One year ago today, US Airways flight 1549 landed safely on the Hudson River. Many hands contributed to the successful rescue of all 155 passengers including HRECOS. Data from the HRECOS network and forecasts produced by our partners at the Stevens Institute NY Harbor Observing and Prediction System provided important information on river conditions that ensured a quick emergency rescue.

The plane landed less than one kilometer from the HRECOS station at Castle Point. Within minutes of the crash, Alan Blumberg at the Stevens Institute compiled a detailed summary of river conditions for the next 48 hours. He sent this information to Michael Lee, Commander Supervisor at the Office of Emergency Management who then forwarded the data to the coast guard, the NY Fire Department and other emergency personnel on the river.

“Nobody else had this extremely important information to aid in the rescue,” Lee later told the Stevens Institute, “As always, we are very appreciative of Dr. Blumberg’s continued assistance and support.”

HRECOS collaborators at the NY Harbor Observing and Prediction System utilized HRECOS data to provide forecasts to rescue workers. The forecast above displays surface currents with red being the swiftest currents and purple being the weakest (m/s). The plane landed at approximately 3:31pm when currents were very fast.

Dr. Blumberg’s summary included information on wave height, water temperature, wind velocity, water level, surface currents, and bottom currents. He recommended that rescue assets such as ambulances be deployed downstream along Manhattan because the swift currents would carry the plane to the south. Once the passengers were safely rescued, he advised that the plane then be towed to the Battery Park where the currents were weakest. This would allow investigators to easily access the plane.

Dr. Blumberg also noted that we were extremely lucky. Although the surface currents were moving swiftly, the waves were relatively calm. If the conditions had been rougher, Dr. Blumberg later told WMBC news, “the plane could have tipped over and burst into pieces.”

From the viewpoint of the Hudson River Wildlife, we were also lucky that the gas tank remained
intact. Should the fuel have spilled, “It would go everywhere. That’s how fast these currents are” Dr. Blumberg told WMBC news.

In the days following the crash, Dr. Blumberg was again called upon to assist with the hunt for the missing engine. He recommended a search close to the crash site because the slow bottom currents were unlikely to have moved it significantly. Thanks to his advice, the engine was found directly beneath the point of impact, sixty feet beneath the water’s surface.
HRECOS Data Used in Rescue of US Airways Flight 1549
Thursday, 14 January 2010 19:00 - Last Updated Monday, 15 February 2010 17:19

- Surface Current (knots)
- Bottom Current (knots)
- Significant wave height (ft)