



CASE STUDY

Port of Virginia adopts new digital solution with immediate returns

The Port of Virginia successfully adopted NCOS Online, a revolutionary science-based digital port management system, to support berth scheduling and mooring operations across its container terminals. The system was immediately put to the test when Hurricane Isaias hit the east coast of US in early August of 2020. Using NCOS Online, the Port's engineering department:



Avoided \$0.5M in costs



Improved labor and resource planning



Reopened its terminals quicker after the storm past



THE PORT OF VIRGINIA

About the Client

The Port of Virginia moves cargo through world-class facilities and transports to and from markets around the globe, carrying the goods and supplies that manufacturers, corporations, and individual consumers use in their everyday lives. The deep water harbor—the deepest on the US East Coast—shelters the world's largest naval base; a robust shipbuilding and repair industry; a thriving export coal trade and the sixth largest containerized cargo complex in the United States. In an era where container ships are carrying tens of thousands of twenty-foot equivalent units per voyage, deep water and the absence of overhead restrictions is a significant competitive advantage.

www.portofvirginia.com

The Challenge

As one of the top ports on the east coast, the Port of Virginia is committed to moving cargo safely and on-schedule. This commitment includes mitigating the impacts of severe weather can have on operations and the safety of ships at berth. Where previous methods were costly and time-consuming, the Port needed a tool capable of quickly calculating whether any mooring risks are present while the vessel is alongside under any forecast weather conditions.

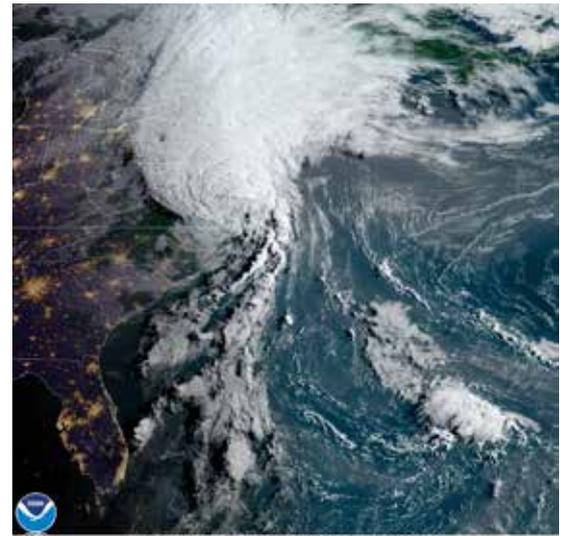
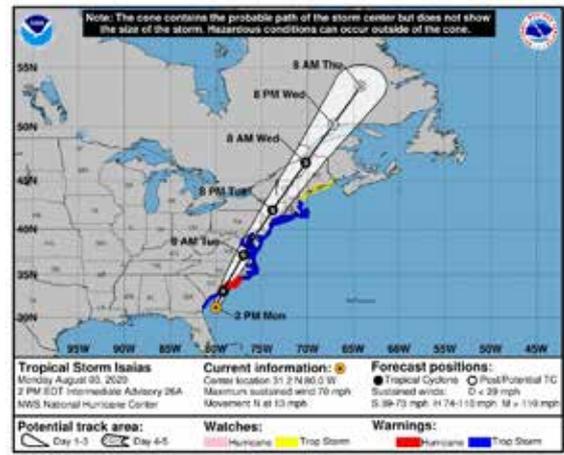
“Our goal is to maintain a sustainable operation. Innovation is a key piece of that – finding new, more efficient ways to accurately and reliably improve our processes enables us to fulfill that sustainability cannon. NCOS Online ticks all those boxes for us and we are excited to leverage this system.” Zac Canody, Director of Engineering, VPA

The Solution

The Port of Virginia adopted NCOS Online Mooring Analysis module to support the decision-making processes at their terminals. This digital, science-based, port management system offers the unique combination of cutting-edge vessel response engines and the state-of-the-art, high-resolution metocean models providing clear benefits with regards to improved accuracy and versatility for correctly calculating vessel response for modern larger and wider vessels. NCOS Online empowers the Port of Virginia to fully utilize the capacity of their existing port and channel assets, ensuring the safety and efficiency of vessel traffic at all times through a high precision virtual environment with unprecedented accuracy.

Key Outcomes

Shortly after adopting NCOS, the Port had the opportunity to put the system to the test as Hurricane Isaias approached the east coast in early August 2020. Making landfall in North Carolina and downgrading to a tropical storm as it travelled north, Isaias produced wind over 35 knots and gusts of 58 knots as it crossed through Virginia. With NCOS Online, the Port of Virginia was empowered to make informed decisions



sooner. These decisions resulted in savings by rescheduling ship calls earlier and enabling the Port to make decisions to allow vessels to stay at berth when they could safely do so based on mooring analyses produced with NCOS. The Port also minimized their weather downtime at both container terminals using the NCOS forecasts to schedule terminal openings for when conditions became favorable.

“NCOS Online is revolutionary, innovative, time saving, and helped us make real decisions impacting real actions and driving real cost savings. We saved time and revenue based on the decisions we were able to make sooner and more informed than we’ve done in the past.” Zac Canody, VPA

Is NCOS the solution for you?

Seaport OPX understands the pressures the port faces during challenging weather events like ECLs and we have designed NCOS Online to be the solution to support mission-critical decision-making processes. If you want to learn more about how Seaport OPX can assist your port, shipping line and resource companies in identifying infrastructure and operational efficiencies through revolutionary technology and physics-based approach, contact:

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