



*A Collaborative Effort
for a Collective Change*

*The Arrival of Mega Cargo Ships and the Effect on Port Operations
CPP Gate Operations Implementation*

*Richard Ceci
VP IT GCT USA*

INTRODUCTION



- *Global Container Terminals*
- *Third Largest Port Operator in North America*
- *Four facilities*
 - *Delta Terminal (Vancouver, Canada)*
 - *Vanterm (Vancouver, Canada)*
 - *GCT New York (Staten Island, New York)*
 - *GCT Bayonne (Bayonne, New Jersey)*
- *ACTIVE Participant In CPP Gate Operations Team*

INTRODUCTION

GCT Bayonne (Global)



140 acres
900k lifts/year
2 berths
RTG+TP+RMG (20)
Semi-Automatic

THE PROBLEM



- Vessel sizes have been growing very fast (2x size every 7 years)
- Infrastructure to support big vessels has not kept pace
- On-time vessel performance continues to be an issue.
 - Big vessels OFF schedule = BIG PROBLEMS
 - Terminal capacity should probably be de-rated by 10-15%
 - Greatest impact on first call ports (LA/LB and NJ/NJ)
 - One - 5000 move vessel does NOT equal five – 1000 move vessels
- Vessel operating surges impact Yard and Gate performance
- Off hour gates are significantly underutilized. So if its not M-F 6-6 “FORGET ABOUT IT”

BIG SHIP CHALLENGES



- Larger ships = Larger Container Exchanges
 - 5000 move ship – 2500 ON & 2500 OFF
 - Assume 100 Berth Moves per Hour
 - The ship will work for **50** consecutive hours
 - Gate activity required approx. 1000 moves per day (625 Imports 375 Exports).
 - The above calculations assume that cargo is uniform every day, which we all know is NOT the case.
 - Yard areas must be larger to handle the exchange.
- Truckers are normally paid by the move
 - High priority on getting 1-2 moves per day
 - Gate Lines are processed first come first server (Early Bird Incentive)
 - Earning a living depends on getting a minimum amount of work done
 - **Waiting in lines is not PRODUCTIVE (the topic of the day)**
- Terminal operations labor is in short supply
 - Some equipment cannot be deployed
 - Some operations less efficient when performed by casual labor

GCT Bayonne Case Study



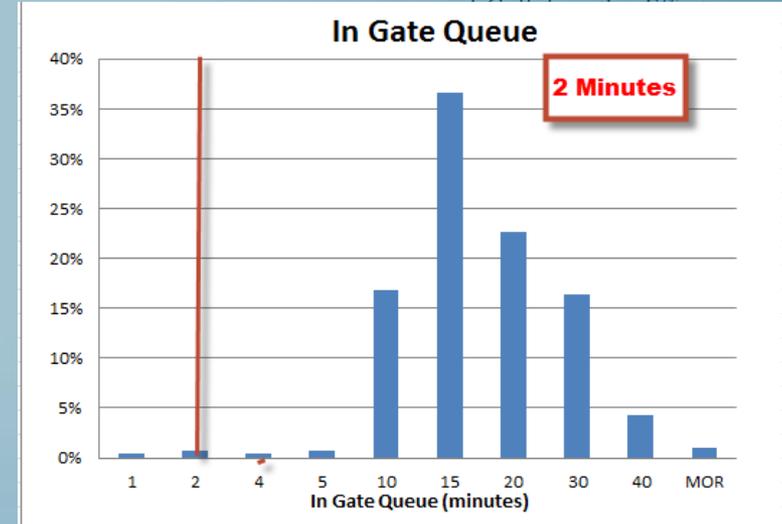
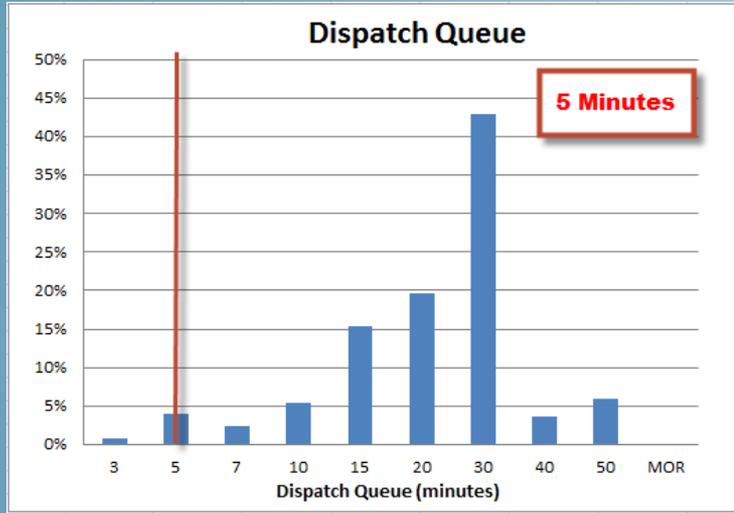
- On Terminal – In Gate Queue approx. 200 trucks.
- Inside the terminal - 300+ trucks depending on where they are going!!!!

GCT Bayonne Case Study

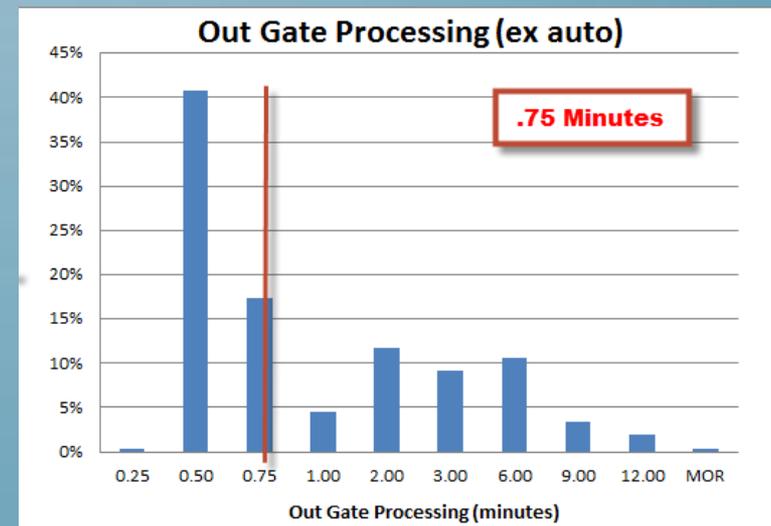


Turnaround Times		Time base is IN PORTAL hour - Not including Reefers and TROUBLE and Canceled and Unknown and Missing INPORT RFID																
(minutes)		5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	Overall
Dispatch Queue (In Portal to Dispatch)	Num	94	133	159	148	167	153	168	155	165	149	111	0	0	0	0	0	1602
	Avg	45.8	27.0	22.6	17.9	16.9	10.0	23.3	20.6	21.6	17.2	6.4						20.3
In-Gate Queue (Dispatch to In Gate Start)	Num	94	133	159	148	167	153	168	155	165	149	111	0	0	0	0	7	1609
	Avg	14.2	14.6	14.8	17.6	12.9	19.5	16.6	14.7	19.8	13.3	13.4					12.1	15.7
In-Gate Processing (In Gate Start to In Gate Done)	Num	95	133	160	149	167	156	169	156	165	151	112	0	0	0	0	8	1621
	Avg	5.9	3.8	4.2	4.2	3.5	5.7	4.3	4.3	4.5	4.1	3.3					3.7	4.3

GCT Bayonne Case Study



- Target Total Time = 7.75 minutes
- That's savings of 32 minutes
- **REAL MINUTES !!!**



GCT Bayonne Case Study

Global Desktop - Exception Checker

Stack 07	Stack 08	Stack 09	Stack 10	Stack 11
8	12	10	8	8
1 34000646 09:03:22 P	1 33957339 08:39:52 P	1 34168810 08:37:41 A	1	1 33991842 09:02:46 A
2	2	2 33956216 08:59:34 P	2 33984972 09:02:00 A	2
3	3	3 33992295 09:03:35 P	3	3
4 33997745 09:03:14 P	4 34117003 08:22:26 P	4 33995576 08:50:35 P	4	4
5	5	5 34004260 08:53:33 P	5	5
Stack 12	Stack 13	Stack 14	Stack 15	Stack 16
12	9	9	3	5
1	1 33997779 08:33:52 X	1	1	1 33984507 08:34:53 P
2	2 33956696 08:57:49 P	2	2	2 33958200 08:39:11 A
3	3 33957247 08:38:09 P	3	3	3 33986042 08:54:55 P
4 34006411 08:24:34 P	4 33983937 08:25:38 A	4	4	4
5 34008086 08:58:16 P	5 33984052 08:50:56 P	5	5	5 33993900 09:01:53 P

FULL

NONE

NONE



Yard time budget approx. 30 minutes

Target TOTAL Turn Time 45 minutes

GCT Bayonne Case Study #2

Gate Daily Performance Report

6/9/2015

20150610-034511

V2.0

Turnaround Times

Time base is IN PORTAL hour - Not including Reefers and TROUBLE and Canceled and Unknown and Missing INPORT RFID

(minutes)		5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	Overall
Single Move Turn	Num	0	109	42	77	76	80	83	91	87	93	76	55	37	0	0	0	906
(In RFID to Out Gate Raised)	Avg		75.3	73.5	57.1	46.4	38.2	36.1	35.9	41.2	36.1	38.4	31.8	23.1				45.3
Double Move Turn	Num	0	127	63	42	39	55	60	57	51	40	25	12	0	0	0	0	571
(In RFID to Out Gate Raised)	Avg		83.2	91.7	79.6	61.2	47.3	55.3	58.2	56.5	58.4	48.0	39.4					66.9
Reefer Turn Time	Num	0	22	14	16	4	13	15	11	12	16	10	0	0	0	0	0	133
Reefer IN and OUT Only	Avg		106.6	102.2	86.6	63.3	101.4	102.6	102.7	115.5	119.4	86.0						101.9
Trouble Turn Time	Num	0	50	23	27	25	22	21	24	20	21	27	13	2	0	0	0	275
Any Trouble visits	Avg		91.0	83.7	82.7	64.9	70.5	75.5	54.5	77.6	67.3	59.0	46.8	28.7				72.7
Conventional Turn Time	Num	0	236	105	119	115	135	143	148	138	133	101	67	37	0	0	1	1478
(In RFID to Out Gate Raised)	Avg		55.8	65.9	57.6	47.0	37.3	39.0	39.3	42.0	38.0	36.5	28.4	19.3			25.9	44.6
Total Turn Time	Num	0	236	105	119	115	135	143	148	138	133	101	67	37	0	0	0	1477
(In Portal to Out Gate Raised)	Avg		79.6	84.4	65.0	51.4	41.9	44.1	44.5	46.8	42.8	40.8	33.2	23.1				53.6

- Conventional Turn Time - 44.6 minutes (NOT BAD!!)
- Total Turn Time – 53.6 minutes (9 minutes in queues)
- Total Moves – 2714 (no chassis moves)
- Trucks – 1966
- Gate Open 6AM – close 6PM – last truck OUT – 6:23PM

Case Study #2 – Good Day? Depends!!

Stack By Hour

(minutes)

Conventional Turn Time is In Gate to Out gate - NOTE - Dual RMG moves counted 2x once for each stack. Time is still based on In Portal event

		5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	Overall
Stack 07	Num	0	20	5	4	8	7	11	6	4	8	7	5	1	0	0	0	86
	Avg		61.0	67.0	60.3	33.0	37.3	45.2	42.2	48.8	39.7	26.6	25.4	17.6				45.5
Stack 08	Num	0	17	14	4	8	9	12	8	8	15	8	5	4	0	0	0	112
	Avg		42.8	55.5	30.3	39.3	41.7	43.5	42.6	46.0	41.0	44.3	29.3	14.4				42.1
Stack 09	Num	0	16	7	8	7	9	16	6	17	4	2	0	4	0	0	0	96
	Avg		57.7	52.8	45.5	43.2	45.4	40.4	33.7	52.4	42.1	33.3		21.4				46.1
Stack 10	Num	0	14	14	8	9	14	10	11	12	10	10	6	3	0	0	0	121
	Avg		60.4	67.2	48.2	53.3	39.3	47.8	43.5	42.3	42.6	43.7	28.7	21.1				47.7
Stack 11	Num	0	30	12	3	9	7	10	14	11	18	4	3	4	0	0	0	125
	Avg		76.6	110.8	116.9	63.8	45.9	41.5	39.8	36.8	52.5	39.2	27.3	20.1				60.1
Stack 12	Num	0	26	5	7	7	14	12	14	7	7	6	5	3	0	0	0	113
	Avg		59.9	84.4	45.6	57.7	37.4	37.5	51.0	58.3	40.6	52.2	43.7	15.7				50.1
Stack 13	Num	0	11	8	16	7	1	8	9	12	14	4	2	0	0	0	0	92
	Avg		52.8	70.6	85.1	73.6	28.4	31.1	32.9	46.9	50.8	28.8	21.3					54.7
Stack 14	Num	0	19	14	5	6	11	12	7	9	10	8	6	1	0	0	0	108
	Avg		54.7	70.1	53.0	58.6	38.6	41.5	40.2	39.2	41.8	42.5	21.3	12.9				47.1
Stack 15	Num	0	32	12	10	0	8	9	14	15	9	6	5	4	0	0	0	124
	Avg		69.5	104.0	111.6		38.4	37.7	40.9	38.0	40.2	30.7	19.4	18.5				57.2
Stack 16	Num	0	18	5	14	7	9	13	4	2	5	3	2	1	0	0	0	83
	Avg		38.2	76.0	64.2	29.5	34.5	42.4	62.6	25.9	29.9	30.0	37.2	22.8				44.2

SOLUTION



APPOINTMENT SYSTEM

RESERVATION SYSTEM

MANAGEMENT SYSTEM

GCT Bayonne When & How



- All terminals in the Port of NY/NJ have agreed to implement a central Container Availability Website (TIPS)
 - This website went live on September 1
 - Very Positive Reviews – Usage is growing
- GCT Bayonne will pilot a truck reservation system in 1Q16
- There is interest in other ports on the East Coast as well.
 - Virginia currently has a pilot TRS running

Thanks

And if you haven't done it yet – sign up for TIPS

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