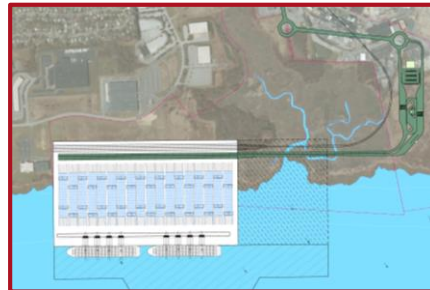




PFRA

Paul F. Richardson Associates Inc.



MARINE TERMINAL MANAGEMENT TRAINING PROGRAM

Long Beach, CA

September 14-18, 2015

A Few Select Trends in Container Terminal Planning & Operations:

Blame it all on PFR.



OPERATIONAL & FINANCIAL ANALYSIS

❖ *Leveraging our experience as practitioners*

- Business Planning
- Asset Optimization
- Supply Chain Design
- Capital Expenditure Planning
- Operational Expense Analysis
- Benchmarking
- Productivity Engineering

TRANSACTIONAL ADVISORY

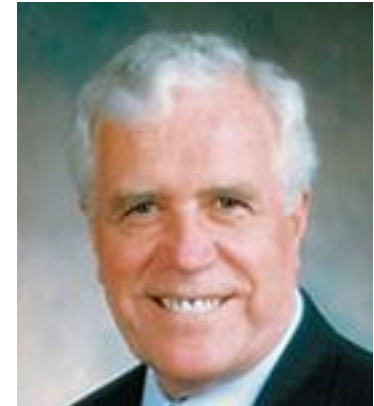
❖ *Developing and executing strategies across an unrivaled network*

- Due Diligence
- Business Asset Valuations
- Mergers & Acquisitions Support
- Facility & Asset Divestiture
- Financial Projections
- Privatization
- Concessions
- Enterprise Valuations

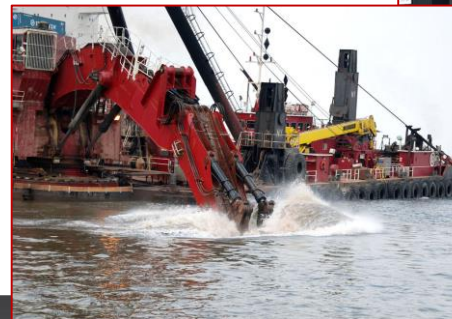
ADVISORY & CONSULTANCY SERVICES

❖ *Use of detailed simulation and sophisticated modeling of operations*

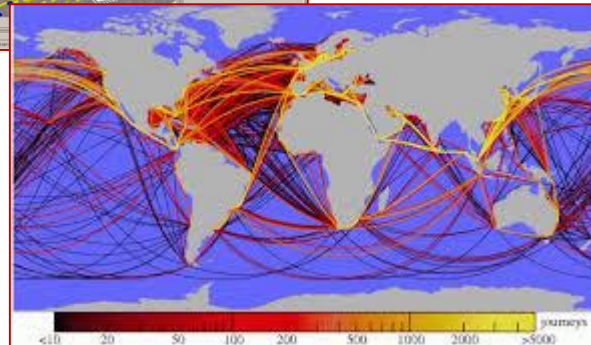
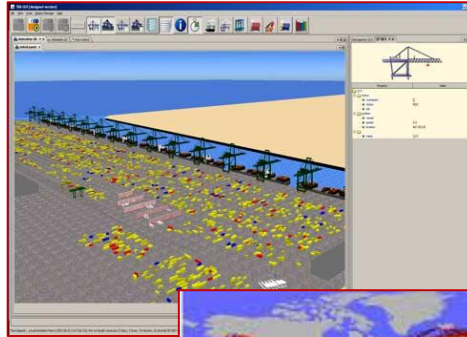
- Feasibility Studies
- Strategic Plans
- Market Research
- Market & Pricing Strategies
- Target Customer Development
- Information Technology Integration
- Project Management



- One of the “benefits” of providing advisory services, is that your usually cast in the “*middle of several fire-fighting drills*”....
- We have all heard, read and maybe have been involved in the latest, to include:
 - Larger vessels and alliance needs,
 - Spikes in arrivals/departures,
 - Delays in the stakeholder chain (e.g. labor, hours of operation, and such items as chassis),
 - Required and needed improvements to port related infrastructure.



- **Technology!**
- **Alternative Gateways!**



- **P3's!**

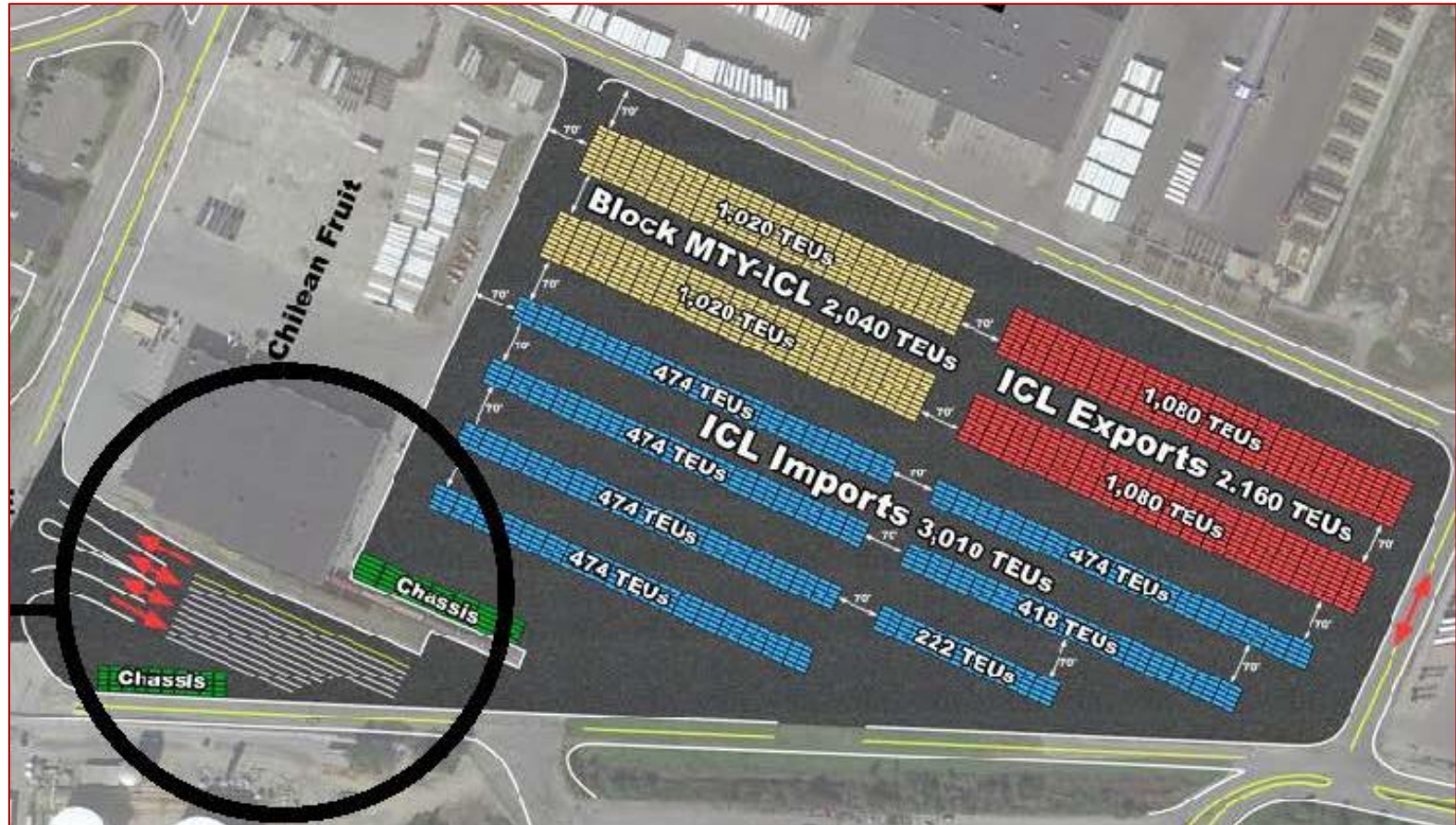


Its all about the gate.

- **Gate**
 - Pre-notifies
 - Truck ID, container availability
 - RFID
 - Truck Management
 - Tracks truck in yard
 - Automates transactions
- **OCR**
 - Gate
 - Yard
 - Vessel
- **Equipment Control**
 - TOS
 - Directs ops in real time
 - Controls functions for yard.



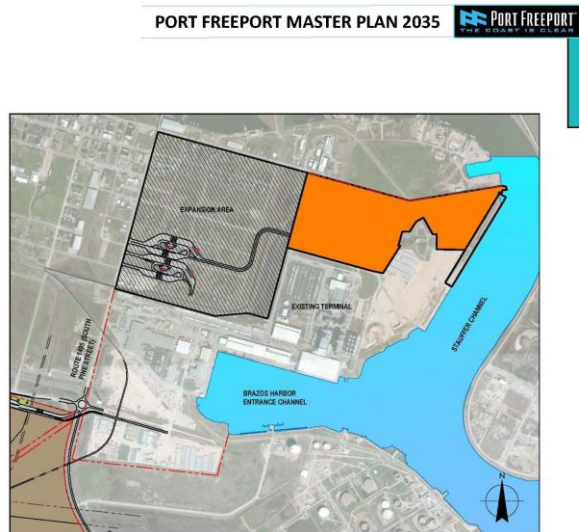
It's the standard everywhere, even at
alternative gateways.



Right next door to Houston.

05 Phase II (Gate Complex)

- Within the next five (5) years, Port Freeport will have to undergo the creation of a new gate complex.
- This will be for all cargo, and incorporate the roadways along the port property lines.

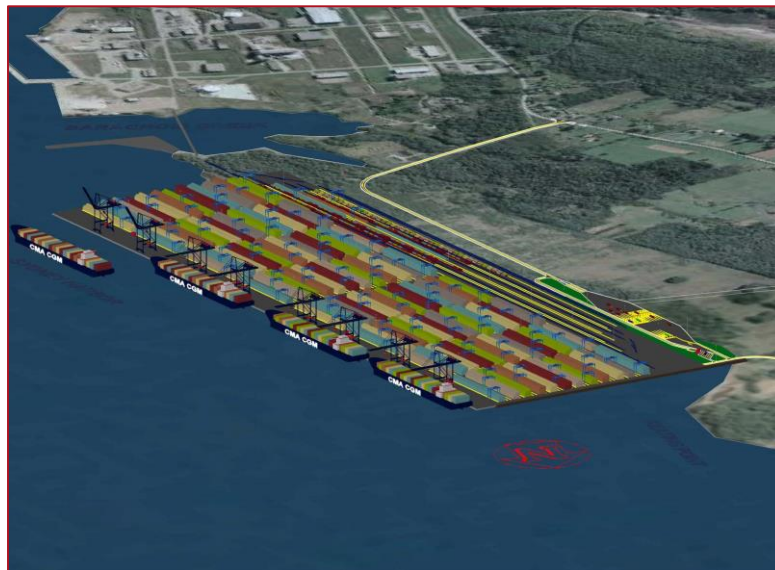


- Two years ago, it didn't really exist.....today, its “sold out”.
- Why?
 - Technology applications
 - Throughput capabilities
 - A “clean alternative”

INTERIM STATUS REPORT-MAY 2014

More new gateways.

- The “Prince Rupert of the East”
 - The closest port in North America to the Suez Canal.
 - Another “canvas”.



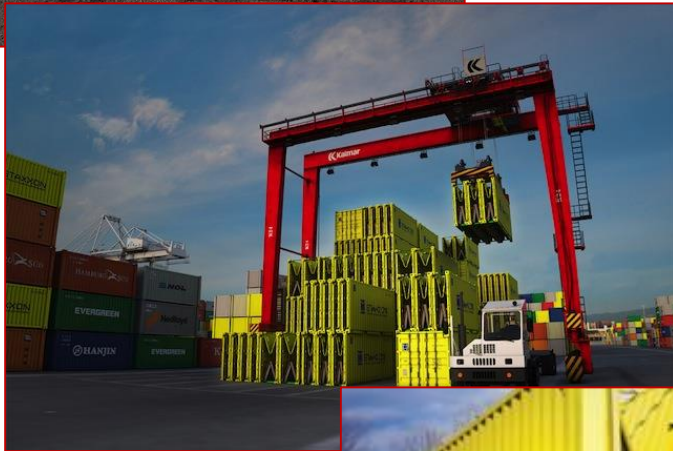


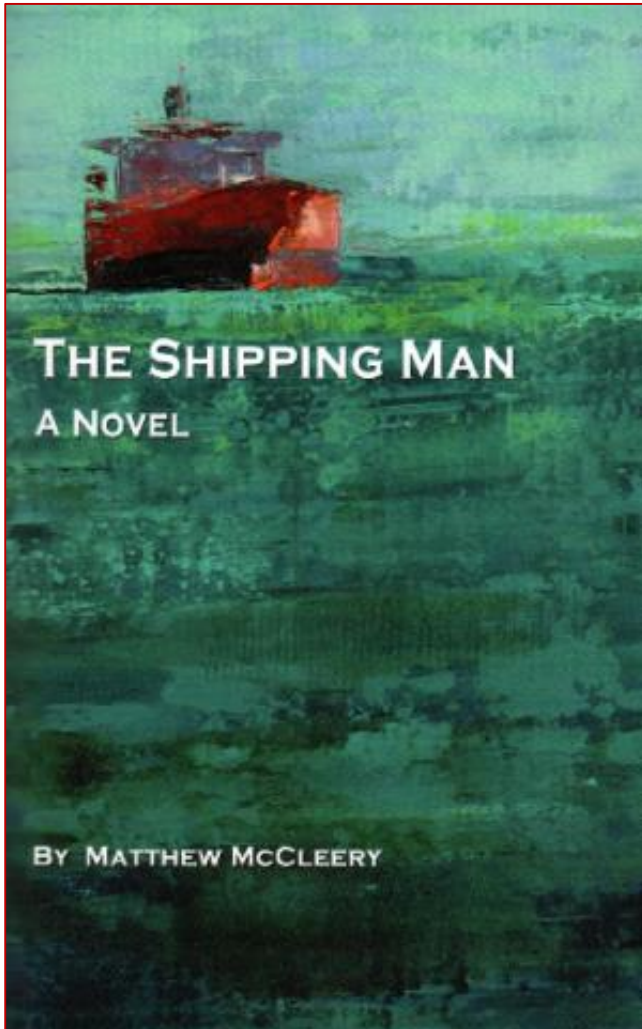
Or?



- **Maritime Cyber Assurance**
 - Single largest issue now coming at us....
 - If a commercial standard is not created; one will be regulated for us.....
 - Where do we stand today?

- **They have done it!**
 - The patents are there,
 - The users and standards are there,
 - The money is there.
 - When will they be on the terminal?





- **They are driving the bus!**
 - They already have had the terminal play,
 - In many instances, control operating companies,
 - Dredging is being monetized with the shortfall of USACE funding,
 - They are very active in most of the newer projects e.g. concessions,
 - They are increasing their vessel portfolio,
 - It is all about supply/demand.