

Hiland3 site visit Jan 3, 2010

On site-Hiland3, SteveO and Ling (Jan 3, 1011, 2:20-3:40pm)

We have done the following:

1> cleaned all radiometer domes. Decided simply to breath on the domes and wipe off the condensation. Order was Rsw.in Rlw.in Rsw.out Rlw.out. The sun was shining during this period, so the effect of cleaning should be measurable. ?[PS: have looked at the data. Haze made the radiation somewhat variable, so my best estimate is that cleaning changed Rsw.in by 2--10 W/m² out of 380 W/m² and Rlw.in not at all. Not <too> bad.] All domes looked pretty clean before and after. (2:20pm)

2> As per the task list, disinterred (at a cemetery!) the single Tsoil to check/correct its orientation. Found that it was nearly horizontal at about 2cm depth. Reinstalled it at an angle that I eyeballed to put the sensor from 1--6cm depth. Before doing this it read 0.3 C, after 0.81 C. Note that these temperatures are slightly above freezing. I noted a thin (~1cm) crust of frozen soil, but underneath definitely wasn't, which all is consistent. I should also note that there was about 10cm of snow covering the whole area that I attempted to replace when I finished. Finally, I note that we first unplugged the TP01 while determining which wire was which. Thus, its values reset to 0, but later appeared to be okay. (2:32PM)

3> take soil samples (3pm), marked the two sample boxes as 1-0-3cm (5mm shame of being full) and 1-3-6cm. Unfortunately, there are no scales at the base to weigh them with!! We'll have to get one sent out :(

4> shoot the boom angle from across the street (3:23pm), readings are 254.2 (Steve's) 254.7 (Ling's). We did not touch settings on the DataScope or recalibrate it. I assumed this had been done earlier for this project.

5> break the ice in the rain-gauge (3:32PM), and take the ice out of the rain-gauge. The gauge was on the entire time, so these data will have to be edited. I judged that, since the top of the ~10cm-thick ice plug was just at the top of the antifreeze/oil, this mass had been recorded by the gauge and that it was okay to remove it from the gauge. In the process, some of the antifreeze splashed on the side (inside) of the gauge, so I wouldn't be surprised by a tip or after this operation as it (slowly) slides back to rejoin the rest of the fluid. I should point out that there was absolutely no precip today in the area we could observe, so zeroing out the day should be fine.

6> take pictures (3:37pm)