Herbert Hoover Dike LiDAR and Ortho-imagery Project

Florida Minimum Technical Standards for Mapping Projects Survey and Map Report

Submitted to:

Mr. William Millinor
GIS Department Manager
Jones Edmunds
(On behalf of the Florida Department of Emergency Management, U.S. Army Corps of Engineers Jacksonville District, and the Federal Emergency Management Agency)
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Prepared for:

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Merrick & Company Job Number: 02015609

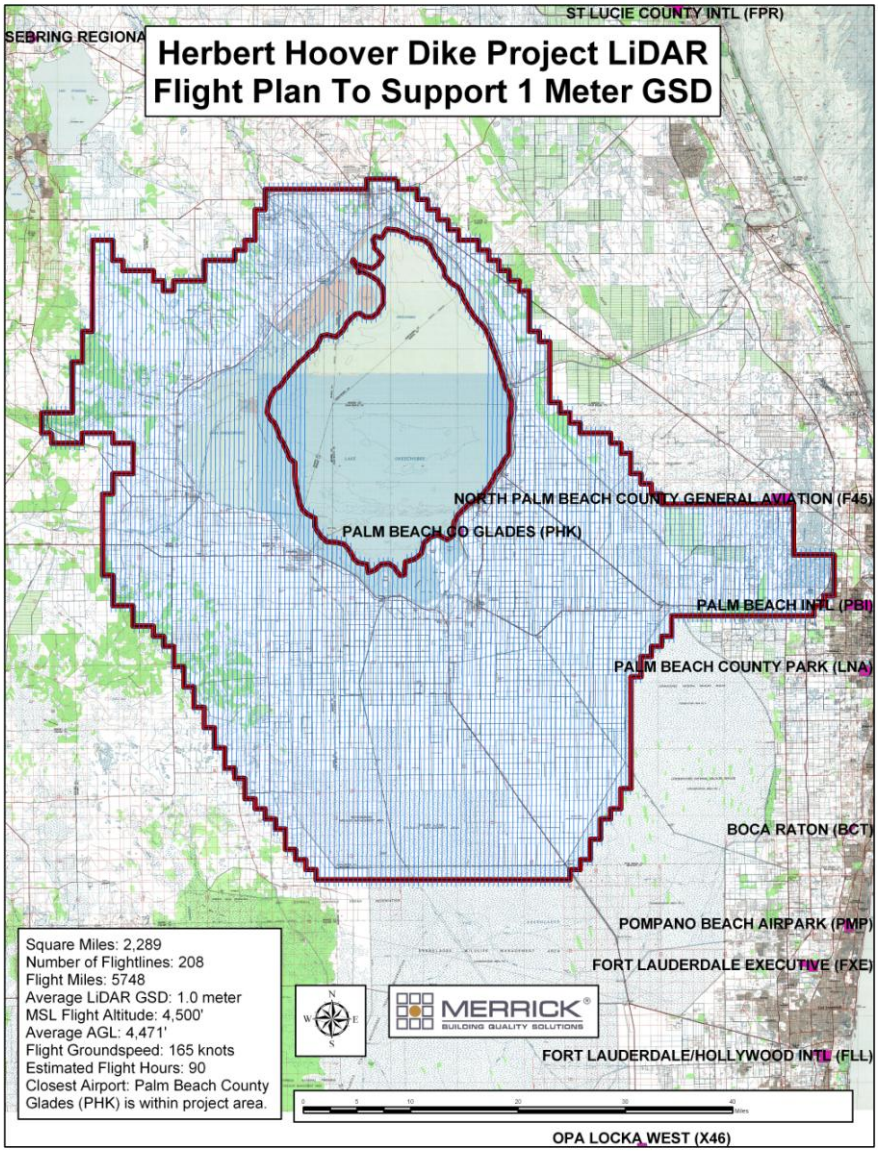
Florida Minimum Technical Standards for Mapping Projects

Survey and Map Report for the 2007-2009 LiDAR and ortho-imagery project for the Herbert Hoover Dike in south Florida.

Merrick Job Number 02015609

The Acquisition Services Directorate, on behalf of the Federal Emergency Management Agency (FEMA), contracted with Merrick & Company (Merrick) to acquire LiDAR and color digital aerial imagery over a project area of approximately 2,289 square miles. The LiDAR and aerial imagery was used in the ortho rectification of 2,607 5,0000' x 5,000' formatted tiles of one-foot (1') pixel resolution color digital orthophotos. The LiDAR was collected at a ground sample distance of 4-ft and Merrick processed the data to bare-earth. Breaklines were compiled from the LiDAR and ortho-imagery to create digital terrain data. Contours at 1-ft and 2-ft interval were created from the digital terrain data. ***Figure 1*** *illustrates the aerial imagery, LiDAR, and topographic acquisition area.*

Figure 1



This is to certify that the aerial mapping contained in the Hard Drive Disk labeled Herbert Hoover Dike Job No. 02015609, dated April 28, 2009, was done under my direct supervision and checking. The Fundamental Vertical Accuracy (FVA) of the LiDAR bare-earth data was tested to meet a 0.60' fundamental accuracy at 95% confidence level using $RMSE_Z$ x 1.9600 (where as $RMSE_Z \leq 0.30$') as defined by the National Standard for Spatial Data Accuracy (NSSDA) in open well defined terrain. The vertical accuracy testing for LiDAR data over well-defined surfaces met the requirements as set forth in the Federal Geographic Data Committee's (FGDC) Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA). This criterion was met based on the Ground Truthing surveyed check points provided by Gustin, Cothern, & Tucker, Inc. (GCT), located at 121 Hart Street, Niceville, FL 32578 under their Project No. E07-066 signed and sealed on July 18, 2008 by Horace Wayne Walker, Jr., Florida PSM# 5029.

The LiDAR survey was completed between September 2007 and January 2008 under my direct supervision and checking. The portion of the aerial LiDAR survey not certified to above by Horace Wayne Walker was performed under my direct supervision and checking and is true and correct, all to the best of my knowledge and belief.

I, Doyle G. Abrahamson, a Professional Surveyor and Mapper (PSM) licensed in the State of Florida (LS 0006156) do hereby state that this Survey and Map Report is correct and accurate, all to the best of my knowledge and belief for the mapping data, which was signed by me along with the signature, date and job number as listed below, and submitted to Jones Edmunds under Job No. 02015609:

Firewire Drive	Description of Contents	Date
1	2, 607 LiDAR classified mass points, ASPRS LAS 1.1, point cloud data	4/28/09
1	2, 607 LiDAR DTM files, ASPRS LAS 1.1, bare-earth points and breaklines (as breakpoints)	4/28/09
1	2,607 Natural Color 1-ft pixel resolution digital ortho-photos in GeoTiff format	4/28/09
1	5 Natural Color 1-ft pixel resolution digital ortho-photo mosaics in .ECW format	4/28/09
1	FGDC compliant metadata templates in .xml format for each file and feature class	4/28/09
1	Topographic Geodatabase	4/28/09
1	Ortho-Photography geodatabase	4/28/09
1	2,607 ASCII DEMs for ortho generation	4/28/09

All data is considered final except for the contours, a feature class within the Topographic Geodatabase, because they have not been checked at this time by Jones Edmund, a subcontractor

to the Florida Division of Emergency Management. A full description of the deliverables is outlined below under ***Listing of final files and descriptions of media***.

Doyle G. Abrahamson, PSM #6156

Dated:

Merrick & Company Job No. 02015753

None of the above mentioned media are full and complete without this Survey and Map Report.

This certification is not valid without the signature and raised seal of a Florida Licensed Surveyor and Mapper.

Glossary of Terms

Term	Description
ASPRS	American Society of Photogrammetry and Remote Sensing
CD	Compact Disk
COE	U.S. Army Corps of Engineers
DACS™	Digital Aerial Camera System
DATESTAMP_DT	Date
DSM	Digital Surface Model
DTM	Digital Terrain Model
DVD	Digital Versatile Disk / Digital Video Disk
DXF	Data Exchange Format / Drawing Interchange Format / Drawing Exchange Format
ESRI	Environmental Systems Research Institute
FDEM	Florida Department of Emergency Management
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FGDC	Federal Geographic Data Committee
GIS	Geographic Information System
GPS	Global Positioning System
HHD	Herbert Hoover Dike
JEA	Jones Edmunds
LiDAR	Light Detection and Ranging
MARS	Merrick Advanced Remote Sensing Software
NGS	National Geodetic Survey
NMAS	National Map Accuracy Standards
No.	Number
NSSDA	National Standard for Spatial Data Accuracy
Object ID	Unique Identifier for Each Object
PLSS	Public Land Survey System

PSM	Professional Surveyor and Mapper
X_COORDINATE	Easting Coordinate
Y_COORDINATE	Northing Coordinate
Z_COORDINATE	Elevation Value

Survey and Map Report for the HHD Project

- ***Project title***

  Herbert Hoover Dike Project

- ***Name of client***

  Jones Edmund

- ***Client contact information***

  Mr. William Millinor
  GIS Department Manager
  Jones Edmund
  Subcontractor to Florida Division of Emergency Management
  730 NE Waldo Road
  Gaisnville, FL 32641
  353-377-5821
  bmillinor@jonesedmunds.com

- ***Intended use***

  Flood modeling, flood inundation, Geographic Information Systems (GIS) base mapping, and emergency response

- ***Responsible PSM name, number and address***

  Mr. Doyle G. Abrahamson
  PSM #6156
  2450 South Peoria Street
  Aurora, CO 80014
  303-353-3902
  doyle.abrahamson@merrick.com

- ***Name of PSM company***

  Merrick & Company
  2450 South Peoria Street
  Aurora, CO 80014
  303-751-0741
  www.merrick.com

- ***LB number of PSM company***

  Merrick & Company LB #7224

- ***Dates of survey***

  September 2007 through March 2008

- ***Dates of photography***

  September 2007 through January 2008

- ***Dates of LIDAR acquisition***

  September 2007 through January 2008

- ***Equipment and Software***

  Merrick acquired the LiDAR using the Leica ALS 50 – 83 kHz and Leica ALS 50 II with Multiple Pulses in Air technology – 150 kHz pulse rate. The LiDAR was processed with the Merrick Advanced Remote Sensing Software (MARS$^{@}$) and the Environmental Systems Research institute (ESRI) suite of software.

  The aerial imagery was acquired with the Leica ADS40 51/52 series sensor head. The aerial imagery was processed using Leica Geosystems, OrthoVista, Socet Set, and ER Mapper software.

- ***Horizontal and vertical datum's***

  Horizontal - Florida State Plane Coordinate System (SPCS), East Zone, North American Datum 1983 / HARN adjusted in US Survey Feet
  Vertical - North American Vertical Datum 1988 (NAVD 88)
  Units - U.S. Survey Foot

- ***Horizontal and vertical control monuments used (descriptions, coordinates, elevations, to-reach, monument type, etc).***

  National Geodetic Survey (NGS) monuments and horizontal and vertical values shown in **Exhibit A** were used as the basis to control the HHD project. All photo-ID GPS photo control was tied into the above-mentioned NGS control. See the attached NGS data sheets (Exhibit A) for monument descriptions, horizontal values, elevations and to-reach descriptions.

  Supplemental monument type (if required by contract)
  N/A

- ***Accuracy statement of survey***

  Gustin, Cothern, & Tucker, Inc. (GCT), under the direction of Merrick & Company (Merrick), performed the majority of the various ground control survey activities in support of the required accuracies for this project. For details regarding the control network survey, please refer to the *HHD-Survey Report.pdf* authored by GCT, which was signed and sealed by Horace "Wayne" Walker, Florida PSM #, dated April, 2009. Merrick submitted said report to Jones Edmund on April, 2009.

- ***Accuracy statement of photography***

  The photography (digital) was required to support the production of digital orthophotography and photogrammetric mapping as specified in the FGDC Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy for 1" = 100' for large scale maps. Aerial photography meets the said standards for a horizontal accuracy of 7.6 feet at the 95% confidence level (4.4 feet RMSE).

- ***Accuracy statement of LIDAR***

  The Fundamental Vertical Accuracy (FVA) of the LiDAR bare-earth was tested to meet a 0.60' fundamental accuracy at 95% confidence level using $RMSE_Z$ x 1.9600 (where as $RMSE_Z \leq 0.30$') as defined by the National Standard for Spatial Data Accuracy (NSSDA) in open well defined terrain. The vertical accuracy testing for LiDAR data over well-defined surfaces will meet or exceed requirements as set forth in the Federal Geographic Data Committee's (FGDC) Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA).

  Horizontal accuracy was tested to meet a 3.8' fundamental accuracy at 95% confidence level using RMSE(r) x 1.7308 as defined by the the Federal Geographic Data Committee's (FGDC) Geospatial Positioning Accuracy Standards, Part 3: National Standard for Spatial Data Accuracy (NSSDA).

  The actual vertical accuracy assessment using the aforementioned checkpoints resulted in $RMSE_Z$ = 0.29' / $Accuracy_Z$ = 0.57' using NSSDA testing methods.

  The actual horizontal accuracy assessment using the aforementioned checkpoints resulted in the >>>>>>

- ***Accuracy statement of final deliverables***

  The final deliverables (i.e., updated planimetrics, digital orthophotography, and one-foot [1'] contours, and ASPRS LAS files) for this project conforms to ASPRS Class 1 positional accuracy standards established for one-foot (1') contours (vertical), and 1"=100' (1:1,200) scale mapping or smaller (horizontal).

- ***Intended display scale***

  The deliverables are intended to be displayed at a scale of 1"=100' (1:1,200) or smaller.

- ***Metadata***

  See attached documentation (Exhibit B) that provides the database design and metadata information as provided by Client and updated by Merrick.

- ***Database design documentation***

  See attached documentation (Exhibit B) that provides the database design and metadata information as provided by Client and updated by Merrick.

- ***Statement of any data limitations***

  There are no limitations other than the previously defined map accuracies and intended display scales.

- ***Listing of final files and descriptions of media***

  - Unless otherwise noted, five delivery areas make up the project extent.

    1. Area 1A - 328 tiles (5,000 x 5,000 ft)
    2. Area 1B - 487 tiles (5,000 x 5,000 ft)
    3. Area 3 – 435 tiles (5,000 x 5,000 ft)
    4. Area 4 – 700 tiles (5,000 x 5,000 ft)
    5. Area 5 – 657 tiles (5,000 x 5,000 ft)

Total number of tiles is 2,607.

LIDAR

- LiDAR classified mass points, ASPRS LAS 1.1, point cloud data – 2,607 tiles (5,000 x 5,000 ft) submitted on firewire drive on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM
- LiDAR DTM file, ASPRS LAS 1.1, bare-earth points and breaklines (as breakpoints) – 2,607 tiles (5,000 x 5,000 ft) submitted on firewire drive on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM
- FGDC compliant metadata templates in .xml format for each file submitted to Mr. William Millinor of JEA, on behalf of FDEM on firewire drive on 4/28/09

Digital Orthophotography

- Natural Color 1-ft pixel resolution digital ortho-photos in GeoTiff format - 2,607 tiles (5,000 x 5,000 ft) submitted on firewire drive on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM
- Natural Color 1-ft pixel resolution digital ortho-photo mosaics in .ECW format – five mosaics delivered by project boundary submitted to Mr. William Millinor of JEA, on behalf of FDEM on firewire drive:
- FGDC compliant metadata templates in .xml format for each file submitted to Mr. William Millinor of JEA, on behalf of FDEM on firewire drive on 4/28/09
- ASCII DEM at 10-ft resolution for orthophotography generation – 2,607 tiles (5,000 x 5,000 ft) submitted on firewire drive on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM

Ortho-Photography Geodatabase

- Five Ortho-Photography Geodatabases submitted on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM on firewire drive.
    - Feature Classes
        - Cutlines
        - Checkpoints
        - Project tiling footprint

Topographic Geodatabase

- Five Topographic Geodatabase submitted on 4/28/09 to Mr. William Millinor of JEA, on behalf of FDEM on firewire drive.
    - Breakline Features Classes in each Topographic Geodatabase
        - LiDAR Mass Points (bare-earth points)
        - Sugar Cane Fields
        - Water Body
        - Linear Hydrographic Features
        - Road
        - Soft Features
        - Hydro Connectors

        - Island
        - Low Confidence
        - Coastal Shoreline
        - Overpass
        - Survey Ground Points
        - Vertical Accuracy Land Cover Survey Points
        - Project Tiling Footprint
        - FGDC compliant metadata templates in .xml format per feature class on 4/28/09
    - Contour Feature Classes in each Topographic Geodatabase
        - Contours_1ft
        - Contours_2ft
        - FGDC compliant metadata file per feature class (.xml format)

None of the aforementioned deliverables are full and complete without this Survey and Map Report.

Miscellaneous items such as flight plans, various reports, etc. were submitted for the HHD project as ancillary products over the duration of the project / contract.

Many preliminary submittals were made to HHD over the course of the project. Only those submitted with the above dates should be deemed final.

- ***Type of Survey being done***

  LiDAR and aerial imagery checkpoints and land cover accuracy checkpoints.

```
The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AD7890 ***********************************************************************
 AD7890  CBN         -  This is a Cooperative Base Network Control Station.
 AD7890  DESIGNATION -  AIRPORT
 AD7890  PID         -  AD7890
 AD7890  STATE/COUNTY-  FL/HENDRY
 AD7890  USGS QUAD   -  HOG CYPRESS (1970)
 AD7890
 AD7890                        *CURRENT SURVEY CONTROL
 AD7890  ______________________________________________________________________
 AD7890* NAD 83(2007)-  26 44 15.66928(N)    081 03 17.87504(W)      ADJUSTED
 AD7890* NAVD 88     -         5.590  (meters)      18.34   (feet)  ADJUSTED
 AD7890  ______________________________________________________________________
 AD7890  EPOCH DATE  -        2002.00
 AD7890  X           -     886,276.000 (meters)                      COMP
 AD7890  Y           -  -5,630,681.383 (meters)                      COMP
 AD7890  Z           -   2,852,279.971 (meters)                      COMP
 AD7890  LAPLACE CORR-          -1.37  (seconds)                     DEFLEC99
 AD7890  ELLIP HEIGHT-         -19.067 (meters)          (02/10/07) ADJUSTED
 AD7890  GEOID HEIGHT-         -24.59  (meters)                     GEOID03
 AD7890  DYNAMIC HT  -           5.581 (meters)      18.31  (feet)  COMP
 AD7890
 AD7890  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD7890  Type    PID    Designation                      North   East  Ellip
 AD7890  ----------------------------------------------------------------------
 AD7890  NETWORK AD7890 AIRPORT                           1.49   1.47   4.80
 AD7890  ----------------------------------------------------------------------
 AD7890  MODELED GRAV-     979,110.5   (mgal)                       NAVD 88
 AD7890
 AD7890  VERT ORDER  -  FIRST     CLASS II
 AD7890
 AD7890.This mark is at Clewiston (AIRGLADES) Airport (2IS)
 AD7890
 AD7890.The horizontal coordinates were established by GPS observations
 AD7890.and adjusted by the National Geodetic Survey in February 2007.
 AD7890
 AD7890.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD7890.See National Readjustment for more information.
 AD7890.The horizontal coordinates are valid at the epoch date displayed above.
 AD7890.The epoch date for horizontal control is a decimal equivalence
 AD7890.of Year/Month/Day.
 AD7890
 AD7890.The orthometric height was determined by differential leveling
 AD7890.and adjusted in June 2002.
 AD7890.No vertical observational check was made to the station.
 AD7890
 AD7890.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD7890
 AD7890.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD7890
 AD7890.The ellipsoidal height was determined by GPS observations
 AD7890.and is referenced to NAD 83.
 AD7890
 AD7890.The geoid height was determined by GEOID03.
 AD7890
```

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AD7890.The dynamic height is computed by dividing the NAVD 88
AD7890.geopotential number by the normal gravity value computed on the
AD7890.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7890.degrees latitude (g = 980.6199 gals.).
AD7890
AD7890.The modeled gravity was interpolated from observed gravity values.
AD7890
AD7890;                    North         East     Units Scale Factor Converg.
AD7890;SPC FL E     -   266,342.157   194,532.146   MT  0.99994155   -0 01
29.0
AD7890;SPC FL E     -   873,824.23    638,227.55   sFT  0.99994155   -0 01
29.0
AD7890;UTM  17      - 2,957,383.264   494,534.012   MT  0.99960037   -0 01
29.0
AD7890
AD7890!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7890!SPC FL E     -   1.00000300  x   0.99994155  =   0.99994455
AD7890!UTM  17      -   1.00000300  x   0.99960037  =   0.99960336
AD7890
AD7890:                Primary Azimuth Mark                    Grid Az
AD7890:SPC FL E     -  AIRPORT AZ MK                           134 39 31.6
AD7890:UTM  17      -  AIRPORT AZ MK                           134 39 31.6
AD7890
AD7890|---------------------------------------------------------------------|
AD7890| PID    Reference Object                     Distance      Geod. Az  |
AD7890|                                                           dddmmss.s |
AD7890| AD7909 AIRPORT AZ MK                      APPROX. 0.9 KM 1343802.6 |
AD7890|---------------------------------------------------------------------|
AD7890
AD7890                          SUPERSEDED SURVEY CONTROL
AD7890
AD7890  NAD 83(1999)-  26 44 15.66910(N)    081 03 17.87454(W) AD(       ) B
AD7890  ELLIP H (05/31/01)  -19.032  (m)                       GP(       ) 5 1
AD7890  NAD 83(1990)-  26 44 15.66768(N)    081 03 17.87385(W) AD(       ) B
AD7890  ELLIP H (09/13/90)  -19.053  (m)                       GP(       ) 4 1
AD7890  NGVD 29 (09/13/90)    5.9    (m)           19.     (f) GPS OBS     3
AD7890
AD7890.Superseded values are not recommended for survey control.
AD7890.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7890.See file dsdata.txt to determine how the superseded data were derived.
AD7890
AD7890_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK9453457383(NAD 83)
AD7890_MARKER: F = FLANGE-ENCASED ROD
AD7890_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
AD7890_SP_SET: STAINLESS STEEL ROD IN SLEEVE
AD7890_STAMPING: AIRPORT 1989
AD7890_MARK LOGO: NGS
AD7890_PROJECTION: RECESSED 8 CENTIMETERS
AD7890_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7890_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD7890_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7890+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
AD7890_ROD/PIPE-DEPTH: 11.7 meters
AD7890_SLEEVE-DEPTH  : 0.91 meters
AD7890
AD7890  HISTORY     - Date     Condition        Report By
AD7890  HISTORY     - 1989     MONUMENTED       NGS
AD7890  HISTORY     - 19980715 GOOD             GCYI
AD7890  HISTORY     - 20020221 GOOD             FLDEP
AD7890  HISTORY     - 20030530 GOOD             DENI
AD7890  HISTORY     - 20071101 GOOD             GCT
AD7890
AD7890                          STATION DESCRIPTION
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AD7890
AD7890'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
AD7890'THE STATION IS LOCATED ABOUT 11.3 KM (7.00 MI) WEST-SOUTHWEST OF
AD7890'CLEWISTON, ABOUT 2 KM (1.25 MI) SOUTH OF U.S. HIGHWAY 27, AT THE
AD7890'NORTHWEST END AND AT A NORTHWEST-SOUTHEAST FENCELINE AT RUNWAY 13-31
AD7890'AT THE CLEWISTON/AIRGLADES AIRPORT. OWNERSHIP--HENDRY COUNTY, MANAGER
AD7890'IS BILL JONES OR KEN HUNTER, PHONE IS 813-983-5206, 983-6151.
AD7890'NOTE--PERMISSION MUST BE OBTAINED BEFORE ENTERING AIRPORT.
AD7890'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 27 AND S.
AD7890'BERNARD RD., LOCATED AT THE WEST EDGE OF CLEWISTON, AND ABOUT 0.16 KM
AD7890'(0.10 MI) WEST OF A MCDONALDS RESTAURANT, GO WEST ALONG U.S.HIGHWAY 27
AD7890'FOR 1.1 KM (0.70 MI) TO A RAILROAD CROSSING, CONTINUE WEST ALONG
AD7890'HIGHWAY FOR 8.5 KM (5.30 MI) TO AN ASPHALT ROAD ON THE LEFT AND AN
AD7890'AIRPORT SIGN, THEN GO LEFT, SOUTH, ALONG THE ASPHALT ROAD FOR 2 KM
AD7890'(1.25 MI) TO AN ELECTRIC ENTRANCE GATE AT THE AIRPORT, THEN PASS THRU
AD7890'GATE AND GO SOUTHWEST FOR ABOUT 600.0 M (1968.5 FT) TO A METAL HANGAR
AD7890'AND MANAGERS OFFICE STRAIGHT AHEAD. FROM THE MANAGERS OFFICE GO
AD7890'WEST AND NORTH FOLLOWING PAVED TAXIWAY FOR ABOUT 0.4 KM (0.25 MI) TO
AD7890'THE NORTHWEST END OF RUNWAY 13-31 AND THE STATION NEAR A FENCELINE AND
AD7890'ABOUT 60 M (196.8 FT) SOUTHWEST OF THE NORTHWEST CORNER OF THE RUNWAY.
AD7890'THE STATION IS RECESSED 8 CM BELOW GROUND. LOCATED 62.2 M (204.1 FT)
AD7890'SOUTHWEST OF THE SOUTHWEST EDGE OF RUNWAY, 59.7 M (195.9 FT) SOUTHWEST
AD7890'OF THE SOUTHWESTMOST 1 OF 6 END RUNWAY LIGHTS AND 0.9 M (3.0 FT) NORTH
AD7890'FROM A FENCE LINE.
AD7890'DESCRIBED BY G.F. SMITH.
AD7890
AD7890   STATION RECOVERY (1998)
AD7890
AD7890'RECOVERY NOTE BY G.C.Y., INCORPORATED 1998 (GCY)
AD7890'RECOVERED AS DESCRIBED.
AD7890
AD7890   STATION RECOVERY (2002)
AD7890
AD7890'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (JLM)
AD7890'THE STATION IS ABOUT 8.5 MI SOUTHWEST OF MOORE HAVEN, 7.5 MI WEST OF
AD7890'CLEWISTON,
AD7890'OWNERSHIP---HENDRY COUNTY, THE PHONE NUMBER IS (863) 983-6151,
AD7890'PERMISSION MUST BE
AD7890'OBTAINED BEFORE ENTERING AIRPORT.
AD7890'
AD7890'TO REACH THE STATION FROM THE JUNCTION OF COUNTY ROAD 832 (WC OWEN)
AD7890'AND U.S. HIGHWAY
AD7890'27 (STATE ROAD 80, WEST SUGARLAND HIGHWAY) IN CLEWISTON, GO WEST ON
AD7890'U.S. HIGHWAY 27
AD7890'(STATE ROAD 80, WEST SUGARLAND HIGHWAY) FOR 6.95 MI TO THE JUNCTION OF
AD7890'AIRGLADES
AD7890'BOULEVARD ON THE LEFT, TURN LEFT ON AIRGLADES BOULEVARD AND GO WEST
AD7890'FOR 1.25 MI TO AN
AD7890'ELECTRIC ENTRANCE GATE AT THE AIRGLADES AIRPORT, PASSING THROUGH THE
AD7890'GATE GO
AD7890'SOUTHWEST FOR 0.05 MI PASSING A METAL HANGAR ON THE RIGHT FOR THE
AD7890'AIRGLADES AIRPORT
AD7890'AND THE MANAGERS OFFICE ON THE LEFT AND THE NORTH END OF A TAXIWAY AND
AD7890'PAVED APRON,
AD7890'CONTINUE SOUTH ON THE TAXIWAY FOR 0.5 MI TO THE INTERSECTION OF
AD7890'TAXIWAY A2, TURN
AD7890'RIGHT AND GO NORTHWEST ON TAXIWAY A2 FOR 0.25 MI TO THE T-JUNCTION OF
AD7890'TAXIWAY A1,
AD7890'TURN LEFT AND GO SOUTHWEST ON A TAXIWAY (A 1) FOR 0.05 MI TO THE
AD7890'T-JUNCTION OF RUNWAY
AD7890'13-31, CONTINUE SOUTHWEST ACROSS RUNWAY 13-31 FOR 0.05 MI TO THE
AD7890'STATION, A STAINLESS
AD7890'STEEL ROD DRIVEN INTO THE GROUND WITH A NGS LOGO CAP RECESSED 0.3 FT

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 AD7890'BELOW THE
 AD7890'LEVEL OF THE GROUND AND BELOW THE LEVEL OF THE RUNWAY, THE DATUM POINT
 AD7890'IS RECESSED
 AD7890'0.2 FT BELOW THE LEVEL OF THE NGS LOGO CAP.
 AD7890'
 AD7890'LOCATED 209.0 FT SOUTHWEST OF THE SOUTHWEST EDGE OF THE RUNWAY, 162.0
 AD7890'FT SOUTHEAST OF
 AD7890'A 24-INCH PALM TREE, 30.5 FT NORTHWEST OF THE EXTENDED CENTERLINE OF
 AD7890'TAXIWAY A1 ON
 AD7890'THE NORTHEAST SIDE OF RUNWAY 13-31 AND 4.5 FT NORTHEAST OF A CARSONITE
 AD7890'WITNESS POST.
 AD7890'
 AD7890'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
 AD7890'
 AD7890'NOTE A PIECE OF REBAR WAS PLACE INSIDE OF THE NGS LOGO CAP.
 AD7890'
 AD7890'
 AD7890
 AD7890                          STATION RECOVERY (2003)
 AD7890
 AD7890'RECOVERY NOTE BY DENI ASSOCIATES INCORPORATED 2003 (BRH)
 AD7890'RECOVERED AS DESCRIBED IN 2002.
 AD7890
 AD7890                          STATION RECOVERY (2007)
 AD7890
 AD7890'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
 AD7890'RECOVERED IN GOOD CONDITION.


The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AF6702 ***********************************************************************
 AF6702  DESIGNATION -  C 358
 AF6702  PID         -  AF6702
 AF6702  STATE/COUNTY-  FL/HIGHLANDS
 AF6702  USGS QUAD   -  BRIGHTON (1972)
 AF6702
 AF6702                        *CURRENT SURVEY CONTROL
 AF6702  ______________________________________________________________________
 AF6702* NAD 83(2007)-  27 14 11.06566(N)    081 03 14.29783(W)     ADJUSTED
 AF6702* NAVD 88     -         9.485  (meters)      31.12   (feet)  ADJUSTED
 AF6702  ______________________________________________________________________
 AF6702  EPOCH DATE  -        2002.00
 AF6702  X           -     882,474.549 (meters)                     COMP
 AF6702  Y           -  -5,605,897.057 (meters)                     COMP
 AF6702  Z           -   2,901,523.483 (meters)                     COMP
 AF6702  LAPLACE CORR-          -3.58  (seconds)                    DEFLEC99
 AF6702  ELLIP HEIGHT-         -16.544 (meters)          (02/10/07) ADJUSTED
 AF6702  GEOID HEIGHT-         -26.01  (meters)                     GEOID03
 AF6702  DYNAMIC HT  -           9.470 (meters)      31.07  (feet)  COMP
 AF6702
 AF6702  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AF6702  Type    PID    Designation                       North   East  Ellip
 AF6702  ----------------------------------------------------------------------
 AF6702  NETWORK AF6702 C 358                              0.45   0.41   1.20
 AF6702  ----------------------------------------------------------------------
 AF6702  MODELED GRAV-     979,104.7   (mgal)                       NAVD 88
 AF6702
 AF6702  VERT ORDER  -  FIRST     CLASS II
 AF6702
 AF6702.The horizontal coordinates were established by GPS observations
 AF6702.and adjusted by the National Geodetic Survey in February 2007.
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 AF6702
 AF6702.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AF6702.See National Readjustment for more information.
 AF6702.The horizontal coordinates are valid at the epoch date displayed above.
 AF6702.The epoch date for horizontal control is a decimal equivalence
 AF6702.of Year/Month/Day.
 AF6702
 AF6702.The orthometric height was determined by differential leveling
 AF6702.and adjusted in November 2001.
 AF6702
 AF6702.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AF6702
 AF6702.The Laplace correction was computed from DEFLEC99 derived deflections.
 AF6702
 AF6702.The ellipsoidal height was determined by GPS observations
 AF6702.and is referenced to NAD 83.
 AF6702
 AF6702.The geoid height was determined by GEOID03.
 AF6702
 AF6702.The dynamic height is computed by dividing the NAVD 88
 AF6702.geopotential number by the normal gravity value computed on the
 AF6702.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AF6702.degrees latitude (g = 980.6199 gals.).
 AF6702
 AF6702.The modeled gravity was interpolated from observed gravity values.
 AF6702
 AF6702;                    North         East     Units Scale Factor Converg.
 AF6702;SPC FL E     -   321,598.845   194,654.615   MT  0.99994153   -0 01
28.9
 AF6702;SPC FL E     - 1,055,112.21    638,629.35   sFT  0.99994153   -0 01
28.9
 AF6702;UTM  17      - 3,012,621.099   494,656.438   MT  0.99960035   -0 01
28.9
 AF6702
 AF6702!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AF6702!SPC FL E     -   1.00000260  x   0.99994153  =   0.99994413
 AF6702!UTM  17      -   1.00000260  x   0.99960035  =   0.99960295
 AF6702
 AF6702                          SUPERSEDED SURVEY CONTROL
 AF6702
 AF6702  NAD 83(1999)-  27 14 11.06574(N)    081 03 14.29810(W) AD(       ) A
 AF6702  ELLIP H (12/09/02)  -16.551  (m)                       GP(       ) 4 1
 AF6702  NAVD 88 (06/15/91)    9.486  (m)           31.12   (f) UNKNOWN     1 2
 AF6702  NGVD 29 (09/01/92)    9.852  (m)           32.32   (f) ADJUSTED    1 2
 AF6702
 AF6702.Superseded values are not recommended for survey control.
 AF6702.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AF6702.See file dsdata.txt to determine how the superseded data were derived.
 AF6702
 AF6702_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RML9465612621(NAD 83)
 AF6702_MARKER: DV = VERTICAL CONTROL DISK
 AF6702_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
 AF6702_SP_SET: STAINLESS STEEL ROD
 AF6702_STAMPING: C 358 1979
 AF6702_MARK LOGO: NGS
 AF6702_PROJECTION: FLUSH
 AF6702_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
 AF6702_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AF6702_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AF6702+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
 AF6702_ROD/PIPE-DEPTH: 7.62 meters
 AF6702
 AF6702  HISTORY     - Date     Condition        Report By
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AF6702  HISTORY     - 1979     MONUMENTED       NGS
AF6702  HISTORY     - 20010607 GOOD             EMCINC
AF6702  HISTORY     - 20020212 GOOD             NGS
AF6702  HISTORY     - 20020413 GOOD             MAPTEC
AF6702  HISTORY     - 20050628 GOOD             MACTEC
AF6702  HISTORY     - 20070115 GOOD             DEGROV
AF6702  HISTORY     - 20071101 GOOD             GCT
AF6702
AF6702                          STATION DESCRIPTION
AF6702
AF6702'DESCRIBED BY NATIONAL GEODETIC SURVEY 1979
AF6702'13.8 MI WEST FROM OKEECHOBEE.
AF6702'13.8 MILES WEST ALONG STATE HIGHWAY 70 FROM THE CITY HALL IN
AF6702'OKEECHOBEE, AT THE JUNCTION OF COUNTY ROAD S-721, 111 FEET NORTH OF
AF6702'THE CENTERLINE OF THE HIGHWAY, 55 FEET WEST OF THE CENTERLINE OF THE
AF6702'ROAD AND 1 FOOT EAST OF A FENCE CORNER.
AF6702
AF6702                          STATION RECOVERY (2001)
AF6702
AF6702'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AF6702'RECOVERED AS DESCRIBED.
AF6702'
AF6702'
AF6702'
AF6702
AF6702                          STATION RECOVERY (2002)
AF6702
AF6702'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AF6702'THE STATION IS LOCATED 16 MI (25.8 KM) EAST SOUTHEAST OF LAKE PLACID,
AF6702'13.9 MI (22.4 KM) WEST OF OKEECHOBEE AND ON HIGHWAY RIGHT OF WAY.
AF6702'
AF6702'TO REACH THE STATION FROM THE JUNCTION OF U.S. HIGHWAY 441 AND
AF6702'STATE HIGHWAYS 15 AND 70 IN OKEECHOBEE GO WEST ON HIGHWAY 70 FOR
AF6702'13.9 MI (22.4 KM) TO THE JUNCTION OF COUNTY ROAD S-271 ON THE RIGHT.
AF6702'TURN RIGHT AND THEN LEFT AT A GATE AND THE STATION ON THE LEFT.
AF6702'
AF6702'THE STATION IS LOCATED 38.8 M (111 FT) NORTH OF THE CENTERLINE OF
AF6702'HIGHWAY 70, 16.8 M (55 FT) WEST OF THE CENTERLINE OF THE COUNTY
AF6702'ROAD, 0.3 M (1.0 FT) EAST OF A FENCE CORNER AND 0.3 M (1.0 FT) NORTH
AF6702'OF
AF6702'A METAL WITNESS POST.
AF6702'
AF6702'
AF6702
AF6702                          STATION RECOVERY (2002)
AF6702
AF6702'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AF6702'RECOVERED AS DESCRIBED
AF6702'
AF6702
AF6702                          STATION RECOVERY (2005)
AF6702
AF6702'RECOVERY NOTE BY MACTEC ENGINEERING AND CONSULTING 2005 (CGB)
AF6702'RECOVERED AS DESCRIBED
AF6702
AF6702                          STATION RECOVERY (2007)
AF6702
AF6702'RECOVERY NOTE BY DEGROVE SURVEYORS INCORPORATED 2007
AF6702'RECOVERED IN GOOD CONDITION.
AF6702
AF6702                          STATION RECOVERY (2007)
AF6702
AF6702'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
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 AF6702'RECOVERED IN GOOD CONDITION.
The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AD7895 ***********************************************************************
 AD7895  CBN         -  This is a Cooperative Base Network Control Station.
 AD7895  DESIGNATION -  FLGPS 57
 AD7895  PID         -  AD7895
 AD7895  STATE/COUNTY-  FL/GLADES
 AD7895  USGS QUAD   -  FISHEATING BAY (1971)
 AD7895
 AD7895                        *CURRENT SURVEY CONTROL
 AD7895  ______________________________________________________________________
 AD7895* NAD 83(2007)-  26 58 40.50803(N)    081 06 39.55311(W)     ADJUSTED
 AD7895* NAVD 88     -         4.570  (meters)      14.99   (feet)  ADJUSTED
 AD7895  ______________________________________________________________________
 AD7895  EPOCH DATE  -        2002.00
 AD7895  X           -     878,911.739 (meters)                     COMP
 AD7895  Y           -  -5,619,663.066 (meters)                     COMP
 AD7895  Z           -   2,876,026.108 (meters)                     COMP
 AD7895  LAPLACE CORR-          -2.63  (seconds)                    DEFLEC99
 AD7895  ELLIP HEIGHT-         -20.421 (meters)          (02/10/07) ADJUSTED
 AD7895  GEOID HEIGHT-         -24.96  (meters)                     GEOID03
 AD7895  DYNAMIC HT  -           4.563 (meters)      14.97  (feet)  COMP
 AD7895
 AD7895  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD7895  Type    PID    Designation                      North   East  Ellip
 AD7895  ----------------------------------------------------------------------
 AD7895  NETWORK AD7895 FLGPS 57                          0.33   0.33   0.76
 AD7895  ----------------------------------------------------------------------
 AD7895  MODELED GRAV-     979,122.1   (mgal)                       NAVD 88
 AD7895
 AD7895  VERT ORDER  -  FIRST     CLASS II
 AD7895
 AD7895.The horizontal coordinates were established by GPS observations
 AD7895.and adjusted by the National Geodetic Survey in February 2007.
 AD7895
 AD7895.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD7895.See National Readjustment for more information.
 AD7895.The horizontal coordinates are valid at the epoch date displayed above.
 AD7895.The epoch date for horizontal control is a decimal equivalence
 AD7895.of Year/Month/Day.
 AD7895
 AD7895.The orthometric height was determined by differential leveling
 AD7895.and adjusted in January 2002.
 AD7895
 AD7895.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD7895
 AD7895.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD7895
 AD7895.The ellipsoidal height was determined by GPS observations
 AD7895.and is referenced to NAD 83.
 AD7895
 AD7895.The geoid height was determined by GEOID03.
 AD7895
 AD7895.The dynamic height is computed by dividing the NAVD 88
 AD7895.geopotential number by the normal gravity value computed on the
 AD7895.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AD7895.degrees latitude (g = 980.6199 gals.).
 AD7895
 AD7895.The modeled gravity was interpolated from observed gravity values.
 AD7895
 AD7895;                   North         East     Units Scale Factor Converg.
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 AD7895;SPC FL E     -   292,962.376   188,982.493   MT  0.99994267   -0 03
01.3
 AD7895;SPC FL E     -   961,160.73    620,020.06   sFT  0.99994267   -0 03
01.3
 AD7895;UTM  17      - 2,983,994.400   488,986.252   MT  0.99960150   -0 03
01.3
 AD7895
 AD7895!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AD7895!SPC FL E     -   1.00000321  x   0.99994267  =   0.99994588
 AD7895!UTM  17      -   1.00000321  x   0.99960150  =   0.99960471
 AD7895
 AD7895:                Primary Azimuth Mark                    Grid Az
 AD7895:SPC FL E     -  FLGPS 57 AZ MK                         051 50 15.5
 AD7895:UTM  17      -  FLGPS 57 AZ MK                         051 50 15.5
 AD7895
 AD7895|-----------------------------------------------------------------------|
 AD7895| PID    Reference Object                     Distance      Geod. Az  |
 AD7895|                                                           dddmmss.s |
 AD7895| AD7921 FLGPS 57 AZ MK                    APPROX. 0.6 KM 0514714.2 |
 AD7895|-----------------------------------------------------------------------|
 AD7895
 AD7895                          SUPERSEDED SURVEY CONTROL
 AD7895
 AD7895  NAD 83(1999)-  26 58 40.50800(N)    081 06 39.55349(W) AD(       ) A
 AD7895  ELLIP H (12/09/02)  -20.376  (m)                       GP(       ) 4 1
 AD7895  NAD 83(1999)-  26 58 40.50800(N)    081 06 39.55349(W) AD(       ) B
 AD7895  ELLIP H (05/31/01)  -20.376  (m)                       GP(       ) 5 1
 AD7895  NAD 83(1990)-  26 58 40.50672(N)    081 06 39.55283(W) AD(       ) B
 AD7895  ELLIP H (09/13/90)  -20.363  (m)                       GP(       ) 4 1
 AD7895  NAVD 88 (03/26/98)    4.566  (m)           14.98   (f) UNKNOWN     2 1
 AD7895  NGVD 29 (09/13/90)    5.0    (m)           16.     (f) GPS OBS     3
 AD7895
 AD7895.Superseded values are not recommended for survey control.
 AD7895.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD7895.See file dsdata.txt to determine how the superseded data were derived.
 AD7895
 AD7895_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8898683994(NAD 83)
 AD7895_MARKER: F = FLANGE-ENCASED ROD
 AD7895_SETTING: 59 = STAINLESS STEEL ROD IN SLEEVE (10 FT.+)
 AD7895_SP_SET: STAINLESS STEEL ROD IN SLEEVE
 AD7895_STAMPING: FLGPS 57 1989
 AD7895_MARK LOGO: NGS
 AD7895_PROJECTION: FLUSH
 AD7895_MAGNETIC: N = NO MAGNETIC MATERIAL
 AD7895_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
 AD7895_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AD7895+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
 AD7895_ROD/PIPE-DEPTH: 17.1 meters
 AD7895_SLEEVE-DEPTH  :  0.9 meters
 AD7895
 AD7895  HISTORY     - Date     Condition        Report By
 AD7895  HISTORY     - 1989     MONUMENTED       NGS
 AD7895  HISTORY     - 19920904 GOOD             GEOBAS
 AD7895  HISTORY     - 19950618 GOOD             FLDEP
 AD7895  HISTORY     - 20010612 GOOD             EMCINC
 AD7895  HISTORY     - 2002     GOOD             MAPTEC
 AD7895  HISTORY     - 20020226 GOOD             MAPTEC
 AD7895  HISTORY     - 20030211 GOOD             FLDEP
 AD7895  HISTORY     - 20071101 GOOD             GCT
 AD7895
 AD7895                          STATION DESCRIPTION
 AD7895
 AD7895'DESCRIBED BY NATIONAL GEODETIC SURVEY 1989
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 AD7895'THE STATION IS LOCATED ABOUT 16.3 KM (10.15 MI) NORTH OF MOORE HAVEN,
 AD7895'IN THE COMMUNITY OF LAKEPORT, ON THE WEST SIDE OF LAKE OKEECHOBEE, IN
 AD7895'SECTION 22, T 40 S, R 32 E, IN THE RIGHT-OF-WAY OF STATE ROUTE 78.
 AD7895'TO REACH THE STATION FROM THE JUNCTION OF COUNTY ROAD 74 AND STATE
 AD7895'ROUTE 78 IN LAKEPORT, GO NORTHEASTERLY ALONG STATE ROUTE 78 FOR 0.64
 AD7895'KM (0.40 MI) TO THE STATION ON RIGHT.
 AD7895'THE STATION IS RECESSED 10 CM BELOW GROUND.  LOCATED 2.4 M (7.9 FT)
 AD7895'NORTHWEST OF THE NORTH EDGE OF A CANAL, 8.9 M (29.2 FT) SOUTHEAST OF
 AD7895'THE CENTERLINE OF STATE ROUTE 78, 46.6 M (152.9 FT) NORTHEAST OF A
 AD7895'20-INCH CABBAGE PALM TREE NEXT TO A 12-INCH CABBAGE PALM AND 1.83 M
 AD7895'(6.0 FT) NORTHWEST OF A WITNESS POST.
 AD7895'DESCRIBED BY R.L. MALLOY.
 AD7895
 AD7895                          STATION RECOVERY (1992)
 AD7895
 AD7895'RECOVERY NOTE BY GEOBASE CONTROL INCORPORATED 1992
 AD7895'RECOVERED IN GOOD CONDITION.
 AD7895
 AD7895                          STATION RECOVERY (1995)
 AD7895
 AD7895'RECOVERY NOTE BY FL DEPT OF ENV PRO 1995 (VAJ)
 AD7895'RECOVERED AS DESCRIBED.
 AD7895
 AD7895                          STATION RECOVERY (2001)
 AD7895
 AD7895'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
 AD7895'RECOVERED AS DESCRIBED.
 AD7895
 AD7895                          STATION RECOVERY (2002)
 AD7895
 AD7895'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (WJB)
 AD7895'THE MARK WAS RECOVERED BY DESCRIPTION.
 AD7895'
 AD7895
 AD7895                          STATION RECOVERY (2002)
 AD7895
 AD7895'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
 AD7895'RECOVERED AS DESCRIBED
 AD7895'
 AD7895'
 AD7895'
 AD7895
 AD7895                          STATION RECOVERY (2003)
 AD7895
 AD7895'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (SS)
 AD7895'RECOVERED IN GOOD CONDITION.
 AD7895'
 AD7895
 AD7895                          STATION RECOVERY (2007)
 AD7895
 AD7895'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
 AD7895'RECOVERED IN GOOD CONDITION.
The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AD8199 ***********************************************************************
 AD8199  DESIGNATION -  K 413
 AD8199  PID         -  AD8199
 AD8199  STATE/COUNTY-  FL/PALM BEACH
 AD8199  USGS QUAD   -  LOXAHATCHEE (1984)
 AD8199
 AD8199                        *CURRENT SURVEY CONTROL
 AD8199  ______________________________________________________________________
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AD8199* NAD 83(2007)-  26 41 04.28205(N)    080 19 51.83193(W)     ADJUSTED
AD8199* NAVD 88     -         4.583  (meters)      15.04   (feet)  ADJUSTED
AD8199  ____________________________________________________________________
AD8199  EPOCH DATE  -        2002.00
AD8199  X           -     957,788.348 (meters)                     COMP
AD8199  Y           -  -5,621,642.995 (meters)                     COMP
AD8199  Z           -   2,847,017.277 (meters)                     COMP
AD8199  LAPLACE CORR-          -2.10  (seconds)                    DEFLEC99
AD8199  ELLIP HEIGHT-         -21.049 (meters)          (02/10/07) ADJUSTED
AD8199  GEOID HEIGHT-         -25.65  (meters)                     GEOID03
AD8199  DYNAMIC HT  -           4.576 (meters)      15.01  (feet)  COMP
AD8199
AD8199  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AD8199  Type    PID    Designation                        North   East  Ellip
AD8199  ----------------------------------------------------------------------
AD8199  NETWORK AD8199 K 413                               0.57   0.59   1.12
AD8199  ----------------------------------------------------------------------
AD8199  MODELED GRAV-     979,110.8   (mgal)                        NAVD 88
AD8199
AD8199  VERT ORDER  -  FIRST     CLASS II
AD8199
AD8199.The horizontal coordinates were established by GPS observations
AD8199.and adjusted by the National Geodetic Survey in February 2007.
AD8199
AD8199.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AD8199.See National Readjustment for more information.
AD8199.The horizontal coordinates are valid at the epoch date displayed above.
AD8199.The epoch date for horizontal control is a decimal equivalence
AD8199.of Year/Month/Day.
AD8199
AD8199.The orthometric height was determined by differential leveling
AD8199.and adjusted in September 1992.
AD8199
AD8199.Photographs are available for this station.
AD8199
AD8199.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD8199
AD8199.The Laplace correction was computed from DEFLEC99 derived deflections.
AD8199
AD8199.The ellipsoidal height was determined by GPS observations
AD8199.and is referenced to NAD 83.
AD8199
AD8199.The geoid height was determined by GEOID03.
AD8199
AD8199.The dynamic height is computed by dividing the NAVD 88
AD8199.geopotential number by the normal gravity value computed on the
AD8199.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8199.degrees latitude (g = 980.6199 gals.).
AD8199
AD8199.The modeled gravity was interpolated from observed gravity values.
AD8199
AD8199;                    North         East     Units Scale Factor Converg.
AD8199;SPC FL E     -   260,625.440   266,576.394   MT  0.99999588   +0 18
01.5
AD8199;SPC FL E     -   855,068.63    874,592.72   sFT  0.99999588   +0 18
01.5
AD8199;UTM  17      - 2,951,668.497   566,553.678   MT  0.99965468   +0 18
01.5
AD8199
AD8199!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8199!SPC FL E     -   1.00000331  x   0.99999588  =   0.99999919
AD8199!UTM  17      -   1.00000331  x   0.99965468  =   0.99965799
AD8199
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AD8199                          SUPERSEDED SURVEY CONTROL
AD8199
AD8199  NAD 83(1999)-  26 41 04.28231(N)    080 19 51.83212(W) AD(       ) A
AD8199  ELLIP H (12/09/02)  -21.072  (m)                        GP(       ) 4 1
AD8199  NAVD 88 (12/09/02)    4.58   (m)           15.0    (f) LEVELING    3
AD8199  NGVD 29 (09/01/92)    5.035  (m)           16.52   (f) ADJUSTED    1 2
AD8199
AD8199.Superseded values are not recommended for survey control.
AD8199.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8199.See file dsdata.txt to determine how the superseded data were derived.
AD8199
AD8199_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK6655451668(NAD 83)
AD8199_MARKER: F = FLANGE-ENCASED ROD
AD8199_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AD8199_SP_SET: STAINLESS STEEL ROD
AD8199_STAMPING: K 413 1992
AD8199_MARK LOGO: NGS
AD8199_PROJECTION: RECESSED 5 CENTIMETERS
AD8199_MAGNETIC: M = MARKER EQUIPPED WITH BAR MAGNET
AD8199_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AD8199_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8199+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
AD8199_ROD/PIPE-DEPTH:  5.7 meters
AD8199
AD8199  HISTORY     - Date     Condition        Report By
AD8199  HISTORY     - 1992     MONUMENTED       NGS
AD8199  HISTORY     - 19950328 GOOD             SFLWMD
AD8199  HISTORY     - 20010926 GOOD             MOREKL
AD8199  HISTORY     - 20020226 GOOD             MAPTEC
AD8199  HISTORY     - 20020517 GOOD             MAPTEC
AD8199  HISTORY     - 20021204 GOOD             USPSQD
AD8199  HISTORY     - 20021207 GOOD             FLDEP
AD8199  HISTORY     - 20040114 GOOD             USPSQD
AD8199  HISTORY     - 20040204 GOOD             FLDEP
AD8199  HISTORY     - 20050202 GOOD             USPSQD
AD8199  HISTORY     - 20071101 GOOD             GCT
AD8199
AD8199                          STATION DESCRIPTION
AD8199
AD8199'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8199'26.0 KM (16.15 MI) WESTERLY ALONG U.S. HIGHWAY 98 FROM THE JUNCTION
AD8199'OF INTERSTATE HIGHWAY 95 IN WEST PALM BEACH, 21.2 M (69.6 FT) NORTH
AD8199'OF THE CENTERLINE OF THE WESTBOUND LANES OF THE HIGHWAY, 1.5 M (4.9
AD8199'FT) WEST OF UTILITY POLE NUMBER 66320659802 WITH 2 GUY CABLES, 0.9 M
AD8199'(3.0 FT) BELOW THE LEVEL OF THE HIGHWAY, AND 0.4 M (1.3 FT) SOUTH OF
AD8199'A WITNESS POST.  NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
AD8199'LOGO CAP.
AD8199
AD8199                          STATION RECOVERY (1995)
AD8199
AD8199'RECOVERY NOTE BY S FL WATER MGMT DIST 1995 (PLH)
AD8199'RECOVERED AS DESCRIBED.
AD8199
AD8199                          STATION RECOVERY (2001)
AD8199
AD8199'RECOVERY NOTE BY MORGAN AND EKLUND INC 2001 (MAB)
AD8199'RECOVERED AS DESCRIBED
AD8199'
AD8199'
AD8199
AD8199                          STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
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AD8199'RECOVERED AS DESCRIBED
AD8199'
AD8199'
AD8199'
AD8199'
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD8199'STATION RECOVERY (2002)
AD8199'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD8199'RECOVERED AS DESCRIBED.
AD8199'
AD8199'
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2002 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2002)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2002 (BPJ)
AD8199'THE MARK IS ABOUT 16.5 MI WEST-SOUTHWEST OF WEST PALM BEACH, IN
AD8199'SECTION 35, TOWNSHIP 43
AD8199'SOUTH, RANGE 40 EAST.
AD8199'
AD8199'TO REACH THE MARK FROM THE INTERSECTION OF U.S. HIGHWAY 441, U.S.
AD8199'HIGHWAY 98 AND STATE
AD8199'ROAD 7, ABOUT 8.8 MI WEST OF WEST PALM BEACH, GO WEST ON U.S. HIGHWAY
AD8199'441 AND U.S.
AD8199'HIGHWAY 98 FOR 3.5 MI TO THE INTERSECTION OF BIG BLUE TRACE ON THE
AD8199'LEFT AND F ROAD ON THE
AD8199'RIGHT, CONTINUE WEST ON U.S. HIGHWAY 441 AND U.S. HIGHWAY 98 FOR 4.45
AD8199'MI TO THE MARK ON
AD8199'THE RIGHT, A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT A DEPTH OF 18.7
AD8199'FT WITH AN NGS LOGO
AD8199'CAP FLUSH WITH THE GROUND AND ABOUT 4.0 FT BELOW THE LEVEL OF U.S.
AD8199'HIGHWAY 441 AND U.S.
AD8199'HIGHWAY 98, THE DATUM POINT IS RECESSED 0.2 FT BELOW THE LEVEL OF THE
AD8199'NGS LOGO CAP.
AD8199'
AD8199'LOCATED 69.6 FT NORTH OF THE APPROXIMATE CENTERLINE OF U.S. HIGHWAY
AD8199'441 AND U.S. HIGHWAY
AD8199'98, 4.9 FT WEST OF POWER POLE NUMBER 66320-59802, 4.9 FT WEST OF A
AD8199'METAL WITNESS POST AND
AD8199'1.3 FT SOUTH-SOUTHWEST OF A CARSONITE WITNESS POST.
AD8199'
AD8199'NOTE ACCESS TO THE DATUM POINT IS HAD THROUGH A 5-INCH NGS LOGO CAP.
AD8199'
AD8199
AD8199 STATION RECOVERY (2004)
AD8199
AD8199'RECOVERY NOTE BY US POWER SQUADRON 2004 (AAS)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2004)
AD8199
AD8199'RECOVERY NOTE BY FL DEPT OF ENV PRO 2004 (JLM)
AD8199'RECOVERED IN GOOD CONDITION.
AD8199
AD8199 STATION RECOVERY (2005)
AD8199

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 AD8199'RECOVERY NOTE BY US POWER SQUADRON 2005 (AAS)
 AD8199'RECOVERED IN GOOD CONDITION.
 AD8199
 AD8199                          STATION RECOVERY (2007)
 AD8199
 AD8199'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
 AD8199'RECOVERED IN GOOD CONDITION.
The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 DE9138 ***********************************************************************
 DE9138  CORS        -  This is a GPS Continuously Operating Reference Station.
 DE9138  DESIGNATION -  OKEECHOBEE CORS ARP
 DE9138  CORS_ID     -  OKCB
 DE9138  PID         -  DE9138
 DE9138  STATE/COUNTY-  FL/OKEECHOBEE
 DE9138  USGS QUAD   -  TAYLOR CREEK SE (1972)
 DE9138
 DE9138                         *CURRENT SURVEY CONTROL
 DE9138  ______________________________________________________________________
 DE9138* NAD 83(CORS)-  27 15 57.71572(N)    080 51 19.18214(W)     ADJUSTED
 DE9138* NAVD 88     -              **(meters)            **(feet)
 DE9138  ______________________________________________________________________
 DE9138  EPOCH DATE  -        2002.00
 DE9138  X           -     901,666.240 (meters)                     COMP
 DE9138  Y           -  -5,601,322.295 (meters)                     COMP
 DE9138  Z           -   2,904,443.074 (meters)                     COMP
 DE9138  ELLIP HEIGHT-         -13.755 (meters)          (12/??/02) ADJUSTED
 DE9138  GEOID HEIGHT-         -26.59  (meters)                     GEOID03
 DE9138  HORZ ORDER  -  SPECIAL (CORS)
 DE9138  ELLP ORDER  -  SPECIAL (CORS)
 DE9138
 DE9138.ITRF positions are available for this station.
 DE9138.The coordinates were established by GPS observations
 DE9138.and adjusted by the National Geodetic Survey in December 2002.
 DE9138.The coordinates are valid at the epoch date displayed above.
 DE9138.The epoch date for horizontal control is a decimal equivalence
 DE9138.of Year/Month/Day.
 DE9138
 DE9138
 DE9138.The PID for the CORS L1 Phase Center is DI1672.
 DE9138
 DE9138.The XYZ, and position/ellipsoidal ht. are equivalent.
 DE9138
 DE9138.The ellipsoidal height was determined by GPS observations
 DE9138.and is referenced to NAD 83.
 DE9138
 DE9138.The geoid height was determined by GEOID03.
 DE9138
 DE9138;                    North         East     Units Scale Factor Converg.
 DE9138;SPC FL E     -   324,888.459   214,324.588   MT  0.99994371   +0 03
58.6
 DE9138;SPC FL E     - 1,065,904.89    703,163.25   sFT  0.99994371   +0 03
58.6
 DE9138
 DE9138!             -  Elev Factor  x  Scale Factor =   Combined Factor
 DE9138!SPC FL E     -   1.00000216  x   0.99994371  =   0.99994587
 DE9138
 DE9138                         SUPERSEDED SURVEY CONTROL
 DE9138
 DE9138.No superseded survey control is available for this station.
 DE9138
 DE9138_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNL1432015910(NAD 83)
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 DE9138_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
 DE9138
 DE9138                          STATION DESCRIPTION
 DE9138
 DE9138'DESCRIBED BY NATIONAL GEODETIC SURVEY 2002
 DE9138'STATION IS A GPS CORS.  LATEST INFORMATION INCLUDING POSITIONS AND
 DE9138'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
 DE9138'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
 DE9138'   FTP CORS.NGS.NOAA.GOV: CORS/COORD  AND  CORS/STATION_LOG
 DE9138'   HTTP://WWW.NGS.NOAA.GOV  UNDER PRODUCTS AND SERVICES.

The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 DG9798 ***********************************************************************
 DG9798  CORS        -  This is a GPS Continuously Operating Reference Station.
 DG9798  DESIGNATION -  WEST PALM CORS ARP
 DG9798  CORS_ID     -  PBCH
 DG9798  PID         -  DG9798
 DG9798  STATE/COUNTY-  FL/PALM BEACH
 DG9798  USGS QUAD   -  DELTA (1983)
 DG9798
 DG9798                         *CURRENT SURVEY CONTROL
 DG9798  ______________________________________________________________________
 DG9798* NAD 83(CORS)-  26 50 46.63829(N)    080 13 09.30061(W)     ADJUSTED
 DG9798* NAVD 88     -              **(meters)            **(feet)
 DG9798  ______________________________________________________________________
 DG9798  EPOCH DATE  -        2002.00
 DG9798  X           -     967,386.974 (meters)                     COMP
 DG9798  Y           -  -5,611,813.850 (meters)                     COMP
 DG9798  Z           -   2,863,023.043 (meters)                     COMP
 DG9798  ELLIP HEIGHT-         -15.309 (meters)          (04/??/05) ADJUSTED
 DG9798  GEOID HEIGHT-         -26.49  (meters)                     GEOID03
 DG9798  HORZ ORDER  -  SPECIAL (CORS)
 DG9798  ELLP ORDER  -  SPECIAL (CORS)
 DG9798
 DG9798.ITRF positions are available for this station.
 DG9798.The coordinates were established by GPS observations
 DG9798.and adjusted by the National Geodetic Survey in April 2005.
 DG9798.The coordinates are valid at the epoch date displayed above.
 DG9798.The epoch date for horizontal control is a decimal equivalence
 DG9798.of Year/Month/Day.
 DG9798
 DG9798
 DG9798.The PID for the CORS L1 Phase Center is DG9799.
 DG9798
 DG9798.The XYZ, and position/ellipsoidal ht. are equivalent.
 DG9798
 DG9798.The ellipsoidal height was determined by GPS observations
 DG9798.and is referenced to NAD 83.
 DG9798
 DG9798.The geoid height was determined by GEOID03.
 DG9798
 DG9798;                    North         East     Units Scale Factor Converg.
 DG9798;SPC FL E     -   278,612.216   277,595.193   MT  1.00001548   +0 21
09.4
 DG9798;SPC FL E     -   914,080.25    910,743.56   sFT  1.00001548   +0 21
09.4
 DG9798
 DG9798!             -  Elev Factor  x  Scale Factor =   Combined Factor
 DG9798!SPC FL E     -   1.00000241  x   1.00001548  =   1.00001789
 DG9798
 DG9798                         SUPERSEDED SURVEY CONTROL
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 DG9798
 DG9798.No superseded survey control is available for this station.
 DG9798
 DG9798_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK7756969649(NAD 83)
 DG9798_MARKER: STATION IS THE ANTENNA REFERENCE POINT OF THE GPS ANTENNA
 DG9798
 DG9798                          STATION DESCRIPTION
 DG9798
 DG9798'DESCRIBED BY NATIONAL GEODETIC SURVEY 2005
 DG9798'STATION IS A GPS CORS.  LATEST INFORMATION INCLUDING POSITIONS AND
 DG9798'VELOCITIES ARE AVAILABLE IN THE COORDINATE AND LOG FILES ACCESSIBLE
 DG9798'BY ANONYMOUS FTP OR THE WORLDWIDE WEB.
 DG9798'   FTP CORS.NGS.NOAA.GOV: CORS/COORD  AND  CORS/STATION_LOG
 DG9798'   HTTP://WWW.NGS.NOAA.GOV  UNDER PRODUCTS AND SERVICES.

The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AD8147 ***********************************************************************
 AD8147  DESIGNATION -  S 410 X
 AD8147  PID         -  AD8147
 AD8147  STATE/COUNTY-  FL/PALM BEACH
 AD8147  USGS QUAD   -  NORTH OF LONE PALM (1979)
 AD8147
 AD8147                         *CURRENT SURVEY CONTROL
 AD8147  ______________________________________________________________________
 AD8147* NAD 83(2007)-  26 21 16.72080(N)    080 47 29.55225(W)     ADJUSTED
 AD8147* NAVD 88     -         5.595  (meters)      18.36   (feet)  ADJUSTED
 AD8147  ______________________________________________________________________
 AD8147  EPOCH DATE  -        2002.00
 AD8147  X           -     915,189.358 (meters)                     COMP
 AD8147  Y           -  -5,645,269.542 (meters)                     COMP
 AD8147  Z           -   2,814,314.704 (meters)                     COMP
 AD8147  LAPLACE CORR-          -0.22  (seconds)                    DEFLEC99
 AD8147  ELLIP HEIGHT-         -19.216 (meters)          (02/10/07) ADJUSTED
 AD8147  GEOID HEIGHT-         -24.80  (meters)                     GEOID03
 AD8147  DYNAMIC HT  -           5.586 (meters)      18.33  (feet)  COMP
 AD8147
 AD8147  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AD8147  Type    PID    Designation                      North   East  Ellip
 AD8147  ----------------------------------------------------------------------
 AD8147  NETWORK AD8147 S 410 X                           0.45   0.51   0.92
 AD8147  ----------------------------------------------------------------------
 AD8147  MODELED GRAV-     979,063.2   (mgal)                       NAVD 88
 AD8147
 AD8147  VERT ORDER  -  FIRST     CLASS II
 AD8147
 AD8147.The horizontal coordinates were established by GPS observations
 AD8147.and adjusted by the National Geodetic Survey in February 2007.
 AD8147
 AD8147.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AD8147.See National Readjustment for more information.
 AD8147.The horizontal coordinates are valid at the epoch date displayed above.
 AD8147.The epoch date for horizontal control is a decimal equivalence
 AD8147.of Year/Month/Day.
 AD8147
 AD8147.The orthometric height was determined by differential leveling
 AD8147.and adjusted in September 1992.
 AD8147
 AD8147.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AD8147
 AD8147.The Laplace correction was computed from DEFLEC99 derived deflections.
 AD8147
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AD8147.The ellipsoidal height was determined by GPS observations
AD8147.and is referenced to NAD 83.
AD8147
AD8147.The geoid height was determined by GEOID03.
AD8147
AD8147.The dynamic height is computed by dividing the NAVD 88
AD8147.geopotential number by the normal gravity value computed on the
AD8147.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD8147.degrees latitude (g = 980.6199 gals.).
AD8147
AD8147.The modeled gravity was interpolated from observed gravity values.
AD8147
AD8147;                    North         East     Units Scale Factor Converg.
AD8147;SPC FL E     -   223,920.675   220,806.050   MT  0.99994652   +0 05
33.1
AD8147;SPC FL E     -   734,646.41    724,427.85   sFT  0.99994652   +0 05
33.1
AD8147;UTM  17      - 2,914,976.256   520,798.951   MT  0.99960534   +0 05
33.1
AD8147
AD8147!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD8147!SPC FL E     -   1.00000302  x   0.99994652  =   0.99994954
AD8147!UTM  17      -   1.00000302  x   0.99960534  =   0.99960836
AD8147
AD8147                          SUPERSEDED SURVEY CONTROL
AD8147
AD8147  NAD 83(1999)-  26 21 16.72086(N)    080 47 29.55230(W) AD(       ) A
AD8147  ELLIP H (12/09/02)  -19.226  (m)                       GP(       ) 4 1
AD8147  NAVD 88 (12/09/02)    5.59   (m)           18.3    (f) LEVELING    3
AD8147  NGVD 29 (09/01/92)    6.033  (m)           19.79   (f) ADJUSTED    1 2
AD8147
AD8147.Superseded values are not recommended for survey control.
AD8147.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD8147.See file dsdata.txt to determine how the superseded data were derived.
AD8147
AD8147_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2079914976(NAD 83)
AD8147_MARKER: F = FLANGE-ENCASED ROD
AD8147_SETTING: 15 = METAL ROD DRIVEN INTO GROUND. SEE TEXT FOR ADDITIONAL
AD8147+WITH SETTING: INFORMATION.
AD8147_SP_SET: STAINLESS STEEL ROD
AD8147_STAMPING: S 410 X 1992
AD8147_MARK LOGO: NGS
AD8147_PROJECTION: RECESSED 150 CENTIMETERS
AD8147_MAGNETIC: N = NO MAGNETIC MATERIAL
AD8147_STABILITY: D = MARK OF QUESTIONABLE OR UNKNOWN STABILITY
AD8147_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD8147+SATELLITE: SATELLITE OBSERVATIONS - November 19, 2008
AD8147_ROD/PIPE-DEPTH:  1.5 meters
AD8147
AD8147  HISTORY     - Date     Condition        Report By
AD8147  HISTORY     - 1992     MONUMENTED       NGS
AD8147  HISTORY     - 20020227 GOOD             MAPTEC
AD8147  HISTORY     - 20030930 GOOD             FLDEP
AD8147  HISTORY     - 20041005 GOOD             MCKIM
AD8147  HISTORY     - 20051010 GOOD             NGS
AD8147  HISTORY     - 20070618 GOOD             GCT
AD8147  HISTORY     - 20071101 GOOD             GCT
AD8147  HISTORY     - 20081119 GOOD             WANTGP
AD8147
AD8147                          STATION DESCRIPTION
AD8147
AD8147'DESCRIBED BY NATIONAL GEODETIC SURVEY 1992
AD8147'14.9 KM (9.25 MI) SOUTHERLY ALONG MIAMI CANAL ROAD AND THE WEST LEVEE
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 AD8147'ROAD OF THE MIAMI CANAL FROM THE POST OFFICE IN LAKE HARBOR, THENCE
 AD8147'0.1 KM (0.05 MI) EASTERLY ALONG A PAVED ROAD, THENCE 23.9 KM (14.85
 AD8147'MI) SOUTHERLY ALONG THE EAST LEVEE ROAD OF THE MIAMI CANAL, 7.4 M
 AD8147'(24.3 FT) NORTHEAST OF AND LEVEL WITH THE CENTER OF THE ROAD, 1.8 M
 AD8147'(5.9 FT) SOUTHEAST OF A UTILITY POLE, AND 0.5 M (1.6 FT) NORTHWEST OF
 AD8147'A WITNESS POST.  NOTE--ACCESS TO THE DATUM POINT IS THROUGH A 5-INCH
 AD8147'LOGO CAP.  THE ROAD WAS DRIVEN TO REFUSAL AND ANCHORED.
 AD8147
 AD8147                          STATION RECOVERY (2002)
 AD8147
 AD8147'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
 AD8147'RECOVERED AS DESCRIBED
 AD8147'
 AD8147'
 AD8147'
 AD8147'
 AD8147
 AD8147                          STATION RECOVERY (2003)
 AD8147
 AD8147'RECOVERY NOTE BY FL DEPT OF ENV PRO 2003 (RWH)
 AD8147'RECOVERY IN GOOD CONDITION EXCEPT, THE ROD WAS DRIVEN TO REFUSAL AND
 AD8147'ANCHORED.  NOT--THE ROAD WAS DRIVEN TO REFUSAL AND ANCHORED.
 AD8147
 AD8147                          STATION RECOVERY (2004)
 AD8147
 AD8147'RECOVERY NOTE BY MCKIM AND CREED 2004 (BRH)
 AD8147'RECOVERED IN GOOD CONDITION.
 AD8147
 AD8147                          STATION RECOVERY (2005)
 AD8147
 AD8147'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2005 (ECD)
 AD8147'RECOVERED AS DESCRIBED.
 AD8147
 AD8147                          STATION RECOVERY (2007)
 AD8147
 AD8147'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (WBM)
 AD8147'RECOVERED IN GOOD CONDITION.
 AD8147
 AD8147                          STATION RECOVERY (2007)
 AD8147
 AD8147'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
 AD8147'RECOVERED IN GOOD CONDITION.
 AD8147
 AD8147                          STATION RECOVERY (2008)
 AD8147
 AD8147'RECOVERY NOTE BY WANTMAN GROUP INC 2008 (PA)
 AD8147'RECOVERED IN GOOD CONDITION.
The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AD7277 ***********************************************************************
 AD7277  CBN         -  This is a Cooperative Base Network Control Station.
 AD7277  DESIGNATION -  STAR
 AD7277  PID         -  AD7277
 AD7277  STATE/COUNTY-  FL/PALM BEACH
 AD7277  USGS QUAD   -  PORT MAYACA (1971)
 AD7277
 AD7277                        *CURRENT SURVEY CONTROL
 AD7277  ______________________________________________________________________
 AD7277* NAD 83(2007)-  26 56 37.37679(N)    080 36 40.71618(W)     ADJUSTED
 AD7277* NAVD 88     -        10.612  (meters)      34.82   (feet)  ADJUSTED
 AD7277  ______________________________________________________________________
 AD7277  EPOCH DATE  -        2002.00
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AD7277  X           -     928,167.846 (meters)                     COMP
AD7277  Y           -  -5,613,484.095 (meters)                     COMP
AD7277  Z           -   2,872,650.483 (meters)                     COMP
AD7277  LAPLACE CORR-          -2.24  (seconds)                    DEFLEC99
AD7277  ELLIP HEIGHT-         -15.387 (meters)          (02/10/07) ADJUSTED
AD7277  GEOID HEIGHT-         -26.01  (meters)                     GEOID03
AD7277  DYNAMIC HT  -          10.595 (meters)      34.76  (feet)  COMP
AD7277
AD7277  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AD7277  Type    PID    Designation                        North   East  Ellip
AD7277  ----------------------------------------------------------------------
AD7277  NETWORK AD7277 STAR                                0.45   0.39   0.86
AD7277  ----------------------------------------------------------------------
AD7277  MODELED GRAV-     979,106.3   (mgal)                         NAVD 88
AD7277
AD7277  VERT ORDER  -  FIRST     CLASS II
AD7277
AD7277.The horizontal coordinates were established by GPS observations
AD7277.and adjusted by the National Geodetic Survey in February 2007.
AD7277
AD7277.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AD7277.See National Readjustment for more information.
AD7277.The horizontal coordinates are valid at the epoch date displayed above.
AD7277.The epoch date for horizontal control is a decimal equivalence
AD7277.of Year/Month/Day.
AD7277
AD7277.The orthometric height was determined by differential leveling
AD7277.and adjusted in January 2002.
AD7277
AD7277.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD7277
AD7277.The Laplace correction was computed from DEFLEC99 derived deflections.
AD7277
AD7277.The ellipsoidal height was determined by GPS observations
AD7277.and is referenced to NAD 83.
AD7277
AD7277.The geoid height was determined by GEOID03.
AD7277
AD7277.The dynamic height is computed by dividing the NAVD 88
AD7277.geopotential number by the normal gravity value computed on the
AD7277.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD7277.degrees latitude (g = 980.6199 gals.).
AD7277
AD7277.The modeled gravity was interpolated from observed gravity values.
AD7277
AD7277;                    North         East     Units Scale Factor Converg.
AD7277;SPC FL E     -   289,227.274   238,596.472   MT  0.99995956   +0 10
34.0
AD7277;SPC FL E     -   948,906.48    782,795.26   sFT  0.99995956   +0 10
34.0
AD7277;UTM  17      - 2,980,260.573   538,583.303   MT  0.99961838   +0 10
34.0
AD7277
AD7277!             -  Elev Factor  x  Scale Factor =   Combined Factor
AD7277!SPC FL E     -   1.00000242  x   0.99995956  =   0.99996198
AD7277!UTM  17      -   1.00000242  x   0.99961838  =   0.99962080
AD7277
AD7277:                Primary Azimuth Mark                    Grid Az
AD7277:SPC FL E     -  STAR AZ MK                              006 10 28.1
AD7277:UTM  17      -  STAR AZ MK                              006 10 28.1
AD7277
AD7277|---------------------------------------------------------------------|
AD7277| PID    Reference Object                    Distance      Geod. Az  |
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AD7277|                                                                dddmmss.s |
AD7277| AD8091 STAR AZ MK                            454.109 METERS 0062102.1 |
AD7277| CW9830 STAR RM 1                               8.826 METERS 00839     |
AD7277| AD7274 SAND CUT MIGRATORY CAMP TANK          APPROX. 3.4 KM 1812651.5 |
AD7277| CW9831 STAR RM 2                               8.157 METERS 18516     |
AD7277| AJ6237 S 525                                  68.210 METERS 18607     |
AD7277| AD7328 CANAL POINT TANK                      APPROX. 8.9 KM 1915904.2 |
AD7277| AD7314 PAHOKEE SE MUN TANK                   APPROX.15.0 KM 1955251.8 |
AD7277| AD7321 PAHOKEE FLA HIGHWAY PATROL MST        APPROX.12.6 KM 1975713.0 |
AD7277| AD7317 PAHOKEE MUN TANK                      APPROX.14.3 KM 2021832.9 |
AD7277|-----------------------------------------------------------------------|
AD7277
AD7277                          SUPERSEDED SURVEY CONTROL
AD7277
AD7277  NAD 83(1999)-  26 56 37.37697(N)    080 36 40.71721(W) AD(       ) A
AD7277  ELLIP H (12/09/02)  -15.398  (m)                       GP(       ) 4 1
AD7277  NAD 83(1999)-  26 56 37.37697(N)    080 36 40.71721(W) AD(       ) B
AD7277  ELLIP H (05/31/01)  -15.231  (m)                       GP(       ) 5 1
AD7277  NAD 83(1990)-  26 56 37.37568(N)    080 36 40.71647(W) AD(       ) B
AD7277  ELLIP H (09/13/90)  -15.212  (m)                       GP(       ) 4 1
AD7277  NAD 83(1986)-  26 56 37.37940(N)    080 36 40.72464(W) AD(       ) 1
AD7277  NAD 27      -  26 56 36.17438(N)    080 36 41.52369(W) AD(       ) 1
AD7277  NAVD 88 (12/09/02)   10.61   (m)          34.8    (f) LEVELING    3
AD7277  NGVD 29 (07/19/86)   11.0    (m)          36.     (f) VERT ANG    3
AD7277
AD7277.Superseded values are not recommended for survey control.
AD7277.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AD7277.See file dsdata.txt to determine how the superseded data were derived.
AD7277
AD7277_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK3858380261(NAD 83)
AD7277_MARKER: DS = TRIANGULATION STATION DISK
AD7277_SETTING: 7 = SET IN TOP OF CONCRETE MONUMENT
AD7277_SP_SET: CONCRETE POST
AD7277_STAMPING: STAR 1970
AD7277_MARK LOGO: CGS
AD7277_PROJECTION: FLUSH
AD7277_MAGNETIC: N = NO MAGNETIC MATERIAL
AD7277_STABILITY: C = MAY HOLD, BUT OF TYPE COMMONLY SUBJECT TO
AD7277+STABILITY: SURFACE MOTION
AD7277_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AD7277+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
AD7277
AD7277  HISTORY     - Date     Condition        Report By
AD7277  HISTORY     - 1970     MONUMENTED       NGS
AD7277  HISTORY     - 1970     GOOD             NGS
AD7277  HISTORY     - 19850615 GOOD             NGS
AD7277  HISTORY     - 19890403 GOOD             NGS
AD7277  HISTORY     - 19920421 GOOD             KEISCH
AD7277  HISTORY     - 19920610 GOOD             ADRGS
AD7277  HISTORY     - 19941028 GOOD             SFLWMD
AD7277  HISTORY     - 20010615 GOOD             EMCINC
AD7277  HISTORY     - 20020212 GOOD             NGS
AD7277  HISTORY     - 20020417 GOOD             MAPTEC
AD7277  HISTORY     - 20071101 GOOD             GCT
AD7277
AD7277                          STATION DESCRIPTION
AD7277
AD7277'DESCRIBED BY NATIONAL GEODETIC SURVEY 1970 (CLH)
AD7277'THE STATION IS LOCATED 6 MILES NORTH-NORTHEAST OF CANAL POINT, 1/2
AD7277'MILE SOUTH OF THE MARTIN COUNTY LINE, ON THE WEST EDGE OF PORT
AD7277'MAYACA, ON THE EAST EDGE OF LAKE OKEECHOBEE, LOCATED ON A LEVEE
AD7277'THAT BELONGS TO THE U.S. GOVERNMENT.
AD7277'
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AD7277'TO REACH THE STATION FROM THE JUNCTION OF STATE HIGHWAY 76 AND U.S.
AD7277'HIGHWAYS 98 AND 441 IN THE TOWN OF PORT MAYACA, GO NORTH ON U.S.
AD7277'HIGHWAYS 98 AND 441 FOR 0.05 MILE TO A LEVEE ROAD ON THE LEFT.
AD7277'TURN LEFT AND GO SOUTHEAST THEN SOUTH ON LEVEE FOR 0.3 MILE TO A
AD7277'LOCKED GATE. PASS THROUGH GATE AND GO SOUTH ON THE LEVEE FOR
AD7277'1.65 MILES TO THE AZIMUTH MARK ON THE RIGHT. CONTINUE ON LEVEE FOR
AD7277'0.3 MILE TO THE STATION ON THE RIGHT AS DESCRIBED.
AD7277'
AD7277'ALL MARKS ARE STANDARD DISKS SET IN ROUND CONCRETE POSTS WHICH ARE
AD7277'FLUSH WITH THE GROUND SURFACE.
AD7277'
AD7277'STATION MARK IS STAMPED STAR 1970. IT IS 28.3 FEET NORTH OF A
AD7277'METAL WITNESS POST, 30.8 FEET SOUTH OF A METAL WITNESS POST, 10
AD7277'FEET WEST OF THE CENTER OF LEVEE AND 2.3 FEET SOUTHWEST OF A METAL
AD7277'WITNESS POST.
AD7277'
AD7277'REFERENCE MARK 1 IS STAMPED STAR NO 1 1970. IT IS 27.8 FEET NORTH
AD7277'OF A METAL WITNESS POST, 8 FEET WEST OF CENTER OF LEVEE AND 1.8 FEET
AD7277'SOUTH OF A METAL WITNESS POST.
AD7277'
AD7277'REFERENCE MARK 2 IS STAMPED STAR NO 2 1970. IT IS 28 FEET SOUTH OF
AD7277'METAL WITNESS POST, 9 FEET WEST OF CENTER OF LEVEE AND 1.9 FEET
AD7277'NORTHEAST OF A METAL WITNESS POST.
AD7277'
AD7277'AZIMUTH MARK IS STAMPED STAR 1970. IT IS 7 FEET WEST OF CENTER OF
AD7277'LEVEE AND 2 FEET SOUTHEAST OF A METAL WITNESS POST.
AD7277
AD7277   STATION RECOVERY (1970)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1970
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277   STATION RECOVERY (1985)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1985 (CLN)
AD7277'STATION MARK, REFERENCE MARKS 1, 2 AND AZIMUTH MARK WERE RECOVERED IN
AD7277'GOOD CONDITION. APPROXIMATELY 15 INCHES OF ROCK FILL HAS BEEN ADDED TO
AD7277'THE TOP OF LEVEE AND THE STATION AND REFERENCE MARKS ARE NOW BELOW
AD7277'SURFACE OF LEVEE SHOULDER. THE DISTANCE AND DIRECTION CHECKED TO ALL
AD7277'MARKS. STATION WAS VISITED DUE TO SURVEYORS IN QUESTION IF THE AZIMUTH
AD7277'MARK HAD BEEN HIT AND MOVED. THE BEARING CHECKED USING THE CANAL POINT
AD7277'WATER TANK FINIAL AS INITIAL. THE AZIMUNTH MARK WAS MEASURED TO AND
AD7277'POSITIONED AT THIS TIME. DUE TO CHANGES, A COMPLETE NEW DESCRIPTION
AD7277'FOLLOWS. THE STATION IS LOCATED ABOUT 9.60 KM (5.95 MI)
AD7277'NORTH-NORTHEAST OF CANAL POINT, 0.80 KM (0.50 MI) SOUTH OF THE MARTIN
AD7277'COUNTY LINE, ON THE WEST EDGE OF PORT MAYACA, ON THE EAST EDGE OF LAKE
AD7277'OKEECHOBEE, LOCATED ON A LEVEE ON US GOVERNMENT PROPERTY. TO REACH THE
AD7277'STATION FROM WHERE STATE HIGHWAY 710 BRIDGE PASSES OVER STATE HIGHWAY
AD7277'76 AT THE SOUTHEAST SIDE OF INDIANTOWN, GO WESTERLY ON STATE HIGHWAY
AD7277'76 FOR 16.48 KM (10.25 MI) TO THE OVER PASS AT PORT MAYACA. KEEP RIGHT
AD7277'OFF STATE HIGHWAY 76 AND FOLLOW SERVICE ROAD WEST AND SOUTH FOR 0.48
AD7277'KM (0.30 MI) TO LEVEE AND LOCKED GATE. PASS THROUGH OR AROUND GATE AND
AD7277'FOLLOW LEVEE SOUTH FOR 4.00 KM (2.50 MI) TO AZIMUTH MARK ON RIGHT.
AD7277'CONTINUE SOUTH FOR 0.48 KM (0.30 MI) TO STATION ON RIGHT. THE STATION
AD7277'IS A STANDARD CGS DISK STAMPED,--STAR 1970--, SET INTO THE TOP OF A
AD7277'ROUND CONCRETE MONUMENT, 30 CM (12 IN) IN DIAMETER, RECESSED 46 CM (18
AD7277'IN) BELOW THE GROUND. THE STATION IS LOCATED 8.84 METERS (29.00 FT)
AD7277'SOUTH OF A METAL WITNESS POST, 8.14 METERS (26.71 FT) NORTH OF A METAL
AD7277'WITNESS POST, 3.05 METERS (10.01 FT) WEST OF THE CENTER OF LEVEE, 0.64
AD7277'METERS (2.10 FT) NORTH OF A METAL WITNESS POST, 0.61 METERS (2.00 FT)
AD7277'NORTHEAST OF A METAL WITNESS POST. AZIMUTH MARK NO 1 IS A STANDARD CGS
AD7277'DISK STAMPED,--STAR 1970--, IS SET INTO A ROUND CONCRETE POST 30 CM
AD7277'(12 IN) ON SIDE, FLUSH WITH THE GROUND. THE STATION IS LOCATED 2.13

AD7277'METERS (6.99 FT) WEST OF THE CENTER OF LEVEE, 0.61 METERS (2.00 FT)
AD7277'SOUTHEAST OF A METAL WITNESS POST, 1.22 METERS (4.00 FT) EAST OF A
AD7277'METAL WITNESS POST. TO REACH THE AZIMUTH MARK FROM STATION, GO NORTH
AD7277'ON LEVEE 0.48 KM (0.30 MI) TO MARK ON LEFT. REFERENCE MARK NO 1 IS A
AD7277'STANDARD CGS DISK STAMPED,--STAR NO 1 1970--, IS SET INTO A ROUND
AD7277'CONCRETE POST 30 CM (12 IN) ON SIDE, RECESSED 30 CM (12 IN) BELOW THE
AD7277'GROUND. THE STATION IS LOCATED 9.20 METERS (30.18 FT) NORTH OF A METAL
AD7277'WITNESS POST, 2.44 METERS (8.01 FT) WEST OF THE CENTER OF LEVEE, 0.76
AD7277'METERS (2.49 FT) EAST OF A METAL WITNESS POST. REFERENCE MARK NO 2 IS
AD7277'A STANDARD CGS DISK STAMPED,--STAR NO 2 1970--, IS SET INTO A ROUND
AD7277'CONCRETE POST 30 CM (12 IN) ON SIDE, RECESSED 30 CM (12 IN) BELOW THE
AD7277'GROUND. THE STATION IS LOCATED 7.75 METERS (25.43 FT) SOUTH OF A METAL
AD7277'WITNESS POST, 2.74 METER (8.99 FT) WEST OF THE CENTER OF LEVEE ROAD,
AD7277'0.58 METERS (1.90 FT) EAST-SOUTHEAST OF A MET.
AD7277
AD7277 STATION RECOVERY (1989)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1989
AD7277'THE STATION, REFERENCE MARK 1, REFERENCE MARK 2, AND THE AZIMUTH MARK
AD7277'WERE RECOVERED IN GOOD CONDITION. THE AZIMUTH MARK IS 455.6 M
AD7277'(1494.7 FT) NORTH OF THE STATION AND 2.4 M (7.9 FT) WEST OF THE
AD7277'APPROXIMATE CENTER OF THE LEVEE ROAD.
AD7277'THE STATION IS LOCATED ABOUT 9.7 KM (6.05 MI) NORTH-NORTHEAST OF CANAL
AD7277'POINT, 1.5 KM (0.95 MI) SOUTH OF THE MARTIN COUNTY LINE, AT THE WEST
AD7277'EDGE OF PORT MAYACA, AT THE EAST EDGE OF LAKE OKEECHOBEE, ABOUT 4.6 KM
AD7277'(2.85 MI) SOUTH OF THE ST. LUCIE CANAL, ON TOP OF A LEVEE BUILT BY THE
AD7277'U.S. ARMY CORPS OF ENGINEERS. OWNERSHIP--U.S. GOVERNMENT. LOCAL
AD7277'CONTACT FOR KEY TO GATE IS DARREL, AT THE DAM CONSTRUCTION OFFICE
AD7277'LOCATED NORTH-NORTHWEST OF THE GATE. PHONE NUMBER IS 407-924-2051.
AD7277'ALSO, MR. TORO (USE) AT CLEWISTON FL CAN BE CONTACTED AT 813-983-8101.
AD7277'TO REACH THE STATION FROM THE JUNCTION OF STATE ROUTE 76 AND U.S.
AD7277'HIGHWAY 441, LOCATED ABOUT 19.4 KM (12.05 MI) NORTH OF POHOKEE, AND
AD7277'ABOUT 0.96 KM (0.60 MI) SOUTH OF THE SOUTH END OF HIGHWAY 441 BRIDGE
AD7277'OVER THE ST. LUCIE CANAL, GO WEST AND NORTH ALONG STATE ROUTE 76 FOR
AD7277'0.96 KM (0.60 MI) TO WHERE THE HIGHWAY CROSSES UNDER U.S. HIGHWAY 441
AD7277'OVERPASS BRIDGE, THEN GO SHARP LEFT ALONG AN ASPHALT ROAD LEADING WEST
AD7277'TO THE LEVEE, AND GO WEST AND SOUTH ALONG THE ROAD AND THE TOP OF THE
AD7277'LEVEE FOR 0.48 KM (0.30 MI) TO A LOCKED GATE,
AD7277'(CONSTRUCTION OFFICE FOR KEY IS LOCATED ABOUT 0.48 KM (0.30 MI)
AD7277'NORTH-NORTHWEST OF THIS GATE), THEN GO SOUTH ALONG THE TOP OF LEVEE,
AD7277'ALONG LEVEE ROAD, FOR 4.1 KM (2.55 MI) TO THE STATION ON THE RIGHT, AT
AD7277'THREE METAL WITNESS POSTS.
AD7277'THE STATION IS RECESSED 46 CM BELOW GROUND. LOCATED 3 M (9.8 FT) WEST
AD7277'OF THE APPROXIMATE CENTER OF THE LEVEE ROAD, 0.5 M (1.6 FT) NORTHEAST
AD7277'OF A METAL WITNESS POST, 0.61 M (2.0 FT) NORTH-NORTHWEST OF A
AD7277'FIBERGLASS WITNESS POST, 8.2 M (26.9 FT) NORTH OF REFERENCE MARK 2, 9
AD7277'M (29.5 FT) SOUTH OF REFERENCE MARK 1 AND ABOUT 46 CM BELOW THE LEVEL
AD7277'OF THE LEVEE ROAD.
AD7277'DESCRIBED BY G.F. SMITH.
AD7277
AD7277 STATION RECOVERY (1992)
AD7277
AD7277'RECOVERY NOTE BY KEITH AND SCHNARS - LAKELAND 1992
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277 STATION RECOVERY (1992)
AD7277
AD7277'RECOVERY NOTE BY ADR GEODETIC SERVICES 1992
AD7277'RECOVERED IN GOOD CONDITION.
AD7277
AD7277 STATION RECOVERY (1994)
AD7277
AD7277'RECOVERY NOTE BY S FL WATER MGMT DIST 1994 (MEH)

AD7277'THE STATION IS ABOUT 25.0 MI (40.2 KM) SOUTHEAST OF OKEECHOBEE IN
AD7277'SECTION 2, TOWNSHIP 41 SOUTH, RANGE 37 EAST. TO REACH THE STATION
AD7277'FROM THE INTERSECTION OF STATE ROAD 70 (PARK AVENUE) AND U.S. HIGHWAY
AD7277'98, U.S. HIGHWAY 441 (PARROTT AVENUE) IN OKEECHOBEE, GO SOUTH ON U.S.
AD7277'HIGHWAY 98 AND U.S. HIGHWAY 441 FOR 3.15 MI (5.07 KM) TO THE JUNCTION
AD7277'OF STATE ROAD 78 ON THE RIGHT AND U.S. HIGHWAY 98 AND U.S. HIGHWAY
AD7277'441 ON THE LEFT, TURN LEFT ON U.S. HIGHWAY 98 AND U.S. HIGHWAY 441
AD7277'AND GO SOUTHEASTERLY FOR 12.35 MI (19.87 KM) TO THE OKEECHOBEE AND
AD7277'MARTIN COUNTY LINE, CONTINUE SOUTHEASTERLY ON U.S. HIGHWAY 98 AND
AD7277'U.S. HIGHWAY 441 FOR 10.65 MI (17.14 KM) TO THE JUNCTION OF STATE
AD7277'ROAD 76 ON THE RIGHT, TURN RIGHT ON STATE ROAD 76 AND GO NORTHERLY FOR
AD7277'0.45 MI (0.72 KM) TO THE JUNCTION OF A PAVED ROAD ON THE LEFT, TURN
AD7277'LEFT ON THE PAVED ROAD AND GO WEST FOR 0.35 MI (0.56 KM) TO THE TOP OF
AD7277'THE LEVEE, GO SOUTH-SOUTHEAST ON THE LEVEE FOR 0.05 MI (0.08 KM) TO A
AD7277'LOCKED GATE, PASSING THROUGH THE GATE, CONTINUE SOUTH-SOUTHEAST ON TOP
AD7277'OF THE LEVEE FOR 2.7 MI (4.3 KM) TO THE STATION ON THE RIGHT SET IN
AD7277'THE TOP OF A ROUND CONCRETE MONUMENT FLUSH WITH THE GROUND. LOCATED
AD7277'10.8 FT (3.3 M) WEST OF THE CENTER OF A DIM ROAD, 3.3 FT (1.0 M) WEST
AD7277'OF A CARSONITE WITNESS POST AND 1.8 FT (0.5 M) NORTHEAST OF A METAL
AD7277'WITNESS PLAQUE. NOTE FOR KEY CONTACT RUTH ANN KATILIUS, SOUTH FLORIDA
AD7277'WATER MANAGEMENT DISTRICT, WEST PALM BEACH, FL. PHONE (407) 686-8800.
AD7277
AD7277   STATION RECOVERY (2001)
AD7277
AD7277'RECOVERY NOTE BY EMC INCORPORATED 2001 (WJB)
AD7277'THE STATION WAS RECOVERED BY DESCRIPTION.
AD7277'
AD7277
AD7277   STATION RECOVERY (2002)
AD7277
AD7277'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD7277'RECOVERED AS DESCRIBED WITH THE FOLLOWING CHANGES.
AD7277'
AD7277'LOCATED +/- 4 MILES SOUTH OF LOCK AND DAM AT PORT MAYACA.
AD7277'
AD7277'CARSONITE WITNESS POST HAS BEEN REMOVED. STATION IS 68.3 M (224
AD7277'FT) NORTH OF BENCH MARK S 525. KEY CONTACT RUTH ANN KATILIUS,
AD7277'SOUTH FLORIDA WATER MANAGEMENT DISTRICT, 3301 GUN CLUB ROAD,
AD7277'WEST PALM BEACH, FL. PHONE 561-682-6122.
AD7277'
AD7277'
AD7277'
AD7277'
AD7277
AD7277   STATION RECOVERY (2002)
AD7277
AD7277'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD7277'STATION RECOVERY (2002)
AD7277'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD7277'RECOVERED AS DESCRIBED.
AD7277'
AD7277'
AD7277
AD7277   STATION RECOVERY (2007)
AD7277
AD7277'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
AD7277'RECOVERED IN GOOD CONDITION.

*** retrieval complete.
Elapsed Time = 00:00:01
The NGS Data SheetSee file dsdata.txt for more information about the
datasheet.DATABASE = ,PROGRAM = datasheet, VERSION = 7.65
1   National Geodetic Survey,   Retrieval Date = MARCH 30, 2009

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AD0692 ***********************************************************************
AD0692  CBN         -  This is a Cooperative Base Network Control Station.
AD0692  DESIGNATION -  872 2625 TIDAL 1
AD0692  PID         -  AD0692
AD0692  STATE/COUNTY-  FL/PALM BEACH
AD0692  USGS QUAD   -  BELLE GLADE (1984)
AD0692
AD0692                        *CURRENT SURVEY CONTROL
AD0692  ______________________________________________________________________
AD0692* NAD 83(2007)-  26 39 48.66413(N)    080 42 44.93577(W)     ADJUSTED
AD0692* NAVD 88     -         6.059  (meters)      19.88   (feet)  ADJUSTED
AD0692  ______________________________________________________________________
AD0692  EPOCH DATE  -        2002.00
AD0692  X           -     920,513.071 (meters)                     COMP
AD0692  Y           -  -5,628,927.322 (meters)                     COMP
AD0692  Z           -   2,844,938.606 (meters)                     COMP
AD0692  LAPLACE CORR-          -1.01  (seconds)                    DEFLEC99
AD0692  ELLIP HEIGHT-         -18.920 (meters)          (02/10/07) ADJUSTED
AD0692  GEOID HEIGHT-         -25.00  (meters)                     GEOID03
AD0692  DYNAMIC HT  -           6.050 (meters)      19.85  (feet)  COMP
AD0692
AD0692  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
AD0692  Type    PID    Designation                     North   East  Ellip
AD0692  ----------------------------------------------------------------------
AD0692  NETWORK AD0692 872 2625 TIDAL 1                  0.29   0.27   0.82
AD0692  ----------------------------------------------------------------------
AD0692  MODELED GRAV-     979,103.7   (mgal)                      NAVD 88
AD0692
AD0692  VERT ORDER  -  FIRST     CLASS II
AD0692
AD0692.The horizontal coordinates were established by GPS observations
AD0692.and adjusted by the National Geodetic Survey in February 2007.
AD0692
AD0692.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
AD0692.See National Readjustment for more information.
AD0692.The horizontal coordinates are valid at the epoch date displayed above.
AD0692.The epoch date for horizontal control is a decimal equivalence
AD0692.of Year/Month/Day.
AD0692
AD0692.The orthometric height was determined by differential leveling
AD0692.and adjusted in September 1992.
AD0692.WARNING-Repeat measurements at this control monument indicate possible
AD0692.vertical movement.
AD0692
AD0692.Photographs are available for this station.
AD0692
AD0692.The X, Y, and Z were computed from the position and the ellipsoidal ht.
AD0692
AD0692.The Laplace correction was computed from DEFLEC99 derived deflections.
AD0692
AD0692.The ellipsoidal height was determined by GPS observations
AD0692.and is referenced to NAD 83.
AD0692
AD0692.The geoid height was determined by GEOID03.
AD0692
AD0692.The dynamic height is computed by dividing the NAVD 88
AD0692.geopotential number by the normal gravity value computed on the
AD0692.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
AD0692.degrees latitude (g = 980.6199 gals.).
AD0692
AD0692.The modeled gravity was interpolated from observed gravity values.
AD0692
AD0692;                   North         East     Units Scale Factor Converg.
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 AD0692;SPC FL E     -   258,155.947   228,620.387   MT  0.99995129   +0 07
44.5
 AD0692;SPC FL E     -   846,966.64    750,065.39   sFT  0.99995129   +0 07
44.5
 AD0692;UTM  17      - 2,949,199.847   528,610.622   MT  0.99961011   +0 07
44.5
 AD0692
 AD0692!             -  Elev Factor  x  Scale Factor =   Combined Factor
 AD0692!SPC FL E     -   1.00000297  x   0.99995129  =   0.99995426
 AD0692!UTM  17      -   1.00000297  x   0.99961011  =   0.99961308
 AD0692
 AD0692|---------------------------------------------------------------------|
 AD0692| PID    Reference Object                      Distance      Geod. Az  |
 AD0692|                                                            dddmmss.s |
 AD0692| AD8230 SOUTH BAY GRAV 684                     8.967 METERS 18253     |
 AD0692|---------------------------------------------------------------------|
 AD0692
 AD0692                          SUPERSEDED SURVEY CONTROL
 AD0692
 AD0692  NAD 83(1999)-  26 39 48.66428(N)    080 42 44.93607(W) AD(       ) A
 AD0692  ELLIP H (04/12/01)  -18.932  (m)                        GP(       ) 4 1
 AD0692  NAVD 88 (06/15/91)    6.115  (m)           20.06   (f) UNKNOWN     1 2
 AD0692  NGVD 29 (09/01/92)    6.491  (m)           21.30   (f) ADJUSTED    1 2
 AD0692
 AD0692.Superseded values are not recommended for survey control.
 AD0692.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
 AD0692.See file dsdata.txt to determine how the superseded data were derived.
 AD0692
 AD0692_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RNK2861149200(NAD 83)
 AD0692_MARKER: DB = BENCH MARK DISK
 AD0692_SETTING: 40 = SET IN A LARGE STRUCTURE WITH DEEP FOUNDATIONS
 AD0692_SP_SET: LOCK STRUCTURE
 AD0692_STAMPING: NO 1 1925
 AD0692_MARK LOGO: CGS
 AD0692_MAGNETIC: N = NO MAGNETIC MATERIAL
 AD0692_STABILITY: A = MOST RELIABLE AND EXPECTED TO HOLD
 AD0692+STABILITY: POSITION/ELEVATION WELL
 AD0692_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
 AD0692+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
 AD0692
 AD0692  HISTORY     - Date     Condition        Report By
 AD0692  HISTORY     - 1925     MONUMENTED       CGS
 AD0692  HISTORY     - 1952     GOOD             NGS
 AD0692  HISTORY     - 1970     GOOD             USGS
 AD0692  HISTORY     - 19920326 GOOD             NGS
 AD0692  HISTORY     - 19990405 GOOD             FL-099
 AD0692  HISTORY     - 20000228 GOOD             FLDEP
 AD0692  HISTORY     - 20020212 GOOD             NGS
 AD0692  HISTORY     - 20020517 GOOD             MAPTEC
 AD0692  HISTORY     - 20040826 GOOD             JCLS
 AD0692  HISTORY     - 20071101 GOOD             GCT
 AD0692
 AD0692                          STATION DESCRIPTION
 AD0692
 AD0692'DESCRIBED BY NATIONAL GEODETIC SURVEY 1952
 AD0692'AT SOUTH BAY.
 AD0692'AT SOUTH BAY, PALM BEACH COUNTY, 275 FEET SOUTH OF THE STATE
 AD0692'HIGHWAY 25 DRAWBRIDGE OVER NORTH NEW RIVER CANAL, AT THE NORTHEAST
 AD0692'CORNER OF THE WEST WALL OF THE CONCRETE LOCK STRUCTURE, 20.5
 AD0692'FEET NORTH OF THE WEST HINGE PIN OF THE NORTH GATES, AND IN THE
 AD0692'TOP OF THE CONCRETE WALL OF THE LOCK.  A STANDARD DISK, STAMPED
 AD0692'NO 1 1925.
 AD0692
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AD0692                          STATION RECOVERY (1970)
AD0692
AD0692'RECOVERY NOTE BY US GEOLOGICAL SURVEY 1970
AD0692'RECOVERED IN GOOD CONDITION.
AD0692
AD0692                          STATION RECOVERY (1992)
AD0692
AD0692'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 1992
AD0692'IN SOUTH BAY, AT THE INTERSECTION OF STATE HIGHWAY 80 AND SOUTHWEST
AD0692'1ST AVENUE, IN TOP OF AND 0.6 M (2.0 FT) SOUTH OF THE NORTH FACE OF A
AD0692'CONCRETE CANAL LOCK FOUNDATION (ABANDONED), 72.0 M (236.2 FT) SOUTH
AD0692'OF THE CENTERLINE OF THE EASTBOUND LANES OF THE HIGHWAY, 15.2 M (49.9
AD0692'FT) EAST OF THE CENTERLINE OF THE AVENUE, 1.1 M (3.6 FT) ABOVE THE
AD0692'LEVEL OF THE AVENUE, AND 0.6 M (2.0 FT) WEST OF THE EAST FACE OF THE
AD0692'FOUNDATION.
AD0692
AD0692                          STATION RECOVERY (1999)
AD0692
AD0692'RECOVERY NOTE BY PALM BEACH COUNTY FLORIDA 1999
AD0692'RECOVERED AS DESCRIBED.
AD0692
AD0692                          STATION RECOVERY (2000)
AD0692
AD0692'RECOVERY NOTE BY FL DEPT OF ENV PRO 2000 (JLM)
AD0692'THE MARK IS IN SOUTH BAY ABOUT 26.0 MI (41.8 KM) NORTHWEST OF
AD0692'ANDYTOWN, 3.0 MI (4.8 KM) SOUTHWEST OF BELLE GLADE, IN SECTION 14,
AD0692'TOWNSHIP 44 SOUTH, RANGE 36 EAST. TO REACH THE MARK FROM THE JUNCTION
AD0692'OF U.S. HIGHWAY 27 AND STATE ROAD 80 IN SOUTH BAY, GO EAST ON STATE
AD0692'ROAD 80 FOR 0.2 MI (0.3 KM) TO THE JUNCTION OF SOUTHWEST 1ST AVENUE
AD0692'AND THE WEST END OF A BRIDGE SPANNING THE NORTH NEW RIVER CANAL AND
AD0692'THE MARK ON THE RIGHT, SET IN THE TOP OF THE EAST FACE OF THE
AD0692'ABANDONED CONCRETE CANAL FOUNDATION, 3.9 FT (1.2 M) ABOVE THE LEVEL OF
AD0692'1ST AVENUE. LOCATED 238.0 FT (72.5 M) SOUTH OF THE CENTERLINE OF THE
AD0692'EASTBOUND LANES OF STATE ROAD 80, 49.9 FT (15.2 M) EAST OF CENTERLINE
AD0692'OF 1ST AVENUE, 2.0 FT (0.6 M) SOUTH OF THE NORTH FACE OF THE
AD0692'FOUNDATION AND 2.0 FT (0.6 M) WEST OF THE EAST FACE OF THE FOUNDATION.
AD0692
AD0692                          STATION RECOVERY (2002)
AD0692
AD0692'RECOVERY NOTE BY NATIONAL GEODETIC SURVEY 2002 (RLT)
AD0692'RECOVERED AS DESCRIBED WITH THE FOLLOWING ADDITION
AD0692'
AD0692'SOUTH BAY, AT THE INTERSECTION OF STATE HIGHWAY 80 AND SOUTHWEST 1ST
AD0692'AVENUE..
AD0692'
AD0692'
AD0692'
AD0692
AD0692                          STATION RECOVERY (2002)
AD0692
AD0692'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CDP)
AD0692'STATION RECOVERY (2002)
AD0692'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CDP)
AD0692'RECOVERED AS DESCRIBED.
AD0692'
AD0692'
AD0692
AD0692                          STATION RECOVERY (2004)
AD0692
AD0692'RECOVERY NOTE BY JOHN CHANCE LAND SURVEYS INC 2004 (FJO)
AD0692'RECOVERED IN GOOD CONDITION.
AD0692
AD0692                          STATION RECOVERY (2007)
```

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 AD0692
 AD0692'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
 AD0692'RECOVERED IN GOOD CONDITION.

The NGS Data SheetSee file  dsdata.txt for more information about the
datasheet.DATABASE =  ,PROGRAM = datasheet, VERSION = 7.65
1        National Geodetic Survey,   Retrieval Date = MARCH 30, 2009
 AJ6800 ***********************************************************************
 AJ6800  DESIGNATION -  Y 530
 AJ6800  PID         -  AJ6800
 AJ6800  STATE/COUNTY-  FL/HENDRY
 AJ6800  USGS QUAD   -  ROCKY LAKE STRAND (1974)
 AJ6800
 AJ6800                          *CURRENT SURVEY CONTROL
 AJ6800  ______________________________________________________________________
 AJ6800* NAD 83(2007)-  26 27 32.60145(N)    081 07 28.89814(W)     ADJUSTED
 AJ6800* NAVD 88     -         7.285  (meters)      23.90   (feet)  ADJUSTED
 AJ6800  ______________________________________________________________________
 AJ6800  EPOCH DATE  -        2002.00
 AJ6800  X           -     881,555.618 (meters)                     COMP
 AJ6800  Y           -  -5,645,413.964 (meters)                     COMP
 AJ6800  Z           -   2,824,676.643 (meters)                     COMP
 AJ6800  LAPLACE CORR-          -0.80  (seconds)                    DEFLEC99
 AJ6800  ELLIP HEIGHT-         -17.332 (meters)          (02/10/07) ADJUSTED
 AJ6800  GEOID HEIGHT-         -24.63  (meters)                     GEOID03
 AJ6800  DYNAMIC HT  -           7.273 (meters)      23.86  (feet)  COMP
 AJ6800
 AJ6800  ------- Accuracy Estimates (at 95% Confidence Level in cm) --------
 AJ6800  Type    PID    Designation                       North   East  Ellip
 AJ6800  ----------------------------------------------------------------------
 AJ6800  NETWORK AJ6800 Y 530                              0.43   0.41   1.14
 AJ6800  ----------------------------------------------------------------------
 AJ6800  MODELED GRAV-     979,063.5   (mgal)                       NAVD 88
 AJ6800
 AJ6800  VERT ORDER  -  FIRST     CLASS II
 AJ6800
 AJ6800.The horizontal coordinates were established by GPS observations
 AJ6800.and adjusted by the National Geodetic Survey in February 2007.
 AJ6800
 AJ6800.The datum tag of NAD 83(2007) is equivalent to NAD 83(NSRS2007).
 AJ6800.See National Readjustment for more information.
 AJ6800.The horizontal coordinates are valid at the epoch date displayed above.
 AJ6800.The epoch date for horizontal control is a decimal equivalence
 AJ6800.of Year/Month/Day.
 AJ6800
 AJ6800.The orthometric height was determined by differential leveling
 AJ6800.and adjusted in January 2002.
 AJ6800.No vertical observational check was made to the station.
 AJ6800
 AJ6800.The X, Y, and Z were computed from the position and the ellipsoidal ht.
 AJ6800
 AJ6800.The Laplace correction was computed from DEFLEC99 derived deflections.
 AJ6800
 AJ6800.The ellipsoidal height was determined by GPS observations
 AJ6800.and is referenced to NAD 83.
 AJ6800
 AJ6800.The geoid height was determined by GEOID03.
 AJ6800
 AJ6800.The dynamic height is computed by dividing the NAVD 88
 AJ6800.geopotential number by the normal gravity value computed on the
 AJ6800.Geodetic Reference System of 1980 (GRS 80) ellipsoid at 45
 AJ6800.degrees latitude (g = 980.6199 gals.).
 AJ6800
```

```
AJ6800.The modeled gravity was interpolated from observed gravity values.
AJ6800
AJ6800;                      North         East     Units Scale Factor Converg.
AJ6800;SPC FL E     -   235,477.393   187,565.574   MT  0.99994308   -0 03
20.0
AJ6800;SPC FL E     -   772,562.08    615,371.39   sFT  0.99994308   -0 03
20.0
AJ6800;UTM  17      - 2,926,529.031   487,569.817   MT  0.99960191   -0 03
20.0
AJ6800
AJ6800!             -  Elev Factor  x  Scale Factor =   Combined Factor
AJ6800!SPC FL E     -   1.00000272  x   0.99994308  =   0.99994580
AJ6800!UTM  17      -   1.00000272  x   0.99960191  =   0.99960463
AJ6800
AJ6800                           SUPERSEDED SURVEY CONTROL
AJ6800
AJ6800  NAD 83(1999)-  26 27 32.60151(N)    081 07 28.89820(W) AD(       ) A
AJ6800  ELLIP H (12/09/02)  -17.337  (m)                        GP(       ) 4 1
AJ6800  NAVD 88 (12/09/02)    7.29   (m)           23.9    (f) LEVELING    3
AJ6800
AJ6800.Superseded values are not recommended for survey control.
AJ6800.NGS no longer adjusts projects to the NAD 27 or NGVD 29 datums.
AJ6800.See file dsdata.txt to determine how the superseded data were derived.
AJ6800
AJ6800_U.S. NATIONAL GRID SPATIAL ADDRESS: 17RMK8757026529(NAD 83)
AJ6800_MARKER: F = FLANGE-ENCASED ROD
AJ6800_SETTING: 49 = STAINLESS STEEL ROD W/O SLEEVE (10 FT.+)
AJ6800_STAMPING: Y 530 2001 CERP
AJ6800_MARK LOGO: NONE
AJ6800_PROJECTION: RECESSED 15 CENTIMETERS
AJ6800_MAGNETIC: O = OTHER; SEE DESCRIPTION
AJ6800_STABILITY: B = PROBABLY HOLD POSITION/ELEVATION WELL
AJ6800_SATELLITE: THE SITE LOCATION WAS REPORTED AS SUITABLE FOR
AJ6800+SATELLITE: SATELLITE OBSERVATIONS - November 01, 2007
AJ6800_ROD/PIPE-DEPTH: 17.0 meters
AJ6800
AJ6800  HISTORY     - Date     Condition        Report By
AJ6800  HISTORY     - 20010530 MONUMENTED       EMCINC
AJ6800  HISTORY     - 20020227 GOOD             MAPTEC
AJ6800  HISTORY     - 20020426 GOOD             MAPTEC
AJ6800  HISTORY     - 20071101 GOOD             GCT
AJ6800
AJ6800                           STATION DESCRIPTION
AJ6800
AJ6800'DESCRIBED BY EMC INCORPORATED 2001 (CHP)
AJ6800'THE MARK IS LOCATED ABOUT 42.0 KILOMETERS (26.0 MILES) SOUTH
AJ6800'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 32.2 KILOMETERS (20.0
AJ6800'MILES) EAST OF IMMOKALEE, FLORIDA, NEAR THE INTERSECTION OF COUNTY
AJ6800'ROAD 833 AND COUNTY ROAD 846. LOCATED ON THE CROWS NEST HAMMOCK
AJ6800'QUAD, SECTION 27, TOWNSHIP 46 SOUTH, RANGE 32 EAST.
AJ6800'
AJ6800'OWNERSHIP  FLDT
AJ6800'
AJ6800'TO REACH THE MARK FROM THE INTERSECTION OF COUNTY ROAD 833
AJ6800'AND COUNTY ROAD 846 ABOUT 32.2 KILOMETERS (20.0 MILES) EAST OF
AJ6800'IMMOKALEE, FLORIDA GO SOUTH ON COUNTY ROAD 846 0.16 KILOMETERS
AJ6800'(0.1 MILES) TO THE MARK ON THE RIGHT (WEST) IN THE RIGHT OF WAY OF
AJ6800'COUNTY ROAD 846.
AJ6800'
AJ6800'THE MARK IS 15.6 METERS (51.2 FEET) WEST OF THE CENTER OF COUNTY
AJ6800'ROAD 846, 9.1 METERS (29.7 FEET) NORTH OF A POWER POLE NUMBER 2170,
AJ6800'0.2 METERS (0.7 FEET) SOUTH SOUTHEAST OF A CARSONITE WITNESS POST
AJ6800'SET IN A NORTH-SOUTH FENCE.
```

AJ6800'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 17.06
AJ6800'METERS, LOCATED INSIDE A 5-INCH LOGO COVER, RECESSED 15
AJ6800'CENTIMETERS. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6800'
AJ6800'
AJ6800'
AJ6800
AJ6800 STATION RECOVERY (2002)
AJ6800
AJ6800'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (RLT)
AJ6800'RECOVERED AS DESCRIBED
AJ6800'
AJ6800'
AJ6800'
AJ6800
AJ6800 STATION RECOVERY (2002)
AJ6800
AJ6800'RECOVERY NOTE BY MAPTECH INCORPORATED 2002 (CP)
AJ6800'THE MARK IS LOCATED ABOUT 42.0 KILOMETERS (26.0 MILES) SOUTH
AJ6800'SOUTHWEST OF MOORE HAVEN, FLORIDA ABOUT 32.2 KILOMETERS (20.0
AJ6800'MILES) EAST OF IMMOKALEE, FLORIDA, NEAR THE INTERSECTION OF COUNTY
AJ6800'ROAD 833 AND COUNTY ROAD 846. LOCATED ON THE CROWS NEST HAMMOCK
AJ6800'QUAD, SECTION 27, TOWNSHIP 46 SOUTH, RANGE 32 EAST.
AJ6800'
AJ6800'OWNERSHIP FLDT
AJ6800'
AJ6800'TO REACH THE MARK FROM THE INTERSECTION OF COUNTY ROAD 833
AJ6800'AND COUNTY ROAD 846 ABOUT 32.2 KILOMETERS (20.0 MILES) EAST OF
AJ6800'IMMOKALEE, FLORIDA GO SOUTH ON COUNTY ROAD 846 0.16 KILOMETERS
AJ6800'(0.1 MILES) TO THE MARK ON THE RIGHT (WEST) IN THE RIGHT OF WAY OF
AJ6800'COUNTY ROAD 846.
AJ6800'
AJ6800'THE MARK IS 15.6 METERS (51.2 FEET) WEST OF THE CENTER OF COUNTY
AJ6800'ROAD 846, 9.1 METERS (29.7 FEET) NORTH OF A POWER POLE NUMBER 2170,
AJ6800'0.2 METERS (0.7 FEET) SOUTH SOUTHEAST OF A CARSONITE WITNESS POST
AJ6800'SET IN A NORTH-SOUTH FENCE.
AJ6800'THE MARK IS A STAINLESS STEEL ROD DRIVEN TO REFUSAL AT 17.06
AJ6800'METERS, LOCATED INSIDE A 5-INCH LOGO COVER, RECESSED 15
AJ6800'CENTIMETERS. A MAGNET WAS PLACED INSIDE THE LOGO COVER.
AJ6800'
AJ6800'STATION RECOVERY (2002)
AJ6800'RECOVERY NOTE BY MAPTECH, INCORPORATED 2002 (CP)
AJ6800'RECOVERED AS DESCRIBED.
AJ6800'
AJ6800'
AJ6800'
AJ6800
AJ6800 STATION RECOVERY (2007)
AJ6800
AJ6800'RECOVERY NOTE BY GUSTIN, COTHERN, AND TUCKER, I 2007 (HWW)
AJ6800'RECOVERED IN GOOD CONDITION.

Florida Minimum Technical Standards for Mapping Projects

Exhibit B – Database Design and Metadata Documentation

Note: The following schema represents delivered HHD Geodatabases.

Topographic Geodatabase

Simple feature class
MASSPOINT

Geometry Multipoint
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8

Simple feature class
WATERBODY

Geometry Polygon
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
WATERBODY_ELEVATION_MS	Double	Yes			0	0	
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Simple feature class
HYDROGRAPHICFEATURE

Geometry Polyline
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Simple feature class
COASTALSHORELINE

Geometry Polygon
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Simple feature class
ROADBREAKLINE

Geometry Polyline
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Simple feature class
SOFTFEATURE

Geometry Polyline
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Simple feature class
LOWCONFIDENCE

Geometry Polygon
Contains M values No
Contains Z values No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Simple feature class
ISLAND

Geometry Polygon
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Simple feature class
OVERPASS

Geometry Polyline
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Simple feature class
CONTOUR_1FT

Geometry Polyline
Contains M values No
Contains Z values No

Field name	Data type	Allow nulls	Default value	Domain	Prec-ision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
CONTOUR_ELEVATION_MS	Double	Yes			0	0	
CONTOUR_TYPE_DESC	String	Yes		dCONTOURTYPE			50
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Simple feature class
CONTOUR_2FT

Geometry Polyline
Contains M values No
Contains Z values No

Field name	Data type	Allow nulls	Default value	Domain	Prec-ision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
CONTOUR_ELEVATION_MS	Double	Yes			0	0	
CONTOUR_TYPE_DESC	String	Yes		dCONTOURTYPE			50
DATESTAMP_DT	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	

Coded value domain
dCONTOURTYPE

Description
Field type String
Split policy Default value
Merge policy Default value

Code	Description
1	INTERMEDIATE
2	SUPPLEMENTARY
3	DEPRESSION
4	INDEX
5	INTERMEDIATE LOW CONFIDENCE
6	SUPPLEMENTARY LOW CONFIDENCE
7	DEPRESSION LOW CONFIDENCE
8	INDEX LOW CONFIDENCE

Simple feature class
GROUNDCONTROL

Geometry Point
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Prec-ision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
POINTID	String	Yes					12
DESCRIPTION	String	Yes					250
X_COORD	Double	Yes			0	0	
Y_COORD	Double	Yes			0	0	
Z_COORD	Double	Yes			0	0	

Simple feature class
VERTACCTESTPTS

Geometry Point
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Prec-ision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
POINTID	String	Yes					12
DESCRIPTION	String	Yes					250
X_COORD	Double	Yes			0	0	
Y_COORD	Double	Yes			0	0	
Z_COORD	Double	Yes			0	0	
LANDCOVER	String	Yes		dLANDCOVERTYPE			36

Coded value domain

dLANDCOVERTYPE

Description
Field type String
Split policy Default value
Merge policy Default value

Code	Description
1	BARE-EARTH AND LOW GRASS
2	BRUSH LANDS AND LOW TREES
3	FORESTED AREAS FULLY COVERED BY TREES
4	URBAN AREAS

Simple feature class
FOOTPRINT

Geometry Polygon
Contains M values No
Contains Z values No

Field name	Data type	Allow nulls	Default value	Domain	Prec-ision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	
CELLNUM	String	Yes					8

Simple feature class
CUTLINE

Geometry Polygon
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
DESCRIPTION	String	Yes					50
FLIGHTDATE	Date	Yes			0	0	8
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	

Simple feature class
ORTHOCHCKPTS

Geometry Point
Contains M values No
Contains Z values Yes

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
DATESTAMP_DT	Date	Yes			0	0	8
POINTID	String	Yes					12
DESCRIPTION	String	Yes					250
X_COORD	Double	Yes			0	0	
Y_COORD	Double	Yes			0	0	
Z_COORD	Double	Yes			0	0	

Simple feature class
FOOTPRINT

Geometry Polygon
Contains M values No
Contains Z values No

Field name	Data type	Allow nulls	Default value	Domain	Precision	Scale	Length
OBJECTID	Object ID						
SHAPE	Geometry	Yes					
SHAPE_Length	Double	Yes			0	0	
SHAPE_Area	Double	Yes			0	0	
CELLNUM	String	Yes					8