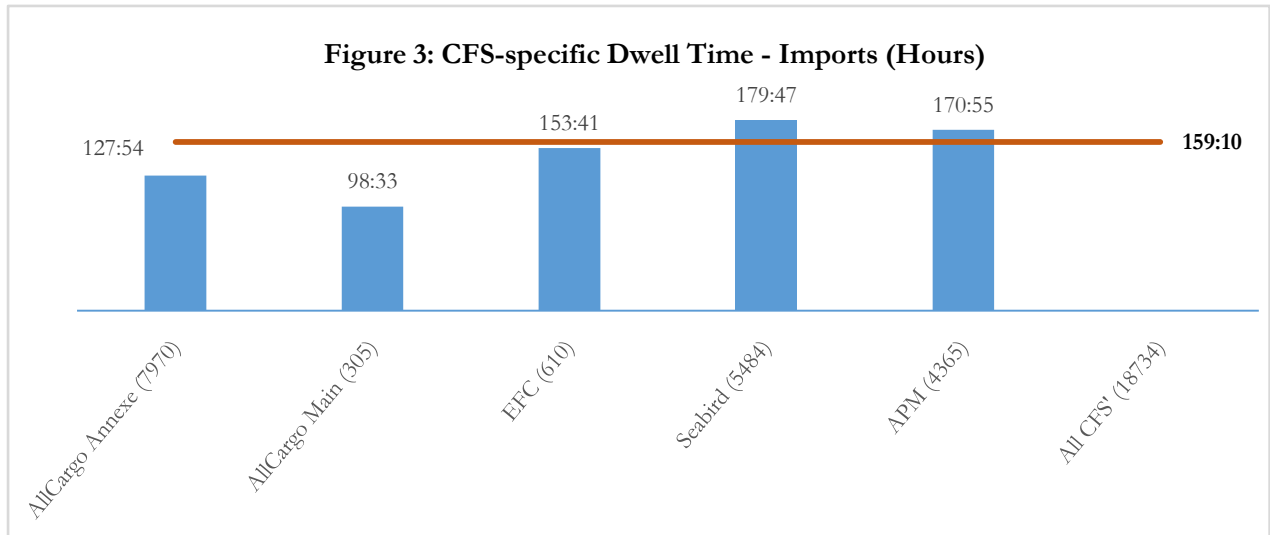
Table 8: Total Customs Release Time for JNCH (Average Time)			
	RMS	Group	Group (First Check)
Number of Containers	66,701(57.98%)	40,477(35.18%)	7,871(6.84%)
Submission of B/E to Assessment (hr)	00:14:30 (n=66,699)	72:55:37 (n=39,329)	
Registration to Examination of Goods (hr)		09:13:11 (n=21,757)	18:45:06 (n=3,088)
Examination to Out of Charge (hr)		01:16:02 (n=21,285)	
Registration of Goods to Out of Charge (hr)	05:22:02 (n=63,708)	07:49:19 (n=38,530)	
Examination to Assessment (hr)			80:57:39 (n=3,088)
Duty Payment to Out of Charge (hr)			10:11:59 (n=2,823)
Total time (hr)	05:36:32	80:44:56	109:54:44
Total Customs Release Time at JNCH (hr)= 39:10:51			

1.3.2. Customs at ICD Tughlakabad

Once a container is received at ICD Tughlakabad, the customs release time starts from assessment till out of charge is given.

Table 9: Total Customs Release Time for ICD (Average Time)			
	RMS	Group	Group-II
Number of Containers	7,426(51.90%)	5,325 (37.20%)	1,559 (10.90%)
Submission of B/E to Assessment (hr)	00:15:18 (n=7,425)	62:32:29 (n=4,988)	
Registration to Examination of Goods (hr)		10:51:09 (n=3,193)	14:59:44 (n=1,080)
Examination to Out of Charge (hr)		01:38:13 (n=3,143)	
Registration of Goods to Out of Charge (hr)	03:40:33 (n=6,755)	09:24:18 (n=4,852)	
Examination to Assessment (hr)			39:41:20 (n=1,074)
Duty Payment to Out of Charge (hr)			07:38:08 (n=1,025)
Total time (hr)	03:55:51	71:56:47	62:19:12
Total Customs Release Time ICD TKD (hr) = 35:36:06			

1.4. Custodian Dwell Time



1.4.1. CFS Dwell Time

CFS dwell time is calculated from the time of gate-in of a container at the CFS to its gate-out from the CFS. In the analysis, data from 05 CFS has been represented (refer to Table 25 – Annexure 1.1). The total average time taken by all CFS (05 could be included) has also been provided in Table 10. CFS specific dwell time for 05 CFS at the JNP has been depicted in Figure 3. Please note that the total time taken by CFS is calculated in terms of gate-in to gate-out (and not as a linear addition of time taken in the various processes) due to the sample size being different for each process and many parallel processes involving customs, customs brokers and shipping line taking place.

Table 10: CFS Specific Dwell Time for August 2017				
	A	B	C	D
CFS (05 CFS' n=18,734)	Average time taken from gate-in to seal cutting	Average time taken from seal cutting to OOC	Average time taken from OOC to Gate-out#	Total (Gate-in to gate out)*
Total	82:27:15	23:37:57	67:04:34	159:10:46
* D should be taken as the true representation of the overall CFS dwell time. However, column D should not be seen as summation of columns A, B and C because the number of entries for A, B and C is not same.				

1.4.2. CONCOR (ICD Tughlakabad)

The dwell time for CONCOR (ICD Tughlakabad) is calculated from the arrival of the container at CONCOR to its gate out. Please note that this time taken by CONCOR is inclusive of the time taken by customs (Tughlakabad) to release the containers (Table 11) of different categories: Green Channel Factory Stuffed (GC-FAC), Non-Green Channel Factory Stuffed (NGC-FAC), Warehouse Stuffed and Direct Stuffed.

Table 11: CONCOR Dwell Time for August 2017				
	A	B	C	D
	GC-FAC	Non-GC-FAC	Warehouse	Direct
Number of Containers	2323	1619	276	149
Arrival to OOC	156:08:56 (n=2322)			
Arrival to EJO		168:03:49 (n=1615)	71:04:14 (n=225)	178:31:37 (n=46)
EJO to DJO			79:20:14 (n=276)	
DJO to De-stuffing			2:51:58 (n=276)	
EJO to OOC		72:45:32 (n=1615)		55:45:35 (n=47)
De-stuffing to OOC			02:28:12 (n=140)	
OOO to DJO				28:08:02 (n=139)
OOO to Gate pass	9:55:19 (n=2249)	5:25:26 (n=1590)	74:52:05 (n=242)	
DJO to Gate Pass				6:52:43 (n=148)
Gate Pass to Departure	17:58:55 (n=2323)	14:03:42 (n=1619)	2:28:39 (n=276)	3:24:05 (n=149)
Total time (hr)	184:09:36 (n=2323)	260:02:25 (n=1619)	245:19:41 (n=272)	70:45:55 (n=146)
Total CONCOR Dwell Time for ICD TKD (hr) = 219:06:44				
<i>GC-FAC : Green-Channel Factory Stuffed Containers</i>				
<i>Non GC-FAC: Non Green-Channel Factory Stuffed Containers</i>				
<i>Warehouse: Cargo gate-in in closed trucks and offloaded in warehouse for Customs examination, followed by stuffing into container</i>				
<i>Direct: Cargo gate-in in closed trucks, followed by Customs examination on truck and direct loading into container</i>				

1.5. Other Supporting Agencies

1.5.1. Shipping Line -Delivery Order

The shipping line provides delivery order (DO) as a final confirmation for delivery of cargo to the customs broker. Any delay by the shipping line in providing delivery order gets added to the total dwell time of the container at CFS/ICD. Some DOs are given after issue of OOC by customs, while others are generated at the same time or prior to OOC (Table 12).

Table 12: Average Time Taken for Generation of Delivery Orders by Shipping Lines	
Total no. of DO	610
No. of DOs prior to OOC	226
No. of DOs given post OOC	183
No. of DOs received on same day as OOC	201
Average time taken from CFS gate-in to receiving delivery order	106:08:54
<i>*This data is provided by only 01 CFS (out of 05), therefore the number reflected here is lower than the actual number of containers going to the CFS from both terminals in Table 3.</i>	

1.5.2. Partner Government Agencies (PGAs)

Partner government agencies (PGAs) are the allied agencies that are required to examine and provide clearance to certain types/categories of cargo. They play a key role in the overall process of cargo clearance. In an earlier practise, the time required by these agencies was added in the customs release time, however, some cargo (particularly perishable) is now released before the arrival of report by PGAs on the basis of a bond guarantee. While the time taken by these agencies may not add to the overall dwell time, it is important to note that some agencies take as much as 10 days to publish reports despite initiation of SWIFT in April, 2016. This report analyses the time taken from sample collection to publishing of report by five PGAs- Drug controller (CDrug), Animal Quarantine(AQ), Wildlife Crime Control Bureau (WCCB), Food Safety and Standards Authority of India (FSSAI) and Plant Quarantine (PQ) (Table 13). Please note that the reports for some agencies like PQ and FSSAI may also be received after out-of-charge due to nature of the cargo.

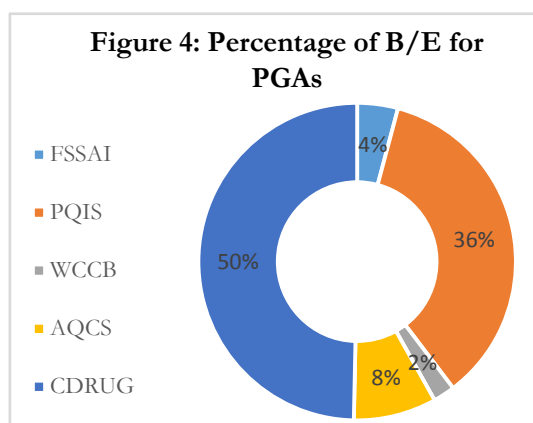
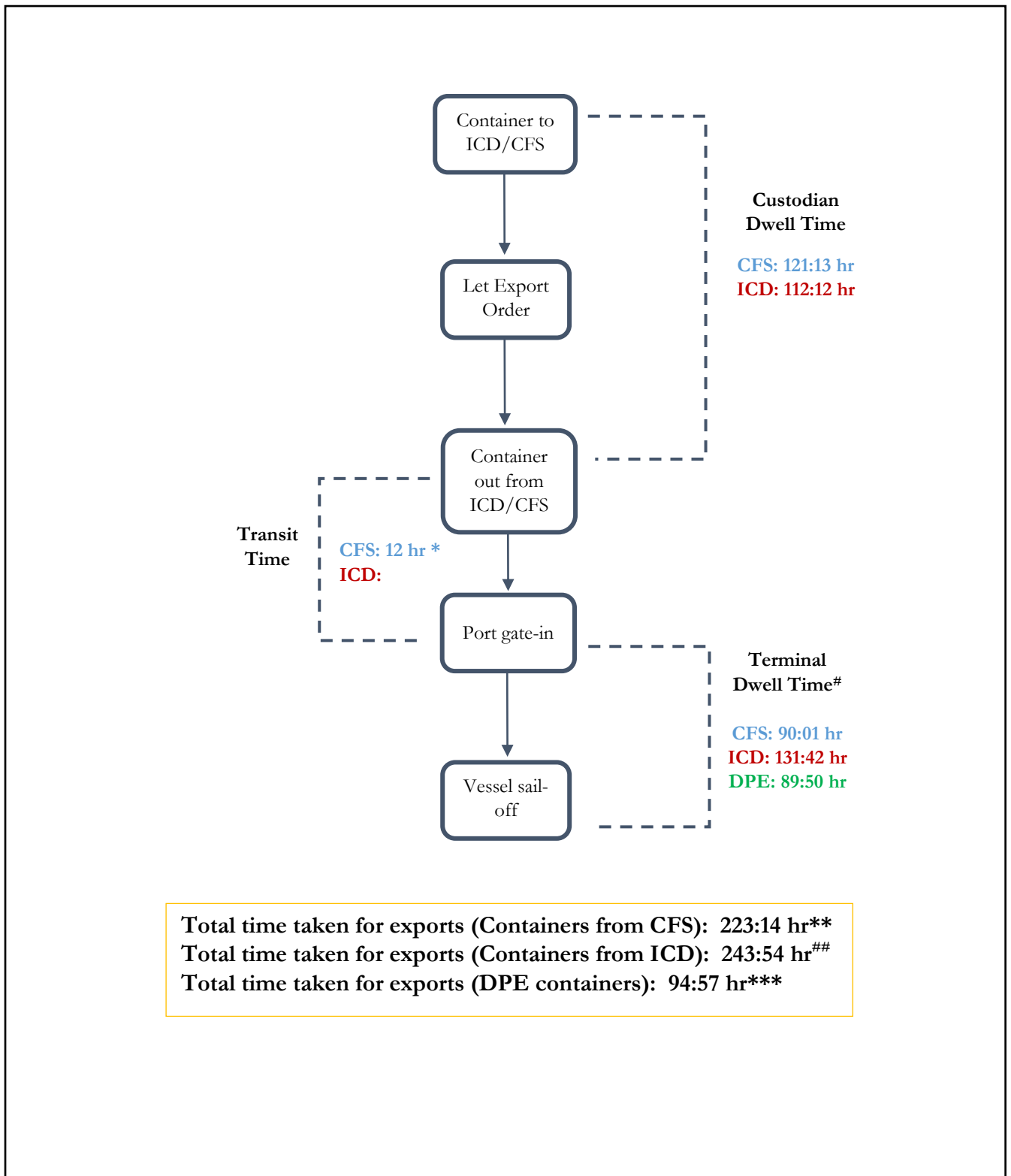


Table 13: Average Time Taken by PGAs in August 2017					
	CDRUG	AQCS	WCCB	FSSAI	PQIS
Total number of containers (n)	9558	1,641	564	1,437	12,261
Time taken from sample collection to report publishing (hr)	186:12:13	221:14:37	91:38:20	360:24:43	243:51:56

EXPORT

Figure5: Export process at the Jawaharlal Nehru Port



*Assumed

** Inclusive of assumed transit time

*** Inclusive of Customs release time (assumed)

#Weighted averages

Exclusive of transit time

2. Export Process

The export cycle starts from filing of the shipping bill to vessel sail off from the port. In between, various processes take place and a minimum of five agencies play a role, which can be assessed in terms of terminal dwell time, road/rail transit time, customs release time and custodian (CFS/ICD) dwell time (Figure5).

2.1. Customs Release Time

2.1.1. Jawaharlal Nehru Customs House (JNCH)

Customs release time is calculated from the time of registration of goods in the customs system to the generation of Let Export Order (LEO) at JNCH.

Table 14: JNCH Dwell Time for Exports for August 2017	
Total no. of shipping bills (n)	86,520
Average time taken from registration of goods to issuance of LEO (hr)	05:07:09

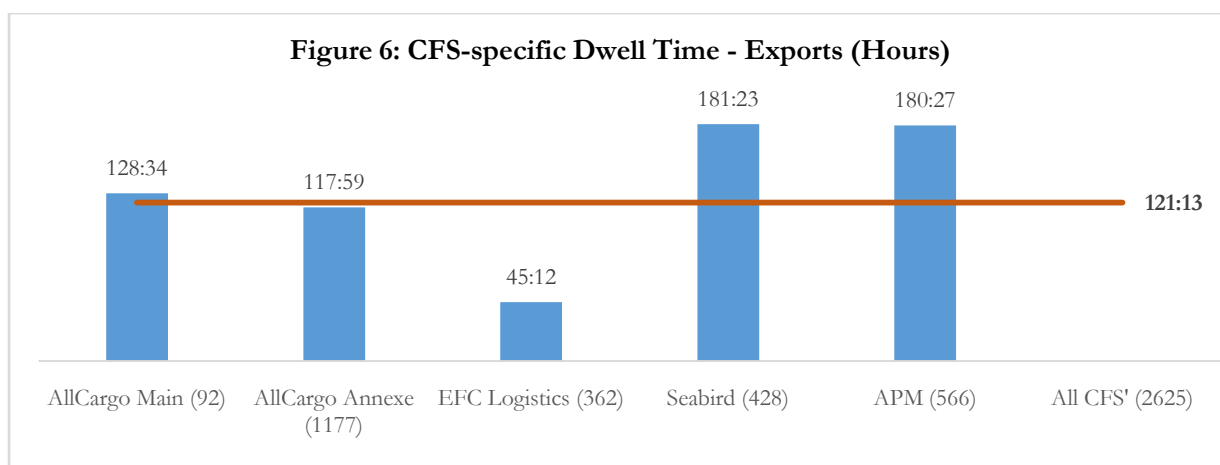
2.1.2. Customs ICD Tughlakabad

Customs ICD Tughlakabad dwell time is calculated from registration of goods in the customs system to issuance of LEO at the ICD.

Table 15: Customs ICD Tughlakabad Dwell Time for Exports for August 2017	
Total no. of shipping bills	9,681
Average time taken from registration to issuance of LEO (hr)	15:02:52

2.2. Custodian Dwell Time

CFS dwell time is calculated from the issue of export carting order to the gate-out of container from CFS. The generation of shipping bill (S/B) is not taken as the starting point for this activity because some S/Bs are filed prior to export carting order, while others are filed post the same. Figure 6 shows the total dwell time individually for all the CFS' assessed. Further, Table 16 provides the overall average time taken for major processes with respect to the 05 CFS' analysed.



2.2.1. CFS Dwell Time

Table 16: CFS Specific Dwell Time for August 2017				
	A	B	C	D
CFS (05 CFS' n= 2,625)	Average time taken from Export Carting Order (ECO) to container stuffing	Average time taken from container stuffing to movement order	Average time taken from movement order to gate out	Total (ECO to gate out)*
Total	92:56:49	26:05:24	18:00:56	121:13:13
*D should be taken as the true representation of the overall CFS dwell time. However, column D should not be seen as summation of columns A, B and C because the number of entries for A,B and C are not the same				

2.2.2. CONCOR (ICD Tughlakabad)

CONCOR (ICD Tughlakabad) dwell time is calculated from gate-in of a container at CONCOR to its loading on wagon for rail transit to the port.

Table 17: CONCOR Dwell Time			
	A	B	C
	GC-FAC	Warehouse	Direct
Number of Containers	1025	561	18
Arrival to CRN (n=1025)	27:43:32		
Arrival to LEO		52:12:06 (n=561)	12:15:28 (n=18)
CRN to LEO (n=1025)	26:00:40		
LEO to Loading (n=1025)	38:44:06		
LEO to Stuffing		26:33:09 (n=544)	2:10:12 (n=18)
Stuffing to Sealing		15:03:58 (n=561)	6:29:56 (n=18)
Sealing to Loading		54:48:30 (n=561)	36:02:56 (n=18)
Loading to Dispatch (n=930)	1:58:37	2:11:13 (n=521)	1:56:27 (n=17)
Arrival to Dispatch (hr) (n=1025)	94:14:28	146:45:02 (n=560)	58:47:54 (n=18)
Total CONCOR Dwell Time for ICD TKD (hr) = 112:12:31			
<i>GC-FAC : Green-Channel Factory Stuffed Containers</i>			
<i>Warehouse: Cargo gate-in in closed trucks and offloaded in warehouse for Customs examination, followed by stuffing into container</i>			
<i>Direct: Cargo gate-in in closed trucks, followed by Customs examination on truck and direct loading into container</i>			

2.3. Transit Time - CFS and ICD

Export transit time is the time taken for the container to reach the port. The rail transit time for ICD has been calculated based on the difference between the time of loading on rail and arrival (gate-in) of the container at the port (Table 18). The CFS transit time has been taken from the time of exit of a container from CFS to its arrival (gate-in) at the port. This figure has been assumed on the basis of field observations. For the month of August the transit time for ICD Tughlakabad could not be calculated for export containers as the relevant timestamps were not provided by the relevant agency.

Parameter	CFS	ICD Tughlakabad
Average time taken (hr)	12*	
* assumed		

2.4. Terminal Dwell Time

Terminal dwell time is calculated as the time taken from arrival of a container at the port to the time of vessel sail off. The categorisation of containers as well as the overall average dwell time and average time taken stage-wise have been represented in Table 19, Table 20, Table 21 and Table 22.

Parameter	JNPCT (n)	GTICT (n)	NSICT (n)	NSIGT (n)
Total number of export containers	21,485	34,784	17,287	14,900
Number of containers from CFS	7,099 (33.04%)	10,629 (30.56%)	-	-
Number of containers from ICD	3,797 (17.68%)	7,866 (22.61%)	4,899 (28.34%)	4,141 (27.80%)
Number of Direct Port Entry (DPE)	10,589 (49.28%)	16,289 (46.83%)	12,388 (71.66%)	10,759 (72.20%)
<i>Note: a) The containers from NSICT and NSIGT has been classified on the basis of mode (outbound carrier) -Rail and Truck. The containers with the mode "Truck" have been taken as DPE for analysis b) For GTICT, DPE includes both Factory Stuffed and ICD by Road as has been reported c) The 'n' values represent Full Container Load (FCL) containers only, They also take into account only export containers and not re-export and transshipment containers d) Figures in brackets represent percentage share</i>				

Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE
Average dwell time (container arrival at port to vessel sail off) (hr)	89:19:33	143:23:09	91:48:46	90:28:50	131:18:22	92:16:44	-	125:46:31	91:25:11	-	128:45:01	82:25:58
Average terminal dwell time (hr)	100:06:19			100:33:18			101:09:21			95:18:19		
Average port dwell time (hr)	99:40:44											
<i>Note: Average port dwell time is the weighted average for all four terminals in terms of export FCL containers handled</i>												

Table 21: Container Loading to Vessel Sail Off - Export Containers for August 2017												
Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE
Average time from container loading to vessel sail off (hr)	16:44:51	15:05:11	15:57:38	9:34:36	9:11:34	9:08:58	-	11:12:00	10:58:55	-	11:30:17	10:45:35
Terminal Average (hr)	16:03:57			9:17:23			11:02:38			10:58:04		
Port Average (hr)	11:32:18											
<i>Note: Average time for port is the weighted average for all four terminals in terms of export FCL containers handled</i>												

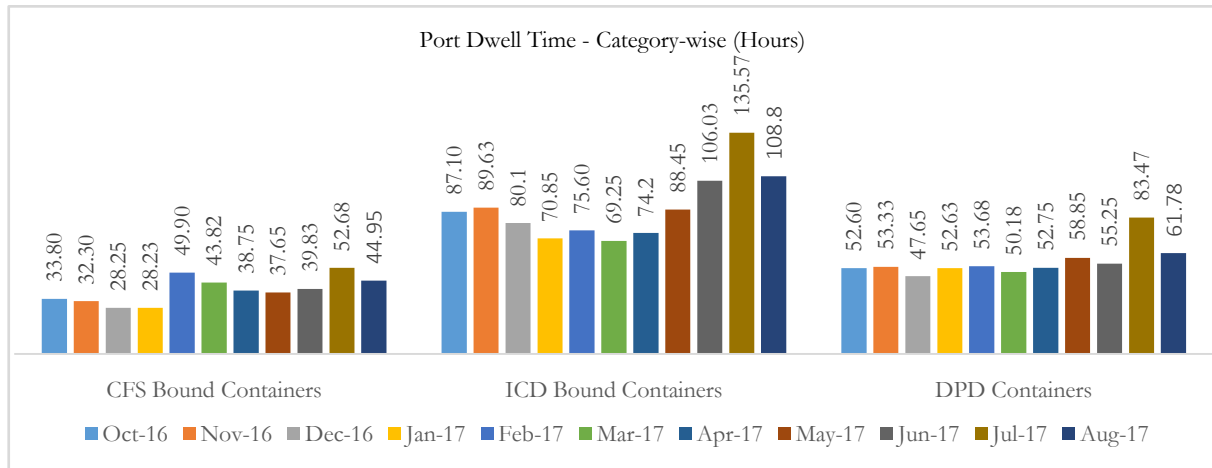
Table 22: Container Arrival to Container Loading - Export Containers for August 2017												
Parameter	JNPCT			GTICT			NSICT			NSIGT		
	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE	CFS	ICD	DPE
Average time from container arrival at port to container loading (hr)	73:02:18	128:40:11	76:18:41	80:54:18	122:06:52	83:07:46	-	114:34:47	80:26:25	-	117:26:03	71:54:03
Terminal Average (hr)	84:28:59			91:15:56			90:06:55			84:33:12		
Port Average (hr)	88:15:46											
<i>Note: Average time for port is the weighted average for all four terminals in terms of export FCL containers handled</i>												

3. Trend Analysis

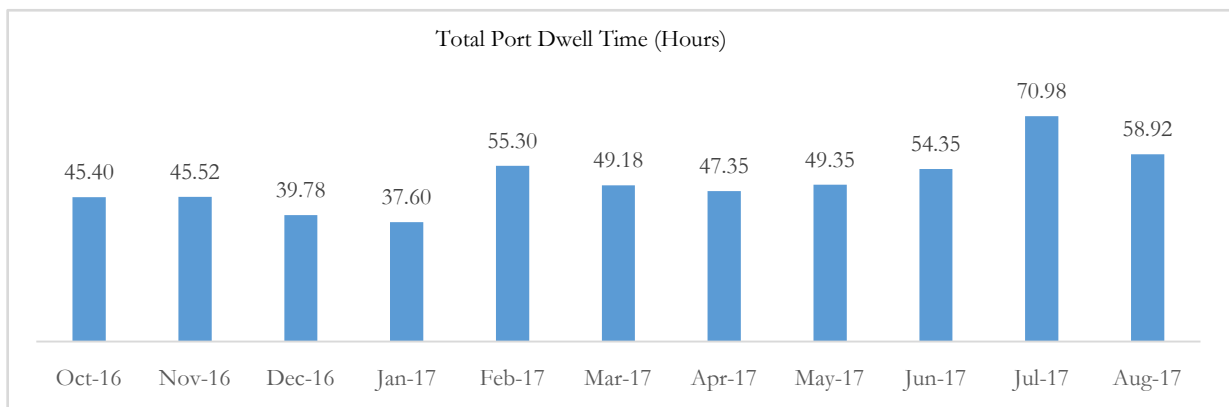
This section aims at analysing the trends in key metrics pertaining to the import and export value chains encompassing the JNP. The monthly comparison of the metrics have been depicted below:

3.1. Imports

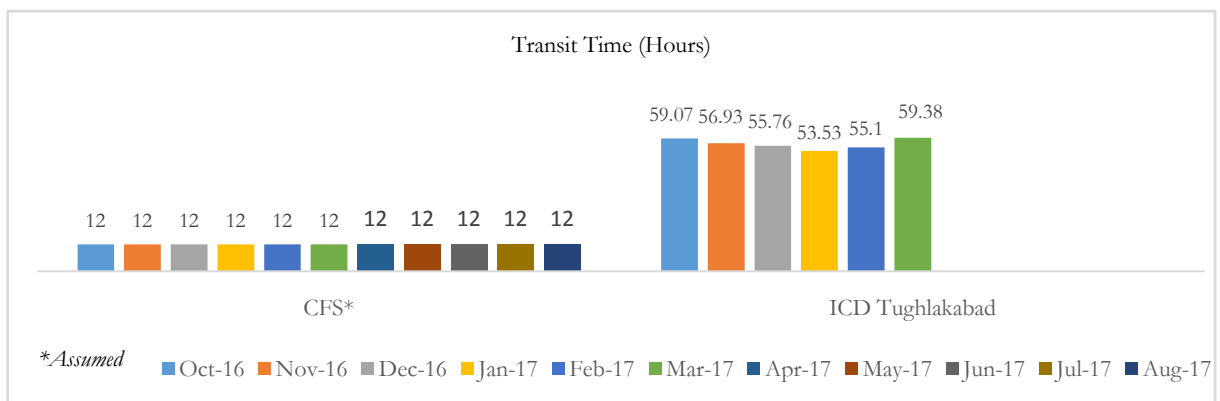
3.1.1. Port Dwell Time – Category-wise



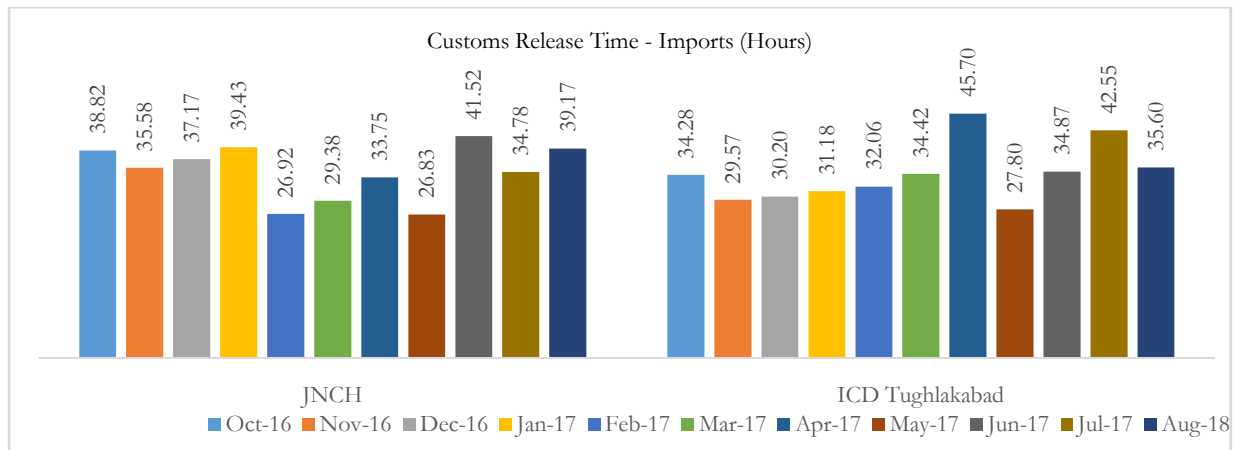
3.1.2. Total Port Dwell Time - All Terminals



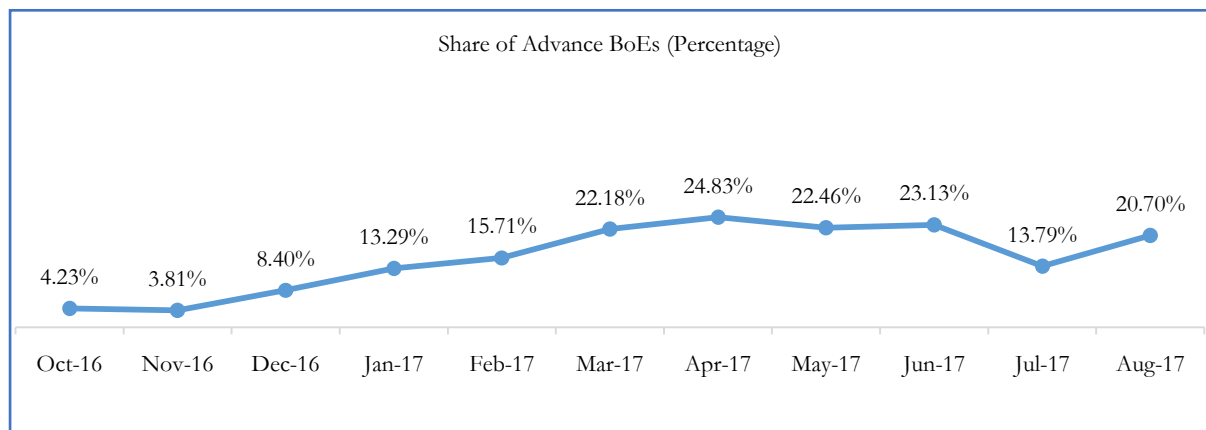
3.1.3. Transit Time



3.1.4. Customs Release Time

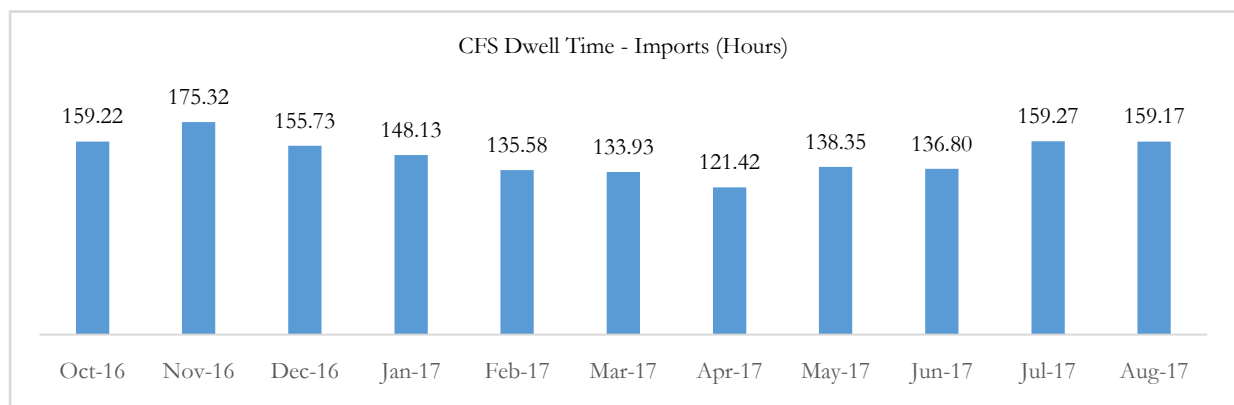


3.1.5. Advance Bill of Entry

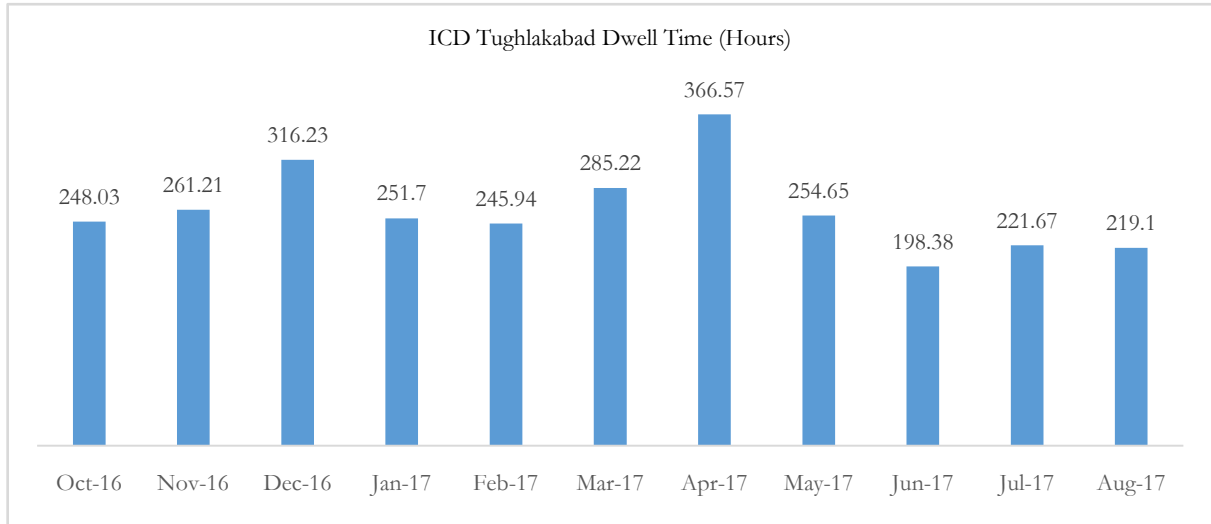


3.1.6. Custodian Dwell Time

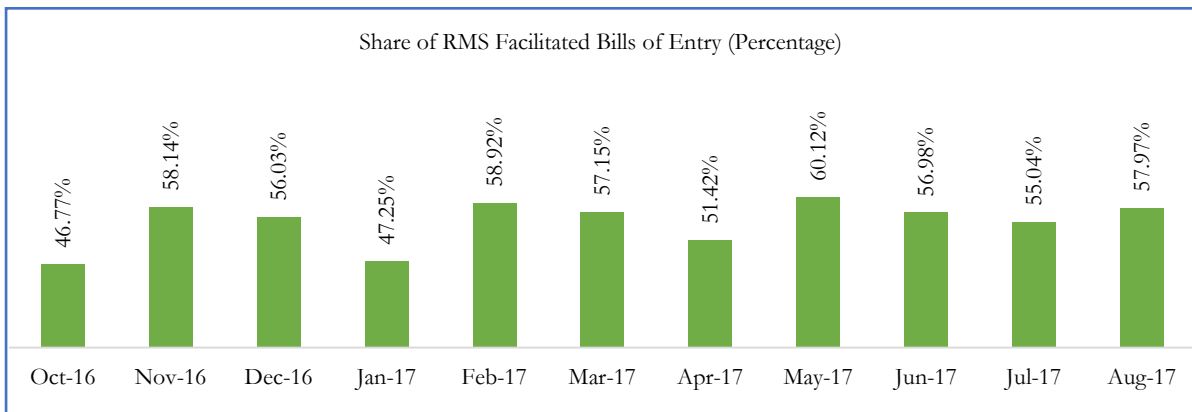
i) CFS



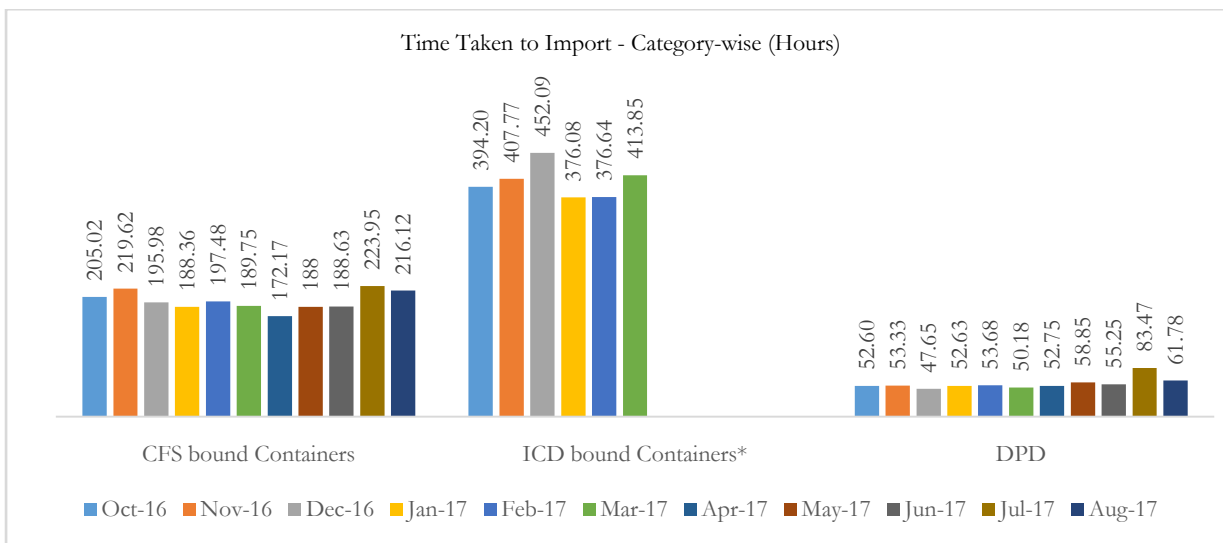
ii) CONCOR (ICD Tughlakabad)



3.1.7. RMS Bills of Entry- JNCH



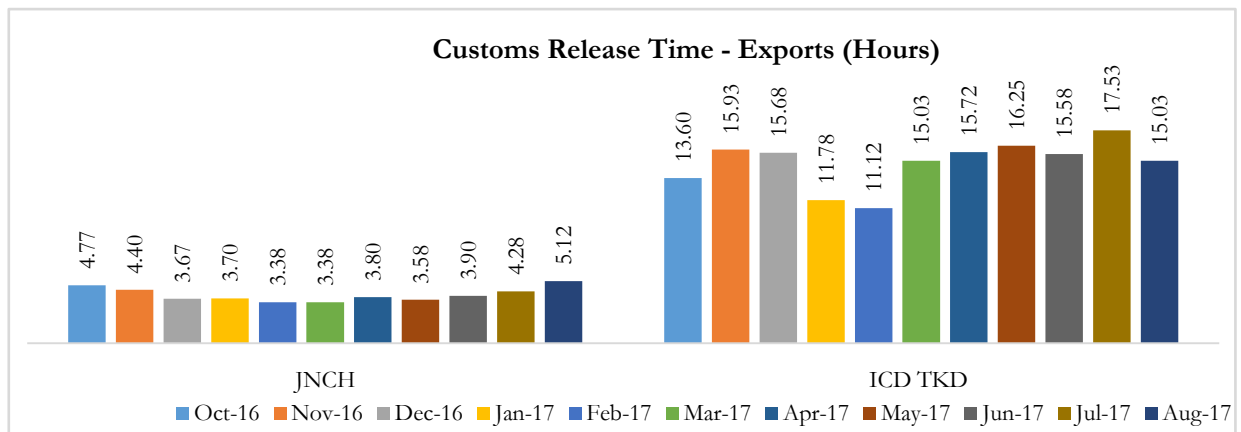
3.1.8. Total Import Time – Category-wise



* As ICD transit time for the months of April, May, June, July and August are not available, total ICD dwell time is not reflected in the above figure.

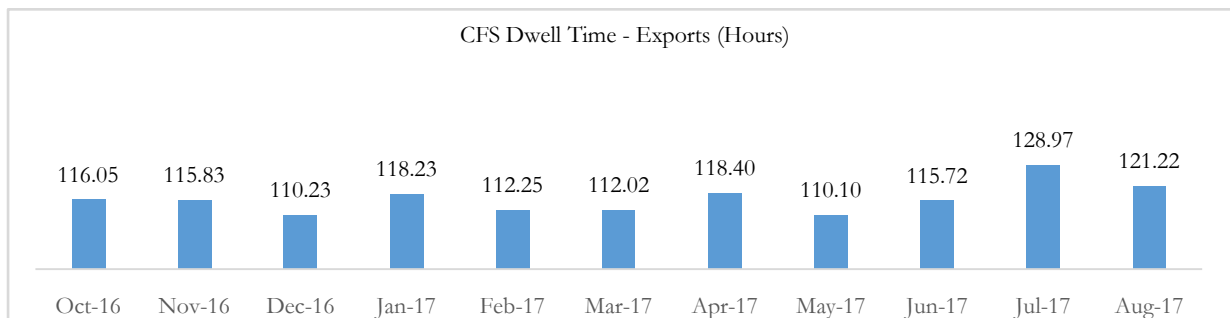
3.2. Exports

3.2.1. Customs Release Time

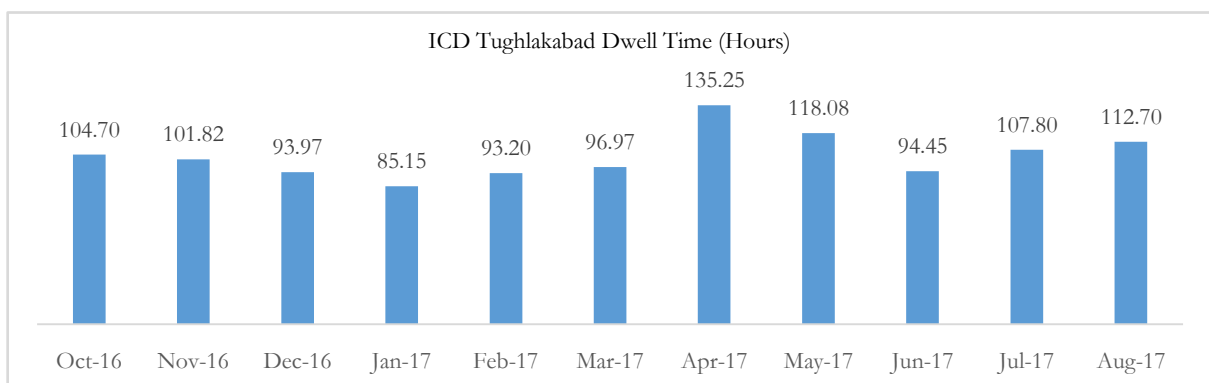


3.2.2. Custodian Dwell Time

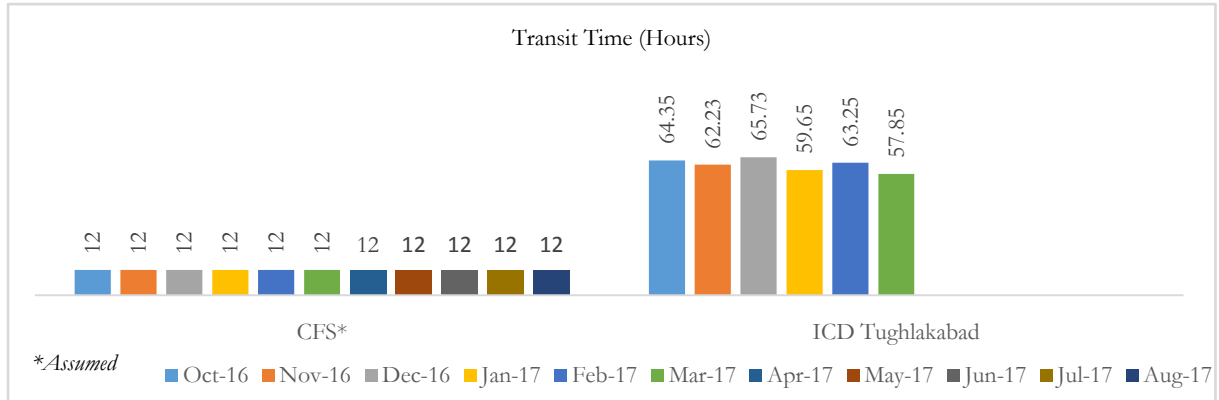
i) CFS



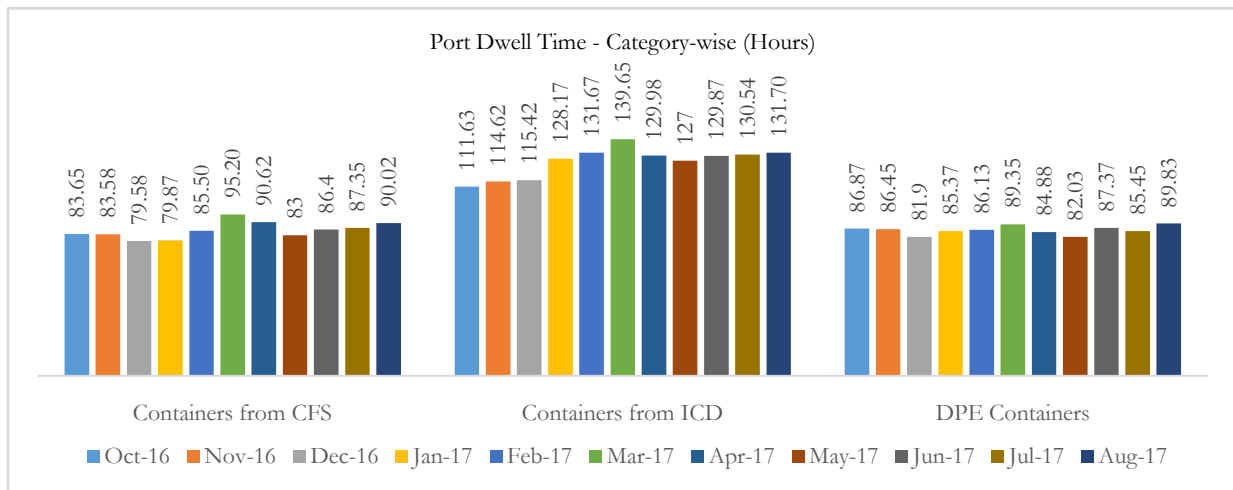
ii) ICD Tughlakabad



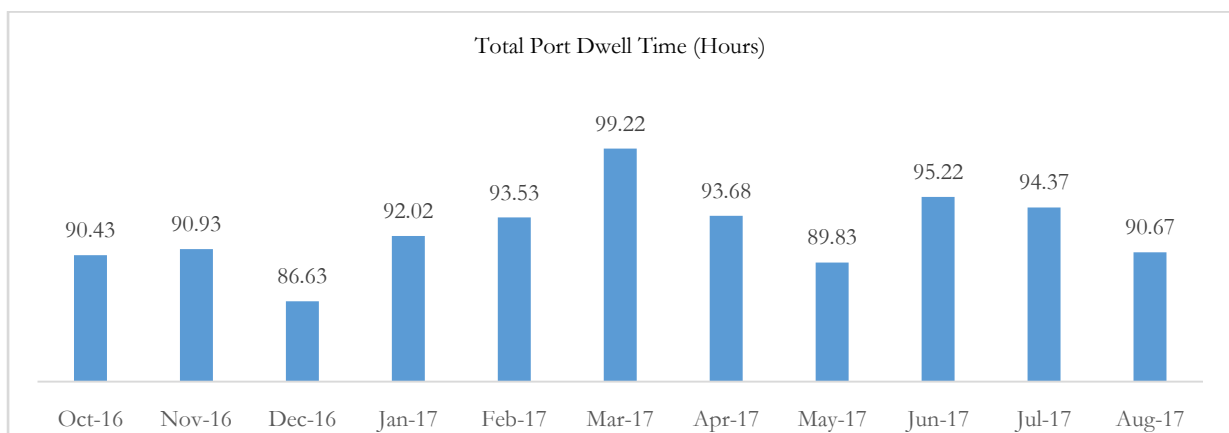
3.2.3. Transit Time



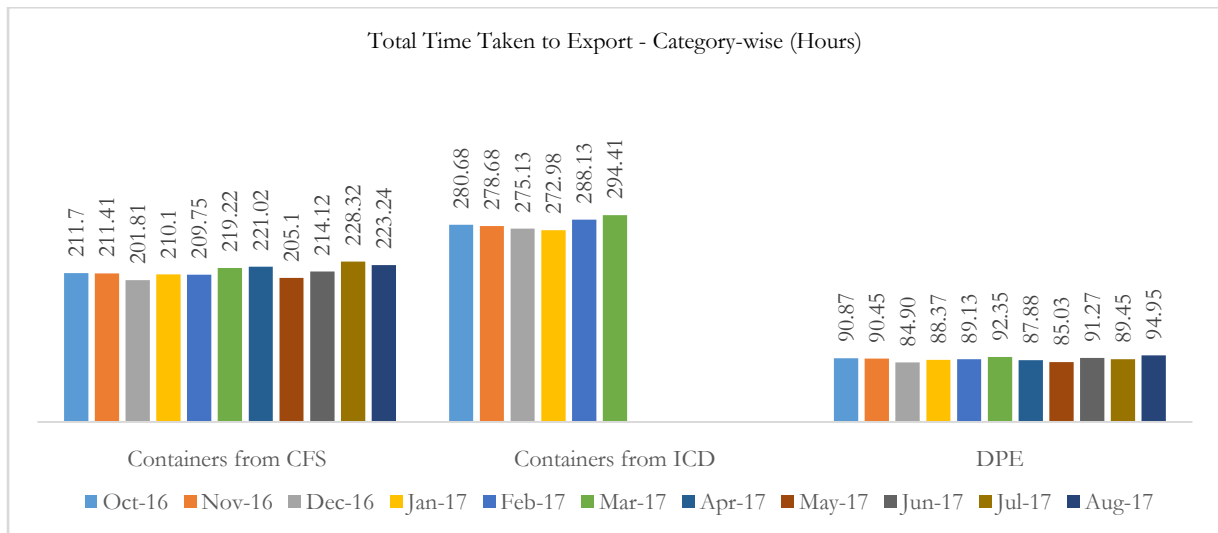
3.2.4. Port Dwell Time – Category-wise



3.2.5. Total Port Dwell Time - All terminals



3.2.6. Total Export Time – Category-wise

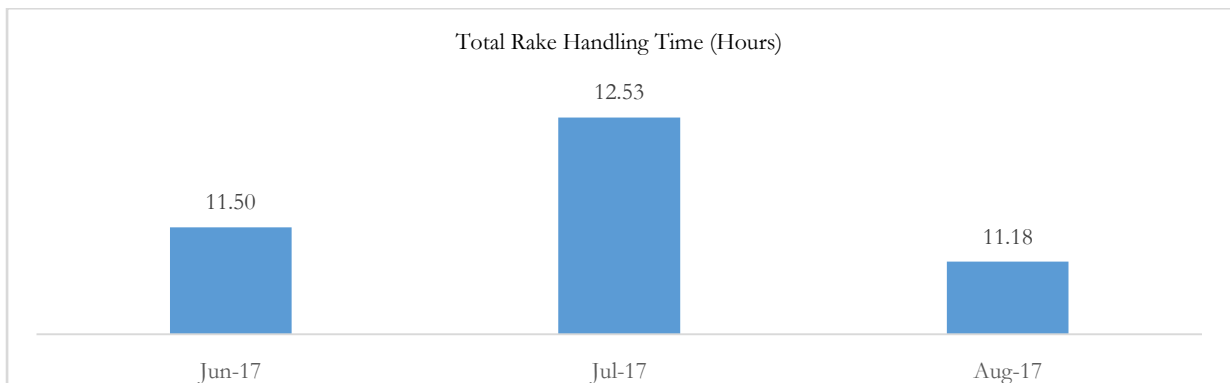


* As ICD transit time for the months of April, May, June, July and August are not available, total ICD dwell time is not reflected in the above figure.

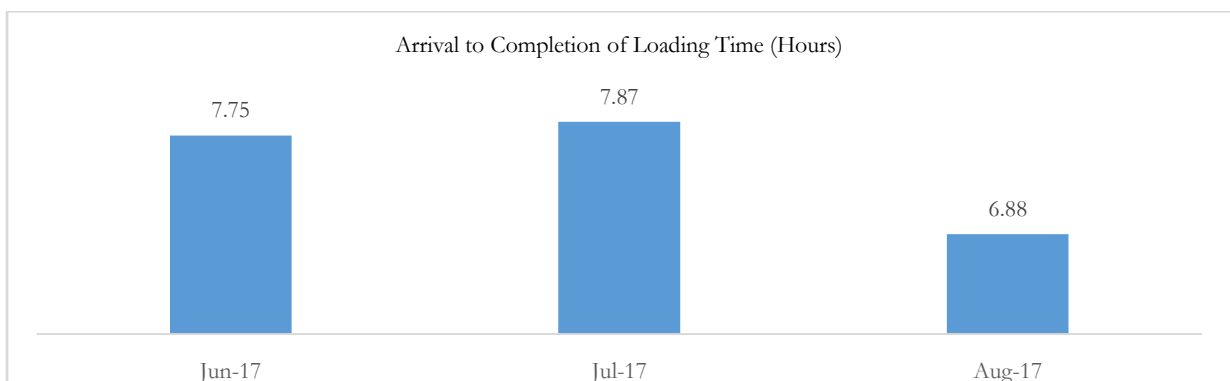
** Total time for DPE is inclusive of customs release time (assumed)

3.3. Rake Handling

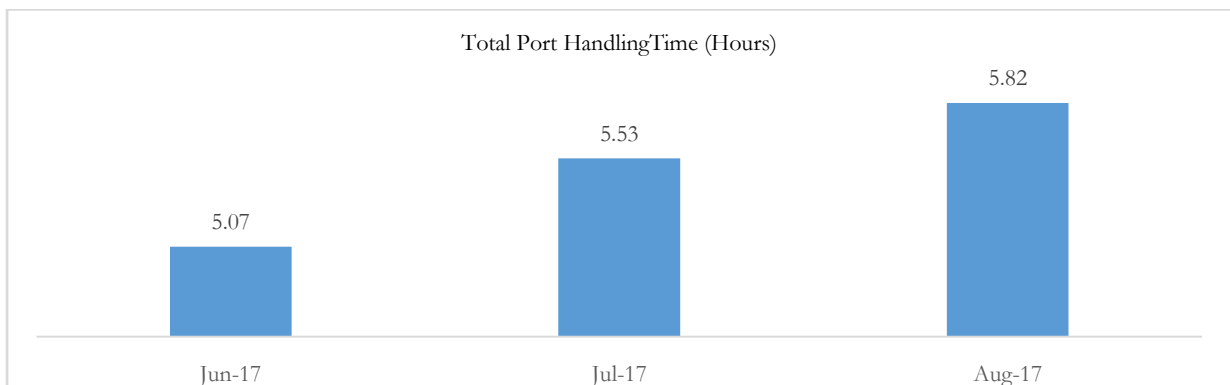
3.3.1. Total Rake Handling Time- Arrival to Departure



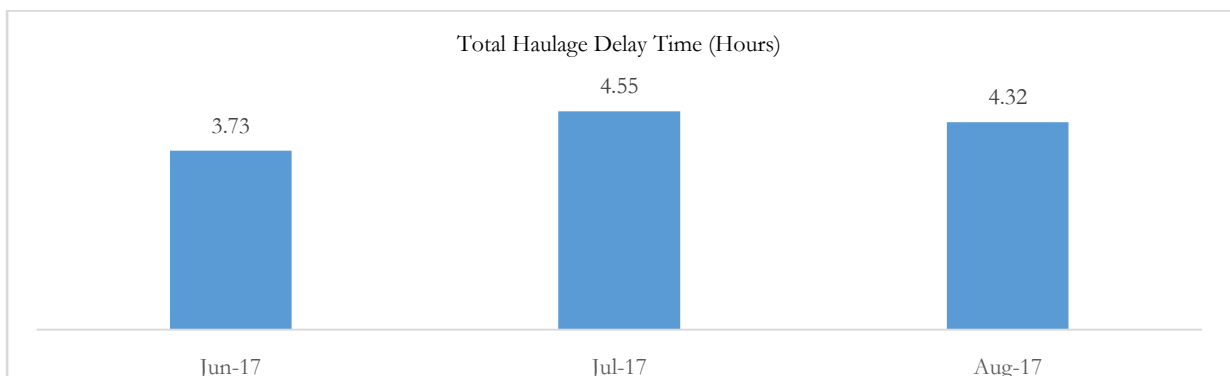
3.3.2. Arrival to Completion of Loading



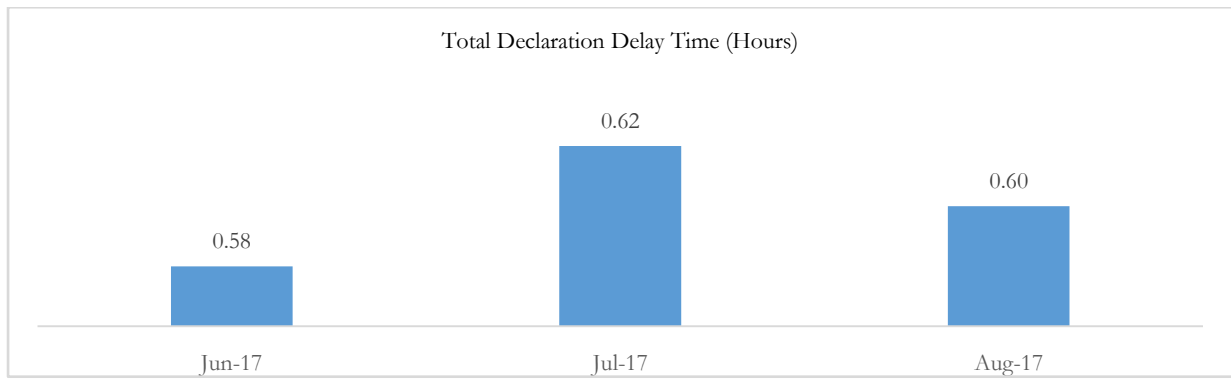
3.3.3. Total Port Handling Time



3.3.4. Haulage Delay



3.3.5. Declaration Delay



ANNEXURE 1 - Imports

1.1. CFS Dwell Time

Table 23: CFS Specific Dwell Time for August 2017				
	A	B	C	D
CFS	Average time taken from gate-in to seal cutting	Average time taken from seal cutting to OOC	Average time taken from OOC to Gate-out	Total (Gate-in to gate out)
Total	82:27:15	23:37:57	67:04:34	159:10:46
AllCargo Main	101:03:57	15:24:20	73:05:15	127:54:05
AllCargo Annexe	70:48:07	8:56:00	45:57:13	98:33:06
APM	117:15:46	12:11:37	80:48:34	153:41:37
EFC	131:31:30	32:05:07	60:52:06	179:47:55
Seabird	131:37:17	NA	NA	170:55:50

1.2. Dwell Time by PGAs

Table 24: Average Time Taken by PGAs in August 2017					
	CDRUG	AQCS	WCCB	FSSAI	PQ
Total number of Containers (n)	9558	1641	564	1437	12261
Time taken from B/E filing to sample collection (hr)	15:38:05	16:31:02	16:22:11	N/A	N/A
Time taken from sample collection to report publishing (hr)	186:12:13	221:14:37	91:38:20	360:24:43	243:51:56

ANNEXURE 2 - Exports

2.1. CFS Dwell Time

Table 25: CFS Specific Dwell Time for August 2017				
CFS	Average time taken from Export Order to container stuffing	Container stuffing to movement order	Movement order to gate out	Total (ECO to gate out)
Total	92:56:49	26:05:24	18:00:56	121:13:13
AllCargo Main	98:25:05	35:27:26	22:16:11	128:34:55
AllCargo Annexe	95:56:37	22:54:58	5:35:04	117:59:36
APM	26:39:01	NA	NA	45:12:10
EFC	147:01:11	33:07:41	7:02:48	181:23:33
Seabird	126:01:41	27:02:32	33:22:14	180:27:15

ANNEXURE 3 –Filing of Bill of Entry

Table 26: Filing of Bill of Entry for August 2017		
Time of Filing	Number of BoEs Filled	Percentage
Prior to Arrival of the Vessel	36072	49%
Within 24 Hrs of the Arrival	10291	14%
Between 24-30 Hrs of Arrival	50	0.001%
Between 30- 48 Hrs of Arrival	9005	12%
Post 48 Hrs of the Arrival	17962	24%

ANNEXURE 4 – Port Dwell Time of ICD Tughlakabad Bound Containers

Table 27: Dwell Time of ICD TKD EXIM Containers		
Particulars	ICD TKD	ALL ICDs
IMPORT		
Port Dwell Time	68:48 Hr	108:48 Hr
Vessel Berthing to Container Discharge	10:54 Hr	10:25 Hr
Container Discharge to Container Port Out	57:55 Hr	98:23 Hr
EXPORT		
Port Dwell Time	130:28* Hr	131:42 Hr
Port In to Container Load	119:34 Hr	120:35 Hr
Container Load to Vessel Sail-Off	11:05 Hr	11:11 Hr
<p><i>* The Export numbers in case of ICD TKD have been calculated using data from three terminals. NSIGT data does not provide ICD codes, as such dwell time for TKD containers from NSIGT could not be included in the above table.</i></p>		

ANNEXURE 5 – Documentary Compliance

In case of time taken for the documentary compliance at the JNP, there are no time-stamps that are recorded by agencies involved in issuing or accepting of documents pertaining to EXIM trade. The documentary compliance time provided in this section is perception based. This section has been developed after talking to a sample of 20 traders/agents from JNP, ICD TKD and Chennai port.

Documentary Compliance Time

Process	Time (Hours)
Import	59
Export	60

**In the calculation of figures in the table, the time taken to obtain or submit the documents physically include the travel time to the place of obtaining or submitting the document, waiting time, processing time, etc. For example in order to obtain the Delivery Order, the trader has to go to the shipping line office and produce the original copy of bill of lading. Similarly in case of exports, in order to obtain the customs export declaration, the trader/agent has to go physically to the customs office and collect the document.*

Documents Required for EXIM

The documents required to carry out trade through the JNP comprise of:

Import	Export
<ul style="list-style-type: none"> ○ Commercial Invoice ○ Packing List ○ Certificate of Origin (if required) ○ Import General Manifest (IGM) ○ Bill of Lading ○ Bill of Entry (BoE) ○ Delivery Order (DO) 	<ul style="list-style-type: none"> ○ Commercial Invoice ○ Packing List ○ Shipping Bill ○ Bill of Lading ○ Certificate of Origin (if required)

** The number of documents may vary with the commodity being traded, however, the above mentioned documents are required in most of the traded commodities.*

Documentation Process

Import	Export
<ul style="list-style-type: none"> ○ Commercial Invoice and Packing List are prepared by the trader at the source location and forwarded to the importer in India. These documents can be accessed and downloaded through online mode as well, however, the original copies are sent to the importer through courier/post. ○ At the source location, the shipping line files the Import General Manifest (IGM). ○ The importer in India files the Bill of Entry on the basis of the <i>Packing List</i>, <i>Commercial Invoice</i> and the <i>IGM</i>. The importer can file the BoE using the duplicate copies of the above mentioned documents. The BoE can be filed even before the IGM has been filed, however, in India, majority of the traders file the BoE after IGM to minimise 	<ul style="list-style-type: none"> ○ The exporter prepares the Commercial Invoice and the Packing List. ○ With the help of the invoice and packing list the exporter can file the Shipping Bill. The shipping bill can be filed online using the customs ICEGATE server. ○ On the basis of invoice, packing list and the Customs Export Declaration, the Bill of Lading can be obtained from the shipping lines and the same can be transferred to the buyer in other country. ○ In case the exported commodity is eligible for any kind of duty drawback, the exporter needs a Certificate of Origin which can be obtained from trade bodies authorised by Ministry of Commerce.

<p>any kind of mistake which would result in the amendment of the BoE leading to time and cost escalations in the documentary process.</p> <ul style="list-style-type: none"> ○ Once the BoE has been accepted and duty paid against the cargo, the importer needs the Delivery Order to take the cargo. In order to obtain the Delivery Order, the importer has to present the original Bill of Lading to the shipping line. ○ Once the Bill of Lading has been presented and the payment of shipping lines cleared, the Delivery Order can be obtained. ○ The custodian of the cargo releases the consignment against the Delivery Order and payment of charges by the importer. 	
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Constraints in Documentation Process

- Bill of Entry/Shipping Bill: The filing of Bill of Entry and Shipping Bill has been made online which shouldn't take more than 10-15 minutes. However, frequent breakdown of the ICEGATE server delays the process of filing of the documents. On account of the technical glitches in the ICEGATE system, the traders tend to submit paper copies of the relevant documents in person to ensure that the documentation process has been completed in time. Even though the filing of these documents is free of cost, but in order to file the documents manually (physical form), the trader has to hire the services of an agent or send a representative to the EDI Service Centre, which involves costs.
- Bill of Lading: The issuance of the bill of lading depends upon the nature of agreement between the trader and the shipping line – the bill of lading can be transferred through the bank to the importer who takes it from the bank against the payment of cargo, or the importer can pay his trading partner in advance in which case the bill of lading will be handed over to the shipping lines at the source port only. In most cases of India, the traders get their Bill of Lading from the Bank and then go to submit the same in the shipping lines office for obtaining delivery order.
- Delivery Order: The current practice in India is that the trader or the agent has to clear the charges of the shipping line and submit the Bill of Lading in original before obtaining the delivery order. Although a number of shipping lines have introduced issuance of Delivery Orders through e-mails and other chat based applications, traders in India still go in person to the shipping line's office and physically collect the Delivery Order. The reason for this may be that since a trader has to go to the shipping lines office to submit the Bill of Lading, they tend to take the Delivery order physically. Further, the issuance of the delivery order is not completely electronic in India. Currently, the shipping lines send the delivery order to the custodian or the trader or the agent through an e-mail. The trader takes a print-out of the same or shows this e-mail to the custodian of the container - Terminal, CFS or ICD – after which the consignment can be released. The ideal situation should be that the shipping line issues the D.O electronically and it gets reflected in the custodian's system (Terminal, CFS or ICD).

- Commercial Invoice and Packing List: As part of the ease of doing business programme, the CBEC has merged the commercial invoice and packing list into a single document in order to reduce the number of mandatory documents required to trade through Indian ports. However, exporters prepare separate copies of the two documents, as part of the requirement from the buyer's side.
- Lack of Coordination between Departments: In case the duty drawback, it has been observed that data transfer between the departments – Customs and DGFT- is not synchronised, which creates problems for the exporters. Lack of data integration process results in movement of hard copies between relevant agencies leading to time and cost escalation of documentation process.
- Requirement of Hard copies of Documents: In case of imports, particularly for DPD containers, it has been reported that the terminals ask for hard copies of Bill of Entry, Delivery Order and Customs Out of Charge which defeats the idea of paperless documentation. All the three documents can be accessed in an electronic mode: BoE and OOC can be accessed through the customs ICEGATE whereas the Delivery Order can be sent to the terminals through an e-mail.