

TOA1 Site Information (PID DE7814)  
Town of Amherst Cooperative CORS Station

0. Form

Prepared by : Christopher P. Schregel, LSIT  
Date Prepared : 2003-12-09  
Report Type : New  
If Update :  
Previous Site Log :  
Modified/Added Sections :

1. Site Identification of the GNSS Monument

Site Name : Town of Amherst Base Station  
Four Character ID : TOA1  
Monument Inscription :  
IERS DOMES Number :  
CDP Number :  
Monument Description :  
Height of the Monument :  
Monument Foundation : Roof  
Foundation Depth :  
Marker Description :  
Date Installed : 2002-07-31  
Geologic Characteristic :  
Bedrock Type :  
Bedrock Condition :  
Fracture Spacing :  
Fault zones nearby : Clarendon-Linden fault (to the east)  
Distance/activity : 50 Kilometers  
Additional Information: Base Station is a tripod fixed to the roof of the  
Town of Amherst Engineering municipal building.  
Tripod is a three-foot (+/-) high stainless steel  
tripod with welded joints. a 4.625" long stainless  
steel 1.375"-1" diameter machined cylinder is  
bolted to the tripod and is known as the antenna  
reference point (ARP).

2. Site Location Information

City or Town : Town of Amherst  
State or Province : New York  
Country : USA

- |                             |   |                               |
|-----------------------------|---|-------------------------------|
| Tectonic Plate              | : | North American                |
| Approximate Position (ITRF) |   |                               |
| X coordinate (m)            | : | 910,503.324                   |
| Y coordinate (m)            | : | -4,583,506.007                |
| Z coordinate (m)            | : | 4,326,533.274                 |
| Latitude (N is +)           | : | 42° 59' 12.46256" (N)         |
| Longitude (E is +)          | : | 078° 45' 52.49923" (W)        |
| Elevation (m,ellips.)       | : | 153.26 m                      |
| Additional Information      | : | See NGS data sheet PID DE7814 |
3. GNSS Receiver Information
- |                          |   |              |
|--------------------------|---|--------------|
| 3.1 Receiver Type        | : | Trimble 4700 |
| Satellite System         | : | GPS          |
| Serial Number            | : | 0220204280   |
| Firmware Version         | : | Nav V1.30    |
| Elevation Cutoff Setting | : | 10°          |
| Date Installed           | : | 2002-07-31   |
| Date Removed             | : |              |
| Temperature Stabiliz.    | : |              |
| Additional Information   | : |              |
4. GNSS Antenna Information
- |                          |   |                                      |
|--------------------------|---|--------------------------------------|
| 4.1 Antenna Type         | : | TRM33429.20+GP                       |
| Serial Number            | : | 0220199217                           |
| Antenna Reference Point  | : | BPA                                  |
| Marker->ARP Up Ecc. (m)  | : |                                      |
| Marker->ARP North Ecc(m) | : |                                      |
| Marker->ARP East Ecc(m)  | : |                                      |
| Alignment from True N    | : | Zero Degrees                         |
| Antenna Radome Type      | : |                                      |
| Radome Serial Number     | : |                                      |
| Antenna Cable Type       | : | Trimble Antenna Cable, part 14551-00 |
| Antenna Cable Length     | : | 30 meters                            |
| Date Installed           | : | 2002-07-31                           |
| Date Removed             | : |                                      |
| Additional Information   | : |                                      |
5. Surveyed Local Ties
- |                      |   |  |
|----------------------|---|--|
| 5.1 Tied Marker Name | : |  |
| Tied Marker Usage    | : |  |

	Tied Marker CDP Number	:
	Tied Marker DOMES Number:	
	Differential Components from GNSS Marker to the tied monument (ITRS)	
	dx (m)	:
	dy (m)	:
	dz (m)	:
	Accuracy (mm)	:
	Survey method	:
	Date Measured	:
	Additional Information	: No ties are present at the Base Station
6.	Frequency Standard	
6.1	Standard Type	:
	Input Frequency	:
	Effective Dates	:
	Notes	:
7.	Collocation Information	
7.1	Instrumentation Type	:
	Status	:
	Effective Dates	:
	Notes	:
8.	Meteorological Instrumentation	
8.1.1	Humidity Sensor Model	:
	Manufacturer	:
	Serial Number	:
	Data Sampling Interval	:
	Accuracy (% rel h)	:
	Aspiration	:
	Height Diff to Ant	:
	Calibration date	:
	Effective Dates	:
	Notes	:
8.2.1	Pressure Sensor Model	:
	Manufacturer	:
	Serial Number	:
	Data Sampling Interval	:
	Accuracy	:
	Height Diff to Ant	:

- Calibration date :
  - Effective Dates :
  - Notes :
- 8.3.1 Temp. Sensor Model :
  - Manufacturer :
  - Serial Number :
  - Data Sampling Interval :
  - Accuracy :
  - Aspiration :
  - Height Diff to Ant :
  - Calibration date :
  - Effective Dates :
  - Notes :
- 8.4.1 Water Vapor Radiometer :
  - Manufacturer :
  - Serial Number :
  - Distance to Antenna :
  - Height Diff to Ant :
  - Calibration date :
  - Effective Dates :
  - Notes :
- 8.5.1 Other Instrumentation :
- 9. Local Ongoing Conditions Possibly Affecting Computed Position
  - 9.1.1 Radio Interferences :
    - Observed Degradations :
    - Effective Dates :
    - Additional Information :
  - 9.2.1 Multipath Sources : Metal Roof
    - Effective Dates :
    - Additional Information : Metal Roof is approximately 0.96 meters below Antenna. A groundplane is affixed to the antenna to reduce multipath errors.
  - 9.3.1 Signal Obstructions : Communication Tower
    - Effective Dates :

Additional Information : Tower is a freestanding lattice tower 41 meters west of GPS antenna.

10. Local Episodic Effects Possibly Affecting Data Quality

10.1 Date :  
Event :

11. On-Site, Point of Contact Agency Information

Agency : Town of Amherst – Engineering Department  
Preferred Abbreviation :  
Mailing Address : 1100 N. Forest Road, Williamsville, NY 14221  
Primary Contact  
Contact Name : Christopher P. Schregel  
Telephone (primary) : 716-631-7154  
Telephone (secondary) : 716-631-7155  
Fax : 716-631-7222  
E-mail : Cschregel@amherst.ny.us  
Secondary Contact  
Contact Name : James I. Johnson, P.E.  
Telephone (primary) : 716-631-7154  
Telephone (secondary) : 716-868-9213  
Fax : 716-631-7222  
E-mail : Jjohnson@amherst.ny.us  
Additional Information :

12. Responsible Agency (if different from 11.)

Agency :  
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

13. More Information

Primary Data Center : Town of Amherst Engineering Department  
Secondary Data Center : Town of Amherst Information Technology Dept.  
URL for More Information :  
Hardcopy on File  
Site Map :  
Site Diagram :  
Horizon Mask :  
Monument Description : See NGS data sheet PID DE7814  
Site Pictures :  
Additional Information :  
Antenna Graphics with Dimensions