

**STAGE DATA FOR SCOTT CREEK,  
EDISTO BEACH, SOUTH CAROLINA**

by  
**Brenda L. Hockensmith**

**SOUTH CAROLINA  
DEPARTMENT OF NATURAL RESOURCES  
Land, Water and Conservation Division**

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# **STAGE DATA FOR SCOTT CREEK, EDISTO BEACH, SOUTH CAROLINA**

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## **ABSTRACT**

The Scott Creek estuary is formed by a 1,500- to 3,000-foot wide by 3-mile long system of tidal flats, saltmarsh, and tidal streams between Edisto Island and Edisto Beach, South Carolina. A causeway for South Carolina Highway 174 divides the small estuary into two nearly equal-length basins that drain east into the Atlantic Ocean through Jeremy Inlet and west into Big Bay Creek, a tidal tributary near the mouth of the South Edisto River. The disruption of the natural flow through Scott Creek is believed to have accelerated siltation and, in hand with resort development on Edisto Beach, might have contributed to declining estuary health.

The hydrologic data collected will be used to evaluate the present conditions of Scott Creek and the potential for improvements if flow were restored. Data include manual and automatically recorded stage values; flow and bathymetric measurements with an acoustic-Doppler current profiler; and geodetic leveling so that all data would be referenced to the same vertical datum. Data collection began in December 2003 and continues through this writing. This report presents the stage and geodetic data collected through June 2006.

## **INTRODUCTION**

Restoring flow in Scott Creek, a saltmarsh creek near Edisto Beach bisected by a causeway since the 1930's, may provide hydrologic and biologic benefits to this area. The Land, Water and Conservation Division of the South Carolina Department of Natural Resources (DNR-LWC), with funding by U.S. Department of Commerce, National Oceanic and Atmospheric Administration (DOC/NOAA) via a grant to the South Carolina Department of Natural Resources Marine Resources Division, collected data to evaluate the hydrologic conditions of Scott Creek and to model the potential hydrologic conditions if a connection were made between the two sides of the creek. This report is a compilation of the stage and geodetic data collected for this project.

## **PURPOSE AND SCOPE**

This report presents stage and geodetic data collected from Scott Creek and the adjacent area between December 16, 2003, and June 2006. Hydrographs of manual and automatic stage measurements on Scott Creek are presented. Tidal data for Charleston Harbor are presented for comparison with the stage data.

## **APPROACH**

The evaluation of the hydrological conditions of Scott Creek required the collection of river stage, flow, and bathymetric data. To that end, stage-gaging stations were constructed on both the western and eastern creek reaches, collecting synchronized data at specified intervals. In the latter stages of data collection, the selection of stage-gaging stations and measuring intervals was modified to support bathymetric and flow data collected by manual surveys and acoustic-Doppler current-profiler (ADCP) transects.

## **STUDY AREA**

The study area is located at Scott Creek Estuary, which is formed by a 1,500- to 3,000-foot wide by 3-mile long system of tidal flats, saltmarsh, and tidal streams between Edisto Island and Edisto Beach, South Carolina (Fig. 1). A causeway for South Carolina Highway 174 divides the small estuary into two nearly equal-length basins that drain east into the Atlantic Ocean through Jeremy Inlet and west into Big Bay Creek, a tidal tributary near the mouth of the South Edisto River. The western reach, referred to herein as Scott Creek West, extends from the causeway southwestward to the creek's confluence with Big Bay Creek. The eastern reach, called Scott Creek East, extends from the eastern side of the causeway northeastward to Jeremy Inlet. Edisto Beach State Park borders the marsh on the north bank of Scott Creek West and the south bank of Scott Creek East. Most of the remaining highland adjacent to the marsh is private residential property.

## **BACKGROUND**

South Carolina Highway 174 spanned Scott Creek with a 45-ft (foot) timber bridge according to the South Carolina State Highway Department's most recent plans (dated July 1, 1933, and approved September 19, 1938) (Fig. 2). A meander on the west side of the creek was partially filled in for the highway right-of-way. Long-time residents reported that the hurricane of 1940 damaged the causeway and that subsequent repairs reopened the causeway by whatever means. This hurricane and the subsequent repairs may have contributed to the sedimentation of Scott Creek. No visual sign of the original bridge currently exists. Over nearly 70 years, the creek channel has filled, primarily near the causeway.

Because salt marshes are among the most productive environments in the world, restoration of the natural conditions of Scott Creek is thought to be beneficial to the estuary. To this end, the study of the hydrologic conditions of the creek, with a view to modeling restoration alternatives, was initiated.

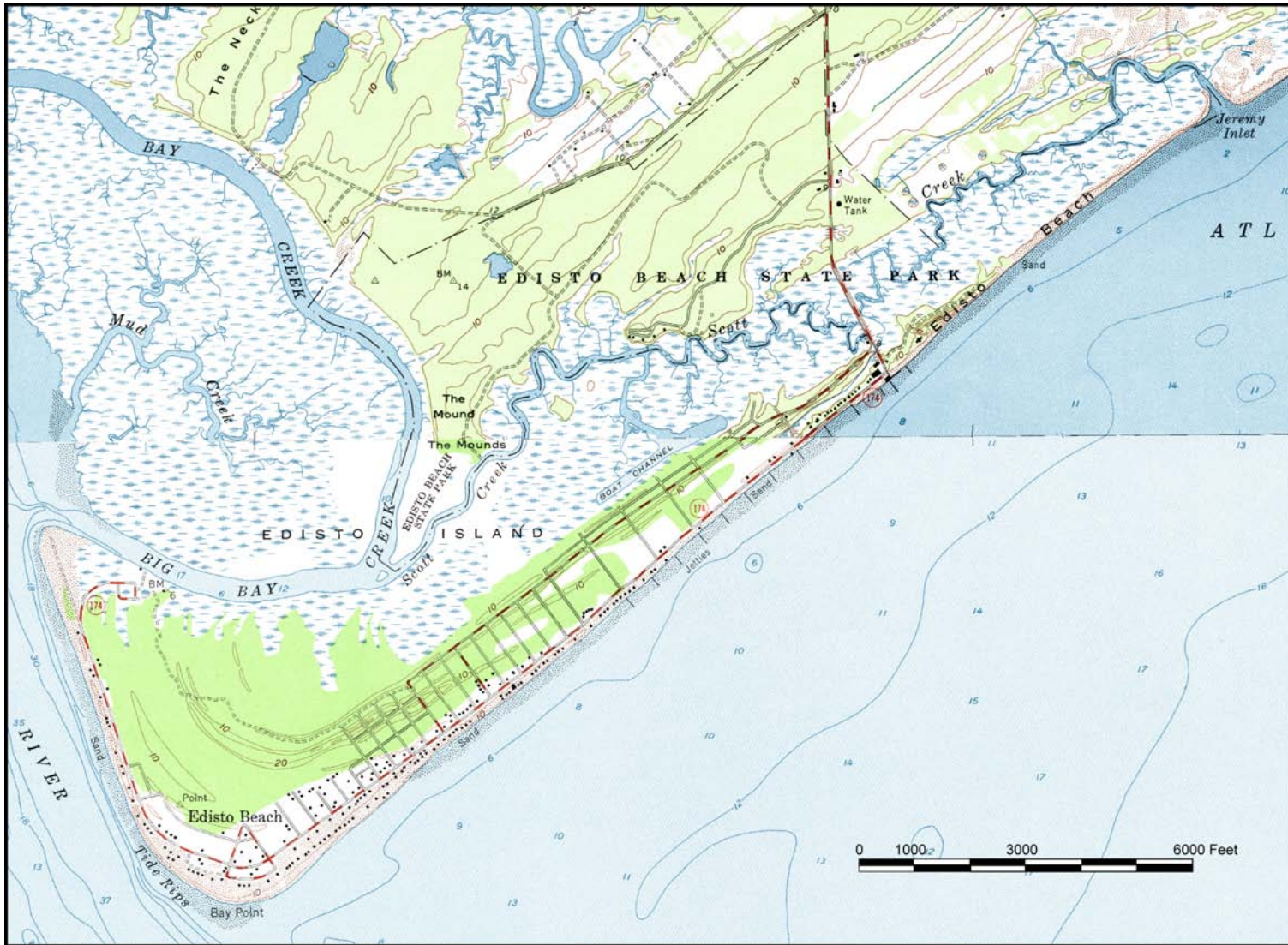


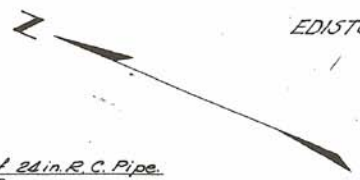
Figure 1. Scott Creek location map.



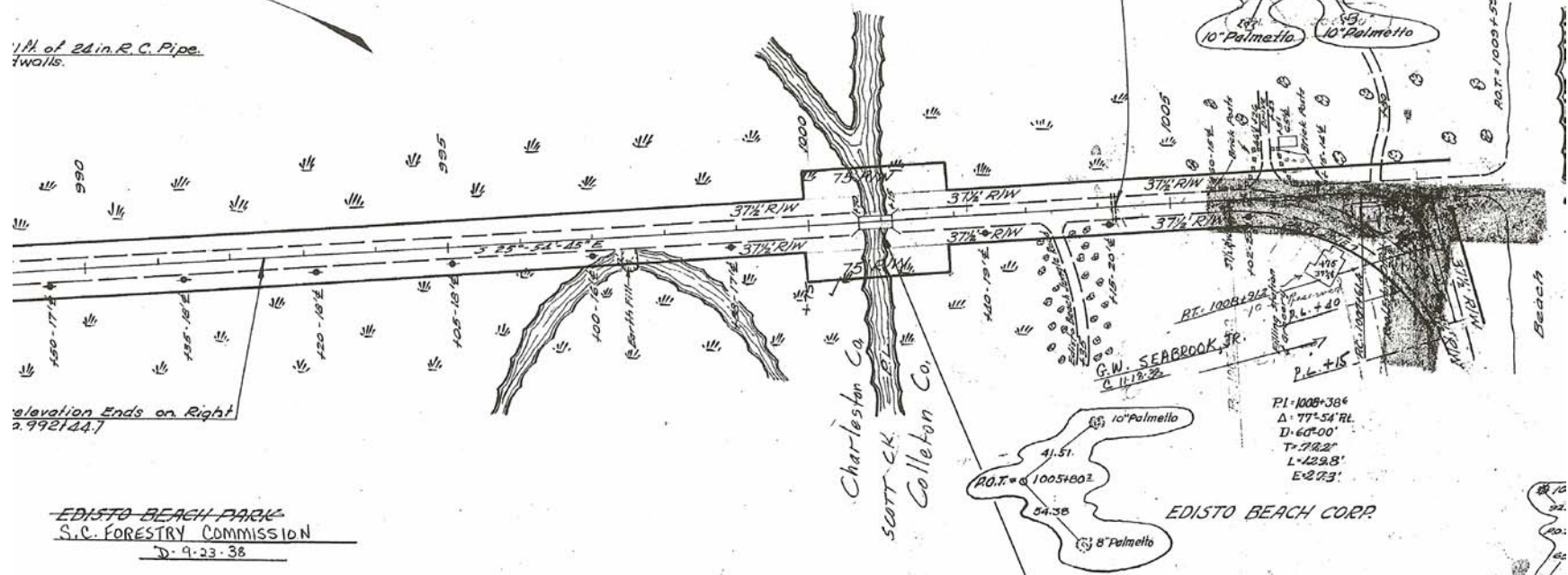
| FED. ROAD DIST. NO. | STATE | COUNTY     | STATE ROAD NO. | ROUTE NO. |
|---------------------|-------|------------|----------------|-----------|
| 14                  | S.C.  | CHARLESTON | 252-B          | 174       |

Colleton

Remove Wood Box Culvert  
Place 44 ft. of 36 in. R.C. Pipe  
Build 4.5° headwalls as shown  
on sheet no. 3.



1/4" of 24 in. R.C. Pipe  
7 walls.



elevation Ends on Right  
2.9921447

EDISTO BEACH PARK  
S.C. FORESTRY COMMISSION  
D. 9.23.38

EXCEPTION TO PROJECT

B.M. # 75 NAIL IN TOP 6"x8" Post  
on Wing of Bridge 12 ft. N  
Sta. 1000+65 - P.I. 1008+86

45 ft. timber bridge in place  
from Sta. 1000+70 to Sta. 1001+15

B.M. No. 76 - NAIL IN FOOT OF 18" OAK IN BRICK PIT  
30' AT Sta. 1006+65

|                           |      |     |      |
|---------------------------|------|-----|------|
| Exc.                      | 0    | Emb | 2686 |
| ROD                       | 4029 | 50% | 1343 |
| TOT                       | 4029 | TOT | 4029 |
| OVERHAUL = 80.55 C.Y.H.M. |      |     |      |



Figure 2. South Carolina State Highway Department plans for Highway 174 near Edisto Beach, S.C., July 1, 1933.

### **ACKNOWLEDGMENTS**

Gratitude is owed to the many landowners who allowed access to their property and gave permission to install benchmarks, temporary staff gages, and stage stations. These include the Property Owners Associations of Island Cove, The Hammocks, and Jeremy Cay; Edisto Beach State Park; Ben and Betty Lawrence, Tom and Martha Brady, Trip Whitmire, Butch and Betty Heaton, Buzzy and Nancy Foster, and Doug Henley.

A special thanks is due the U.S. Department of Commerce, National Oceanic and Atmospheric Administration for funding this study.

## **DATA COLLECTION TEMPORARY STAGE DATA**

Preliminary stage data were collected at four temporary staff gages on Scott Creek. Two stations, Causeway West and Causeway East, were located adjacent to the causeway, on the west and east sides, respectively (Fig. 3). Two additional stations were located farther from the causeway. Lawrence station was located on Scott Creek West where it enters at Big Bay Creek. Henley station was located on Scott Creek East, about 1,000 feet from Jeremy Inlet.

Each station consisted of a metal staff gage marked in 0.2-ft increments and attached to a vertical 4-by-2-inch wooden piling or a 3-inch diameter aluminum pipe (Fig. 4). Manual readings were made at 15-minute intervals on December 16, 2003, beginning about 2 hours prior to high tide and ending at least 2 hours into ebb tide. The South Carolina Geodetic Survey leveled each of the staff gages, the elevation of a specific point on the staff gage was determined, and gage readings were corrected to the North American Vertical Datum 1988 (NAVD 88; informally considered as height above mean sea level).

Figure 5 shows data from the four stations through the collection period and illustrates that high tide does not occur simultaneously on both sides of the causeway. The earlier high tide occurred at about 1230 at Henley and the later high tide occurred at 1345 at Causeway West. Another view of the data (Figs. 6 and 7) shows the magnitude and timing of the high tide for the incoming and outgoing tides, respectively, at each of the four stations. During the early part of the incoming tide, the water level was higher east of the causeway than west of it; therefore, streamflow would have been from east to west if a connection existed between both creek reaches. The direction reverses, from west to east, for the outgoing tide at the causeway.

## **CONTINUOUS STAGE DATA**

Ten stations were installed on Scott Creek, with five stations located on each side of the creek (Fig. 8). Stations on Scott Creek West were spaced approximately equidistant from the causeway to Big Bay Creek and were named SCW1 through SCW5. Stations on Scott Creek East were spaced approximately equidistant from the causeway to Jeremy Inlet and were named SCE1 through SCE5. Sites for SCW1 and SCE1 were installed at the nearest creek access to the west and east sides of the causeway, respectively. These two stations were attached to docks constructed by a private contractor (Fig. 9). SCE2, SCE3 (Fig. 10), SCE4, SCW4, and SCW5 were located on existing private docks. SCE5 was located on a piling near Jeremy Inlet. SCW2 (Fig. 11) and SCW3 were located on pilings between the causeway and the Edisto Beach State Park dock. The piling for SCW3 leaned out of plumb in December 2004, and the station was relocated to the State Park dock (SCW3B), but the strong tidal current washed out this station before it was instrumented.

Each station consisted of a stilling well (length of PVC pipe with holes drilled into it, and painted with antifouling paint to resist the accumulation of marine organisms) mounted vertically to a piling or dock. In most cases, the top of the stilling well was mounted with a stainless-steel box housing the stage-recording instrumentation, desiccant, and backup power supply. A pressure transducer was located in the stilling well near the riverbed. Alternately, the instrumentation was housed in fiberglass boxes on or adjacent to the stilling well.

### **Instrumentation**

Two types of instrumentation were used at the stage stations. The first four instrumentations used Unidata Model 8007DWLR Digital Water Level Recorders (Micrologger). The manufacturer was unable to supply all of the Microloggers needed for the project; therefore, a different instrumentation setup was used. This alternate setup used Druck KPSI 5-meter pressure transducers wired through a termination strip to a Unidata Prologger. Both types of instrumentation measured water temperature and water stage as height above the transducer diaphragm, recording data according to user-programmed specifications, generally 15-minute intervals. The Micrologger has a range of 5 meters (16.4 ft) and an accuracy of 0.01% of the range (0.0005 meter or 0.0016 ft). The Druck pressure transducer has a range of 5 meters (16.4 ft) and an accuracy of 0.1% of the range (0.005 meter or 0.016 ft).

Instrument failures resulted in frequent instrumentation changes at the stage stations. To keep the stations nearest the causeway functioning, instrumentation at SCE5 was limited to 2 weeks in May and June 2006. SCW5 was not instrumented, and no data were collected at this station.



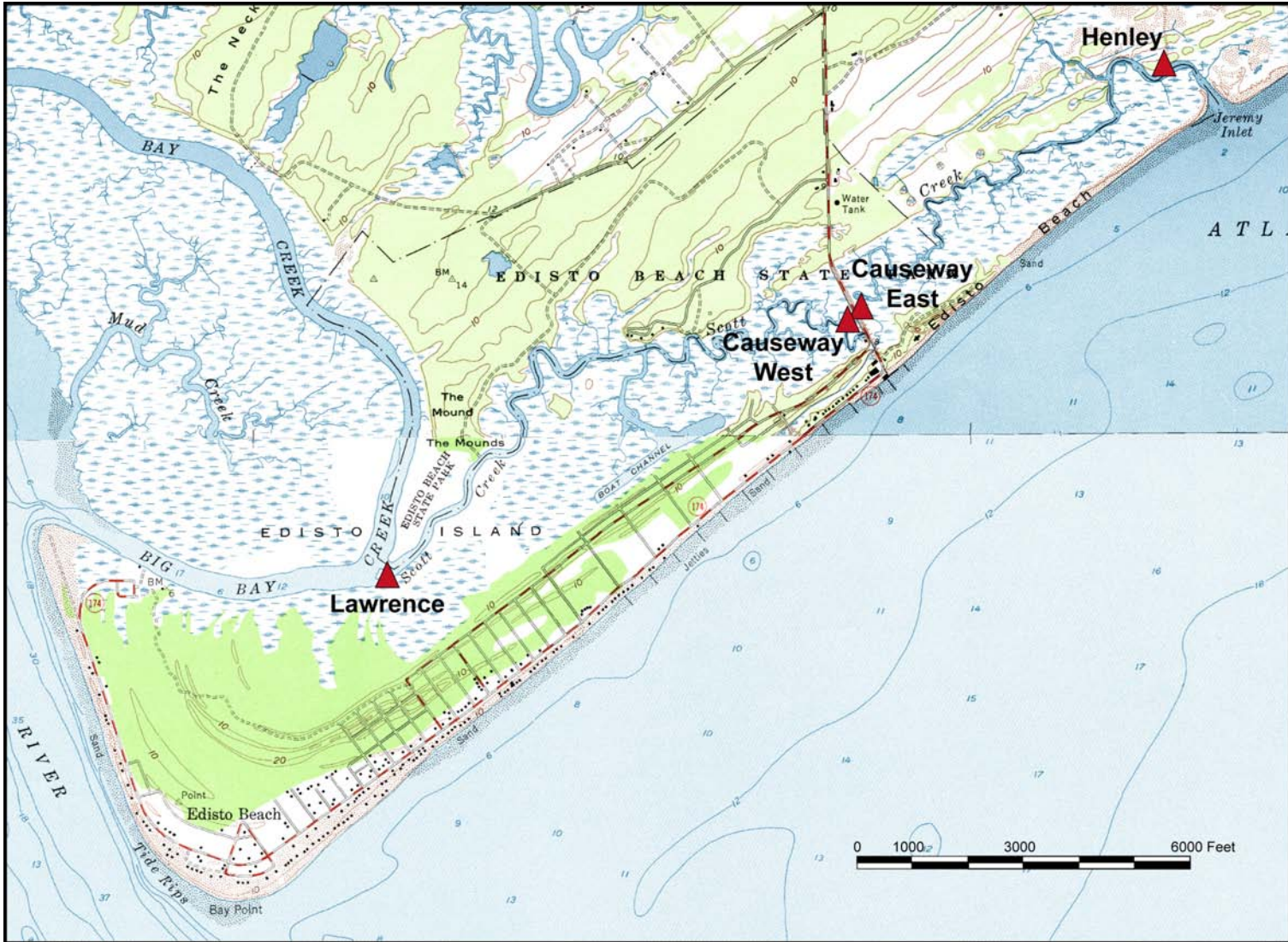


Figure 3. Location of temporary stage stations on Scott Creek.



Figure 4. Temporary stage station.

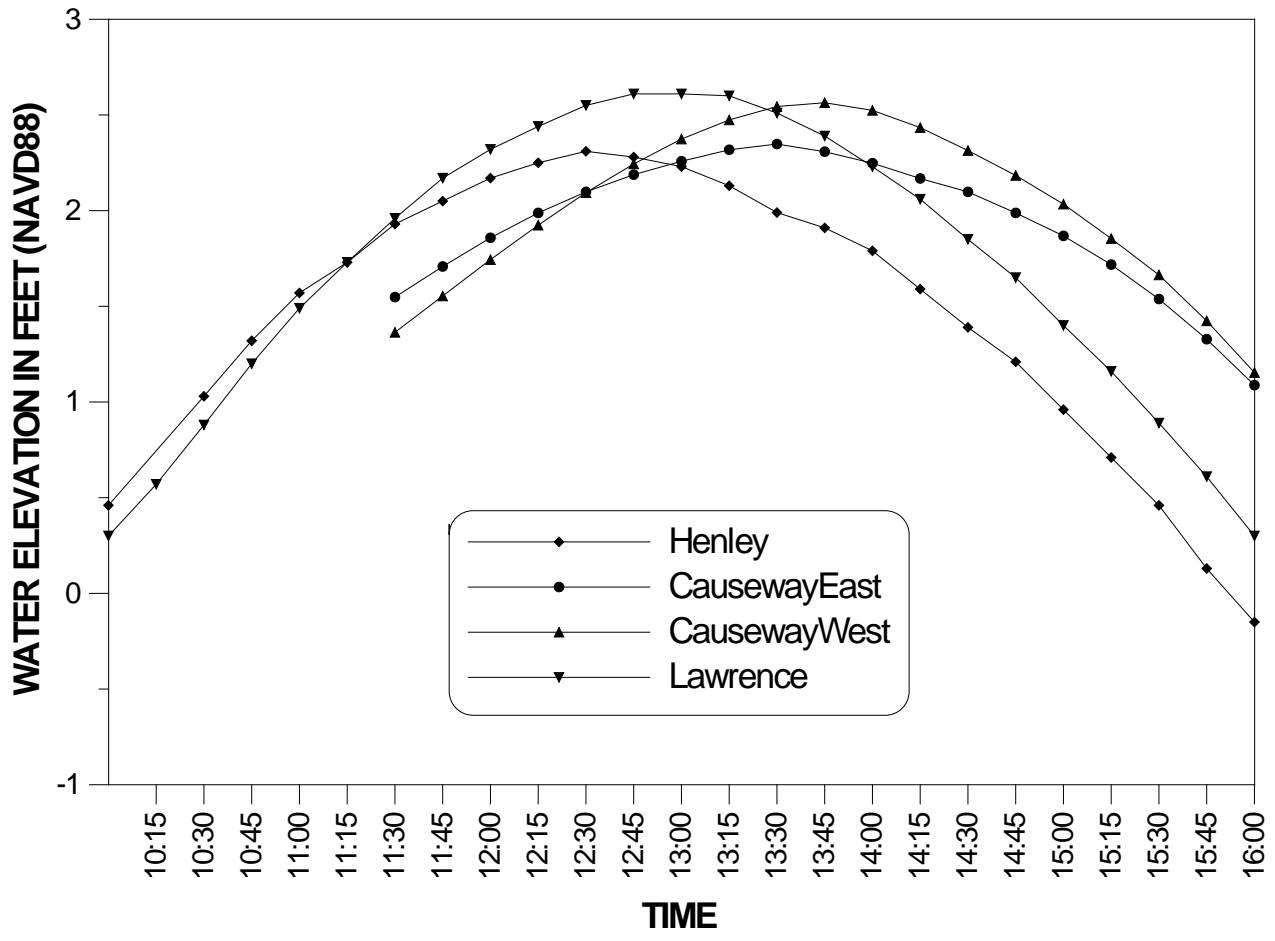


Figure 5. Temporary stage station data, December 16, 2003.

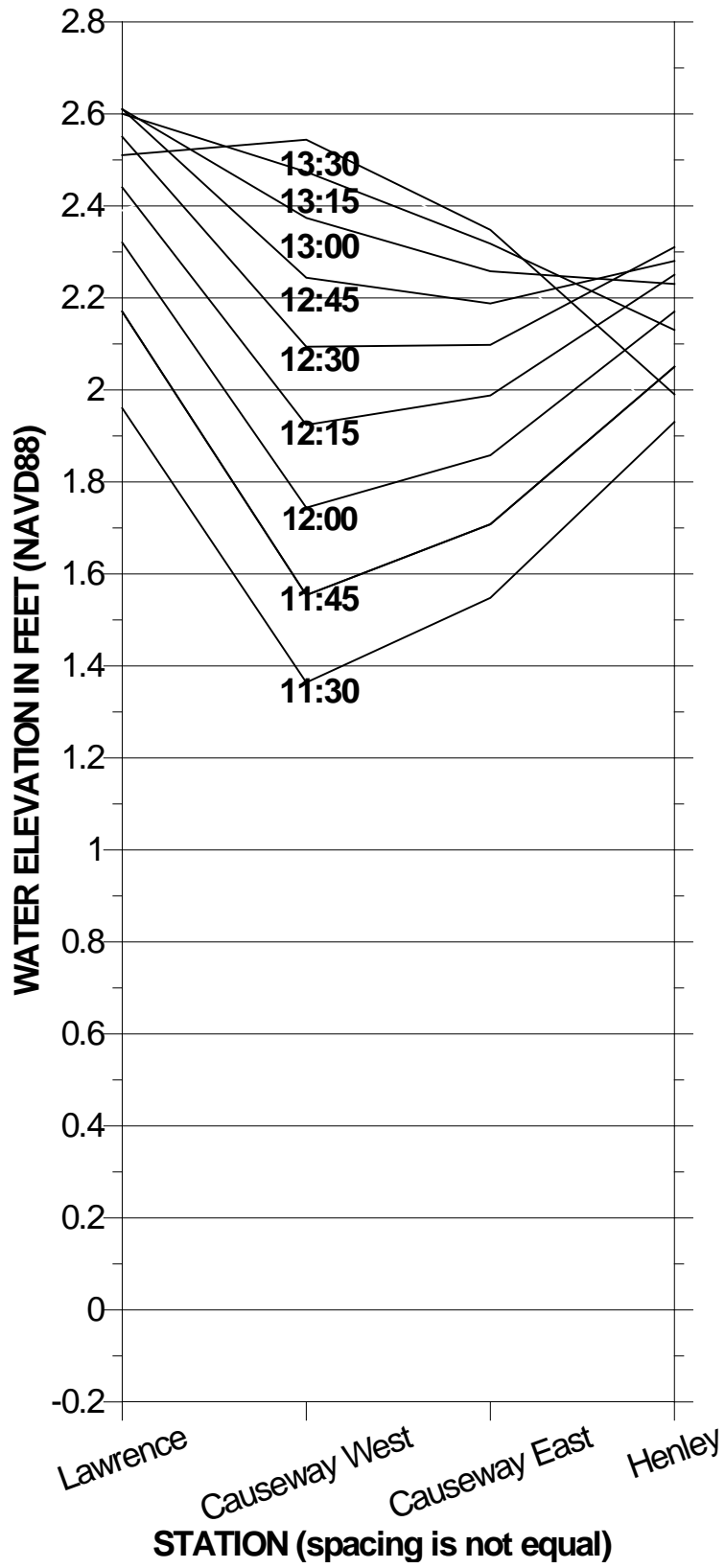


Figure 6. Temporary stage data for flood tide, December 16, 2003.

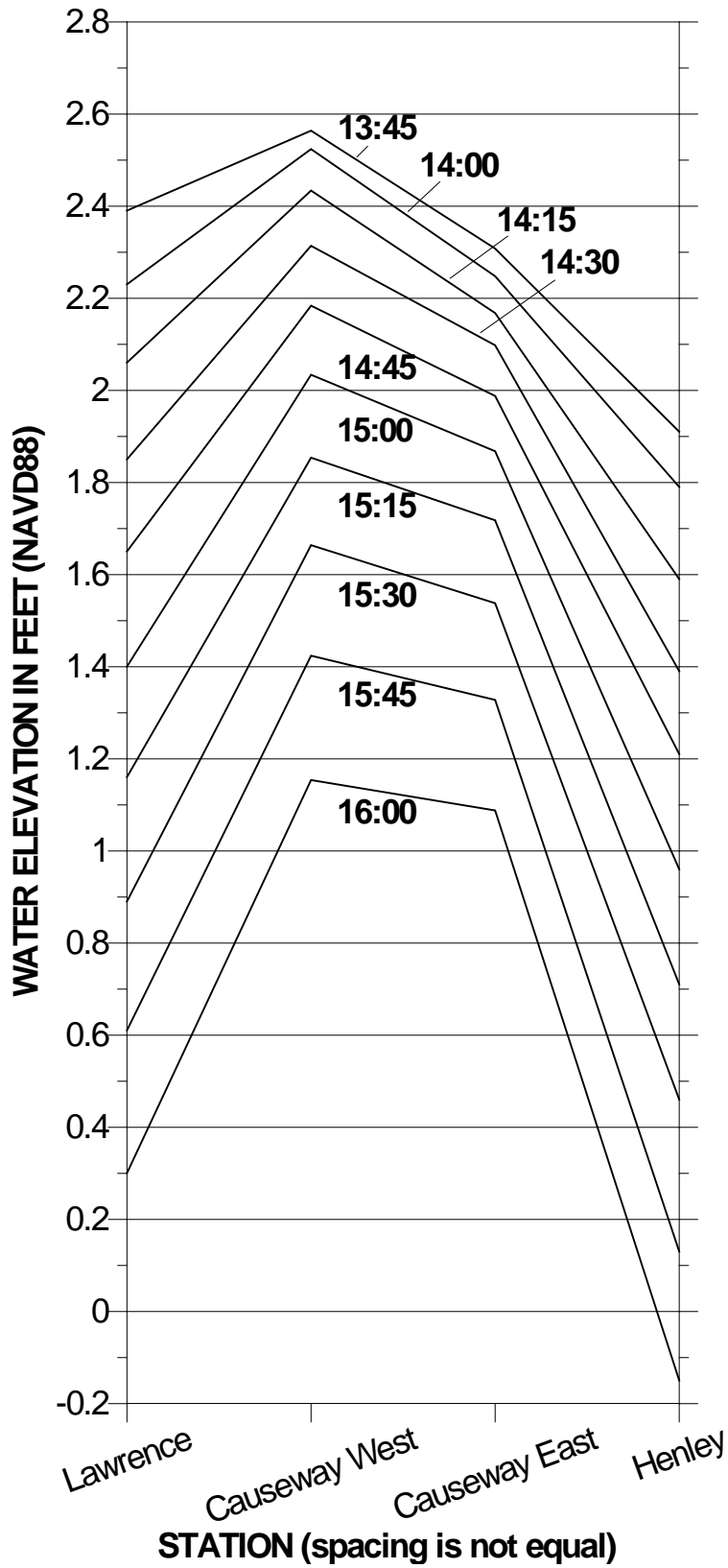


Figure7. Temporary stage data for ebb tide, December 16, 2003.



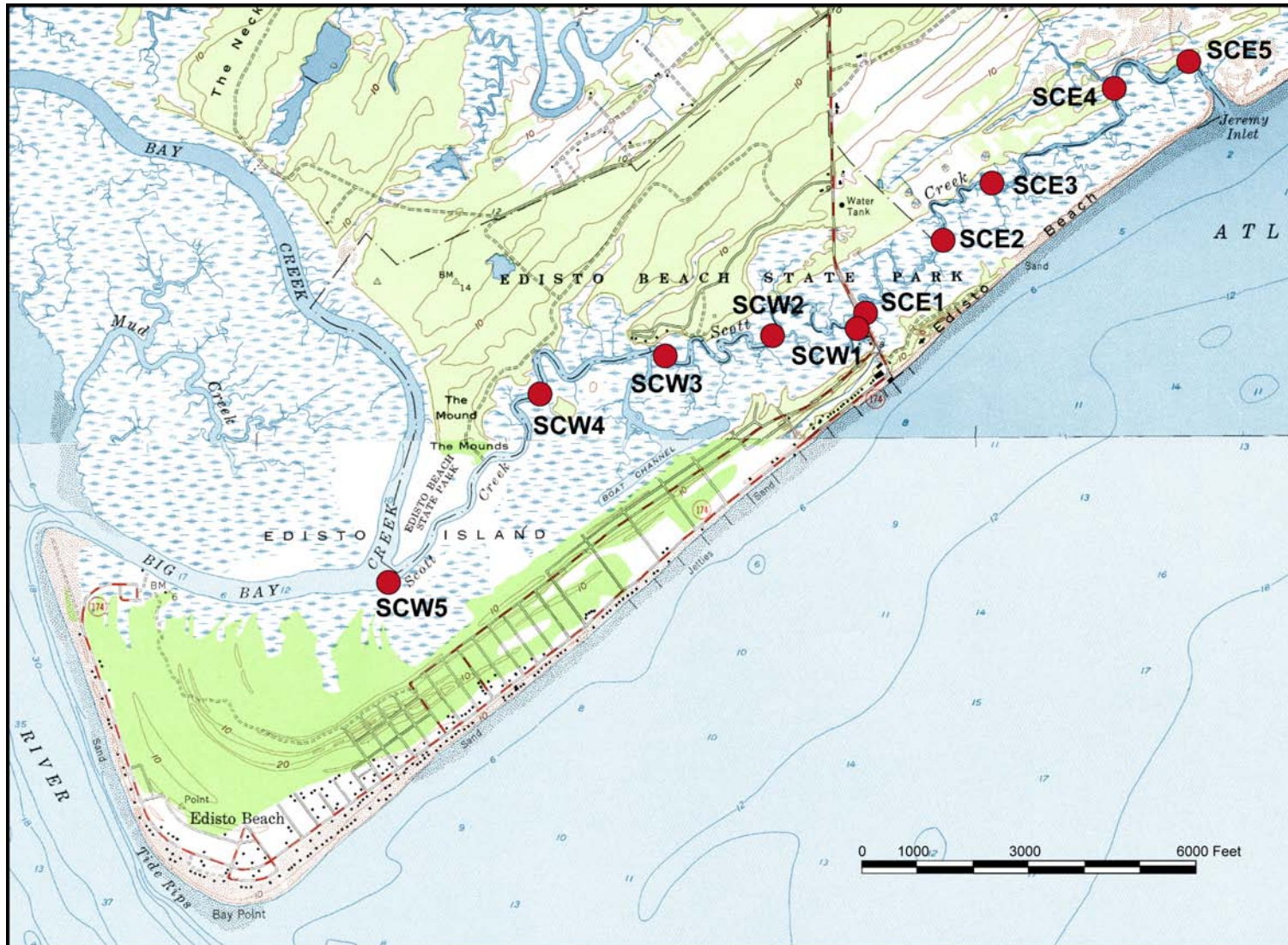


Figure 8. Location of stage stations on Scott Creek



Figure 9. Stage station SCW1.





Figure 10. Stage station SCE3.



Figure 11. Stage Station SCW2.

### **Leveling**

The elevation of each station was determined so that the stage data could be related to the same datum. The South Carolina Geodetic Survey (Fig. 12.) was contracted to connect by geodetic leveling techniques the 10 Scott Creek stations to NAVD88, using First-Order Class II specifications. The specifications require a closure of 4 millimeters times the square root of the distance leveled. Seven existing benchmarks for the NAVD88 datum were used to connect to 8 new benchmarks set in the vicinity of the stream-staging stations to facilitate subsequent repeat leveling (to determine stability of each of the stations). NAVD88 elevations were established on each stream stage-gaging station (a total of 25 elevation points). Leveling was completed in November 2004.



Figure 12. South Carolina Geodetic Survey leveling of stage stations.

The new benchmarks are included in the National Geodetic Survey (NGS) database. Descriptions and elevations of the benchmarks may be found by accessing the following website:

[http://www.ngs.noaa.gov/cgi-bin/ds\\_pid.prl](http://www.ngs.noaa.gov/cgi-bin/ds_pid.prl)

The NGS data sheets for these benchmarks are included in the appendix. All benchmarks, except B Hockensmith, are named for the nearest stage station. The following Permanent Identifier (PID) Numbers are for the stations.

Table 1. PID numbers for new benchmarks

| PID    | STATION DESIGNATION |
|--------|---------------------|
| DH6972 | B HOCKENSMITH       |
| DH6978 | SCW1                |
| DH6973 | SCW2                |
| DH6974 | SCW3                |
| DH6975 | SCE2                |
| DH6976 | SCE3                |
| DH6979 | SCE4                |
| DH6977 | SCE5                |



Elevations for the stage-gaging stations are listed in Table 2.

Table 2. Elevations for Scott Creek stage-gaging stations

| STATION | REFERENCE POINT | ELEVATION (in ft) | REMARKS   |
|---------|-----------------|-------------------|---|
| SCW1    | TP              | 4.609             | 1.99 ft below bottom of box                           |
| SCW1    | TOB             | 7.387             |   |
| SCW2    | TP              | 4.890             | 2.021ft below bottom of box                           |
| SCW2    | TOB             | 7.796             |   |
| SCW3*   | TP              | 5.013             |   |
| SCW3*   | TOB             | 7.821             |   |
| SCW4    | NAIL            | 7.097             | Nail on top of piling on east side of dock to Station |
| SCW4    | TP              | 6.265             | At deck level   |
| SCW4    | TOC             | 7.821             | With aluminum cap: casing not level                   |
| SCW5    | TP              | 6.837             |   |
| SCW5    | TOB             | 10.955            |   |
| SCE1    | TP              | 4.852             | 2.021 ft below bottom of box                          |
| SCE1    | TOB             | 7.844             |   |
| SCE2    | TP              | 5.490             | 0.760 ft below deck; 4.167 below top railing          |
| SCE2    | TOB             | 9.249             | 0.417 below top railing                               |
| SCE3    | TP              | 4.918             |   |
| SCE3    | TOB             | 6.515             |   |
| SCE4    | TP              | 4.216             | 0.729 ft below deck level                             |
| SCE4    | TOB             | 6.263             | 1.365 ft above deck level                             |
| SCE5    | TP              | 4.978             |   |
| SCE5    | Top of piling   | 6.498             | Substituted for TOB when box disturbed                |

Where: TP Temporary Point; top of galvanized bracket on piling adjacent to or near stilling well, reference used for water-level measurements  
TOB Top of box  
TOC Top of casing  
\* Station piling out of plumb; elevations now invalid

### Field Methods

Field procedures were standardized to ensure data quality. All instruments were synchronized with the NIST-F1 (National Institute of Standards and Technology) Cesium Fountain Atomic Clock for Eastern Standard Time to record measurements at the same time. Data were downloaded from the logger by a laptop computer and Unidata Starlog software. Following the download, the test mode of the program was selected. Several manual measurements of the distance from a leveled reference point to the water level were made at the same time the instrument was taking a reading. Both were manually recorded and used in the quality-control process to determine the validity of the data. The external-battery voltage was checked, and batteries were replaced as needed. The desiccant packs and tubes were checked and replaced as needed.

## **Data**

Stage data for nine stations are illustrated in monthly increments in Figures 13 through 21. Stage-data collection began in November 2004 and continued through June 2006. Data records vary for each station. SCE1 and SCW1, located nearest the causeway, were instrumented for most of this time period. SCE5 was instrumented only from May 22 to June 1, 2006. The records for other stations were limited for various reasons. Blank intervals indicate periods of no instrumentation, instrument failure, or invalid data. Data were collected at 15-minute intervals for most of this time interval. Beginning on May 22, 2006, stage data were collected at 5-minute intervals to supplement acoustic-Doppler current-profiler and bathymetric-data collection.

Most of the stage data from Scott Creek follow a tidal trend similar to that of Charleston Harbor (National Oceanic and Atmospheric Administration, Center for Operational Oceanographic Products and Services, Station ID: 8665530) (Fig. 22).

## **Discussion of Error**

The quality of these data is limited by a number of factors. The environment monitored is harsh: saltwater is corrosive to the metals used in the instruments, and biofouling, sedimentation, and periodic wetting and drying interfere with the probes. Scouring and deposition by ebb and flood tides about the stilling wells and pilings created variations in the conditions near the probes. Following installation, there is a short period during which the probe cable must straighten, and there also is probe movement within the stilling well caused by tidal currents. Furthermore, the manual readings used to validate the logger readings and probe elevations are subject to slight variations from wave action, and currents and wind affect the electrical water-level instrument. All of these factors influence the quality of the stage data presented.

Data from specific wells require comment. At SCE1 and SCW1, located near the causeway, water level falls below the level of the probe at low tide. Water may pond near the stilling well while water drains from the marsh at these sites, and the data are not valid at low tide. In addition, DNR-LWC staff checked the elevations for these two wells on August 16, 2006, and found that while the elevation for SCE1 remained the same, that of SCW1 was found to be 0.18 ft lower than that found by the South Carolina Geodetic Survey. Data from SCW1 have not been adjusted for this elevation change. The piling on which SCW3 was located was first observed to be leaning on December 7, 2004, and the declination increased through December 16, 2004. The water-level error for December probably increased during the month as the piling came more out of plumb.

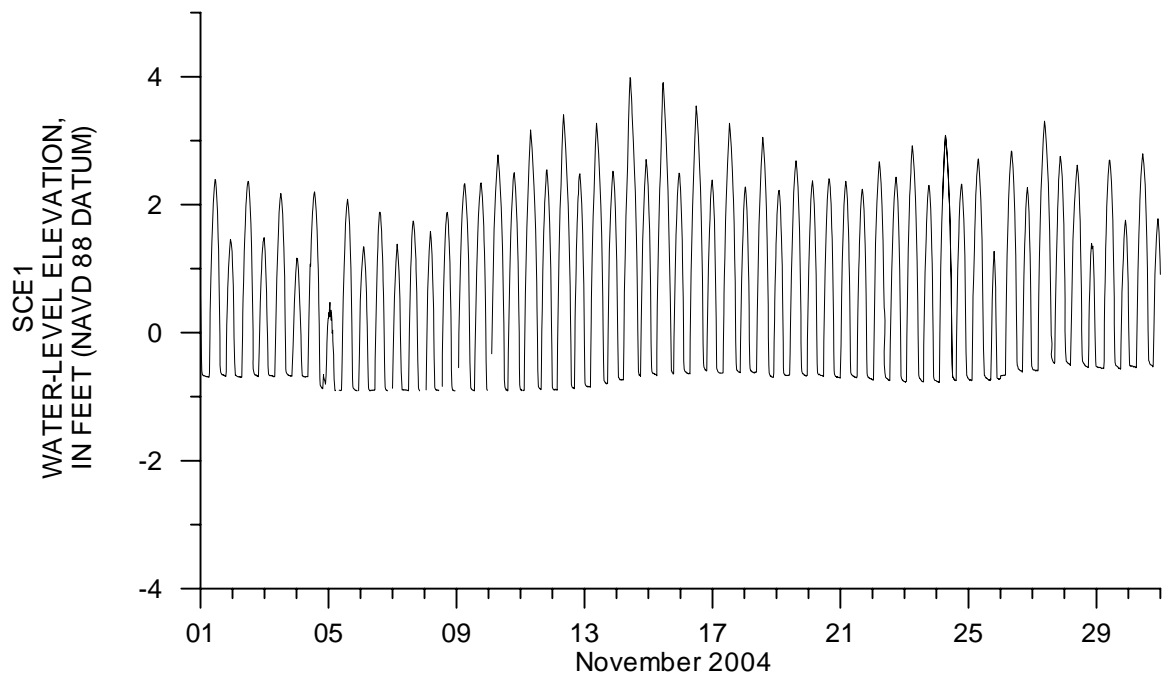
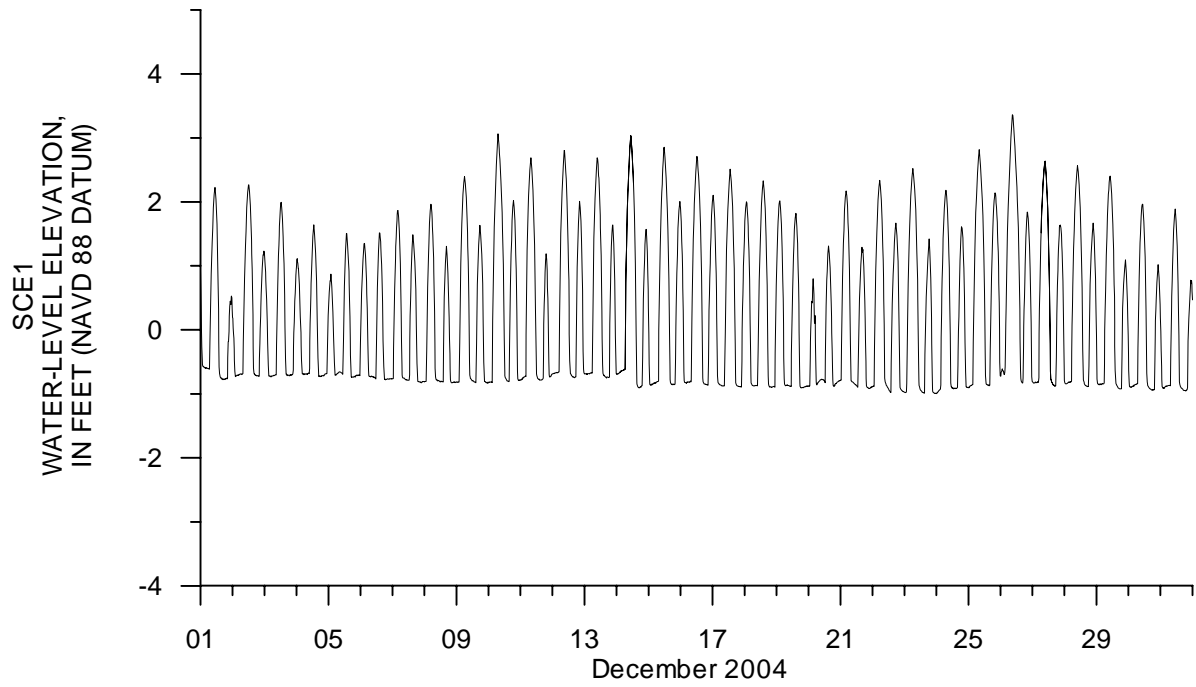


Figure 13. Stage-data plots at SCE1.

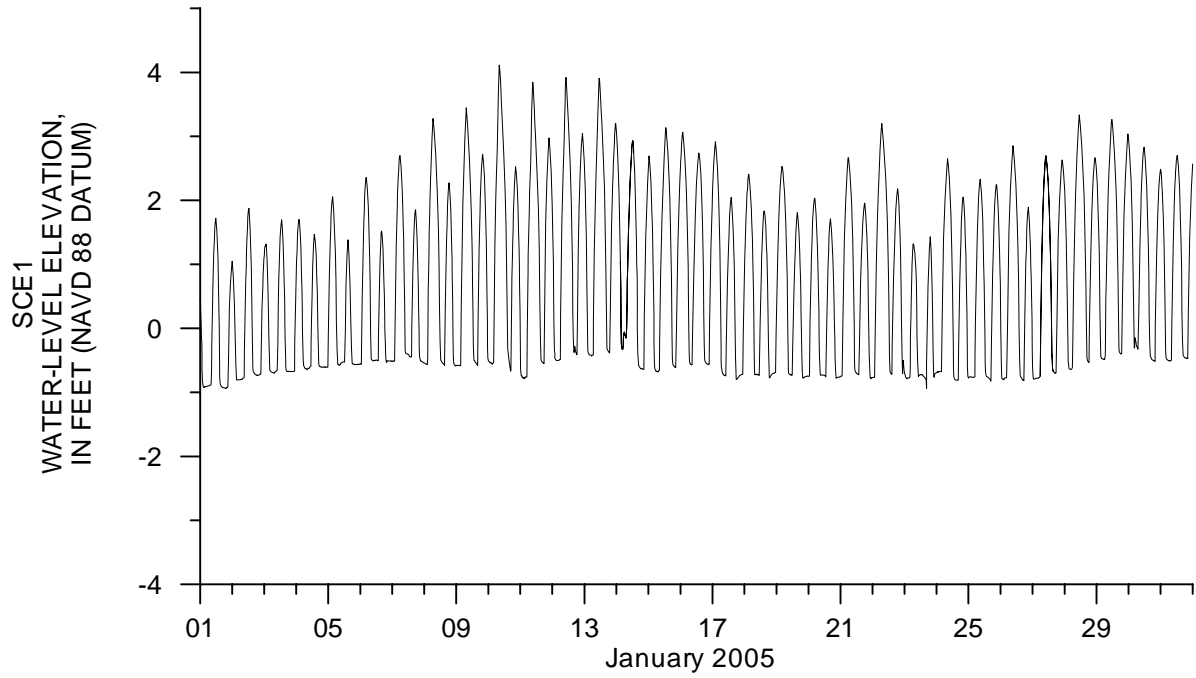
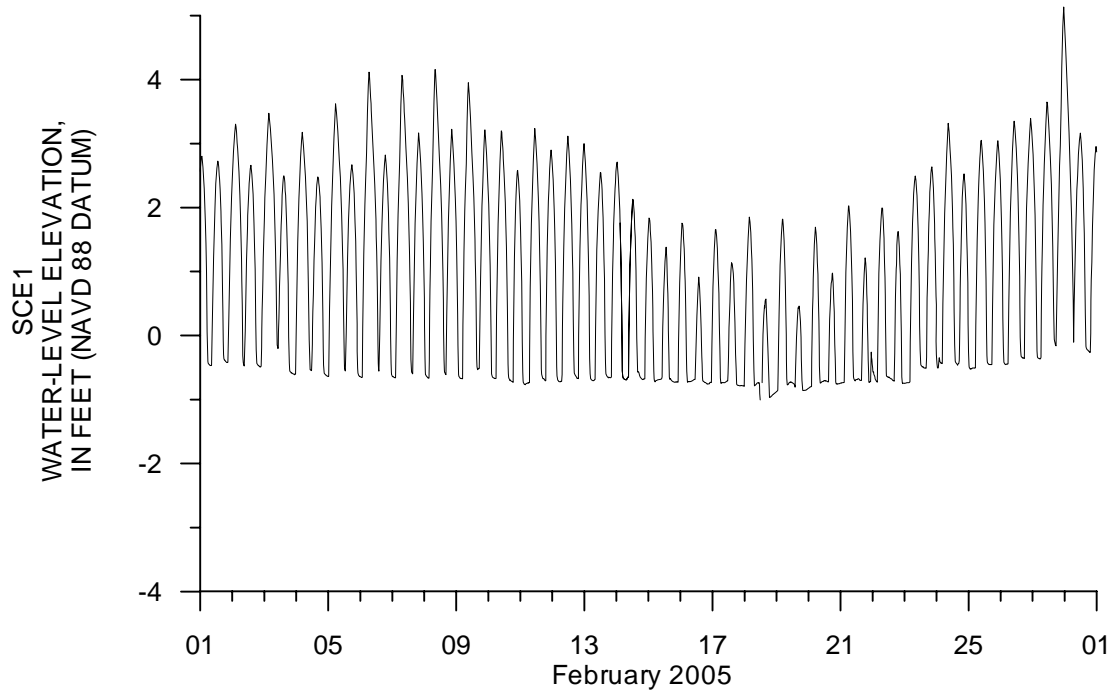


Figure 13. Stage-data plots at SCE1.

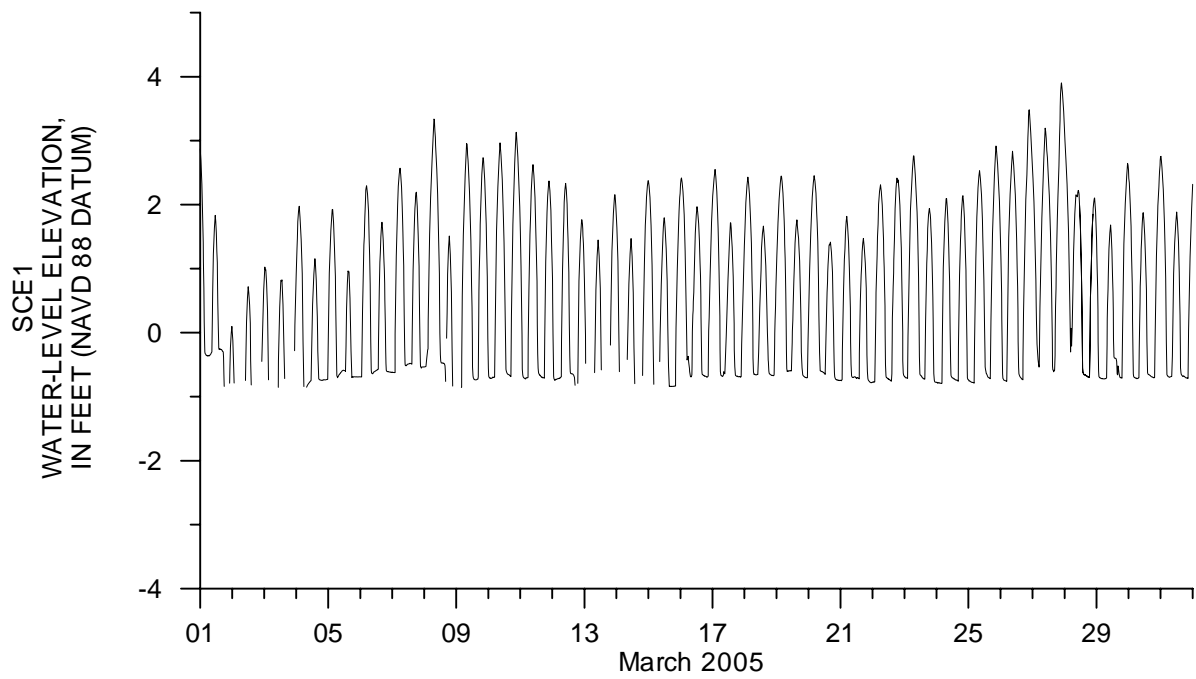
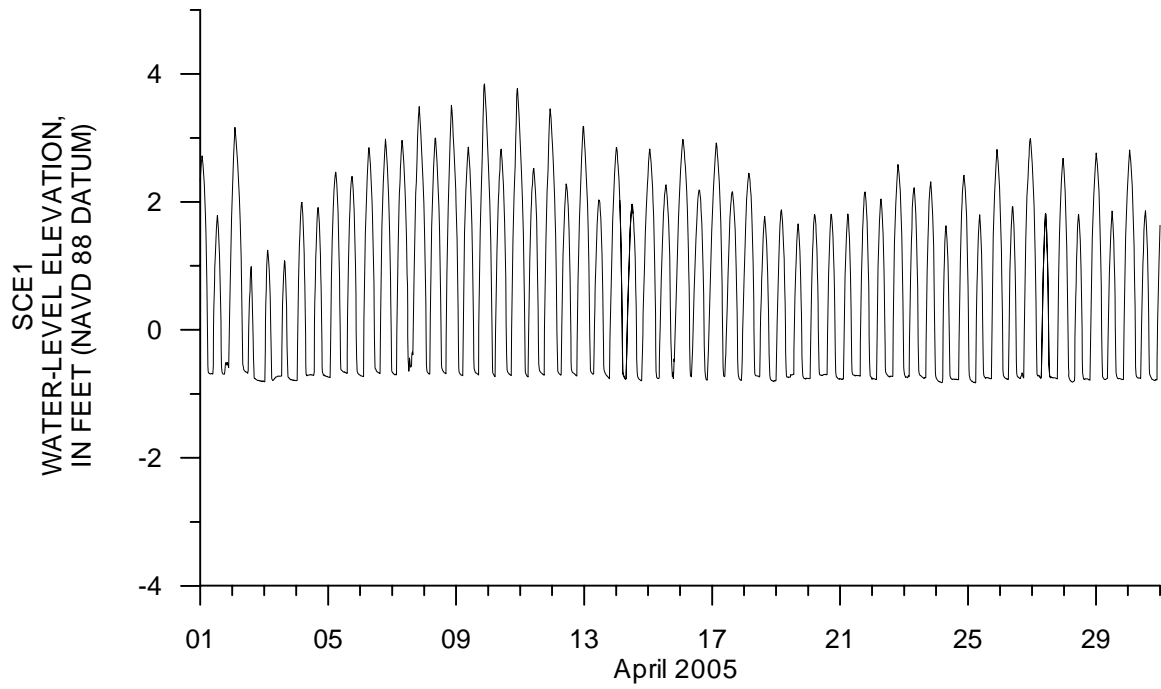


Figure 13. Stage-data plots at SCE1.



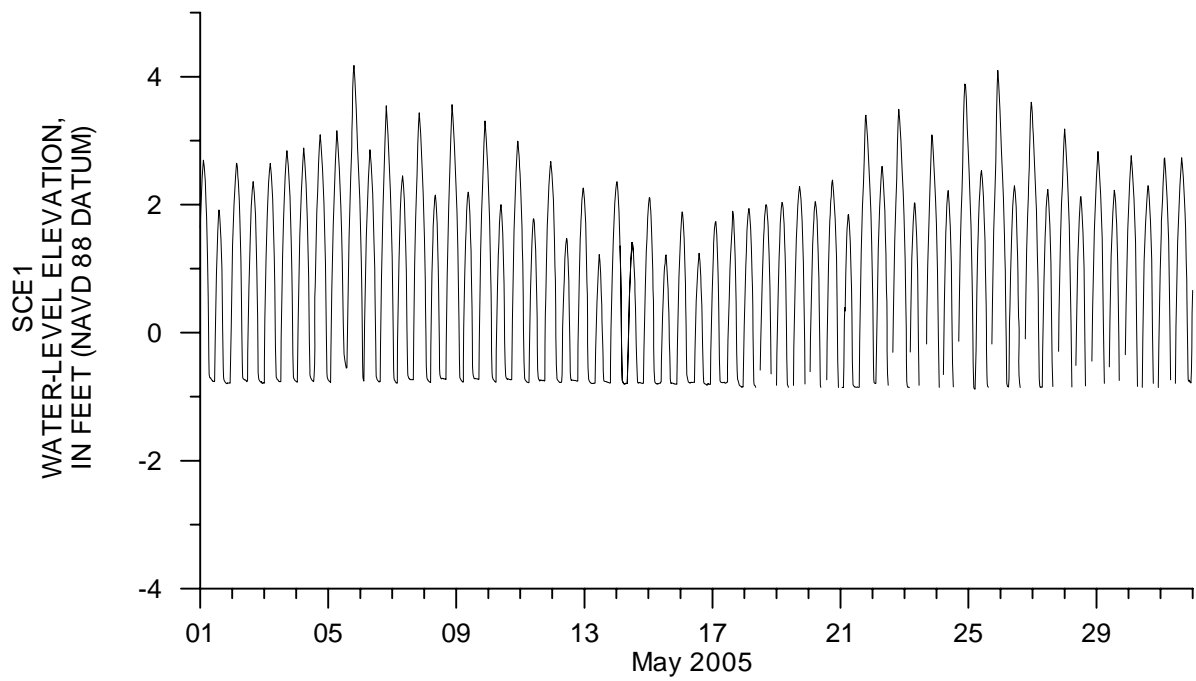
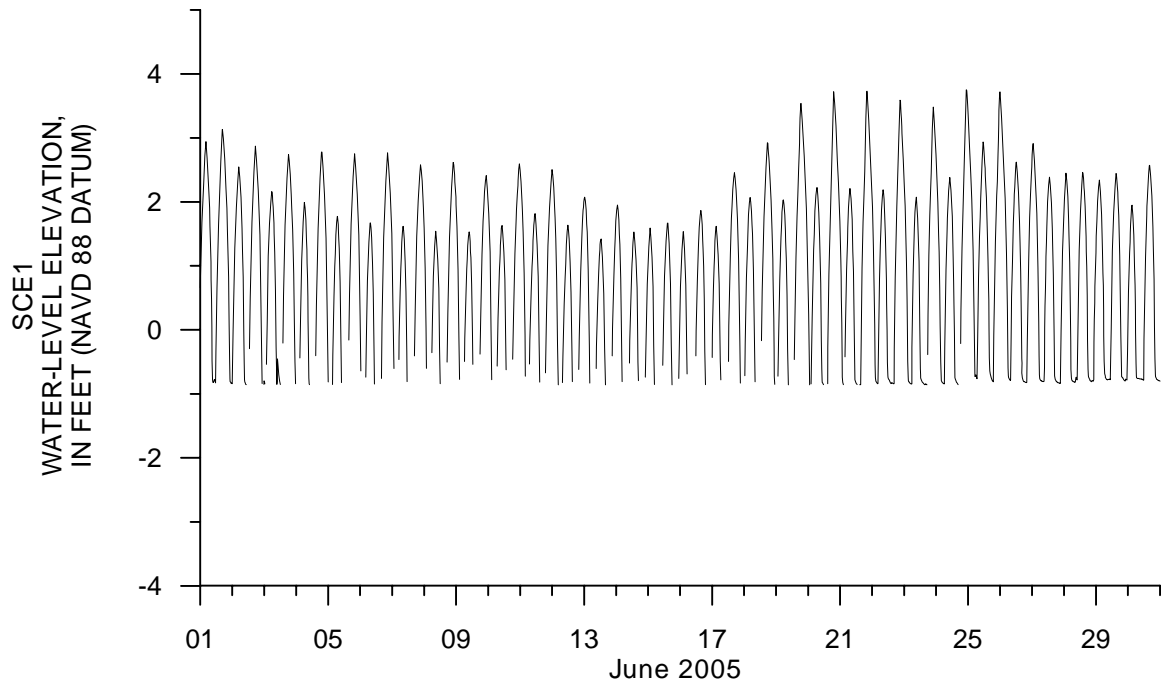


Figure 13. Stage-data plots at SCE1.

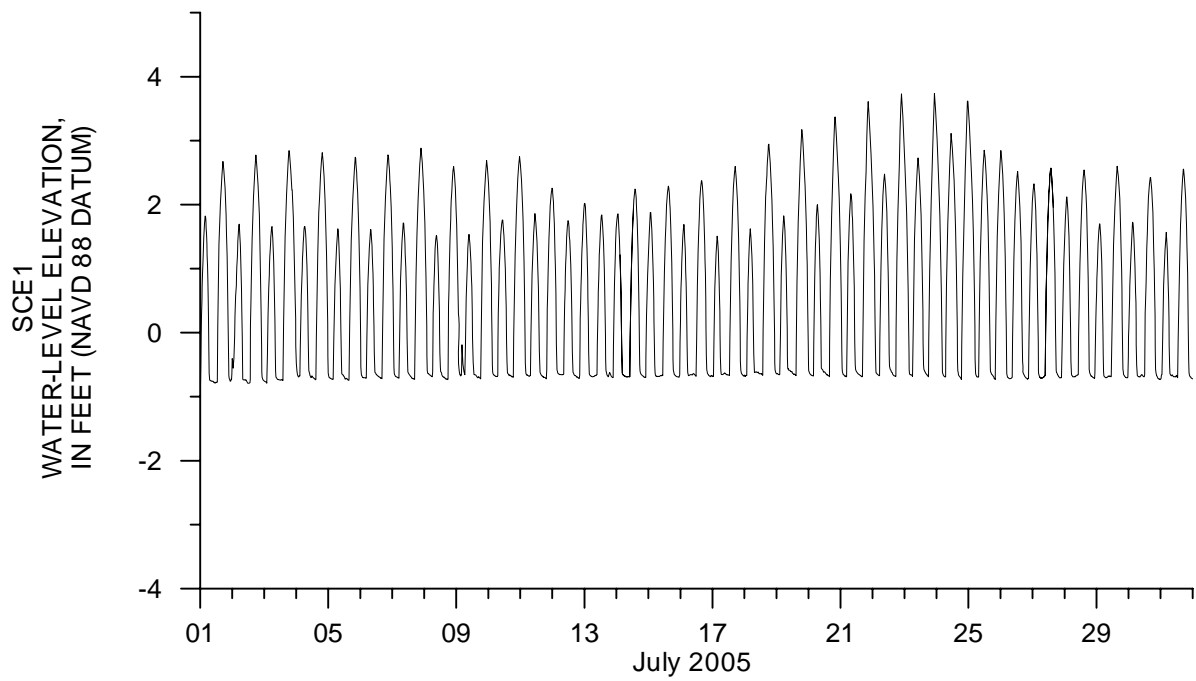
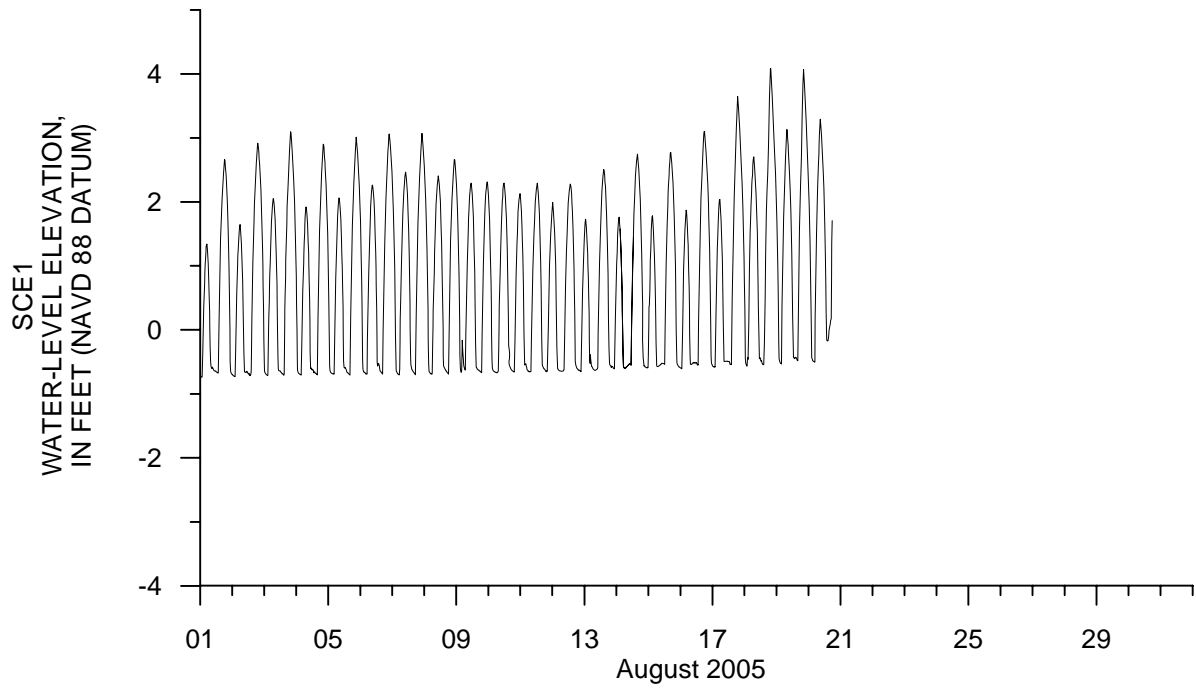


Figure 13. Stage-data plots at SCE1.

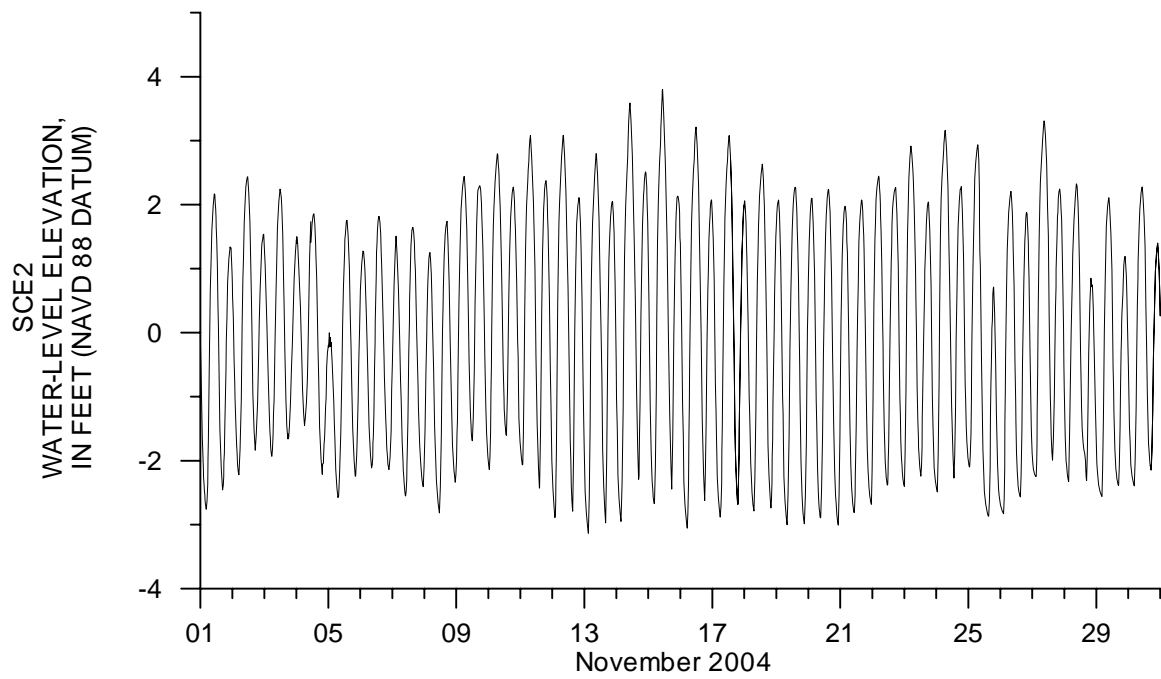
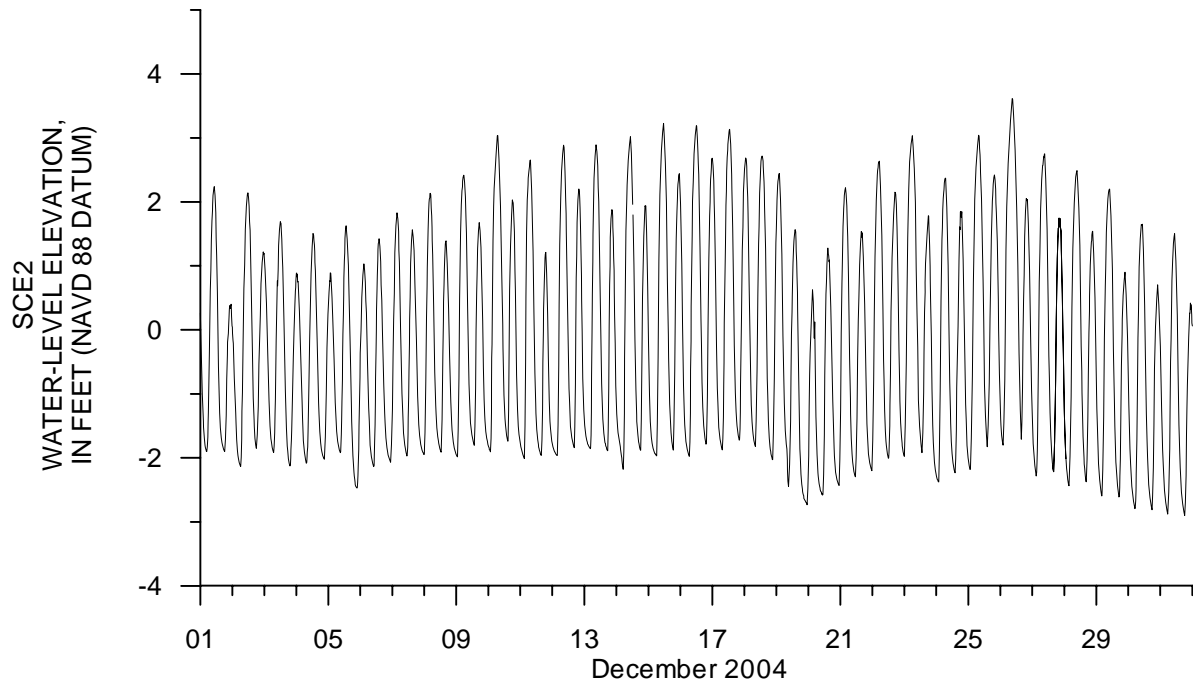


Figure 14. Stage-data plots at SCE2.

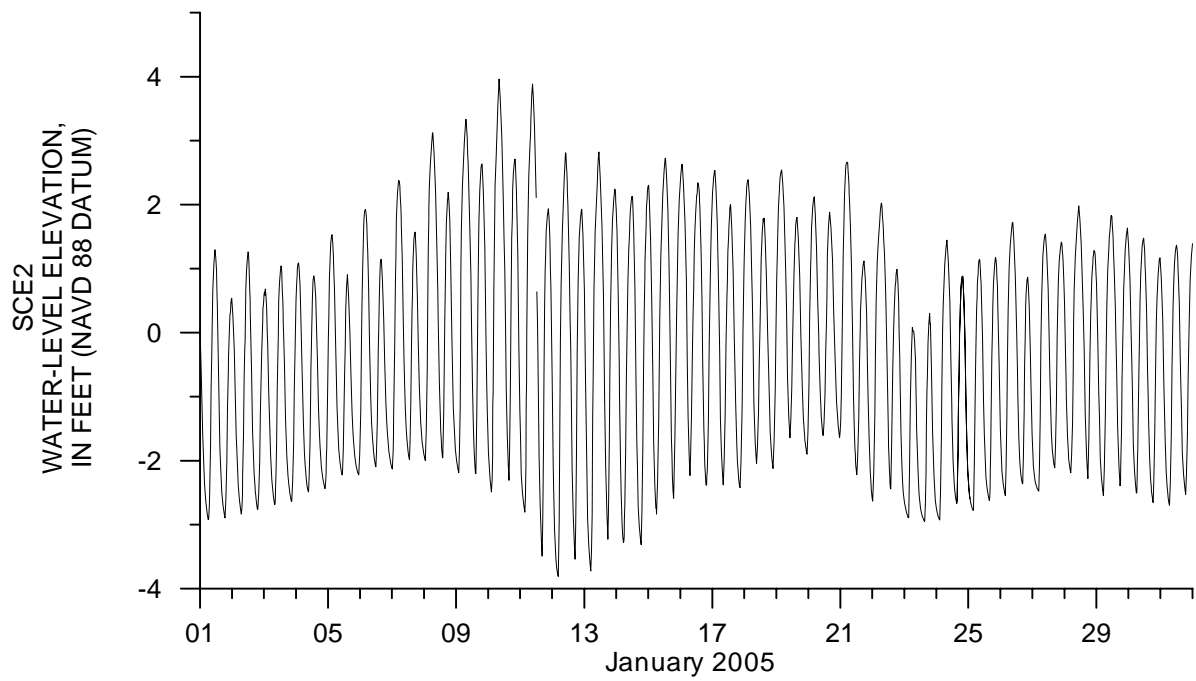
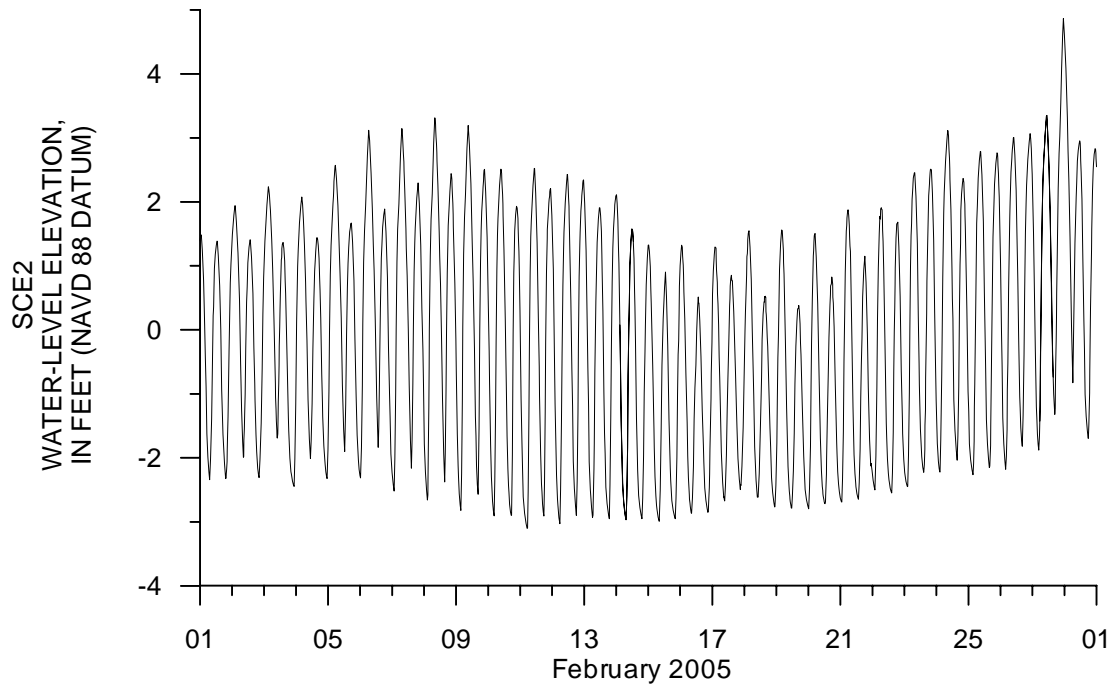


Figure 14. Stage-data plots at SCE2.

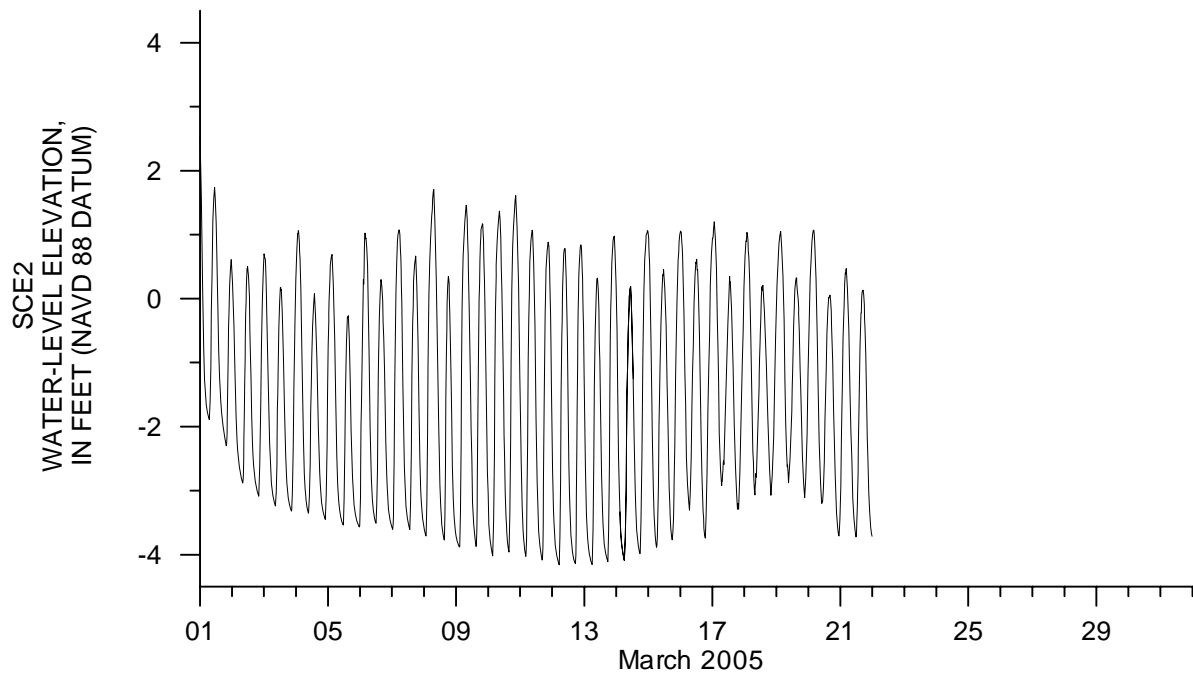
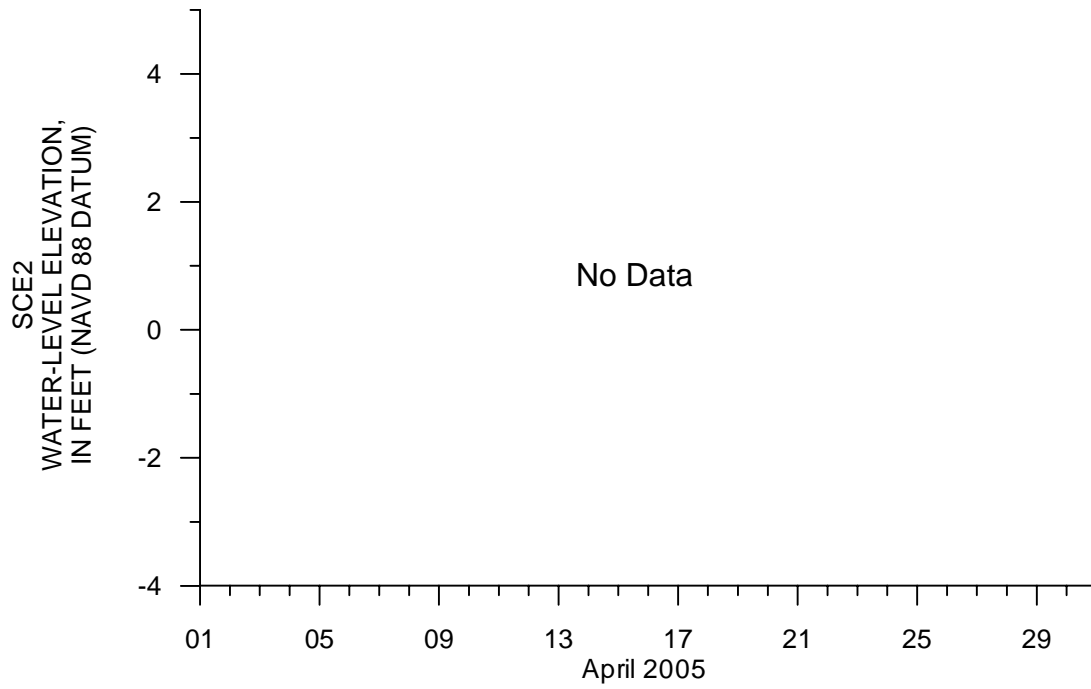


Figure 14. Stage-data plots at SCE2.



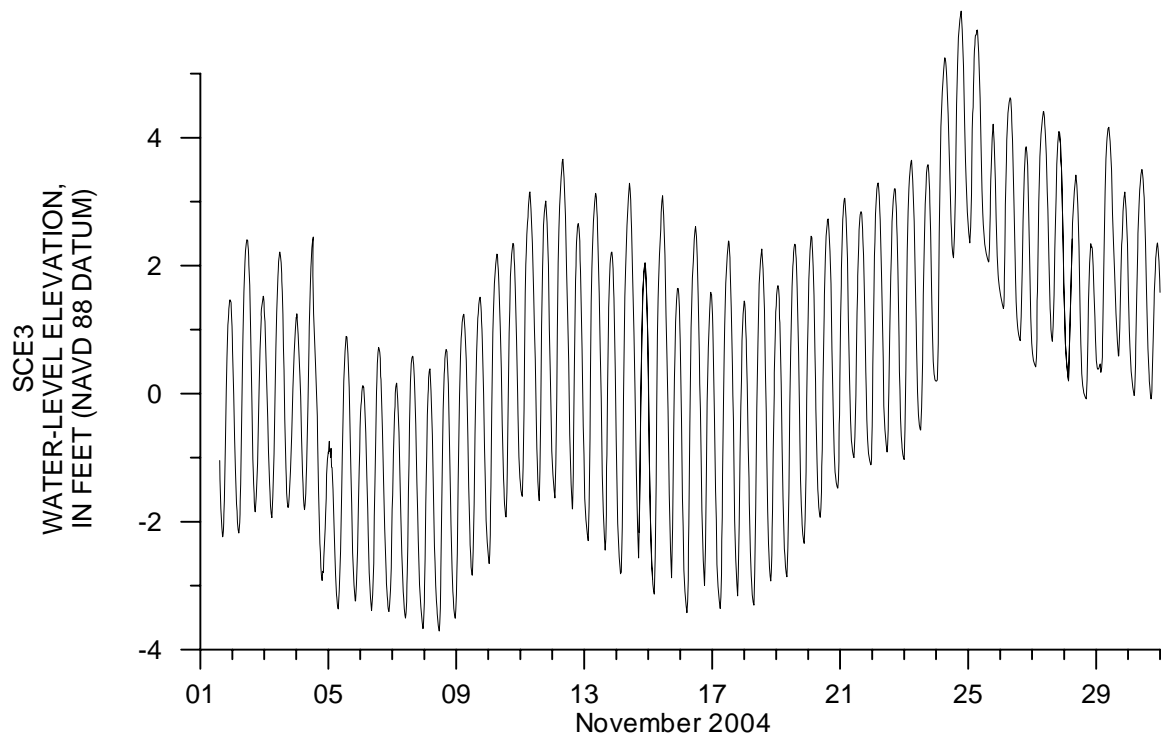
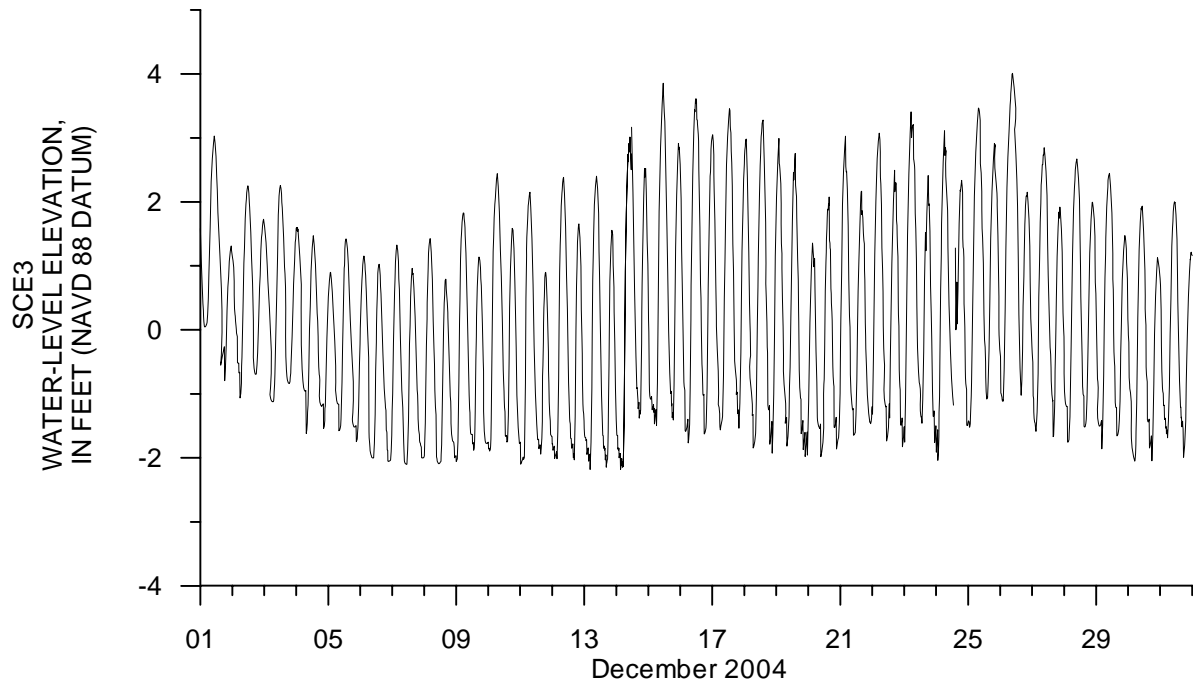


Figure 15. Stage-data plots at SCE3.

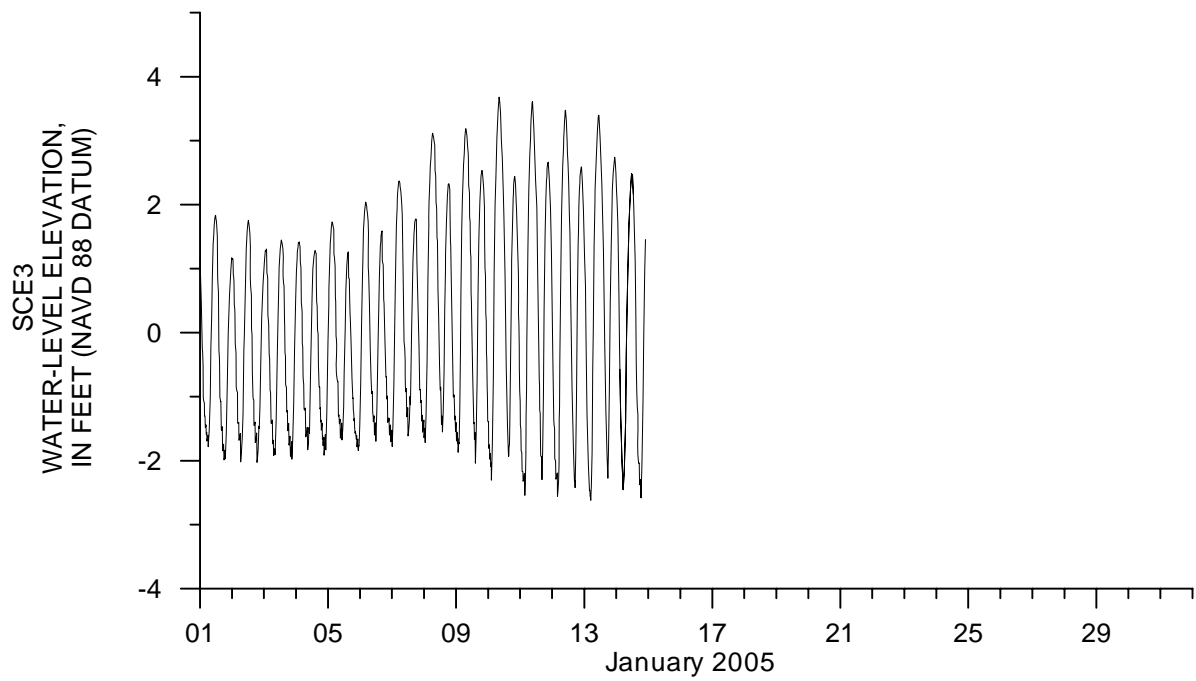
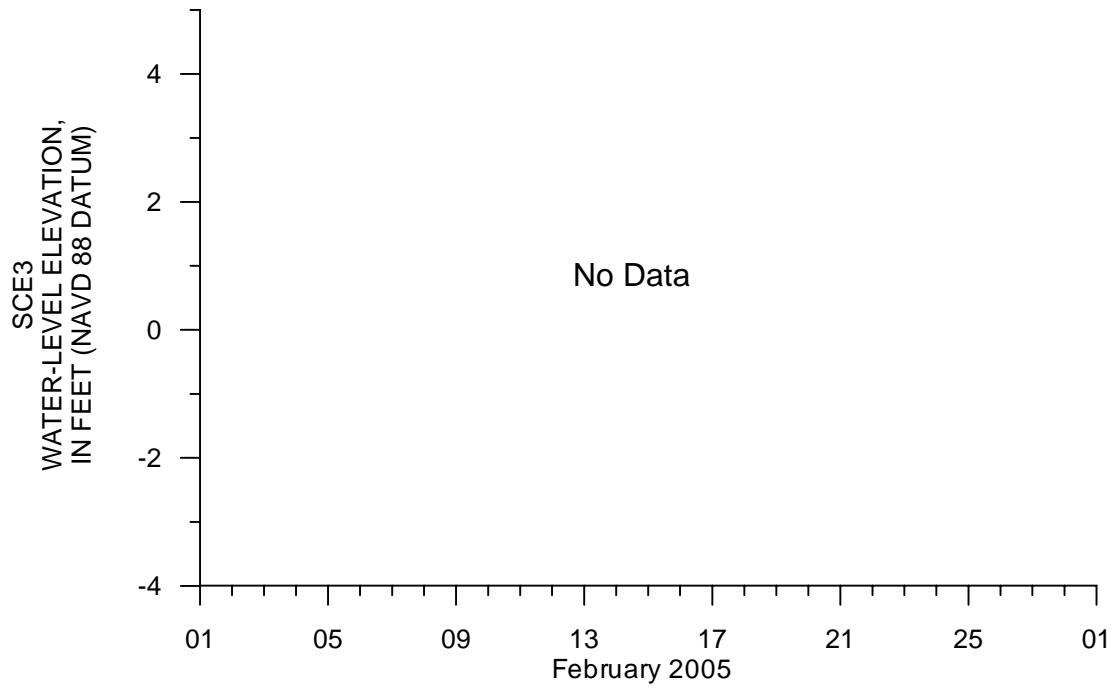


Figure 15. Stage-data plots at SCE3.

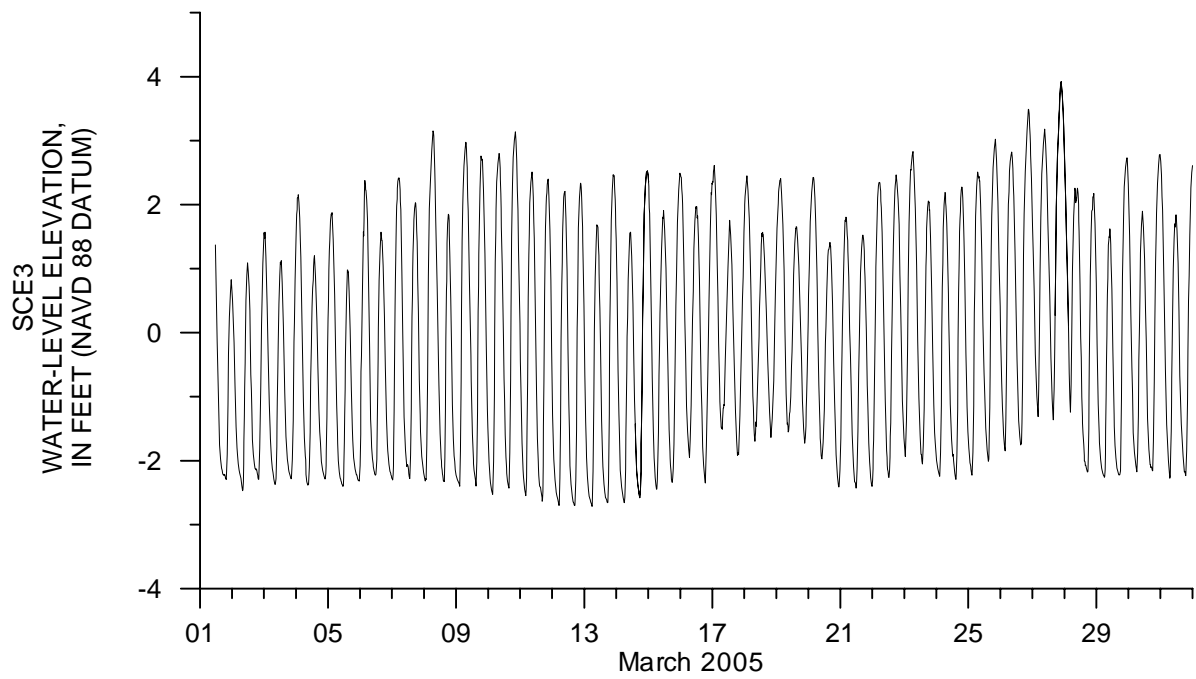
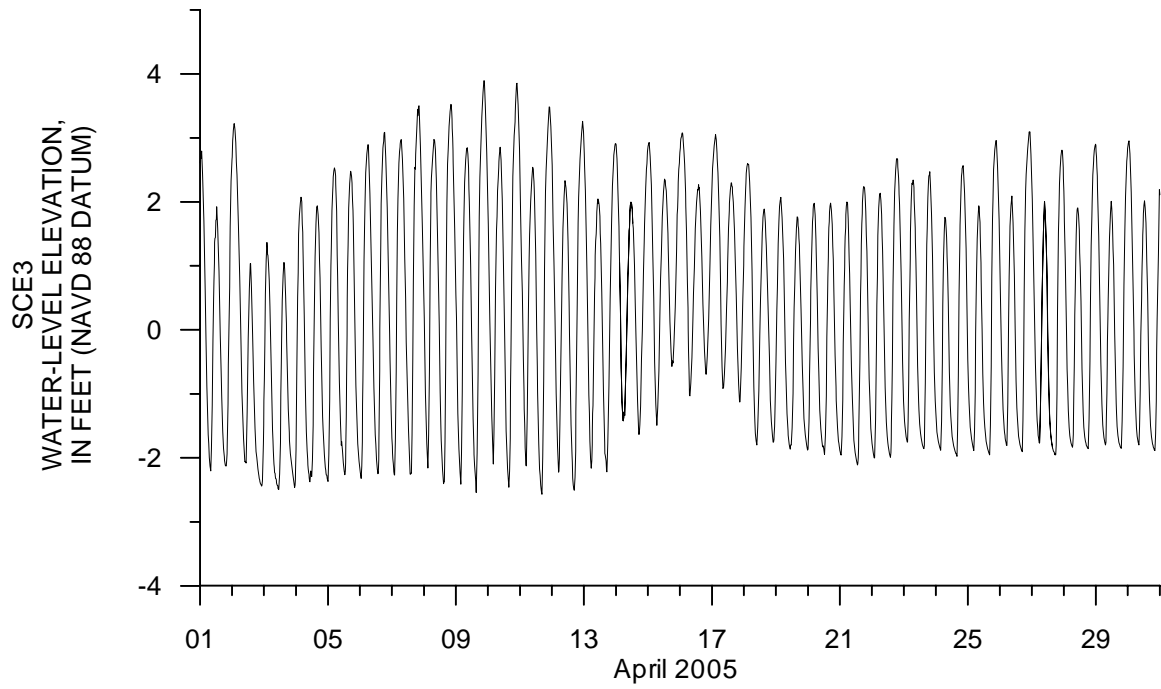


Figure 15. Stage-data plots at SCE3.

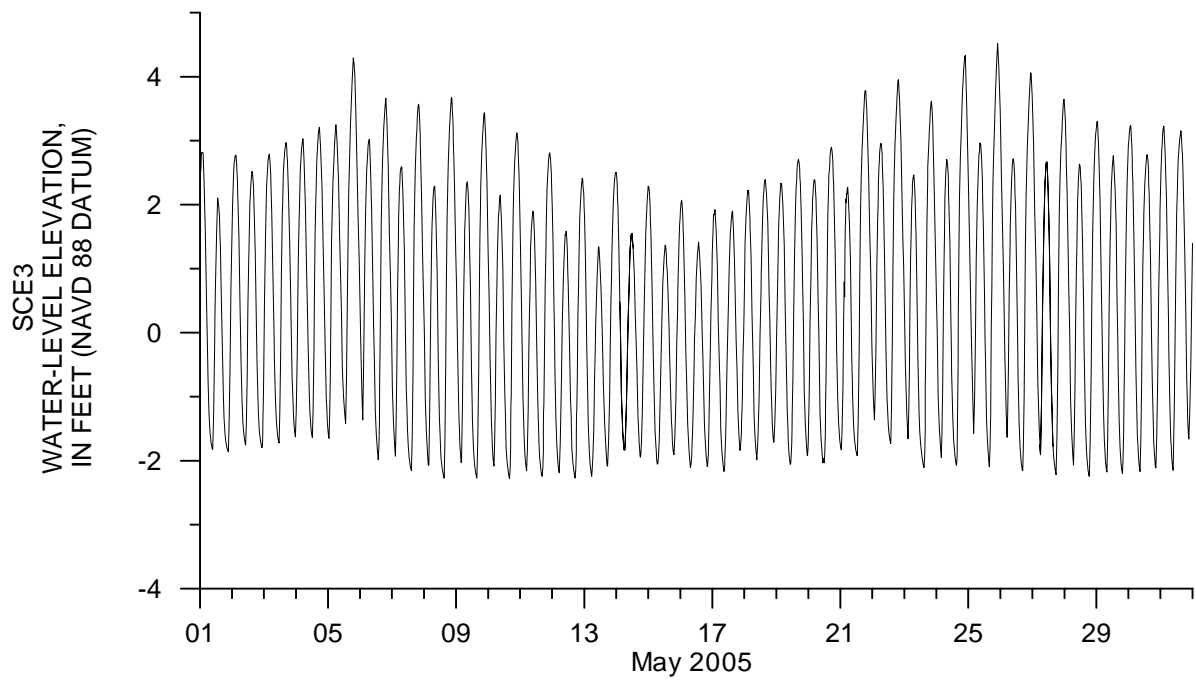
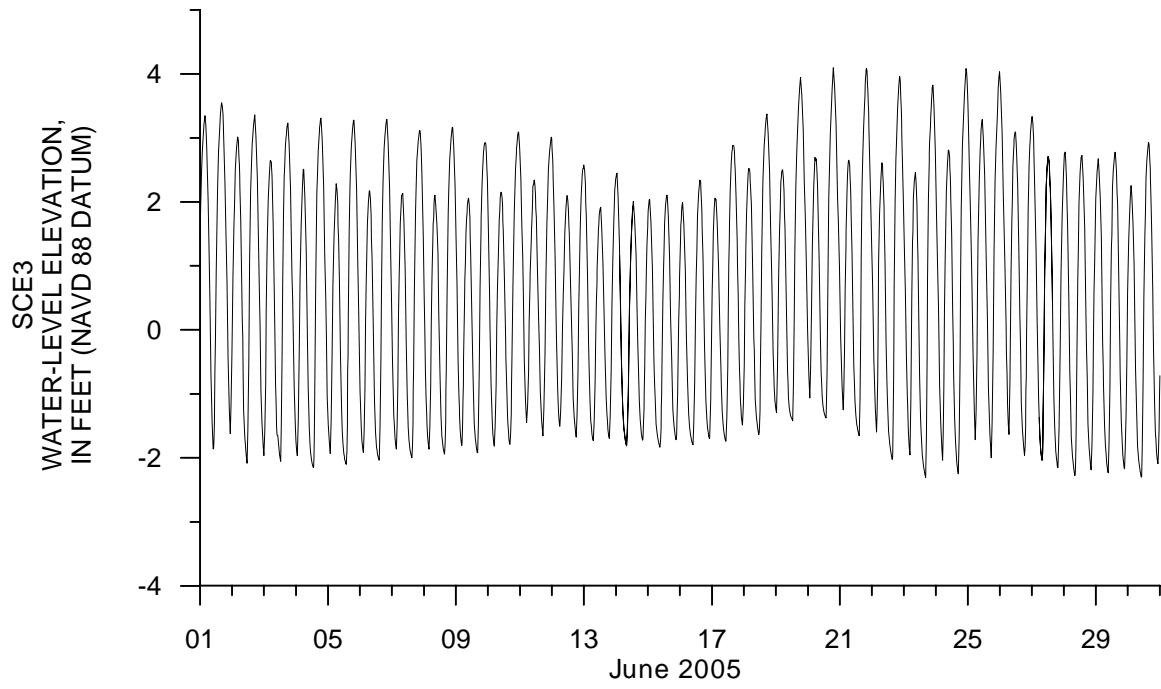


Figure 15. Stage-data plots at SCE3.

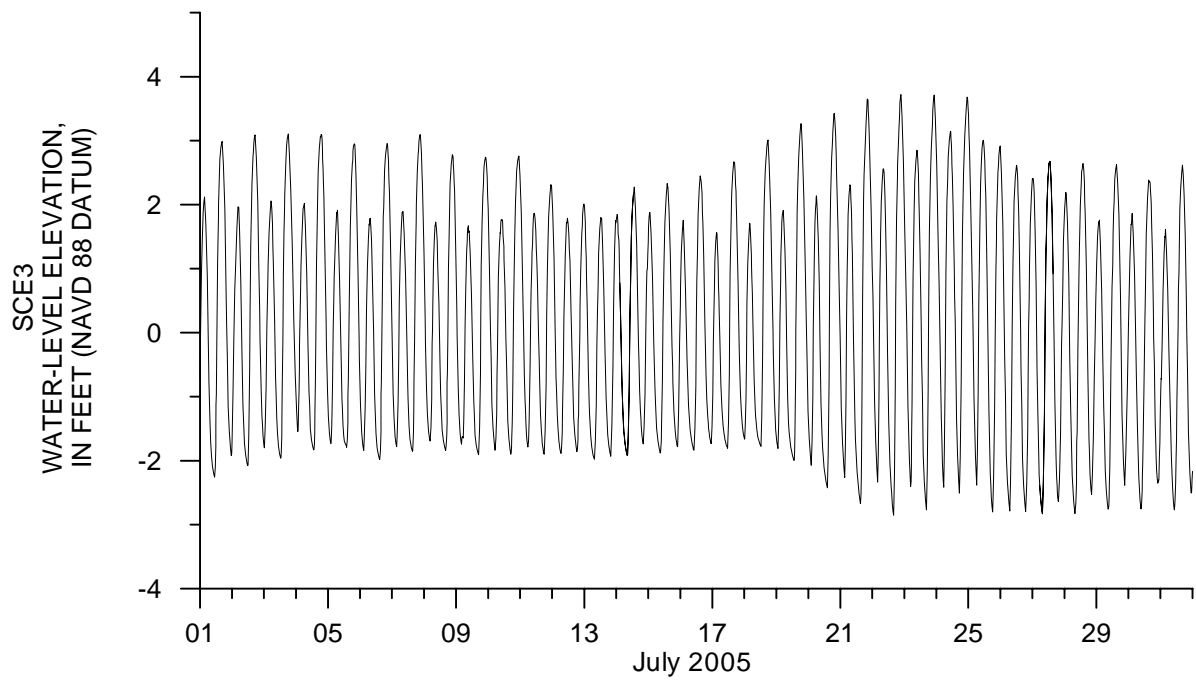
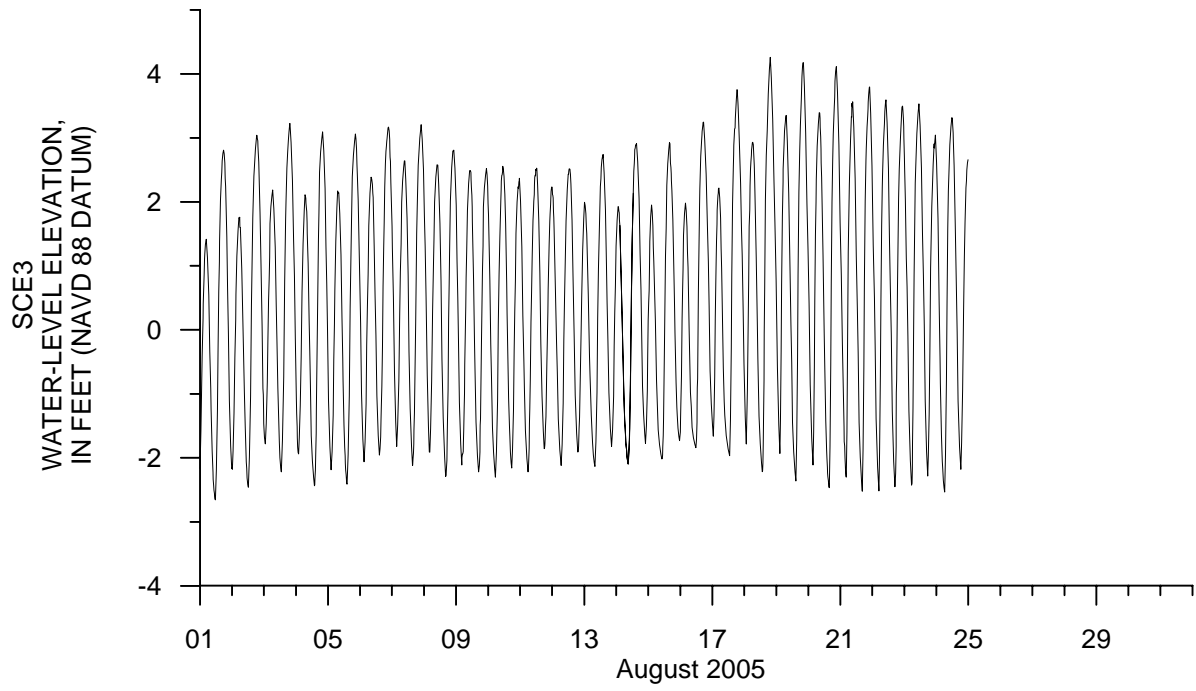


Figure 15. Stage-data plots at SCE3.

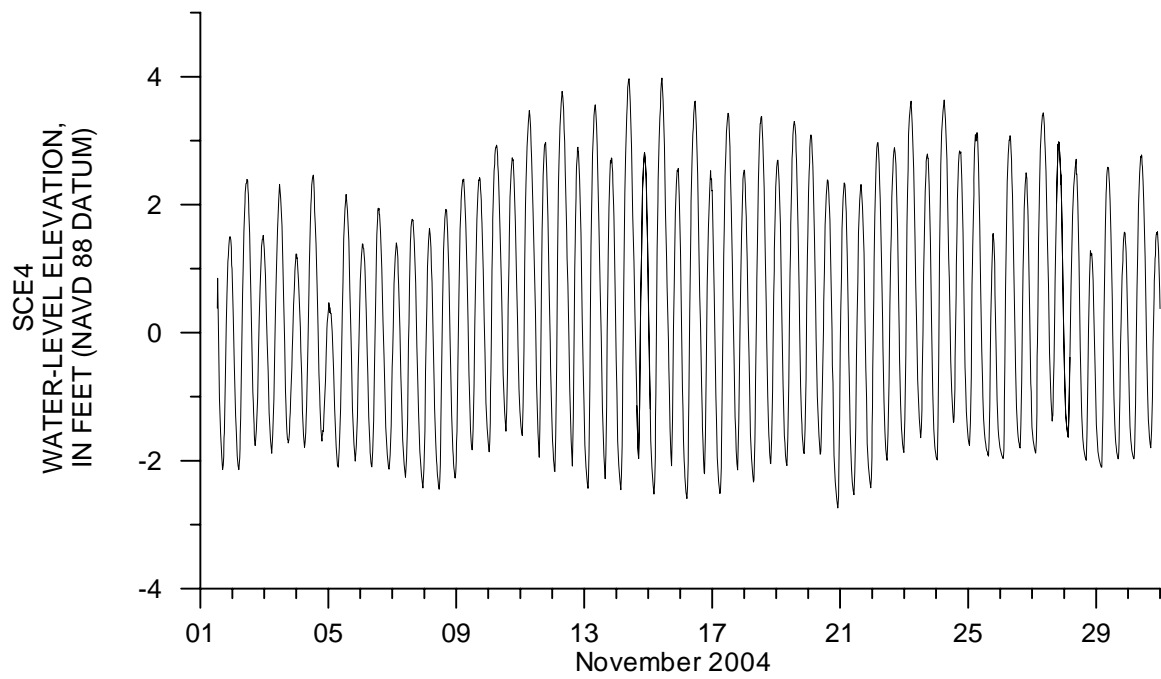
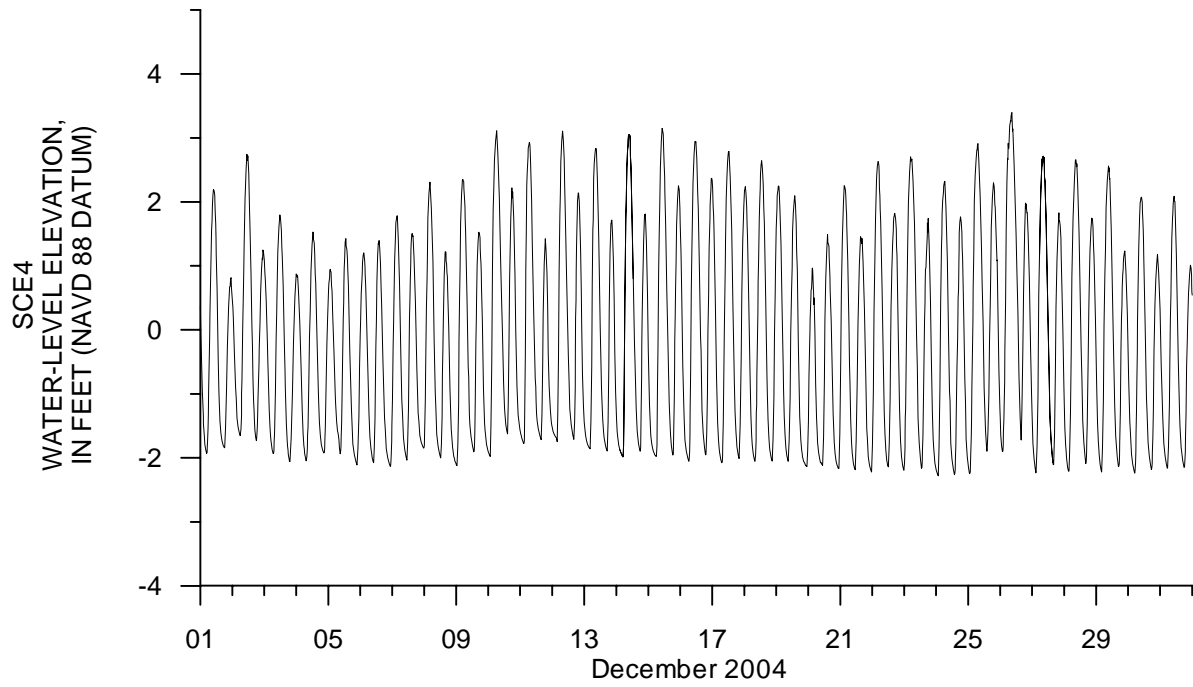


Figure 16. Stage-data plots at SCE4.

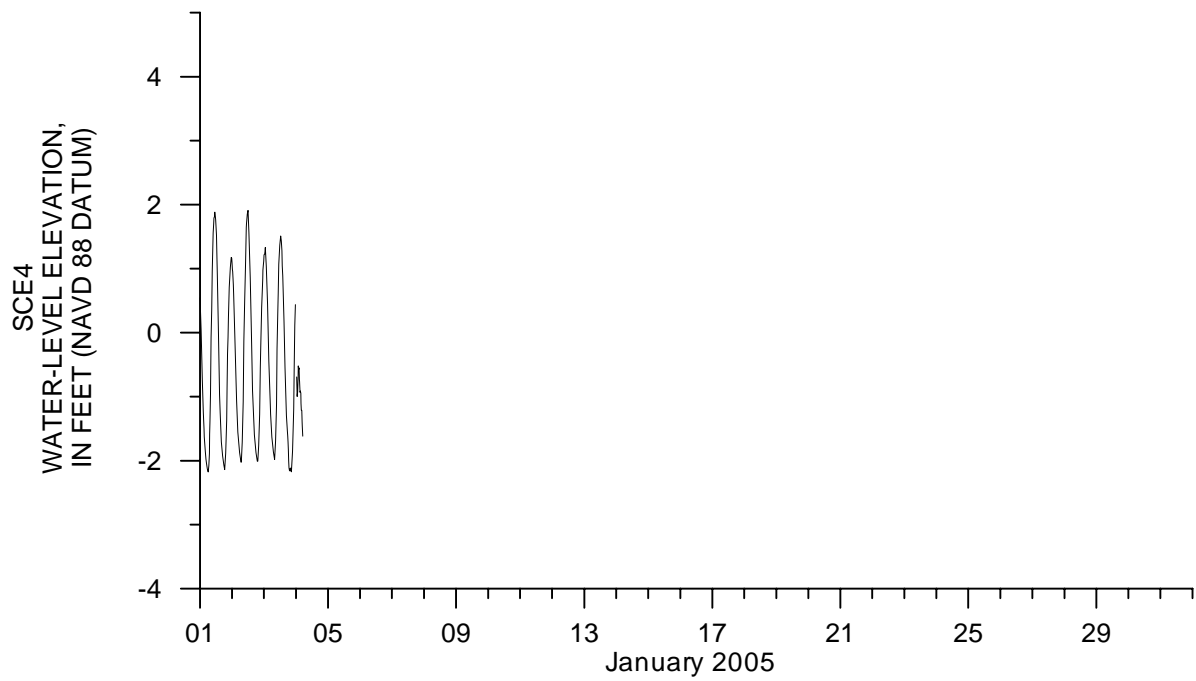
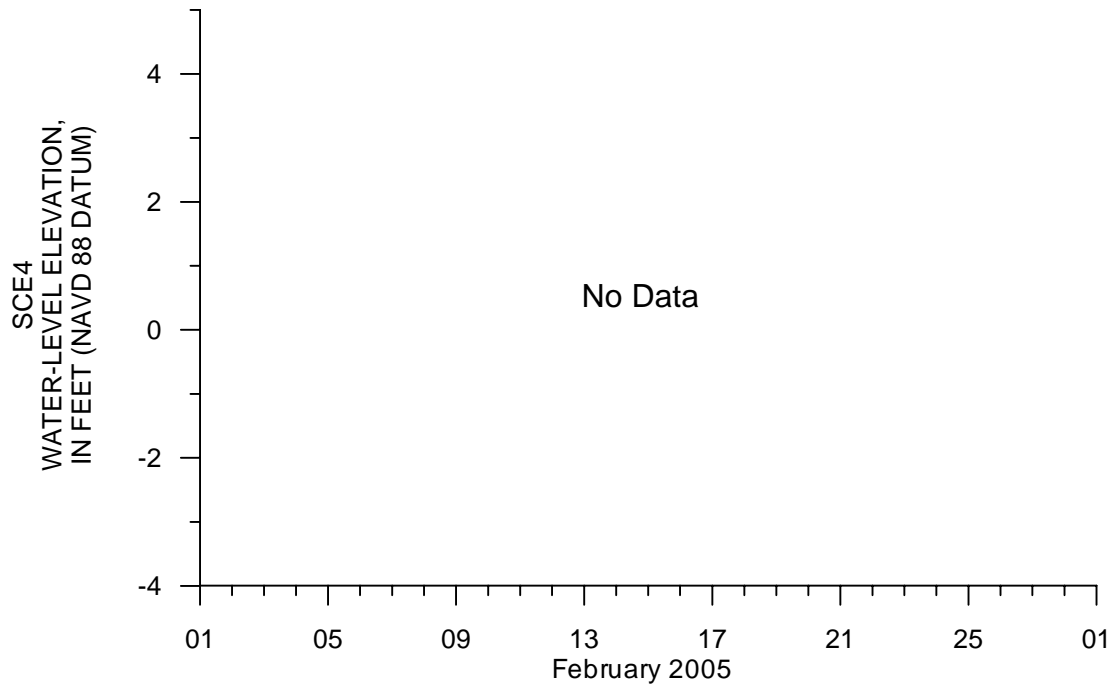


Figure 16. Stage-data plots at SCE4.

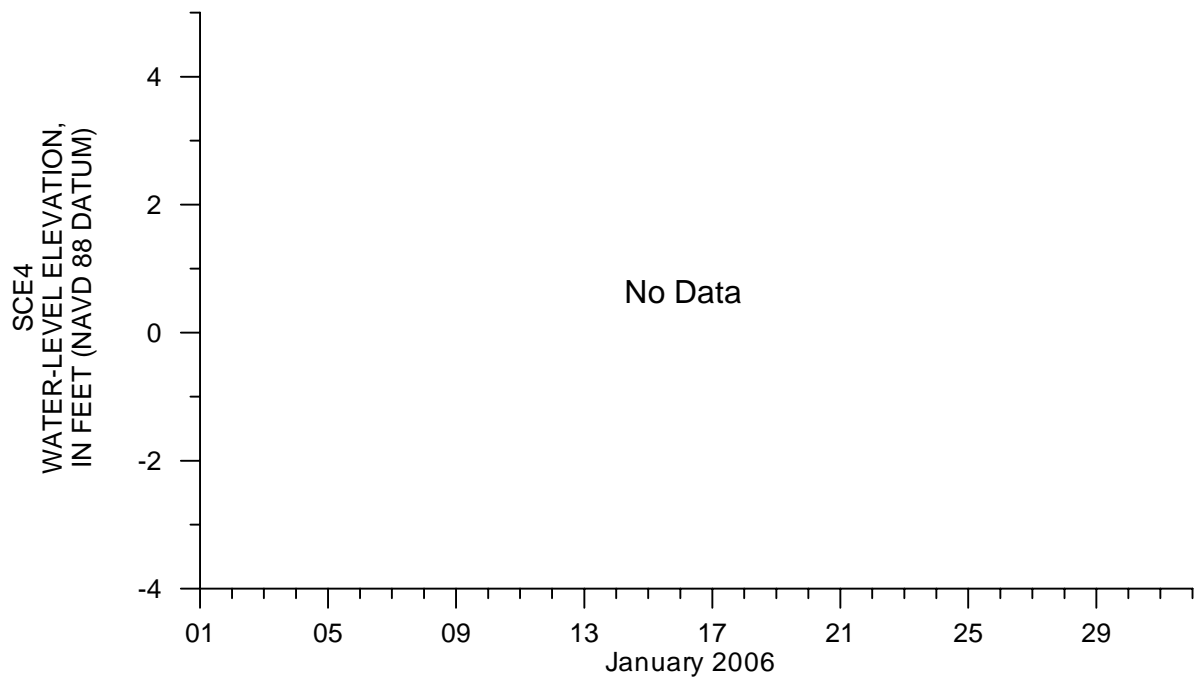
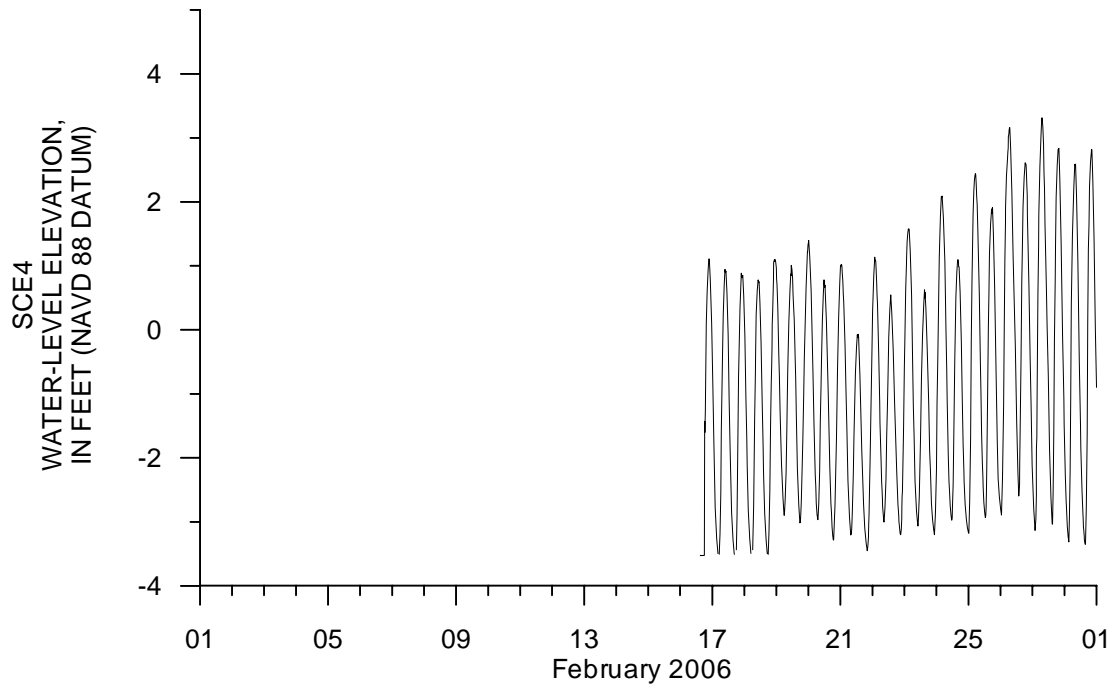


Figure 16. Stage-data plots at SCE4.



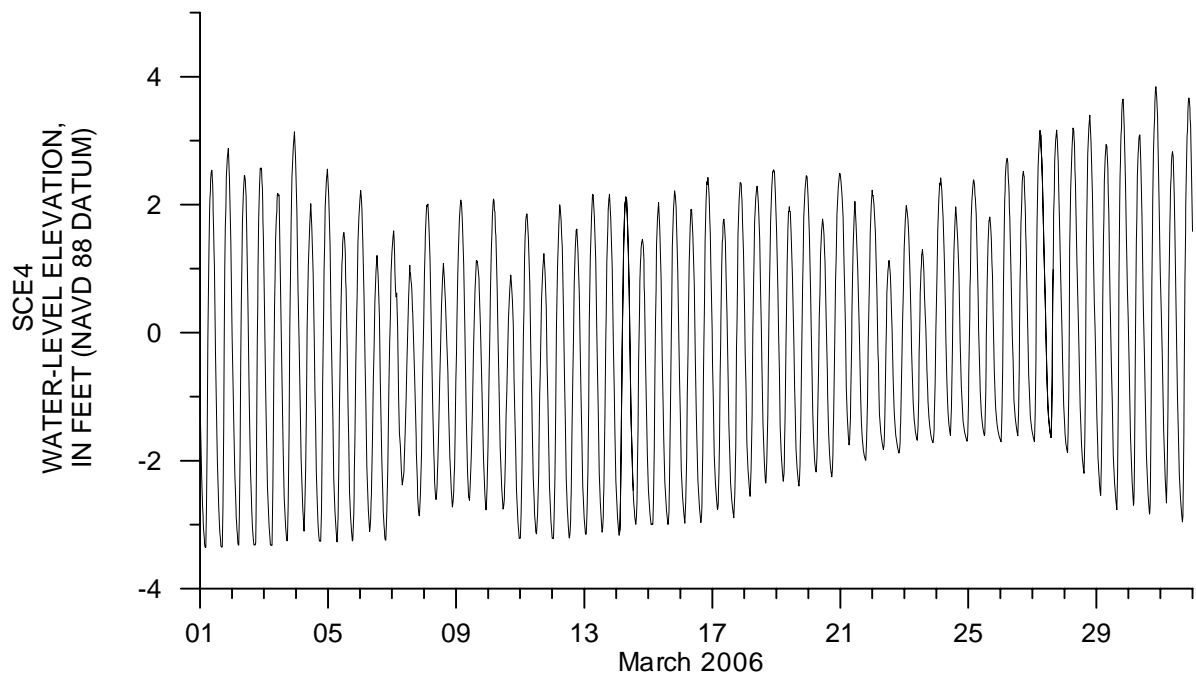
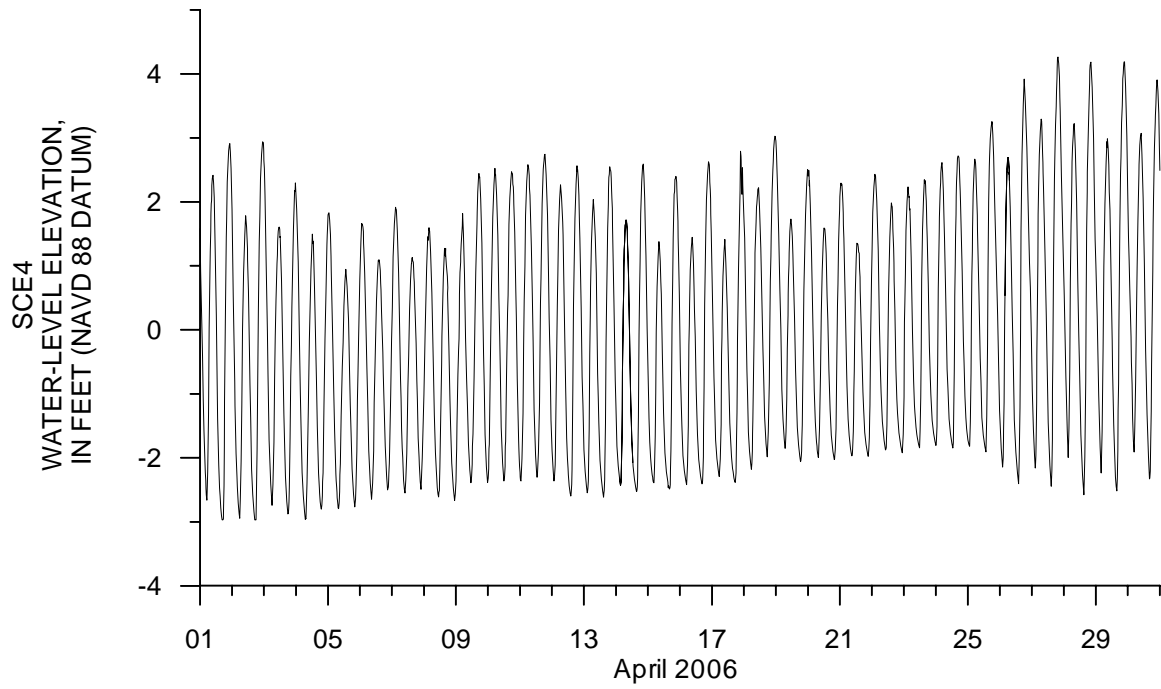


Figure 16. Stage-data plots at SCE4.

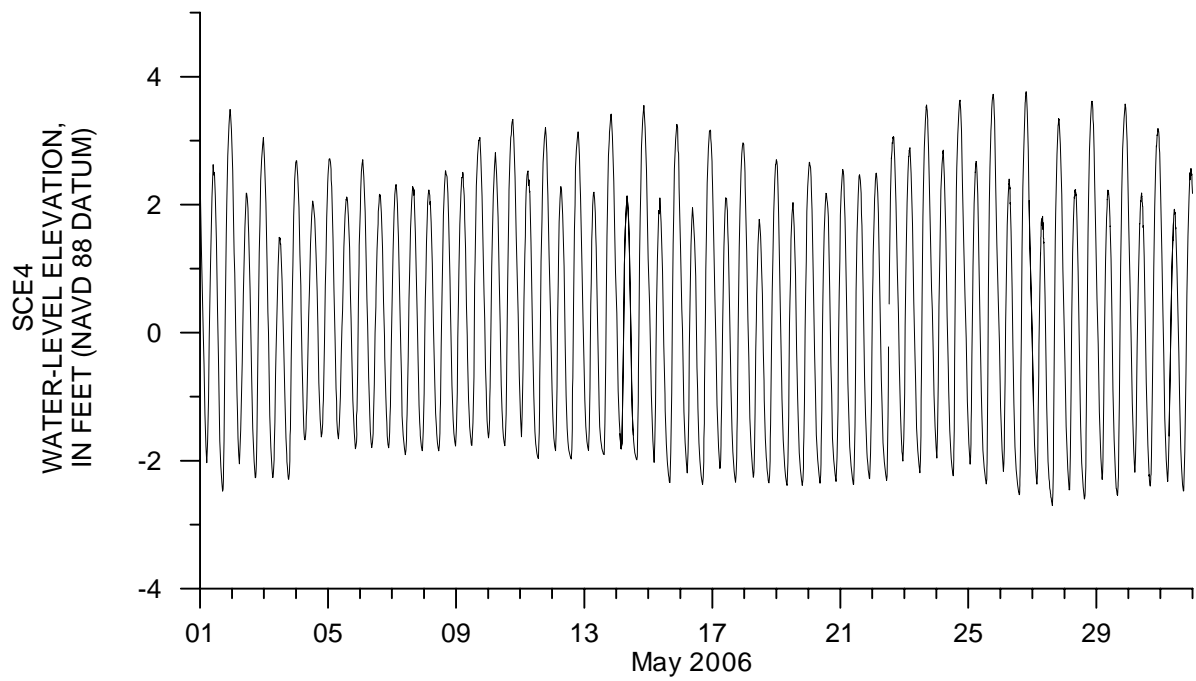
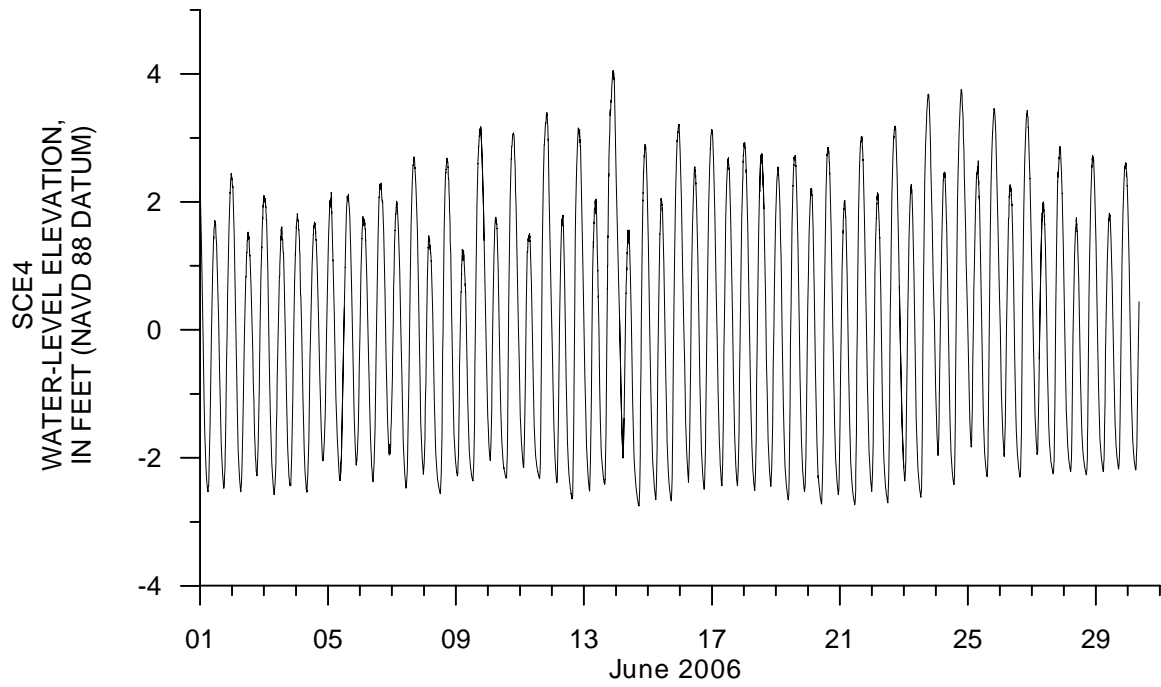


Figure 16. Stage-data plots at SCE4.

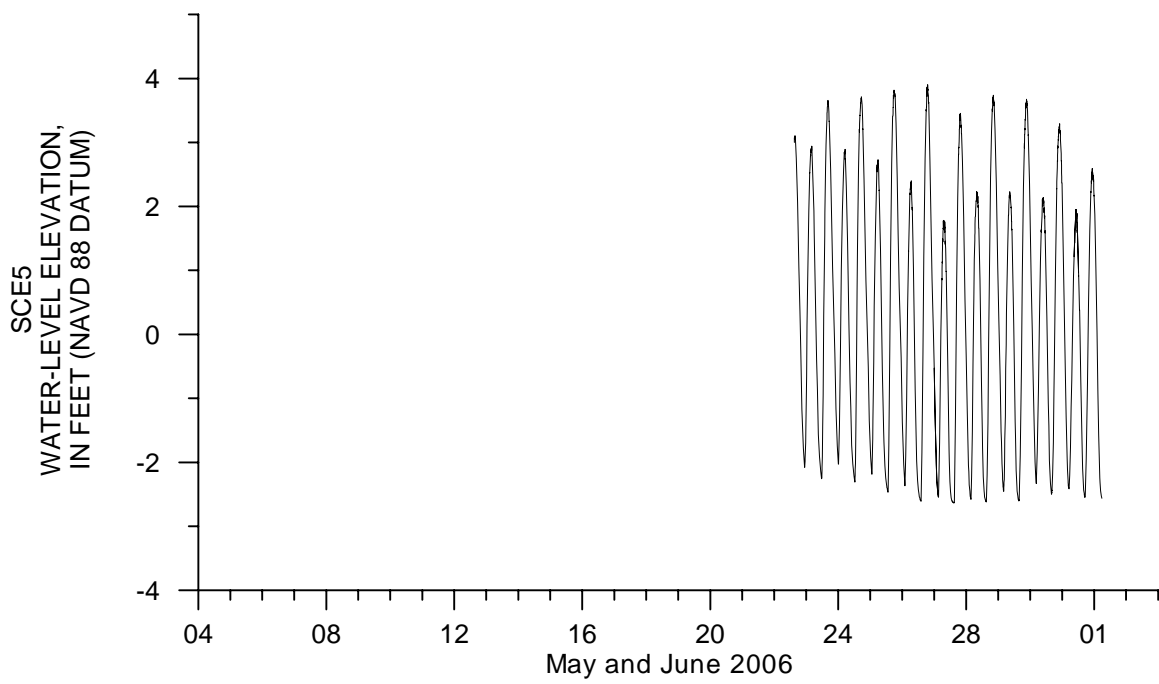


Figure 17. Stage-data plots at SCE5.

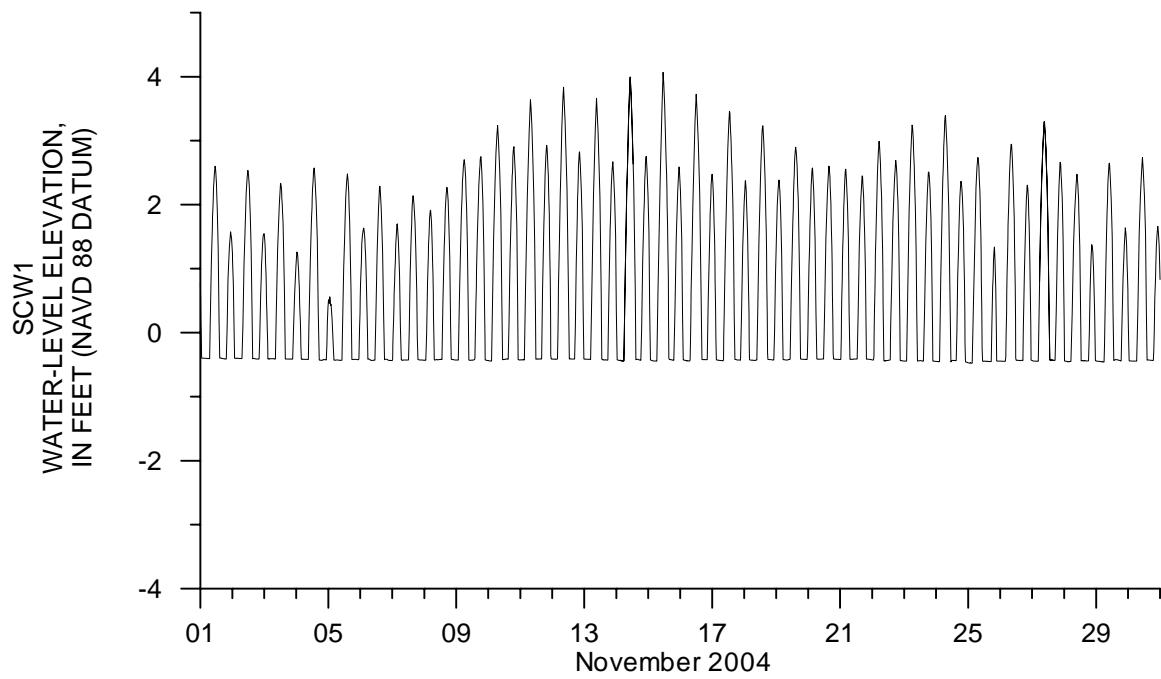
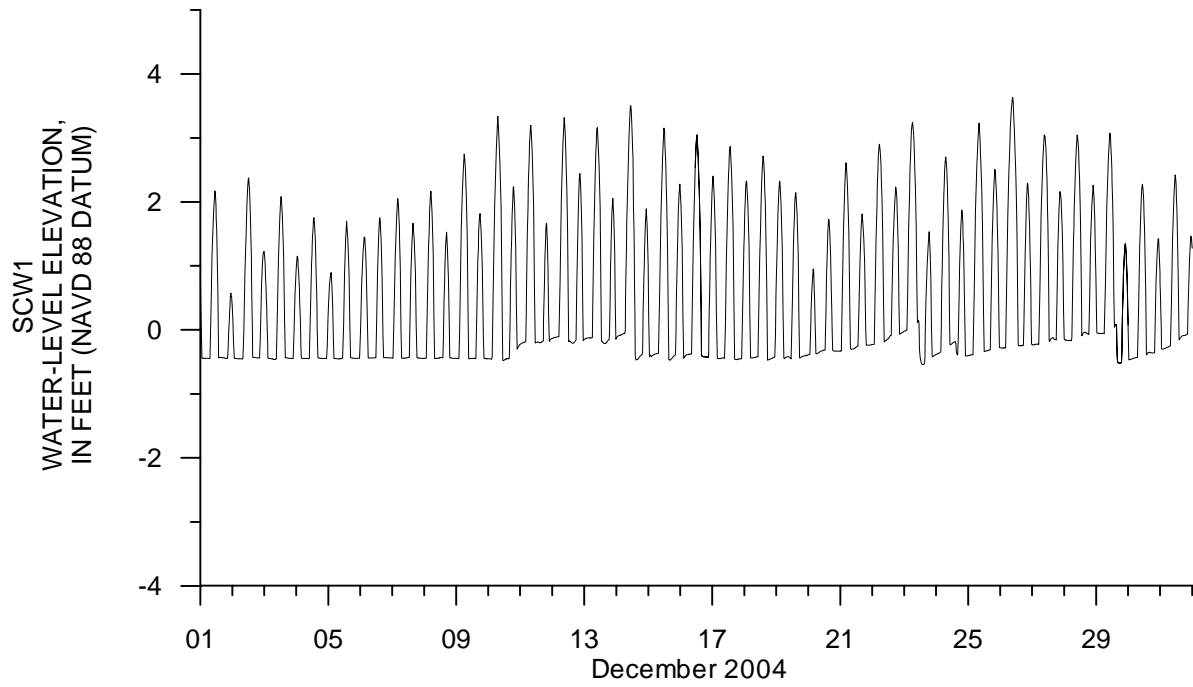


Figure 18. Stage-data plots at SCW1.

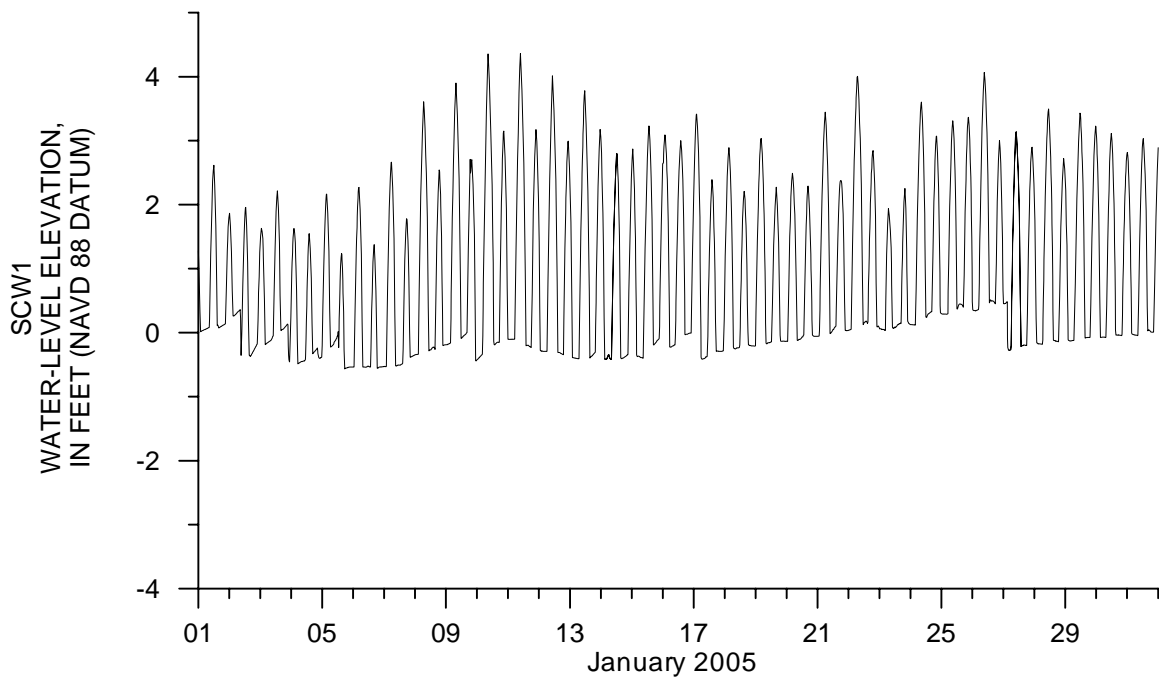
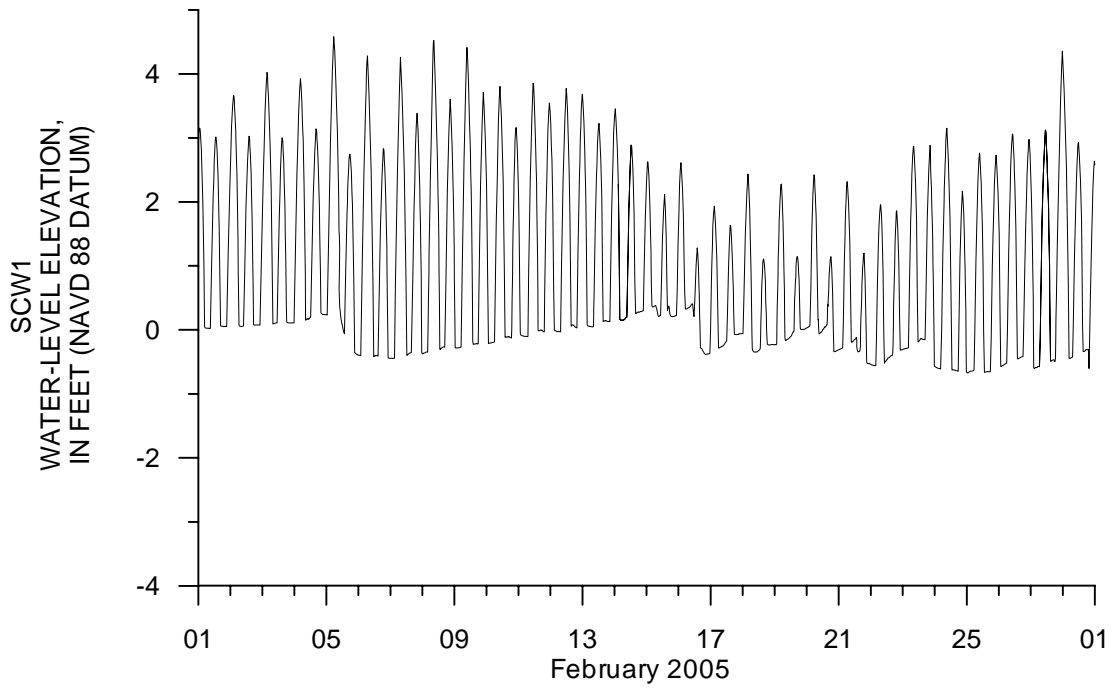


Figure 18. Stage-data plots at SCW1.

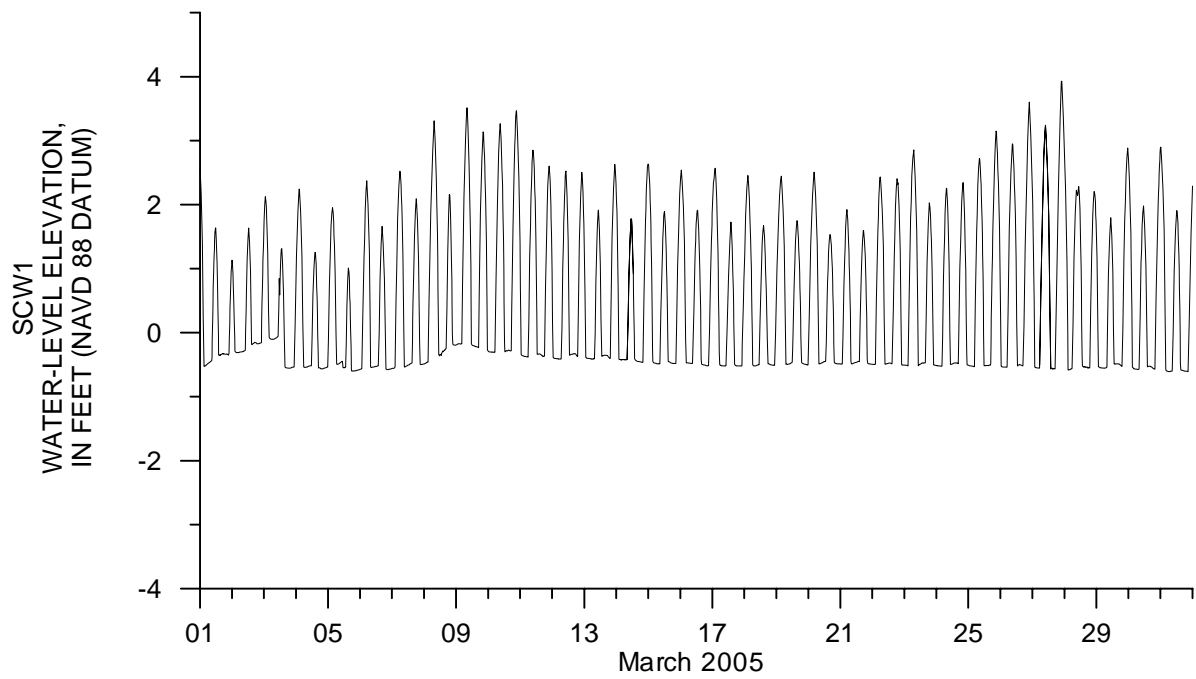
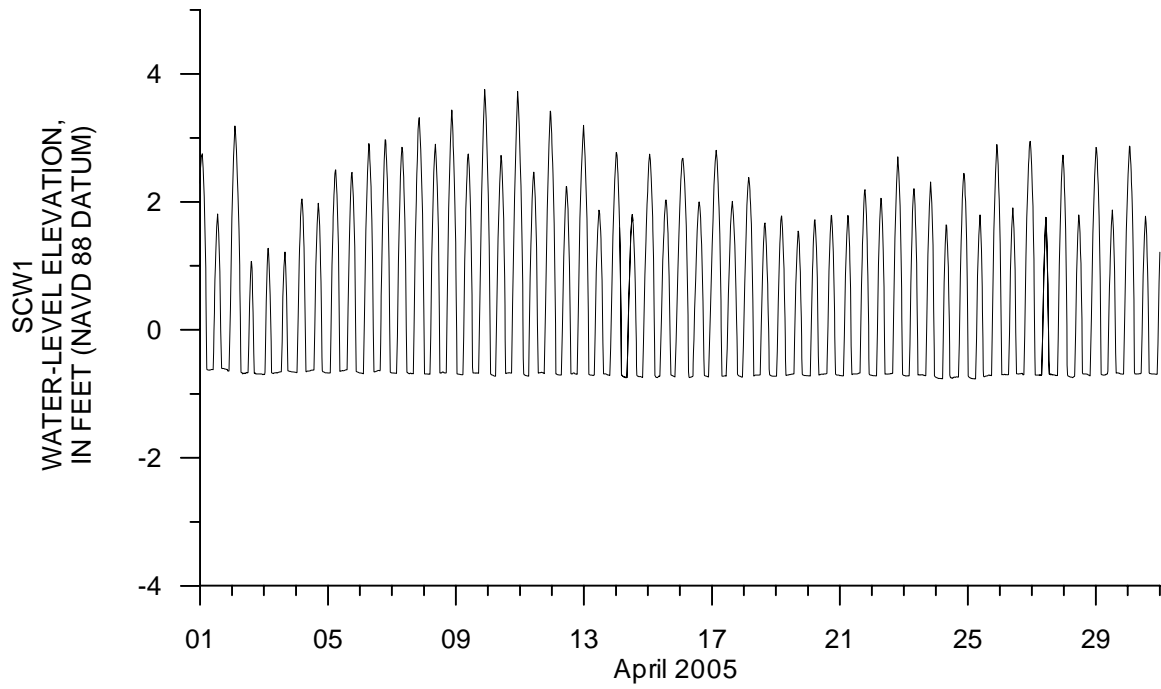


Figure 18. Stage-data plots at SCW1.

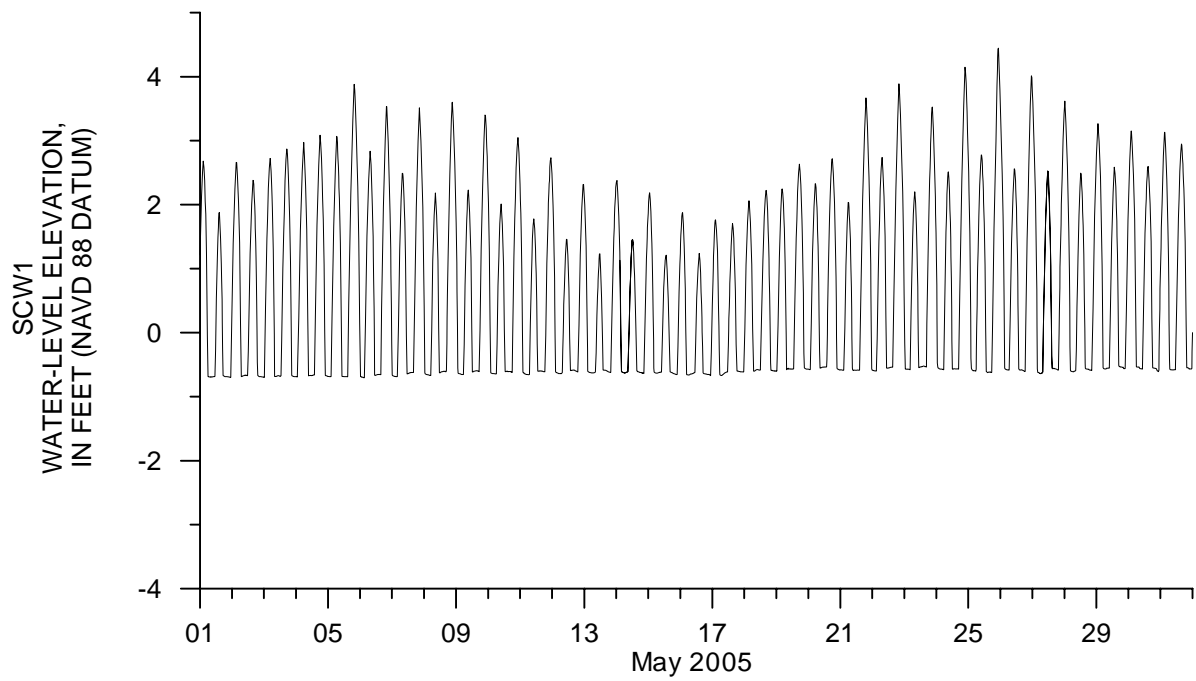
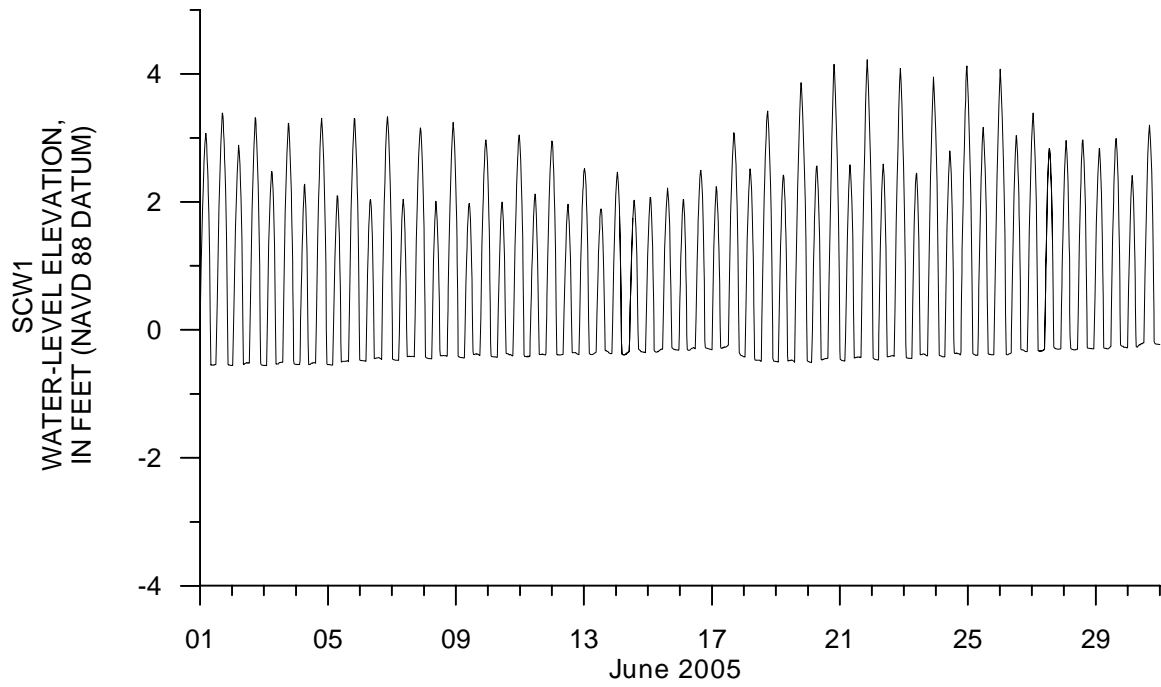


Figure 18. Stage-data plots at SCW1.

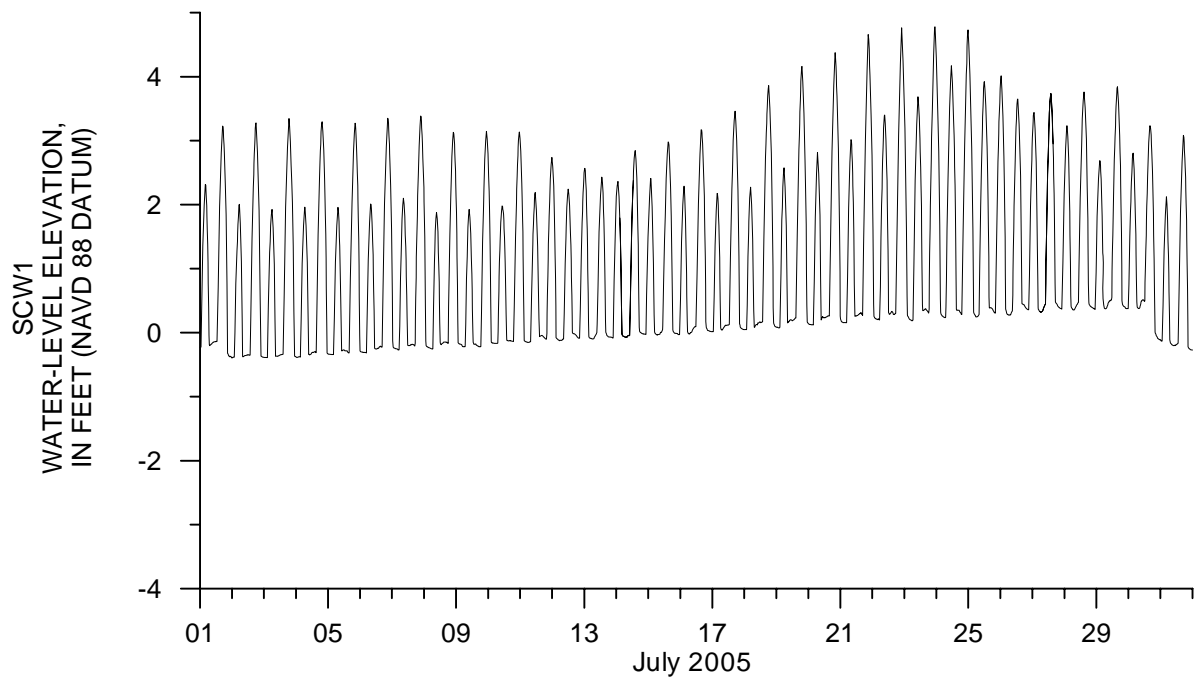
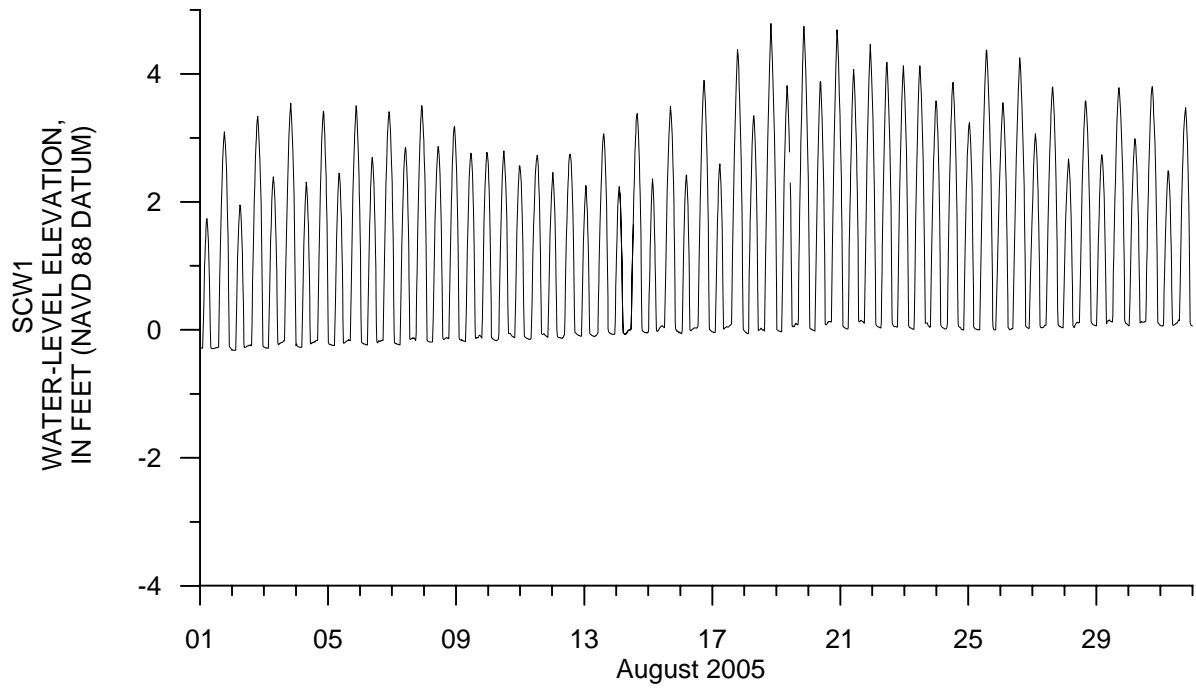


Figure 18. Stage-data plots at SCW1.



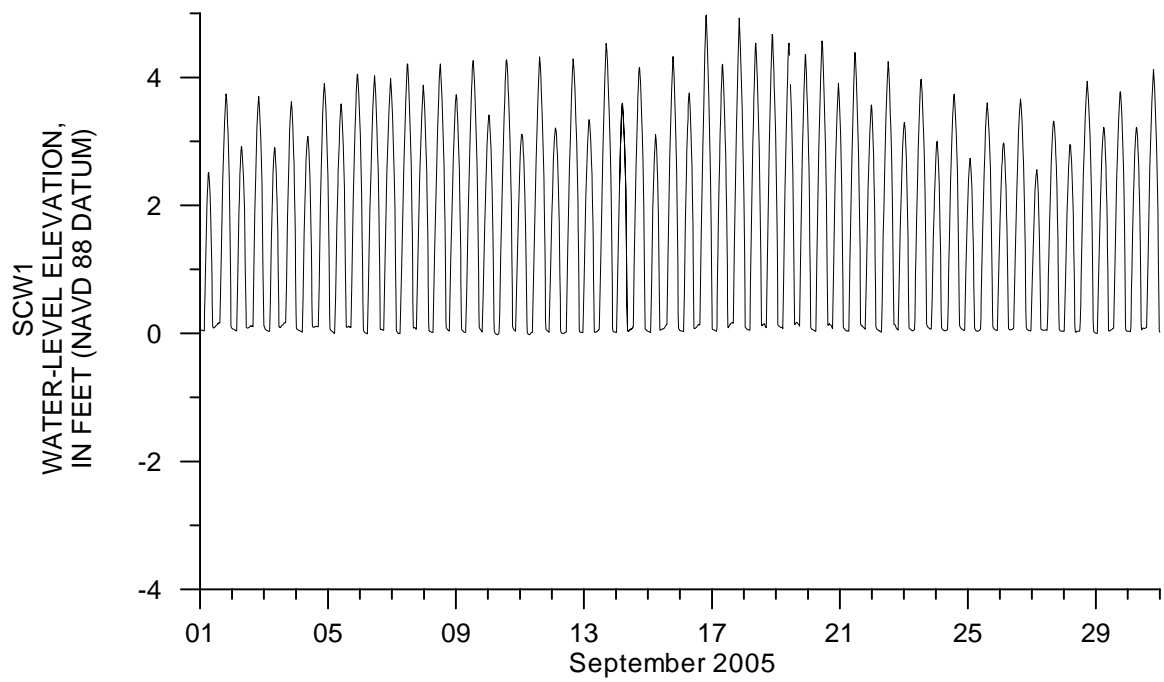
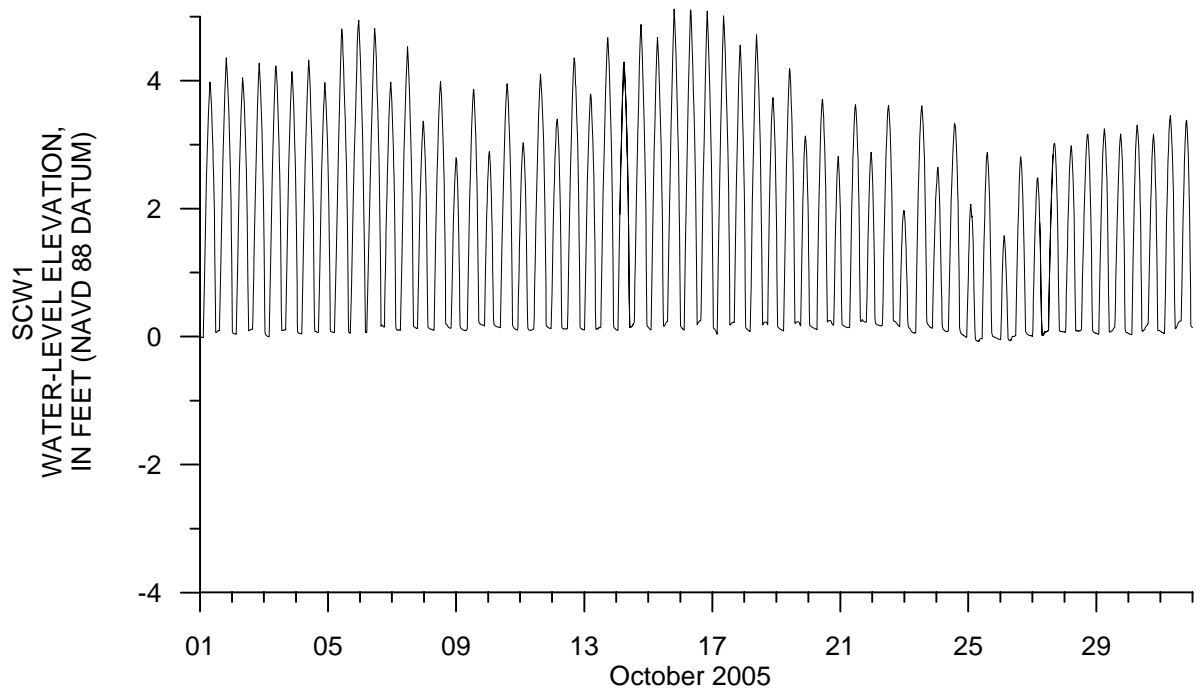


Figure 18. Stage-data plots at SCW1.

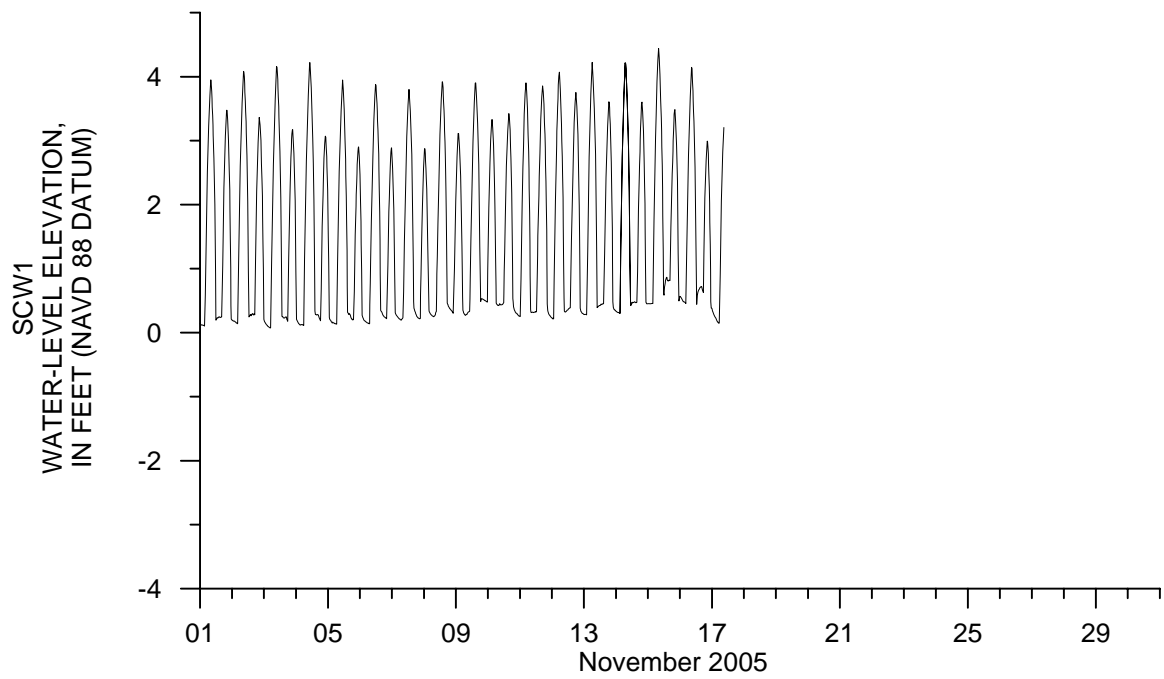
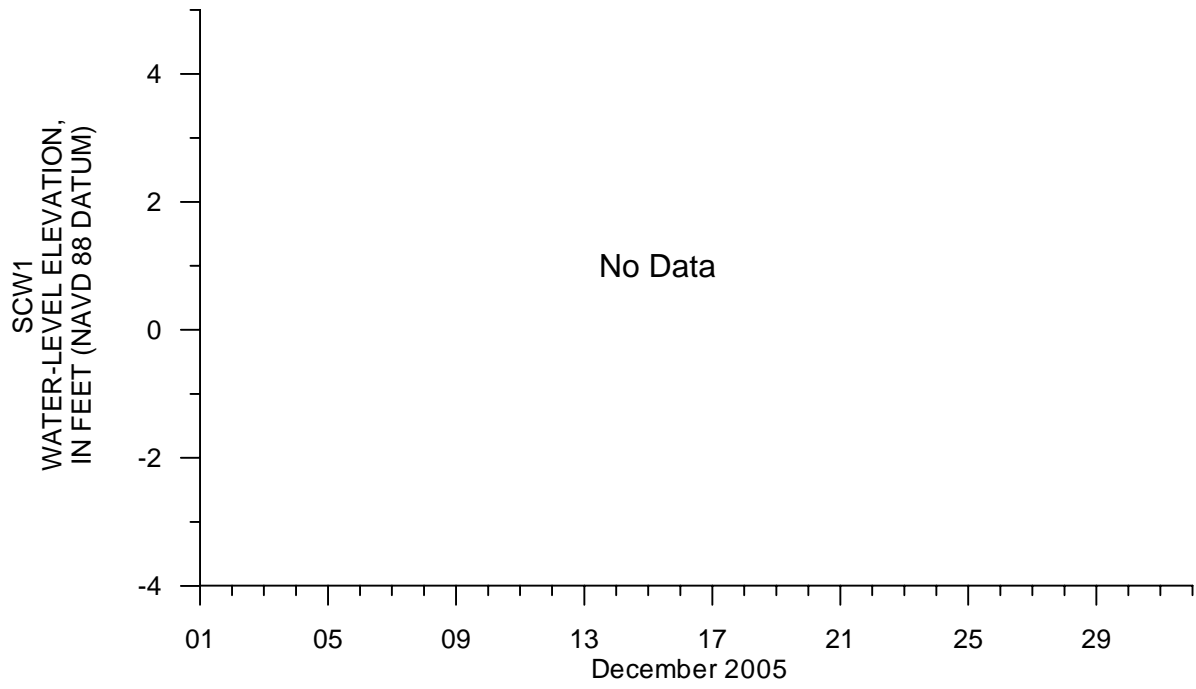


Figure 18. Stage-data plots at SCW1.

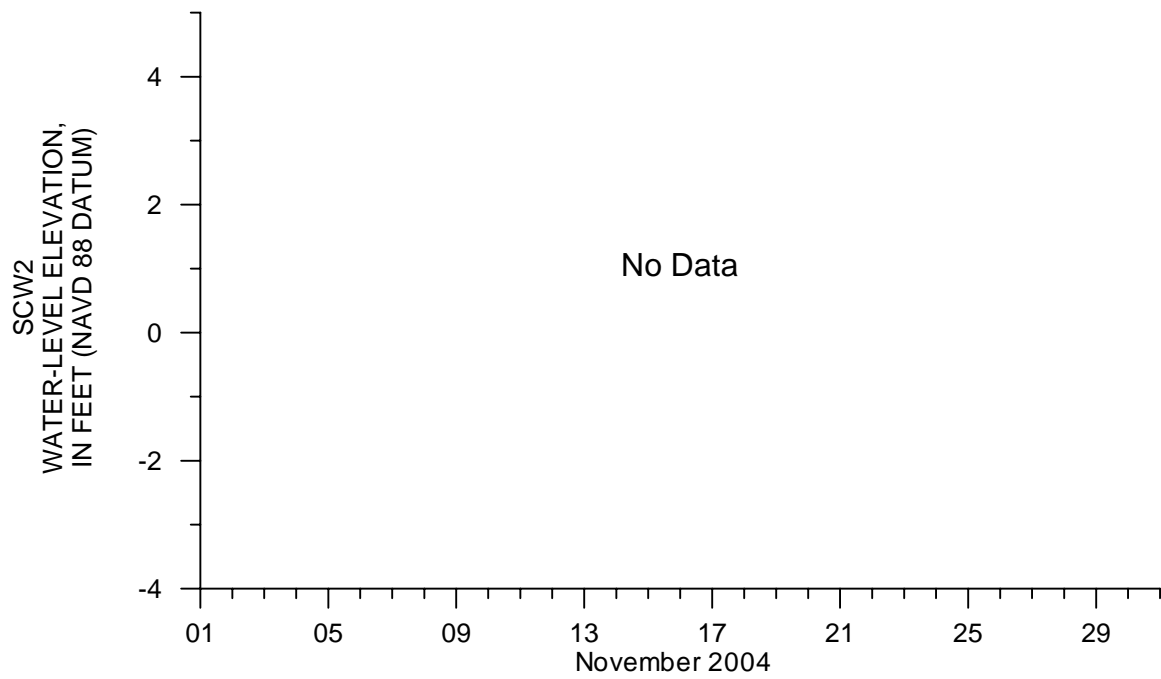
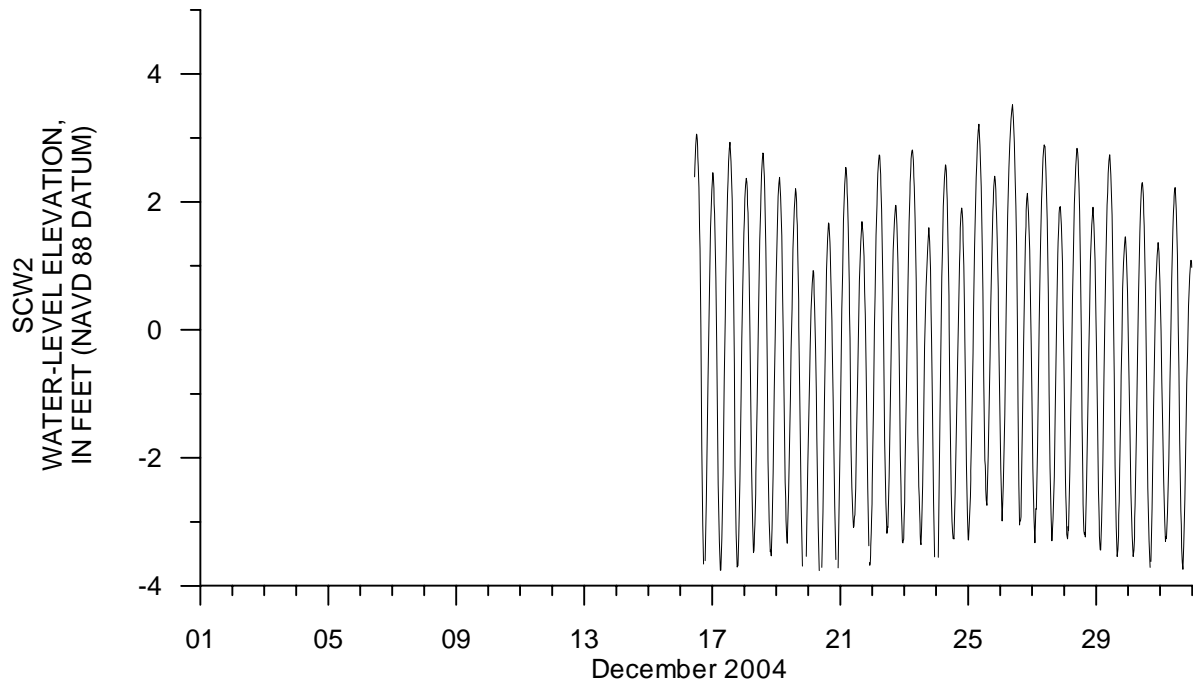


Figure 19. Stage-data plots at SCW2.

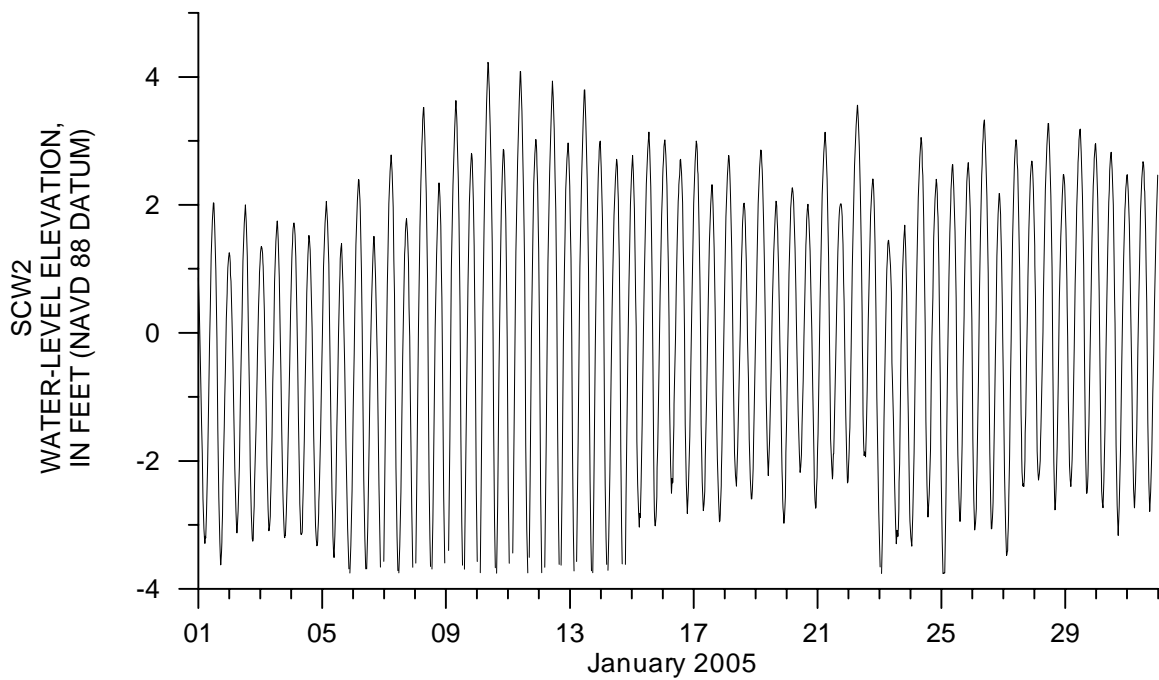
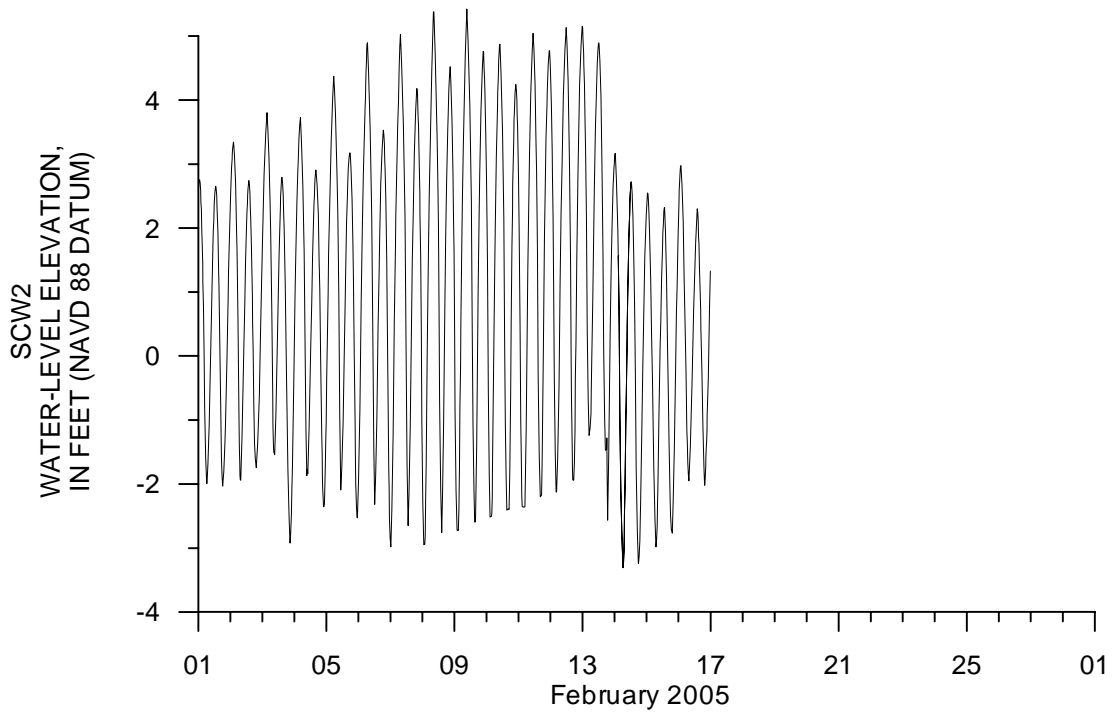


Figure 19. Stage-data plots at SCW2.

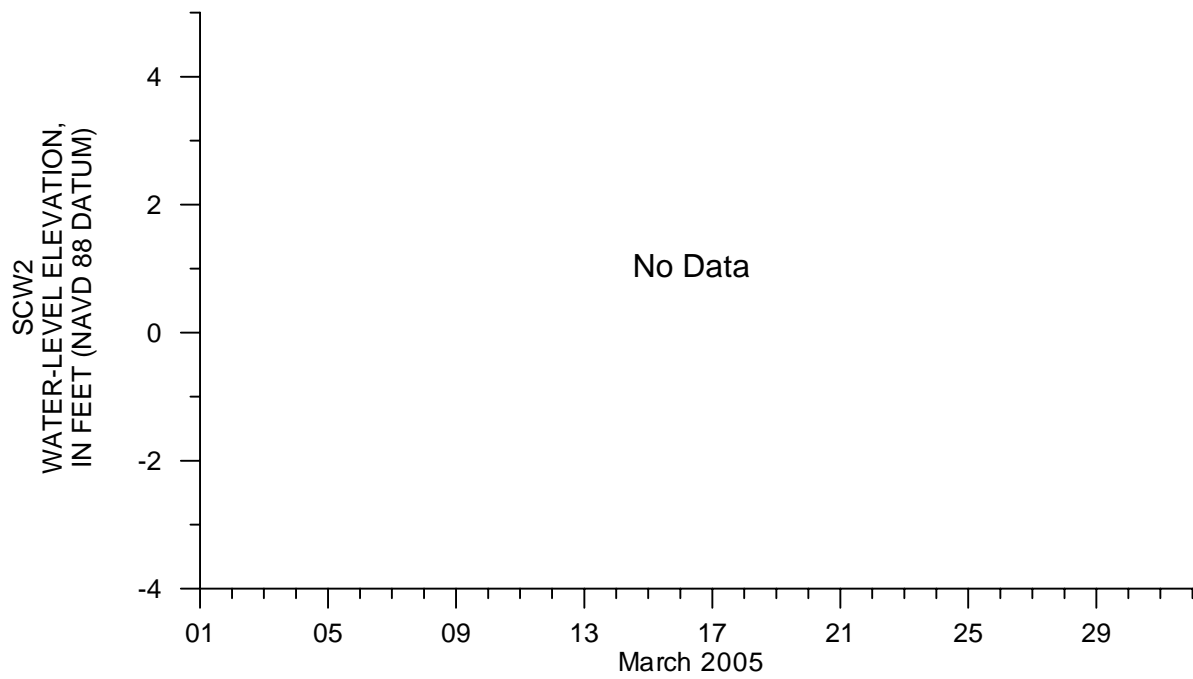
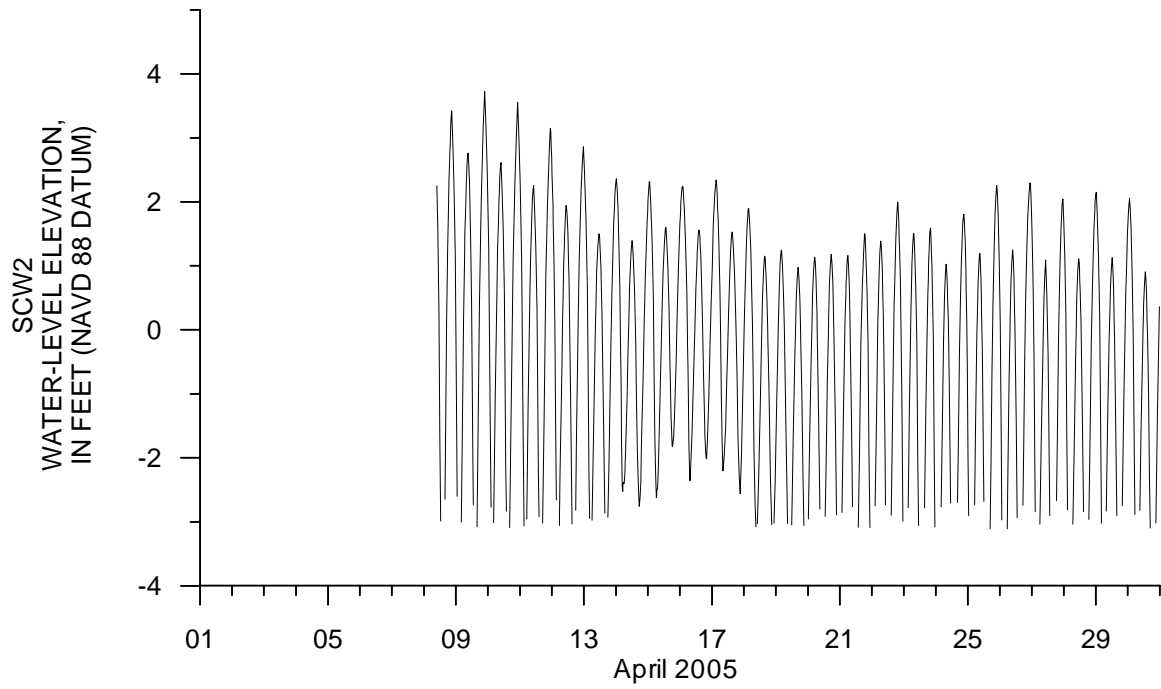


Figure 19. Stage-data plots at SCW2.

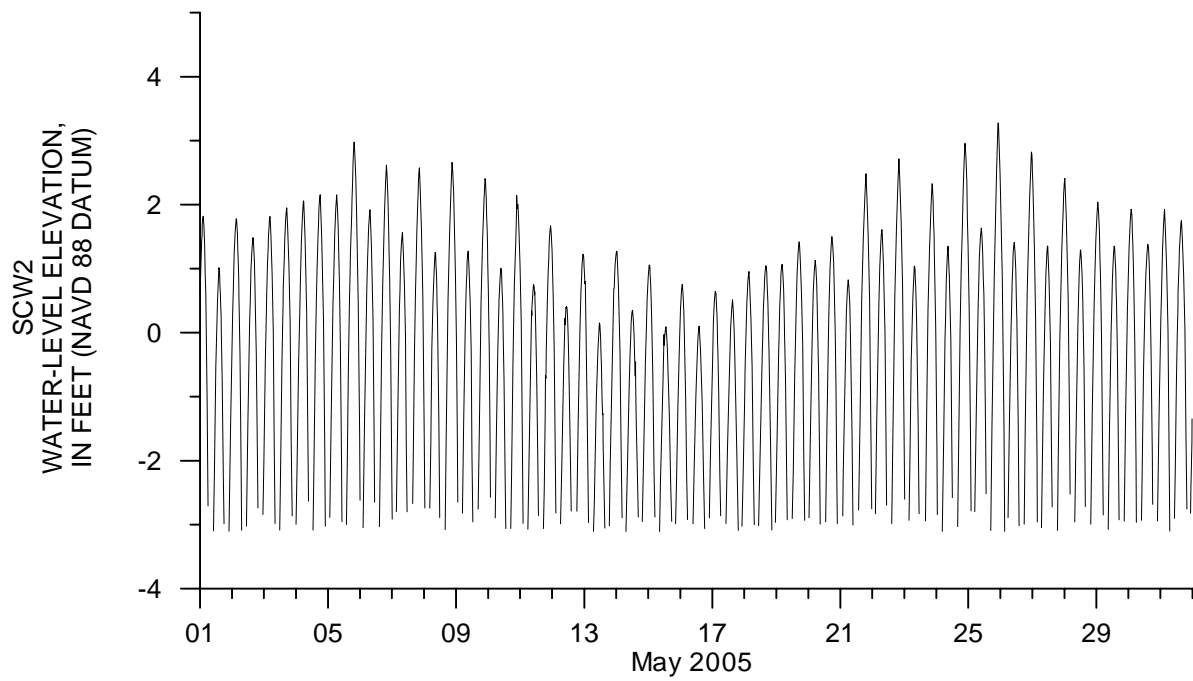
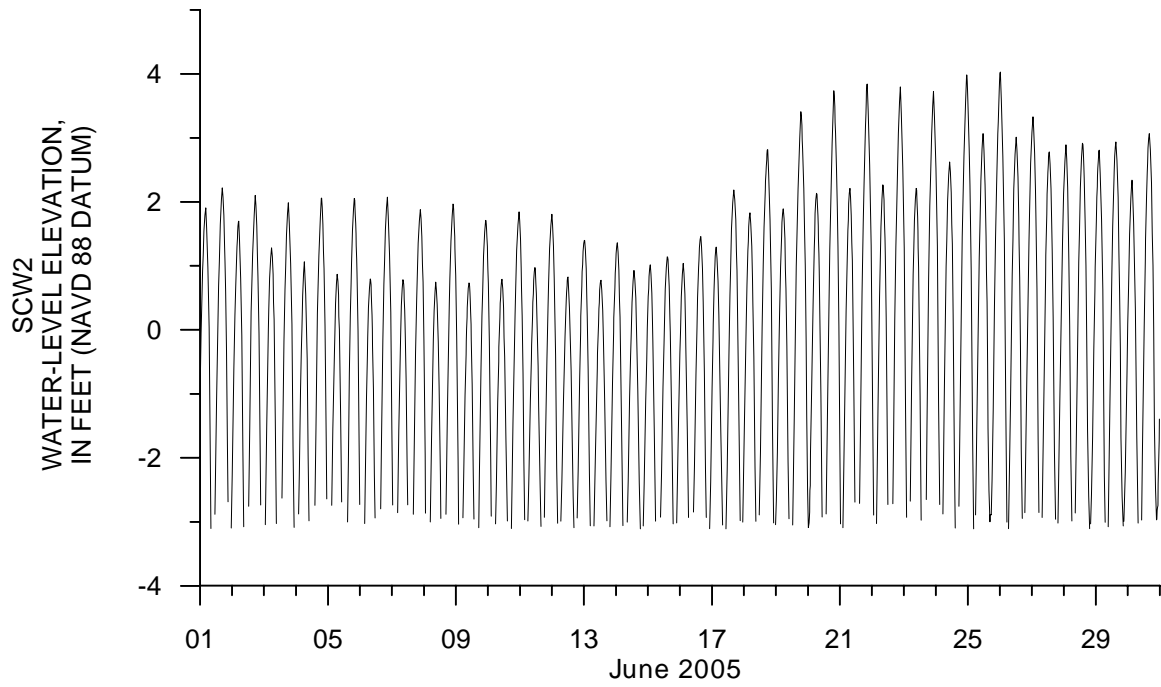


Figure 19. Stage-data plots at SCW2.

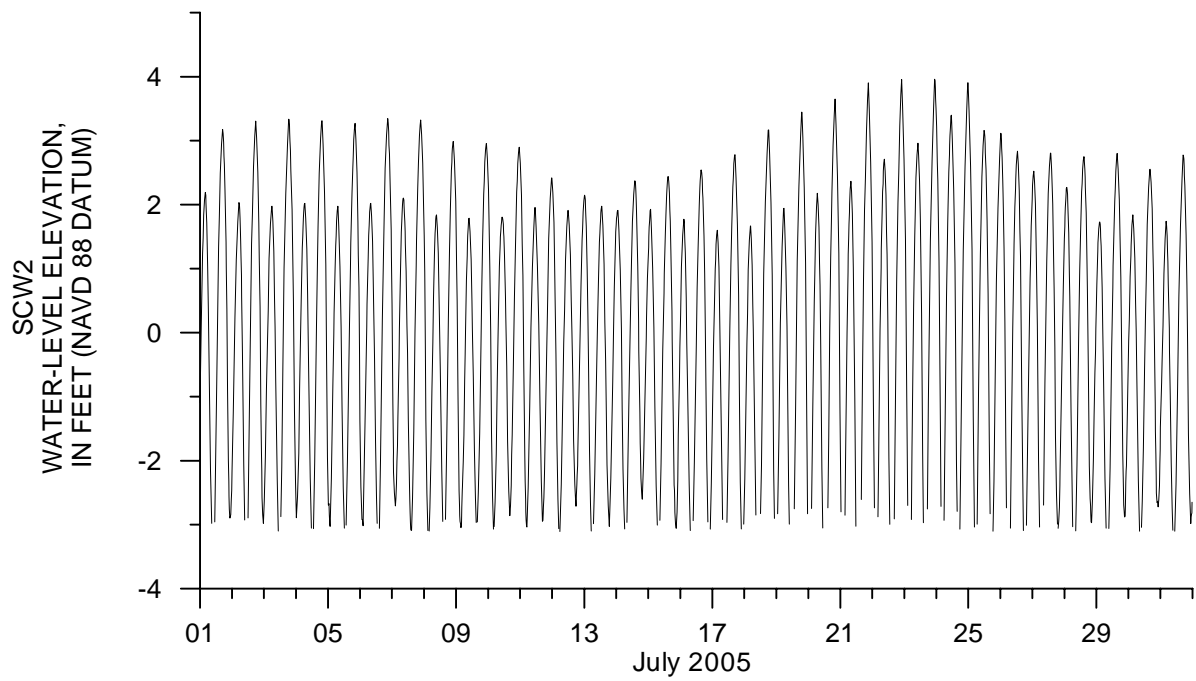
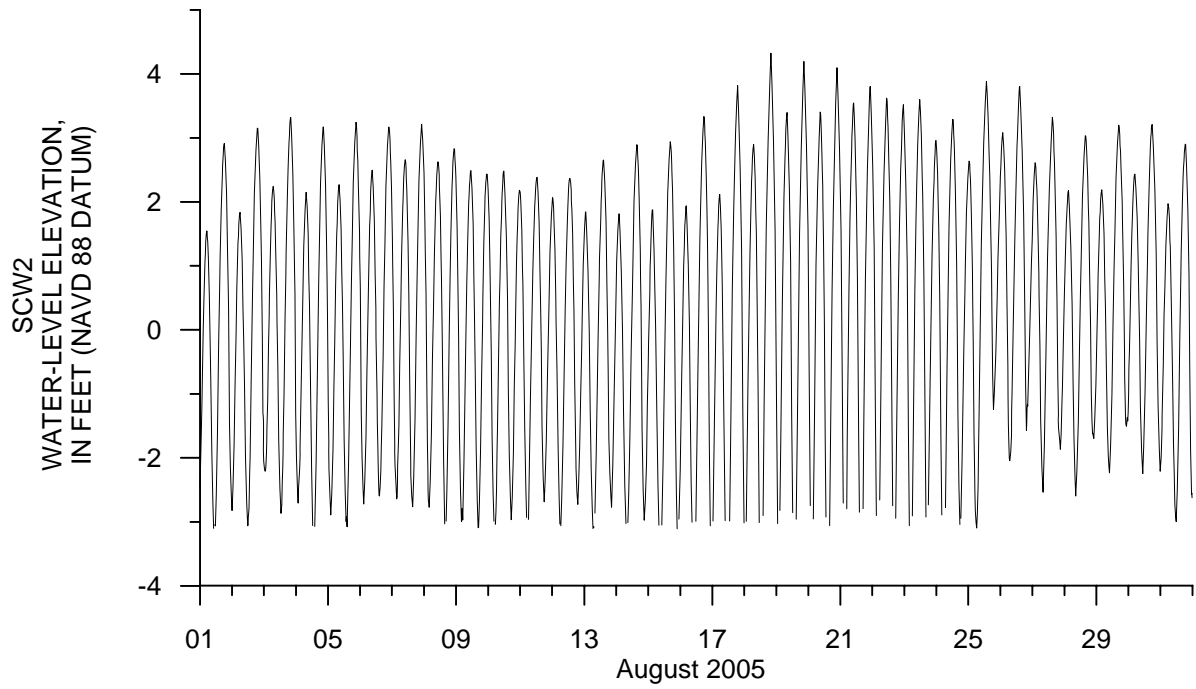


Figure 19. Stage-data plots at SCW2.

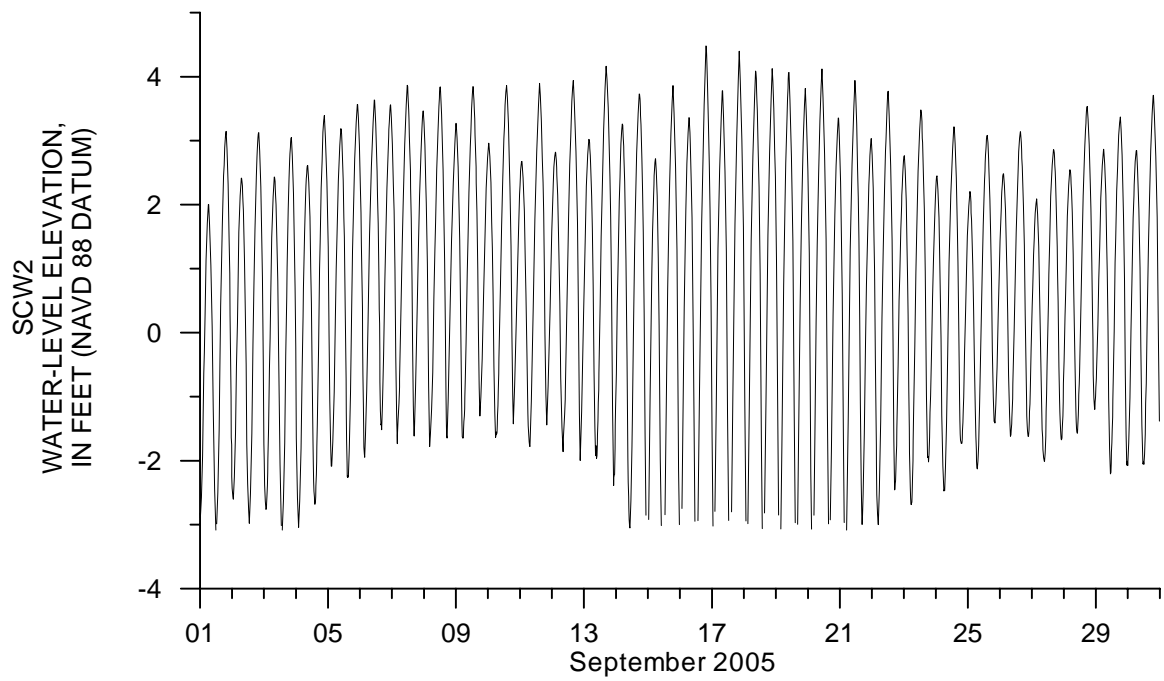
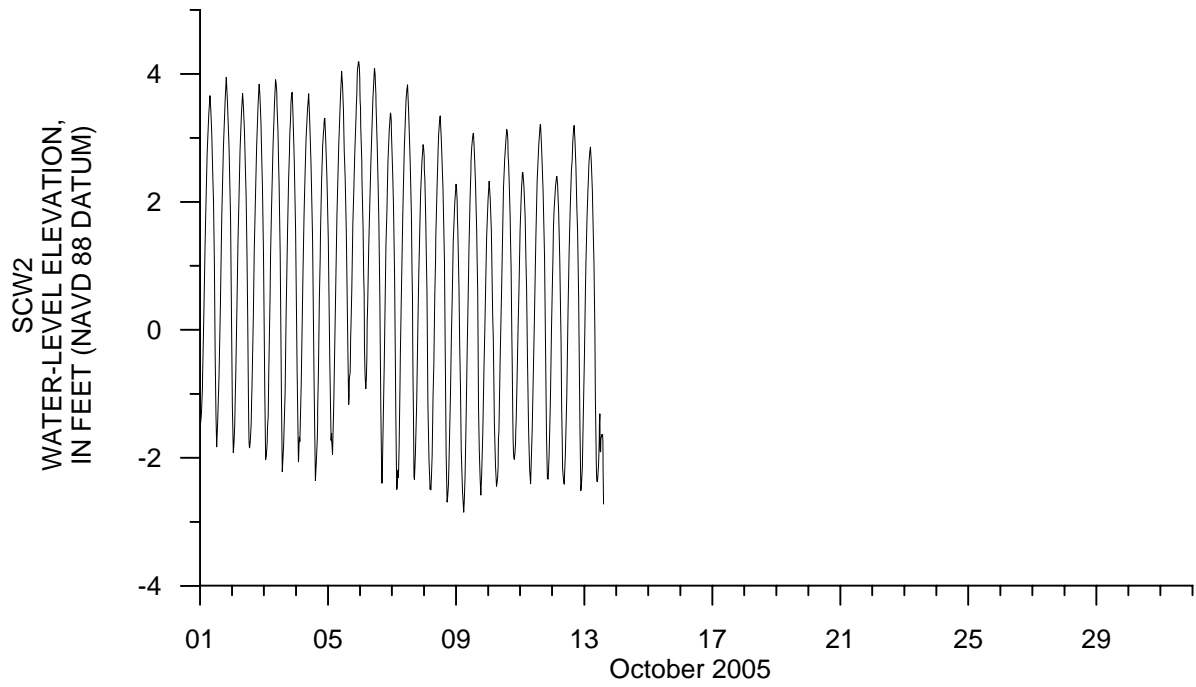


Figure 19. Stage-data plots at SCW2.



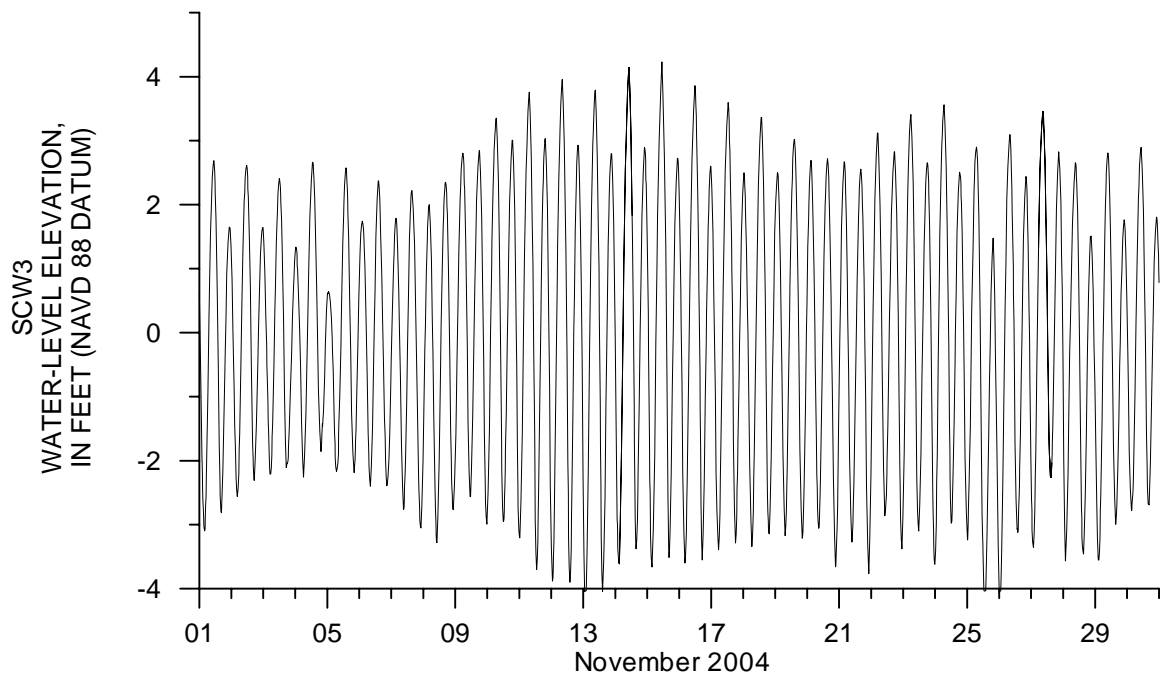
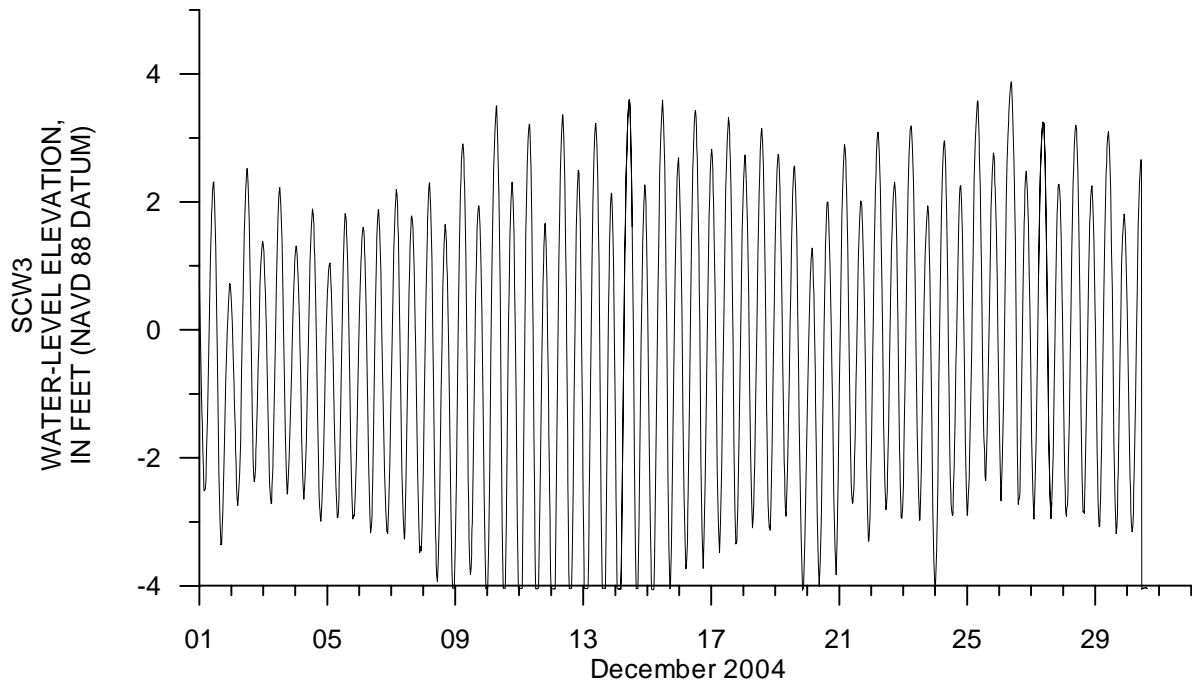


Figure 20. Stage-data plots at SCW3.

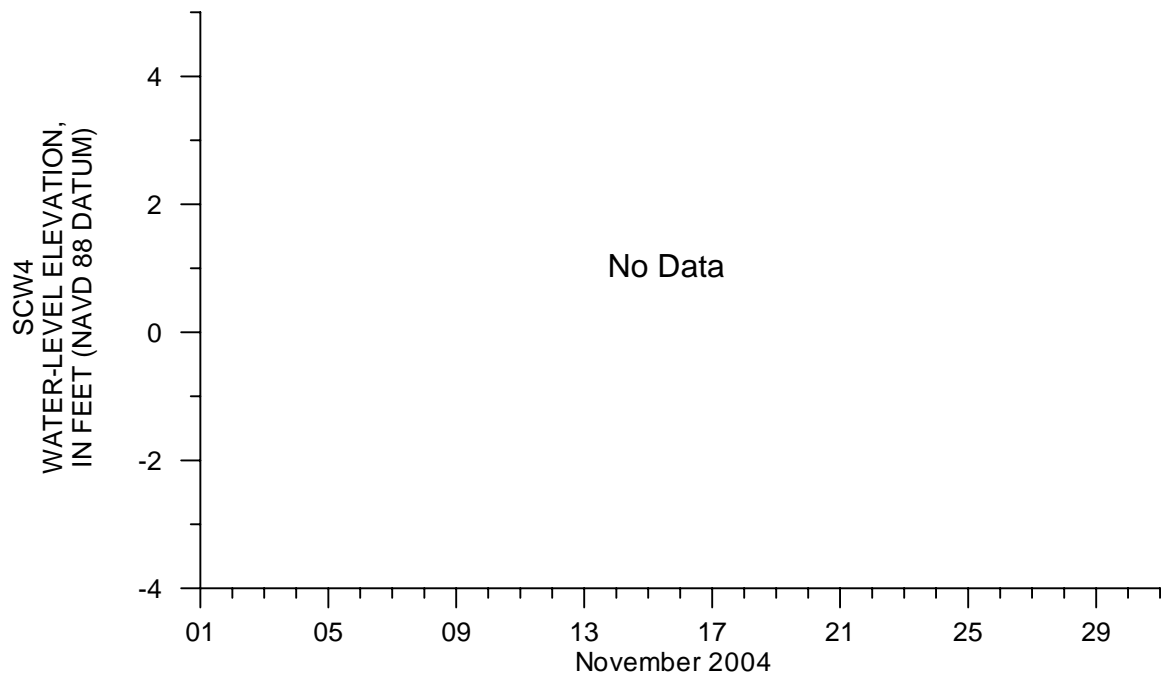
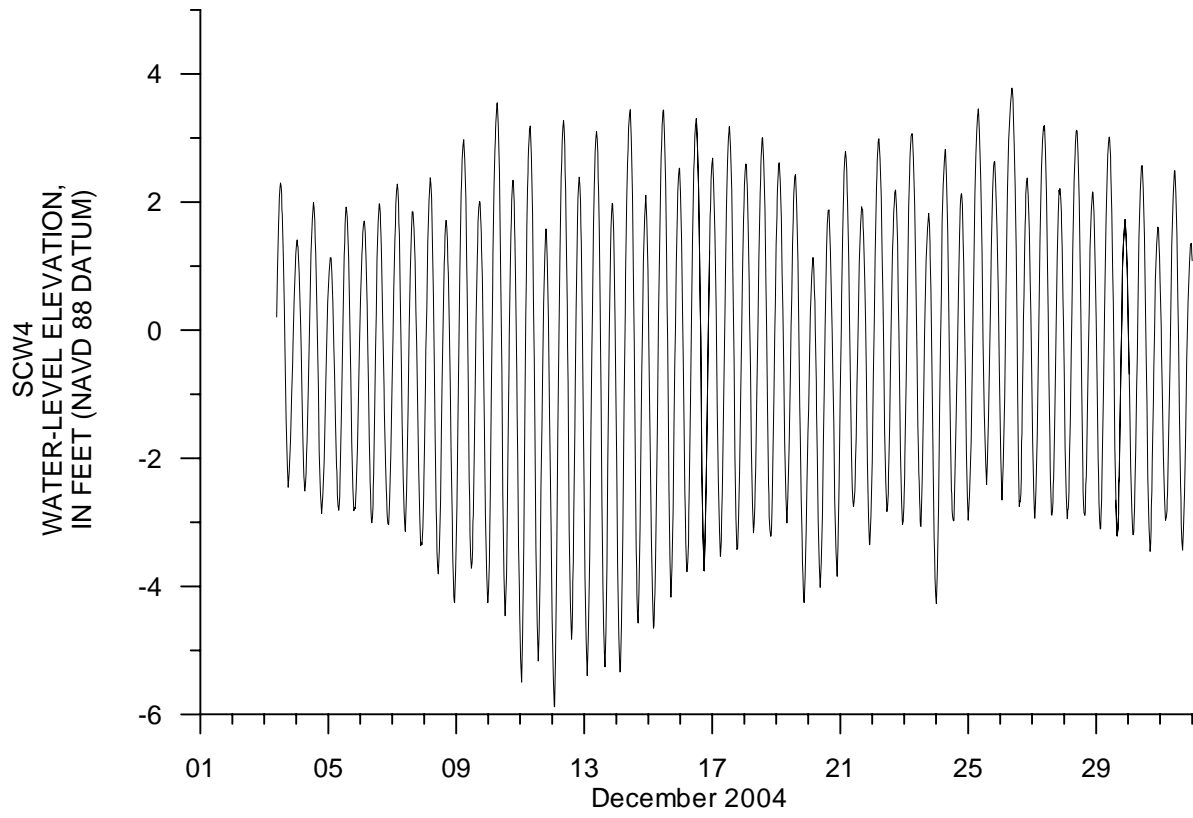


Figure 21. Stage-data plots at SCW4.

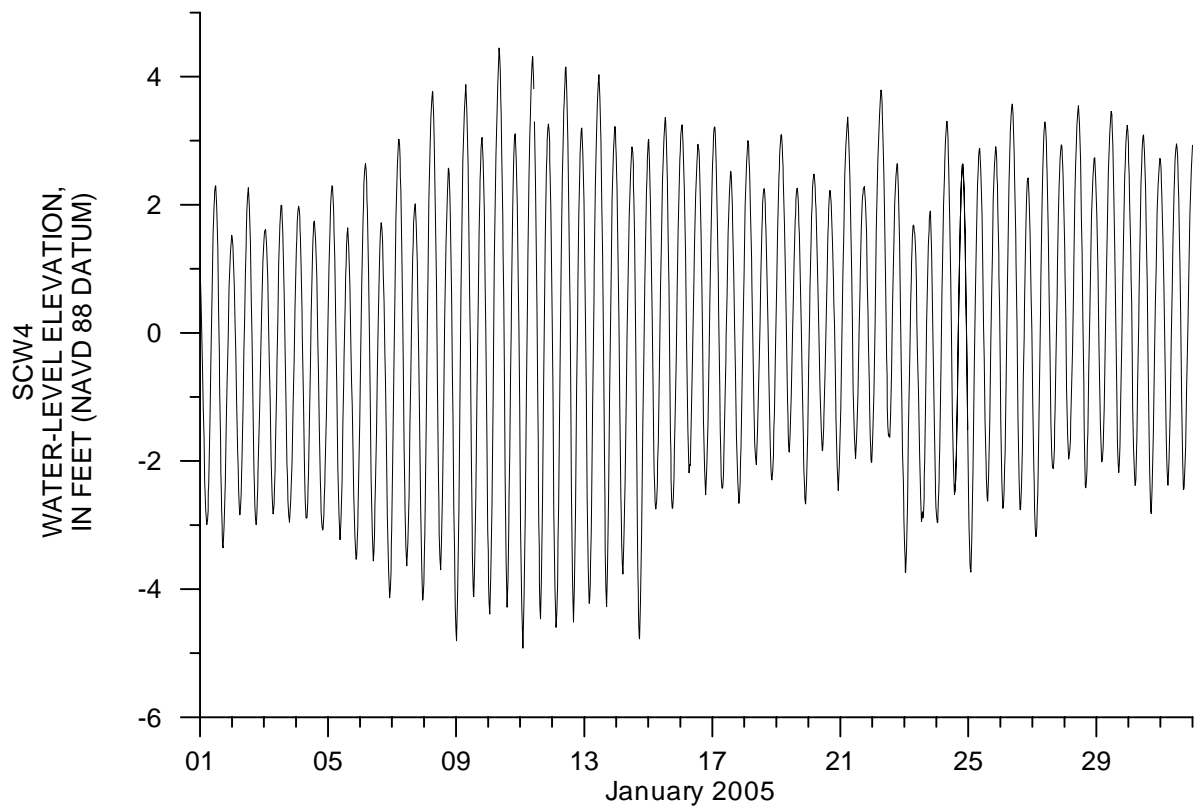
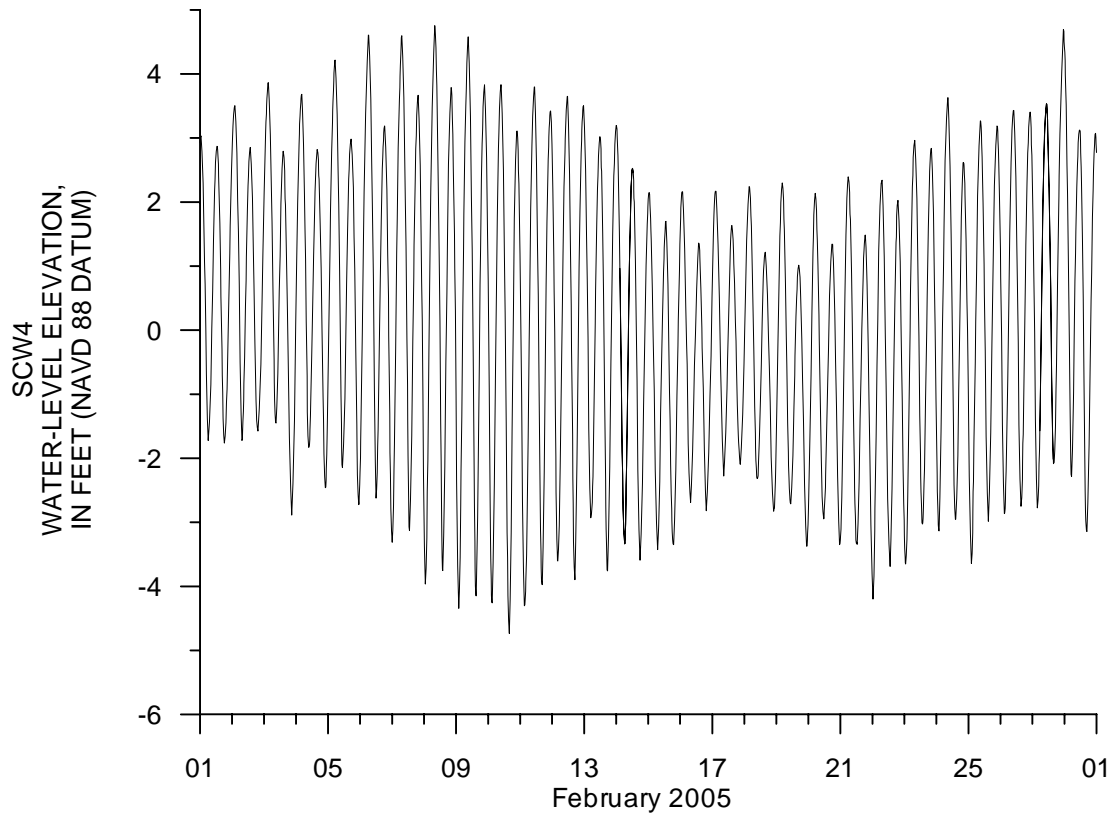


Figure 21. Stage-data plots at SCW4.

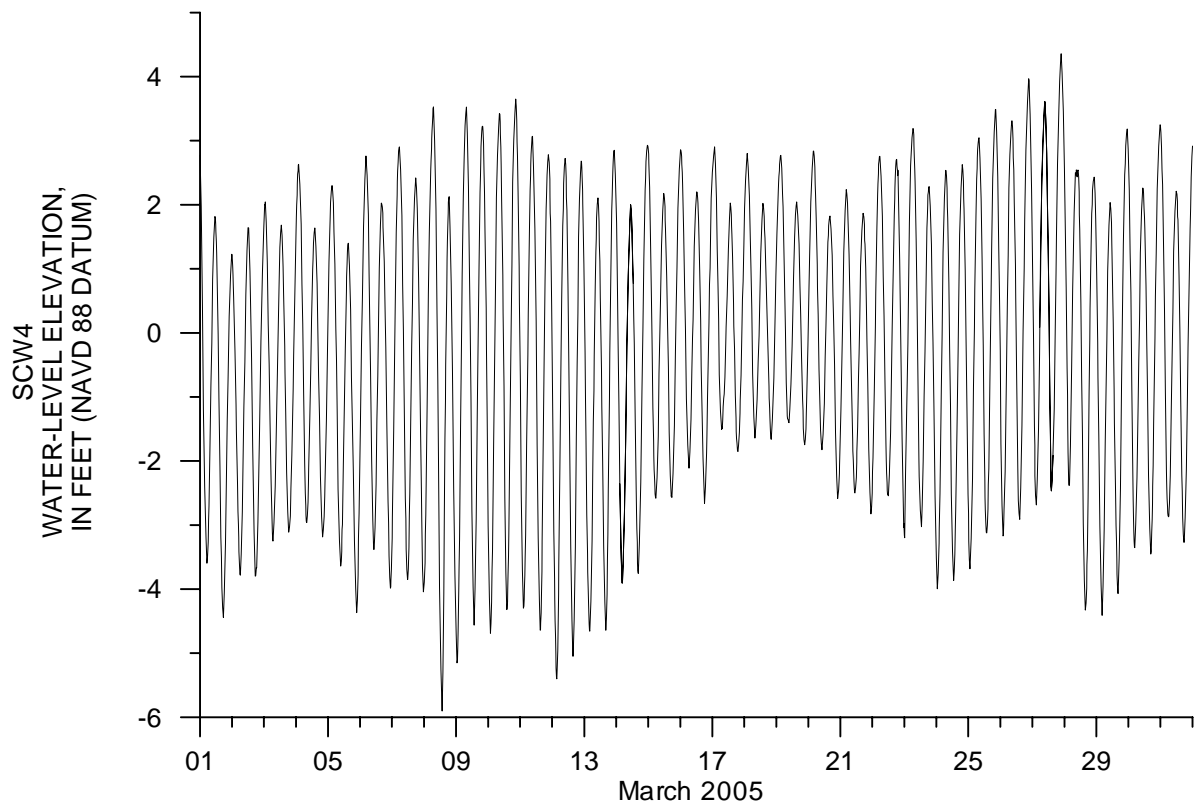
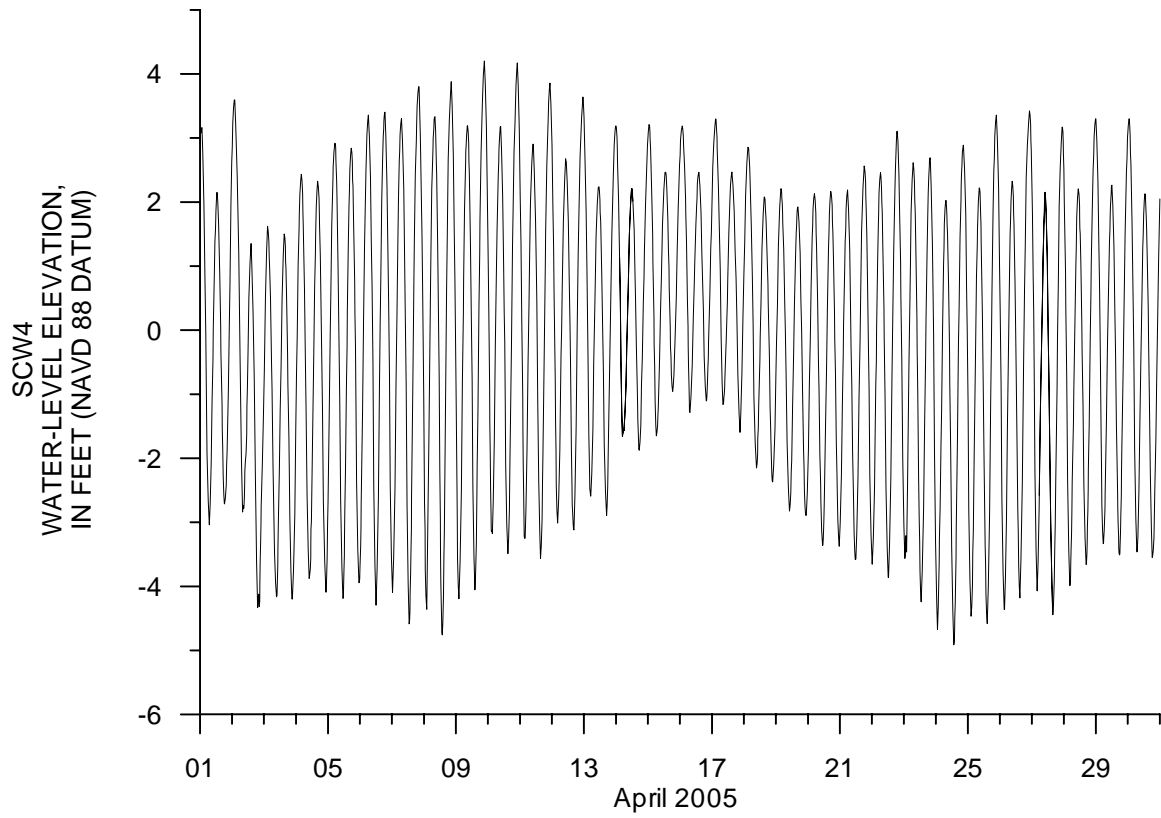


Figure 21. Stage-data plots at SCW4.

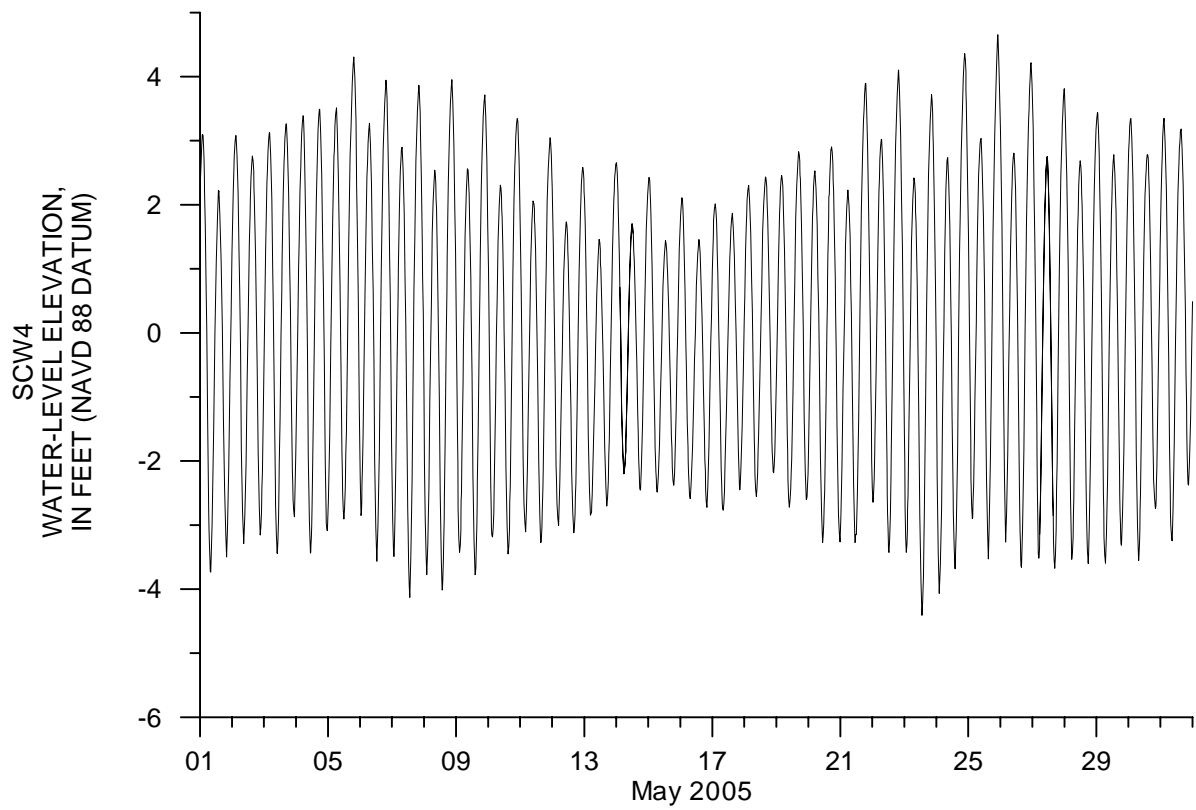
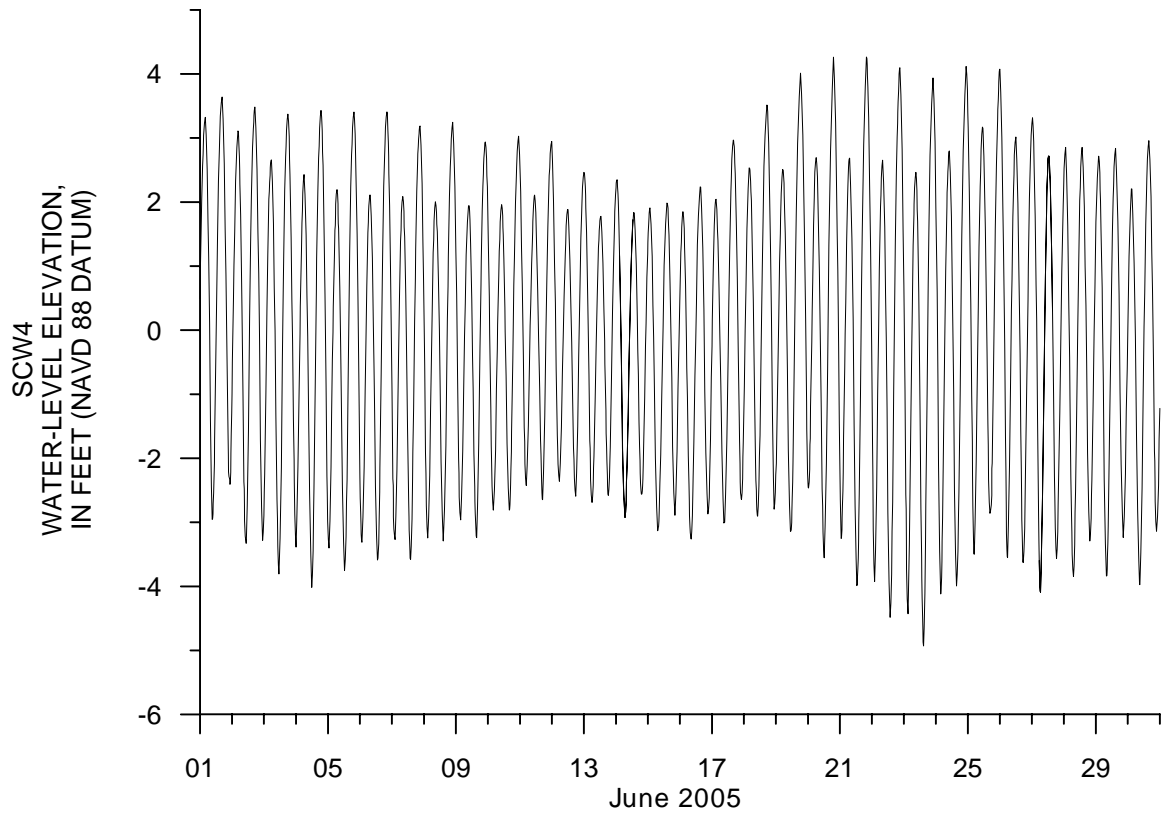


Figure 21. Stage-data plots at SCW4.

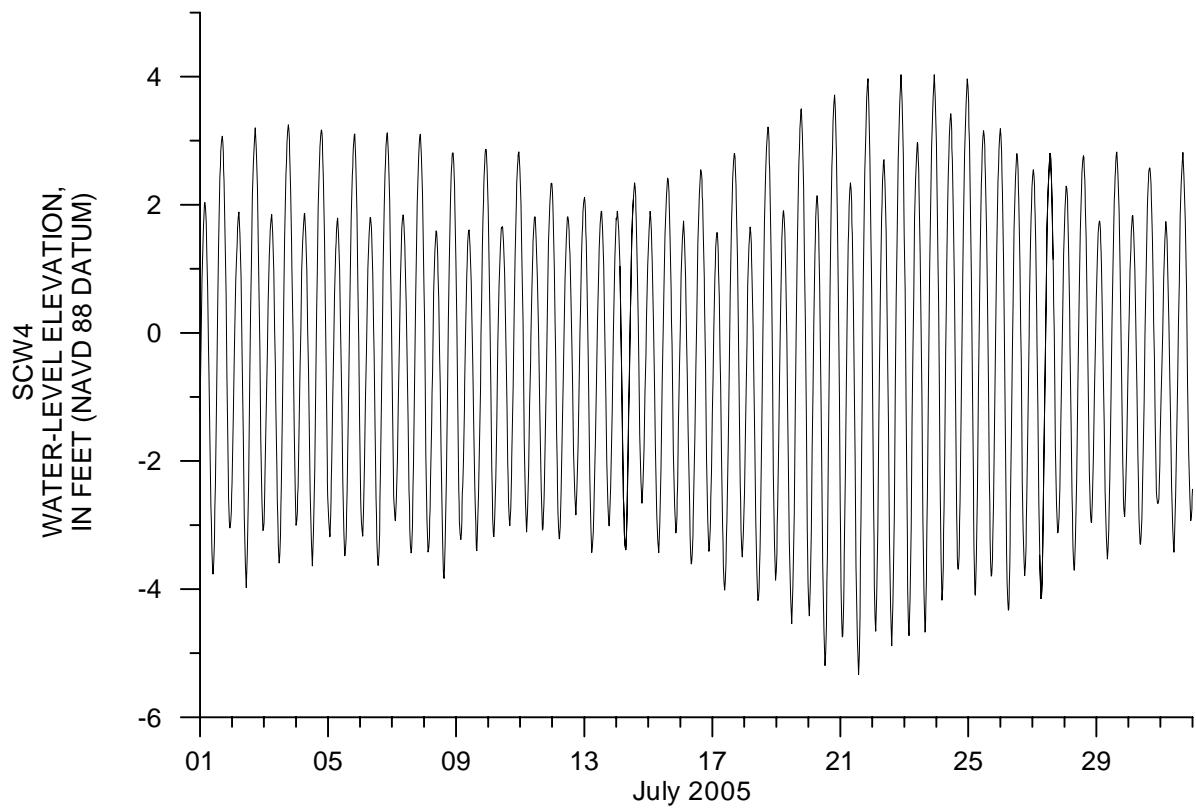
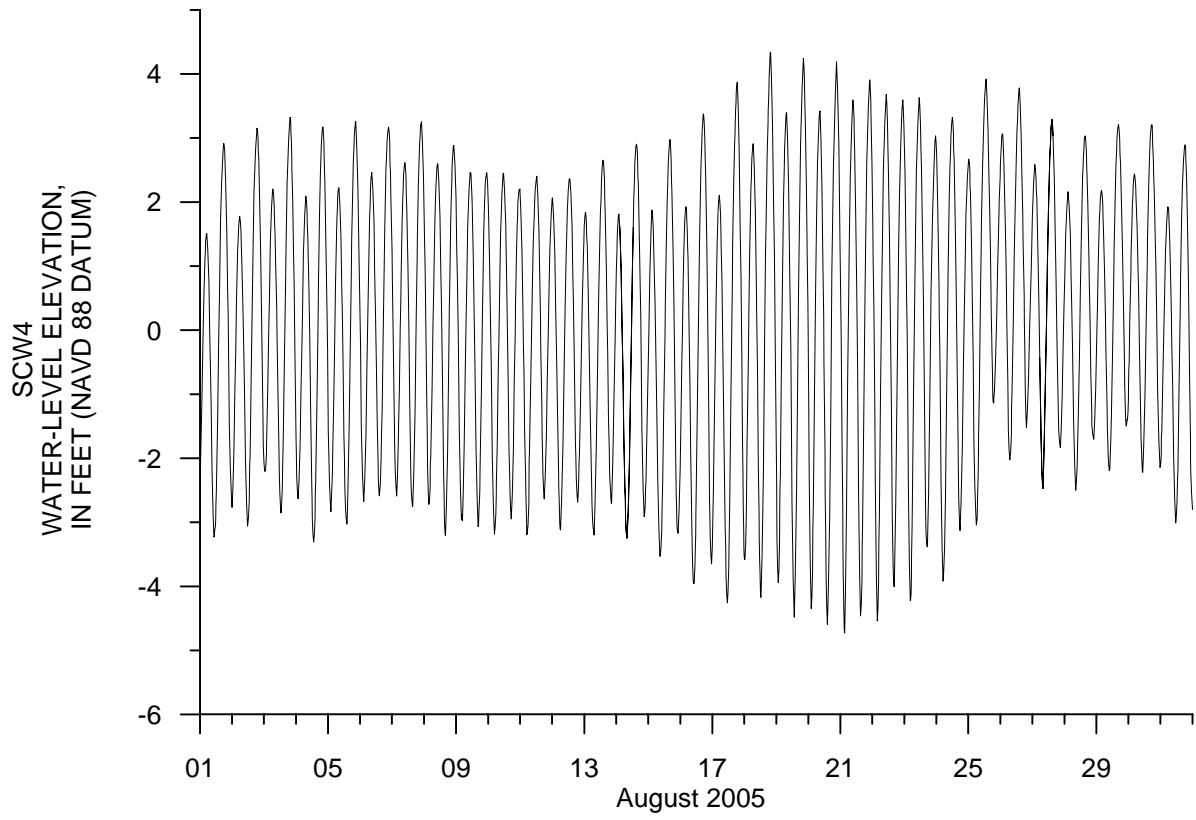


Figure 21. Stage-data plots at SCW4.

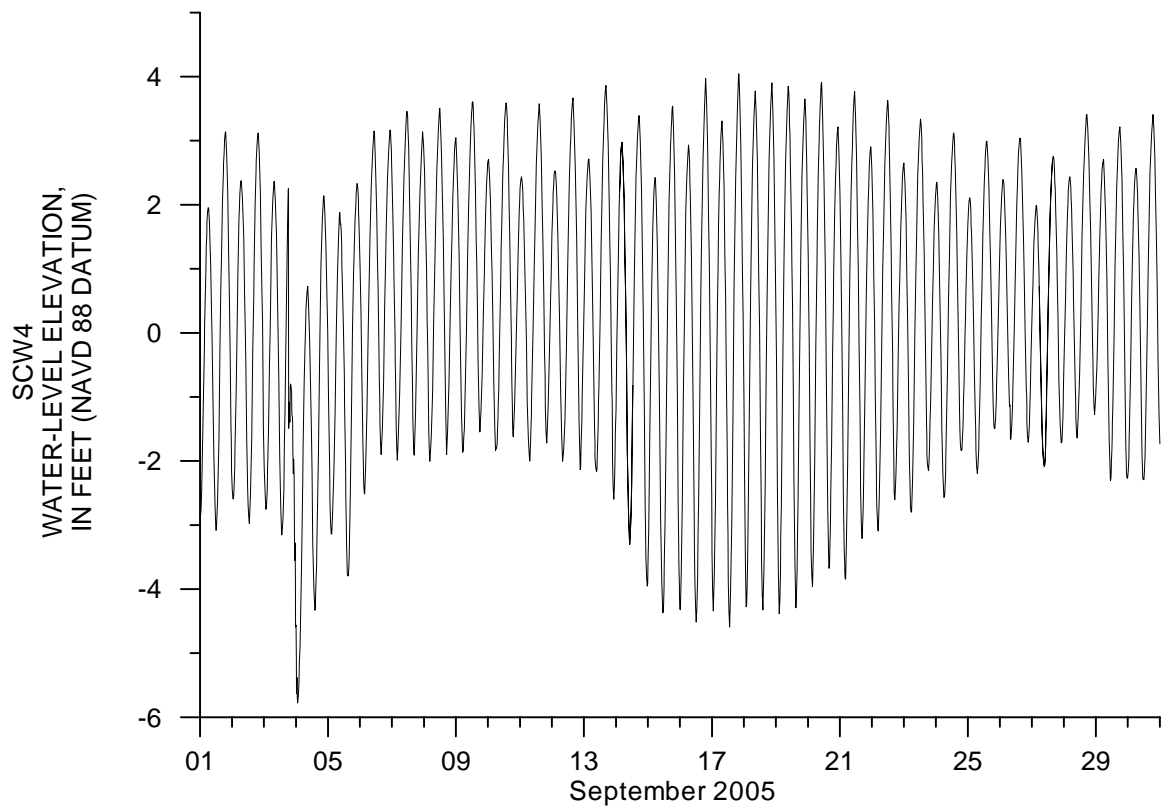
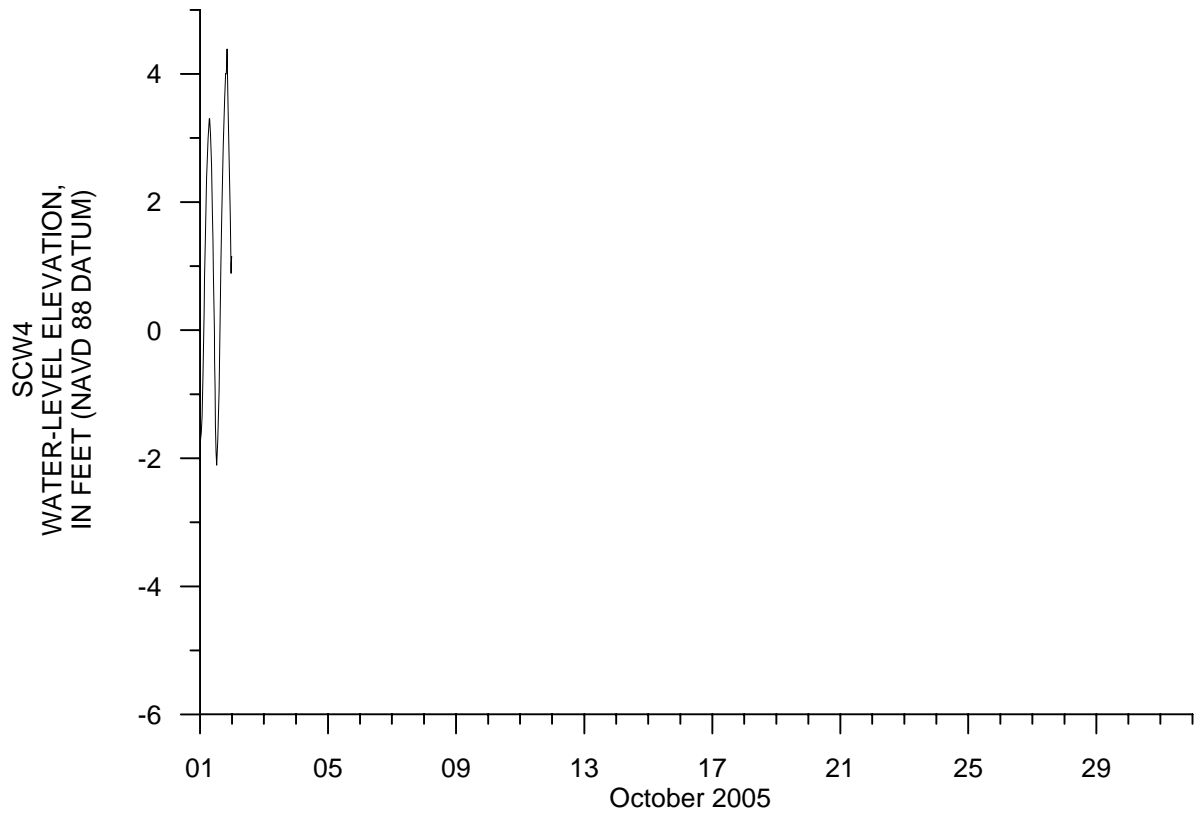


Figure 21. Stage-data plots at SCW4.

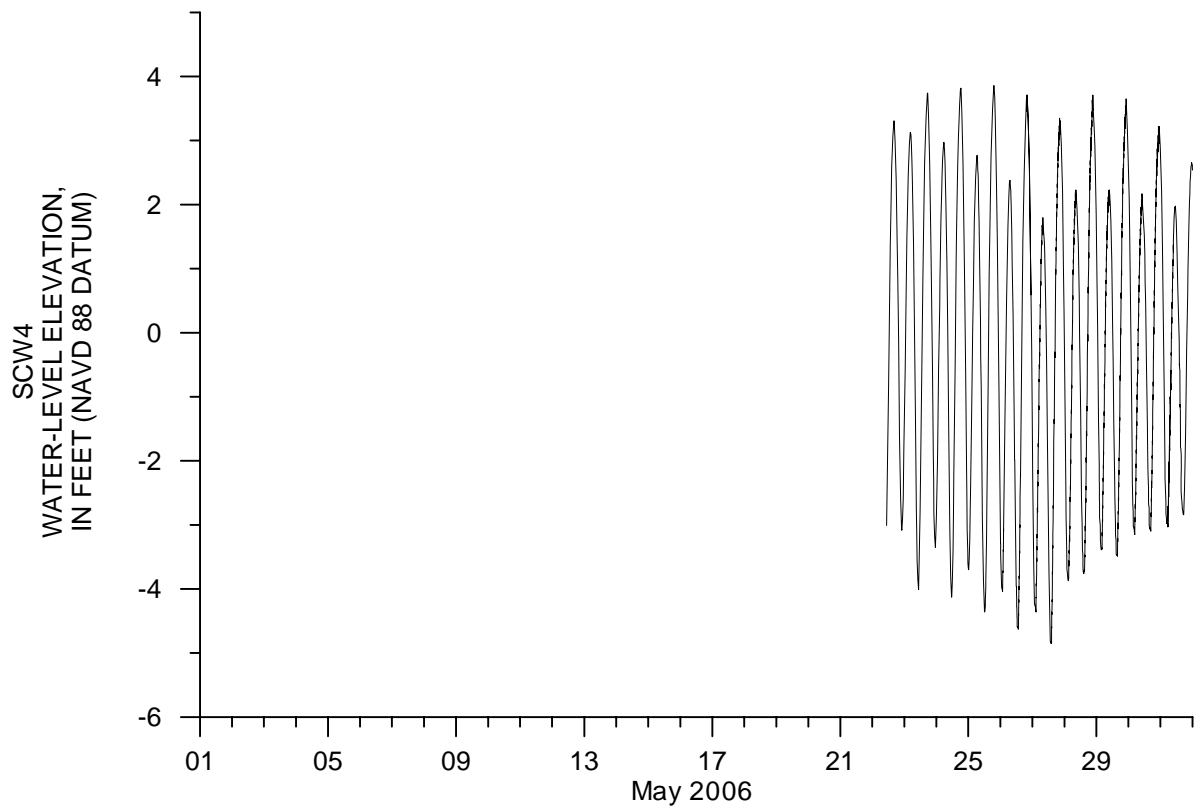
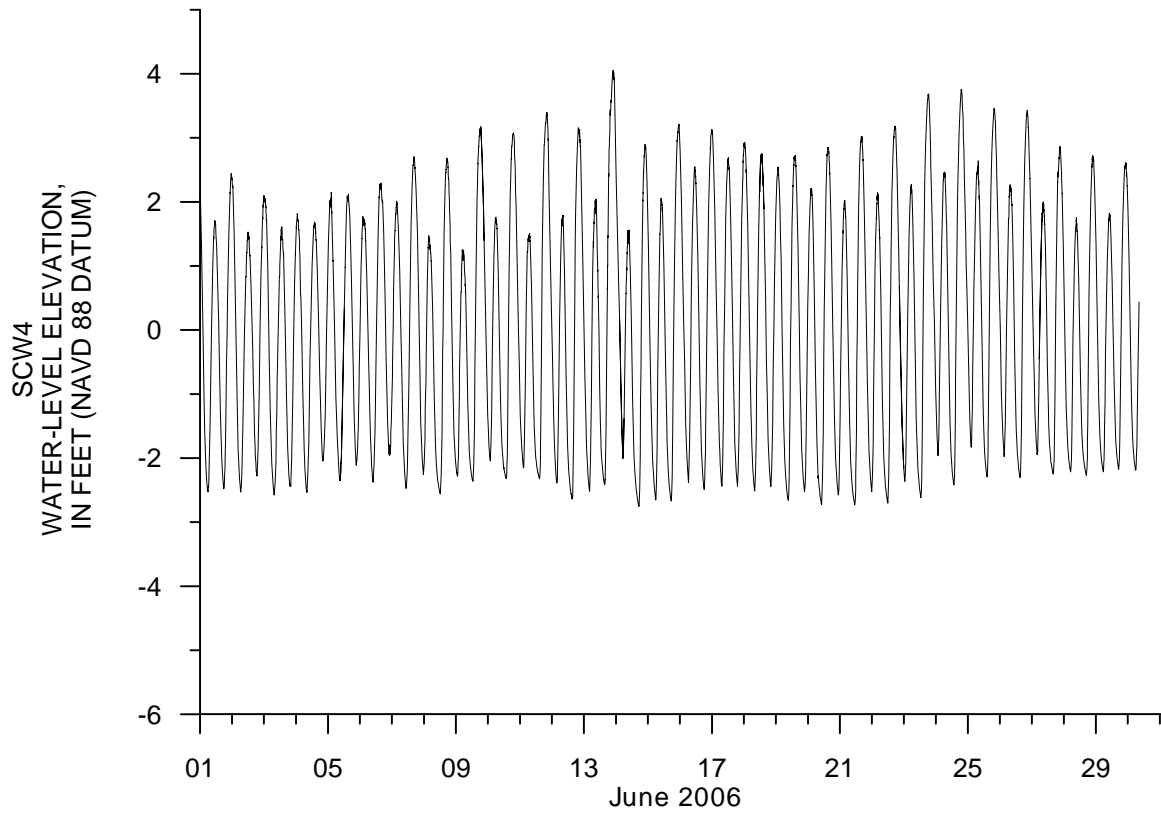


Figure 21. Stage-data plots at SCW4.



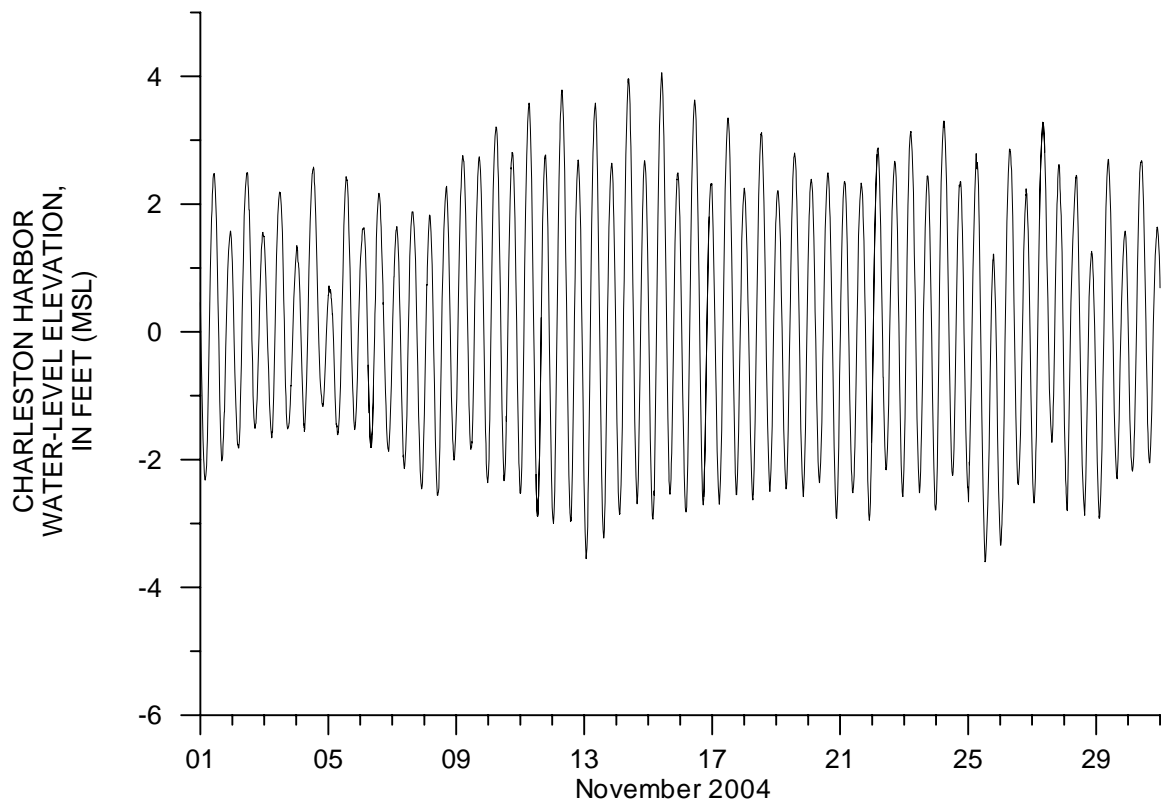
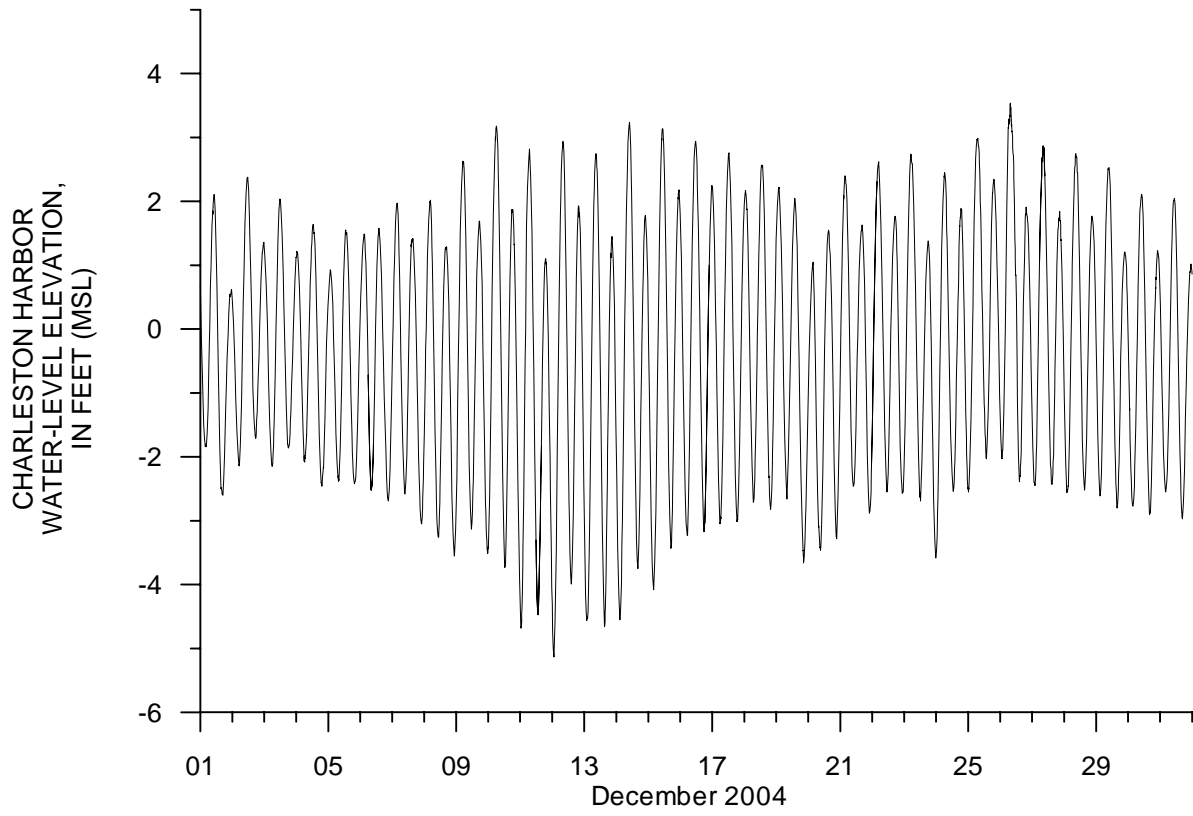


Figure 22. Stage-data plots for Charleston Harbor.

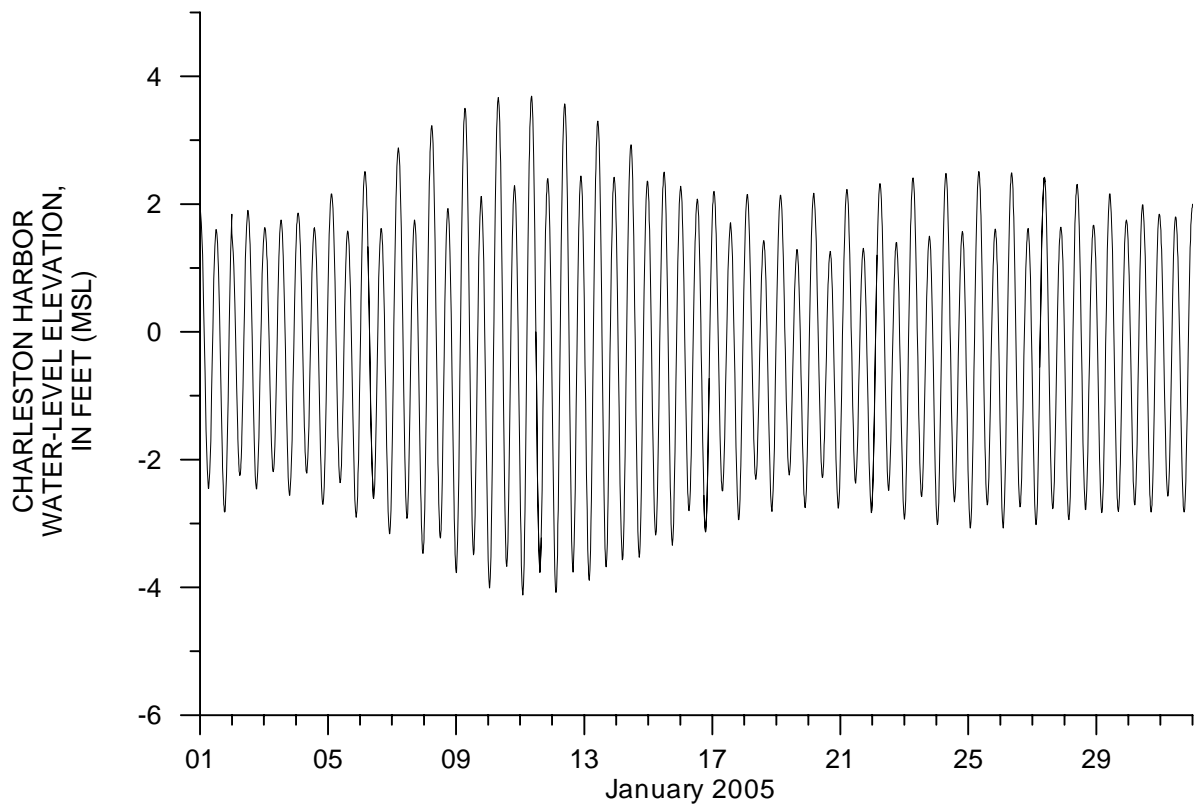
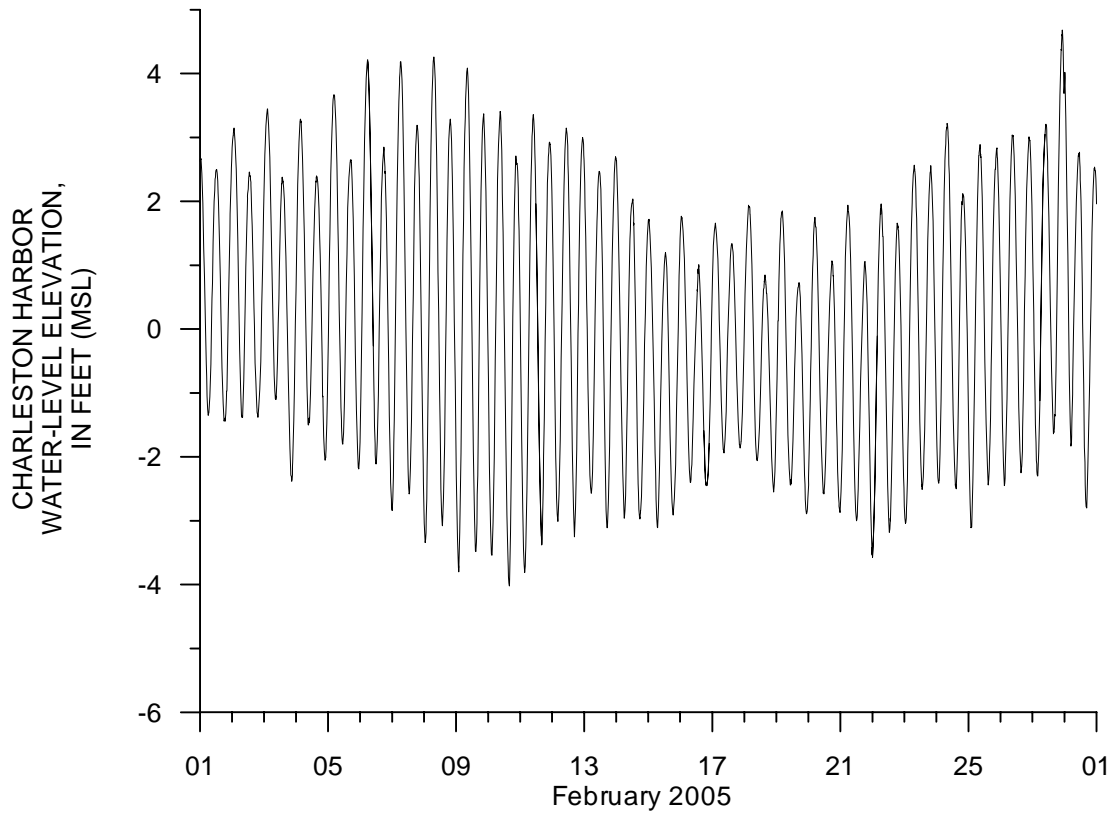


Figure 22. Stage-data plots for Charleston Harbor.

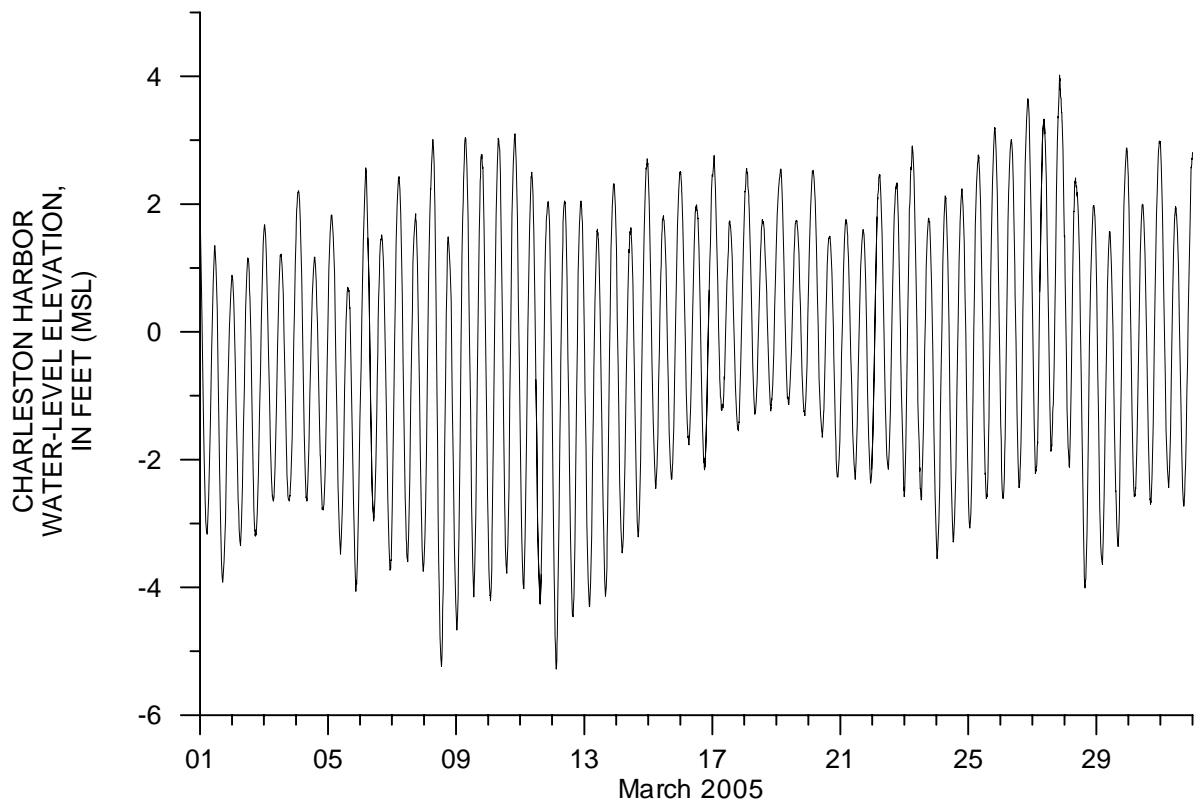
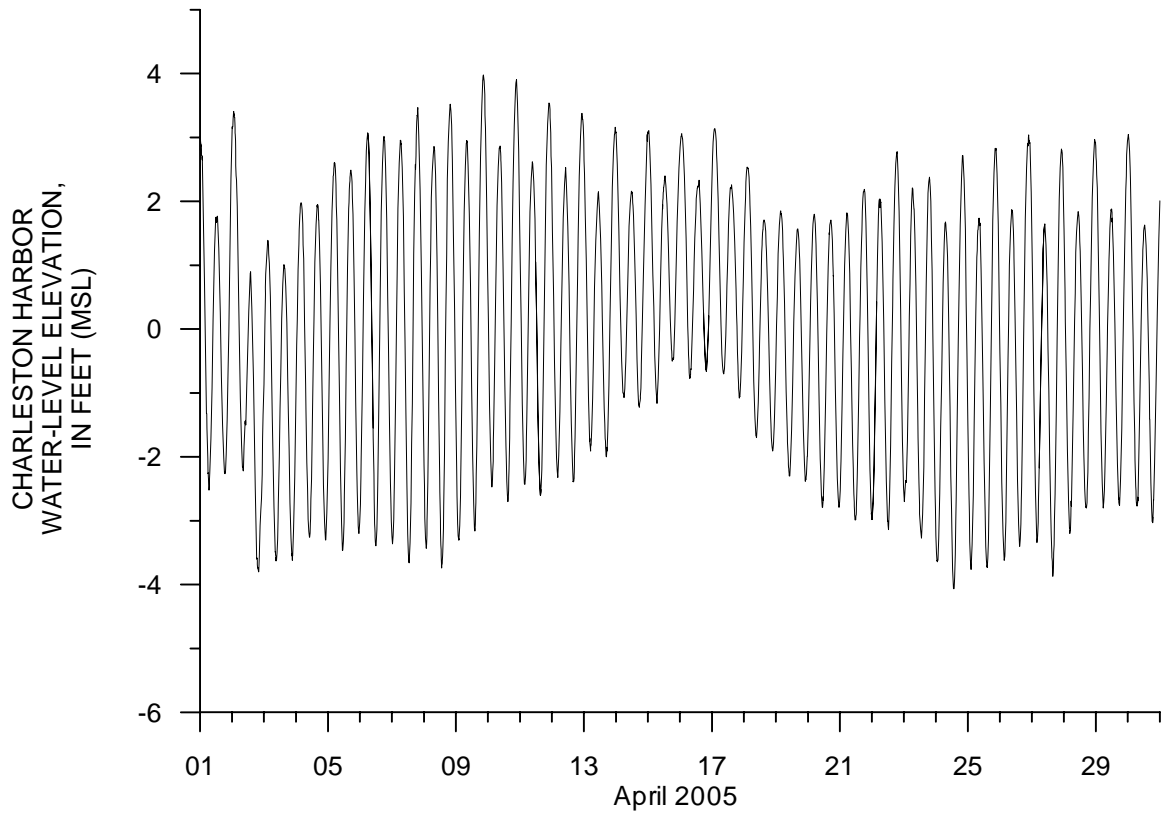


Figure 22. Stage-data plots for Charleston Harbor.

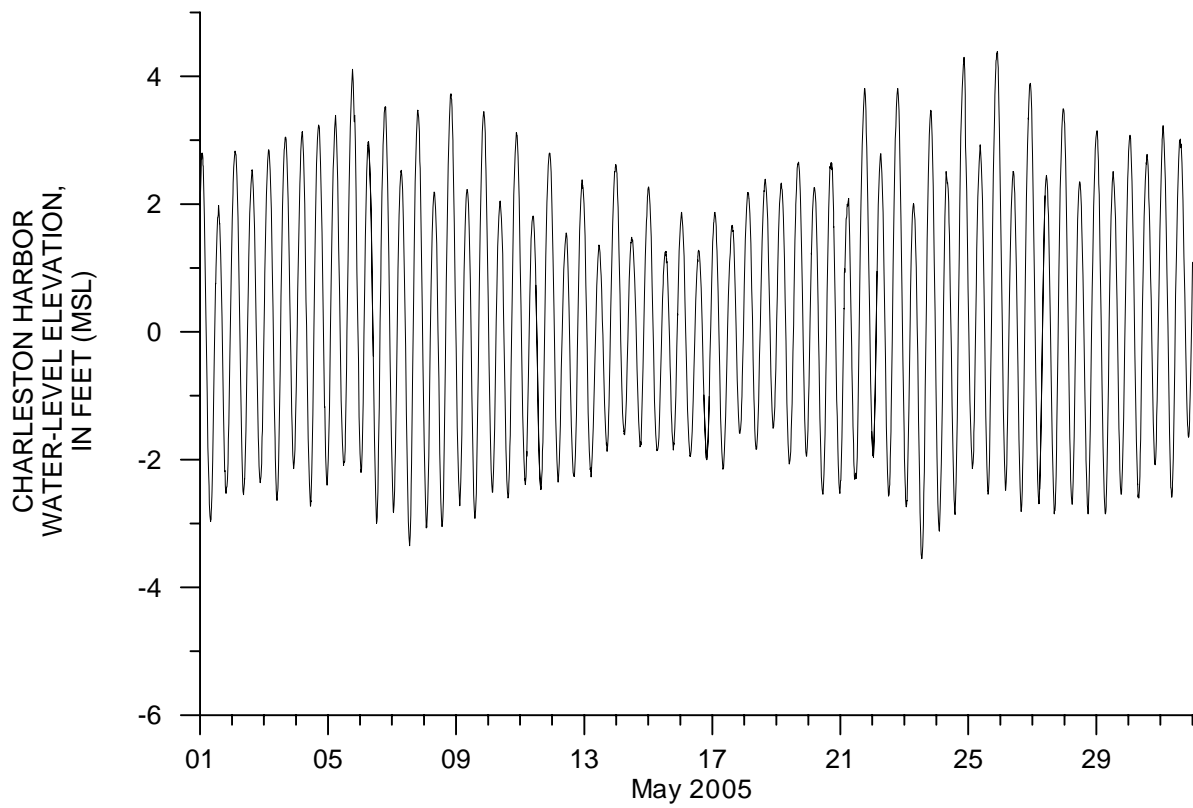
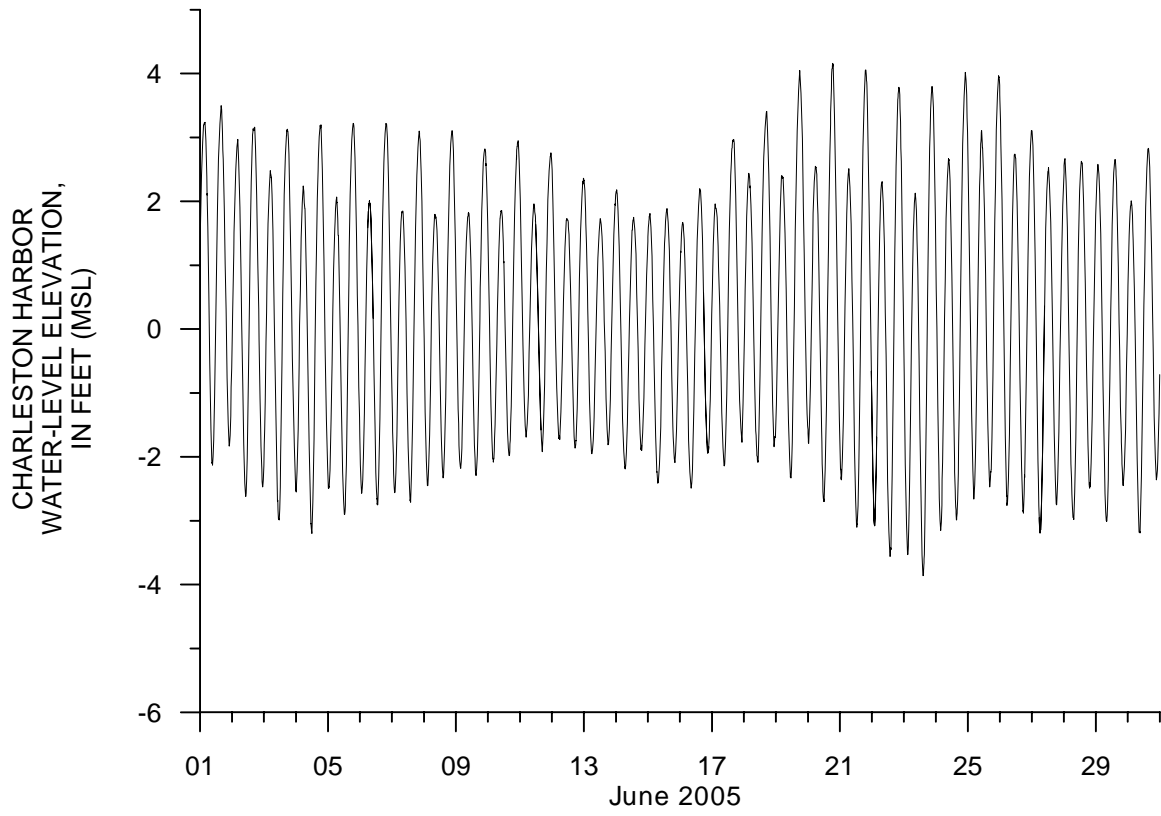


Figure 22. Stage-data plots for Charleston Harbor.

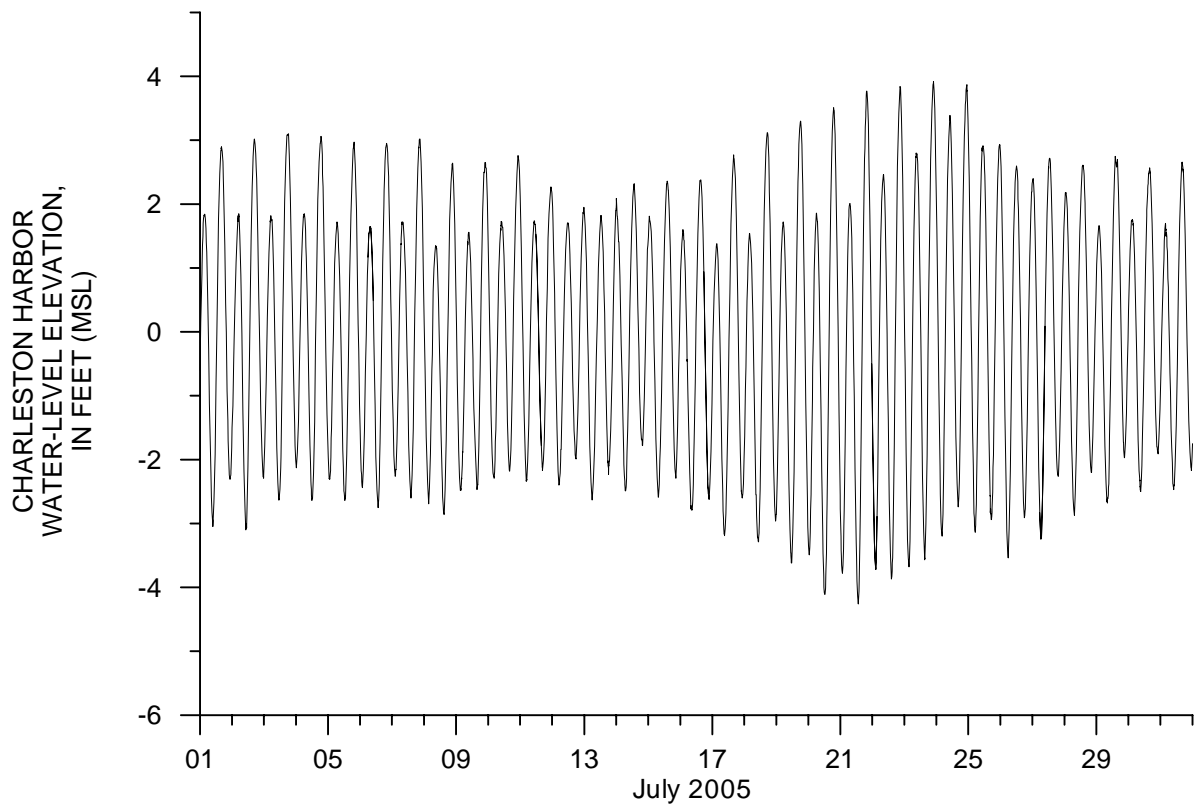
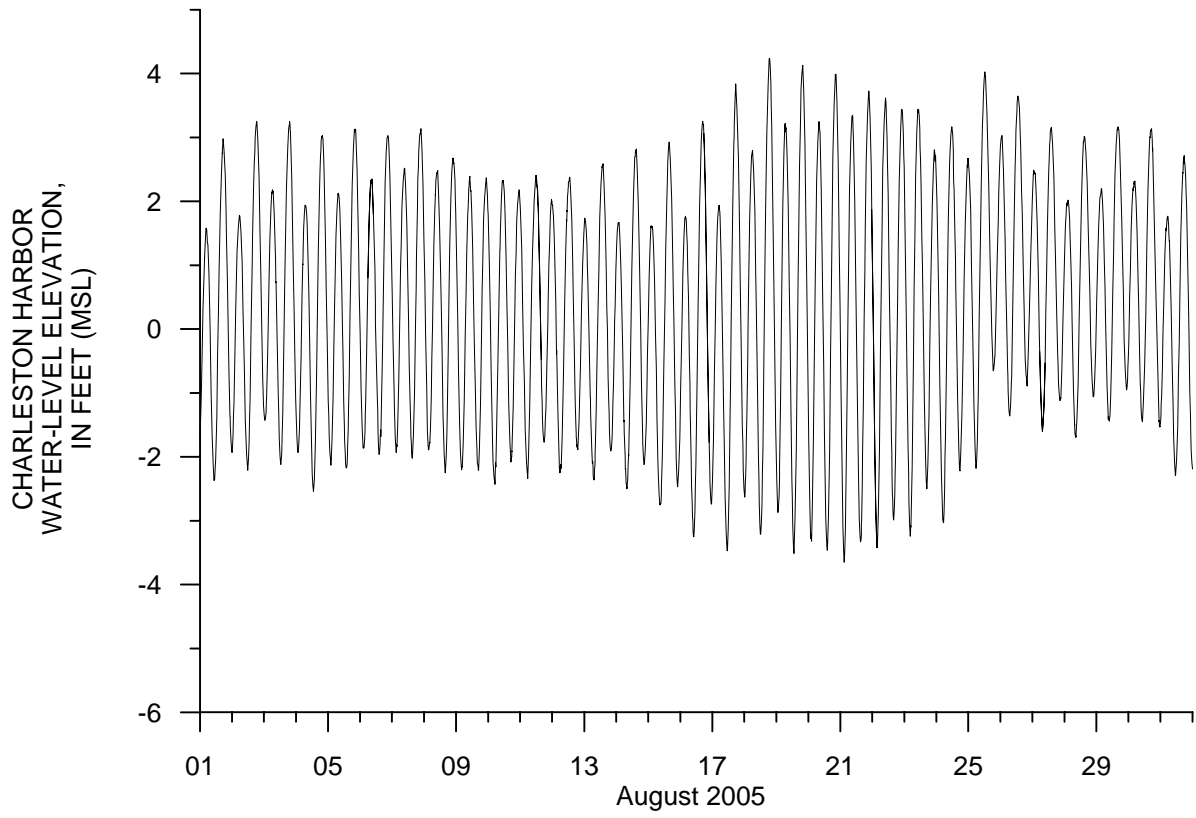


Figure 22. Stage-data plots for Charleston Harbor.

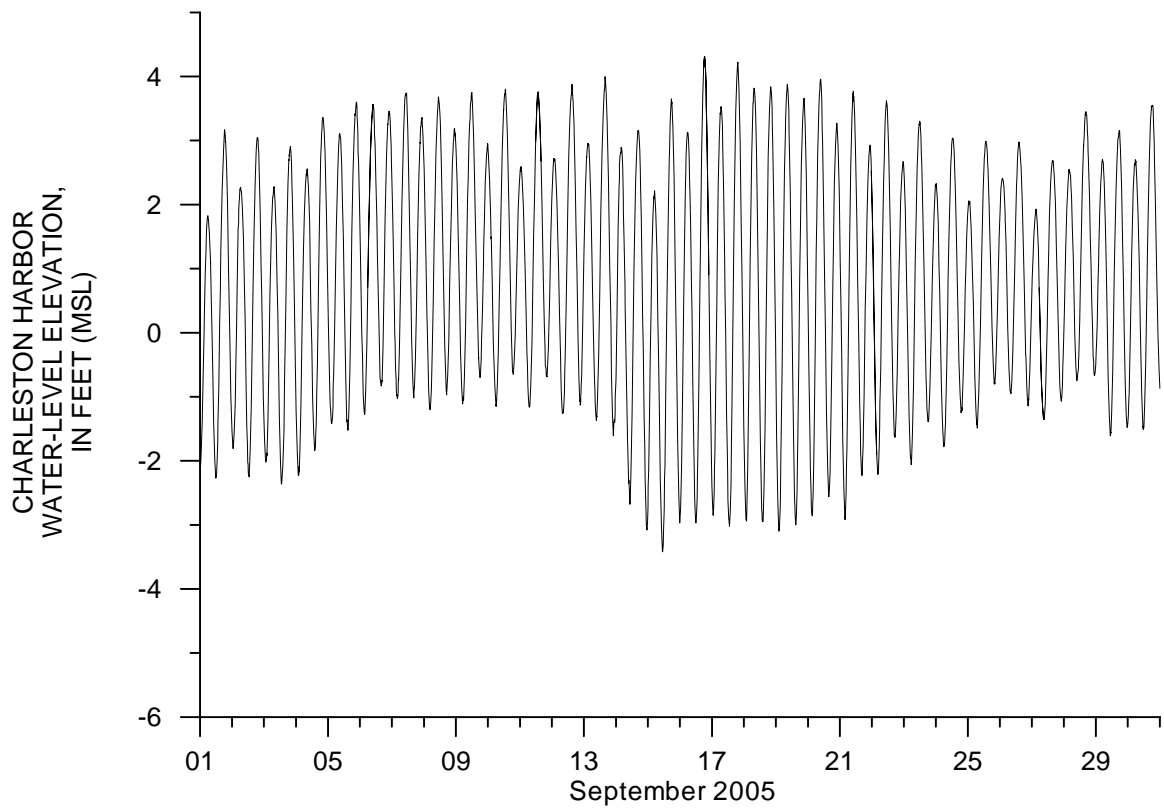
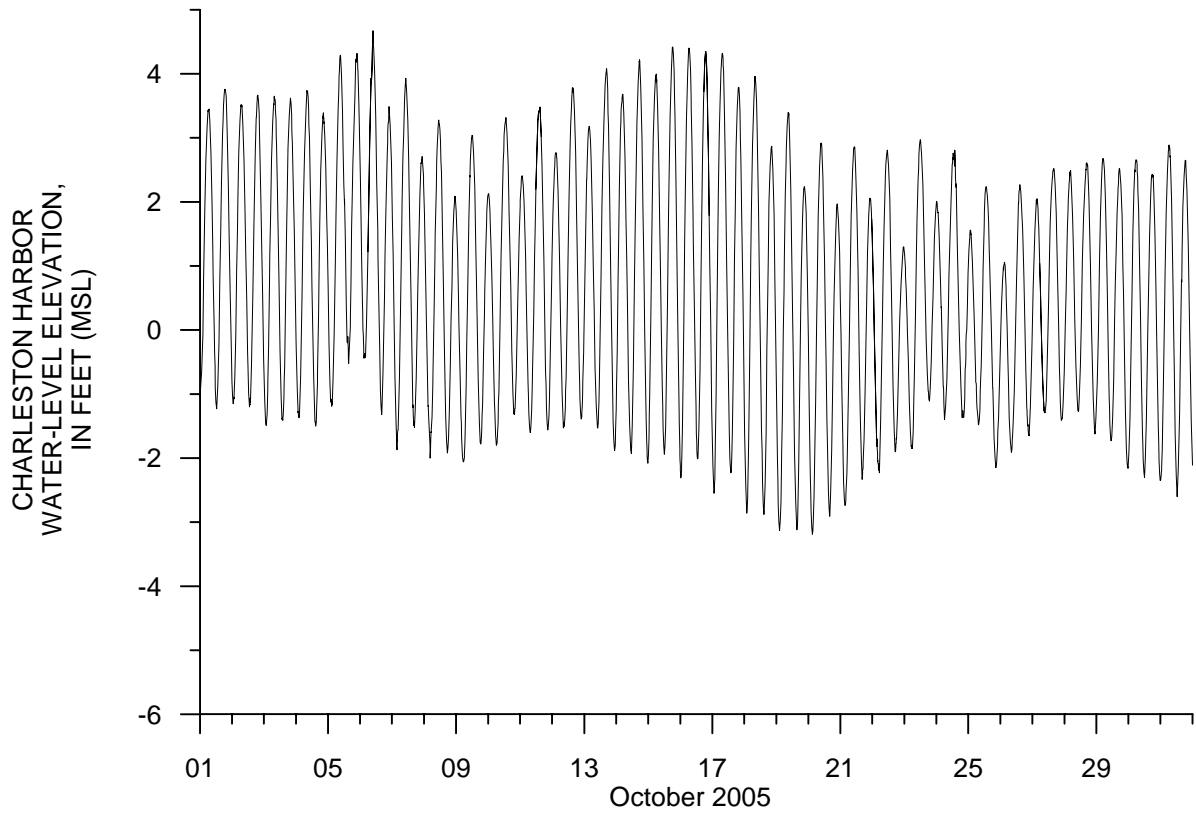


Figure 22. Stage-data plots for Charleston Harbor.

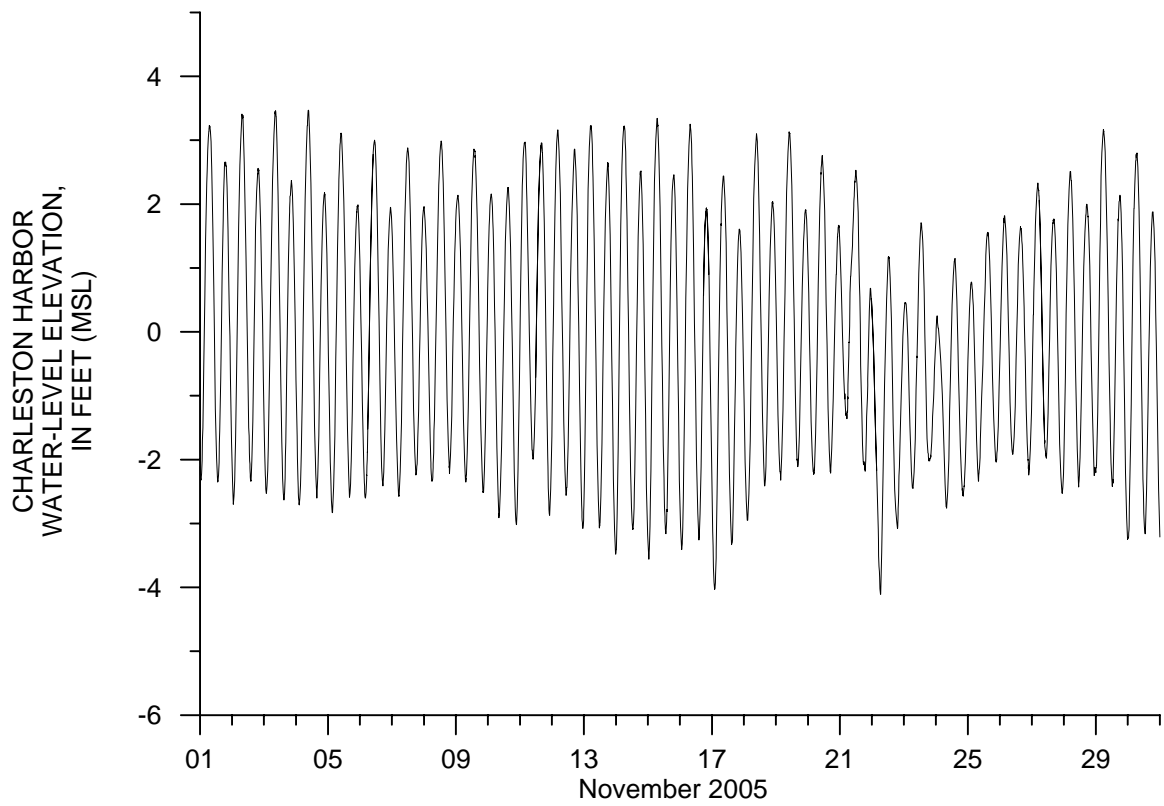
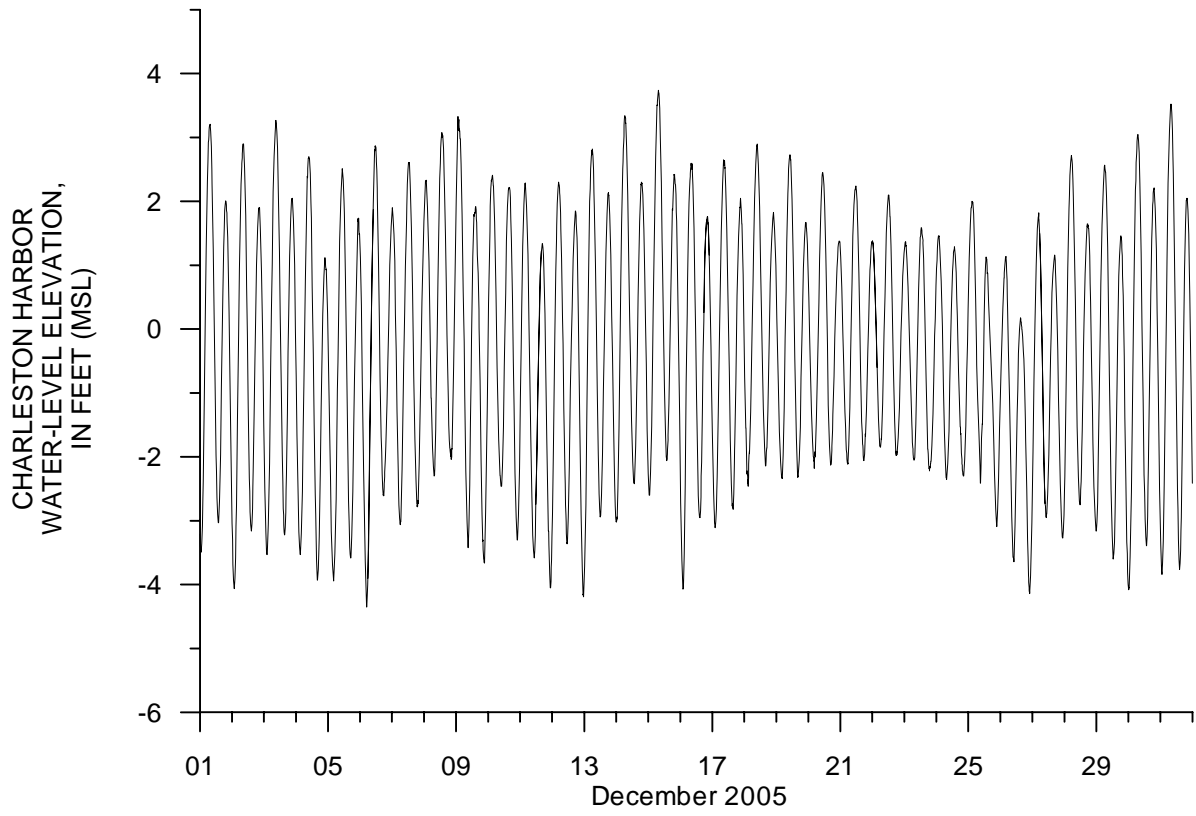


Figure 22. Stage-data plots for Charleston Harbor.

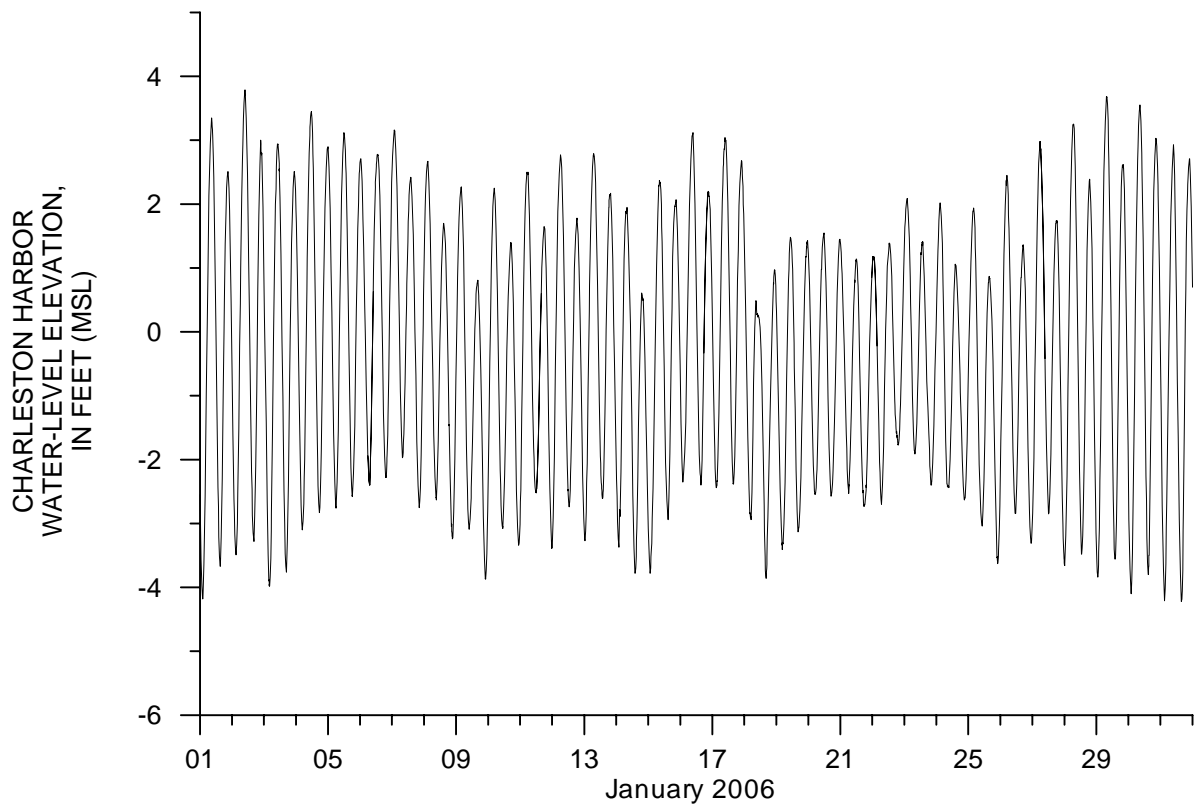
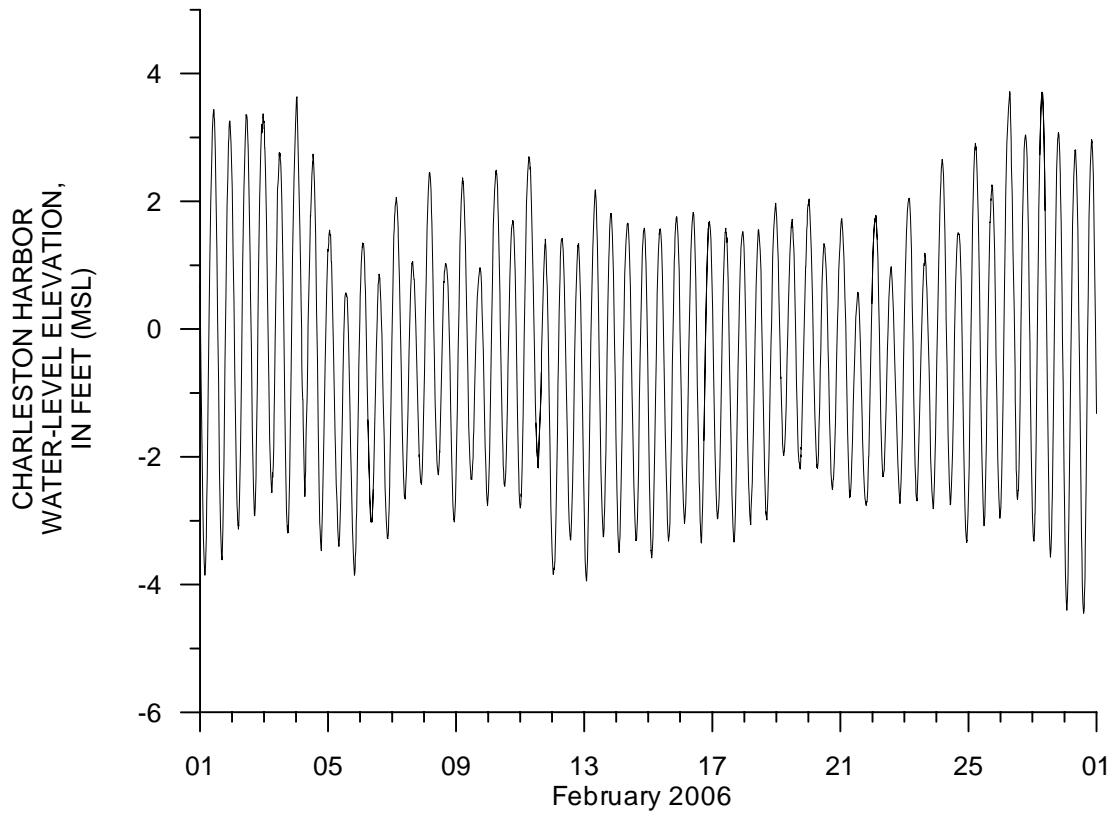


Figure 22. Stage-data plots for Charleston Harbor.



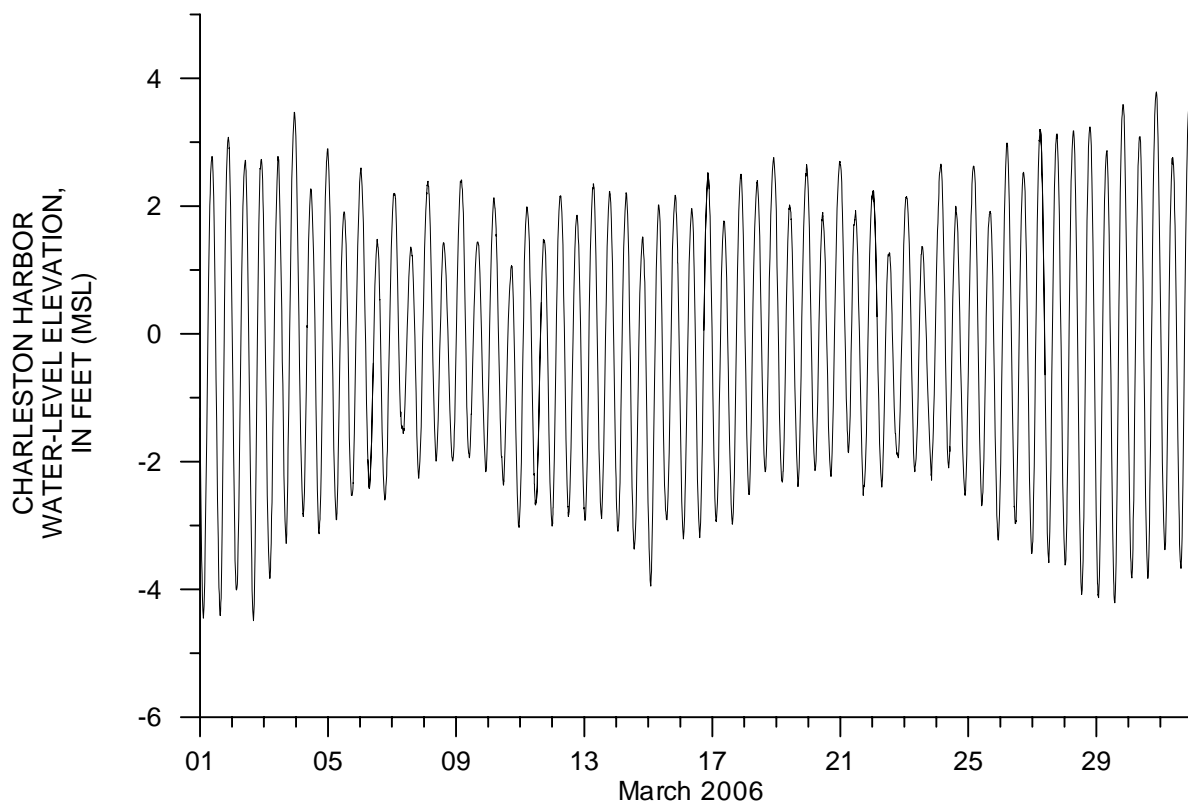
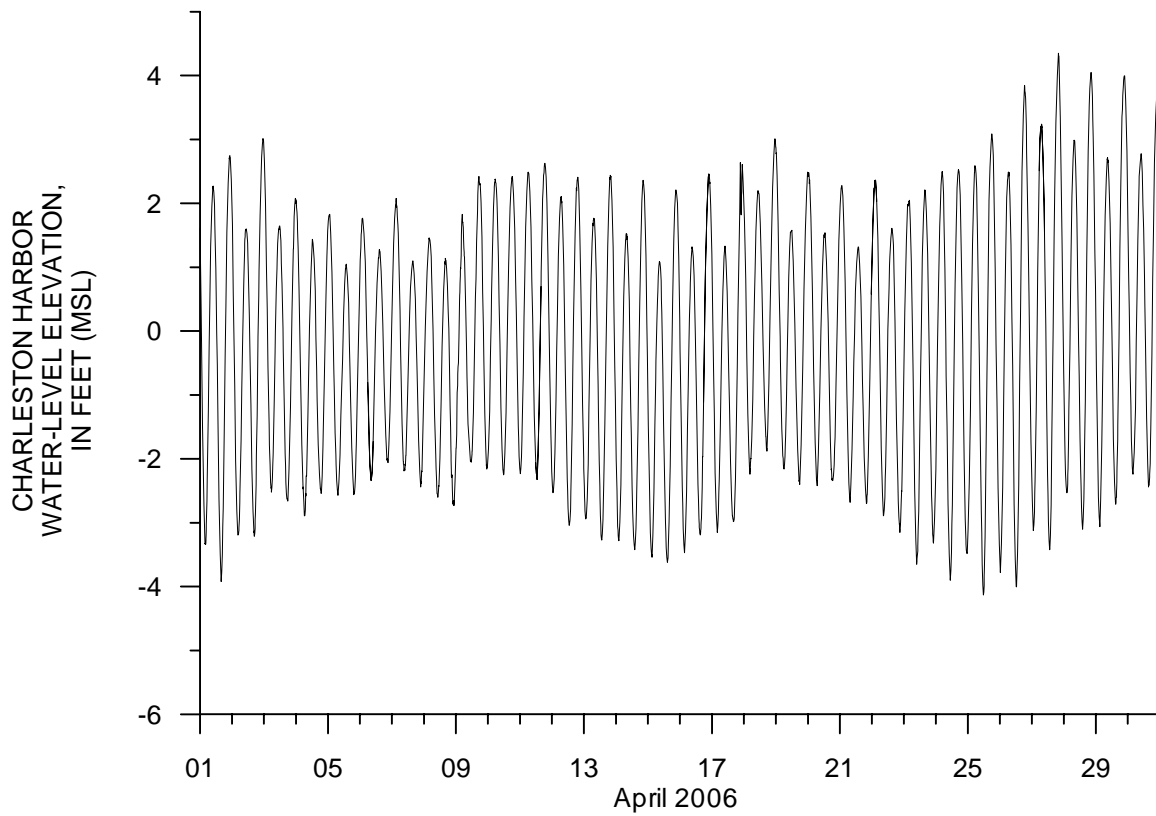


Figure 22. Stage-data plots for Charleston Harbor.

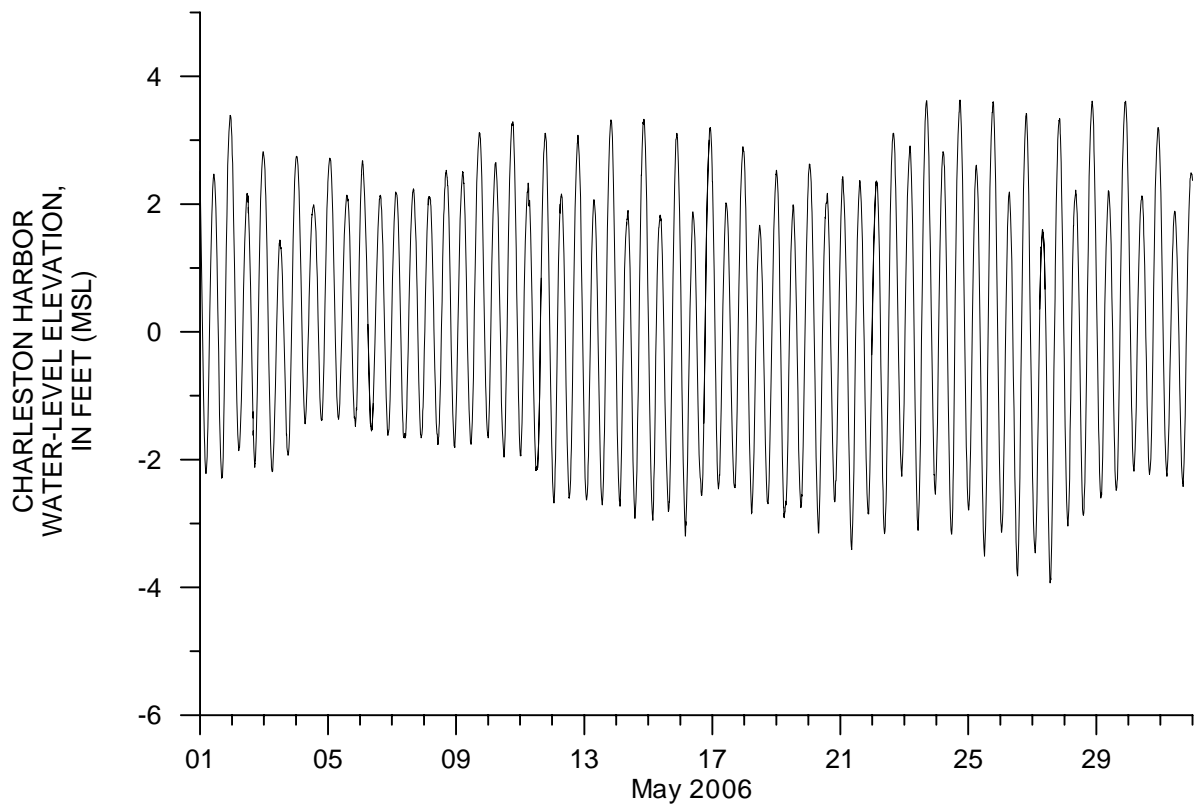
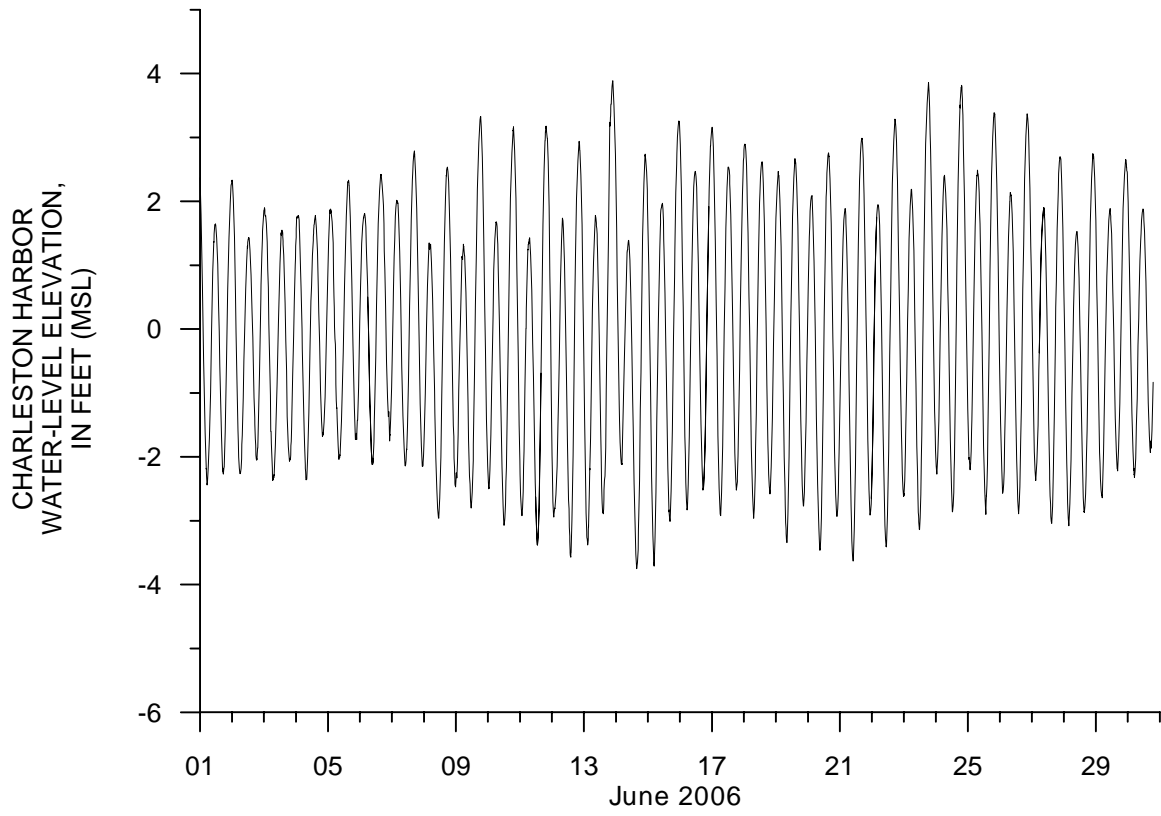


Figure 22. Stage-data plots for Charleston Harbor.

## **APPENDIX**

### **NATIONAL GEODETIC SURVEY DATA SHEETS**

**DATABASE = SYBASE, PROGRAM = DATASHEET, VERSION = 7.37**

DH6972 \*\*\*\*\*

DH6972 DESIGNATION - B HOCKENSMITH

DH6972 PID - DH6972

DH6972 STATE/COUNTY- SC/CHARLESTON

DH6972 USGS QUAD - EDISTO ISLAND (1972)

DH6972

DH6972 \*CURRENT SURVEY CONTROL

DH6972

DH6972\* NAD 83(1986)- 32 30 44. (N) 080 18 00. (W) SCALED

DH6972\* NAVD 88 - 2.282 (meters) 7.49 (feet) ADJUSTED

DH6972

DH6972 GEOID HEIGHT- -32.28 (meters) GEOID03

DH6972 DYNAMIC HT - 2.280 (meters) 7.48 (feet) COMP

DH6972 MODELED GRAV- 979,533.5 (mgal) NAVD 88

DH6972

DH6972 VERT ORDER - FIRST CLASS II

DH6972

DH6972.The horizontal coordinates were scaled from a topographic map and have

DH6972.an estimated accuracy of +/- 6 seconds.

DH6972

DH6972.The orthometric height was determined by differential leveling

DH6972.and adjusted by the National Geodetic Survey in January 2006..

DH6972

DH6972.The geoid height was determined by GEOID03.

DH6972

DH6972.The dynamic height is computed by dividing the NAVD 88

DH6972.geopotential number by the normal gravity value computed on the

DH6972.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6972.degrees latitude (g = 980.6199 gals.).

DH6972

DH6972.The modeled gravity was interpolated from observed gravity values.

DH6972

DH6972; North East Units Estimated Accuracy

DH6972;SPC SC - 75,520. 675,370. MT (+/- 180 meters Scaled)

DH6972

DH6972 SUPERSEDED SURVEY CONTROL

DH6972

DH6972.No superseded survey control is available for this station.

DH6972

DH6972\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR657974(NAD 83)

DH6972\_MARKER: DD = SURVEY DISK

DH6972\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6972\_STAMPING: B HOCKENSMITH 2004

DH6972\_MARK LOGO: SCGS

DH6972\_PROJECTION: FLUSH

DH6972\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6972\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6972+STABILITY: SURFACE MOTION  
DH6972\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6972+SATELLITE: SATELLITE OBSERVATIONS - October 18, 2004

DH6972

DH6972 HISTORY - Date Condition Report By  
DH6972 HISTORY - 20041018 MONUMENTED SCGS

DH6972

DH6972 STATION DESCRIPTION

DH6972

DH6972'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6972'STATION IS LOCATED 3.1 MILES NORTHEAST OF EDISTO BEACH, 28.1 MILES  
DH6972'SOUTHWEST OF CHARLESTON. OWNERSHIP--EDISTO BEACH STATE PARK, JEFF  
DH6972'ATKINS PARK MANAGER, 8377 STATE CABIN ROAD, EDISTO ISLAND, SC 29438,  
DH6972'PHONE 843-869-4430. TO REACH THE STATION FROM THE JUNCTION OF STATE  
DH6972'HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH  
DH6972'OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE  
DH6972'JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE  
DH6972'ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 2.1 MILES TO THE STATION ON  
DH6972'THE RIGHT IN A WOODS LINE IN THE SOUTH YARD OF AN EDISTO BEACH STATE  
DH6972'PARK MASONITE-SIDED HOUSE. STATION IS A CONCRETE POST FLUSH WITH THE  
DH6972'GROUND AND LEVEL WITH THE HIGHWAY, 118.7 FEET WEST OF THE CENTER OF  
DH6972'THE HIGHWAY, 94.0 FEET SOUTH SOUTHEAST OF THE SOUTHEAST CORNER OF THE  
DH6972'HOUSE, 41.1 FEET SOUTH OF A POWER POLE NUMBER 73100. DESCRIBED BY J.B.  
DH6972'SMOAK.

**DH6978 \*\*\*\*\***

DH6978 DESIGNATION - SCW1

DH6978 PID - DH6978

DH6978 STATE/COUNTY- SC/CHARLESTON

DH6978 USGS QUAD - EDISTO ISLAND (1972)

DH6978

DH6978 \*CURRENT SURVEY CONTROL

DH6978

DH6978\* NAD 83(2001)- 32 30 20.41306(N) 080 17 52.44720(W) ADJUSTED

DH6978\* NAVD 88 - 1.379 (meters) 4.52 (feet) ADJUSTED

DH6978

DH6978 X - 907,359.307 (meters) COMP

DH6978 Y - -5,307,100.480 (meters) COMP

DH6978 Z - 3,407,836.865 (meters) COMP

DH6978 LAPLACE CORR- -3.73 (seconds) DEFLEC99

DH6978 ELLIP HEIGHT- -30.93 (meters) (05/04/06) GPS OBS

DH6978 GEOID HEIGHT- -32.28 (meters) GEOID03

DH6978 DYNAMIC HT - 1.377 (meters) 4.52 (feet) COMP

DH6978 MODELED GRAV- 979,533.3 (mgal) NAVD 88

DH6978

DH6978 HORZ ORDER - FIRST

DH6978 VERT ORDER - FIRST CLASS II

DH6978 ELLP ORDER - FOURTH CLASS II

DH6978

DH6978.The horizontal coordinates were established by GPS observations

DH6978.and adjusted by the SOUTH CAROLINA GEODETIC SURVEY in May 2006..

DH6978

DH6978.The orthometric height was determined by differential leveling

DH6978.and adjusted by the National Geodetic Survey in January 2006..

DH6978

DH6978.The X, Y, and Z were computed from the position and the ellipsoidal ht.

DH6978

DH6978.The Laplace correction was computed from DEFLEC99 derived deflections.

DH6978

DH6978.The ellipsoidal height was determined by GPS observations

DH6978.and is referenced to NAD 83.

DH6978

DH6978.The geoid height was determined by GEOID03.

DH6978

DH6978.The dynamic height is computed by dividing the NAVD 88

DH6978.geopotential number by the normal gravity value computed on the

DH6978.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6978.degrees latitude (g = 980.6199 gals.).

DH6978

DH6978.The modeled gravity was interpolated from observed gravity values.

DH6978

DH6978;            North    East    Units Scale Factor Converg.  
DH6978;SPC SC   - 74,789.723 675,576.116 MT 0.99999801 +0 23 21.3  
DH6978;SPC SC   - 245,373.11 2,216,457.07 iFT 0.99999801 +0 23 21.3  
DH6978;UTM 17   - 3,596,704.825 565,951.067 MT 0.99965363 +0 22 38.3  
DH6978

DH6978!           - Elev Factor x Scale Factor = Combined Factor  
DH6978!SPC SC   - 1.00000486 x 0.99999801 = 1.00000287  
DH6978!UTM 17   - 1.00000486 x 0.99965363 = 0.99965848

DH6978

DH6978                            SUPERSEDED SURVEY CONTROL

DH6978

DH6978 NAVD 88 (05/04/06) 1.38 (m)            4.5 (f) LEVELING 3

DH6978

DH6978.Superseded values are not recommended for survey control.

DH6978.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

DH6978.[See file dsdata.txt](#) to determine how the superseded data were derived.

DH6978

DH6978\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR6595196705(NAD 83)

DH6978\_MARKER: DD = SURVEY DISK

DH6978\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6978\_STAMPING: SCW1 2004

DH6978\_MARK LOGO: SCGS

DH6978\_PROJECTION: FLUSH

DH6978\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

DH6978\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

DH6978+STABILITY: SURFACE MOTION

DH6978\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DH6978+SATELLITE: SATELLITE OBSERVATIONS - August 29, 2005

DH6978

DH6978 HISTORY   - Date    Condition    Report By

DH6978 HISTORY   - 20041018 MONUMENTED    SCGS

DH6978 HISTORY   - 20050829 GOOD            SCGS

DH6978

DH6978                            STATION DESCRIPTION

DH6978

DH6978'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)

DH6978'STATION IS LOCATED 2.9 MILES NORTHEAST OF EDISTO BEACH, 28.3 MILES

DH6978'SOUTHWEST OF CHARLESTON. OWNERSHIP--SCDOT, DIRECTOR OF

DH6978'PRECONSTRUCTION, P.O. BOX 191, COLUMBIA, SC 29202, PHONE

DH6978'803-737-1350. TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAYS

DH6978'164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH OF ADAMS

DH6978'RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE JUNCTION

DH6978'OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE ROAD)

DH6978'LEFT, CONTINUE ON HIGHWAY 174 FOR 2.6 MILES TO THE STATION ON THE

DH6978'RIGHT NEAR A POWER POLE ON THE CAUSEWAY TO EDISTO BEACH. STATION IS A

DH6978'CONCRETE POST FLUSH WITH THE GROUND AND 2.5 FEET BELOW THE HIGHWAY,

DH6978'23.0 FEET WEST OF THE CENTER OF THE HIGHWAY, 10.0 FEET EAST OF POWER  
DH6978'LINE STUB POLE NUMBER 26982 WITH GUY WIRE, 9.4 FEET EAST OF A WITNESS  
DH6978'POST. DESCRIBED BY J.B. SMOAK.

DH6978

DH6978                   STATION RECOVERY (2005)

DH6978

DH6978'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 2005 (DDW)

DH6978'RECOVERED AS DESCRIBED.



**DH6973 \*\*\*\*\***

DH6973 DESIGNATION - SCW2

DH6973 PID - DH6973

DH6973 STATE/COUNTY- SC/CHARLESTON

DH6973 USGS QUAD - EDISTO ISLAND (1972)

DH6973

DH6973 \*CURRENT SURVEY CONTROL

DH6973

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DH6973\* NAD 83(1986)- 32 30 26. (N) 080 18 17. (W) SCALED

DH6973\* NAVD 88 - 2.446 (meters) 8.02 (feet) ADJUSTED

DH6973

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DH6973 GEOID HEIGHT- -32.27 (meters) GEOID03

DH6973 DYNAMIC HT - 2.444 (meters) 8.02 (feet) COMP

DH6973 MODELED GRAV- 979,534.0 (mgal) NAVD 88

DH6973

DH6973 VERT ORDER - FIRST CLASS II

DH6973

DH6973.The horizontal coordinates were scaled from a topographic map and have

DH6973.an estimated accuracy of +/- 6 seconds.

DH6973

DH6973.The orthometric height was determined by differential leveling

DH6973.and adjusted by the National Geodetic Survey in January 2006..

DH6973.No vertical observational check was made to the station.

DH6973

DH6973.The geoid height was determined by GEOID03.

DH6973

DH6973.The dynamic height is computed by dividing the NAVD 88

DH6973.geopotential number by the normal gravity value computed on the

DH6973.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6973.degrees latitude (g = 980.6199 gals.).

DH6973

DH6973.The modeled gravity was interpolated from observed gravity values.

DH6973

DH6973; North East Units Estimated Accuracy

DH6973;SPC SC - 74,960. 674,930. MT (+/- 180 meters Scaled)

DH6973

DH6973 SUPERSEDED SURVEY CONTROL

DH6973

DH6973.No superseded survey control is available for this station.

DH6973

DH6973\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR653968(NAD 83)

DH6973\_MARKER: DD = SURVEY DISK

DH6973\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6973\_STAMPING: SCW2 2004

DH6973\_MARK LOGO: SCGS

DH6973\_PROJECTION: PROJECTING 3 CENTIMETERS

DH6973\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6973\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6973+STABILITY: SURFACE MOTION  
DH6973\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6973+SATELLITE: SATELLITE OBSERVATIONS - October 18, 2004

DH6973

DH6973 HISTORY - Date Condition Report By  
DH6973 HISTORY - 20041018 MONUMENTED SCGS

DH6973

DH6973 STATION DESCRIPTION

DH6973

DH6973'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6973'STATION IS LOCATED 2.65 MILES NORTHEAST OF EDISTO BEACH, 28.5 MILES  
DH6973'SOUTHWEST OF CHARLESTON. OWNERSHIP--EDISTO BEACH STATE PARK, JEFF  
DH6973'ATKINS PARK MANAGER, 8377 STATE CABIN ROAD, EDISTO ISLAND, SC 29438,  
DH6973'PHONE 843-869-4430. TO REACH THE STATION FROM THE JUNCTION OF STATE  
DH6973'HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH  
DH6973'OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE  
DH6973'JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE  
DH6973'ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 2.1 MILES TO A SAND ROAD RIGHT  
DH6973'LEADING TO THE EDISTO BEACH STATE PARK CABINS, TURN RIGHT ON THE SAND  
DH6973'ROAD FOR 0.5 MILE TO A GATED SAND ROAD LEFT, TURN LEFT ON THE SAND  
DH6973'ROAD FOR 0.1 MILE TO THE STATION ON THE RIGHT ON THE WEST SIDE OF A  
DH6973'HIKING TRAIL LEADING TO A BOARDWALK. STATION IS A CONCRETE POST  
DH6973'PROJECTING 0.1 FOOT AND LEVEL WITH THE HIKING TRAIL, 9.8 FEET WEST OF  
DH6973'THE CENTER OF THE HIKING TRAIL, 14.7 FEET EAST SOUTHEAST OF A 1.2-FOOT  
DH6973'OAK TREE WITH A SCGS REFERENCE WASHER ATTACHED, 14.6 FEET NORTH  
DH6973'NORTHEAST OF A 1.7-FOOT OAK TREE WITH A SCGS REFERENCE WASHER  
DH6973'ATTACHED, 85.0 FEET NORTHWEST OF THE NORTH CORNER OF A WOODEN  
DH6973'BOARDWALK OVER THE MARSH. DESCRIBED BY J.B. SMOAK.

**DH6974 \*\*\*\*\***

DH6974 DESIGNATION - SCW3

DH6974 PID - DH6974

DH6974 STATE/COUNTY- SC/CHARLESTON

DH6974 USGS QUAD - EDISTO ISLAND (1972)

DH6974

DH6974 \*CURRENT SURVEY CONTROL

DH6974

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DH6974\* NAD 83(1986)- 32 30 17. (N) 080 18 37. (W) SCALED

DH6974\* NAVD 88 - 3.243 (meters) 10.64 (feet) ADJUSTED

DH6974

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DH6974 GEOID HEIGHT- -32.25 (meters) GEOID03

DH6974 DYNAMIC HT - 3.240 (meters) 10.63 (feet) COMP

DH6974 MODELED GRAV- 979,534.7 (mgal) NAVD 88

DH6974

DH6974 VERT ORDER - FIRST CLASS II

DH6974

DH6974.The horizontal coordinates were scaled from a topographic map and have

DH6974.an estimated accuracy of +/- 6 seconds.

DH6974

DH6974.The orthometric height was determined by differential leveling

DH6974.and adjusted by the National Geodetic Survey in January 2006..

DH6974.No vertical observational check was made to the station.

DH6974

DH6974.The geoid height was determined by GEOID03.

DH6974

DH6974.The dynamic height is computed by dividing the NAVD 88

DH6974.geopotential number by the normal gravity value computed on the

DH6974.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6974.degrees latitude (g = 980.6199 gals.).

DH6974

DH6974.The modeled gravity was interpolated from observed gravity values.

DH6974

DH6974; North East Units Estimated Accuracy

DH6974;SPC SC - 74,680. 674,410. MT (+/- 180 meters Scaled)

DH6974

DH6974 SUPERSEDED SURVEY CONTROL

DH6974

DH6974.No superseded survey control is available for this station.

DH6974

DH6974\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR647965(NAD 83)

DH6974\_MARKER: DD = SURVEY DISK

DH6974\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6974\_STAMPING: SCW3 2004

DH6974\_MARK LOGO: SCGS

DH6974\_PROJECTION: FLUSH

DH6974\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6974\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6974+STABILITY: SURFACE MOTION  
DH6974\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6974+SATELLITE: SATELLITE OBSERVATIONS - October 18, 2004

DH6974

DH6974 HISTORY - Date Condition Report By  
DH6974 HISTORY - 20041018 MONUMENTED SCGS

DH6974

DH6974 STATION DESCRIPTION

DH6974

DH6974'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6974'STATION IS LOCATED 2.3 MILES NORTHEAST OF EDISTO BEACH, 28.9 MILES  
DH6974'SOUTHWEST OF CHARLESTON. OWNERSHIP--EDISTO BEACH STATE PARK, JEFF  
DH6974'ATKINS PARK MANAGER, 8377 STATE CABIN ROAD, EDISTO ISLAND, SC 29438,  
DH6974'PHONE 843-869-4430. TO REACH THE STATION FROM THE JUNCTION OF STATE  
DH6974'HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH  
DH6974'OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE  
DH6974'JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE  
DH6974'ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 2.1 MILES TO A SAND ROAD RIGHT  
DH6974'LEADING TO THE EDISTO BEACH STATE PARK CABINS, TURN RIGHT ON THE SAND  
DH6974'ROAD FOR 0.85 MILE TO A SAND ROAD LEFT BETWEEN CABIN 2 AND CABIN 3,  
DH6974'BEAR LEFT ON THE SAND ROAD FOR 0.05 MILE TO THE STATION AHEAD ON THE  
DH6974'EAST SOUTHEAST SIDE OF A FOOTPATH LEADING TO A FISHING DOCK. STATION  
DH6974'IS A CONCRETE POST FLUSH WITH THE GROUND AND LEVEL WITH THE DOCK  
DH6974'ACCESS ROAD, 120.6 FEET SOUTHEAST OF THE SOUTH CORNER OF CABIN NUMBER  
DH6974'3, 143.7 FEET SOUTHWEST OF THE WEST CORNER OF CABIN NUMBER 2, 25.4  
DH6974'FEET EAST SOUTHEAST OF THE CENTER OF A PATH LEADING TO THE FISHING  
DH6974'DOCK, 97.7 FEET SOUTH OF THE SOUTHEAST CORNER OF A METAL ELECTRIC  
DH6974'CONTROL BOX. DESCRIBED BY J.B. SMOAK.

**DH6975 \*\*\*\*\***

DH6975 DESIGNATION - SCE2

DH6975 PID - DH6975

DH6975 STATE/COUNTY- SC/CHARLESTON

DH6975 USGS QUAD - EDISTO ISLAND (1972)

DH6975

DH6975 \*CURRENT SURVEY CONTROL

DH6975

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DH6975\* NAD 83(2001)- 32 30 41.94223(N) 080 17 43.16591(W) ADJUSTED

DH6975\* NAVD 88 - 1.634 (meters) 5.36 (feet) ADJUSTED

DH6975

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DH6975 X - 907,538.063 (meters) COMP

DH6975 Y - -5,306,708.530 (meters) COMP

DH6975 Z - 3,408,396.268 (meters) COMP

DH6975 LAPLACE CORR- -3.70 (seconds) DEFLEC99

DH6975 ELLIP HEIGHT- -30.69 (meters) (05/04/06) GPS OBS

DH6975 GEOID HEIGHT- -32.29 (meters) GEOID03

DH6975 DYNAMIC HT - 1.632 (meters) 5.35 (feet) COMP

DH6975 MODELED GRAV- 979,533.0 (mgal) NAVD 88

DH6975

DH6975 HORZ ORDER - FIRST

DH6975 VERT ORDER - FIRST CLASS II

DH6975 ELLP ORDER - FOURTH CLASS II

DH6975

DH6975.The horizontal coordinates were established by GPS observations

DH6975.and adjusted by the SOUTH CAROLINA GEODETIC SURVEY in May 2006..

DH6975

DH6975.The orthometric height was determined by differential leveling

DH6975.and adjusted by the National Geodetic Survey in January 2006..

DH6975.No vertical observational check was made to the station.

DH6975

DH6975.The X, Y, and Z were computed from the position and the ellipsoidal ht.

DH6975

DH6975.The Laplace correction was computed from DEFLEC99 derived deflections.

DH6975

DH6975.The ellipsoidal height was determined by GPS observations

DH6975.and is referenced to NAD 83.

DH6975

DH6975.The geoid height was determined by GEOID03.

DH6975

DH6975.The dynamic height is computed by dividing the NAVD 88

DH6975.geopotential number by the normal gravity value computed on the

DH6975.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6975.degrees latitude (g = 980.6199 gals.).

DH6975

DH6975.The modeled gravity was interpolated from observed gravity values.

DH6975

DH6975; North East Units Scale Factor Converg.

DH6975;SPC SC - 75,454.547 675,813.858 MT 0.99999592 +0 23 26.4

DH6975;SPC SC - 247,554.29 2,217,237.07 iFT 0.99999592 +0 23 26.4

DH6975;UTM 17 - 3,597,369.372 566,188.866 MT 0.99965402 +0 22 43.5

DH6975

DH6975! - Elev Factor x Scale Factor = Combined Factor

DH6975!SPC SC - 1.00000482 x 0.99999592 = 1.00000074

DH6975!UTM 17 - 1.00000482 x 0.99965402 = 0.99965884

DH6975

DH6975 SUPERSEDED SURVEY CONTROL

DH6975

DH6975 NAVD 88 (05/04/06) 1.63 (m) 5.3 (f) LEVELING 3

DH6975

DH6975.Superseded values are not recommended for survey control.

DH6975.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.

DH6975.[See file dsdata.txt](#) to determine how the superseded data were derived.

DH6975

DH6975\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR6618997369(NAD 83)

DH6975\_MARKER: DD = SURVEY DISK

DH6975\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6975\_STAMPING: SCE2 2004

DH6975\_MARK LOGO: SCGS

DH6975\_PROJECTION: FLUSH

DH6975\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET

DH6975\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO

DH6975+STABILITY: SURFACE MOTION

DH6975\_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR

DH6975+SATELLITE: SATELLITE OBSERVATIONS - August 29, 2005

DH6975

DH6975 HISTORY - Date Condition Report By

DH6975 HISTORY - 20041018 MONUMENTED SCGS

DH6975 HISTORY - 20050829 GOOD SCGS

DH6975

DH6975 STATION DESCRIPTION

DH6975

DH6975'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)

DH6975'STATION IS LOCATED 3.3 MILES NORTHEAST OF EDISTO BEACH, 27.9 MILES

DH6975'SOUTHWEST OF CHARLESTON. OWNERSHIP--TRIP WHITMIRE, 207 MONTAGUE

DH6975'AVENUE, GREENWOOD, SC 29649. TO REACH THE STATION FROM THE JUNCTION OF

DH6975'STATE HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE

DH6975'SOUTH OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES

DH6975'TO THE JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063

DH6975'(LEGARE ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 1.9 MILES TO A SAND

DH6975'ROAD LEFT LEADING TO A GOLF DRIVING RANGE, TURN LEFT ON THE SAND ROAD

DH6975'FOR 0.35 MILE TO THE STATION ON THE RIGHT IN THE SOUTHWEST ANGLE OF A

DH6975'SAND DRIVEWAY LEADING TO A THREE STORY VINYL-SIDED HOUSE ON WOODEN  
DH6975'STILTS. STATION IS A CONCRETE POST FLUSH WITH THE GROUND AND LEVEL  
DH6975'WITH THE ROAD, 42.7 FEET SOUTH SOUTHEAST OF THE CENTER OF THE ROAD,  
DH6975'20.2 FEET SOUTHWEST OF THE CENTER OF THE DRIVEWAY, 19.0 FEET SOUTH  
DH6975'SOUTHEAST OF THE SOUTHWEST END OF A 1.2-FOOT CONCRETE PIPE CULVERT  
DH6975'BENEATH THE DRIVEWAY, 35.4 FEET EAST NORTHEAST OF THE EAST CORNER OF  
DH6975'A METAL ELECTRIC CONTROL BOX. DESCRIBED BY J.B. SMOAK.

DH6975

DH6975 STATION RECOVERY (2005)

DH6975

DH6975'RECOVERY NOTE BY SOUTH CAROLINA GEODETIC SURVEY 2005 (DDW)

DH6975'RECOVERED AS DESCRIBED.

**DH6976 \*\*\*\*\***

DH6976 DESIGNATION - SCE3

DH6976 PID - DH6976

DH6976 STATE/COUNTY- SC/CHARLESTON

DH6976 USGS QUAD - EDISTO ISLAND (1972)

DH6976

DH6976 \*CURRENT SURVEY CONTROL

DH6976

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DH6976\* NAD 83(1986)- 32 30 51. (N) 080 17 27. (W) SCALED

DH6976\* NAVD 88 - 1.607 (meters) 5.27 (feet) ADJUSTED

DH6976

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DH6976 GEOID HEIGHT- -32.31 (meters) GEOID03

DH6976 DYNAMIC HT - 1.605 (meters) 5.27 (feet) COMP

DH6976 MODELED GRAV- 979,532.5 (mgal) NAVD 88

DH6976

DH6976 VERT ORDER - FIRST CLASS II

DH6976

DH6976.The horizontal coordinates were scaled from a topographic map and have

DH6976.an estimated accuracy of +/- 6 seconds.

DH6976

DH6976.The orthometric height was determined by differential leveling

DH6976.and adjusted by the National Geodetic Survey in January 2006..

DH6976.No vertical observational check was made to the station.

DH6976

DH6976.The geoid height was determined by GEOID03.

DH6976

DH6976.The dynamic height is computed by dividing the NAVD 88

DH6976.geopotential number by the normal gravity value computed on the

DH6976.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6976.degrees latitude (g = 980.6199 gals.).

DH6976

DH6976.The modeled gravity was interpolated from observed gravity values.

DH6976

DH6976; North East Units Estimated Accuracy

DH6976;SPC SC - 75,740. 676,230. MT (+/- 180 meters Scaled)

DH6976

DH6976 SUPERSEDED SURVEY CONTROL

DH6976

DH6976.No superseded survey control is available for this station.

DH6976

DH6976\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR666976(NAD 83)

DH6976\_MARKER: DD = SURVEY DISK

DH6976\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6976\_STAMPING: SCE3 2004

DH6976\_MARK LOGO: SCGS

DH6976\_PROJECTION: FLUSH



DH6976\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6976\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6976+STABILITY: SURFACE MOTION  
DH6976\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6976+SATELLITE: SATELLITE OBSERVATIONS - October 18, 2004

DH6976

DH6976 HISTORY - Date Condition Report By  
DH6976 HISTORY - 20041018 MONUMENTED SCGS

DH6976

DH6976 STATION DESCRIPTION

DH6976

DH6976'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6976'STATION IS LOCATED 3.6 MILES NORTHEAST OF EDISTO BEACH, 27.6 MILES  
DH6976'SOUTHWEST OF CHARLESTON. OWNERSHIP--BUTCH AND BETTY HEATON, P.O. BOX  
DH6976'506, EDISTO, SC 29438. TO REACH THE STATION FROM THE JUNCTION OF STATE  
DH6976'HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH  
DH6976'OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE  
DH6976'JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE  
DH6976'ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 1.5 MILES TO THE JUNCTION OF  
DH6976'STATE ROAD 2352 (PALMETTO DRIVE ) RIGHT AND A SAND ROAD LEFT (JAN  
DH6976'SAVAGE ROAD), TURN LEFT ON JAN SAVAGE ROAD FOR 0.1 MILE TO A SAND  
DH6976'FORK, BEAR RIGHT ON JAN SAVAGE ROAD FOR 0.65 MILE TO A GATE  
DH6976'(PERMISSION REQUIRED BEFORE ENTRY), CONTINUE THROUGH GATE ON HAMMOCK  
DH6976'WAY FOR 0.1 MILE TO A SAND FORK RIGHT (TRANQUILITY LANE), TURN RIGHT  
DH6976'ON TRANQUILITY LANE FOR 0.1 MILE TO THE STATION ON THE LEFT IN THE  
DH6976'SOUTHWEST ANGLE OF A DRIVEWAY LEADING TO LOT NUMBER 4. STATION IS A  
DH6976'CONCRETE POST FLUSH WITH THE GROUND AND LEVEL WITH THE ROAD, 14.5  
DH6976'FEET WEST OF THE CENTER OF THE DRIVEWAY, 21.0 FEET SOUTH SOUTHWEST OF  
DH6976'THE CENTER OF THE ROAD, 39.1 FEET WEST SOUTHWEST OF THE WEST CORNER  
DH6976'OF A 2.0-FOOT BY 3.0-FOOT ELECTRIC CONTROL BOX FLUSH WITH THE GROUND,  
DH6976'76.0 FEET WEST NORTHWEST OF THE NORTH END OF A 1.5-FOOT CONCRETE PIPE  
DH6976'CULVERT BENEATH THE ROAD. DESCRIBED BY J.B. SMOAK.

**DH6979 \*\*\*\*\***

DH6979 DESIGNATION - SCE4

DH6979 PID - DH6979

DH6979 STATE/COUNTY- SC/CHARLESTON

DH6979 USGS QUAD - EDISTO ISLAND (1972)

DH6979

DH6979 \*CURRENT SURVEY CONTROL

DH6979

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DH6979\* NAD 83(1986)- 32 31 02. (N) 080 17 03. (W) SCALED

DH6979\* NAVD 88 - 1.534 (meters) 5.03 (feet) ADJUSTED

DH6979

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DH6979 GEOID HEIGHT- -32.33 (meters) GEOID03

DH6979 DYNAMIC HT - 1.532 (meters) 5.03 (feet) COMP

DH6979 MODELED GRAV- 979,531.8 (mgal) NAVD 88

DH6979

DH6979 VERT ORDER - FIRST CLASS II

DH6979

DH6979.The horizontal coordinates were scaled from a topographic map and have

DH6979.an estimated accuracy of +/- 6 seconds.

DH6979

DH6979.The orthometric height was determined by differential leveling

DH6979.and adjusted by the National Geodetic Survey in January 2006..

DH6979.No vertical observational check was made to the station.

DH6979

DH6979.The geoid height was determined by GEOID03.

DH6979

DH6979.The dynamic height is computed by dividing the NAVD 88

DH6979.geopotential number by the normal gravity value computed on the

DH6979.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6979.degrees latitude (g = 980.6199 gals.).

DH6979

DH6979.The modeled gravity was interpolated from observed gravity values.

DH6979

DH6979; North East Units Estimated Accuracy

DH6979;SPC SC - 76,080. 676,860. MT (+/- 180 meters Scaled)

DH6979

DH6979 SUPERSEDED SURVEY CONTROL

DH6979

DH6979.No superseded survey control is available for this station.

DH6979

DH6979\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR672979(NAD 83)

DH6979\_MARKER: DD = SURVEY DISK

DH6979\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6979\_STAMPING: SCE4 2004

DH6979\_MARK LOGO: SCGS

DH6979\_PROJECTION: FLUSH

DH6979\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6979\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6979+STABILITY: SURFACE MOTION  
DH6979\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6979+SATELLITE: SATELLITE OBSERVATIONS - October 18, 2004

DH6979

DH6979 HISTORY - Date Condition Report By  
DH6979 HISTORY - 20041018 MONUMENTED SCGS

DH6979

DH6979 STATION DESCRIPTION

DH6979

DH6979'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6979'STATION IS LOCATED 4.0 MILES NORTHEAST OF EDISTO BEACH, 27.2 MILES  
DH6979'SOUTHWEST OF CHARLESTON. OWNERSHIP--WINTHROP AND NANCY FOSTER, P.O.  
DH6979'BOX 334, EDISTO ISLAND, SC 29438. TO REACH THE STATION FROM THE  
DH6979'JUNCTION OF STATE HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN  
DH6979'ROAD), 0.85 MILE SOUTH OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174  
DH6979'FOR 15.2 MILES TO THE JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD)  
DH6979'RIGHT AND 2063 (LEGARE ROAD) LEFT, CONTINUE ON HIGHWAY 174 FOR 1.5  
DH6979'MILES TO THE JUNCTION OF STATE ROAD 2352 (PALMETTO DRIVE ) RIGHT AND  
DH6979'A SAND ROAD LEFT (JAN SAVAGE ROAD), TURN LEFT ON JAN SAVAGE ROAD FOR  
DH6979'0.1 MILE TO A SAND FORK, BEAR RIGHT ON JAN SAVAGE ROAD FOR 0.65 MILE  
DH6979'TO A GATE (PERMISSION REQUIRED BEFORE ENTRY), CONTINUE THROUGH GATE  
DH6979'ON HAMMOCK WAY FOR 0.1 MILE TO A SAND FORK RIGHT (TRANQUILITY LANE),  
DH6979'BEAR LEFT ON HAMMOCK WAY FOR 0.3 MILE TO A SAND ROAD LEFT (MOON  
DH6979'FEVER), BEAR LEFT ON MOON FEVER FOR 0.1 MILE TO THE STATION ON THE  
DH6979'RIGHT IN A WOODED AREA BETWEEN TWO THREE STORY VINYL-SIDED HOUSES ON  
DH6979'STILTS NUMBERS 54 AND 80. STATION IS A CONCRETE POST FLUSH WITH THE  
DH6979'GROUND AND LEVEL WITH THE ROAD, 49.5 FEET SOUTH OF THE CENTER OF THE  
DH6979'ROAD, 74.1 FEET WEST OF THE WEST CORNER OF HOUSE NUMBER 80, 40.3 FEET  
DH6979'NORTHEAST OF THE EAST CORNER OF HOUSE NUMBER 54, 16.7 FEET SOUTH OF  
DH6979'THE SOUTH CORNER OF A PLASTIC ELECTRIC CONTROL BOX, 10.4 FEET  
DH6979'NORTHWEST OF A 1.5-FOOT CEDAR TREE. DESCRIBED BY J.B. SMOAK.

**DH6977 \*\*\*\*\***

DH6977 DESIGNATION - SCE5

DH6977 PID - DH6977

DH6977 STATE/COUNTY- SC/CHARLESTON

DH6977 USGS QUAD - EDISTO ISLAND (1972)

DH6977

DH6977 \*CURRENT SURVEY CONTROL

DH6977

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DH6977\* NAD 83(1986)- 32 31 08. (N) 080 16 46. (W) SCALED

DH6977\* NAVD 88 - 1.989 (meters) 6.53 (feet) ADJUSTED

DH6977

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DH6977 GEOID HEIGHT- -32.34 (meters) GEOID03

DH6977 DYNAMIC HT - 1.987 (meters) 6.52 (feet) COMP

DH6977 MODELED GRAV- 979,531.3 (mgal) NAVD 88

DH6977

DH6977 VERT ORDER - FIRST CLASS II

DH6977

DH6977.The horizontal coordinates were scaled from a topographic map and have

DH6977.an estimated accuracy of +/- 6 seconds.

DH6977

DH6977.The orthometric height was determined by differential leveling

DH6977.and adjusted by the National Geodetic Survey in January 2006..

DH6977.No vertical observational check was made to the station.

DH6977

DH6977.The geoid height was determined by GEOID03.

DH6977

DH6977.The dynamic height is computed by dividing the NAVD 88

DH6977.geopotential number by the normal gravity value computed on the

DH6977.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45

DH6977.degrees latitude (g = 980.6199 gals.).

DH6977

DH6977.The modeled gravity was interpolated from observed gravity values.

DH6977

DH6977; North East Units Estimated Accuracy

DH6977;SPC SC - 76,270. 677,300. MT (+/- 180 meters Scaled)

DH6977

DH6977 SUPERSEDED SURVEY CONTROL

DH6977

DH6977.No superseded survey control is available for this station.

DH6977

DH6977\_U.S. NATIONAL GRID SPATIAL ADDRESS: 17SNR676981(NAD 83)

DH6977\_MARKER: DD = SURVEY DISK

DH6977\_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT

DH6977\_STAMPING: SCE5 2004

DH6977\_MARK LOGO: SCGS

DH6977\_PROJECTION: FLUSH

DH6977\_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET  
DH6977\_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO  
DH6977+STABILITY: SURFACE MOTION  
DH6977\_SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR  
DH6977+SATELLITE: SATELLITE OBSERVATIONS - October 19, 2004

DH6977

DH6977 HISTORY - Date Condition Report By  
DH6977 HISTORY - 20041019 MONUMENTED SCGS

DH6977

DH6977 STATION DESCRIPTION

DH6977

DH6977'DESCRIBED BY SOUTH CAROLINA GEODETIC SURVEY 2004 (DDW)  
DH6977'STATION IS LOCATED 4.3 MILES NORTHEAST OF EDISTO BEACH, 26.9 MILES  
DH6977'SOUTHWEST OF CHARLESTON. OWNERSHIP--PROPERTY OWNERS ASSOCIATION,  
DH6977'PRESIDENT-RON FARREL. TO REACH THE STATION FROM THE JUNCTION OF STATE  
DH6977'HIGHWAYS 164, 174 AND STATE ROAD 55 (WILLTOWN ROAD), 0.85 MILE SOUTH  
DH6977'OF ADAMS RUN, GO SOUTH SOUTHEAST ON HIGHWAY 174 FOR 15.2 MILES TO THE  
DH6977'JUNCTION OF STATE ROADS 2247 (REDHOUSE ROAD) RIGHT AND 2063 (LEGARE  
DH6977'ROAD) LEFT, TURN LEFT ON ROAD 2063 FOR 1.2 MILES TO A SAND ROAD LEFT  
DH6977'(EDDINGSVILLE BEACH ROAD), CONTINUE AHEAD ON LEGARE ROAD (NOW SAND  
DH6977'ROAD) FOR 0.35 MILE TO A GATE (PRIOR PERMISSION REQUIRED FOR ACCESS)  
DH6977'FOR JEREMY CAY DEVELOPMENT, PROCEED THROUGH GATE FOR 0.2 MILE TO A  
DH6977'SAND ROAD RIGHT (LOST VILLAGE TRAIL), TURN RIGHT ON LOST VILLAGE TRAIL  
DH6977'TO A SAND FORK RIGHT (PLANTERS RETREAT), BEAR LEFT ON LOST VILLAGE  
DH6977'TRAIL FOR 0.35 MILE TO THE STATION ON THE LEFT NEAR A STOP SIGN AT  
DH6977'THE SOUTHWEST CORNER OF A WOOD BRIDGE AND IN THE SOUTHEAST ANGLE OF  
DH6977'INLET POINT AHEAD, THE DIKE RIGHT AND A GOLF CART ONLY CAUSEWAY  
DH6977'LEADING TO THE BEACH. STATION IS A CONCRETE POST FLUSH WITH THE GROUND  
DH6977'AND LEVEL WITH LOST VILLAGE TRAIL, 13.7 FEET SOUTH SOUTHEAST OF THE  
DH6977'SOUTHEAST EDGE OF THE WOOD BRIDGE, 8.2 FEET SOUTHEAST OF THE SOUTH  
DH6977'CORNER OF A METAL ELECTRIC CONTROL BOX NUMBER 403662/50/857/SS, 3.8  
DH6977'FEET SOUTHEAST OF A WOOD STOP SIGN POST, 51.9 FEET NORTH NORTHEAST OF  
DH6977'THE NORTH CORNER OF A THREE STORY VINYL-SIDED HOUSE ON STILTS  
DH6977'(SOUTHERN COMFORT), 10.0 FEET NORTHEAST OF THE CENTER OF THE GOLF CART  
DH6977'ONLY CAUSEWAY. DESCRIBED BY J.B. SMOAK.

\*\*\* retrieval complete.

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