

# Managing Port Drayage

**Dan Smith**  
**The Tioga Group, Inc.**

**June 2014**

**[dsmith@tiogagroup.com](mailto:dsmith@tiogagroup.com)/925-631-0742**

## **Agriculture Transportation Coalition**

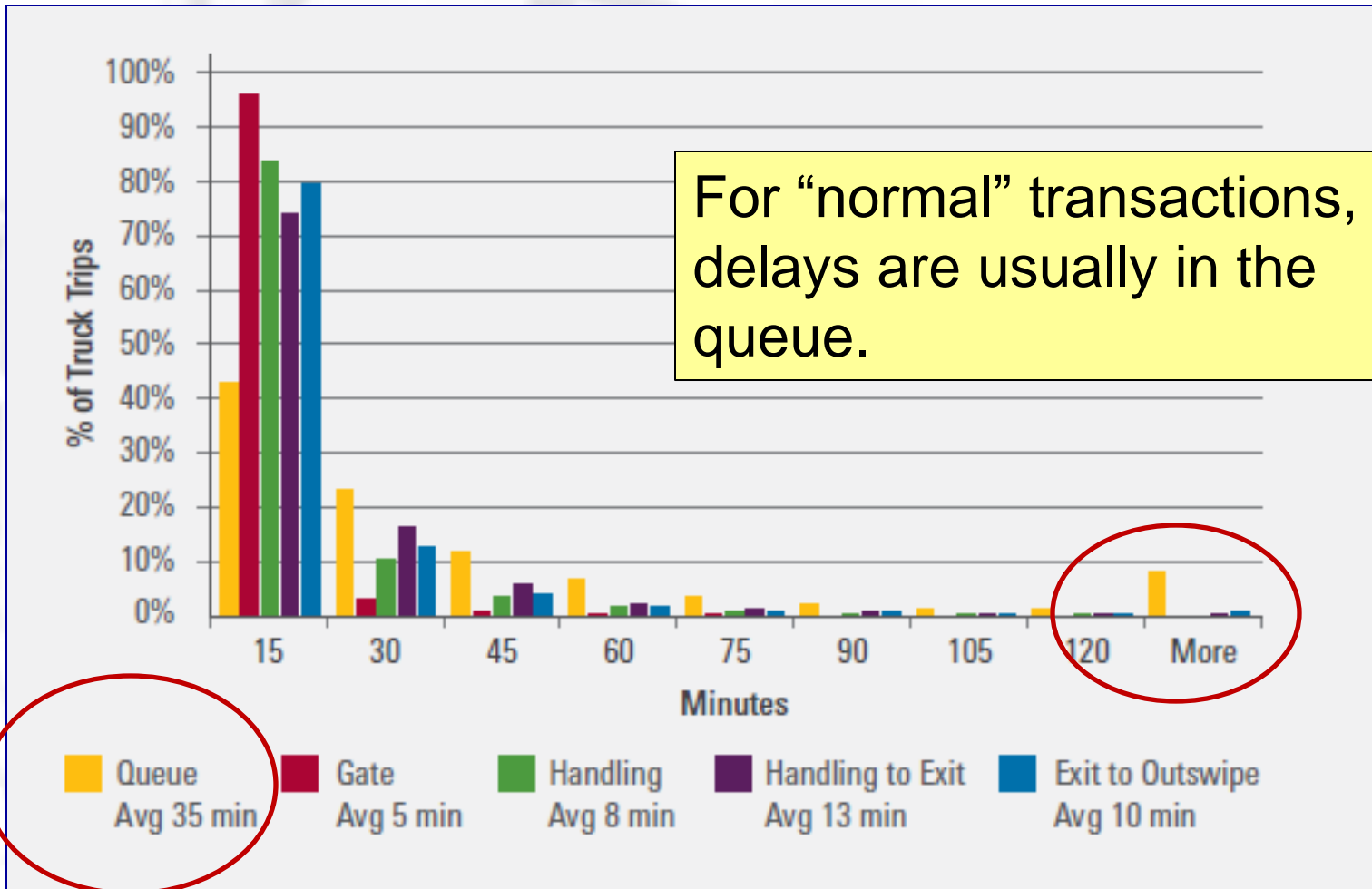
*"The principal voice of agriculture in U.S. transportation policy"*

**Drayage delays are costing \$348 million, 14 million hours, and 9 million gallons of fuel annually, and emitting 103,000 tons of GHGs**

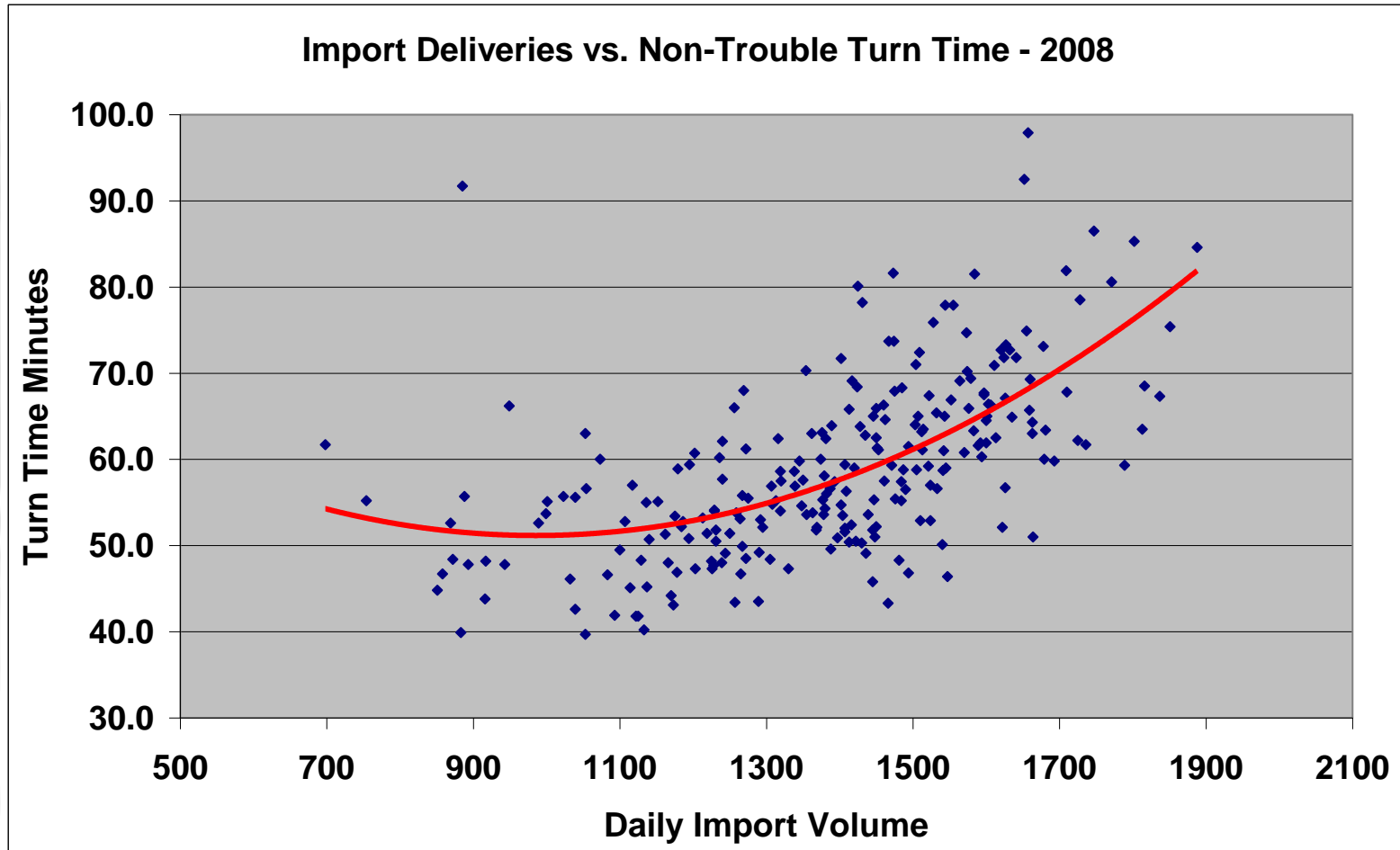
Scenario	Hours (million)	Fuel (million gal)	C02 (tons)	Pollutants (tons)	Cost (million)
2012 National Estimate	45	80	891,052	11,309	\$ 1,640
30 vs. 40 Minute Terminal Time	4	2	17,821	253	\$ 90
10 vs. 20 Minute Queue Time	3	2	24,949	355	\$ 79
0% vs. 5% Trouble Tickets	1	0	4,455	67	\$ 23
Chassis Solution	7	5	56,136	794	\$ 156
<b>Fix it All</b>	<b>14</b>	<b>9</b>	<b>103,362</b>	<b>1,469</b>	<b>\$ 348</b>

# Where does the time (and my money) go?

## Centerm Vancouver Fall 2012

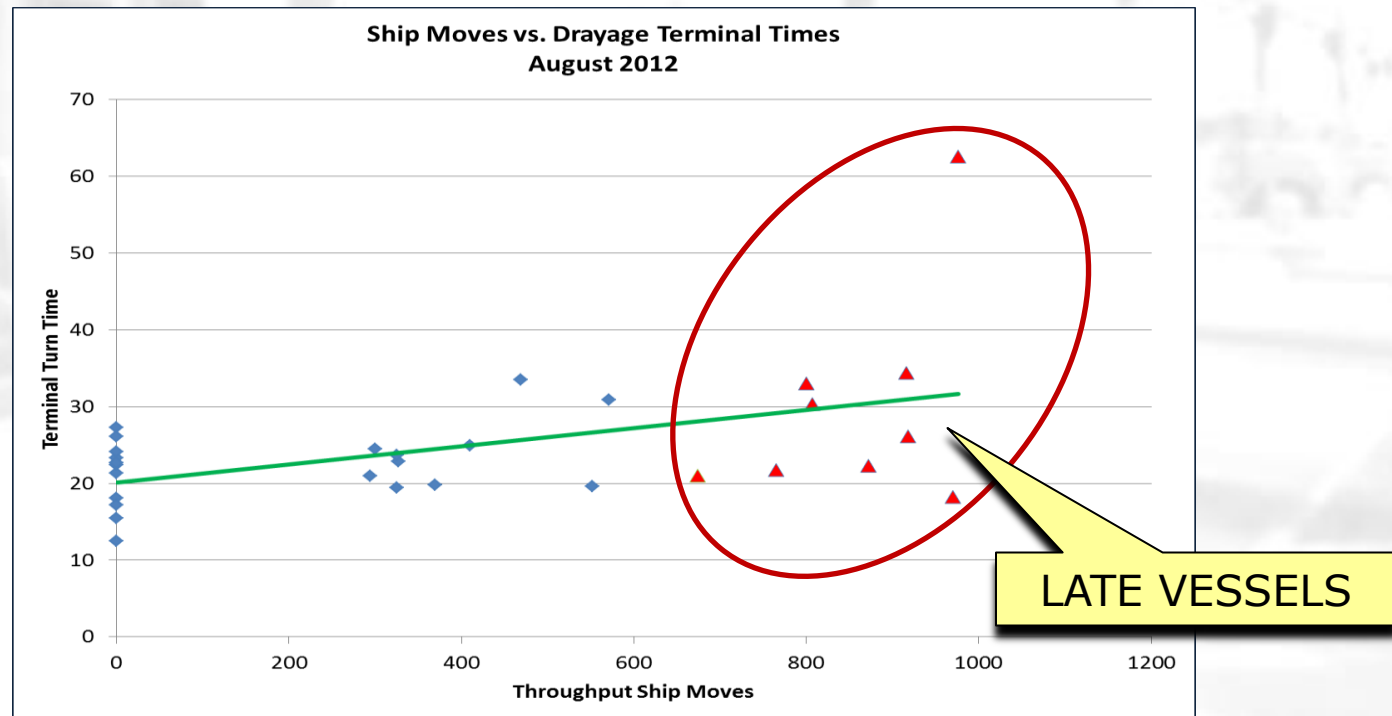


## Congestion drives up in-terminal turn times

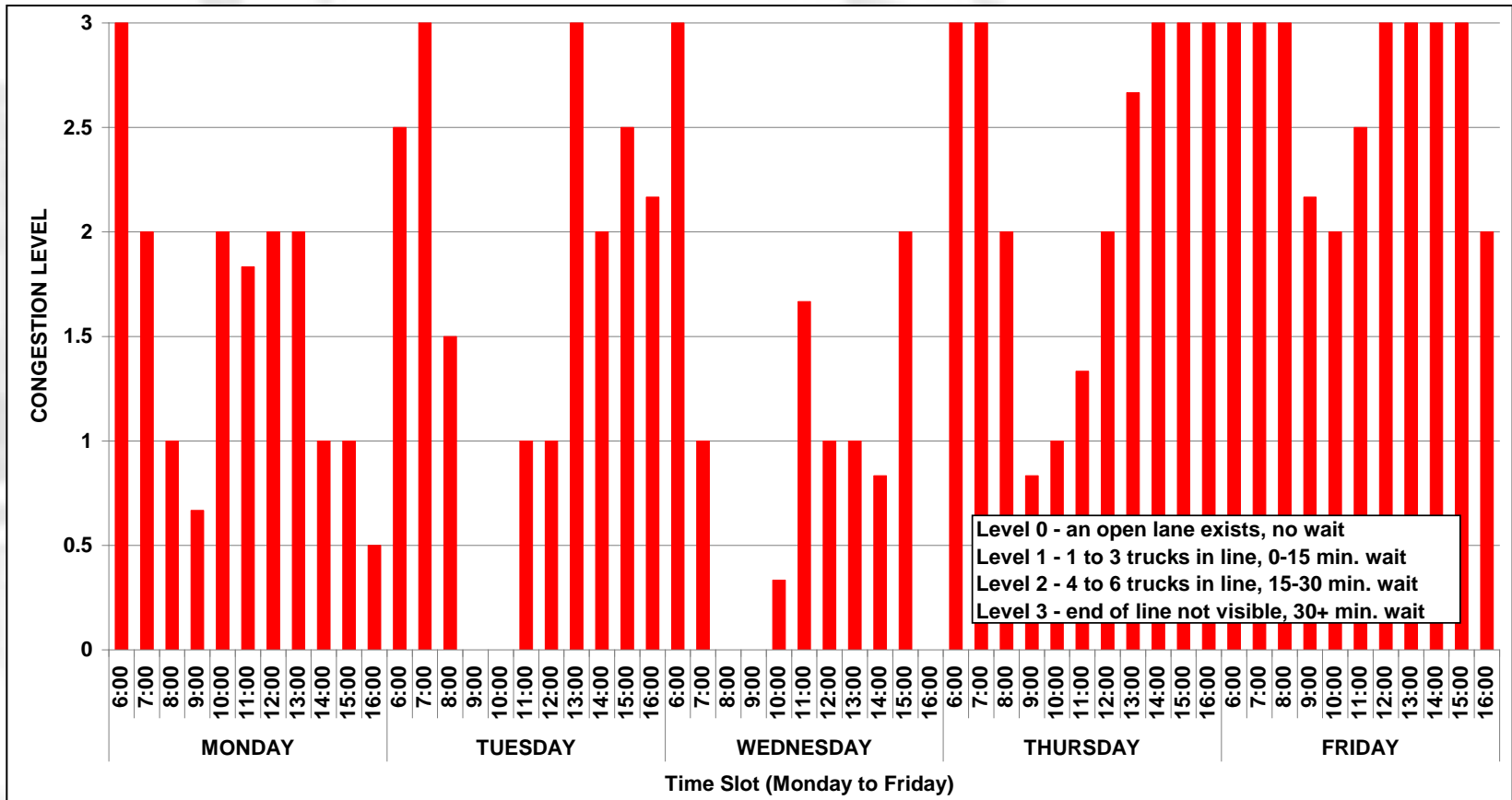


# Pick carriers that run ships on time

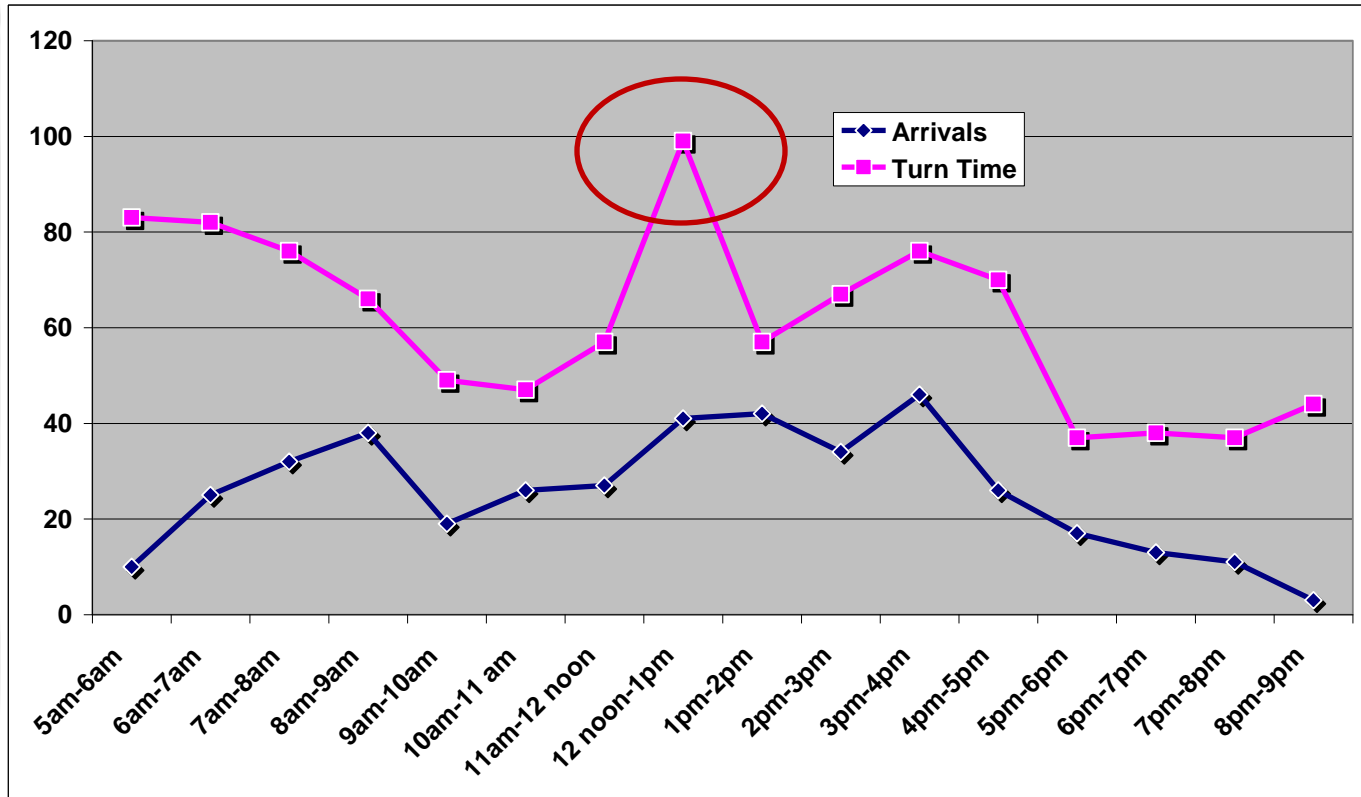
- **Terminal times tend to rise with daily ship moves, and ship moves rise with late vessels.**
- **Terminal ability to cope with late vessels and high move counts varies – good days and bad days.**



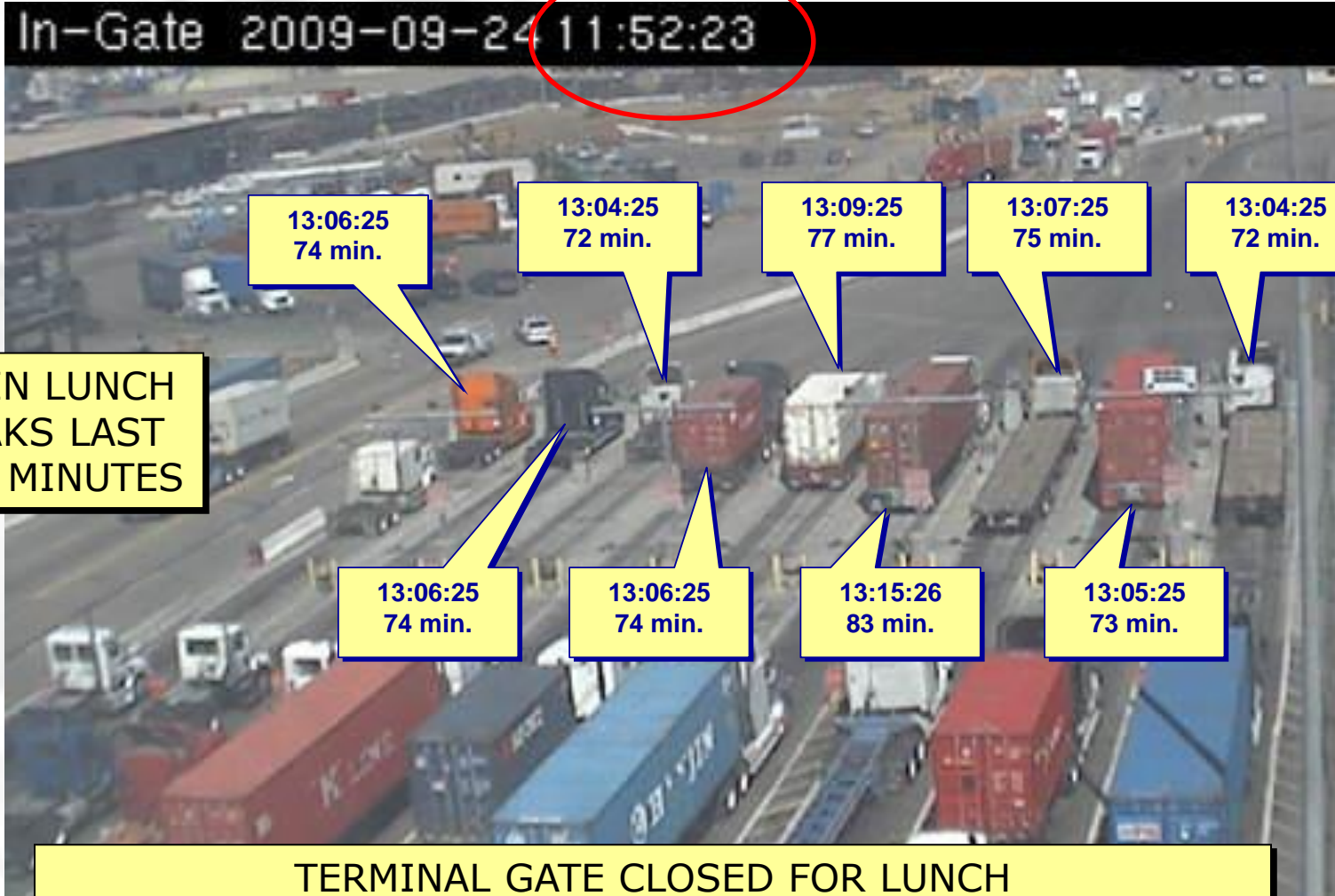
## Long queues in the morning and for export cut-offs



- **Closing for lunch and coffee breaks causes turn time spikes and idling**
- **The cost to customers probably exceeds the savings to terminals**



# Pick terminals with staggered breaks



In-Gate 2009-09-24 11:52:23

13:06:25  
74 min.

13:04:25  
72 min.

13:09:25  
77 min.

13:07:25  
75 min.

13:04:25  
72 min.

60-MIN LUNCH  
BREAKS LAST  
75-90 MINUTES

13:06:25  
74 min.

13:06:25  
74 min.

13:15:26  
83 min.

13:05:25  
73 min.

TERMINAL GATE CLOSED FOR LUNCH  
- FRONT ROW SPENDS 72-83 MINUTES AT PEDESTAL



- **CY closures without advance notice strand truckers in terminals and gate queues, and turn two-way moves into one-way moves**
- **Closure announcements without end times leave truckers no way to plan**

DAY	DATE	SHIFT	CONFIRMED CLOSED AREAS	COMMENTS
TUE	2/18/2014	1ST	A09, B08, C08, F06, F08, G05-08, N07	
TUE	2/18/2014	2ND	E08, F04-07, G01-03, H01, J05-06, L01-02, N01-02,	
WED	2/19/2014	1ST	E02, E05-07, F01-03	
WED	2/19/2014	2ND	E01, E03, E04	

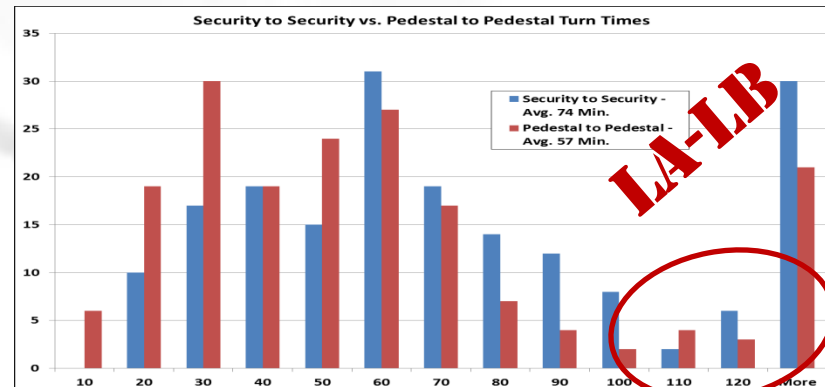
**GOOD**

**“9:28 AM - Valued Customers, Be advised that due to safety issues \_\_\_ will CLOSE the below areas until further notice: B4, D4, F8, F9, G0, K7-78, K7-82  
Regards, \_\_\_\_\_ Management”**

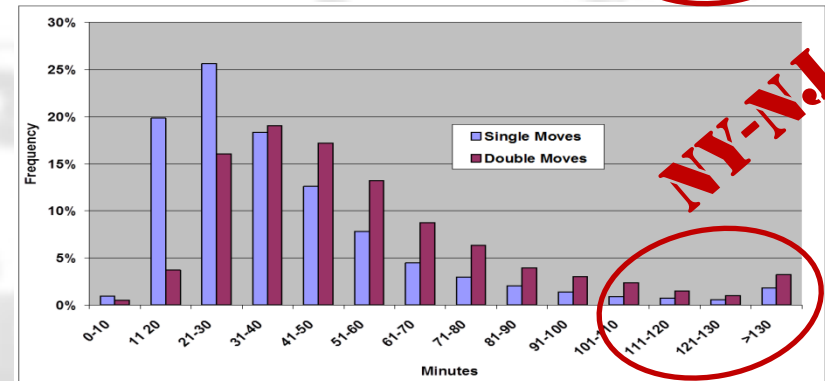
**BAD**

# Trouble tickets = \$\$\$\$\$

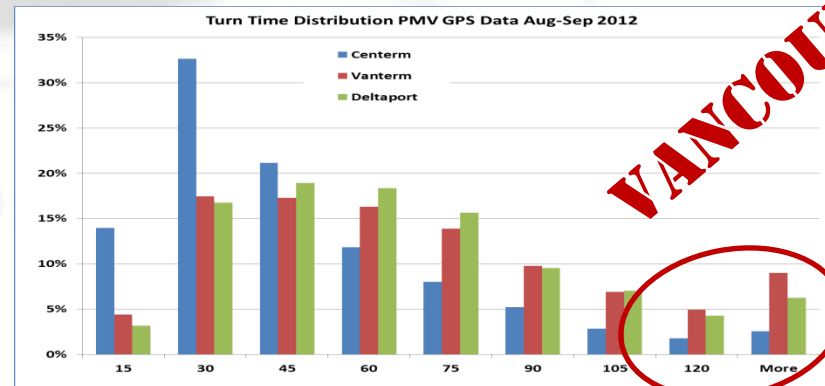
- About 5% of transactions are delayed by trouble tickets and account for 15% of total truck time
- Trouble tickets add about 60 minutes of delay each time
- Trouble tickets add 3 minutes to average turn times and delay clean transactions



LA-LB



NY-NJ



VANCOUVER

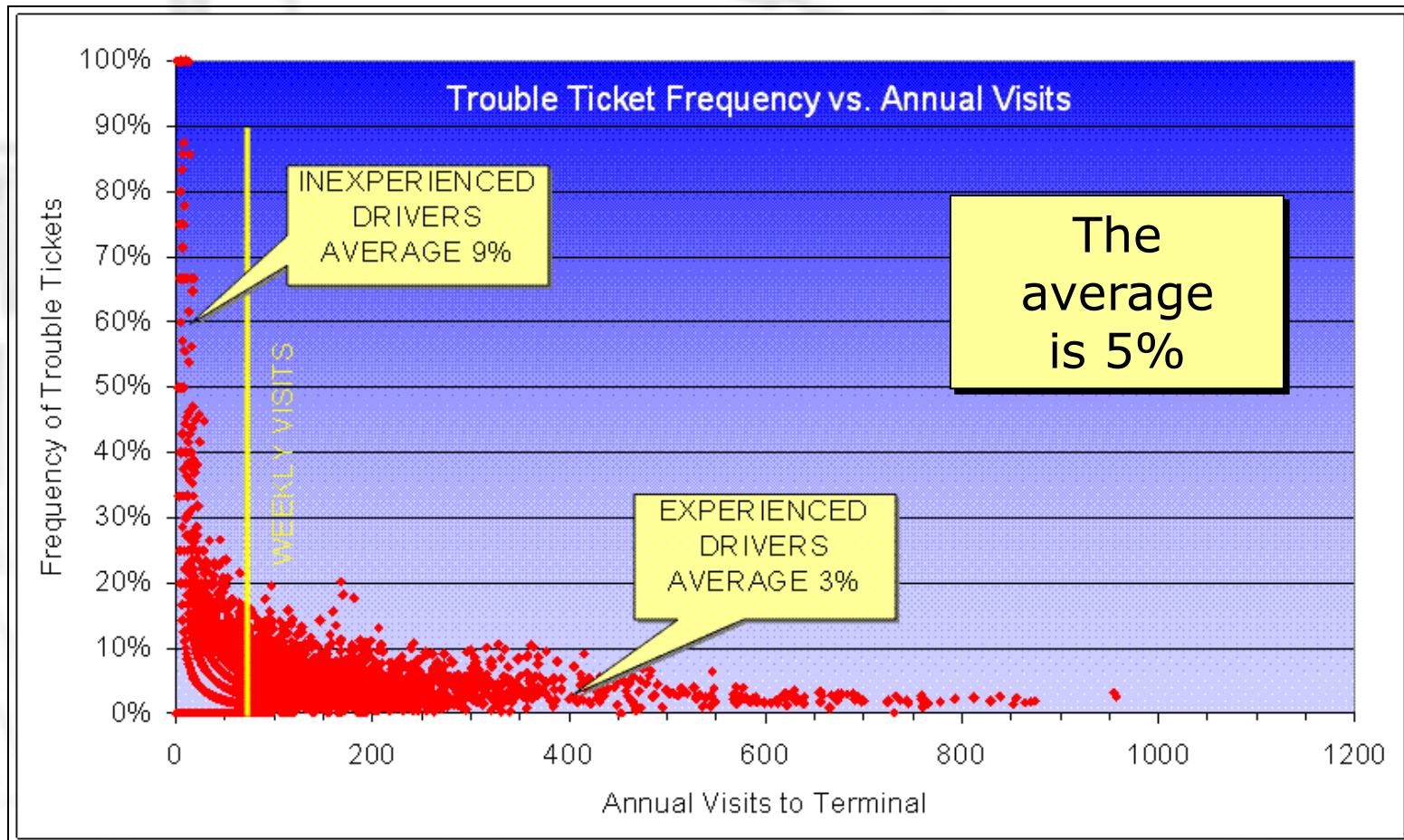
# Pick your trucker and ocean carrier

Trucking Company	Total trips	Transactions per trip	% Trouble Tickets
A	1124	1.2	2.2%
B	2649	1.7	2.5%
C	1210	1.3	3.7%
D	1146	1.4	3.9%
E	2878	1.2	4.4%
F	1329	1.4	5.6%
G	1193	1.5	8.5%

The average is 5%

Transaction Type	Line	Transactions	Trouble Flag	% Trouble Tickets
Deliver Import	A	3,438	172	5.0%
	B	4,049	169	4.2%
Deliver Empty	A	3,869	307	7.9%
	B	10,106	485	4.8%
Receive Export	A	3,391	242	7.1%
	B	9,721	414	4.3%
Receive Empty	A	4,197	108	2.6%
	B	3,482	26	0.7%
Total	A	14,895	829	5.6%
	B	27,358	1,094	4.0%

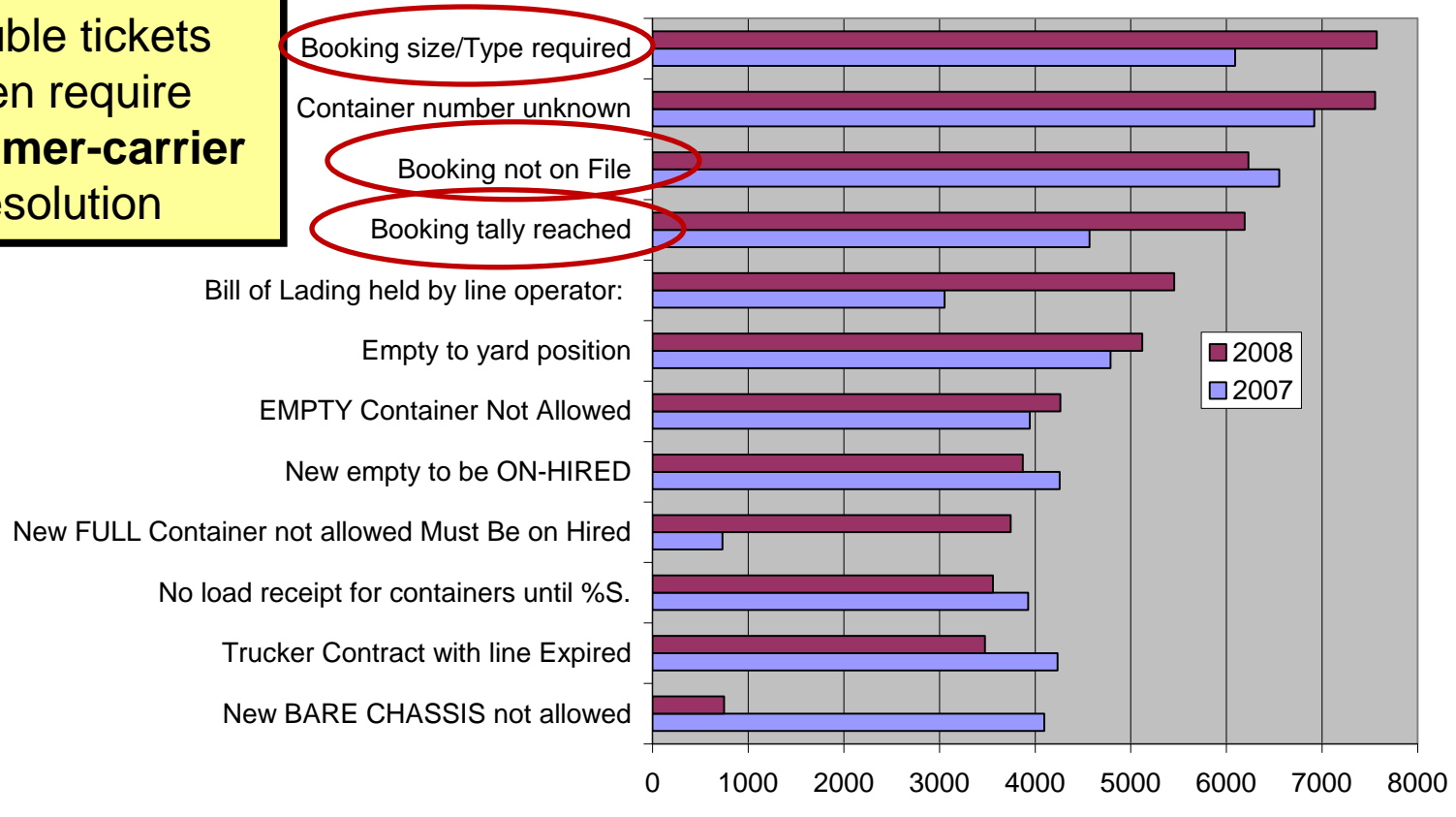
## Inexperienced drivers receive more trouble tickets and cause problems for everyone



## Trouble tickets are mostly preventable process and information problems

Trouble tickets often require customer-carrier resolution

TROUBLE TICKETS



- **Export booking errors are a major source of delay and cost**
- **About 80% of trouble tickets are preventable process errors**
- **Terminal systems errors account for at least 25% of trouble ticket delays**

Category/Reason	Share
<b><i>Booking Problems</i></b>	<b>28%</b>
Booking does not match equipment type	
Booking is not on file	
Booking tally has already been reached	
Missing notice for hazardous cargo	
Booking quantity exceeded for equipment type	
<b><i>Dispatch Problems</i></b>	<b>29%</b>
Cargo not yet released	
Driver or motor carrier credential problem	
Empty container/chassis not allowed	
Past cargo cutoff	
Demurrage due (unpaid bills)	
Container exceeds maximum safe weight	
<b><i>System Problems</i></b>	<b>22%</b>
Container/chassis not recognized*	
Duplicate transaction	
Container not found in yard	
<b><i>Other</i></b>	<b>20%</b>
<b>Total</b>	<b>100%</b>

\* May include Hazmat or other unusual loads

# Pick carriers with good equipment control

## Ocean carrier alliances hamper equipment control

- Truckers need to plan
- Daily changes in equipment pickup and return instructions are bad
- *Ad hoc* changes during the day are worse

ShiplineCode	ShiplineName	20ft Standard Dry Box	40ft Standard Dry Box	40ft High Cube Dry Box	45ft	Reefer	Any other size or type
AI	Alianca	NNIT	PPCY	PPCY	SNIT	SNIT	SNIT
AP	American President Line	SNIT	NCY/PPCY	SNIT	SNIT	INELIGIBLE	SNIT
AL	Atlantic Container Line	PPCY	PPCY	PPCY	SNIT	SNIT	SNIT
AN	Australian Natl Line	APM	PY ANNEX	PY ANNEX	NNIT	APM	APM
CV	Chilean Line (Csav)	PPCY	PPCY	PPCY	SNIT	SNIT	SNIT
CS	China Shipping Container Line	NNIT	NNIT	NNIT	NNIT	NNIT	NNIT
CA	Cma-Cgm (America) Inc	APM	PY ANNEX	PY ANNEX	NNIT	APM	APM
PA	Compania Libra De Navegacion	PPCY	PPCY	PPCY	SNIT	SNIT	SNIT
CH	Cosco (China Ocean Shipping)	APM	PPCY	PPCY	APM	APM	APM
IC	Eimskip U.S.A. Iceland	NCY/PPCY	NCY/PPCY	PPCY	SNIT	SNIT	SNIT
EV	Evergreen Marine	PPCY	PY ANNEX	PPCY	APM	APM	APM
CO	Hamburg Sud Na	NNIT	PPCY	PPCY	SNIT	SNIT	SNIT
HJ	Hanjin Shipping Line	APM	PPCY	PPCY	SNIT	SNIT	SNIT
HP	Hapag Lloyd Container Line	PPCY	PPCY	PPCY	NNIT	SNIT	NNIT
HY	Hyundai America Shipping Agcy	PPCY	PPCY	PPCY	SNIT	NNIT	APM
KL	K-Line	APM	PPCY	PPCY	APM	APM	APM
MA	Macandrews	APM	PPCY	PY ANNEX	NNIT	APM	APM
MS	Maersk Line Agency	APM	PPCY	PPCY	APM	APM	APM
MD	Mediterranean Shipping	PY ANNEX	PY ANNEX	PY ANNEX	APM	APM	APM
MI	Mitsui Osk Lines	PPCY	PPCY	PPCY	SNIT	NNIT	INELIGIBLE
NY	N.Y.K. Lines	PPCY	PPCY	PPCY	SNIT	SNIT	SNIT
OS	Oocl Usa	PPCY	NCY/PPCY	NCY/PPCY	SNIT	INELIGIBLE	NNIT
SA	Safmarine	APM	APM	APM	APM	APM	APM
SY	Schuyler Line Navigation Co	PY ANNEX	PY ANNEX	PY ANNEX	SNIT	SNIT	SNIT
TR	Turkon Line	PPCY	NNIT	NNIT	NNIT	NNIT	NNIT
UA	United Arab Line	PPCY	PPCY	PPCY	SNIT	SNIT	SNIT
MY	Yang Ming	APM	PPCY	PPCY	APM	APM	APM
MZ	Zim American Israeli Shipping	APM	PY ANNEX	PY ANNEX	APM	APM	APM

**BAD**

Fri 2/21/14 8:55 AM: XXX Empty T... ion Friday 2/21  
 All dry containers - Return to C...  
 Reefers - Return to C...  
 Open Tops- Return to C...  
 Thank You,

**WORSE**

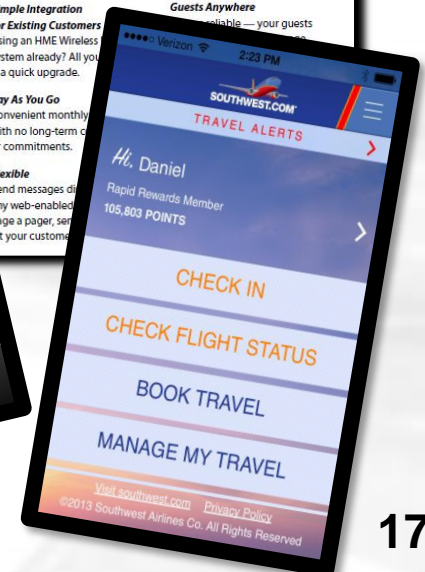
- **We built an entire shipping system around chassis provided by ocean carriers**
- **Withdrawal of the carriers from chassis supply has left broken pieces to be fixed:**
  - Wheeled terminals
  - Shipper pools
  - Wheeled rail ramps
  - Legacy jobs

**If you need a working chassis in the right place at the right time, you have to be willing to pay for it**



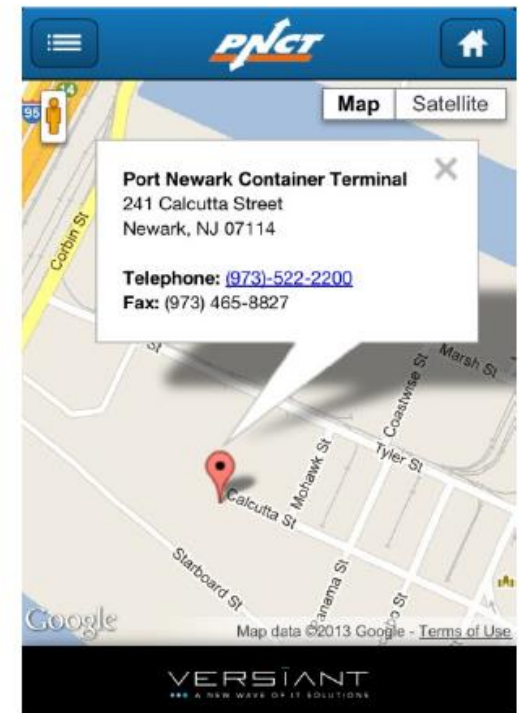


- Use smartphones for check-in, paging, and appointments
- Let drivers shut down engines until they are called
- Keep bad transactions out of the line, the gate, and the terminal
- Get rid of the lines, the pedestals, and the screw-ups



# Look for LYNX... or better

“PNCT customers will be able to verify container availability, view vessel schedules, review bookings and evaluate gate EIRs prior to arriving at the terminal using the program’s intuitive user interface on their mobile phone or smartphone.”



- Pick terminals that can handle the cargo**
- Pick carriers that run ships on time**
- Avoid the worst congestion**
- Pick terminals with staggered breaks**
- Push terminals to communicate CY closures**
- Pick your trucker and ocean carrier**
- Use experienced firms and drivers**
- Cut trouble tickets**
- Avoid booking errors**
- Pick carriers with good equipment control**
- Plan for chassis supply**
- Use smartphones**
- Look for LYNX... or better**

## **Follow-ups and Contacts**

### **NCHRP Report 11:**

<http://www.trb.org/Main/Blurbs/165528.aspx>

### **Vancouver Turn Time Study:**

<http://www.apgst.ca/projects/pdfs/PortMetroVancouverTruckTurnTimeStudy2013.pdf>

### **EPA SmartWay DrayFLEET:**

<http://www.epa.gov/smartway/forpartners/documents/drayage/420b12065.pdf>

**Tioga website:** [www.tiogagroup.com](http://www.tiogagroup.com)

**Dan Smith:** [dsmith@tiogagroup.com](mailto:dsmith@tiogagroup.com), 925-631.0742