Survey Report
Indian River County 2008 Coastal Monitoring Survey
for Applied Technology and Management, Inc.
Onshore/Offshore Profiles Sector 7 (R-94 to R-112)

Location of Work: This submittal is for the Indian River County shore protection monitoring profiles along FDEP ranges IR-R-94 to IR-R-112, along with midpoint lines between R-99 through R-108 and 250' intervals lines between R-101 through R-106.

Date of Work: The monitoring survey was performed in July 2008. The onshore data was collected on July 30, 2008. The offshore data was collected on July 25, 2008.

Scope of Work: Onshore profiles were collected along the alignments as shown in the control tabulation using differential leveling for elevation and a hand-held laser for stationing.

Offshore profile data collection was performed to FDEP specifications using Real-Time Differential GPS, Hypack Navigation Software, a Odom CVM Digital Echosounder, TSS Motion Compensator, and Submersible Tide Gauge.

Horizontal Datum: Coordinate values are referenced to the Florida State Plane Coordinate System, East Zone, North American Datum of 1983/90 (NAD 83/90).

Vertical Datum: Elevation values are referenced to the North American Vertical Datum of 1988 (NAVD 88).

Horizontal Control: a) Coordinate values for the FDEP range monuments were supplied by FDEP and verified by RTK/GPS during a previous survey.

b) Where FDEP R-monuments were not found, RTK/GPS was used to set control along the profile alignment. Two hubs were set on each line along the published profile azimuth to assure the accuracy of the stations and elevations on each profile line.

Where FDEP R-monuments were found the alignment stakes for the profile lines were installed along the published grid bearing using the RTK/GPS system or using a magnetic bearing adjusted for magnetic declination.

Stations (ranges) along the profile lines were measured with a hand held laser (± 0.5').

c) The positioning for the offshore portion of the profile line relied on Real-time Differential GPS utilizing differential corrections from the Canaveral C.O.R.S. (Continuously Operating Reference Station).

Vertical Control: a) Elevation values for the FDEP range monuments were supplied by FDEP and verified during a previous survey (see control sheet).

b) Elevations for the onshore profile line were based on the two RTK/GPS points set on line or from the range monuments value supplied by FDEP and verified during a previous survey.

c) Elevations for the offshore portion of the profile lines for the project area were referenced to a submersible tide gauge placed offshore of the following R-monuments.

Date	Range	Stamping	Elevation (NAVD 88)
July 25, 2008	R-103-5	R-103-5	9.68

All gauge installations, leveling and bathymetric surveys conformed to the FDEP specifications and the Florida Minimum Technical Standards.

The fathometer was calibrated at the beginning and end of each survey day using a “bar check” to compensate for variations of the speed of sound in water together with the calibration of the vessel for squat, settlement, and draft.