Towards a uniform DM DOXY equation

Right now the DM_FILLER_TOOL equation for DOXY_ADJUSTMENT is :

PPOX_DOXY_ADJUSTED=as.numeric((1.+**DRIFT**/100.*(profile_date_juld-launch_date_juld)/365.))*(**SLOPE***PPOX_DOXY)+**OFFSET**

(Not the same exact definition mainly for the DRIFT ouput from SAGEO2, explained in FromSAGEO2_to_DMFILLER.docx)

Henry ‘s suggestion is that all DACs refer to the same equation which should be

scientific_calib_equation:
PPOX_DOXY_ADJUSTED=**OFFSET**+(**SLOPE***(1+**DRIFT**/100.*(profile_date_juld-launch_date_juld)/365)+**INCLINE_T***TEMP)*PPOX_DOXY

Example:
scientific_calib_coefficient:
OFFSET=0, SLOPE=1.0373, DRIFT=0.510, INCLINE_T=0,
launch_date_juld=20161017070000

- **SLOPE**: Oxygen slope/gain factor to correct for large 'storage drift', which is a multiplicative correction

- **PPOX_DOXY and PPOX_DOXY_ADJUSTED**: The optodes sense the partial pressure, so in correcting on partial pressure, we follow the sensing principle. (Under some circumstances (offset=0), it's with above equation equivalent to correct on DOXY or on %sat, but with PPOX we can't do anything wrong under any circumstances, while with the others we potentially could.)

- **DRIFT** and **launch_data_juld**: correct potential small in-situ drift, for which we need a start date (drift correction in time, not in cycle number due to potentially variable cycle frequency)

- **INCLINE_T**: temperature inclination of the gain factor, which can be observed in older, batch-calibrated optodes because of incomplete temperature-compensation

- **OFFSET**: zero-offset, which can be observed in older, batch-calibrated optodes because of incomplete O2-phase-compensation (basically all the floats of the Takeshita et al. 2013 study; newer, multi-point calibrated optodes do not show a zero offset)

In many cases, especially new ones as well as preliminary assessments after a few cycles, only SLOPE (and maybe DRIFT) may be needed, and OFFSET=0, DRIFT=0, INCLINE_T=0 and launch_date_juld will remain at their defaults. But it would be a consistent scheme across different groups/DACs and thus easier to parse/analyze.