

# New Continuous Site Installation Report

STATION: \_\_\_\_\_

4 CHAR ID: \_\_\_\_\_

This report should be filled out as completely as possible. The appropriate information should be filled out for each base station, repeater and remote site.

**Note: Attach additional sheets if necessary. Indicate when using both sides of this form. There can never be too much information describing a permanent station. Please include all pertinent information**

Today's Date: \_\_\_\_\_ Number of pages in this report (including attached sketches and photos)? \_\_\_\_

## 1. GENERAL INFORMATION

This section contains information about the project including contacts.

a. Project Name \_\_\_\_\_ Project Location \_\_\_\_\_

b. Funding Source/Program \_\_\_\_\_

### 1.1 Project Principle Investigator

◆ Name: \_\_\_\_\_

◆ Address: \_\_\_\_\_

◆ \_\_\_\_\_

◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_

◆ email: \_\_\_\_\_

◆ other information: \_\_\_\_\_

### 1.2 Reporting Person

◆ Name: \_\_\_\_\_

◆ Address: \_\_\_\_\_

◆ \_\_\_\_\_

◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_

◆ email: \_\_\_\_\_

◆ other information: \_\_\_\_\_

### 1.3 Contacts

a. Primary contact:

◆ Name: \_\_\_\_\_

◆ Address: \_\_\_\_\_

◆ \_\_\_\_\_

◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_

◆ email: \_\_\_\_\_

◆ other information: \_\_\_\_\_

b. Other contacts: Please list all contacts associated with this installation.

◆ Name: \_\_\_\_\_

◆ Address: \_\_\_\_\_

◆ \_\_\_\_\_

office use only

lcode \_\_\_\_\_ serial \_\_\_\_\_ setting \_\_\_\_\_ site id \_\_\_\_\_

- ◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_
- ◆ email: \_\_\_\_\_
- ◆ other information: \_\_\_\_\_
  
- ◆ Name: \_\_\_\_\_
- ◆ Address: \_\_\_\_\_  
\_\_\_\_\_
  
- ◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_ email: \_\_\_\_\_
- ◆ other information: \_\_\_\_\_

**1.4 Travel information**

- a. Detailed description of any special travel considerations, including special entry requirements, local language, wet/dry season, safety concerns, recommendations, and suggestions. Include information on best way to reach site from a know location.

**1.5 Shipping information**

- a. Shipping address
  - ◆ Name: \_\_\_\_\_
  - ◆ Address: \_\_\_\_\_  
\_\_\_\_\_
  - ◆ Telephone: \_\_\_\_\_ fax: \_\_\_\_\_
  - ◆ email: \_\_\_\_\_
  - ◆ other information: \_\_\_\_\_
- b. Describe the best way to ship equipment to the site. Is express shipping available?

**1.6 Training Information**

a. Trainee \_\_\_\_\_ Organization: \_\_\_\_\_

1. Trainee's responsibilities:

**2. Site Information**

Include a site sketch. See appendix A.

**2.1 Monument**

a. Describe the **monument** in detail (construction materials, depth, ground type, dimensions, etc.). Include photographs. **Draw a diagram of the monument and its setting. (See appendix B)**

**2.2 Mark**

a. Describe the **mark** in detail (construction materials, depth, ground type, dimensions, etc.). Include photographs. **Draw a diagram of the mark and its setting. (See appendix B)**

### 2.3 Antenna Mount

- a. Describe **antenna mount** in detail. Draw a diagram. Include photographs. Describe how the height above the mark was measured. (note make, model, serial number, and stamp)
- b. Antenna coordinates from GPS receiver.
  - ◆ Latitude: \_\_\_\_\_
  - ◆ Longitude: \_\_\_\_\_
  - ◆ Elevation: \_\_\_\_\_

### 2.4 Fill out the horizon profile sheet in appendix C.

## 3. GPS Equipment Information

### 3.1 Receiver

- a. Make \_\_\_\_\_
- b. Model \_\_\_\_\_ Part Number \_\_\_\_\_
- c. Serial Number \_\_\_\_\_
- d. Software version \_\_\_\_\_
- e. Memory \_\_\_\_\_ Mb
- f. Collection rate \_\_\_\_\_ (Sec.)

### 3.2 Antenna

- a. Make \_\_\_\_\_
- b. Model \_\_\_\_\_
- c. Serial Number \_\_\_\_\_
- d. UNAVCO or other inventory number \_\_\_\_\_
- e. other information \_\_\_\_\_

### 3.3 Raydomes

- a. Make: \_\_\_\_\_ Model: \_\_\_\_\_
- b. Other information: \_\_\_\_\_

### 3.4 Batteries

- a. Type: \_\_\_\_\_ model #: \_\_\_\_\_ quantity: \_\_\_\_\_
- b. other information: \_\_\_\_\_

### 3.5 Cables

- a. Fill out the following table to specify cables needed. Draw a diagram showing how all the components are connected. (use sheet in appendix D)

**Table 1: Cable information**

| Cable type                | quantity | Length (m) | Connectors (type/size) | Other information (direct burial, gauge, conduit, temp.,etc.) | UNAVO ID |
|---------------------------|----------|------------|------------------------|---|----------|
| Power cables              |          |            |                        |   |          |
| - from source to site     |          |            |                        |   |          |
| - battery to GPS rx       |          |            |                        |   |          |
| - battery to solar panels |          |            |                        |   |          |
| Antenna cables            |          |            |                        |   |          |
| - GPS                     |          |            |                        |   |          |
| - radio modem             |          |            |                        |   |          |
| Data cables               |          |            |                        |   |          |
| - rx to computer          |          |            |                        |   |          |
| - rx to radio             |          |            |                        |   |          |
| - rx to phone modem       |          |            |                        |   |          |
|                           |          |            |                        |   |          |
|                           |          |            |                        |   |          |

**3.6 Surge Protection.**

- a. Describe how the GPS and radio modem **antennas** are protected from EMPs. (i.e. Huber Shunner cable protector)
  
- b. Describe how the **GPS receiver** and ancillary equipment is protected.
- c. Describe how the **serial ports** are protected.
  
- d. Describe how the **phone modems** are protected.

- e. Describe how the station is **grounded**.

### **3.7 Additional Information on Equipment**

Include all additional information that is not asked above pertaining to the station configuration.

#### 4. Computer information

Fill out the following table. Add additional information if necessary.

**Table 2: Computer Information**

| Configuration                  | make   model   serial number   quantity   version number |
|--------------------------------|--|
| Computer Manufacturer:         |  |
| operating system               |  |
| Processor (486, pentium, etc.) |  |
| Co-processor                   |  |
| hard drive size                |  |
| Memory size                    |  |
| Video Card                     |  |
| PCMCIA Card slots              |  |
| Ethernet Adapter               |  |
| Ports (Serial/Parallel)        |  |
| Modem information              |  |
| Monitor                        |  |
| Back UPS                       |  |
| Surge protection(serial)       |  |
| timers                         |  |
| <b>download</b> software       |  |
| Other Hardware                 |  |
| Other Software                 |  |

##### 4.1 Software Information

- a. Describe in detail how the download software is implemented.

## 4.2 Internet Information

- a. Describe in detail, in addition to filling out the following table, how the computer is connected to the internet. Include information on the internet provider.

**Table 3: Computer network information**

|                      |  |
|----------------------|--|
| Domain name          |  |
| Domain IP address    |  |
| DNS server           |  |
| Gateway address      |  |
| subnet mask          |  |
| Host name            |  |
| host IP address      |  |
| Login name           |  |
| login password       |  |
| root password        |  |
| computer telephone # |  |
| receiver telephone # |  |
| other information    |  |

## 5. Communication Routing

- a. Sketch of the data flow, including all links, backup routes and the proposed data archives site. (use sheet in appendix E)

### 5.1 Phone Modems (or cellular)

- a. number of modems \_\_\_\_\_
- b. Manufacture/Model \_\_\_\_\_
- c. baud rate max. \_\_\_\_\_
- d. surge protectors: \_\_\_\_\_
- e. **attach a printout of each modem's settings (at&v).**

### 5.2 Radio Modems

- a. Number of radio modems \_\_\_\_\_ repeaters \_\_\_\_\_
- b. Serial numbers. slave: \_\_\_\_\_ master: \_\_\_\_\_ repeater: \_\_\_\_\_
- c. Number of omnidirectional antennas \_\_\_\_\_
- d. Number of YAGI antennas \_\_\_\_\_
- e. Length of antenna cables: @ slave \_\_\_\_\_ @ master \_\_\_\_\_ @ repeater \_\_\_\_\_
- f. Special permits required to use radio modem? \_\_\_\_\_



- g. Number of in-line filters? \_\_\_\_\_
- h. EMP protectors \_\_\_\_\_
- i. Any possible RF interference? \_\_\_\_\_
- j. **Attach a printout of the radio modems' settings.** (see manual)

### 5.3 Short-haul modems

- a. number of modems \_\_\_\_\_
- b. Manufacture/model: \_\_\_\_\_
- c. baud rate max. \_\_\_\_\_
- d. length of line \_\_\_\_\_
- e. other information about short-haul modems.

### 5.4 Cellular Phone

- a. what is the signal strength? \_\_\_\_\_
- b. Who is the carrier? \_\_\_\_\_ Number of phones required? \_\_\_\_\_
- c. cellular phone number: \_\_\_\_\_
- d. provide any additional information relating to the cellular phone.

### 5.5 Other Communication Methods

Give a detailed description of any other communication equipment used (e.g., satellite, VHF radios, FM radios, etc.) including type, frequency and any license requirements.

**6. POWER**

This section outlines the necessary power requirements for all sites.

**6.1 Requirements/Consumption**

List all sources of power consumption at the site (refer to site diagram). (Amp-hr Load =  $W * \text{hrs/day} / V$ , Efficiency and loss corrected load =  $\text{Amp-hr load/day} / 0.8$ )

**Table 4: Power Load Table (Local AC voltage: \_\_\_\_\_)**

| Powered unit | Load Power (W) | Use (hrs/day) | Nominal Voltage (V) | Amp-hr Load (Ah/day) | Loss Corrected Load |
|--------------|----------------|---------------|---------------------|----------------------|---------------------|
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |
|              |                |               |                     |                      |                     |

Total = \_\_\_\_\_Ah/day

**6.2 DC Power (Solar Arrays)**

- a. If solar panels are used, describe in detail their setup. Include information on the regulator.

**6.3 Other Sensors**

- a. Type (parameters measured) \_\_\_\_\_
- b. model: \_\_\_\_\_
- c. Power requirement \_\_\_\_\_
- d. Data stream \_\_\_\_\_

**7. Equipment Manifests**

Attach all the equipment manifests related to this installation.

**8. IGS Site information form.**

Attach a completed IGS form.

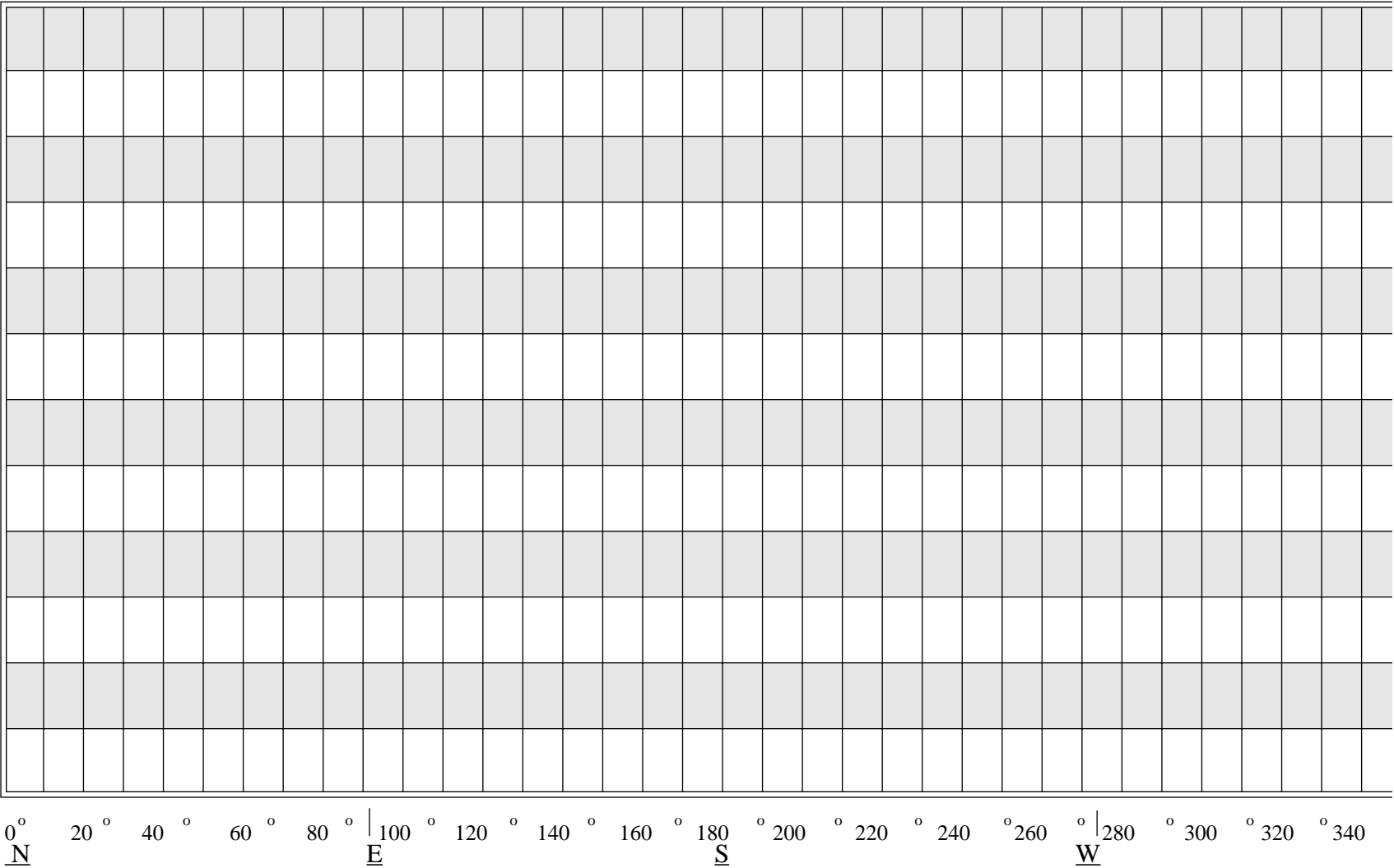
**Appendix A: Site Sketch**

Make a sketch of the site vicinity. Show all features (rx, solar panels, antenna, cable runs, etc.) landmarks and relative locations of all the markers. Include a North arrow. Attach maps and photos.

**Appendix B: Monument diagram**

Draw a diagram of the **monument** and **mark**. **Show exact measurement of each component.**

**Table 5: Horizon Profile Diagram of \_\_\_\_\_**



**Appendix C: Horizon Profile Diagram.**

Please label all obstructions. Include possible future obstructions with dashed line (i.e. young trees, buildings sites, etc.). What is the compass height above the station mark? \_\_\_\_\_ Do not apply a declination correction to the observations.

**Appendix D: Component Sketch**

Draw a **detailed** diagram showing **all** the electrical, computer and receiver components and how they are attached to each other. Complete one for the receiver and computer sites.

**Appendix E: Routing Information**

Draw a diagram showing how the data are routed from the GPS receiver to the data archives site.