

The Human Experience of Being Tracked Using New Technology—the GSM/GPS Transmitter



Shortly after graduating from Pennsylvania State University, John Rodenhausen sailed on the waters of the Chesapeake, Atlantic and Caribbean. He has been a captain and educator at the non-profit Chesapeake Bay Foundation since 1998. John enjoys spending most of his time on the water.

I am not sure how a shark or an osprey feels with a tag attached to it, but I do have some experience being tracked. I am keenly aware that as a human I am not the first choice of species for this line of tracking technology. However, when Lance Jordan and Lucy Howey-Jordan sat down with us at the Chesapeake Bay Foundation (CBF) to brainstorm ways to work together, there was a natural fit. They had a prototype of MTI's 70g solar GSM/GPS transmitter (*see page 6 for details*) in need of field testing just as my colleague, Dr. Beth McGee, and I were about to ride our bicycles on a 1300 mile circumnavigation of the Chesapeake Bay Watershed. What better way to accurately map our progress than to utilize this technology?

The Chesapeake Bay watershed has the largest estuarine land-to-water volume ratio in the world. In fact, 64,000 square miles of land drain into a shallow 200 mile long bay. This small puddle at the bottom of a very big hill is susceptible to a flood of various types of pollution, specifically nitrogen and phosphorus.



John's day in the office as a CBF educator.

Photo by Chesapeake Bay Foundation

Despite these conditions, or perhaps because of them, it has been my career goal to improve the water quality of the Chesapeake. I have worked to promote habitat restoration and environmental education, so that we may all realize the recreation and economic benefits a healthy resource will bring. Our goal in riding our bikes through the states of MD, PA, VA, WV and DE was simple: raise awareness and funds for cleaner water and two other causes close to our hearts.

So on July 30 we departed Annapolis, MD heading north. By day 4 we had followed the mighty Susquehanna River through Pennsylvania and crossed the border into New York. The first major victory of the trip came on day 5 as we pedaled into Cooperstown to pay homage to the headwaters of the Bay watershed. From there it would be 400 plus miles until our next turning point at the south side of Shenandoah National Park. Then we would make our way to Virginia Beach and onto the eastern shore of Virginia. It would be another several hundred miles until we reached the Bay Bridge that would lead us home. Each day MTI emailed us a satellite image that clearly showed our progress in hourly segments. Through the valleys and the mountains that define each river basin of the watershed, I knew MTI was always there. I have to admit it was both comforting and a little spooky to know that our whereabouts were always known by someone in an office hundreds of miles away. Nonetheless, at the end of 3 weeks we pulled into CBF headquarters in Annapolis for a welcome home fit for a king and queen. We were greeted

by many colleagues, friends and family including our new friends at Microwave Telemetry. The support and enthusiasm Lance, Lucy and the MTI staff provided was invaluable.



John, Paul and Lance fitting the transmitter to the bike hours before his send-off.

Photo by Lucy Howey-Jordan

The final map they produced with data collected from the transmitter emphasized the importance of this technology. Most of our supporters had little to no idea how large an area we had proposed to cover during our ride. It is challenging for just about anybody to visualize an area the size of this watershed but the clear maps showing our locations along our journey were breathtaking for many, especially for my mom. And just for the record; the tag was attached to the bike, not me!

Beth and I were proud of many parts of this ride but it is the distinction of being the first humans tracked by MTI using this new technology that is particularly nice. Their transmitter played a valuable role in our mission by allowing us to create an accurate map that was effective in communicating our position to our supporters. With many generous gifts, we were able to raise over \$11,300 in donations for CBF and another \$10,300 to between split by Johns Hopkins University and the American Diabetes Association. We also garnered media hits in 34 markets from San Francisco to Maryland. For photos and more information about the Chesapeake Watershed Ride feel free to visit our blog: <http://chesapeakewatershedrideblog.tumblr.com>



The complete track of John's circumnavigation of the Chesapeake Bay watershed. Data missing from first two days is due to John accidentally resetting the transmitter.