

Figure S1. Relative difference of the MLD results (a) HT09 - proposed methodology, (b) B04 - proposed methodology and (c) B04 - HT09. The largest differences are shown in (b) and (c), where B04 overestimates the MLD calculations by 67% and 73% of the total, respectively.

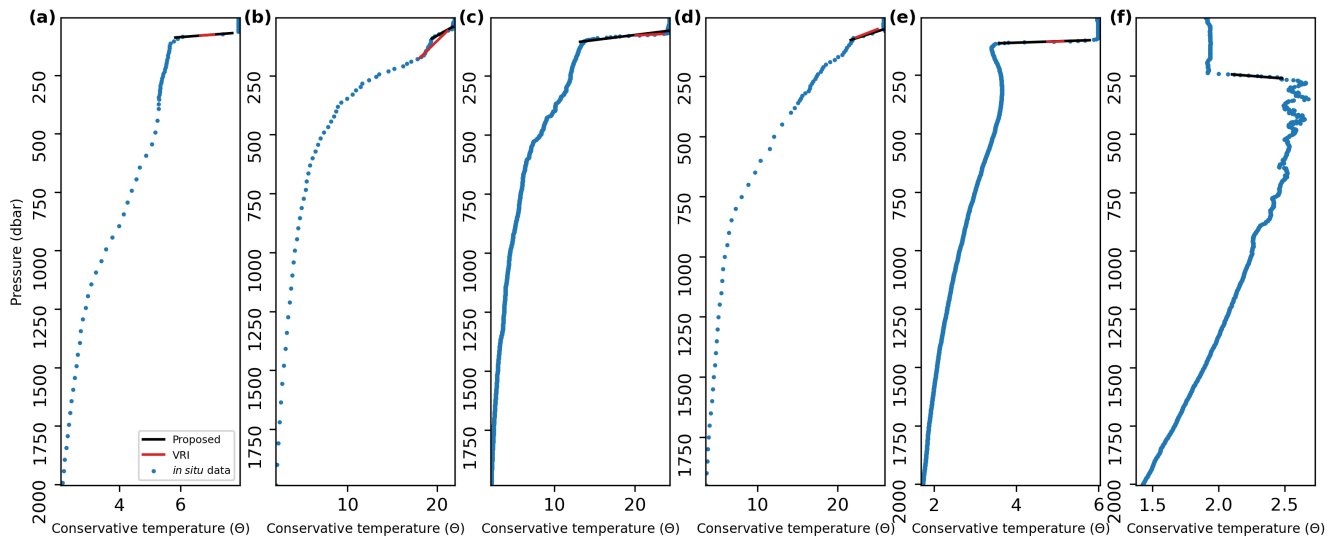


Figure S2. Location of the thermocline in temperature profiles with the proposed method and the VRI method. (a) 52.95°S and 90.05°W on 01/23/2003. (b) 25.14°S and 93.48°W on 01/12/2013. (c) 1.90°S and 126.07°W on 05/25/2013. (d) 20.02°N and 41.15°W on 12/15/2015. (e) 49.00°N and 174.70°W on 12/13/2017. (f) 60.00°S and 116.86°W on 08/12/2015.