

## Hotplate Raw Data Files

The hotplate outputs data once a second to two raw data files. For example, the electrical power (resistive heating) supplied to the top and bottom plates are two recorded measurements used in our analysis of the precipitation rate. One of the files is known as the UHP or “user” hotplate file. The UHP file is provided to all hotplate operators. The second file is known as the SHP or “sensor” file. The SHP file is proprietary, but personnel in the UW Department of Atmospheric Science have been granted access to it by YES. A list of variables available in the UHP and SHP files is presented in Table 1. It is noted that the plate power information is only available from the SHP file.

Table 1 Hotplate Data Files

Variable	File	
	UHP	SHP
Unix Time [s]	X	X
Precipitation Rate [mm/hr]	X	
Accumulated Precipitation [mm]	X	
Ambient Temperature [°C]	X	X
Enclosure Temperature [°C]	X	X
Wind Speed [m/s]	X	
Solar Radiation [W/m <sup>2</sup> ]	X	X
Net IR Radiation [W/m <sup>2</sup> ]	X	X
Barometric Pressure [mb]	X	X
Humidity Sensor Temperature [°C]	X	X
Relative Humidity [%]	X	X
Sensor Voltage [V]		X
Reference Voltage [V]		X
Sensor Current [A]		X
Reference Current [A]		X
Sensor Resistance [Ω]		X
Reference Resistance [Ω]		X
Sensor Power [W]		X
Reference Power [W]		X
Solar/IR Sensor Temperature [°C]		X