Objectives

1. Install new ground plane at Pad 3 for future EDGES-3 deployment
2. Extend ground plane at Pad 4
3. Reinstall receiver-2 and restart low-2
4. Reinstall receiver-1 and restart mid-band
5. Install absorber on hut
6. Install soil conductivity monitor (TBD)
7. Test air conduit leakage for EDGES-3

Current site status

Currently, the instruments on site are setup as follows:

- Pad 1: low-3 -- 5x5 ground plane with “plus” meshes, low-1 antenna, no receiver
- Pad 2: mid-band -- 30x30 ground plane, mid-band antenna, no receiver
- Pad 3: Unused, no ground plane, conduits available for air/cables
- Pad 4: low-2 - 30x30 ground plane, low-2 antenna, no receiver

Figure 1. Layout of instrument locations (“pads”) at EDGES site.
Other site status:

- Three data acquisition computers are on site. Two of which have Signatec cards installed. (The third had its card removed in November and sent to Haystack)
- Environmental monitoring is generally operational, although needs to be verified.
- Low-2 needs a receiver, but is otherwise connected in the hut and ready to run.
- Low-3 needs a receiver (and backend?), but is otherwise connected in the hut and ready to run.
- Mid-band needs a receiver, a backend, and pass-throughs in the cabinet in order to be connected. Or it could be connected using the pass-throughs currently used for low-3.
- There is nothing installed on Pad-3, although there are four 80mm conduits going to it. One of the conduits is used for cables to Pad-4 and two of which are currently used for forced air cooling for low-2.

Planned site activities

Install new ground plane at Pad 3 for future EDGES-3 deployment

1. Full mesh installation
   a. Work done mostly by contractors (TBD)
   b. Don’t forget to paint over welds
2. Check air seal in conduit that will be used for EDGES-3
   a. Use compressed and test for time to pressure drop -- will need to think through some kind of adapter for conduit.

NOTE: Not doing on this trip:
3. Pull cables/air tubing to Pad-3
   a. Power
   b. Fiber
   c. Adapt air conduit (will require venting of air for low-2 at low-2)
   d. Need to filter DC power lines at the ground plane
4. Installing antenna

Modify and restart low-2

1. Extend ground plane with new mesh
   a. Remove existing triangular tips.
   b. Add mesh out to 48 meter tip-to-tip (Work done mostly by contractors; TBD)
2. Rotate antenna 45 degrees
3. Install receiver-2
4. ?? Install a backend in hut ??
5. Reinstall Fieldfox in hut
Restart mid-band

1. Install receiver 1
2. ?? Install a backend in hut ??
3. Rewire connections in the control building because low-3 is using the cable connections usually used for mid-band
4. Possibly replace cable(s) in conduit -- the LMR-400 has a bad connector at the pad.
5. Reinstall Fieldfox in hut (repeated from low-2)

Install absorber on hut

1. Assemble panels of absorber
2. Mount on hut

Install soil conductivity monitor

1. TBD

Orders and Shipments

1. Mesh fabrication - ordered end of December
2. Baseplate fabrication - to be ordered early January
3. Send receiver-1, receiver-2, and Fieldfox from ASU (backup plan - carry on airplane)
4. Arrange to have contractors on site
5. Arrange earth berm changes with MRO

Next trip:
6. Order and send 60-meter, 2-conductor, 12? AWG power cable for Pad-3
7. Order and send 60-meter fiber(s) for digital data from Pad-3
8. Order and send air conduit supplies
9. Send EDGES-3 from Haystack
10. Order and send/take more T-nuts and bolts for rotated low-2 feet placement (make sure we have more spares)
11. Do we need more 12V power in the hut to supply more conduit fans?

Pre-trip activities

ASU
1. Verify receiver-1 recalibration
2. Verify receiver-2 recalibration
3. Think through tools on site and make sure we have everything needed
4. Think through pressure test of air conduit -- need some adapters to the PVC?