Citizens Weather Observing Program (CWOP) Configuration for **Cumulus Software** Users

(Last updated: 13 Aug 2016)

These instructions assume you already have setup Cumulus either for home use, or to upload data to another server (e.g., Weather Underground).

- 1.) Gather Station Location Data
- You will need your Latitude and Longitude in decimal degrees, and Elevation in metres. You may already have this information setup in Cumulus, but latitude will be in Degrees/Minutes/Seconds format. However, this can easily be converted. In Cumulus go to the 'Configuration' drop-down menu, then click on "Station Settings." Make note of your Lat/Lon and Elevation.

Station Type	Program Settings	VP type	VP TCP/IP settings	xAP Settings			
 Vantage Pro Vantage Pro2/Vue 	Confirm shutdown	Serial	TCP Port 22222	Enabled			
© WMR-928 © WM-918	Close on Suspend		IP address				
 EasyWeather (using .dat file) Fine Offset (WH1080 etc) 	Stop 2nd instance	O USB	0.0.0.0				
© WS2300	Restart if unplugged			UID FF 4375 00			
 Fine Offset with UV/Light sensor WMR100 WMR200 	Restart if data stops	© TCP/IP	Discon period 0				
Settings	Location			Logs roll over at			
COM Port 0	deg min s	deg min sec					
Use bearing zero when calm	Latitude 31 52 0	9am rollover setting					
Calculate 10-min wind average	Longitude 106 38 5	Use 10am in summer					
Use 'speed' for avg calculation Use 100% for 98% humidity	Longitude 106 38 5	Data log interval					
Calculate dew point	Name	© 1 min					
Calculate wind chill	Description	© 5 mins					
Synchronise Davis clock to PC	Units (0) 10 mins						
Use data logger	Wind	e Temp	Rainfall	15 mins			
Cumulus pressure trend names	⊚ m/s ⊚ mb	@ °C	mm	20 mins			
VP 1-min barometer update	© mph ◎ km/h ◎ hPa	Ŭ	Ŭ	30 mins			
Round wind speeds Ignore La Crosse clock	⊚kts ©in	© °F	🔘 in	Forecast			
EasyWeather interval 0,000 mins	Cumulus forecast						
Easyweather.dat	choose carefully in you change alles lacer your data will be wrong.						
	YTD Amount 0.00	mm	Rainfall season start	Low 950.00			
Station model			January 👻	• mb			
	Year 0	(уууу)		High 1050.00 🔘 in			
Solar Sun Threshold 75 % Sun min 0 W/m ² Trans factor 0.80 Use B/L Or Cased Help							
Sun Threshold 75 % Sun min 0 W/m ² Trans factor 0.80 Use B/L OK Cancel Help							

If you do not know your lat/lon and elevation, please see the How-To "Signing up for CWOP" for methods to obtain your station location data: www.weather.gov/media/epz/mesonet/CWOP-SignUp.pdf

2.) Re-calculate Lat/Lon

• A useful page for converting lat/lon from decimal degrees to other formats can be found here: <u>http://www.directionsmag.com/site/latlong-converter</u>

• Enter your Latitude in the proper "Deg, Min, Sec" fields, then click the 'Convert' button.

• Your Latitude will be converted to decimal degrees next to the "DM.m" in the greenish-text box. Make a note of it.

• Next, do the same for longitude.

3.) Get a CWOP Station ID:

With any web browser, fill out the form at: http://www.findu.com/citizenweather/cw form.html

CWOP will require your station elevation in meters. You can convert elevation from feet to meters by multiplying your elevation in feet by 0.3048.

The CWOP website is a little "old-fashioned" and unpolished, and it contains far more information than the average user needs. Don't worry about the parts of the form mentioning "Packet Checking" and "MADIS tech support."

CITIZEN WEATHER PROGRAM REGISTRATION FORM					
To obtain a DW number fill in the form below. You will receive an e-mail reply with your assigned number (similar to "DW1234").					
If you have questions, please contact your software provider, or send email to Randy at NOAA. Several different ways to check your data packets are at Packet Checking.					
If you also send your weather data to another internet site, please contact MADIS technical support so they will be aware of the possibility of duplicate data.					
Thank you for participating in the Citizen Weather Program!					
First name	John				
Last name	Doe				
email	johndoe@anonymous.net				
Nearby town	Hurricane				
State (country if outside US)	WV				
Zip Code (if US)	25526				
Elevation	215 (meters above sea level)				
	Send my DW number!				

- Make sure you use a valid email address (don't worry no SPAM).
- If you are a business or agency, you may wish to use its name in place of "First Name" and "Last Name." Otherwise, use whoever will be the primary contact.

• If you need help with any of these steps, or finding your location or elevation, send an email to: cwop-support@noaa.gov

Latitude / Longitude Conversion This page can be used to convert latitude and longitude coordinates.							
Deg: 106 Min: 38 Sec: 55 Convert							
Degrees: Minutes.M: Convert							
Decimal Degrees: Convert							
DMS 106 38 55 DM.m 106 38.916666666667 D.d 106.6486111111111							

4.) Send the form, then make note of your CWOP Station ID:

Your Citizen's Weather Account Number is: DWxxxx

An email will be sent to John Doe (johndoe@anonymous.net) confirming this number.

5.) Configure Cumulus

• In Cumulus, click on the 'Configuration' tab, then click "Internet." This will bring up the Internet Settings dialog.

• In the section labeled "APRS/CWOP Settings" ... enter your CWOP ID in the *ID* field. This will cause some other fields to automatically populate. Leave *Pass* as - 1, leave *Server* as 'cwop.aprs.net', leave *Port* as 14580, and set the *Interval* to 5 minutes. Click on the *Include Solar rad* checkbox only if you have a solar radiation sensor on your weather station.

• Finally, click on the *Enabled* checkbox, then click the "OK" button.

internet Settings						
Sites/Options	Files					
Web Site		Web Settings	APRS/CWOP Settings	Weather Underground		
Host name FTP Port	21	Auto Update	Enabled ID DW8512	Enabled Include UV		
Directory		Use FTP rename	Pass -1 Server cwop.aprs.net	Rapid Fire Send average wind Catch Up		
Username Password		Interval 15 mins	Port 14580	Station ID KNMSANTA3		
Forum URL	http://sandaysoft.com/forum/	Realtime.txt FTP	Include Solar rad	Password •••••		
Webcam URL		Realtime interval 30 secs		Interval 5 mins		
Web graphs		PWS Weather	Weatherbug	wow		
Resize	Width 750 Height 300	Enabled	Enabled	Enabled		
Twitter Enabled	Interval 60 mins	Include UV Include Solar rad	Include UV Include Solar rad Catch Up	Include UV Include Solar rad Catch Up		
User	Password					
External Progra	ms		Publisher ID			
Program	Params	Station ID	Number	Site ID		
Realtime Program	Params	Password Interval 15 mins	Password Interval 15 mins	PIN		
Daily	Params		milervai 15 mins			
			ок	Cancel Help		

- 6.) Check for Data:
- Browse to the following web address, using your CWOP Station ID at the end: <u>http://www.findu.com/cgi-bin/wx.cgi?call=DWxxxx</u>
- For example, if your Station ID was CW0958, you would enter: <u>http://www.findu.com/cgi-bin/wx.cgi?call=CW0958</u>

Note: It may take up to 15 minutes for data to start appearing. Also Note: The date/time stamp used on the above site is in the form YYYYMMDDhhmmss in UTC time. For example "20120402145210" means April 2, 2012 at 14:52 UTC (and 10 seconds).

7.) Normal Operations.

• Make sure you keep Cumulus running at all times to send data.

8.) MesoWest/MADIS Updates:

• These two data aggregators usually update their station tables on a weekly basis (usually Wednesdays). After several days, data from your station should begin showing up on plots at MesoWest:

http://mesowest.utah.edu/cgi-bin/droman/mesomap.cgi?state=NM&rawsflag=3