# Zurich Solar Tracker Status 2018-06-09

### Tracker Connectivity

Radio connection to the solar tracker has not been successful since mid-March, and was intermittent for several weeks before that time. There used to be a way to download data by connecting directly to the tracker with a laptop, using a serial data modem (model SC932 or SC105), but the modem cannot be found.

Chris Cox at NOAA thinks the CR23X datalogger in the tracker has an RS232 port that should not need the SC932 modem, so it may be possible to connect directly to the tracker with a serial cable. The problem with this is that we would need a pre-Windows 7 laptop to run the PC208W software, unless the PC200W software is approved (see Swap to Windows 7 Laptop section below). Note: the RS232 port on the datalogger is currently being used, presumably to connect to the wireless transmitter (but since the radio transfer isn’t working, the port can probably be hijacked temporarily).

Possible comms issue culprits:

* Sam measured very low voltage (~3 volts instead of 12) in the solar tracker box.
* The antenna cables on the MSF roof look a little beat up at the antenna connection.

According to Sara Morris at NOAA, Koni is supposed to be sending up a new CR1000 datalogger for the tracker. Of course, if the problem is power or damaged cabling, this won’t fix anything.

### Tracker Tracking

The tracker currently does not track, possibly due to a broken belt inside the mechanism. For this reason, two of the instruments are not installed on the stand. These instruments (the pyranometer and periheliometer) are in storage in an aluminum case in the Green House.

### New Tracker

The solar tracker is slated for replacement by a new system that will be installed on the TAWO(?) roof. This may be why Koni and his team didn’t do anything with the current system during their May visit.

### Swap to Windows 7 Laptop

The old desktop in the MSF is running Windows XP. For unknown reasons (Jaime couldn’t fix it), the computer cannot connect to the \ftp\ or \staff\ folders on the new \\fileshare\ network. It does connect to \common\ though, and this is a good way to transfer files. Due to this inconvenience, and the likelihood that Windows XP will no longer be supported by SRI/NSF, it is desirable to retire this computer. Toward that end, the spare tech laptop (running Windows 7) was repurposed as the tech computer in the MSF. All important files (Significant Weather, IcePICs, etc.) were copied to the laptop.

Unfortunately, the Zurich Tower and Solar Tracker data downloads use an old program (PC208W) that will not run on Windows 7. Currently, this must be done using the old Windows XP computer, which can be accessed via VNC at IP address 198.162.1.247 with password IceC@p$1.

A newer program (PC200W) was installed on the Windows 7 laptop. It is configured to communicate with the tower, and it successfully connects. It is also configured to connect to the tracker; this was set up by swapping the tower and tracker serial connections, but since the tracker is incommunicado, it hasn’t been tested. Note: to use the new software, don’t forget to move the USB cable (the one connected to the multi-serial-port gizmo on the MSF desk) from the old machine to the laptop. The download options in PC200W are different, and it does not offer the pointer position option. The options are to download the entire datalogger data file, or to append a local copy (which doesn’t exist yet). Neither of these options have been tried; we’re awaiting approval. Koni has been contacted to find out if PC200W is a viable option.