**Each Deployment**

Calibration Information

* + Fill out logs completely
	+ Remember to note diagnostics at calibration AND post deployment information

Field Information

* + Include all deployment and retrieval information
	+ Note the time when sonde was put in water and pulled out
	+ Make sure to take field readings at each sonde swap and record on both deployment logs
	+ Note any fouling seen on sonde or at station that may have impacted data
	+ Note any station maintenance or other activity that may have impacted data

**Quarterly Data QAQC Process**

Data QAQC

* + Review data files
	+ Do not delete data
	+ Record rejected, suspect and/or anomalous data in the metadata document
		- Check deployment logs and local weather data
		- Check notes left in comment sections during calibration, post, and notes from the field – flag/code if data were impacted
		- Flag/Code periods of data rejected or suspect for the following
			* Check for out of range sensor diagnostics
				+ Applies to conductivity cell constant, pH mV or slope, DO charge

Flag/code entire deployment 1 SDG

* + - * Post-calibration out of range SPC
				+ Check matchup at sonde swap, field readings
				+ Flag/code 1 SPC or -3 SPC depending on severity
			* Fouling – use CBF if fouling was present or suspected
				+ Generally suspect or rejected; good data flag can be used if fouling seemed to resolve itself
			* Sensor drift SSD, may be used with CBF
			* Wiper malfunction SWM, may be used with CBF
			* Incorrect calibration SIC should only be used when incorrect calibration is noted in logs or known
			* Sensor malfunction SSM
			* Blocked optics SBO, may be used with CBF
		- Check for Turbidity outliers
			* If out of sensor range (1000 FNU for 6600, 4000 FNU for EXO) data MUST be rejected
			* If using the 1 or -3 flag, use the STS code for spikes
			* Flag/code based on issues noted in logs, e.g: blocked optics SBO
		- Out of water events
			* If affects all sensors data is marked -3 GOW
			* If affects specific sensors data is marked -3 SOW
			* Remember to flag/code dependent parameters
		- Disjunct readings at sonde swap
		- Anomalous trends or events visible in data
			* Generally flag suspect to highlight
			* Include any information available with GSM/CSM codes, and/or use CCU

**Quarterly Metadata**

Metadata

* Create quarterly metadata document
* PLEASE use the most current quarterly and annual metadata templates
* Other remarks section
	+ Check that all data comments for the AP Data Coordinator are listed in the Other Remarks section as well as all see metadata comments (CSM or GSM) for data users
	+ Include any additional information that would be helpful to an end user
* Data Collection Period
	+ First and last records where sonde was IN the water at the correct depth
* Site location and characteristics
	+ Most up to date lat/long and include all required descriptors
	+ Please include distance of sonde from bottom (ex. 0.5 m)
* Remember to update sensor information for sondes/sensors in use
* If using multiple sonde types note which sonde type used (by station, deployment, etc.)
	+ 6600s and EXOs, vented and non-vented

**Annual QAQC Process**

Data and Metadata

* + Merge quarterly files into annual files
	+ Review annual files to make sure nothing was missed during quarterly review
	+ Review metadata for completeness
	+ Save files to shared file location

**Reminders**

* + Refer to WQ QAQC Common Issues, and WQ Flag Code Cheat Sheet documents for further guidance during QAQC flag and code process
	+ Use of GSM and CSM codes
		- Used to refer to other remarks section of metadata
		- May be used with any flag
		- Apply when data is unique or needs an explanation
	+ Dependent Parameters
		- In the case of rejection of the temperature or conductivity parameters, dependent parameters must be rejected as well
		- Catastrophic temp probe failure: ALL parameters must be rejected
			* Except turbidity for EXO
			* In the event of such a severe failure of the EXO CT probe that the sonde powers it down, QC’d DO%, pH and ChlFluor data MAY not need to be rejected
			* -3 STF for all data
		- Conductivity probe failure: SpCond, salinity, DO mg/L and depth must be rejected
		- Example flags/codes: -3 SCF for all; -3 SSD, -3 SPC, -3 SSM for SpCond/salinity and -3 SCF for other dependent parameters
	+ Flags/Codes
		- Check that all -4 and -5 flags are replaced with -3 or 1
		- Check that all -3, 1 or 5 flags are accompanied by a QAQC code
		- Check that no 0 flag was applied over any primary QAQC flag
		- Check that a maximum of 2 QAQC codes are used per value (macro flag tool will not allow)
			* A General Code OR Sensor Error code may be applied, and either can be accompanied by a Comment Code. Or a Comment Code may be used alone