

Preserving a Habitat for Pelicans



“We knew that we could take the project, but there were two main challenges: one with the technology, and the other with the budget. ePMP proved to be the right answer on both counts.”

- WRAY LEMKE,
PRESIDENT, MOUNT
PLEASANT RADIO
COMPANY

Challenge

THE SOUTH CAROLINA DIVISION OF NATURAL RESOURCES HAS A PROTECTED SHOREBIRD

nesting site in Charleston Harbor. To monitor and preserve the fragile shoreline ecosystem, the Coastal Conservation League (CCL) engaged an integrator to develop a solution. Being a pristine offshore area, there was no option for wires for power or communications.

An integrator was originally commissioned to install a wireless, solar-powered camera system to watch this nesting area. The system never worked properly, and the integrator was unable to resolve the issue. CCL could not find an integrator that had the expertise to meet their need. Then, they found Mount Pleasant Radio Company (MPR).

“We provide sales and service to a wide variety of clients including the military, government, and industrial customers,” says Wray Lemke, President, Mount Pleasant Radio Company. “We knew that we could take the project, but there were two main challenges: one with the technology, and the other with the budget.”

1. **Technical challenge:** The site is solar powered so the power budget was critical. The ePMP™ Force equipment is very efficient and allowed MPR to install 2 cameras running 24/7.
2. **Financial challenge:** Make it work using limited funds.

Solution

“WE HAVE USED CAMBIUM EQUIPMENT and saw this as a perfect opportunity to use the ePMP wireless broadband Force line to bring an IP camera solution to the rescue,” says Lemke. “We rebuilt the existing solar panel system, installed two IP cameras, and linked the site at Crab Bank to the Charleston Pilot’s office across the harbor using a Force 180 and Force 200 5Ghz link.”



“On the island, we used the Force 180, taking advantage of its small footprint and low profile. On the land side, we installed a Force 200 to maximize our throughput so the IP cameras could be set to their maximum resolution.”

Knowing the delicate ecosystem of the island preserve, Lemke and his team prepared and tested the equipment in their labs to minimize any disruption during the installation on site. The system was built, configured, and tested prior to re-installing it on Crab Bank.

| ePMP 1000 Distribution Network Solution | |
|---|------------------------------|
| Frequency | 2.4 and 5 GHz |
| Throughput | 100 Mbps in a 20 MHz channel |

Results

THIS CAMERA SYSTEM IS NOW A PART OF THE COASTAL

Conservation League's website and is being used as a teaching aid and exhibition at the Charleston Aquarium.

The solid performance of the system makes it so CCL can take the technology for granted. Just as the pelicans don't notice the cameras and radios, the customer doesn't notice the consistent performance of the network. "Because the Cambium system is transparent to the customer, CCL is primarily concerned with the cameras' performance and the pelican habitat," says Lemke. "They are very pleased with how well the video system works."

Lemke has deep experience with numerous communications solutions. "There are many choices for low-cost wireless solutions for an integrator," he says. "We chose Cambium primarily on the strength of the product's performance and Cambium's support. Competitive pricing is a bonus, but only if the system works as required by the client. Cambium works, period."

The South Carolina Coastal Conservation League Live PELICAM from Crab Bank is at https://www.youtube.com/watch?v=kYd66zI3_gY



Pelican Chicks West View

Next Steps

MPR ANTICIPATES CCL WILL ADD ANOTHER NESTING SITE TO THE system soon. This will require an addition to the network that performs perfectly and goes unnoticed.



Felicia Sanders, DNR scientist, with MPR tech, Jesse Akins

About Mount Pleasant Radio

www.mplradio.com

From the US Navy to the elementary school around the corner, MPR provides cost-effective communications equipment for solutions that work correctly.

Why MPR Chose Cambium Networks

- **Low-cost** ePMP solutions make it possible to connect at almost any location.
- **System Reliability** to reduce down time and expensive maintenance trips to repair installed equipment.
- **High Throughput and Low Latency** for consistently reliable video.