Station Installation Suggested Materials List

Introduction:

One of the worst things that can happen during a deployment, especially a highly remote deployment, is not having the correct tools or supplies. The following is a minimum suggested list of things to take if you are constructing a station that will house PASSCAL equipment for more than a few weeks. This list is in addition to the construction materials that will be used to make vaults, enclosures and fences. Usually this would pertain to passive-source, broadband (or midband) experiments that deploy equipment for 1-2 years and will be visited approximately every three months during that time in order to check the data and the condition of the station. PASSCAL will advise if any other specialty tools are required. Please adjust quantities to provide for all installation teams and number of stations.

Create checklists for your experiment and use them. Here's an example checklist for loading vehicles to go out into the field.

Tools:

- Tool roll or bag
- Adjustable wrenchs (4” and 8”. Alternately, use spanners)
- Screwdriver, flat
- Screwdriver, philips
- Fence wire cutters
- Wire stripper/cutter/crimper
- Channel locks
- Vice grips
- Needle-nose pliers
- Bubble level & triangle
- Butane torch (remember, butane cannot be carried on an airline)
- Utility knife
- Leatherman
- Tweezers
- Gloves
- Compass
- Headlamp or flashlight
- Files (small and large)
- Shovels (varying styles and handle lengths)
- Spade
- Post-hole digger
- Pick/hoe
- Rock bar or pry bar
- T-post pounder (if T-posts are used)
- Trowel (for mixing concrete)
- Handheld GPS
- Tape measure

Consumables:

- Zip ties
Solder
Electrical tape, red and black
Duct tape
Marker pens
Pencils
Notebook
Installation/service sheets
Silicon sealant
Rubber vulcanizing tape
Plumbers putty
Flagging tape in bright colors

Example Vehicle-Loading Checklist:

<table>
<thead>
<tr>
<th>Station Equipment:</th>
<th>Team:</th>
</tr>
</thead>
<tbody>
<tr>
<td>qty</td>
<td>qty</td>
</tr>
<tr>
<td>__ Seismometer - Type</td>
<td>Plus</td>
</tr>
<tr>
<td>__ Seismometer - Type</td>
<td>Letters of Introduction</td>
</tr>
<tr>
<td>__ Seismometer - Type</td>
<td>First Aid Kit</td>
</tr>
<tr>
<td>__ Stations (R-boxes, checked equip)</td>
<td>Drinking Water/Snacks</td>
</tr>
<tr>
<td>__ Batteries</td>
<td>Personal</td>
</tr>
<tr>
<td>__ 65 Watt Solar Panels</td>
<td>Passport</td>
</tr>
<tr>
<td>__ Station Enclosure Box With Lid</td>
<td>Sleeping Bag</td>
</tr>
<tr>
<td>__ Seismometer V/AULT Barrel</td>
<td>Toilet Paper</td>
</tr>
<tr>
<td>__ Vault Barrel Lid</td>
<td></td>
</tr>
<tr>
<td>__ Seismometer Cover</td>
<td></td>
</tr>
<tr>
<td>__ INSULATION</td>
<td></td>
</tr>
<tr>
<td>__ Plastic Tarp</td>
<td></td>
</tr>
<tr>
<td>__ Chargers for A/C sites</td>
<td></td>
</tr>
</tbody>
</table>

Supplies (per Station)
Check or Qty
__ Lumber for Solar Panel Mounts
__ Bolts, Nuts
__ Tubing for Drainage Pipe
__ Conduit for cable protection
__ Bailing Wire - Thick and Thin
__ Shielded Wire - for battery ...
__ Barbed Wire ______ Rebar

Supplies/Tools (per Team)
Check
* __ TOOL KIT (see Tool Kit Checklist)
  __ CONCRETE & accelerator
  __ Carrying container for Concrete
  __ Mixing bucket for Concrete
  __ Water Jug
  __ Trowel
  __ Flat & Rounded SHOVELS
  __ Pick and Breaker Bar
  __ Saw and Machete
  __ Sledge Hammer, Hammer
  __ Work Gloves
  __ Sealant & WD-40
  __ Plastic Rain Cover - Large

* TOOL KIT
  __ Voltmeter
  __ 2 Cle (Palm Pilot) w/ chargers
  __ Compass and Handheld GPS
  __ Level
  __ Ring Binder w/
  __ Install & Service Data Sheets
  __ Leatherman or screw drivers, pliers
  __ knives
  __ Guralp Hex Wrench &Control Box
  __ STS-2 screw driver & Orienting R
  __ Tapes:
    __ Electrical, DUCT, Vulcanize, Flag
    __ Laptop & cabling/ +data hump media
    __ extra Battery for charging
    __ AC Chargers / Adapter Plugs
    __ Maps, Station-Coordinate List
    __ Padlocks, Keys, Access Phone #s
    __ Clipboards
    __ Pens/Pencils/Markers
    __ Instructions/Notes

Related categories: Procedures  Station Installation