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## Field Explorer uses AvaLAN Long Range Wireless System to Remotely Monitor Island Heronry

Pea Patch is a small island, approximately 1 mi long, in the U.S. state of Delaware, located in the mid channel of the Delaware River near its entrance into Delaware Bay. It is a low, marshy island, once the location of strategic military defenses, the island is currently owned by the State of Delaware, operated as Fort Delaware State Park. The island emerged as a mud bank in the river in the 18th century. The island is publicly accessible by ferry from both the Delaware and New Jersey banks. In addition to the historic features of the state park, the island provides a significant wetlands stop for migratory birds. It is the location of the largest colony of herons in the U.S. north of Florida.

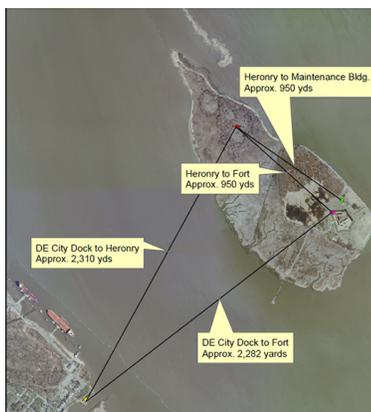
Pea Patch Island was once home to one of the largest and most diverse heron nesting areas on the East Coast. In 1993 the heronry hosted 12,000 pairs of nesting Herons. Pea Patch Island is an ideal nesting ground for these birds due to the types and arrangements of trees on the island, its proximity to the rich food sources in the coastal marshes and also the agricultural areas of both Delaware and New Jersey.

“I had a very good experience using the AvaLAN high speed 5.8 GHz wireless bridge. The equipment connects easily and I liked the POE integration. When I did have questions, it was easy to reach tech support. We could not have had success with The Pea Patch Heronry project without Avalan.”

*Jake Saulsbery, Technology Architect of Field Explorer*



Today, the Pea Patch Island Heronry continues to be an active and important regional heron nesting colony, but continues to face persistent challenges. Its population has continued to decline since 12,000 pairs were documented in 1993. However the diversity of species continues to make Pea Patch Island one of the most unique and important bird nesting areas on the East Coast. Today, the Delaware Department of Natural Resources and Environmental Controls continues to manage the Pea Patch Island Heronry as a Nature Preserve and entry into the area is strictly prohibited.



In order to help monitor the behavior and population in the Heronry, as well as allow the public access to the wildlife, the AvaLAN Wireless long range wireless camera system was commissioned. The system design required a non-intrusive pole system, solar power, a green battery storage system, and capability to transmit over a long distance through dense vegetation. Over 33,000 lbs of materials were transported by landing craft and then by hand and ATV to the island habitat. With its 3 cameras, utilizing ultra high definition as well as 30x optical zoom capabilities, close up, real time, undisturbed behavior can be remotely viewed. “I had a very good experience using the AvaLAN high speed 5.8 GHz wireless bridge. The equipment connects easily and I liked the POE integration. When I did have questions, it was easy to reach tech support. We could not have had success with The Pea Patch Heronry project without Avalan.” Jake Saulsbery, Technology Architect.