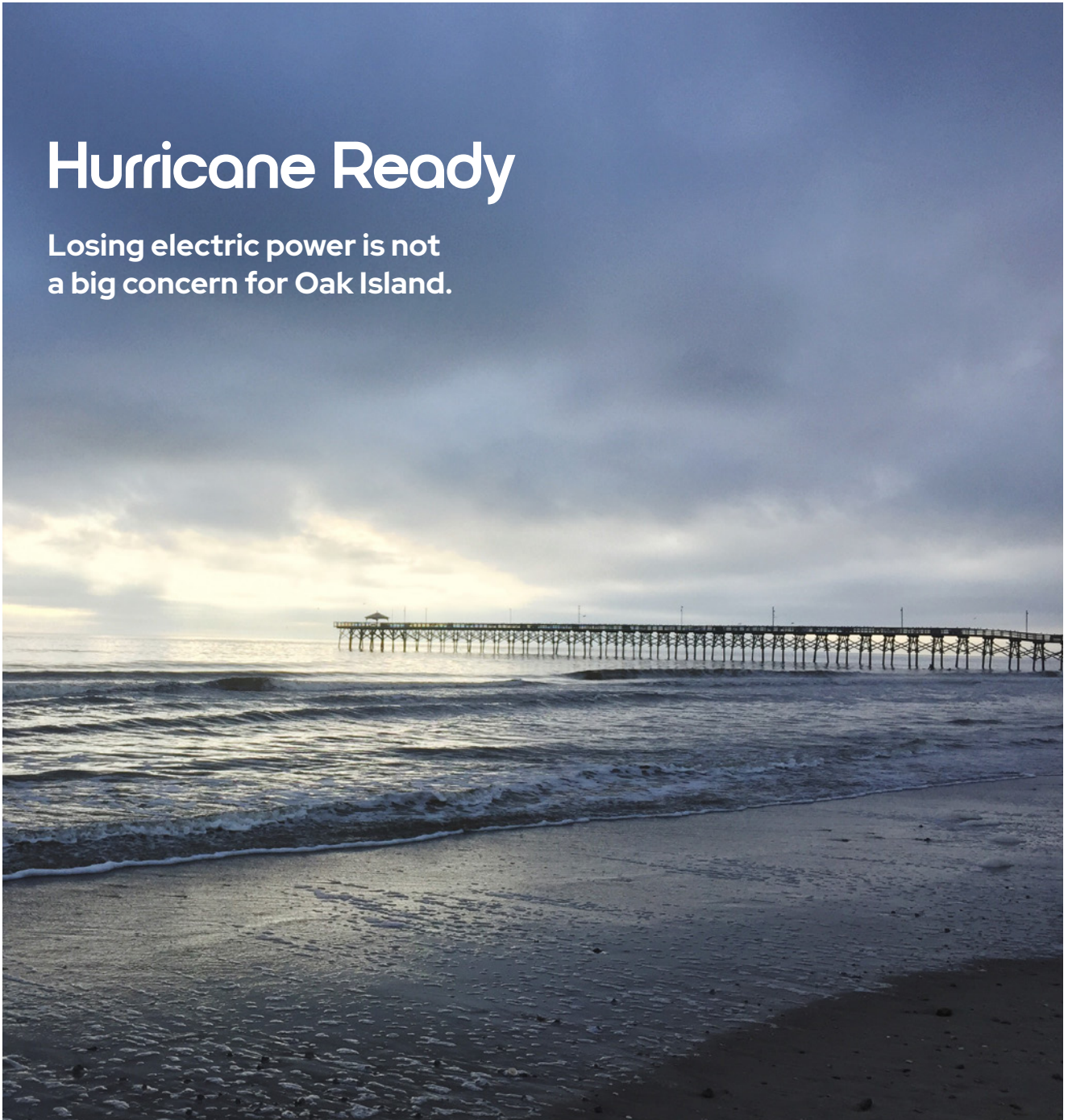




Case Study

Hurricane Ready

Losing electric power is not
a big concern for Oak Island.



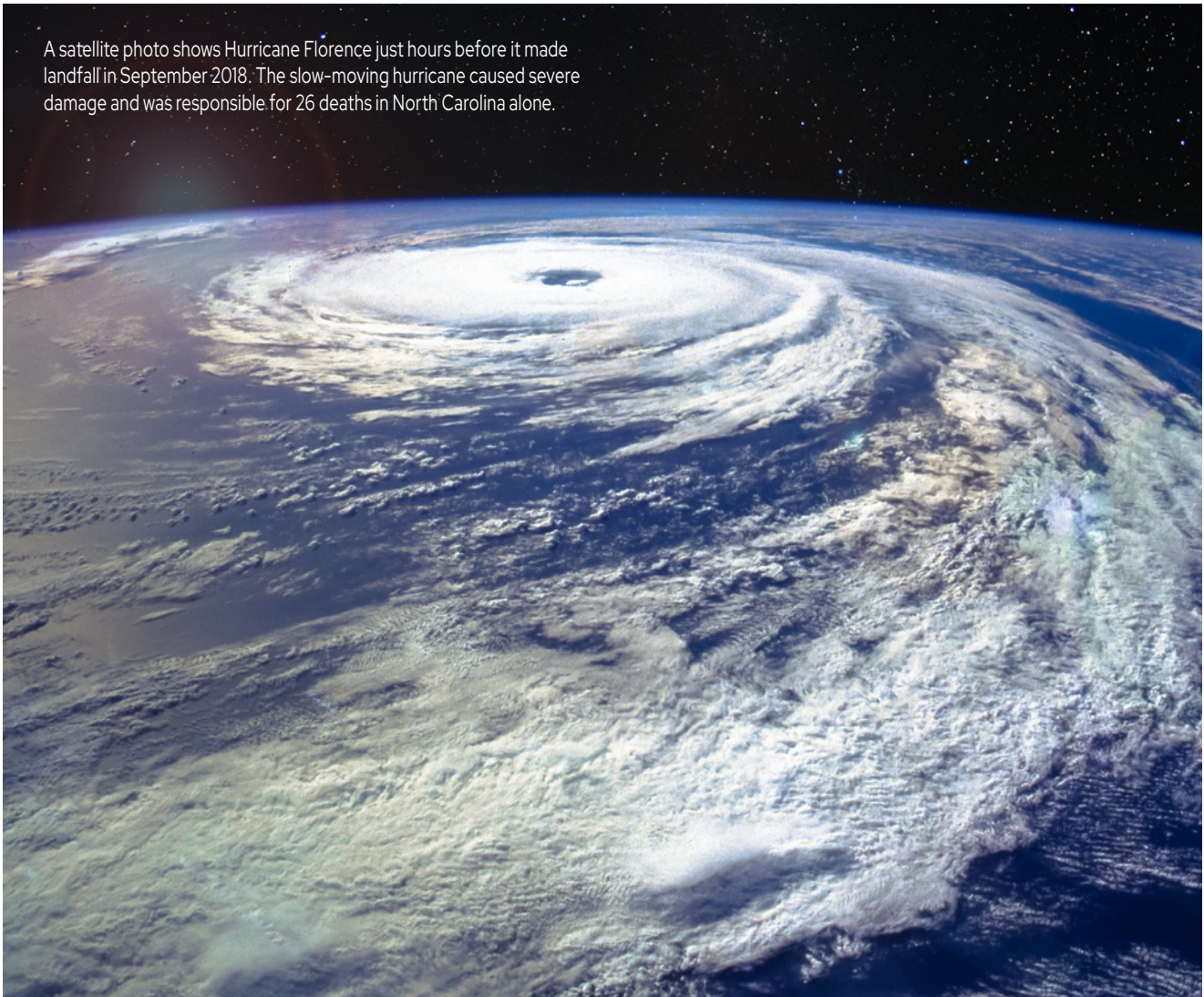
This is an excerpt taken from the article “Hurricane Ready” published in *Water & Wastes Digest*, March 2019. The entire article can be downloaded from this document. Hurricanes play a big role in coastal communities causing devastating damage. With the reconstruction process after the hurricane, it is often that sewers systems become compromised causing even more labor, time, and money. With Airvac sewer systems, there is lower risk of having to reconstruct a wastewater collection system after a natural disaster.

The Challenge

Two of the biggest concerns for sewer operators facing a hurricane are the loss of electrical power and storm water infiltration system overflow. The loss of electrical power at the vacuum and lift stations means the loss of sewer service in the community, while infiltration can overload

the system and cause backups and overflows which contaminate groundwater and, potentially, potable water supplies. Excess infiltration also can overload the local treatment center. All of these are significant problems that Oak Island had.

A satellite photo shows Hurricane Florence just hours before it made landfall in September 2018. The slow-moving hurricane caused severe damage and was responsible for 26 deaths in North Carolina alone.





CONTROL CENTER – One person can control most aspects of Oak Island’s vacuum sewer system from a central command center. Here, the operator can see the status of each of the city’s nine vacuum stations and make adjustments to any one of them.

The Solution

Losing electric power is not a big concern for Oak Island. The power lines are buried so they are not exposed to the extreme winds caused by hurricanes. Plus, there is backup generators ready should the electric grid be shut down for any reason. Oak Island was one of the only towns in the area to maintain power during most recent hurricanes. Airvac doesn’t just have the advantage of being a reliable system when electricity goes out, but also has the advantage of being more environment driven than traditional sewer systems. Part of Oak Island’s preparedness lies in the fact that they have vacuum sewers that prevent the threat of infiltration and exfiltration. Unless a component is damaged, such as a cleanout cap or valve pit, there is no threat of sewage contaminating the environment or storm water overwhelming the system and treatment plant. The benefits of sewer preparedness are significant; protection of the environment from sewage, the ability to have full sewer service quickly after a storm, and the safety of staff are all priorities.



VACUUM STATION – This is one of Oak Island’s nine vacuum sewer stations. In the event of a power outage, the stations can be powered by a portable generator.

Additional Information



[Hurricane Ready -
WWD 2019](#)
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