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Eyes in the Sky: ALTA Partners Begin to Capture Rising Seas

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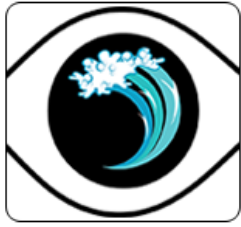


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Eyes on the Rise

Eyes in the Sky: ALTA Partners Begin to Capture Rising Seas

OCTOBER 6, 2014 / TED GUTSCHE / 0 COMMENTS

FIU-ALTA Partnership Captures High-Resolution Images of SLR



A collaboration between a Miami area high-tech company and Florida International University has improved ways to capture South Florida's environment to help scientists, citizens, and local governments prepare for future storms and rising seas.

Already, ALTA Systems (www.altapic.com) and scientists with Florida International University collaborated earlier this year to gather high resolution images of all of the City of Sweetwater. In that project, researchers used five balloons from 100 to 200 feet in the sky and a ground image system to capture 18,305 aerial images and 32,320 street level images.

Images provided city officials with information about random objects that have been abandoned on rooftops that could become "wind missiles," clogged storm drains that could contribute to street flooding, and potential property violations.

In partnership with FIU, ALTA uses its proprietary systems and software which relies on flying lighter than air platforms and high-resolution cameras as high as 150 feet above the ground to capture images that may never before have been seen in such detail.

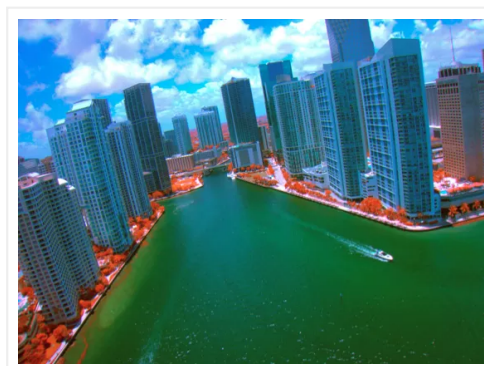
ALTA's balloons can be tethered to the ground and directed remotely. Captured images are then converted into Virtual Field Reports (VFR) to provide a bird's-eye view of a geography's built and natural environments with significant clarity that can help in times of hurricane preparedness by identifying dangerous possible flying objects, electric lines, fire hydrants, street drains, pollution, and illegal dumping places which all can contribute to problems during storms.

Such field reports will help city officials identify and map the coordinates and address potential environmental hazards. This novel approach will allow officials and citizens to quickly find potential problems and to address such problems quickly and efficiently. [Watch VFRs here.](#)

Measuring Sea Level Rise From the Sky

ALTA technology has a direct influence on how citizens and public officials can understand environmental changes and impacts – particularly of sea level rise in South Florida.

“When it comes to sea level rise, like everything else, seeing is believing,” said ALTA CEO John Ciampa. “For this reason imagery has become the main staple of modern media. ALTA imagery provides a unique perspective from ground level and low altitude aerial cameras collecting a mosaic of revealing oblique angled, super resolution images.”



ALTA's approach to gathering detailed images of landscapes and environments is a unique one that provides outcomes unlike current options of making georeferenced images. "All other methods of capturing oblique georeferenced imagery involve aircraft and pilots," Ciampa said. "These methods are less revealing because of the altitude limitations and other obstructions between the airplane camera and the ground; they are also less frequent because of the cost of such missions."

ALTA's products also offer more impactful images for lower financial investment. "ALTA imagery provides unobstructed views and is more current because of its low cost," said ALTA's Ciampa. "ALTA aerial images are captured from smart balloons which also sense air quality and other atmospheric data all of which is instantly available to any device which has access to the Internet."

Capturing Oct. 9 Tides on Miami Beach

Beginning early on Oct. 9, FIU students and faculty will be using boats and vehicles to deploy these balloons and cameras as more than 70 high school and college students from Miami-Dade County spend several hours examining potential flood waters on Miami Beach as part of King Tide Day, the day when tides have led to massive flooding throughout parts of South Florida.

Ciampa said the Oct. 9 King Tide Day event will be a perfect opportunity to once again use ALTA's technology to capture Miami's environments through collaboration with college and high school students who will not only learn about the company's technology but to see how such technology can help inform citizens about their environments.

Water samples and other data gathered on Oct. 9 will be used by MAST @ FIU high school students throughout October to conduct classroom experiments, while high-resolution images of the Miami Beach coastline, in

some instances using ALTA balloons to make aerial photographs, will record the movement of water during the King Tide.

“We’re very excited about this project,” said FIU journalism professor Susan Jacobson. “As far as I know, it’s the first of its kind to harness personal technology and open data sources to help inform average citizens about the impact of sea-level rise on their homes and businesses.”

The Oct. 9 event will kick-off at 8 a.m. with a public discussion about climate change led by The CLEO (Climate Leadership Engagement Opportunities) Institute on the fourth floor of the Miami Beach Urban Studios, 420 Lincoln Road. CLEO was also involved in a Sept. 29 rally that announced the King Tide event at FIU’s Biscayne Bay Campus in North Miami and worked with 30 MAST students in preparation of the King Tide events on Oct. 9. More than 200 students, educators, and representatives of the local tech community attended the event.

UPCOMING EVENT

WHO: Florida International University’s School of Journalism and Mass Communication

WHAT: eyesontherise.org King Tide Day

WHERE: Miami Beach

WHEN: Oct. 9 from 8 a.m. to 2 p.m.



Uncategorized

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Art: Eyes Team Member

NEXT POST

Students Meet King Tide: Take to
Streets Oct. 9