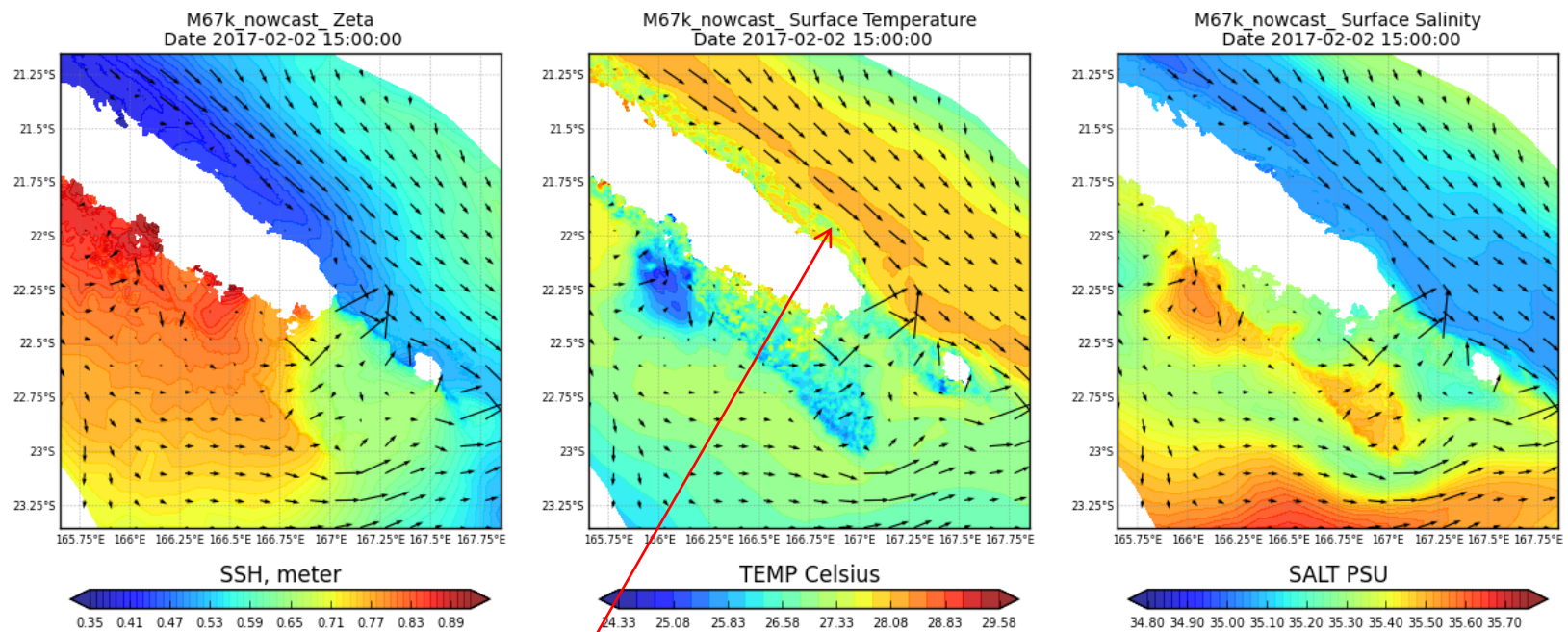


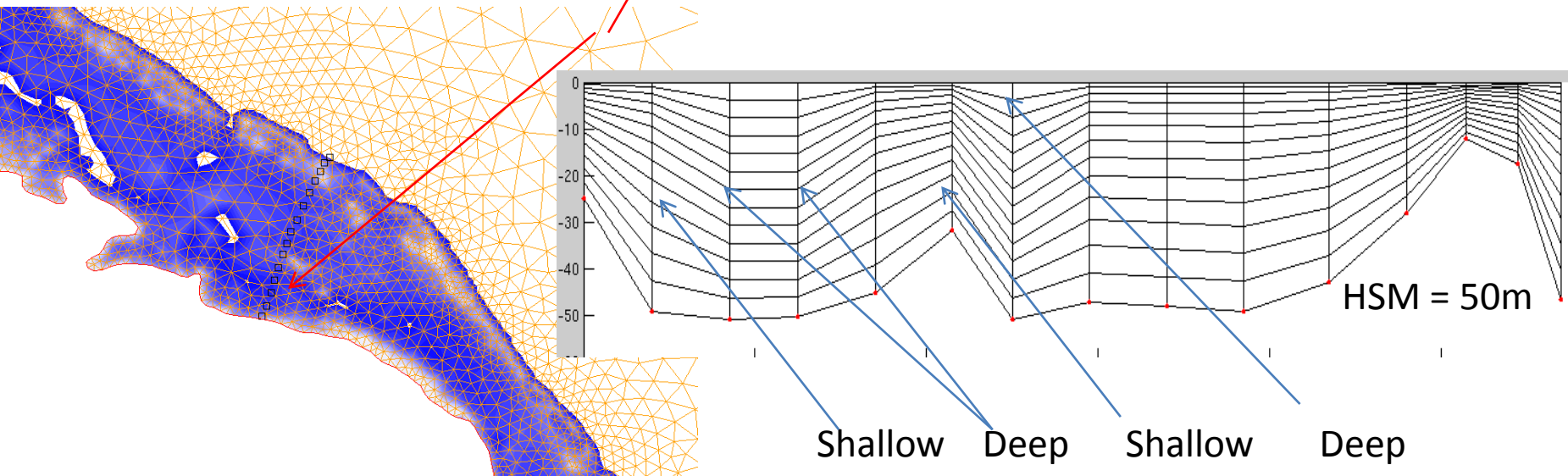
gen_vqs_rutgers.F90

Toward keeping full control of your vertical grid refinement

IRD, Centre de Noumea
Jerome.lefevre@ird.fr



Temperature is patchy at surface ? ... likely due to lower vertical grid resolution at surface, a consequence of the LSC² design with actual vertical stretching functions or maybe my misusing of the sigma coordinates functions in "gen_vqs.f90"



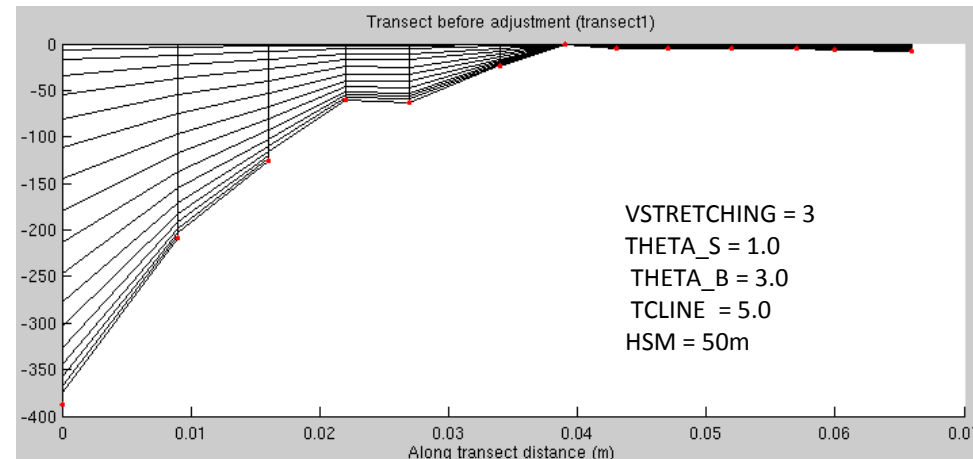
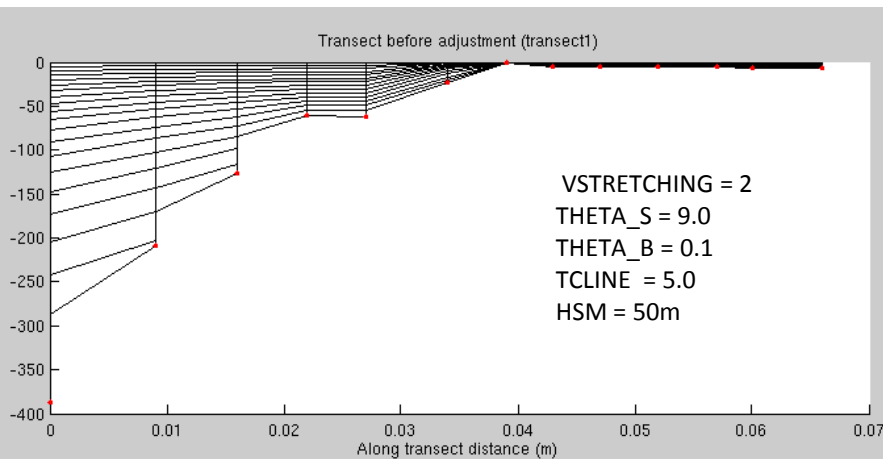
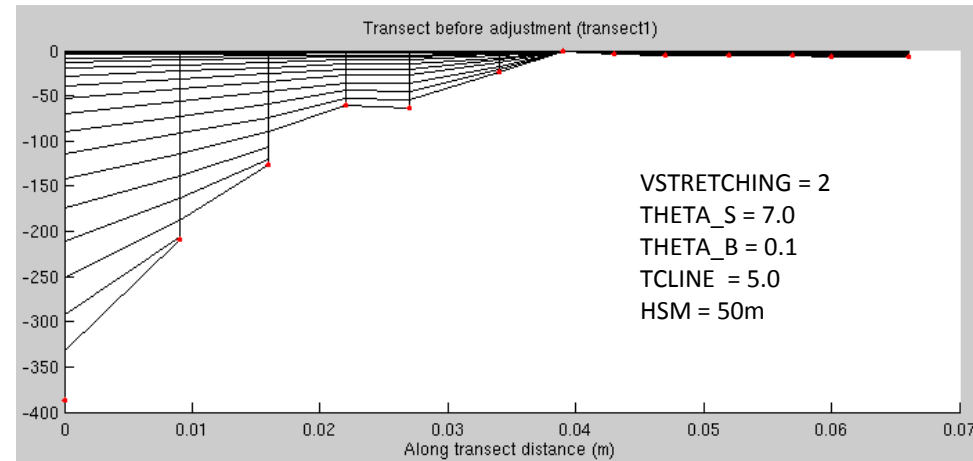
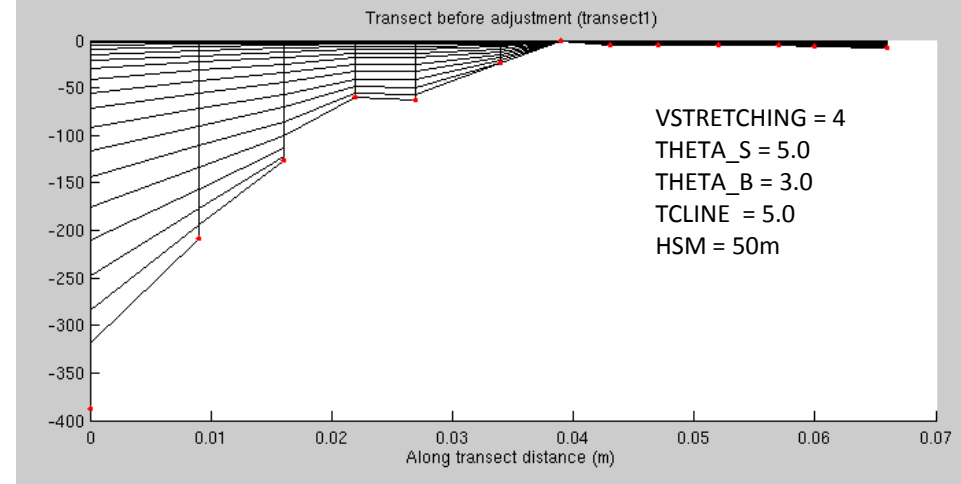
New « gen_vqs_rutgers.F90 »

* Using ROMS/Rutgers 'famous' vertical stretching function in combination with LSC²

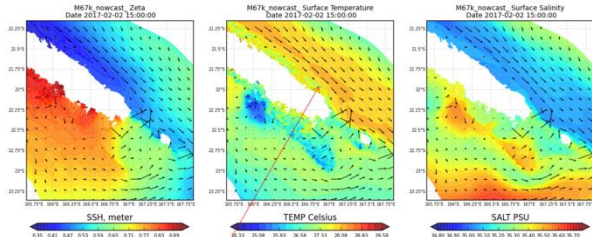
* May be more straightforward in setting the vertical grid refinement ???

Please try yourself !

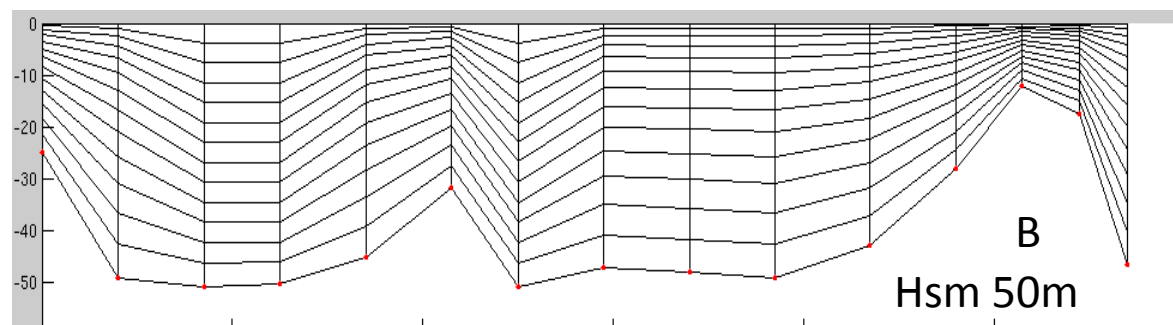
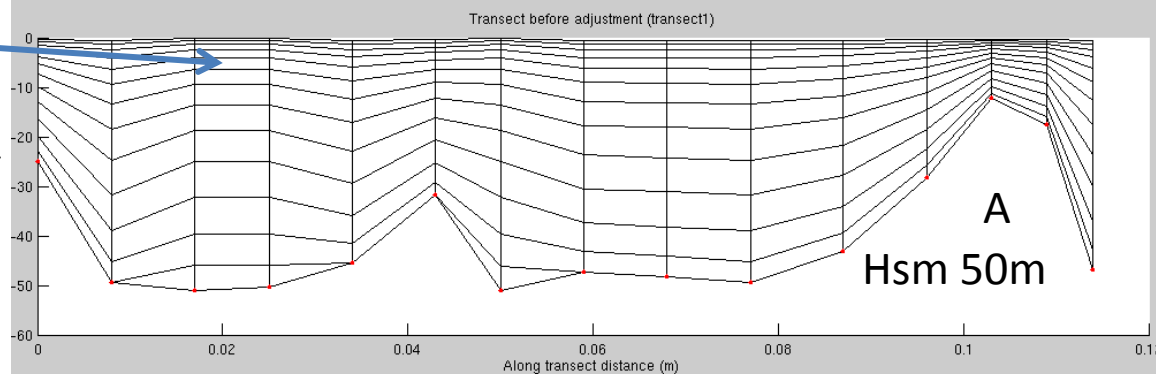
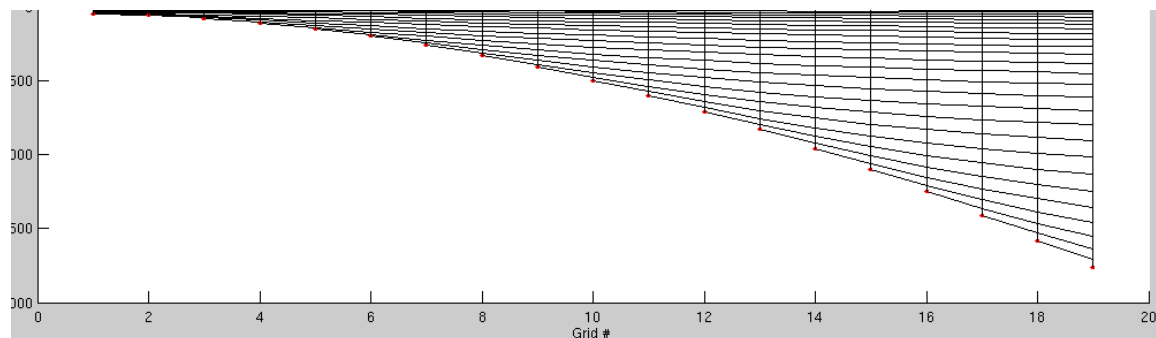
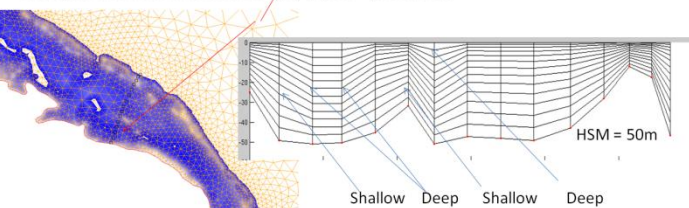
and compare with
https://www.myroms.org/wiki/Vertical_S-coordinate



After using the updated gen_vqs code with three Rutgers vertical stretching functions (New gen_VQS_Rutgers.F90)



Temperature is patchy at surface ? ... likely due to lower vertical grid resolution at surface, a consequence of the LSC2 design with actual vertical stretching functions or my misusing of the sigma coordinates functions in "gen_vqs.f90" perhaps



I control the vertical stretching both in shallow and deep area.

i.e. more refinement at surface

VSTRETCHING = 4
THETA_S = 5.0
THETA_B = 3.0
TCLINE = 5.0

Previous sigma distribution with the original gen_vqs.F90

Avqs0 = -1.
Thetaf=4.0
Thetab=0.0

May be, one can reach a similar result like in A after several trial/error runs with the original gen_vqs ...

