Rpile.out.far failures

Nov 6, twh:

The down-facing pyrgeometer thermopile at FAR failed intermittently during the project. It was essentially flat-lined from 09:10, October 7, until 17:25, October 12. It appeared to be fixed by opening it up and disconnecting and reconnecting to wires from the radiometer to the embedded microprocessor board. However it flat-lined again from 17:00, October 13, through 15:10, October 15. This time we noticed that a bit of solder may have unintentionally grounded one side of the thermopile. After cleaning this up, the pyrgeometer worked fine through the remainder of the project.

The data during these two periods have been deleted in post-processing. The periods were determined from a time-series plot of Rpile.out.far, as well as an xy-plot of Rlw.out.far vs Rlw.out.near. The periods estimated from the time-series plot were nearly identical those determined by selecting data from the residuals of a linear fit of Rlw.out.far vs Rlw.out.near. The bad data were selected when the absolute value of the residuals exceeded 17 W/m^2. See attached plot.