

Sampling guidelines for onboard dynamic correction

**Sampling
frequency
 $\geq 1\text{Hz}$**

- short-term dynamic correction are not applied at slower rates
- see [Dynamic corrections for the RBRargo CTD 2000dbar](#) report

**Maintain
ascent-rate
 $5 < x < 25 \text{ cm/s}$**

- there is no “optimal” ascent rate for the dynamic corrections.
- Ascent rate is calculated in real time and the dynamic corrections are tuned accordingly.
- An ascent rate of $5 < x < 25 \text{ cm/s}$ guarantees the dynamic corrections are well-characterized in the lab.

**Transmit
P, T, Tcond,
S, and Scor**

- S is still required to populate PSAL with QC = 1
- make sure to properly identify S vs Scor: it is not necessarily evident!

**Evaluate
corrections'
efficacy**

The perfect scenario is:

- 1Hz data
- Sharp thermocline followed by homogeneous layer (e.g., mixed layer, thermo-haline staircase)
- Transmits T, P, S, Scor, Tcond (Tcond is needed to go from S to Scor)
- High-frequency profiles (e.g., daily)

Data processing guidelines for DACs

