

Marine Risk Landscape- 2022

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Topics of Discussion



- Ocean Transit and Vessel Casualty trends
- Shipping Forecast
- Where do we go from here- Vessel Demand
- Cargo Accumulation
- Cargo Security trends

The Mega Vessel Debate Continues...

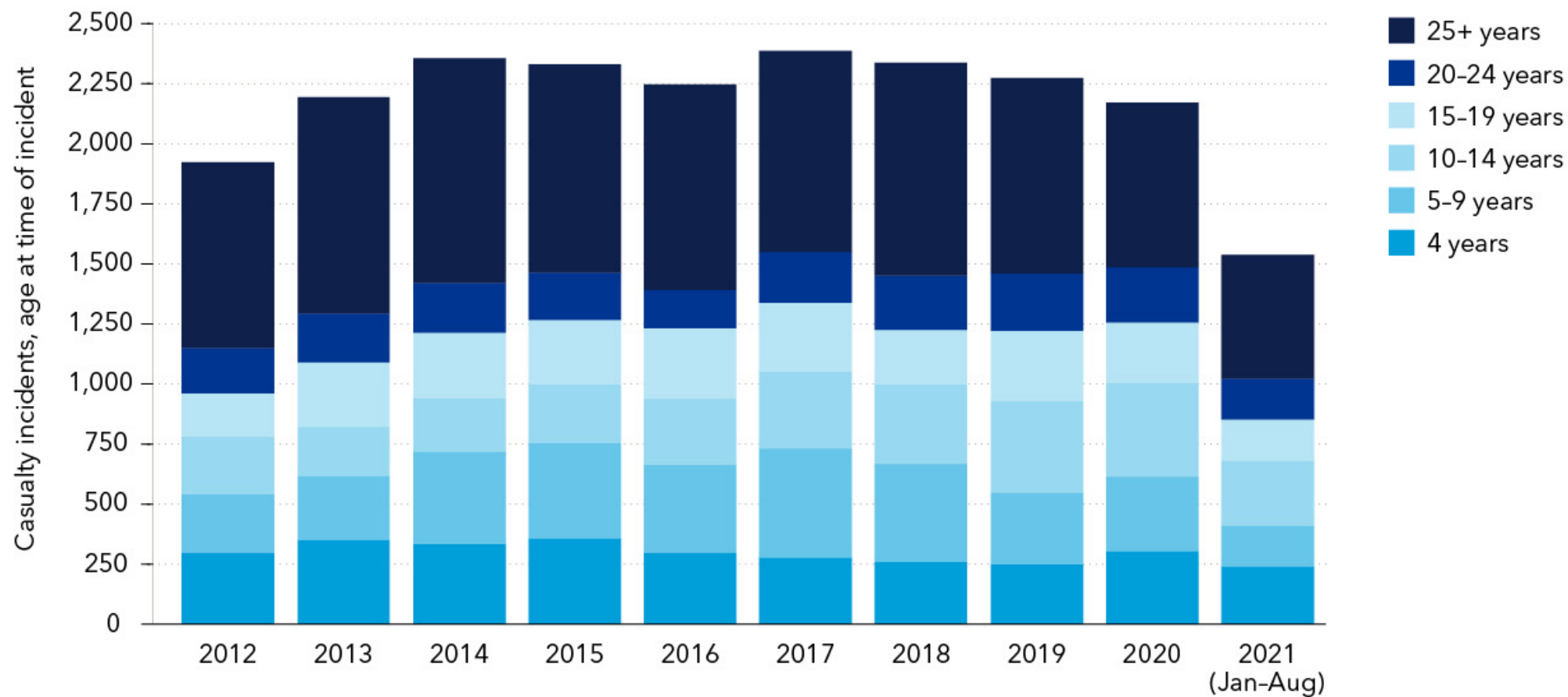


The Mega Vessel debate continues...

- Takeaways:
- Cargo accumulation is relevant at ALL touchpoints in the supply chain
- Feeder/Ocean vessel service will increase and from a broader range of tonnage that may not meet traditional Underwriting and Loss Control guidelines
- Motor and inland transit risks will expand with modified Port Rotations in the US

Vessel Casualty Summary

Casualty incidents, age at time of incident



Source: Lloyd's List Intelligence - Maritime Safety 2020-2021

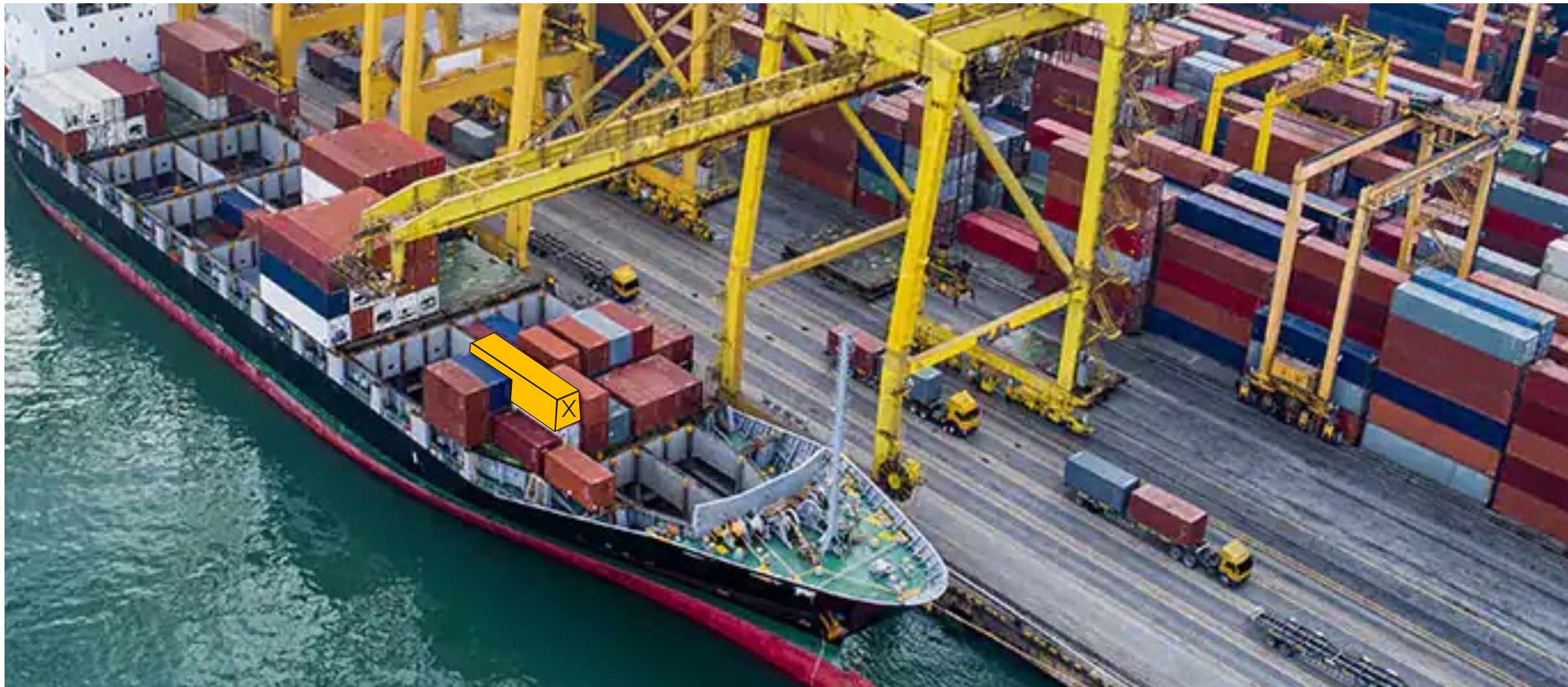
The Effects of Vessel “Slamming”



Cargo Misdeclaration



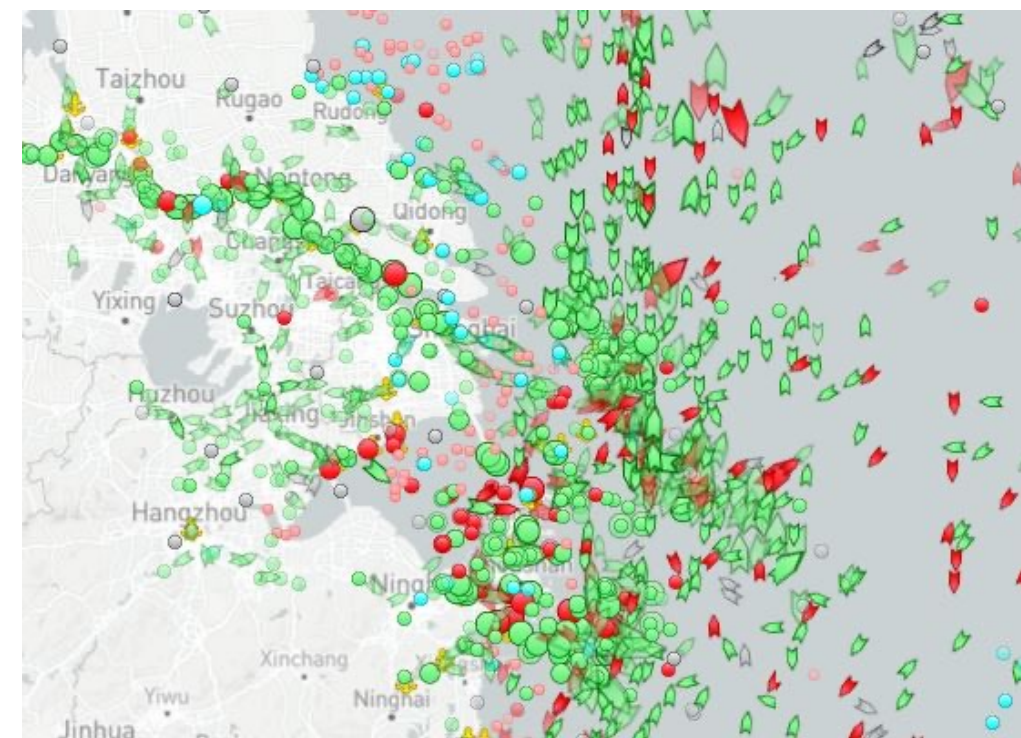
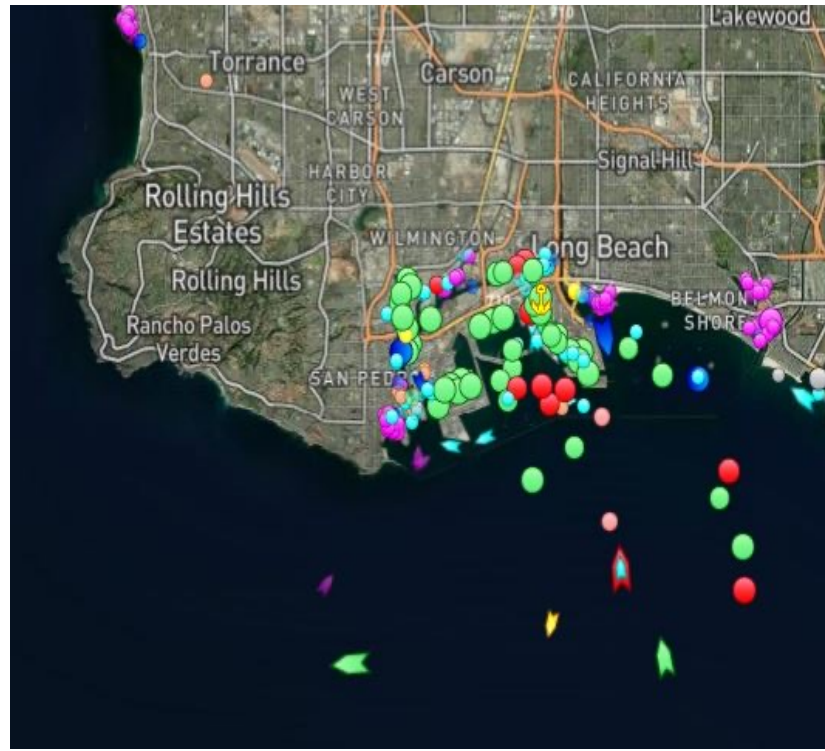
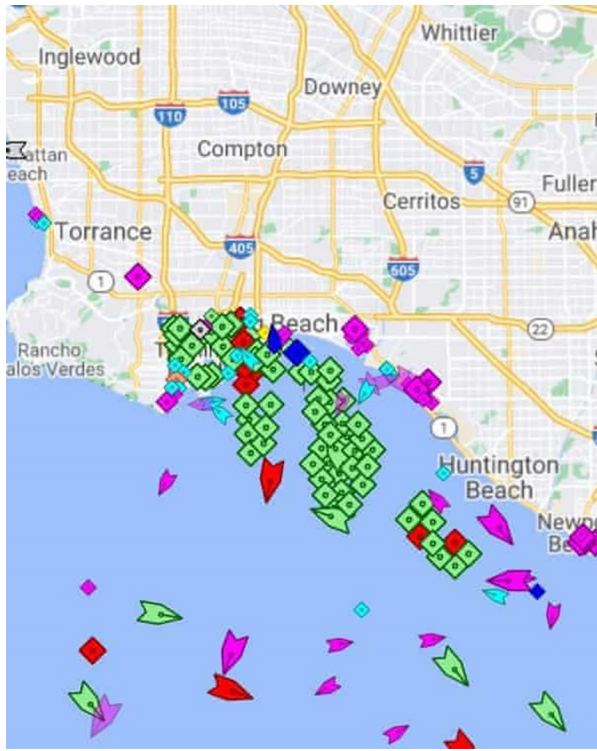
Vessel Demand and Future Outlook



Container Shipping Forecast

- Takeaways:
 - Lockdowns are affecting not only the supply chain but also vessel capacity
 - Older tonnage and repurposing general cargo ships will remain a heightened risk quality factor
 - Port infrastructure will continue to be a focal point in addressing supply chain bottlenecks and motor transit risk
 - Statistics suggest vessel capacity and equipment shortage will likely last throughout this year and well into 2023- (Our prediction 1st qtr. 2024)

Port Congestion/Infrastructure Over the Last 24 months



General Information

Date: October 18th, 2021

Port: Long Beach

Vessels in port: 149

General Information

Date: May 6th 2022

Port: Long Beach

Vessels in port: 85

Source: Marinetraffic.com

General Information

Date: May 6th 2022

Port: Shanghai

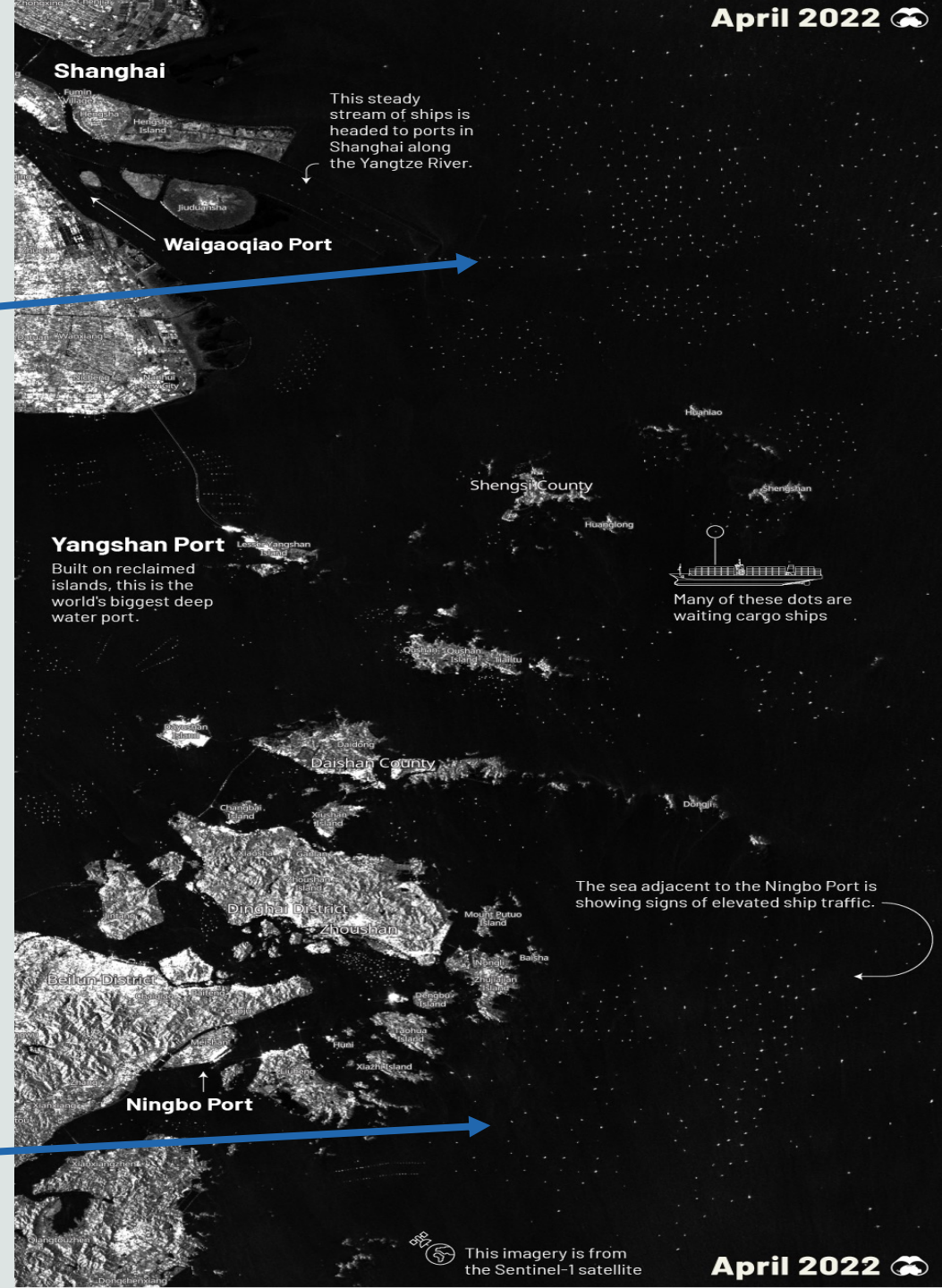
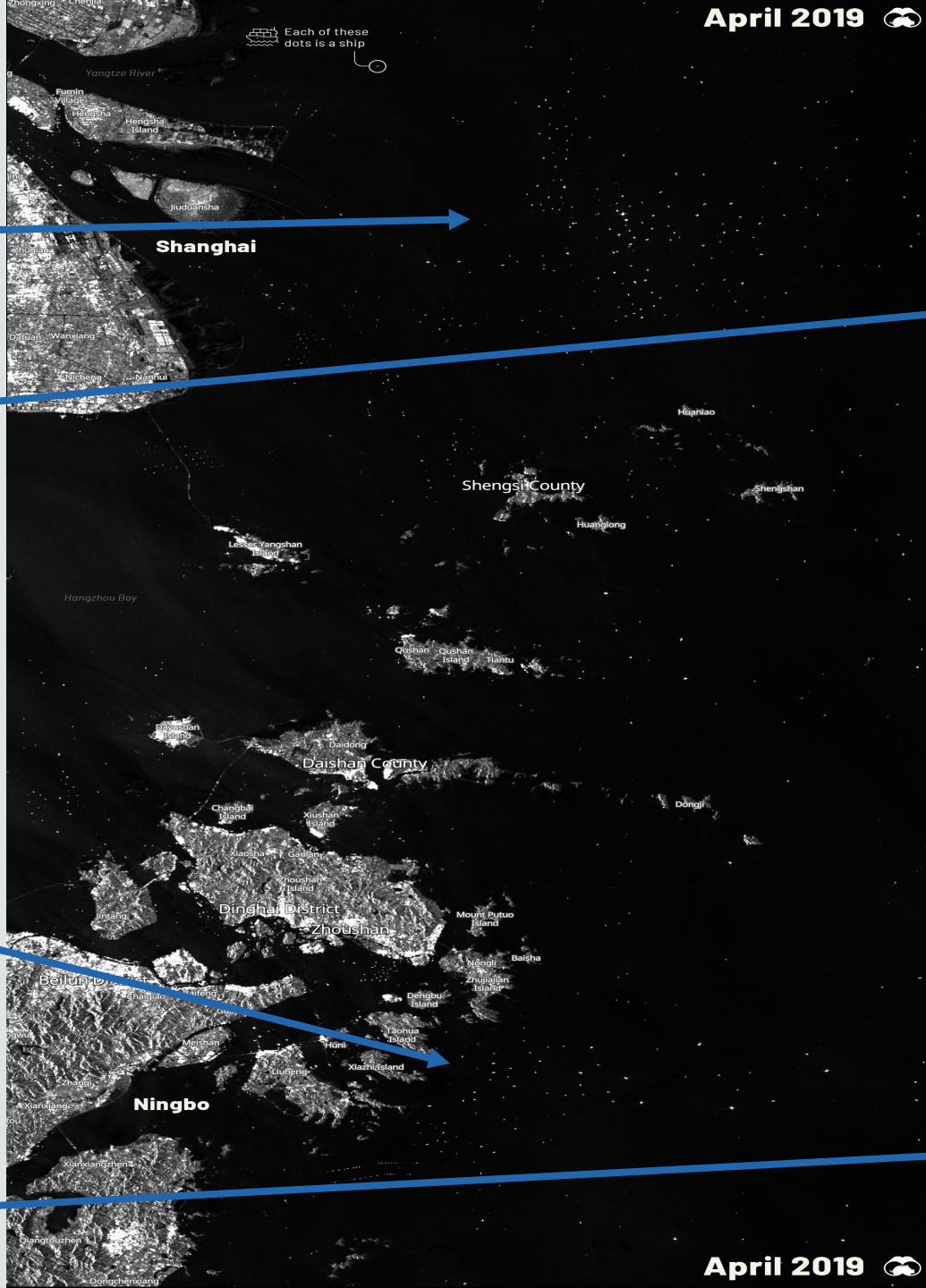
Vessels in port: 1794

Port Congestion
Increase within
Chinas Major Ports
between April
2019 and April
2022

Images captured
by Sentinel-1
Satellite

Wait times for
Shanghai Marine
Terminal have
increased nearly
75% since
lockdowns began

Shanghai has
diverted vessels to
neighboring ports
in Ningbo and
Yangshan, but
they appear to be
congesting as well



Is this the Calm Before the Storm?

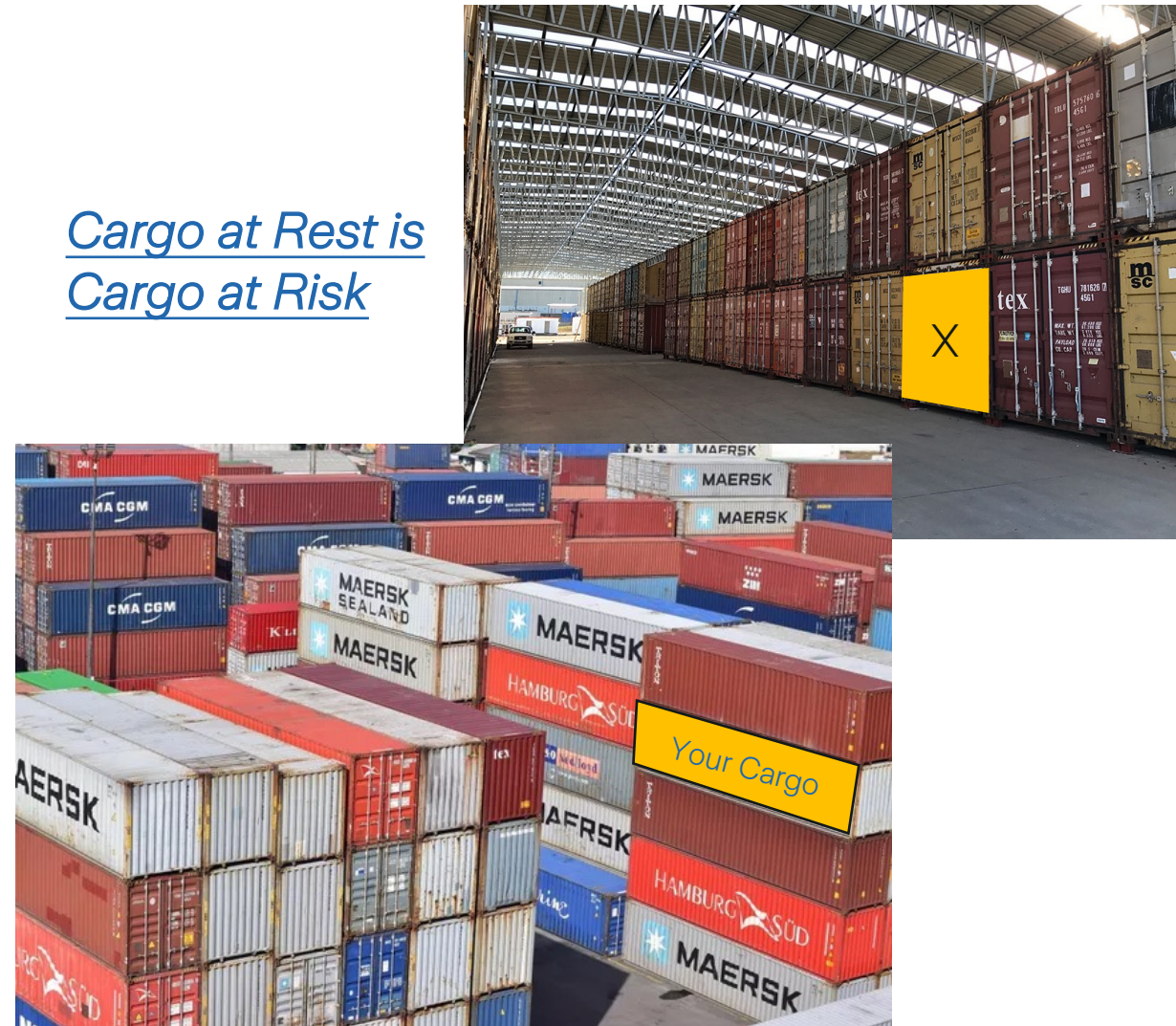
• Risks

- Port Container Storage Capacity impacted by driver shortages in 2021 led to offsite storage of containers
- Lack of security and oversight at offsite locations led to increased cargo theft for goods “in port”
- Backlog of container ships at world's largest ports led to port diversions which may increase cargo security threat based on region.
- Port diversions led to inland transit through high-risk countries (Mexico) which drastically changed the risk landscape from the intended ocean voyage

• Considerations

- Education to clients/brokers/partners around risk
 - Equipment Suitability (cranes, stackers, etc.)
 - Load/Discharge Methodology
 - Port and Container staging capacity
 - Adequate power stations and fuel for refrigerated containers
 - Cargo Security

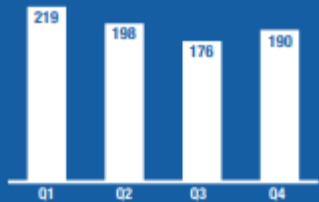
Cargo at Rest is
Cargo at Risk



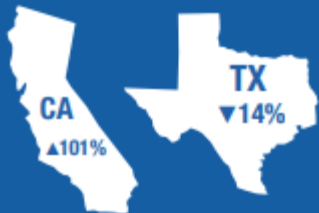
Cargo Theft 2021- Americas

UNITED STATES CARGO THEFT TRENDS

TOTAL 2021 **783**



2021 vs 2020



SHIFTS IN TOP 4 PRODUCT TYPES



▼ 20%
MISCELLANEOUS



▲ 58%
ELECTRONICS



▼ 1%
HOME & GARDEN

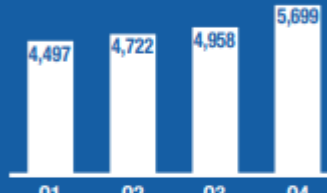


▲ 90%
BUILDING & INDUSTRIAL

MEXICO CARGO THEFT TRENDS

TOTAL 2021

19,876
THEFTS



2021 vs 2020



SHIFTS IN PRODUCT TYPES



▲ 9%
MISCELLANEOUS



▲ 3%
HOME & GARDEN



▲ 1%
ALCOHOL

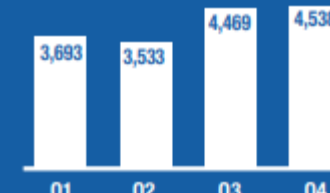


▲ 1%
PHARMACEUTICALS

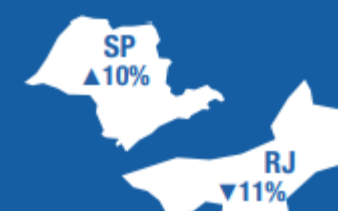
BRAZIL CARGO THEFT TRENDS

TOTAL 2021

16,207
THEFTS



2021 vs 2020



SHIFTS IN PRODUCT TYPES



▲ 1%
AGRICULTURAL



▲ 7%
MISCELLANEOUS



▼ 2%
FOOD & DRINKS

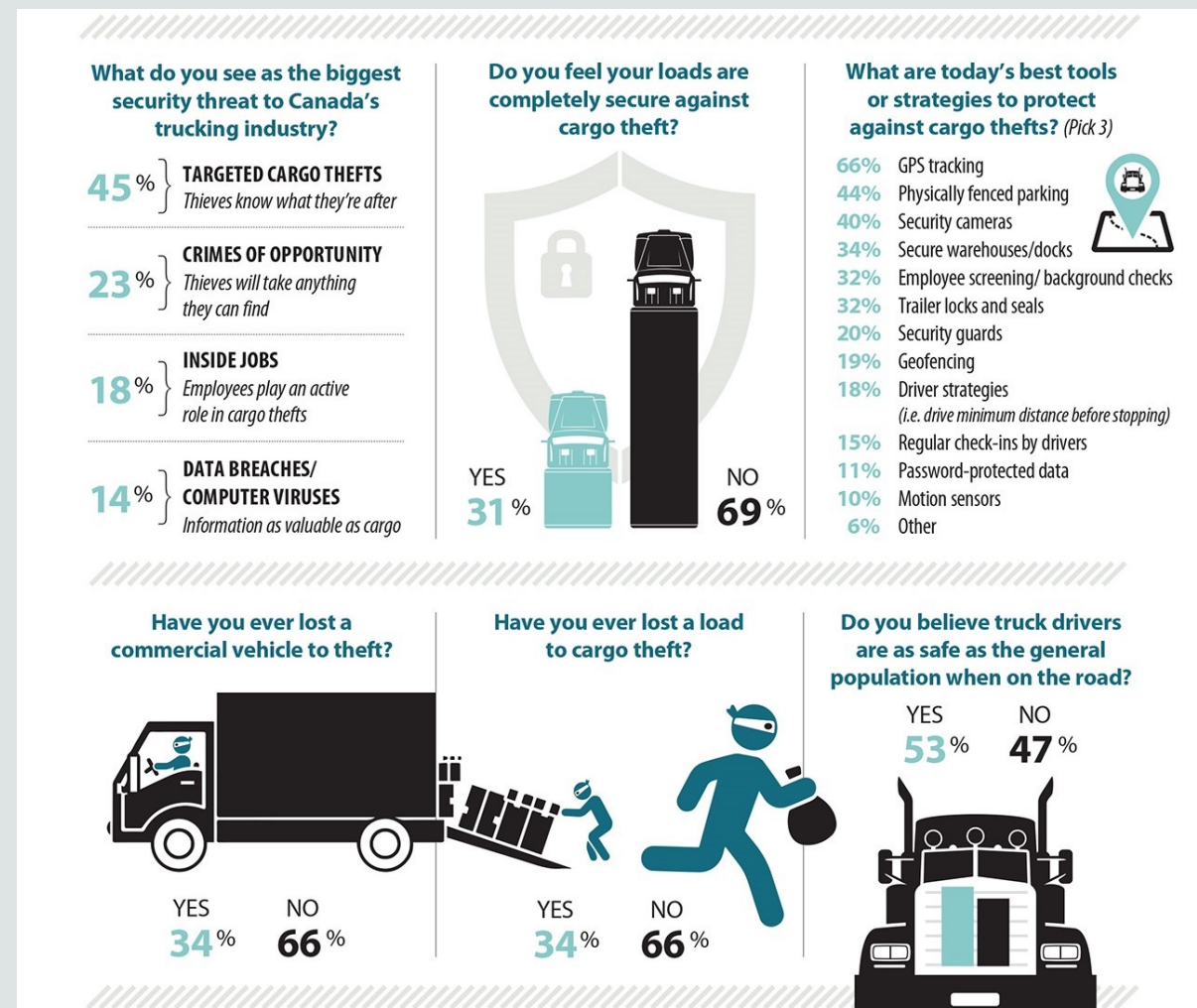


▼ 3%
TOBACCO



Cargo Security Takeaways

- Expanded screening to avert “inside information” leaks
- Expanded Truck and Driver verification before releasing a load to mitigate fictitious pick-up
- Carefully record all details of both truck and trailer and driver credentials where necessary (Tags, color, unique markings, etc.)
- Robust carrier contract agreements and standards of care
- Elimination of truck brokering, and if unavoidable, notification is required to verify the carrier and driver are legitimate
- Control truck driver behavior as it relates to layovers, stops, and transit routes
- Electronic freight tracking- (GPS tracking installed on truck and/or trailer) or preferably covert (embedded in cargo)
- Escalation and Recovery Process
- Installation of locking mechanism in addition to metal or bolt seals.



Labor Shortages & the Evolution of Trucking

Risks

- International Longshore and Warehouse Union Contract to expire June 2022 on West Coast
- Deficit of 80,000 US drivers back in 2021
- There is no shortage of qualified drivers. Just a shortage of those who want to drive
- Average trucking company has 95% turnover rate
- Autonomous technology being tested for the future of freight moving

Questions/Considerations

- Industry workforce retention
- Does autonomy make the risk better/worse?
 - Less human error (distractions, fatigue, etc.)
 - Increased risk of cyber attack?
 - Technology malfunctions



Thank you!

Zurich Marine Risk Engineering

