DURH Site Information Form (site log)
City of Durham Public Works Department

0. Form

Prepared by (full name) : Don Kellum, P.E.
Date Prepared : 2003-09-21
Report Type : NEW
If Update:
Previous Site Log :
Modified/Added Sections :

1. Site Identification of the GPS Monument

Site Name : Durham-COOP
Four Character ID : DURH
Monument Inscription : None
IERS DOMES Number :
CDP Number :
Monument Description :
Height of the Monument :
Monument Foundation :
Foundation Depth :
Marker Description :
Date Installed : 2003-01-14
Geologic Characteristic :
Bedrock Type :
Bedrock Condition :
Fracture Spacing :
Fault zones nearby :
Distance/activity :
Additional Information : The antenna is mounted atop a 2-1/2" galvanized steel pipe which is bolted to a four-story brick structure.

2. Site Location Information

City or Town : Durham
State or Province : North Carolina
Country : USA
Tectonic Plate : North America
Approximate Position (ITRF)
X coordinate (m) : 994683.1567
Y coordinate (m) : -5069687.0764
Z coordinate (m) : 3727914.842
Latitude (deg) : 035 59 46.12951 N
Longitude (deg) : 078 53 58.03734 W
Elevation (m,ellips.) : 117.47
Additional Information : ARP ITRF00 POSITION (epoch 1997.0) computed by

NGS using OPUS the On-line Processing User Service w/ 10 days of data
from 05 APR 2003 to 14 APR 2003. Positions were transformed using
Horizontal Time Dependent Positioning (HTDP) to the appropriate epoch.

3. GPS Receiver Information

```
3.1  Receiver Type            : Leica RS500
     Satellite System         : GPS
     Serial Number            : 0080293
     Firmware Version         : 4.20
     Elevation Cutoff Setting : 10 deg
     Date Installed           : 2003-01-14
     Date Removed             :
     Temperature Stabiliz.    :
     Additional Information   :

3.x  Receiver Type            : (A20, from rcvr_ant.tab; see
instructions)
     Satellite System         : (GPS/GLONASS/GPS+GLONASS)
     Serial Number            : (A20, but note the first A5 is used in
SINEX)
     Firmware Version         : (A11)
     Elevation Cutoff Setting : (deg)
     Date Installed           : (CCYY-MM-DDThh:mmZ)
     Date Removed             : (CCYY-MM-DDThh:mmZ)
     Temperature Stabiliz.    : (none or tolerance in degrees C)
     Additional Information   : (multiple lines)
```

4. GPS Antenna Information

```
4.1  Antenna Type             : Leica AT504 with radome
     Serial Number            : 001111
     Antenna Reference Point  : BPA
     Marker->ARP Up Ecc. (m)  : 0.00
     Marker->ARP North Ecc(m) : (F8.4)
     Marker->ARP East Ecc(m)  : (F8.4)
     Alignment from True N    : 0.00
     Antenna Radome Type      : LEIS
     Radome Serial Number     :
     Antenna Cable Type       : Leica
     Antenna Cable Length     : 40 m
     Date Installed           : 2003-01-14
     Date Removed             :
     Additional Information   :

4.x  Antenna Type             : (A20, from rcvr_ant.tab; see
instructions)
```

```
     Serial Number            : (A*, but note the first A5 is used in
SINEX)
     Antenna Reference Point  : (BPA/XXX from "antenna.gra"; see
instr.)
     Marker->ARP Up Ecc. (m)  : (F8.4)
     Marker->ARP North Ecc(m) : (F8.4)
     Marker->ARP East Ecc(m)  : (F8.4)
     Alignment from True N    : (deg; + is clockwise/east)
     Antenna Radome Type      : (A4 from rcvr_ant.tab; see
instructions)
     Radome Serial Number     :
     Antenna Cable Type       : (vendor & type number)
     Antenna Cable Length     : (m)
     Date Installed           : (CCYY-MM-DDThh:mmZ)
     Date Removed             : (CCYY-MM-DDThh:mmZ)
     Additional Information   : (multiple lines)

5.   Surveyed Local Ties

5.x  Tied Marker Name         :
     Tied Marker Usage        : (SLR/VLBI/LOCAL CONTROL/FOOTPRINT/etc)
     Tied Marker CDP Number   : (A4)
     Tied Marker DOMES Number : (A9)
     Differential Components from GNSS Marker to the tied monument
(ITRS)
       dx (m)                 : (m)
       dy (m)                 : (m)
       dz (m)                 : (m)
     Accuracy (mm)            : (mm)
     Survey method            : (GPS
CAMPAIGN/TRILATERATION/TRIANGULATION/etc)
     Date Measured            : (CCYY-MM-DDThh:mmZ)
     Additional Information   : (multiple lines)


6.   Frequency Standard

6.1  Standard Type            : None
       Input Frequency        :
       Effective Dates        :
       Notes                  :

6.x  Standard Type            : (INTERNAL or EXTERNAL
H-MASER/CESIUM/etc)
       Input Frequency        : (if external)
       Effective Dates        : (CCYY-MM-DD/CCYY-MM-DD)
       Notes                  : (multiple lines)


7.   Collocation Information  : None

8.   Meteorological Instrumentation: None
```

9. On-Site, Point of Contact Agency Information

```
Agency                    : City of Durham
                            Public Works Department
Preferred Abbreviation    :
Mailing Address           : 101 City Hall Plaza
                            Durham, NC  27701
Primary Contact
  Contact Name            : Don Kellum, P.E.
  Telephone (primary)     : 919-560-4326 x262
  Telephone (secondary)   :
  Fax                     : 919-560-4316
  E-mail                  : Don.Kellum@DurhamNC.gov
Secondary Contact
  Contact Name            : Bill Matthews
  Telephone (primary)     : 919-560-1116
  Telephone (secondary)   :
  Fax                     : 919-560-4316
  E-mail                  : Bill.Matthews@DurhamNC.gov
Additional Information    :
```

10. Responsible Agency (if different from 9.)

```
Agency                    : See item 9
Preferred Abbreviation    :
Mailing Address           :
Primary Contact
  Contact Name            :
  Telephone (primary)     :
  Telephone (secondary)   :
  Fax                     :
  E-mail                  :
Secondary Contact
  Contact Name            :
  Telephone (primary)     :
  Telephone (secondary)   :
  Fax                     :
  E-mail                  :
Additional Information    : (multiple lines)
```

13. More Information

```
Primary Data Center:
http://www.DurhamNC.gov/departments/works/cors_index.cfm
Secondary Data Center     : ftp://CORS.DurhamNC.gov
URL for More Information :
Hardcopy on File
  Site Map                : Y
  Site Diagram            : Y
```

```
      Horizon Mask           : (Y or URL)
      Monument Description   : (Y or URL)
      Site Pictures          : Y
    Additional Information   : (multiple lines)
    Antenna Graphics with Dimensions

    LEIAT504

                        +-------+                          <-- 0.1393
                      /     +     \                        <-- 0.1282
L2
                     |      +      |                       <-- 0.1093
L1
   +-----------------+-------------+------------------+    <-- 0.1020
TCR
   |                                                 |
   |                                                 |
   |                                                 |
   |                                                 |
 +-+-------------------------------------------------+-+  <-- 0.0380
 +-------------------+-------------+--------------------+  <-- 0.1020
BCR
                     |             |
                     |             |
                     +------x------+                      <-- 0.000
BPA=ARP

 <--                      0.3794                      -->


  ARP: Antenna Reference Point
  L1 : L1 Phase Center                  L2 : L2 Phase Center
  TCR: Top of Chokering                 BCR: Bottom of Chokering
  TGP: Top of Ground Plane              BGP: Bottom of Ground Plane
  TPA: Top of Preamplifier              BPA: Bottom of Preamplifier
  TOP: Top of Pole

All dimensions are in meters.
```