

CRT Facilities Overview

Site Conditions

Assumptions include:

- ✧ High Desert (temperature & humidity)
- ✧ No services at site (power, water, waste)
- ✧ Remote site (Security, Health, Food, Fire)
- ✧ Integrate antenna operations with existing land users
- ✧ Uncertain soil conditions

Construction

Data on local construction practices is needed:

- ✧ Design the structures to local contractor skills
- ✧ Availability of concrete and steel
- ✧ Can we drill a well for drinking/cooling water?
- ✧ Access to site by construction equipment
- ✧ Local purchase of supplies

Construction

Antenna Array:

- ✧ Basic design: availability of concrete or steel
- ✧ Foundations: sand, friable rock, bedrock
- ✧ Water supply: constructing well(s)
- ✧ Design structures to local contractor skills
- ✧ Temporary housing for onsite workers?

Construction

Site office/housing facilities:

- ✧ Prebuilt/modular (Freight containers?) or built on site? (Concrete?)
- ✧ Foundation requirements
- ✧ Electronics/Office units
- ✧ Housing/Eating units
- ✧ Maintenance/Storage units
- ✧ Shielding of units (RFI/EMI emissions)

Operations

Infrastructure needs:

- ✧ Communications: voice & data (VSAT, radio)
- ✧ Power: mains/solar/generator or combination
- ✧ Cooling/Heating: geothermal heat pump
- ✧ Drinking water
- ✧ Waste disposal: Black & Grey Water, Solid
(composting/incinerating toilets, grey water to garden, trash/garbage trucked to city?)

Operations, Personnel

Staffing requirements for a remote site

- ✧ At least 2 people on site at all times?
- ✧ Staff housing
- ✧ Food preparation & supply
- ✧ Recreation
- ✧ Visitor housing
- ✧ Transportation arrangements

Other Issues

- ✧ Security requirements?
- ✧ Medical & fire training for staff
- ✧ Local community and landowner relations
- ✧ Spinoffs/synergies to local residents?