Control for Beavertail



National Geodetic Survey Data Explorer

National Geodetic Survey

About NGS Data & Imagery Science & Education **NGS Home** Surveys Tools

View Map

View List

Help

Map Layers

Horizontal

✓ ★ CORS ☑ ▲ GPS Sites

☑ △ Classical Horizontal

Vertical

✓ ● Vertical Control

✓ ○ Approximate Heights

Find Marks | Clear Marks

Location radius 5 Miles

Mark Center Clear X

Go To Location

PID: LW2981

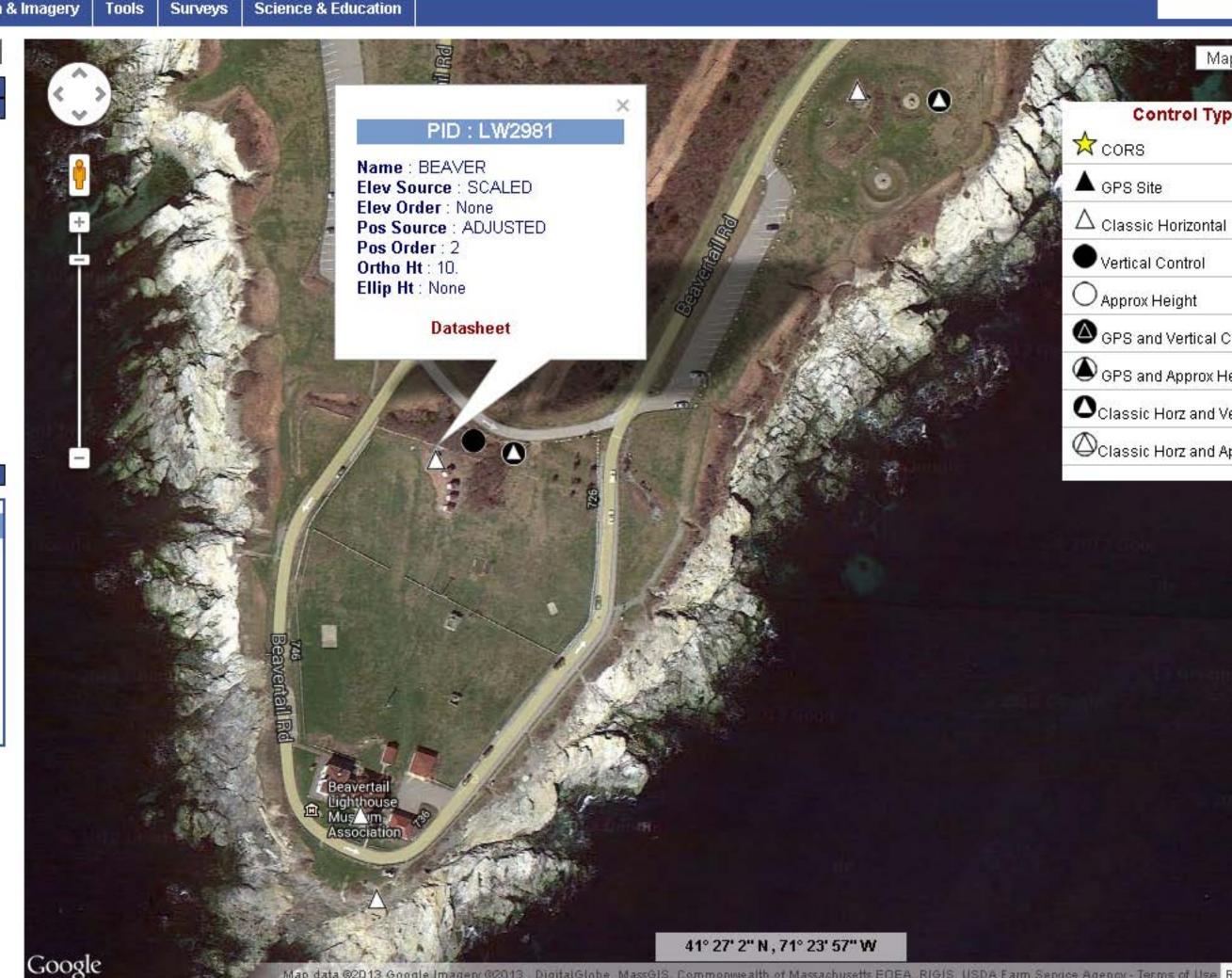
Name: BEAVER Elev Source : SCALED Elev Order: None

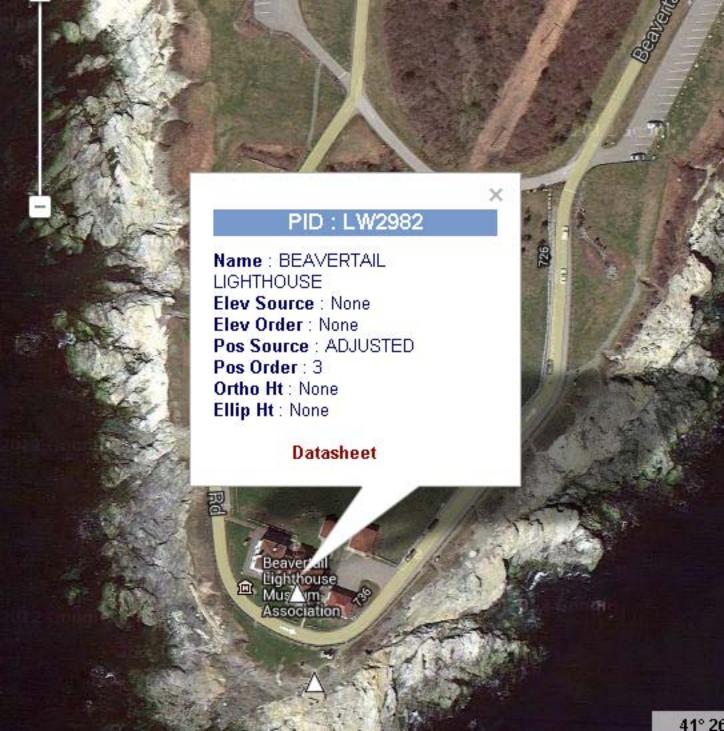
Pos Source : ADJUSTED

Pos Order: 2 Ortho Ht: 10. Ellip Ht: None

Datasheet

Show/Hide Legend





```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2982 DESIGNATION - BEAVERTAIL LIGHTHOUSE
LW2982 PID - LW2982
LW2982 STATE/COUNTY- RI/NEWPORT
LW2982 COUNTRY - US
LW2982 USGS OUAD - NARRAGANSETT PIER (1975)
LW2982
LW2982
                          *CURRENT SURVEY CONTROL
LW2982
LW2982* NAD 83(1996) POSITION- 41 26 57.71353(N) 071 23 57.89629(W) ADJUSTED
LW2982* NAVD 88 ORTHO HEIGHT - **(meters) **(feet)
LW2982
LW2982 LAPLACE CORR - 2.46 (seconds)
                                                            DEFLEC12A
LW2982 GEOID HEIGHT - -30.19 (meters)
                                                            GEOID12A
LW2982 HORZ ORDER - THIRD
LW2982
LW2982. The horizontal coordinates were established by classical geodetic methods
LW2982.and adjusted by the National Geodetic Survey in August 1998.
LW2982.
LW2982. Photographs are available for this station.
LW2982
LW2982. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2982
LW2982. The following values were computed from the NAD 83(1996) position.
LW2982
LW2982;
                       North East Units Scale Factor Converg.
LW2982; SPC RI - 40,655.748 108,404.896 MT 0.99999462 +0 03 59.7
LW2982;SPC RI - 133,384.73 355,658.40 sFT 0.999999462 +0 03 59.7
                - 4,591,421.666 299,574.860 MT 1.00009438 -1 35 19.8
LW2982;UTM 19
LW2982
LW2982
                            SUPERSEDED SURVEY CONTROL
LW2982
```

```
LW2982 NAD 83(1996) - 41 26 57.71294(N) 071 23 57.89534(W) AD( ) 3
LW2982 NAD 83(1992) - 41 26 57.71203(N) 071 23 57.89564(W) AD(
                                                                   ) 3
LW2982 NAD 83(1992) - 41 26 57.71128(N) 071 23 57.89528(W) AD( ) 3
LW2982 NAD 83(1986) - 41 26 57.71134(N) 071 23 57.89310(W) AD(
                                                                   ) 3
LW2982 NAD 27 - 41 26 57.34834(N) 071 23 59.69276(W) AD( ) 3
LW2982 USSD - 41 26 57.89500(N) 071 23 59.57400(W) AD( ) 3
LW2982
LW2982. Superseded values are not recommended for survey control.
LW2982
LW2982.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2982. See file dsdata.txt to determine how the superseded data were derived.
LW2982
LW2982 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9957491421 (NAD 83)
LW2982
LW2982 MARKER: 13 = LIGHTHOUSE
LW2982 MARK LOGO: CGS
LW2982 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
LW2982+SATELLITE: SATELLITE OBSERVATIONS - September 24, 2009
LW2982
LW2982 HISTORY - Date Condition Report By
LW2982 HISTORY - 1869 FIRST OBSERVED COASUR
LW2982 HISTORY - 1892 GOOD CGS
LW2982 HISTORY - 1940 GOOD CGS
LW2982 HISTORY - 1962 GOOD CGS
LW2982 HISTORY - 1988 GOOD
                                            USPSOD
LW2982 HISTORY - 19890707 GOOD RIGS
LW2982 HISTORY - 20020830 GOOD
LW2982 HISTORY - 20041222 GOOD
                                     USPSQD
USPSQD
LW2982 HISTORY - 20090924 GOOD GEOCAC
LW2982 HISTORY - 20130705 GOOD GEOCAC
LW2982
LW2982
                              STATION DESCRIPTION
LW2982
LW2982'DESCRIBED BY COAST AND GEODETIC SURVEY 1892
LW2982'STATION IS ON THE S POINT OF CONANICUT ISLAND BETWEEN THE E AND W
LW2982'ENTRANCES TO NARRAGANSETT BAY. A SOUARE, GRANITE TOWER, UPPER
LW2982'HALF WHITE, ATTACHED TO WHITE DWELLING.
LW2982
LW2982
                              STATION RECOVERY (1940)
LW2982
LW2982'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1940 (PLB)
LW2982'THIS IS THE LIGHTHOUSE ON THE SOUTH POINT OF CONANICUT ISLAND.
```

LW2982'IT IS A SQUARE GRANITE TOWER, UPPER HALF WHITE, ATTACHED TO A

```
LW2982'WHITE DWELLING. THE LIGHT IS 64 FEET ABOVE THE WATER. THE FINIAL
LW2982'OVER THE LIGHT WAS OBSERVED UPON.
LW2982'
LW2982'THIS IS AN INTERSECTION STATION.
LW2982
LW2982
                                STATION RECOVERY (1962)
LW2982
LW2982'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1962 (JKW)
LW2982'THE STATION WAS RECOVERED IN GOOD CONDITION. THE RECOVEREY NOTE
LW2982'BY P.L.B. IN 1940 IS ADEQUATE.
LW2982
LW2982
                                STATION RECOVERY (1988)
LW2982
LW2982'RECOVERY NOTE BY US POWER SOUADRON 1988 (AFA)
LW2982'RECOVERED IN GOOD CONDITION.
LW2982
LW2982
                                STATION RECOVERY (1989)
LW2982
LW2982'RECOVERY NOTE BY RHODE ISLAND GEODETIC SURVEY 1989
LW2982'THIS IS THE LIGHTHOUSE ON THE SOUTH POINT OF CONANICUT ISLAND.
LW2982'IT IS A SOUARE GRANITE TOWER, UPPER HALF WHITE, ATTACHED TO A
LW2982'WHITE DWELLING. THE LIGHT IS 64 FEET ABOVE THE WATER. THE FINIAL
LW2982'OVER THE LIGHT WAS OBSERVED UPON.
LW2982
LW2982
                                STATION RECOVERY (2002)
LW2982
LW2982'RECOVERY NOTE BY US POWER SOUADRON 2002 (KM)
LW2982 RECOVERED IN GOOD CONDITION.
LW2982
LW2982
                                STATION RECOVERY (2004)
LW2982
LW2982'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG)
LW2982'RECOVERED IN GOOD CONDITION.
LW2982
LW2982
                                STATION RECOVERY (2009)
LW2982
LW2982'RECOVERY NOTE BY GEOCACHING 2009 (RLM)
LW2982'RECOVERED IN GOOD CONDITION.
LW2982'
LW2982'
LW2982
LW2982
                                STATION RECOVERY (2013)
LW2982
```

LW2982'RECOVERY NOTE BY GEOCACHING 2013 (CDH)

LW2982'RECOVERED IN GOOD CONDITION.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2865 DESIGNATION - WEST TOWER
LW2865 PID - LW2865
LW2865 STATE/COUNTY- RI/NEWPORT
LW2865 COUNTRY - US
LW2865 USGS QUAD - NEWPORT (1975)
LW2865
LW2865
                           *CURRENT SURVEY CONTROL
LW2865
LW2865* NAD 83(1996) POSITION- 41 27 05.47912(N) 071 21 21.38477(W)
                                                            ADJUSTED
LW2865* NAVD 88 ORTHO HEIGHT - ** (meters)
                                                    **(feet)
LW2865
LW2865 LAPLACE CORR - 2.36 (seconds)
                                                            DEFLEC12A
LW2865 GEOID HEIGHT - - 30.14 (meters)
                                                            GEOID12A
LW2865 HORZ ORDER - THIRD
LW2865
LW2865. The horizontal coordinates were established by classical geodetic methods
LW2865.and adjusted by the National Geodetic Survey in August 1998.
LW2865.
LW2865. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2865
LW2865. The following values were computed from the NAD 83(1996) position.
LW2865
LW2865;
                       North East Units Scale Factor Converg.
LW2865; SPC RI - 40,900.455 112,037.332 MT 0.99999553 +0 05 43.3
LW2865; SPC RI - 134,187.58 367,575.81 sFT 0.99999553 +0 05 43.3
LW2865;UTM 19 - 4,591,561.346 303,213.179 MT 1.00007659 -1 33 36.4
LW2865
LW2865
                            SUPERSEDED SURVEY CONTROL
LW2865
LW2865 NAD 83(1996) - 41 27 05.47867(N) 071 21 21.38385(W) AD(
                                                              ) 3
LW2865 NAD 83(1992) - 41 27 05.47759(N) 071 21 21.38417(W) AD(
                                                              ) 3
```

```
LW2865 NAD 83(1992) - 41 27 05.47692(N) 071 21 21.38370(W) AD(
                                                                    ) 3
LW2865 NAD 83(1986) - 41 27 05.47687(N) 071 21 21.38144(W) AD(
                                                                    ) 3
LW2865 NAD 27 - 41 27 05.10300(N) 071 21 23.19000(W) AD(
                                                                    ) 3
LW2865
LW2865.Superseded values are not recommended for survey control.
LW2865
LW2865.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2865.See file dsdata.txt to determine how the superseded data were derived.
LW2865
LW2865 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TCF0321391561 (NAD 83)
LW2865
LW2865 MARKER: 82 = FINIAL
LW2865 SETTING: 0 = UNSPECIFIED SETTING
LW2865
LW2865 HISTORY - Date Condition
                                        Report By
LW2865 HISTORY - 1943 FIRST OBSERVED CGS
LW2865
LW2865
                              STATION DESCRIPTION
LW2865
LW2865'DESCRIBED BY COAST AND GEODETIC SURVEY 1943 (BHR)
LW2865'STATION IS ON THE SW PART OF THE ISLAND OF AQUIDNECK, R.I.. THE
LW2865'FINIAL OF THE W OF TWO WOODEN ELEVATED OBSERVATION TOWERS ON
LW2865'BRENTON POINT. THE TOWERS ARE APPROXIMATELY 100 FEET HIGH.
```

*** retrieval complete.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey,
                                 Retrieval Date = SEPTEMBER 30, 2013
LW2846 DESIGNATION - TOWER 9
LW2846 PID - LW2846
LW2846 STATE/COUNTY- RI/NEWPORT
LW2846 COUNTRY - US
LW2846 USGS OUAD - NEWPORT (1975)
LW2846
LW2846
                             *CURRENT SURVEY CONTROL
LW2846
LW2846* NAD 83(1996) POSITION- 41 27 01.87414(N) 071 21 08.80985(W)
                                                                ADJUSTED
LW2846* NAVD 88 ORTHO HEIGHT - ** (meters)
                                                        **(feet)
LW2846
LW2846 LAPLACE CORR - 2.32 (seconds)
                                                                DEFLEC12A
                              -30.13 (meters)
LW2846 GEOID HEIGHT -
                                                                GEOID12A
LW2846 HORZ ORDER - THIRD
LW2846
LW2846. The horizontal coordinates were established by classical geodetic methods
LW2846.and adjusted by the National Geodetic Survey in August 1998.
LW2846.
LW2846. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2846
LW2846. The following values were computed from the NAD 83(1996) position.
LW2846
LW2846;
                         North East Units Scale Factor Converg.
                  - 40,789.731 112,329.393 MT 0.99999562 +0 05 51.6
LW2846; SPC RI
LW2846; SPC RI
                 - 133,824.31 368,534.02 sFT 0.99999562 +0 05 51.6
                  - 4.591,442.222 303.501.942 MT 1.00007519 -1 33 27.9
LW2846;UTM 19
LW2846
LW2846
                              SUPERSEDED SURVEY CONTROL
LW2846
LW2846 NAD 83(1996) - 41 27 01.87369(N) 071 21 08.80892(W) AD(
                                                                   ) 3
LW2846 NAD 83(1992) - 41 27 01.87259(N) 071 21 08.80925(W) AD(
                                                                  ) 3
```

```
LW2846 NAD 83(1992) - 41 27 01.87195(N) 071 21 08.80878(W) AD( ) 3
LW2846 NAD 83(1986) - 41 27 01.87191(N) 071 21 08.80659(W) AD(
                                                                      ) 3
LW2846 NAD 27 - 41 27 01.50500(N) 071 21 10.60900(W) AD( ) 3
LW2846
LW2846.Superseded values are not recommended for survey control.
LW2846
LW2846.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2846.See file dsdata.txt to determine how the superseded data were derived.
LW2846
LW2846 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TCF0350191442 (NAD 83)
LW2846
LW2846 MARKER: 55 = TOWER
LW2846 SETTING: 0 = UNSPECIFIED SETTING
LW2846
LW2846 HISTORY - Date Condition Report By
LW2846 HISTORY - 1943 FIRST OBSERVED CGS
LW2846
LW2846
                              STATION DESCRIPTION
LW2846
LW2846'DESCRIBED BY COAST AND GEODETIC SURVEY 1943 (FN)
LW2846'STATION IS THE SE ONE OF TWO 100-FT. STEEL DETECTION TOWERS AT
LW2846'BRENTON POINT, NARRAGANSETT BAY. IT WAS LOCATED BY INTERSECTION.
```

 $\star\star\star$ retrieval complete.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2958 DESIGNATION - WHALE ROCK BEACON
LW2958 PID - LW2958
LW2958 STATE/COUNTY- RI/WASHINGTON
LW2958 COUNTRY - US
LW2958 USGS OUAD - NARRAGANSETT PIER (1975)
LW2958
LW2958
                           *CURRENT SURVEY CONTROL
LW2958
LW2958* NAD 83(1996) POSITION- 41 26 39.95940(N) 071 25 25.25467(W) ADJUSTED
LW2958* NAVD 88 ORTHO HEIGHT - ** (meters) ** (feet)
LW2958
LW2958 LAPLACE CORR - 2.20 (seconds)
                                                            DEFLEC12A
LW2958 GEOID HEIGHT - -30.22 (meters)
                                                            GEOID12A
LW2958 HORZ ORDER - THIRD
LW2958
LW2958. The horizontal coordinates were established by classical geodetic methods
LW2958.and adjusted by the National Geodetic Survey in August 1998.
LW2958.
LW2958. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2958
LW2958. The following values were computed from the NAD 83(1996) position.
LW2958
LW2958;
                       North East Units Scale Factor Converg.
LW2958; SPC RI - 40,105.952 106,377.677 MT 0.99999425 +0 03 01.9
LW2958; SPC RI - 131,580.94 349,007.43 sFT 0.99999425 +0 03 01.9
LW2958;UTM 19 - 4,590,930.609 297,532.391 MT 1.00010451 -1 36 17.1
LW2958
LW2958
                            SUPERSEDED SURVEY CONTROL
LW2958
LW2958 NAD 83(1996) - 41 26 39.95876(N) 071 25 25.25368(W) AD(
                                                              ) 3
LW2958 NAD 83(1992) - 41 26 39.95792(N) 071 25 25.25401(W) AD( ) 3
```

```
LW2958 NAD 83(1992) - 41 26 39.95713(N) 071 25 25.25367(W) AD(
                                                                     ) 3
LW2958 NAD 83(1986) - 41 26 39.95708(N) 071 25 25.25226(W) AD(
                                                                     ) 3
LW2958 NAD 27 - 41 26 39.58836(N) 071 25 27.05079(W) AD(
                                                                     ) 3
LW2958
LW2958.Superseded values are not recommended for survey control.
TW2958
LW2958.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2958.See file dsdata.txt to determine how the superseded data were derived.
LW2958
LW2958 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9753290930 (NAD 83)
T.W2958
LW2958 MARKER: 14 = NAVIGATION LIGHT
LW2958
LW2958 HISTORY - Date Condition
                                            Report By
LW2958 HISTORY - 1940 FIRST OBSERVED CGS
LW2958 HISTORY - 1954 GOOD
                                             CGS
LW2958 HISTORY - 19941001 MARK NOT FOUND USPSQD
LW2958 HISTORY - 20010807 MARK NOT FOUND USPSQD
LW2958
LW2958
                              STATION DESCRIPTION
LW2958
LW2958'DESCRIBED BY COAST AND GEODETIC SURVEY 1940 (PLB)
LW2958'THIS IS A NEW BEACON ON THE SITE OF THE OLD WHALE ROCK LIGHTHOUSE
LW2958'AT THE MOUTH OF THE W PASSAGE OF THE NARRAGANSETT BAY. IT IS A
LW2958'SKELETON STEEL FRAMEWORK ON THE CYLINDRICAL STONE FOUNDATION OF
LW2958'THE OLD LIGHTHOUSE. IT IS PROBABLY ABOUT 30 FEET ABOVE THE WATER.
LW2958'THE GREEN LIGHT ATOP THE STEEL FRAMEWORK WAS OBSERVED UPON.
LW2958
LW2958
                              STATION RECOVERY (1954)
LW2958
LW2958'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1954 (LFW)
LW2958'STATION RECOVERED IN GOOD CONDITION. THE 1940 DESCRIPTION IS
LW2958'ADEQUATE AND COMPLETE.
LW2958
LW2958
                              STATION RECOVERY (1994)
LW2958
LW2958'RECOVERY NOTE BY US POWER SOUADRON 1994
LW2958'MARK NOT FOUND.
LW2958
LW2958
                              STATION RECOVERY (2001)
LW2958
LW2958'RECOVERY NOTE BY US POWER SOUADRON 2001 (RMS)
LW2958'THERE IS NO BEACON ON WHALE ROCK. THERE IS ONLY THE REMNANTS OF A
```

LW2958'LIGHTHOUSE THAT WAS DESTROYED BY THE 1938 HURRICANE.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2992 DESIGNATION - BRENTON REEF LIGHT
LW2992 PID - LW2992
LW2992 STATE/COUNTY- RI/WASHINGTON
LW2992 COUNTRY - US
LW2992 USGS OUAD - NARRAGANSETT PIER (1975)
LW2992
LW2992
                           *CURRENT SURVEY CONTROL
LW2992
LW2992* NAD 83(1996) POSITION- 41 25 35.44365(N) 071 23 20.15341(W) NO CHECK
LW2992* NAVD 88 ORTHO HEIGHT - **(meters) **(feet)
LW2992
LW2992 LAPLACE CORR - 2.19 (seconds)
                                                            DEFLEC12A
LW2992 GEOID HEIGHT - -30.22 (meters)
                                                            GEOID12A
LW2992 HORZ ORDER - THIRD
LW2992
LW2992. The horizontal coordinates were established by classical geodetic methods
LW2992.and adjusted by the National Geodetic Survey in August 1998.
TW2992.
LW2992.No horizontal observational check was made to the station.
LW2992.
LW2992. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2992
LW2992. The following values were computed from the NAD 83(1996) position.
LW2992
LW2992;
                       North East Units Scale Factor Converg.
LW2992; SPC RI - 38,118.754 109,284.213 MT 0.99999481 +0 04 24.6
LW2992; SPC RI - 125,061.28 358,543.29 sFT 0.999999481 +0 04 24.6
LW2992;UTM 19
                - 4.588,860.084 300,380.616 MT 1.00009041 -1 34 52.2
LW2992
LW2992
                            SUPERSEDED SURVEY CONTROL
LW2992
```

```
LW2992 NAD 83(1996) - 41 25 35.44308(N) 071 23 20.15233(W) AD(
                                                                     ) 3
LW2992 NAD 83(1992) - 41 25 35.44215(N) 071 23 20.15281(W) AD(
                                                                   ) 3
LW2992 NAD 83(1992) - 41 25 35.44137(N) 071 23 20.15232(W) AD(
                                                                    ) 3
LW2992 NAD 83(1986) - 41 25 35.44112(N) 071 23 20.15030(W) AD(
                                                                   ) 3
LW2992 NAD 27 - 41 25 35.07100(N) 071 23 21.97000(W) AD(
                                                                    ) 3
LW2992
LW2992. Superseded values are not recommended for survey control.
LW2992
LW2992.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2992. See file dsdata.txt to determine how the superseded data were derived.
LW2992
LW2992 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TCF0038088860(NAD 83)
LW2992 MARKER: 14 = NAVIGATION LIGHT
LW2992
LW2992 HISTORY - Date Condition
                                            Report By
LW2992 HISTORY - 1962 FIRST OBSERVED CGS
LW2992 HISTORY - 19941001 MARK NOT FOUND USPSOD
LW2992 HISTORY - 20010807 MARK NOT FOUND USPSQD
LW2992
LW2992
                              STATION DESCRIPTION
LW2992
LW2992'DESCRIBED BY COAST AND GEODETIC SURVEY 1962 (JKW)
LW2992'THE STATION IS LOCATED NEAR BRENTON REEF ABOUT 6 MILES NORTHEAST
LW2992'OF POINT JUDITH LIGHTHOUSE AND ABOUT 1.8 MILES SOUTH OF BEAVERTAIL
LW2992'LIGHTHOUSE. THE STATION IS THE LIGHT ATOP A SQUARE SUPER
LW2992'STRUCTURE ON BLACK STEEL PILES, ABOUT 80.0 FEET ABOVE THE WATER.
LW2992
LW2992
                              STATION RECOVERY (1994)
LW2992
LW2992'RECOVERY NOTE BY US POWER SQUADRON 1994
LW2992'MARK NOT FOUND.
LW2992
LW2992
                              STATION RECOVERY (2001)
LW2992
LW2992'RECOVERY NOTE BY US POWER SOUADRON 2001 (RMS)
LW2992'DISMANTLED IN 1996.
*** retrieval complete.
Elapsed Time = 00:00:06
```



```
PROGRAM = datasheet95, VERSION = 8.3
        National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW0641 DESIGNATION - BEAVERTAIL RM 2
LW0641 PID
             - LW0641
LW0641 STATE/COUNTY- RI/NEWPORT
LW0641 COUNTRY - US
LW0641 USGS OUAD - NARRAGANSETT PIER (1975)
LW0641
LW0641
                               *CURRENT SURVEY CONTROL
LW0641
LW0641* NAD 83(1986) POSITION- 41 27 02.02 (N) 071 23 56.18 (W)
                                                                     HD HELD1
LW0641* <u>NAVD 88</u> ORTHO HEIGHT - 11.265 (meters)
                                                       36.96 (feet) ADJUSTED
LW0641
                                -30.19 (meters)
LW0641 GEOID HEIGHT
                                                                     GEOID12A
LW0641 DYNAMIC HEIGHT -
                                11.262 (meters)
                                                       36.95 (feet) COMP
LW0641 MODELED GRAVITY - 980,286.3
                                       (mgal)
                                                                     NAVD 88
LW0641
LW0641 VERT ORDER
                        - SECOND
                                    CLASS 0
T.W0641
LW0641. The horizontal coordinates were determined by differentially corrected
LW0641.hand held GPS observations or other comparable positioning techniques
LW0641.and have an estimated accuracy of \pm 3 meters.
LW0641.
LW0641. The orthometric height was determined by differential leveling and
LW0641.adjusted by the NATIONAL GEODETIC SURVEY
LW0641.in June 1991.
LW0641
LW0641. The dynamic height is computed by dividing the NAVD 88
LW0641.geopotential number by the normal gravity value computed on the
LW0641.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
LW0641.degrees latitude (q = 980.6199 \text{ gals.}).
LW0641
LW0641. The modeled gravity was interpolated from observed gravity values.
```

```
LW0641
LW0641;
                       North East Units Estimated Accuracy
LW0641; SPC RI - 40,788.7 108,444.6 MT (+/- 3 meters HH1 GPS)
LW0641
LW0641
                       SUPERSEDED SURVEY CONTROL
LW0641
LW0641 NGVD 29 (??/??/92) 11.539 (m) 37.86 (f) ADJ UNCH 2 0
LW0641
LW0641. Superseded values are not recommended for survey control.
LW0641
LW0641.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW0641.See file dsdata.txt to determine how the superseded data were derived.
LW0641
LW0641 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9961891553(NAD 83)
LW0641
LW0641 MARKER: DR = REFERENCE MARK DISK
LW0641 SETTING: 80 = SET IN A BOULDER
LW0641 SP SET: BOULDER
LW0641 STAMPING: BEAVERTAIL NO 2 1940
LW0641 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
LW0641+STABILITY: SURFACE MOTION
LW0641 SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
LW0641+SATELLITE: SATELLITE OBSERVATIONS - December 22, 2004
LW0641
LW0641 HISTORY - Date Condition
                                            Report By
LW0641 HISTORY - 1940 MONUMENTED CGS
LW0641 HISTORY - 1969 GOOD
LW0641 HISTORY - 20041222 GOOD
                                            CGS
                                           USPSOD
LW0641
LW0641
                             STATION DESCRIPTION
T.W0641
LW0641'DESCRIBED BY COAST AND GEODETIC SURVEY 1969
LW0641'3.6 MI SW FROM JAMESTOWN.
LW0641'3.65 MILES SOUTHWEST ALONG SOUTHWEST AVENUE AND BEAVERTAIL ROAD
LW0641'FROM THE POST OFFICE AT JAMESTOWN, SET ON THE TOP AND 2 FEET
LW0641'EAST OF THE WEST END OF A 7-BY-2 1/2-FEET EXPOSED BURIED BOULDER
LW0641'WHICH PROJECTS 1 1/2 FEET ABOVE THE LEVEL OF THE GROUND, ABOUT
LW0641'150 YARDS NORTH OF THE BEAVERTAIL LIGHTHOUSE, 53 FEET NORTHWEST
LW0641'OF THE 3 RD POWER LINE POLE NORTH OF THE LIGHTHOUSE, 28 FEET
LW0641'SOUTH OF THE CENTER LINE OF AN EAST-WEST ROAD, 8 FEET NORTH OF
LW0641'THE NORTH SIDE OF A STONE FENCE, 48.4 FEET NORTHWEST OF THE
LW0641'STATION MARK DESCRIBED AND 2 FEET ABOVE THE LEVEL OF THE ROAD.
LW0641
```

LW0641

STATION RECOVERY (2004)

LW0641

LW0641'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG)

LW0641'RECOVERED IN GOOD CONDITION.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2892 DESIGNATION - CASTLE HILL LIGHTHOUSE
LW2892 PID - LW2892
LW2892 STATE/COUNTY- RI/NEWPORT
LW2892 COUNTRY - US
LW2892 USGS OUAD - NEWPORT (1975)
LW2892
LW2892
                           *CURRENT SURVEY CONTROL
LW2892
LW2892* NAD 83(1996) POSITION- 41 27 43.69886(N) 071 21 46.44775(W) ADJUSTED
LW2892* NAVD 88 ORTHO HEIGHT - **(meters) **(feet)
LW2892
LW2892 LAPLACE CORR - 2.49 (seconds)
                                                            DEFLEC12A
LW2892 GEOID HEIGHT - -30.12 (meters)
                                                            GEOID12A
LW2892 HORZ ORDER - THIRD
LW2892
LW2892. The horizontal coordinates were established by classical geodetic methods
LW2892.and adjusted by the National Geodetic Survey in August 1998.
LW2892.
LW2892. Photographs are available for this station.
LW2892
LW2892. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2892
LW2892. The following values were computed from the NAD 83(1996) position.
LW2892
LW2892;
                       North East Units Scale Factor Converg.
LW2892; SPC RI - 42,078.611 111,453.739 MT 0.99999536 +0 05 26.8
LW2892; SPC RI - 138,052.91 365,661.14 sFT 0.99999536 +0 05 26.8
LW2892;UTM 19
                - 4.592.755.971 302.663.824 MT 1.00007925 -1 33 54.1
LW2892
LW2892
                            SUPERSEDED SURVEY CONTROL
LW2892
```

```
LW2892 NAD 83(1996) - 41 27 43.69837(N) 071 21 46.44687(W) AD(
                                                                    ) 3
LW2892 NAD 83(1992) - 41 27 43.69730(N) 071 21 46.44711(W) AD(
                                                                   ) 3
LW2892 NAD 83(1992) - 41 27 43.69666(N) 071 21 46.44669(W) AD( ) 3
LW2892 NAD 83(1986) - 41 27 43.69689(N) 071 21 46.44464(W) AD(
                                                                  ) 3
LW2892 NAD 27 - 41 27 43.32900(N) 071 21 48.24900(W) AD( ) 3
LW2892 USSD - 41 27 43.88000(N) 071 21 48.12000(W) AD( ) 3
LW2892
LW2892. Superseded values are not recommended for survey control.
LW2892
LW2892.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2892. See file dsdata.txt to determine how the superseded data were derived.
LW2892
LW2892 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TCF0266392755 (NAD 83)
LW2892
LW2892 MARKER: 13 = LIGHTHOUSE
LW2892 SETTING: 0 = UNSPECIFIED SETTING
LW2892 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
LW2892+SATELLITE: SATELLITE OBSERVATIONS - January 30, 2003
LW2892
LW2892 HISTORY - Date Condition Report By
LW2892 HISTORY - 1897 FIRST OBSERVED CGS
LW2892 HISTORY - 1935 GOOD
LW2892 HISTORY - 1940 GOOD
                                          RIGS
CGS
LW2892 HISTORY - 1962 GOOD CGS
LW2892 HISTORY - 20030130 GOOD
                                           USPSOD
LW2892
LW2892
                              STATION DESCRIPTION
LW2892
LW2892'DESCRIBED BY RHODE ISLAND GEODETIC SURVEY 1935
LW2892'THE LIGHTHOUSE IS A WHITE PAINTED STONE TOWER SHAPED LIKE THE
LW2892'FRUSTRUM OF A CONE WITH A LANTERN ON TOP.
LW2892'
LW2892'IT STANDS AT THE EDGE OF THE BLUFF AT THE EXTREME WESTERNMOST END
LW2892'OF NEWPORT NECK.
LW2892
LW2892
                          STATION RECOVERY (1940)
LW2892
LW2892'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1940 (PLB)
LW2892'THE LIGHTHOUSE IS ON THE EAST SIDE OF THE ENTRANCE TO NARRAGANSETT
LW2892'BAY. IT IS A CONICAL GRANITE TOWER AND THE UPPER HALF IS PAINTED
LW2892'WHITE. THE FINIAL ON TOP THE LIGHTHOUSE WAS OBSERVED UPON AND IS
LW2892'ABOUT 45 FEET ABOVE THE WATER.
LW2892'
```

LW2892'THIS IS AN INTERSECTION STATION.

LW2892

LW2892

LW2892

LW2892

LW2892'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1962 (CHO)

LW2892'STATION RECOVERED IN VERY GOOD CONDITION.

LW2892

LW2892

LW2892

LW2892

LW2892'RECOVERY NOTE BY US POWER SQUADRON 2003 (KJM)

LW2892'RECOVERED IN GOOD CONDITION.



```
PROGRAM = datasheet95, VERSION = 8.3
        National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
T.WO 642 ************************
LW0642 DESIGNATION - BEAVERTAIL
             - LW0642
LW0642 PID
LW0642 STATE/COUNTY- RI/NEWPORT
LW0642 COUNTRY
                - US
LW0642 USGS OUAD - NARRAGANSETT PIER (1975)
LW0642
LW0642
                              *CURRENT SURVEY CONTROL
LW0642
LW0642* NAD 83(1996) POSITION- 41 27 01.87676(N) 071 23 55.57537(W)
                                                                  ADJUSTED
LW0642* NAVD 88 ORTHO HEIGHT - 10.815 (meters)
                                                     35.48 (feet) ADJUSTED
LW0642
LW0642 LAPLACE CORR
                       - 2.48 (seconds)
                                                                  DEFLEC12A
                               -30.19 (meters)
LW0642 GEOID HEIGHT -
                                                                  GEOID12A
LW0642 DYNAMIC HEIGHT -
                                10.811 (meters)
                                                     35.47 (feet) COMP
LW0642 MODELED GRAVITY - 980,286.3 (mgal)
                                                                  NAVD 88
T.W0642
LW0642 HORZ ORDER
                       - SECOND
LW0642 VERT ORDER
                     - SECOND
                                   CLASS 0
LW0642
LW0642. The horizontal coordinates were established by classical geodetic methods
LW0642.and adjusted by the National Geodetic Survey in August 1998.
LW0642.
LW0642. The orthometric height was determined by differential leveling and
LW0642.adjusted by the NATIONAL GEODETIC SURVEY
LW0642.in June 1991.
LW0642
LW0642. Photographs are available for this station.
LW0642
LW0642. The Laplace correction was computed from DEFLEC12A derived deflections.
LW0642
LW0642. The dynamic height is computed by dividing the NAVD 88
```

```
LW0642.geopotential number by the normal gravity value computed on the
LW0642.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
LW0642.degrees latitude (g = 980.6199 \text{ gals.}).
LW0642
LW0642. The modeled gravity was interpolated from observed gravity values.
LW0642
LW0642. The following values were computed from the NAD 83(1996) position.
LW0642
LW0642;
                      North East Units Scale Factor Converg.
LW0642; SPC RI - 40,784.249 108,458.617 MT 0.99999463 +0 04 01.2
LW0642; SPC RI - 133,806.32 355,834.65 sFT 0.99999463 +0 04 01.2
LW0642;UTM 19 - 4,591,548.574 299,632.277 MT 1.00009410 -1 35 18.4
LW0642
LW0642! - Elev Factor x Scale Factor = Combined Factor
LW0642!SPC RI - 1.00000304 \times 0.999999463 = 0.99999767
LW0642!UTM 19 - 1.00000304 \times 1.00009410 = 1.00009714
LW0642
LW0642: Primary Azimuth Mark
LW0642:SPC RI - CASTLE HILL LIGHTHOUSE
                                                          Grid Az
                                                          066 37 41.2
LW0642:UTM 19 - CASTLE HILL LIGHTHOUSE
                                                          068 17 00.8
LW0642
LW0642|-----
LW0642| PID Reference Object
                                               Distance Geod. Az |
                                                             dddmmss.s |
LW06421
                                          18.865 METERS 04029
LW0642| CB7110 BEAVERTAIL RM 1
LW0642| LW2892 CASTLE HILL LIGHTHOUSE APPROX. 3.3 KM 0664142.4 |

      LW0642 | LW2983 BEAVERTAIL E 2 1940
      166.226 METERS 19647 |

      LW0642 | LW2982 BEAVERTAIL LIGHTHOUSE
      139.279 METERS 20245 |

      LW0642 | LW2925 POINT JUDITH TANK
      APPROX. 9.8 KM 2262543.5 |

      LW0642 | LW2958 WHALE ROCK BEACON
      APPROX. 2.2 KM 2520047.7 |

LW0642| LW0641 BEAVERTAIL RM 2
                                               14.765 METERS 28709
LW0642|-----
LW0642
LW0642
                              SUPERSEDED SURVEY CONTROL
LW0642
LW0642 NAD 83(1996) - 41 27 01.87618(N) 071 23 55.57442(W) AD(
                                                                   ) 2
LW0642 NAD 83(1992) - 41 27 01.87524(N) 071 23 55.57473(W) AD(
                                                                   ) 2
LW0642 NAD 83(1992) - 41 27 01.87451(N) 071 23 55.57434(W) AD(
                                                                     ) 2
LW0642 NAD 83(1986) - 41 27 01.87459(N) 071 23 55.57257(W) AD(
                                                                   ) 2
LW0642 NAD 27 - 41 27 01.50388(N) 071 23 57.37676(W) AD( ) 2
LW0642 NGVD 29 (??/??/92) 11.088 (m) 36.38 (f) ADJ UNCH 2 0
LW0642
LW0642. Superseded values are not recommended for survey control.
```

```
LW0642
LW0642.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW0642.See file dsdata.txt to determine how the superseded data were derived.
LW0642
LW0642 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9963291548 (NAD 83)
LW0642
LW0642 MARKER: DB = BENCH MARK DISK
LW0642 SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
LW0642 SP SET: SET IN TOP OF CONCRETE MONUMENT
LW0642 STAMPING: BEAVERTAIL 1940
LW0642 STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
LW0642+STABILITY: SURFACE MOTION
LW0642 SATELLITE: THE SITE LOCATION WAS REPORTED AS NOT SUITABLE FOR
LW0642+SATELLITE: SATELLITE OBSERVATIONS - December 22, 2004
LW0642
LW0642 HISTORY - Date Condition
                                               Report By
LW0642 HISTORY - 1940 MONUMENTED
                                             CGS
LW0642 HISTORY
                  - 1943 GOOD
                                               CGS
LW0642 HISTORY - 1962 GOOD
                                               CGS
LW0642 HISTORY - 1969 GOOD
                                               CGS
LW0642 HISTORY - 1969 GOOD
                                               CGS
LW0642 HISTORY - 1988 GOOD
LW0642 HISTORY - 20041222 GOOD
                                               USPSQD
                                               USPSQD
LW0642
LW0642
                               STATION DESCRIPTION
LW0642
LW0642'DESCRIBED BY COAST AND GEODETIC SURVEY 1940 (PLB)
LW0642'STATION IS LOCATED ON THE S-MOST PART OF CONANICUT ISLAND, ON A
LW0642'POINT OF LAND KNOWN AS BEAVERTAIL POINT, ABOUT 200 YDS. N OF
LW0642'BEAVERTAIL LIGHTHOUSE, AT WHICH POINT THE PAVED ROAD MAKES A
LW0642'COMPLETE LOOP AROUND THE POINT. IT IS INSIDE OF THE LOOP, ABOUT
LW0642'50 FT. S OF THE Y WHERE THE LOOP BEGINS AND ENDS, AND ABOUT 8 FT.
LW0642'N OF THE STONE FENCE THAT PARALLELS THE INNER EDGE OF THE LOOP.
LW0642'SURFACE STATION MARK IS A STANDARD STATION DISK, STAMPED
LW0642'BEAVERTAIL 1940 AND SET IN THE TOP OF A CONCRETE POST.
LW0642'
LW0642'REFERENCE MARK 1 IS OUTSIDE OF THE LOOP, ABOUT 40 FT. E OF THE Y.
LW0642'IT IS A STANDARD REFERENCE-MARK DISK, STAMPED BEAVERTAIL NO 1 1940
LW0642'AND SET IN THE TOP OF A CONCRETE POST.
LW0642'
LW0642'REFERENCE MARK 2 IS INSIDE OF THE LOOP W OF THE STATION, ABOUT 8
LW0642'FT. N OF STONE FENCE. IT IS A STANDARD REFERENCE-MARK DISK,
LW0642'STAMPED BEAVERTAIL NO 2 1940 AND SET IN A DRILL HOLE IN A BOULDER.
```

```
LW0642'
LW0642'CASTLE HILL LIGHT CAN BE USED FOR AN AZIMUTH MARK.
LW0642'
LW0642'HEIGHT OF LIGHT ABOVE STATION MARK 6 METERS.
LW0642
LW0642
                                STATION RECOVERY (1943)
LW0642
LW0642'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1943 (FN)
LW0642'THE ORIGINAL DESCRIPTION IS ACCURATE AND ADEQUATE, AND ALL MARKS
LW0642'WERE RECOVERED IN GOOD CONDITION EXCEPT REFERENCE MARK 1 WHICH WAS
LW0642'DESTROYED BY ROAD-WIDENING CONSTRUCTION. A NEW DESCRIPTION FOLLOWS--
LW0642'
LW0642'THE STATION IS ON THE S END OF CONANICUT ISLAND, WHICH END IS
LW0642'KNOWN AS BEAVERTAIL POINT, WITHIN FORT BURNSIDE, AND ABOUT 150
LW0642'YDS. N OF BEAVERTAIL LIGHTHOUSE. IT IS ABOUT 50 FT. S OF A ROAD
LW0642'Y-INTERSECTION, 53 FT. E-NE OF A COVERED CONCRETE BOX, AND 41-1/2
LW0642'FT. N-NE OF THE THIRD TELEPHONE POLE N OF THE LIGHTHOUSE. THE
LW0642'TELEPHONE POLES ALSO CARRY POWER LINES THAT PASS ALMOST DIRECTLY
LW0642'OVER THE STATION, AND, FOR THIS REASON, IT WAS NECESSARY TO
LW0642'ESTABLISH A NEW STATION, BEAVER, NEARBY BECAUSE A STEEL TOWER WAS
LW0642'NEEDED FOR THE PRESENT WORK. SURFACE STATION MARK IS A STANDARD
LW0642'STATION DISK, STAMPED BEAVERTAIL 1940 AND SET IN THE TOP OF A
LW0642'CONCRETE POST FLUSH WITH THE GROUND.
LW0642'
LW0642'THE UNDERGROUND STATION MARK IS A STANDARD DISK SET IN THE TOP OF
LW0642'A CONCRETE POST.
LW0642'
LW0642'REFERENCE MARK 2 IS A STANDARD REFERENCE-MARK DISK, STAMPED
LW0642'BEAVERTAIL NO 2 1940 AND SET IN A DRILL HOLE IN A BOULDER. THE
LW0642'DISTANCE WAS MEASURED TO BE 14.770 M. WHICH IS 0.005 M. LONGER
LW0642'THAN THE ORIGINAL.
LW0642
LW0642
                                STATION RECOVERY (1962)
LW0642
LW0642'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1962 (JKW)
LW0642'THE STATION MARK AND REFERENCE MARK WERE RECOVERED IN GOOD
LW0642'CONDITION. THE DISTANCE TO THE REFERENCE MARK WAS VERIFIED. SEE
LW0642'1943 DESCRIPTION FOR STATION BEAVER IN RECOVERING THIS STATION.
LW0642
LW0642
                                STATION RECOVERY (1969)
LW0642
LW0642'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1969 (RRG)
LW0642'THE STATION MARK AND RM NO. 2 WERE RECOVERED AND IN GOOD
```

```
LW0642'CONDITION. THE STATION MAY BE REACHED BY GOING 3.65 MILES
LW0642'SOUTHWEST ALONG SOUTHWEST AVENUE AND BEAVERTAIL ROAD FROM THE POST
LW0642'OFFICE AT JAMESTOWN.
LW0642'
LW0642'THE STATION IS ABOUT 150 YARDS NORTH OF THE BEAVERTAIL
LW0642'LIGHTHOUSE, AT A Y JUNCTION IN THE ROAD, IN LINE WITH A
LW0642'NORTHEAST-SOUTHWEST ROAD, 79 FEET SOUTH OF THE CENTER LINE OF AN
LW0642'EAST-WEST ROAD, 52.8 FEET EAST-NORTHEAST OF THE EAST CORNER OF AN
LW0642'8-BY-8-FOOT CONCRETE BOX WHICH PROJECTS 1-1/2 FEET ABOVE THE
LW0642'LEVEL OF THE GROUND, 41-1/2 FEET NORTH-NORTHEAST OF THE 3RD POWER
LW0642'LINE POLE NORTH OF THE LIGHTHOUSE, 1.5 FEET NORTHWEST OF A METAL
LW0642'WITNESS POST AND SET IN THE TOP OF A CONCRETE POST FLUSH WITH THE
LW0642'GROUND. THE DISK IS STAMPED BEAVERTAIL 1940.
LW0642'
LW0642'RM 2 IS 48.4 FEET NORTHWEST OF THE STATION MARK, 53 FEET
LW0642'NORTHWEST OF THE 3RD POWER POLE NORTH OF THE BEAVERTAIL
LW0642'LIGHTHOUSE, 8 FEET NORTH OF THE NORTH SIDE OF A STONE FENCE, SET
LW0642'IN THE TOP OF A 7-BY-2 1/2-FEET EXPOSED BOULDER WHICH PROJECTS
LW0642'1-1/2 FEET ABOVE THE GROUND. STAMPED BEAVERTAIL NO 2 1940.
LW0642'
LW0642'AIRLINE DISTANCE AND DIRECTION FROM NEAREST TOWN 3.65 MILES
LW0642'SOUTHWEST OF JAMESTOWN.
LW0642
LW0642
                                STATION RECOVERY (1969)
LW0642
LW0642'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1969
LW0642'3.6 MI SW FROM JAMESTOWN.
LW0642'3.65 MILES SOUTHWEST ALONG SOUTHWEST AVENUE AND BEAVERTAIL
LW0642'ROAD FROM THE POST OFFICE AT JAMESTOWN, 150 YARDS NORTH OF THE
LW0642'BEAVERTAIL LIGHTHOUSE, AT A Y JUNCTION, IN LINE WITH A
LW0642'NORTHEAST-SOUTHWEST ROAD, 79 FEET SOUTH OF THE CENTER LINE OF
LW0642'EAST-WEST ROAD, 52.8 FEET EAST-NORTHEAST OF THE EAST CORNER OF AN
LW0642'8-BY-8-FOOT CONCRETE BOX WHICH PROJECTS 1 1/2 FEET ABOVE THE
LW0642'GROUND, 41 1/2 FEET NORTH-NORTHEAST OF THE 3 RD POWER LINE POLE
LW0642'NORTH OF THE LIGHTHOUSE, 1.5 FEET NORTHWEST OF A METAL WITNESS POST,
LW0642'SET IN THE TOP OF A CONCRETE POST FLUSH WITH THE GROUND.
LW0642
LW0642
                                STATION RECOVERY (1988)
LW0642
LW0642'RECOVERY NOTE BY US POWER SOUADRON 1988 (CGS)
LW0642'RECOVERED IN GOOD CONDITION.
LW0642
LW0642
                                STATION RECOVERY (2004)
```

LW0642 LW0642'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG) LW0642'RECOVERED IN GOOD CONDITION.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2981 DESIGNATION - BEAVER
LW2981 PID - LW2981
LW2981 STATE/COUNTY- RI/NEWPORT
LW2981 COUNTRY - US
LW2981 USGS OUAD - NARRAGANSETT PIER (1975)
LW2981
LW2981
                           *CURRENT SURVEY CONTROL
LW2981
LW2981* NAD 83(1996) POSITION- 41 27 01.80286(N) 071 23 56.74920(W) ADJUSTED
LW2981* NAVD 88 ORTHO HEIGHT - 10. (meters) 33. (feet) SCALED
LW2981
LW2981 GEOID HEIGHT - -30.19 (meters)
                                                             GEOID12A
LW2981 LAPLACE CORR - 2.48 (seconds)
                                                             DEFLEC12A
LW2981 HORZ ORDER - SECOND
TW2981
LW2981. The horizontal coordinates were established by classical geodetic methods
LW2981.and adjusted by the National Geodetic Survey in August 1998.
LW2981.
LW2981. The orthometric height was scaled from a topographic map.
LW2981
LW2981. Photographs are available for this station.
LW2981
LW2981. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2981
LW2981. The following values were computed from the NAD 83(1996) position.
LW2981
LW2981;
                        North East Units Scale Factor Converg.
LW2981; SPC RI
                - 40,781.937 108,431.374 MT 0.99999462 +0 04 00.5
LW2981; SPC RI - 133,798.74 355,745.27 sFT 0.99999462 +0 04 00.5
LW2981;UTM 19
                - 4,591,547.050 299,604.976 MT 1.00009423 -1 35 19.2
LW2981
```

```
LW2981! - Elev Factor x Scale Factor = Combined Factor LW2981!SPC RI - 1.00000321 \times 0.99999462 = 0.99999783
LW2981!UTM 19 - 1.00000321 x 1.00009423 = 1.00009744
LW2981
LW2981: Primary Azimuth Mark Grid Az
LW2981:SPC RI - BC 6
LW2981:UTM 19 - BC 6
                                                        018 43 38.7
                                                        020 22 58.4
T.W2 981
T.W2981|-----
LW2981 | PID Reference Object
                                         Distance Geod. Az |
LW2981|
                                                          dddmmss.s |
LW2981| LW0639 BATTERY 213 339.818 METERS 01033 |
                                           488.309 METERS 0184739.2 | 220.652 METERS 05430 |
LW2981| LW2970 BC 6
LW2981| LW0640 BATTERY WHITING
                                         16.119 METERS 06307
LW2981| LW0641 BEAVERTAIL RM 2
LW2981| LW0642 BEAVERTAIL
                                             27.341 METERS 08513
                                    APPROX. 3.6 KM 0881103.6
LW2981| LW2865 WEST TOWER
LW2981| LW2846 TOWER 9
                                           APPROX. 3.9 KM 0895708.1 |
LW2981
                  SUPERSEDED SURVEY CONTROL
LW2981
LW2981
LW2981 NAD 83(1996) - 41 27 01.80228(N) 071 23 56.74825(W) AD( ) 2
LW2981 NAD 83(1992) - 41 27 01.80135(N) 071 23 56.74856(W) AD( ) 2
LW2981 NAD 83(1992) - 41 27 01.80061(N) 071 23 56.74818(W) AD( ) 2
LW2981 NAD 83(1986) - 41 27 01.80069(N) 071 23 56.74634(W) AD( ) 2
LW2981 NAD 27 - 41 27 01.42997(N) 071 23 58.55060(W) AD( ) 2
LW2981
LW2981.Superseded values are not recommended for survey control.
LW2981
LW2981.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2981.See file dsdata.txt to determine how the superseded data were derived.
TW2981
LW2981 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9960491547 (NAD 83)
TW2981
LW2981 MARKER: DS = TRIANGULATION STATION DISK
LW2981 SETTING: 0 = UNSPECIFIED SETTING
LW2981 STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
LW2981 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
LW2981+SATELLITE: SATELLITE OBSERVATIONS - December 22, 2004
LW2981
LW2981 HISTORY - Date Condition Report By
LW2981 HISTORY - 1943 MONUMENTED CGS
```

```
LW2981 HISTORY - 1954 GOOD
                                             CGS
LW2981 HISTORY - 20041222 GOOD
                                             USPSOD
LW2981 HISTORY - 20061111 GOOD GEOCAC
LW2981
LW2981
                               STATION DESCRIPTION
TW2981
LW2981'DESCRIBED BY COAST AND GEODETIC SURVEY 1943 (FN)
LW2981'THE STATION IS ON THE S END OF CONANICUT ISLAND, WHICH END IS
LW2981'KNOWN AS BEAVERTAIL POINT, WITHIN FORT BURNSIDE, AND ABOUT 150
LW2981'YDS. N OF BEAVERTAIL LIGHTHOUSE. IT IS ABOUT 100 FT. SW OF A ROAD
LW2981'Y-INTERSECTION, 35 FT. W OF THE NW CORNER OF A COVERED CONCRETE
LW2981'BOX THAT IS ABOUT 8 FT. SOUARE AND PROJECTS ABOUT 2 FT. ABOVE
LW2981'GROUND, AND 2 FT. N OF THE PROJECTED PLANE OF THE N WALL OF SAID
LW2981'BOX. SURFACE STATION MARK IS A STANDARD STATION DISK, STAMPED
LW2981'BEAVER 1943 AND SET IN THE TOP OF A CONCRETE POST PROJECTING ABOUT
LW2981'4 IN.
LW2981'
LW2981'THE UNDERGROUND STATION MARK IS A STANDARD DISK SET IN THE TOP OF
LW2981'A CONCRETE POST.
LW2981'
LW2981'STATION BEAVERTAIL IS ABOUT E OF THE STATION, 53 FT. E-NE OF THE
LW2981'NE CORNER OF THE CONCRETE BOX. SURFACE STATION MARK IS A STANDARD
LW2981'STATION DISK, STAMPED BEAVERTAIL 1940 AND SET IN THE TOP OF A
LW2981'CONCRETE POST. THE UNDERGROUND STATION MARK IS A STANDARD DISK
LW2981'SET IN THE TOP OF A CONCRETE POST.
LW2981'
LW2981'REFERENCE MARK 2, OF STATION BEAVERTAIL, IS A STANDARD
LW2981'REFERENCE-MARK DISK, STAMPED BEAVERTAIL NO 2 1940 AND SET IN A
LW2981'DRILL HOLE IN A BOULDER WHICH IS ABOUT 2 FT. HIGH.
LW2981'
LW2981'DISTANCE FROM STATION BEAVERTAIL TO BEAVERTAIL REFERENCE MARK 2 IS
LW2981'14.770 M.
LW2981'
LW2981'HEIGHT OF LIGHT ABOVE STATION MARK 14 METERS.
TW2981
LW2981
                               STATION RECOVERY (1954)
LW2981
LW2981'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1954 (LFW)
LW2981'STATION AND REFERENCE MARKS RECOVERED IN GOOD CONDITION. THE 1943
LW2981'DESCRIPTION IS ADEOUATE AND COMPLETE.
LW2981
LW2981
                               STATION RECOVERY (2004)
LW2981
```

LW2981'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG)

LW2981'RECOVERED IN GOOD CONDITION.

LW2981

LW2981 STATION RECOVERY (2006)

LW2981

LW2981'RECOVERY NOTE BY GEOCACHING 2006 (NPP)

LW2981'VIEW TO NORTH IS BLOCKED BY PORTABLE TOILETS.

*** retrieval complete.

```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2901 DESIGNATION - BRENTON
LW2901 PID - LW2901
LW2901 STATE/COUNTY- RI/NEWPORT
LW2901 COUNTRY - US
LW2901 USGS OUAD - NEWPORT (1975)
LW2901
LW2901
                           *CURRENT SURVEY CONTROL
LW2901
LW2901* NAD 83(1996) POSITION- 41 26 59.82071(N) 071 21 18.87598(W) ADJUSTED
LW2901* NAVD 88 ORTHO HEIGHT - 6. (meters) 20. (feet) SCALED
LW2901
LW2901 GEOID HEIGHT - - 30.14 (meters)
                                                            GEOID12A
LW2901 LAPLACE CORR - 2.34 (seconds)
                                                            DEFLEC12A
LW2901 HORZ ORDER - SECOND
T.W2901
LW2901. The horizontal coordinates were established by classical geodetic methods
LW2901.and adjusted by the National Geodetic Survey in August 1998.
LW2901.
LW2901. The orthometric height was scaled from a topographic map.
LW2901
LW2901. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2901
LW2901. The following values were computed from the NAD 83(1996) position.
LW2901
LW2901;
                       North East Units Scale Factor Converg.
LW2901; SPC RI - 40,725.987 112,095.855 MT 0.99999555 +0 05 45.0
LW2901; SPC RI - 133,615.18 367,767.82 sFT 0.99999555 +0 05 45.0
                - 4,591,385.246 303,266.641 MT 1.00007633 -1 33 34.5
LW2901;UTM 19
LW2901
LW2901!
                - Elev Factor x Scale Factor = Combined Factor
LW2901!SPC RI - 1.00000383 \times 0.99999555 = 0.99999938
```

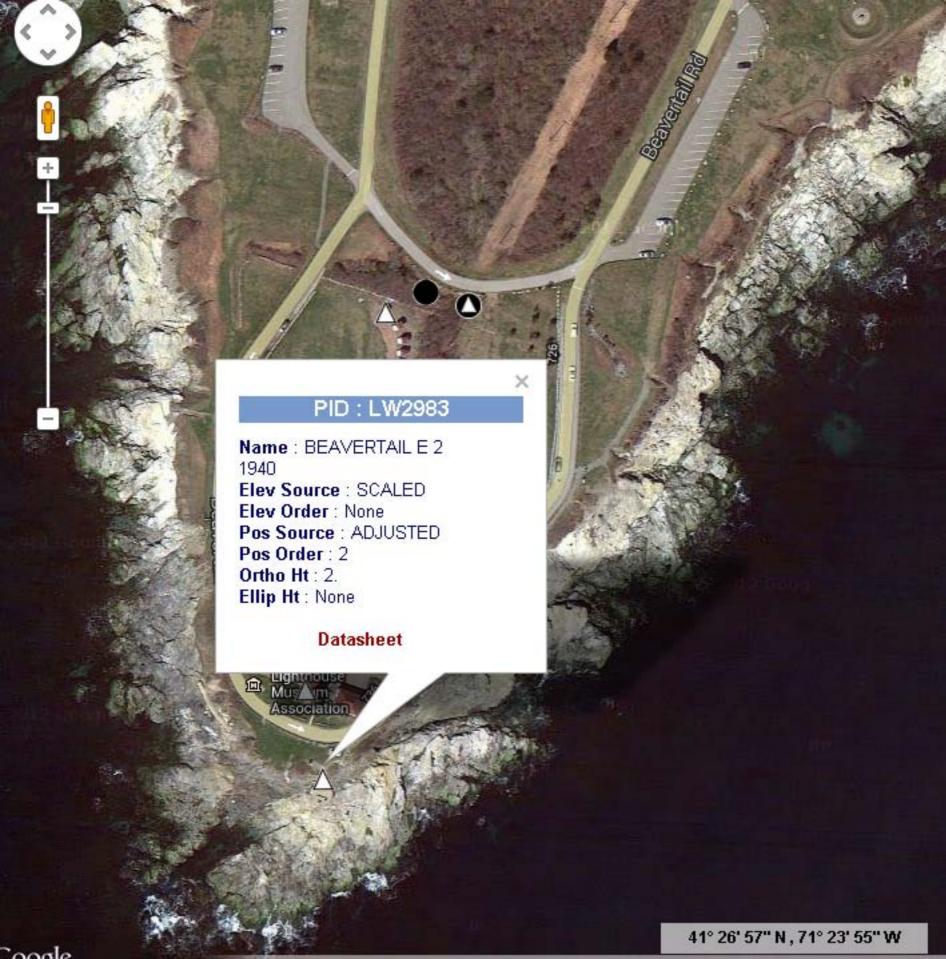
```
LW2901!UTM 19 - 1.00000383 x 1.00007633 = 1.00008016
LW2901
                                                          Grid Az
LW2901: Primary Azimuth Mark
LW2901:SPC RI - BEAVER
                                                           270 52 29.0
LW2901:UTM 19 - BEAVER
                                                           272 31 48.5
T.W2901
LW2901|-----
LW2901| PID Reference Object Distance Geod. Az |
LW2901|
                                                              dddmmss.s |
                              242.082 METERS 07450 |
25.476 METERS 20110 |
APPROX. 3.7 KM 2705814.0 |
24.390 METERS 29257 |
184.022 METERS 34133 |
LW2901| LW2846 TOWER 9
LW2901| CB7153 BRENTON RM 1
LW2901| LW2981 BEAVER
LW2901| CB7154 BRENTON RM 2
LW2901| LW2865 WEST TOWER
LW2901
                   SUPERSEDED SURVEY CONTROL
LW2901
LW2901
LW2901 NAD 83(1996) - 41 26 59.82025(N) 071 21 18.87504(W) AD( ) 2
LW2901 NAD 83(1992) - 41 26 59.81916(N) 071 21 18.87537(W) AD( ) 2
LW2901 NAD 83(1992) - 41 26 59.81851(N) 071 21 18.87489(W) AD( ) 2
LW2901 NAD 83(1986) - 41 26 59.81844(N) 071 21 18.87256(W) AD( ) 2
LW2901 NAD 27 - 41 26 59.45100(N) 071 21 20.67700(W) AD( ) 2
LW2901
LW2901.Superseded values are not recommended for survey control.
LW2901
LW2901.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2901. See file dsdata.txt to determine how the superseded data were derived.
LW2901
LW2901 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TCF0326691385 (NAD 83)
T.W2901
LW2901 MARKER: DS = TRIANGULATION STATION DISK
LW2901 SETTING: 0 = UNSPECIFIED SETTING
LW2901 STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
LW2901
LW2901 HISTORY - Date Condition Report By LW2901 HISTORY - 1943 MONUMENTED CGS
LW2901 HISTORY - 1954 MARK NOT FOUND CGS
LW2901
       STATION DESCRIPTION
LW2901
LW2901
LW2901'DESCRIBED BY COAST AND GEODETIC SURVEY 1943 (FN)
LW2901'THE STATION IS ABOUT 3-1/2 MI. SW OF NEWPORT, ON BRENTON POINT.
```

LW2901'IT IS ON THE LAWN OF THE BUDLONG ESTATE (NOW OCCUPIED BY THE U.S. LW2901'ARMY), 131 FT. N OF THE OUTSIDE FACE OF ONE STONE FENCE, AND 82 LW2901'FT. E OF ANOTHER. SURFACE STATION MARK IS A STANDARD STATION LW2901'DISK, STAMPED BRENTON 1943 AND SET IN THE TOP OF A CONCRETE POST LW2901'FLUSH WITH THE GROUND. LW2901' LW2901'THE UNDERGROUND MARK IS A STANDARD DISK SET IN THE TOP OF A LW2901'CONCRETE POST. LW2901' LW2901'REFERENCE MARK 1 IS SW OF THE STATION, IN THE E EDGE OF A DENSE LW2901'ROSE GARDEN, 21 FT. E-SE OF THE CENTER OF A MANHOLE COVER OVER A LW2901'STORM SEWER INTAKE. IT IS A STANDARD REFERENCE-MARK DISK, STAMPED LW2901'BRENTON NO 1 1943 AND SET IN THE TOP OF A CONCRETE POST FLUSH WITH LW2901'THE GROUND. LW2901' LW2901'REFERENCE MARK 2 IS IN THE SAME EDGE OF THE SAME ROSE GARDEN. IT LW2901'IS A STANDARD REFERENCE-MARK DISK, STAMPED BRENTON NO 2 1943 AND LW2901'SET IN THE TOP OF A CONCRETE POST FLUSH WITH GROUND. LW2901' LW2901'TO REACH THE STATION FROM THE NEWPORT POST OFFICE, GO S ON THAMES LW2901'STREET FOR 0.5 MI. AND TURN RIGHT ONTO WELLINGTON AVENUE, THENCE LW2901'0.85 MI. TO A CROSSROAD AND TURN RIGHT, THENCE 0.45 MI. TO A LW2901'T-INTERSECTION AND TURN RIGHT, THENCE 0.4 MI. AND TAKE THE RIGHT LW2901'FORK, THENCE 0.5 MI. (OR 0.4 MI. PAST THE ENTRANCE ROAD TO FORT LW2901'ADAMS) AND TAKE THE RIGHT FORK, THENCE 0.75 MI. TO A LW2901'T-INTERSECTION AND TURN RIGHT, THENCE 0.85 MI. TO A SHARP LEFT LW2901'TURN AT THE END OF A SHORT SEAWALL ON THE RIGHT AND THE STATION ON LW2901'THE LEFT. LW2901' LW2901'HEIGHT OF LIGHT ABOVE STATION MARK 1 METER. LW2901 LW2901 STATION RECOVERY (1954) TW2901 LW2901'RECOVERY NOTE BY COAST AND GEODETIC SURVEY 1954 (LFW) LW2901'LOST. THE AREA WAS SEARCHED, BUT NONE OF THE MARKS WERE LW2901'RECOVERED. IT IS BELIEVED THE STATION IS IN PLACE AND COULD BE

LW2901'FOUND BY MORE EXTENSIVE SURVEY METHODS. THE LAWN APPEARS TO HAVE

LW2901'BEEN ABANDONED AND IS NOW COVERED WITH THICK HIGH GRASS.

*** retrieval complete.





```
PROGRAM = datasheet95, VERSION = 8.3
       National Geodetic Survey, Retrieval Date = SEPTEMBER 30, 2013
LW2983 DESIGNATION - BEAVERTAIL E 2 1940
LW2983 PID - LW2983
LW2983 STATE/COUNTY- RI/NEWPORT
LW2983 COUNTRY - US
LW2983 USGS OUAD - NARRAGANSETT PIER (1975)
LW2983
LW2983
                          *CURRENT SURVEY CONTROL
LW2983
LW2983* NAD 83(1996) POSITION- 41 26 56.71827(N) 071 23 57.64350(W) ADJUSTED
LW2983* NAVD 88 ORTHO HEIGHT - 2. (meters) 7. (feet) SCALED
LW2983
LW2983 GEOID HEIGHT - - 30.19 (meters)
                                                            GEOID12A
LW2983 LAPLACE CORR - 2.46 (seconds)
                                                            DEFLEC12A
LW2983 HORZ ORDER - SECOND
LW2983
LW2983. The horizontal coordinates were established by classical geodetic methods
LW2983.and adjusted by the National Geodetic Survey in August 1998.
LW2983.
LW2983. The orthometric height was scaled from a topographic map.
LW2983
LW2983. The Laplace correction was computed from DEFLEC12A derived deflections.
LW2983
LW2983. The following values were computed from the NAD 83(1996) position.
LW2983
LW2983;
                       North East Units Scale Factor Converg.
LW2983; SPC RI - 40,625.050 108,410.799 MT 0.99999462 +0 03 59.9
LW2983; SPC RI - 133,284.02 355,677.76 sFT 0.999999462 +0 03 59.9
LW2983;UTM 19
                - 4,591,390.808 299,579.874 MT 1.00009435 -1 35 19.6
LW2983
LW2983!
                - Elev Factor x Scale Factor = Combined Factor
LW2983!SPC RI - 1.00000446 \times 0.99999462 = 0.99999908
```

```
LW2983!UTM 19 - 1.00000446 x 1.00009435 = 1.00009881
LW2983
LW2983
                                SUPERSEDED SURVEY CONTROL
LW2983
LW2983 NAD 83(1996) - 41 26 56.71769(N) 071 23 57.64254(W) AD( ) 2
LW2983 NAD 83(1992) - 41 26 56.71675(N) 071 23 57.64286(W) AD( ) 2
LW2983 NAD 83(1992) - 41 26 56.71602(N) 071 23 57.64247(W) AD( ) 2
LW2983 NAD 83(1986) - 41 26 56.71611(N) 071 23 57.64068(W) AD( ) 2
LW2983 NAD 27 - 41 26 56.34913(N) 071 23 59.43863(W) AD( ) 2
LW2983
LW2983.Superseded values are not recommended for survey control.
LW2983
LW2983.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
LW2983. See file dsdata.txt to determine how the superseded data were derived.
LW2983
LW2983 U.S. NATIONAL GRID SPATIAL ADDRESS: 19TBF9957991390 (NAD 83)
LW2983
LW2983 MARKER: H = DRILL HOLE
LW2983 SETTING: 0 = UNSPECIFIED SETTING
LW2983 STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
LW2983 SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
LW2983+SATELLITE: SATELLITE OBSERVATIONS - December 22, 2004
LW2983
LW2983 HISTORY - Date Condition Report By
LW2983 HISTORY - 1940 MONUMENTED
                                              CGS
LW2983 HISTORY - 1988 MARK NOT FOUND USPSQD
LW2983 HISTORY - 20020903 MARK NOT FOUND USPSQD
LW2983 HISTORY - 20041222 GOOD USPSQD
LW2983 HISTORY - 20041222 MARK NOT FOUND USPSQD
LW2983
LW2983
                                STATION DESCRIPTION
LW2983
LW2983'DESCRIBED BY COAST AND GEODETIC SURVEY 1940 (PLB)
LW2983'STATION IS LOCATED ON THE EXTREME S TIP OF CONANICUT ISLAND, ON
LW2983'THE POINT OF LAND KNOWN AS BEAVERTAIL POINT. IT IS A 4-FT. 8 IN.
LW2983'IN DIAMETER STEEL PEDESTAL SET VERTICALLY IN THE CONCRETE
LW2983'FOUNDATION OF THE RUINS OF A CIRCULAR STRUCTURE THAT STOOD ON THE
LW2983'LEDGE OUTCROP AT THE EXTREME S END OF THE POINT. IT IS 96 FT. SE
LW2983'OF THE SE CORNER OF THE SOUARE TOWER, THE TOP OF WHICH HOUSES
LW2983'BEAVERTAIL LIGHT, AND ABOUT 70 FT. SE OF THE CENTERLINE OF THE S
LW2983'TANGENT OF THE PAVED ROAD THAT MAKES A COMPLETE LOOP AROUND THE
LW2983'POINT. IT IS MARKED BY A PUNCH HOLE IN THE 1-IN. THREADED PLUG IN
LW2983'THE CENTER OF THE TOP OF THE PEDESTAL. IT WAS LOCATED BY TRAVERSE
```

```
LW2983'FROM STATION BEAVERTAIL.
LW2983'
LW2983'THIS IS A TRAVERSE STATION.
LW2983
LW2983
                                STATION RECOVERY (1988)
LW2983
LW2983'RECOVERY NOTE BY US POWER SQUADRON 1988 (AFA)
LW2983'MARK NOT FOUND.
LW2983
LW2983
                                STATION RECOVERY (2002)
LW2983
LW2983'RECOVERY NOTE BY US POWER SOUADRON 2002 (KM)
LW2983'WAVE AND STORM ACTION HAS DEVASTATED THE AREA OF THE OLD LIGHT-
LW2983'HOUSE BASE. THERE IS NO EVIDENCE OF THE ABOVE MARK.
LW2983
LW2983
                                STATION RECOVERY (2004)
LW2983
LW2983'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG)
LW2983'RECOVERED IN GOOD CONDITION.
LW2983
LW2983
                                STATION RECOVERY (2004)
LW2983
LW2983'RECOVERY NOTE BY US POWER SQUADRON 2004 (TLG)
LW2983'THE BASE OF THE OLD LIGHTHOUSE HAS BEEN FILLED WITH CONCRETE OBSCURING
LW2983'ANY MARKERS THAT WEER EVER THERE.
```

*** retrieval complete.