

# THE SHIPPING STANDARD

OUR EXPERTISE YOUR ADVANTAGE

DECREASING WATER LEVELS  
COULD SEVERELY IMPACT INLAND  
SYSTEMS AND CREATE DELAYS

INTERVIEW WITH AN  
EXPERT

COMIC STRIP  
I AM KAI

BLACK FRIDAY  
FUN FACTS

ABOUT  
OEC GROUP





# DECREASING WATER LEVELS COULD SEVERELY IMPACT INLAND SYSTEMS AND CREATE DELAYS

First there was COVID, then the U.S. West Coast labor disputes, and now a change in weather patterns is wreaking havoc on the global supply chain. However, these new weather-related issues have the potential to bring permanent negative change to the industry.

The clearest example of how the environment is affecting the shipping industry can be seen at the Panama Canal. The canal, through which six percent of all global trade passes through, has been seeing water levels drop significantly since early summer. This drop in water levels is due to a drought in the area, and the ongoing situation has forced the Panama Canal Authority to extend draft restrictions which, according to a CNBC report, caused a container vessel backlog of nearly six days. Experts from the U.S. Environmental Protection Agency (EPA) believe this new pattern could become permanent ([link to our story](#)), which could change how trade from the Far East to the U.S. East Coast is conducted.

In the United States, low water levels on the Mississippi River are plaguing the industry by hindering the transport of goods inland. The low water levels are responsible for multiple

groundings and have created a backlog of more than 2,000 barges along the Lower Mississippi just south of a key junction where the Missouri and Ohio Rivers connect. The lack of water has negatively impacted the movement of all freight being transported between the U.S. heartland and the Gulf of Mexico.

*“This is not just a problem affecting the Western Hemisphere. A comparable situation has been unfolding in Germany along the Rhine River, which has been experiencing significant problems transporting freight due to low water levels,” said John Ogilvy, Station Manager of OEC Group’s St. Louis office. “If these patterns continue, then rail systems everywhere will have to pick-up the slack, or timelines will have to be drastically revamped.”*

These issues with our rivers and canals are not isolated to the water, but they are beginning to have a compounding effect on our inland systems due to barge restrictions. If barge restrictions continue to climb, then the responsibility to transport excess cargo will logically shift to the rail. While this switch has not occurred, it still does not seem that the system can manage any extra pressure. Recent statistics have shown that rail dwell times from LA-Long Beach are currently averaging four days without any prospective additional cargo being put into the system. One does not need to look further than Union Pacific’s recent actions to understand why dwell times have increased, as the company responded to decreased volume levels by storing hundreds of their locomotives and also furloughing some of their mechanical employees, leaving them short handed if they need to transport more goods inland.

Another option, trucking, also cannot be relied on to fill the void if weather conditions remain the same, as the industry is still having recruitment issues and continued difficulty securing proper pick-up slots at ports like LA-Long Beach. This is problematic when volume is low but can be a significant issue if a sustained and significant increase occurs.

*“While it is clear that we have an obvious environmental problem, the real issue is that major infrastructure improvements need to happen in order for our back-up solutions of rails and trucks to be viable,” said Frank Costa, Vice President of Sales for OEC Group’s New York office. “Our choice for the future is obvious, either improve our efforts with climate change or invest in our infrastructure.”*



## INTERVIEW WITH AN EXPERT

*Dr. Chenfeng Xiong, Assistant Professor at Villanova University's Department of Civil and Environmental Engineering, discusses his research on new ways to accurately measure domestic transportation statistics, how to potentially apply that to better measure carbon emissions in the future, and how we can work to optimize infrastructure for the movement of people and freight.*

### **Q: What's the scope of transportation research going on at Villanova University?**

A: Since it's a multidisciplinary topic, we have so many different people from so many different departments touching the intersection of infrastructure and transportation. In the Department of Civil Engineering, we have researchers looking directly into infrastructure, pavements and materials, and how engineering developments impact the environment. Outside of that, we have experts in psychology looking at driving behavior, experts in public health investigating the impact infrastructure can have on wellbeing, and data scientists come in as well to help manage all of the information. It's really a growing community on our campus.

### **Q: What has your research been focused on?**

A: I'm working on all sorts of transportation problems. My background is really in data—I work on Big Data, multidisciplinary and multidimensional data—I draw evidence from smart phones, traffic cameras, road sensors, and surveys to learn about multimodal passenger and freight transportation patterns. In my previous research with the University of Maryland at College Park, our passive data collection and our analysis of that data into traffic movement was the only submission accepted and adopted by the US Department of Transportation.

**Q: Can you expand on some of that traffic analysis and what your team was looking for?**

A: Between features of modern vehicles, expanded tracking in trucking and distribution, and the wide variety of navigation apps and services, there are many location pins to work from. On a given day, we could study how many people are travelling from New York to D.C., or we could investigate long distance freight travel and see how many trucks are travelling between Dallas Fort Worth and Houston. Just one location pin isn't helpful but aggregating everything into a national database lets us make projections and really understand the transportation landscape.

**Q: How can we practically apply that investigation to trucking operations and the overall supply chain?**

A: We can use that information to learn from the past. We can measure truck volumes and tonnage of cargoes moving between any origin and destination pair in the US and beyond to discover the current status quo. At the same time, we can use that information—since it's continuous and seamlessly collected in near real-time conditions—to determine a lot of what-if questions. As a simple example, we can study how volumes reacted during the pandemic, what happens when people are working from home and relying on e-commerce instead of brick-and-mortar retailers, and how many trucks are on the road under those conditions. Eventually, we can use that information to help make predictions.

**Q: What is one outside-the-box example of transportation research you've come across since entering the space?**

A: One of my colleagues at the University of Maryland was studying ways to solve maritime routing issues. She developed a specific focus on travelling through the North Pole when glaciers and other ice structures were melted enough to allow it. She concluded that, for certain origin and destination port pairings, carriers could burn less fuel and save time by using those routes.

**Q: Is there any one conclusion you've found from your research or that you've learned while studying this sector so far that you'd like to highlight?**

A: In 2021, we saw some of the lowest levels of traffic congestion ever around the world. Based on our data, we realized there was only a ten percent decrease in overall traffic from before the pandemic. That ten percent decrease caused a fifty to sixty percent reduction in congestion. That's because congestion trends are non-linear. If you look at a place like Washington, D.C. or New York City, and you were to decrease the number

of cars on the road by just one percent, there would be a much larger benefit to overall traffic congestion.

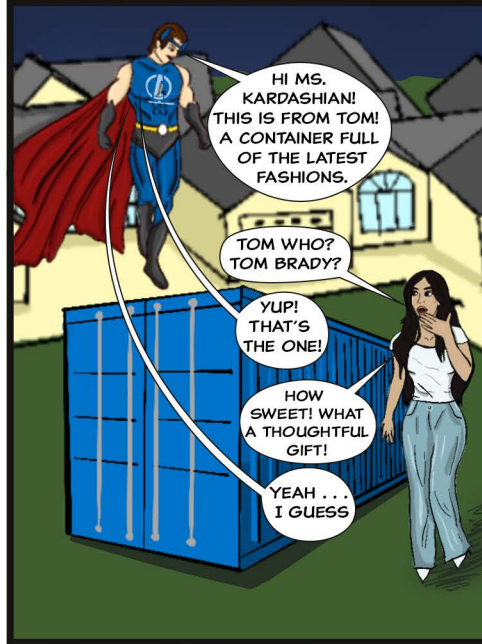
**Q: How can that impact our industry?**

A: That same principle can apply to the port landscape, as well. If we use our data models to identify the most congested ports and create ways to reduce demand or operational difficulty in those places, then we would see a maximum benefit. That kind of investigation can also help optimize the allocation of government funding and let us get the most bang for our buck out of that support. Obviously, this kind of measurement and infrastructural improvement can take time, but it eventually it has the potential to pay huge dividends for the transportation industry.



OF COURSE, I AM FLYING THIS CONTAINER FOR TOM BRADY ... TO GIVE TO HIS NEWEST LOVE INTEREST ... THROUGH A THUNDERSTORM ... IN CALIFORNIA!

THE THINGS I DO FOR THE SUPPLY CHAIN. IT BETTER BE WORTH IT!



HI MS. KARDASHIAN! THIS IS FROM TOM! A CONTAINER FULL OF THE LATEST FASHIONS.

TOM WHO? TOM BRADY?

YUP! THAT'S THE ONE!

HOW SWEET! WHAT A THOUGHTFUL GIFT!

YEAH ... I GUESS



I HAVE AN IDEA, LET'S CELEBRATE WITH A SELFIE! SELFIE TIME!!!

COME HERE TOM'S DELIVERY GUY! LET'S TAKE A SELFIE TOGETHER IT'LL MAKE YOU FAMOUS!

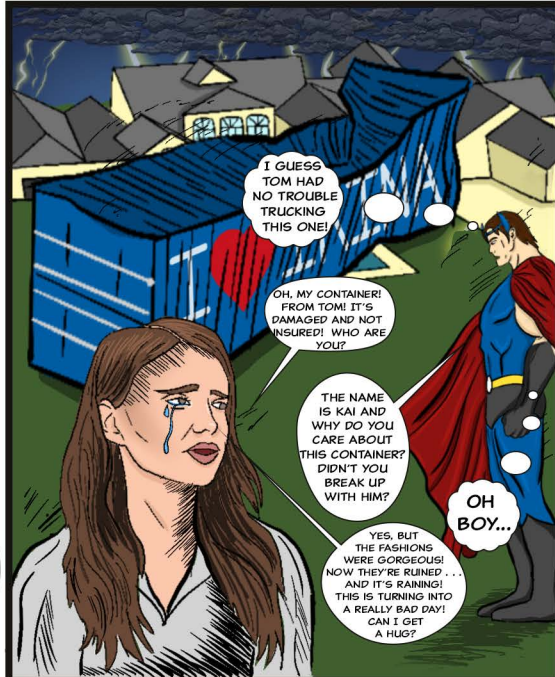
THE THINGS I DO FOR THE SUPPLY CHAIN!



THIS IS SOME STORM. IT REMINDS ME OF THE ONE THAT GAVE ME MY POWERS.

HELP! PLEASE HELP!

MIGHT AS WELL CHECK AND SEE WHAT THIS IS ABOUT BEFORE HEADING BACK TO NJ TO SEE WHY TOM BRADY CAN READ MINDS.



I GUESS TOM HAD NO TROUBLE TRUCKING THIS ONE!

OH, MY CONTAINER! FROM TOM! IT'S DAMAGED AND NOT INSURED! WHO ARE YOU?

THE NAME IS KAI AND WHY DO YOU CARE ABOUT THIS CONTAINER? DIDN'T YOU BREAK UP WITH HIM?

OH BOY...

YES, BUT THE FASHIONS WERE GORGEOUS! NOW THEY'RE RUINED ... AND IT'S RAINING! THIS IS TURNING INTO A REALLY BAD DAY! CAN I GET A HUG?



OH MY GOD I CAN FLY! AND FOR SOME REASON I KNOW EVERYTHING ABOUT GLOBAL LOGISTICS!

I FEEL KIND OF FUNNY, TOO. I HAVE A NEW SENSE ... FASHION SENSE!

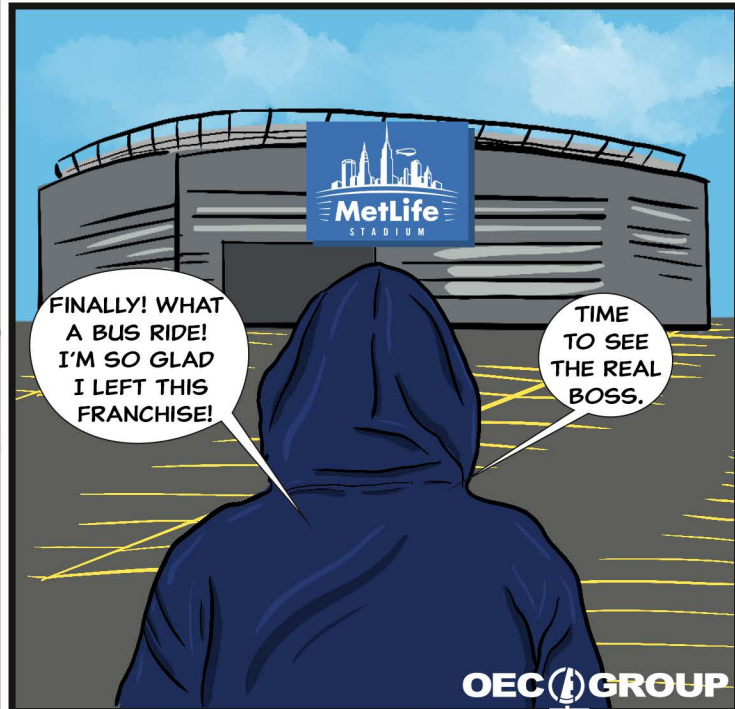
I FEEL STRONG TOO! WOW, THIS IS GREAT! SO, KAI, LOOKS LIKE I'M YOUR SUPPLY CHAIN PARTNER NOW!

NOT IN THOSE SHOES!

BUT IT WILL HELP ME GET OVER TOM!

FINE, BUT YOU'VE GOT TO LET ME PICK OUT OUR NEW OUTFITS

DEAL!



FINALLY! WHAT A BUS RIDE! I'M SO GLAD I LEFT THIS FRANCHISE!

TIME TO SEE THE REAL BOSS.

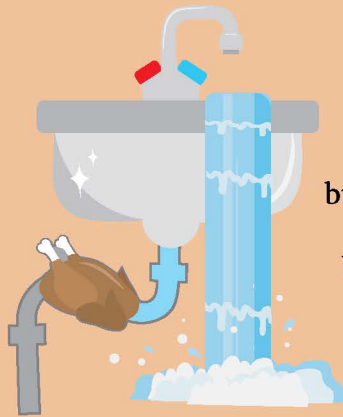
## Fun Facts About Black Friday



"Black Friday" used to refer to stock market crashes in the 1800s.



Low-end entertainment items, such as books, movies, and music, are the items with the highest Black Friday markdowns.



Black Friday is also the busiest day of the year for plumbers, who are 50% busier than normal because of the need to unclog the sinks stopped up during Thanksgiving.



Car accidents are 34% higher on Black Friday, with most accidents taking place in the parking lot.



Black Friday is one of the best days of the year to buy a used car.



21% of all shoppers say they have never missed a Black Friday.



On average, Black Friday shoppers are willing to wait two-and-a-half-hours in line for holiday deals.



In 2011, more than 225-million Americans spent \$52-billion during Black Friday, which is more than the GDP for Ethiopia.



# ABOUT OEC GROUP

As an industry pioneer, OEC Group has become one of the world's leading logistics companies. We leverage in-house expertise, carrier partnerships, connections with ports and transportation hubs, and our network of offices in North America, Europe, Asia, India, South America, Australia, and the Middle East, to provide freight transportation, logistics, information, customs and brokerage, insurance, and technical services to over 50,000 customers of various sizes and industries.

We are also highly sought after for the advice we give shippers on how to optimally manage their supply chains. The guidance we provide is based on data analytics, best practices, and decades of industry knowledge.

We believe that relationships matter and treat your cargo as our own. Our experts are always investing in efficient, cost-effective, and cutting-edge services to evolve with the ever-changing market, address the complexities of any client's supply chain, and consistently perform at the highest level for our customers.

*Our business is making our logistics expertise, your competitive advantage.*