USC Beaufort awarded $1 million for maritime security, aims for another $160 million

BY MICHAEL CUGLIETTA MCGUGLIETTA@POSTANDCOURIER.COM
JUN 1, 2023

A cargo ship makes its way toward the Port Of Charleston on Aug. 8, 2020. A program housed at University of South Carolina Beaufort and funded by a $1 million grant from the National Science Foundation is working to pinpoint potential cyberthreats within the maritime transportation system. Daniel Wright/USCB/Provided

BEAUFORT — The COVID-19 pandemic exposed vulnerabilities in the U.S. supply chain, as locked-down consumers, unable to spend their cash on things like going out to eat or seeing a movie, channeled their buying power into retail goods, creating unprecedented demand.
Many of those goods were produced in foreign countries. Then they were packed into brightly colored, semitruck sized containers and stacked onto cargo ships as big as city blocks.

When the ships arrived at U.S. ports, they were greeted by gridlock. As port workers scrambled to keep up with the increased traffic, captains were left with no choice but to dock their ships offshore and wait weeks to unload their cargo.

“Imagine China or Russia wants to crater the U.S. economy, so they go and attack the ports where a good percentage of our economic goods come and go,” said Rick Siebenaler, chief executive officer of the South Coast Regional Innovation Engine: Cypersecurity Solutions for the Maritime Transportation Ecosystem.

The engine is housed at the University of South Carolina Beaufort. It is funded by a recently-awarded $1 million planning grant from the U.S. National Science Foundation.

The grant will be doled out over the course of the next two years. In that time, USCB, along with 12 partner institutions around the state, will work to pinpoint potential cyberthreats within the maritime transportation ecosystem, which represents roughly 10 percent of the state’s economy.

Once those vulnerabilities are identified, the university will send proposed solutions to the National Science Foundation. If the foundation finds the university’s proposal worth investing in, USCB could be awarded additional grant funds of up to $160
million.

“There’s a whole desire here to really build a new economy around maritime cybersecurity,” Siebenaler said.

If USCB were able to secure the $160 million grant, the funds would be spread out over a 10-year period. The hope would be, at the end of 10 years, the maritime cybersecurity industry would be a self-sustaining economic engine within the state, creating myriad local, high-wage employment opportunities.

The Threat

Nearly 3 million shipping containers pass through South Carolina ports each year. Once on U.S. soil, each container enters a complex transportation network, with many moving parts.

Each piece within the network could serve as a potential Trojan horse for adversaries to gain entry to our ports.

There are the containers themselves, which are coming from foreign countries. And the ships they are coming in on could have stopped off in any number of places on the way to South Carolina.

---

HILTON HEAD ISLAND BUSINESS

US agency plans deeper study of sea turtles in Savannah dredging threat

BY RUSS BYNUM ASSOCIATED PRESS

Once the ships arrive in our ports, the containers are lifted off with cranes, which operate on computers.
“As much as your home computer is vulnerable, everything that’s connected to the internet is vulnerable,” said Warren Parker, chief operating officer for the innovation engine.

The cranes are depositing the containers onto either trains or trucks. Many of the trucking companies, Siebenaler explained, are mom-and-pop operations.

“They’re all trying to move boxes and containers around. They’re not really thinking about cybersecurity,” Siebenaler said.

In 2014, North Korea hacked into Sony Pictures and, through the use of malware, erased Sony’s computer infrastructure.

If a hacker were to gain access to the port’s computers and wipe them clean, there would be no way of knowing what was in each container, where it had come from or where it was supposed to be going, bringing large sectors of our economy to its knees.

And, Siebenaler pointed out, the problem could be greater than just shutting down parts of the economy, as some of the goods being moved through our ports are life-support materials such as prescription drugs, baby formula and medical equipment.

Although the grant funds will be spent on examining maritime cybersecurity on a state level, the National Science Foundation expressly stated that one of the reasons USCB was awarded the grant is because its research could have a national application and, at some point, could even be used internationally.

This means, if USCB and its partners are able to get the $160 million grant, the state is poised to become a preeminent player in what could be a massive, worldwide industry.
Michael Cuglietta is The Post and Courier’s Bluffton reporter, covering everything from local government to food and culture. Although he is a new arrival to the Lowcountry, his wife was raised in Beaufort. Follow him on Instagram @mcuges

MORE INFORMATION

Planning commission deals setbacks to Pine Island golf course developer

MICHAEL CUGLIETTA