

## Checklist for Operating the Automatic Weather Station (AWS)

**Preface:** The purpose of this checklist for Co-WIN members and staffs is to ensure that the configurations of all the AWSs, both in hardware and software aspects, meet the standard for acquiring accurate weather information. Skipping any part would lead to misleading data shown to the public. Please try your best to go through the whole checklist and submit the completed checklist form. This will save a lot of checking time in the future and with known data quality for every member station. Thank you for your co-operation!

Matthew

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| Date:  | Time:  |  |                               |
| Name of checking person:   |  |  |                               |
| Name of organization:  |  |  |                               |
| Contact person & position:   |  |  |                               |
| <b>Generals</b>  |  |  |                               |
| - AWS with UV & Solar sensors?<br>(PolyU's inventory (PolyU label) if exist) | √ / ×  |  |                               |
| - Cabled/Wireless Connection   | Cabled / Wireless  |  |                               |
| - Console location   | Room no.:  | Floor:   | Elevation of console: _____ m |
|  | Room type: Server room / Lab / Classroom / Others: _____ |  |                               |
| - Datalogger version   | Serial / USB / LAN                                       |  |                               |
| - Computer location  | Room no.:  | Room type: Server room / Lab / Classroom / Others: _____ |                               |
| - Computer operation system  |  |  |                               |
| - IP address, subnet mask and gateway of computer and/or H/W MEDALS          | IP:<br>Subnet mask:<br>Gateway:                          | <b>Computer</b>  | <b>H/W MEDALS:</b>            |
| - H/W MEDALS version<br>(PolyU's inventory (PolyU label?) if exist)          | Version:   | PolyU inventory no.:                                     |                               |
| - Station ID<br>(S/W & H/W MEDALS)   | S/W:   | H/W:   |                               |
| - Organization weather website<br>(generated by WeatherLink)                 | http://  |  |                               |

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| <b>I. Integrated Sensor Suite (ISS)</b>   |                               |
| <b>1. Wind measurement</b>  |                               |
| - Confirm wind cup and wind vane are turning smoothly.  | √ / ×                         |
| - Confirm correct wind direction shown on console.  | √ / ×                         |
| - Confirm that anemometer mounting bar is pointing north (NA if √ above).                     | √ / × / <b>NA</b>             |
| <b>2. Rainfall, temperature and relative humidity measurement</b>                             |                               |
| - Clear and confirm no dirt and debris blocking the hole at the bottom of the rain collector. | √ / ×                         |
| - Check if the tipping bucket is clean and functioning properly.                              | √ / ×                         |
| - Mark down the rain calibration mass installed under the tipping bucket.                     | <b>0.2mm / 0.01inch</b>       |
| - Clean the white radiation shield when necessary.  | √ / ×                         |
| <b>3. Solar and UV radiation measurement</b>  |                               |
| - Use <b>ethanol cotton</b> to clean the UV & solar sensor head surface gently.               | √ / ×                         |
| - Adjust the bubble of the bubble levels to the center for both sensors                       | √ / ×                         |
| <b>4. Signal cable connection and batteries</b>   |                               |
| - Confirm all cables plugged in the right receptacles inside the white box.                   | √ / ×                         |
| - (for wireless version) Check the battery level inside the white box.                        | <b>Battery level: V / N/A</b> |
| - (for wireless version) Replace the battery if lower than 3V.                                | √ / × / <b>NA</b>             |

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| <b>II. Data Acquisition and Display Console</b>  |                         |
| - Confirm A/C adapter plugged with mains socket switched on.   | √ / ×                   |
| - Confirm all diagnostic beep sound when powering up.  | √ / ×                   |
| - Install 3 C-size batteries into the battery slot.  | √ / ×                   |
| - Replace new battery if “LOW CONSOLE BATTERIES” is shown on console   | √ / × / <b>NA</b>       |
| - (For cabled version) Confirm Console to ISS cable connected.   | √ / × / <b>NA</b>       |
| - (If WeatherLink is used) Confirm data logger plugged firmly into the slot at the back of the console.<br><b>Disconnect power before plugging / unplugging data logger.</b> | √ / × / <b>NA</b>       |
| - (If WeatherLink is used) Confirm the cables are plugged firmly into computer / network receptacles and to the data logger.   | √ / × / <b>NA</b>       |
| <b><u>Setup mode</u> Confirm following settings are being chosen:</b>  |                         |
| - Receiving from Station No.1 (“X” flashing?)  | √ / ×                   |
| - <b>On</b> (ISS) 1.   | √ / ×                   |
| - Retransmit <b>Off</b> .  | √ / ×                   |
| - Date/Time correct?   | √ / ×                   |
| - Set longitude ( <b>North!</b> ) & latitude ( <b>East!</b> )  | √ / ×                   |
| - <b>+8GMT Hong Kong</b> .   | √ / ×                   |
| - Daylight Saving <b>Manual</b> .  | √ / ×                   |
| - Daylight Saving <b>OFF</b> .   | √ / ×                   |
| - Altitude ( <b>in meter</b> )?  | √ / ×                   |
| - Wind Cup Size <b>Large</b> .   | √ / ×                   |
| - Rain collector unit?   | <b>0.2mm / 0.01inch</b> |
| - Rain season begins <b>Jan 1</b> .  | √ / ×                   |
| - (if exist) Serial baud rate <b>19200</b> .   | √ / ×                   |
|  |                         |
| <b>III Operating System</b>  |                         |
| - <b>Synchronized</b> computer clock with HKO time server ( <b>stdtime.gov.hk</b> )  | √ / ×                   |
| - Choose <b>Chinese (HKSAR)</b> under “Regional and Language Options”  | √ / ×                   |
| - Windows update must be set to be installed <b>manually</b>   | √ / ×                   |

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| <b>IV WeatherLink</b>  |                                 |
| - WeatherLink version at least 5.9.0?  | √ / ×                           |
| <b>Menu 1:</b>   |                                 |
| Check model  | Vantage Pro / Vantage Pro Plus  |
| Rain collector unit setting  | <b>0.2mm / 0.01inch</b>         |
| <b>Menu 2:</b>   |                                 |
| Port setting   | <b>Serial / USB / TCP/IP</b>    |
| Serial port number / IP address (if exists)  |                                 |
| Press Test to check the connection   | <b>OK / FAIL</b>                |
| <b>Menu 3:</b>   |                                 |
| Set all to Metric Unit   | √ / ×                           |
| <b>Menu 5:</b>   |                                 |
| Set auto download  | √ / ×                           |
| <b>Menu 6:</b>   |                                 |
| Set console transceiver “Station No. 1-> ISS”  | √ / ×                           |
| Retransmit “Off”   | √ / ×                           |
| <b>Menu 7:</b>   |                                 |
| Elevation of console   | <b>Console elevation: m</b>     |
| Sea-level Barometer  | <b>Sea-level Barometer: hPa</b> |
| <b>Menu 8:</b>   |                                 |
| Confirm rain calibration number  | √ / ×                           |
| <b>Menu 9:</b>   |                                 |
| Console related reading refreshed (if any console reading deviates from the raw reading) | √ / × / <b>NA</b>               |
| <b>Menu 10</b>   |                                 |
| Enter rainfall season: <b>Jan</b>  | √ / ×                           |
| <b>Menu 11:</b>  |                                 |
| Daylight savings: <b>no tick</b> for the 2 check boxes                                   | √ / ×                           |
| Time Zone: <b>GMT +8:00 Hong Kong</b>  | √ / ×                           |
| <b>Menu 12:</b>  |                                 |
| Set the archive interval: 1 min  | √ / ×                           |

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| <b>Menu 13:</b>   |   |
| Input latitude and longitude                                      | Latitude:     °     ‘     “N<br>Longitude:     °     ‘     “E |
| Set the Latitude ( <b>North!</b> ) and Longitude ( <b>East!</b> ) | √ / ×   |
| <b>Menu 14:</b>   |   |
| Confirm wind cup size: <b>Large</b>                               | √ / ×   |
| <b>Mark down</b> the value of “Calculated Offset”.                | <b>Calculated Offset:</b> °                                   |
| <b>Menu 15:</b>   |   |
| Set alarm – cancel all alarm                                      | √ / ×   |