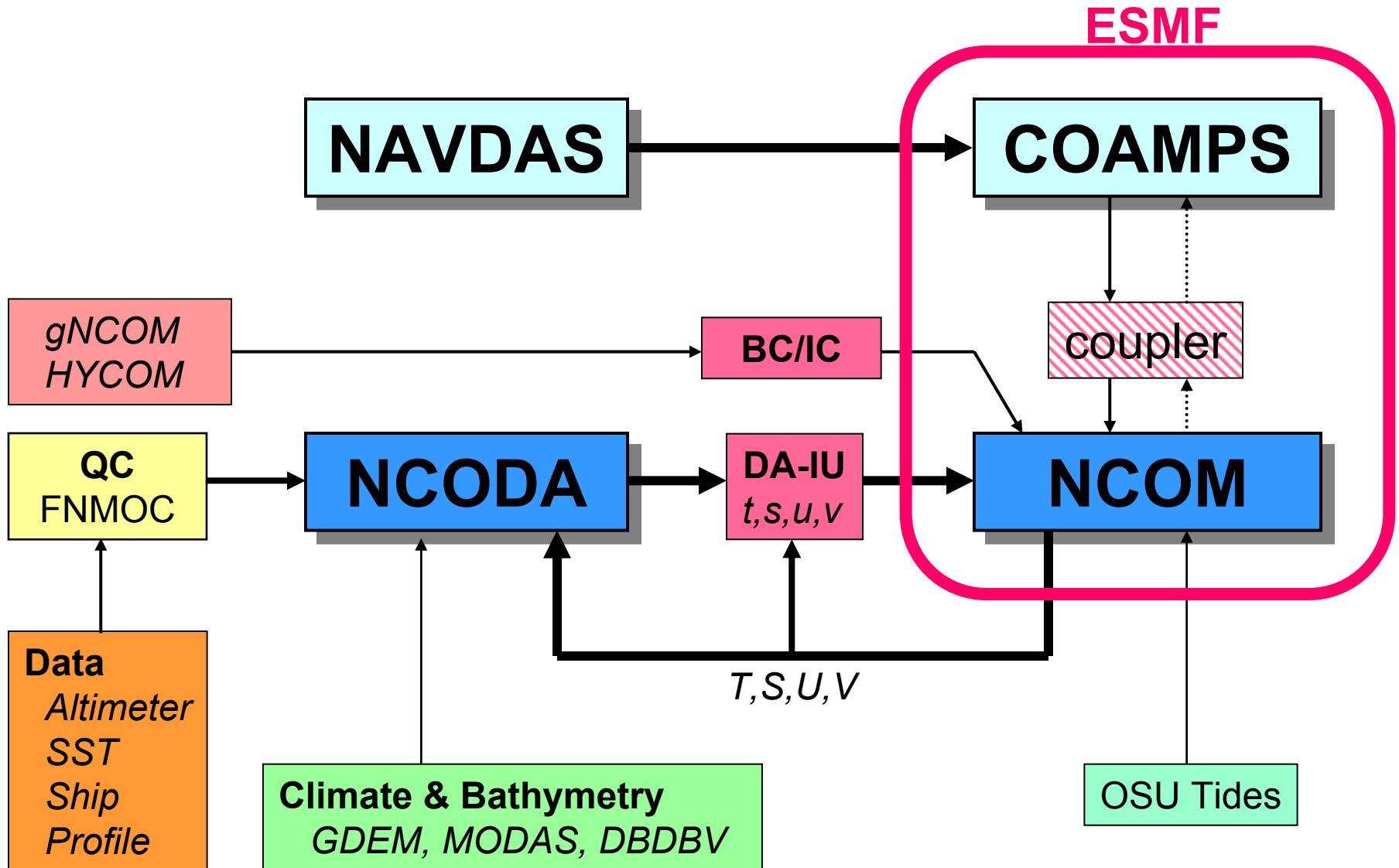# HYCOM Initial/Boundary Conditions for Coupled COAMPS/NCOM

6.2 HYCOM

PI: Julie Pullen
Paul May

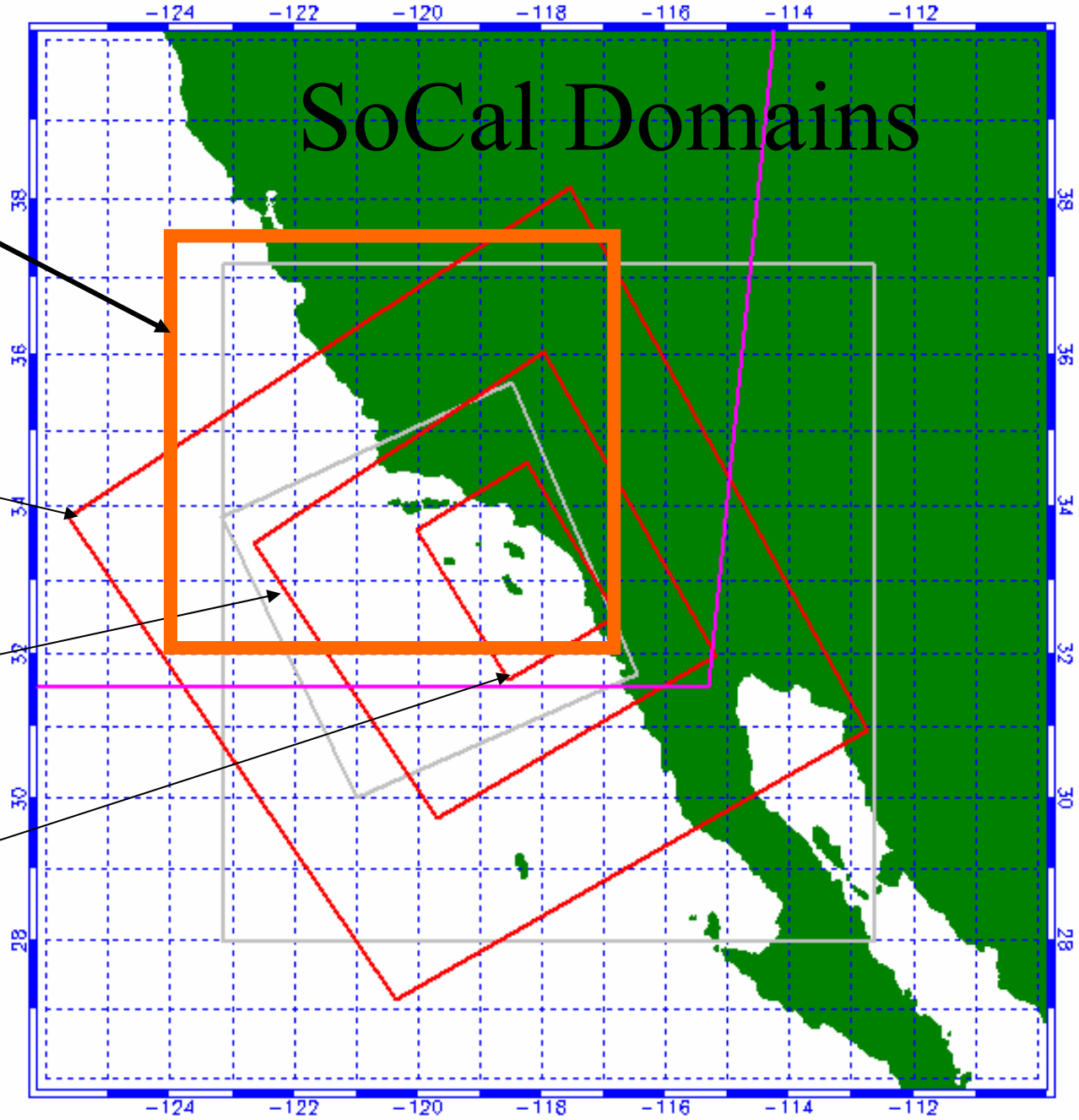# COAMPS/NCOM-OnScene

SoCal Domains

COAMPS 9-km
NCOM 3-km

COAMPS-OS
15-km

COAMPS-OS
NCOM
5-km

NCOM
2-km

COAMPS-OS® Map Projection Panel

Nested NCOM with Data Assimilation and Global HYCOM BCs

NCOM (3-km)
- COAMPS (9-km) forcing
- Incremental Update DA
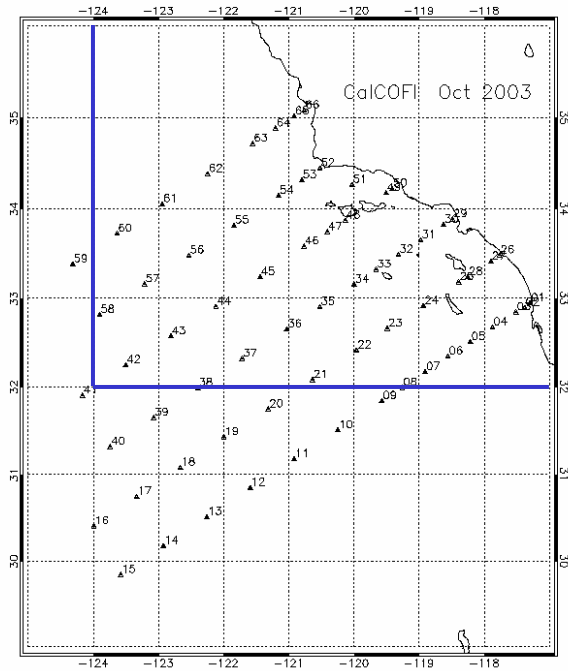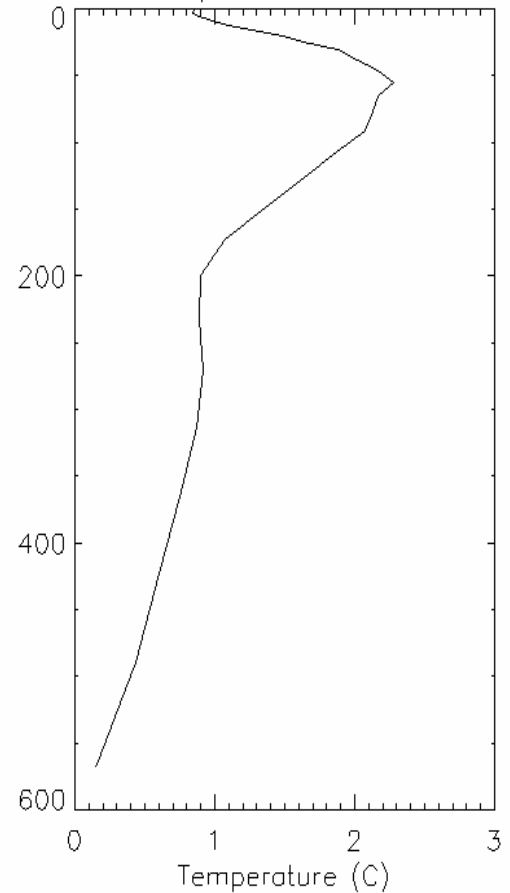- Global HYCOM (5.3) bcs
- Oct-Nov 2003

Surface Height   00Z 27-Oct-2003
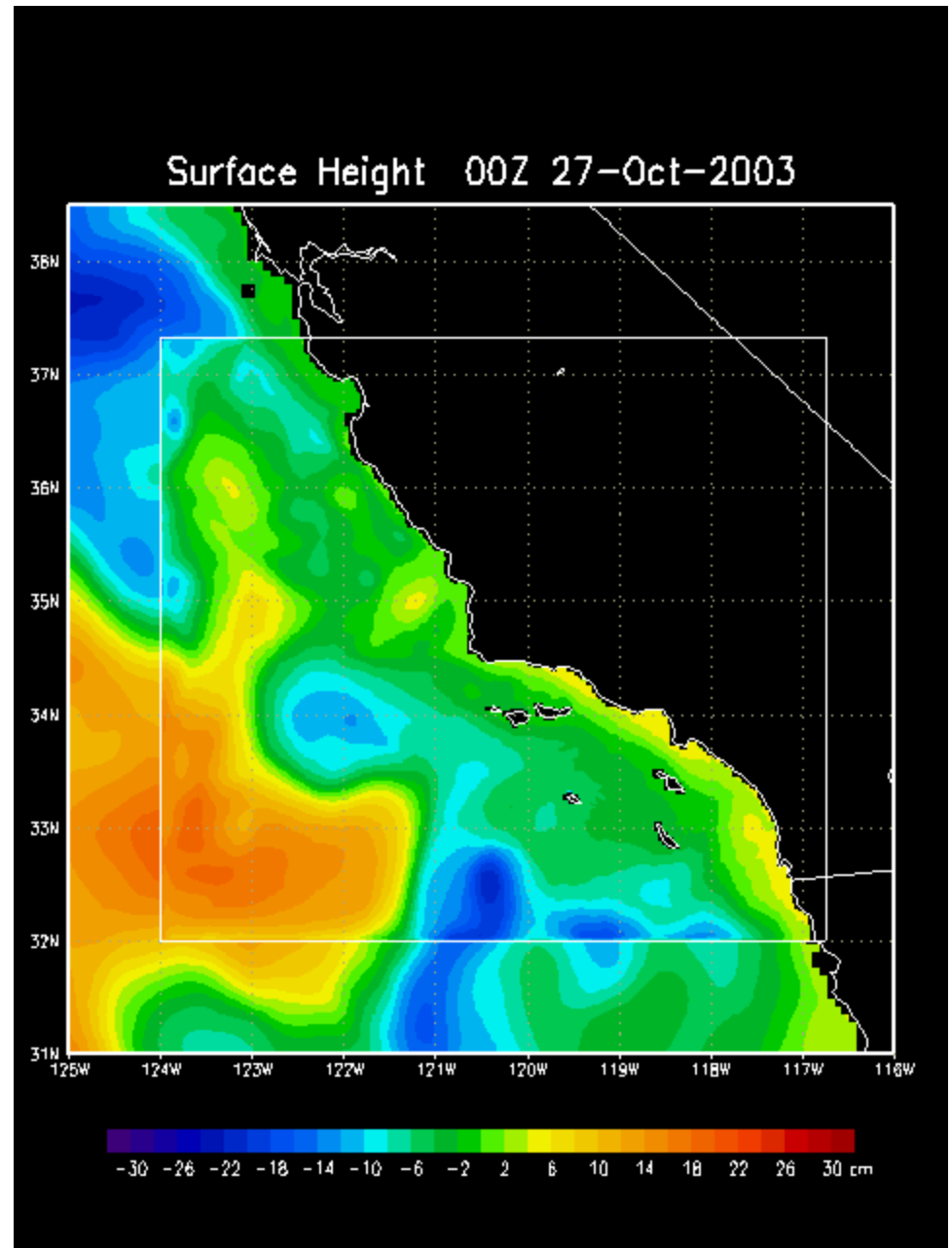
CalCOFI data comparison

CalCOFI Oct 2003

CalCOFI (Oct 2003) vs Forecast
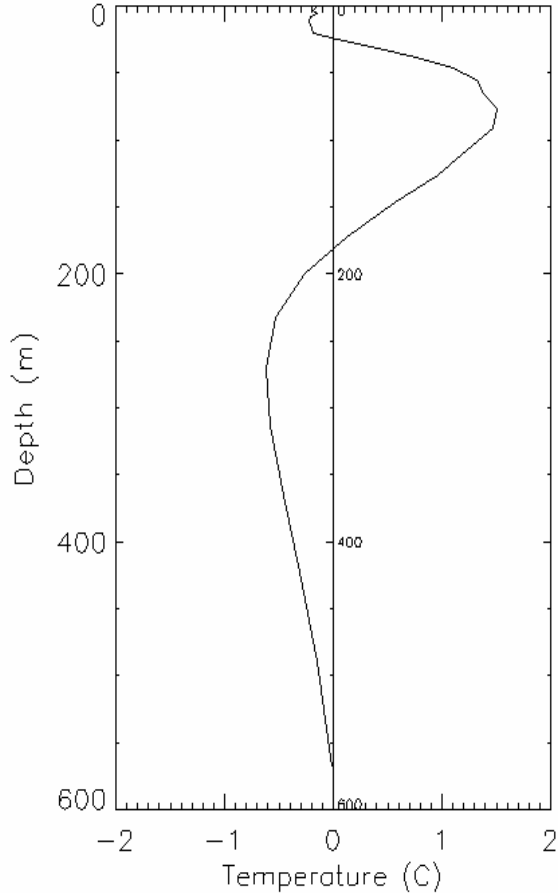
Temperature Bias

Temperature RMSE

SoCal Nested NCOM errors
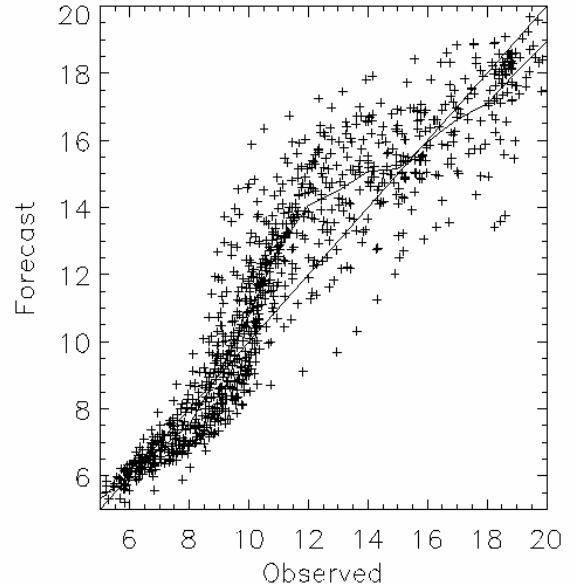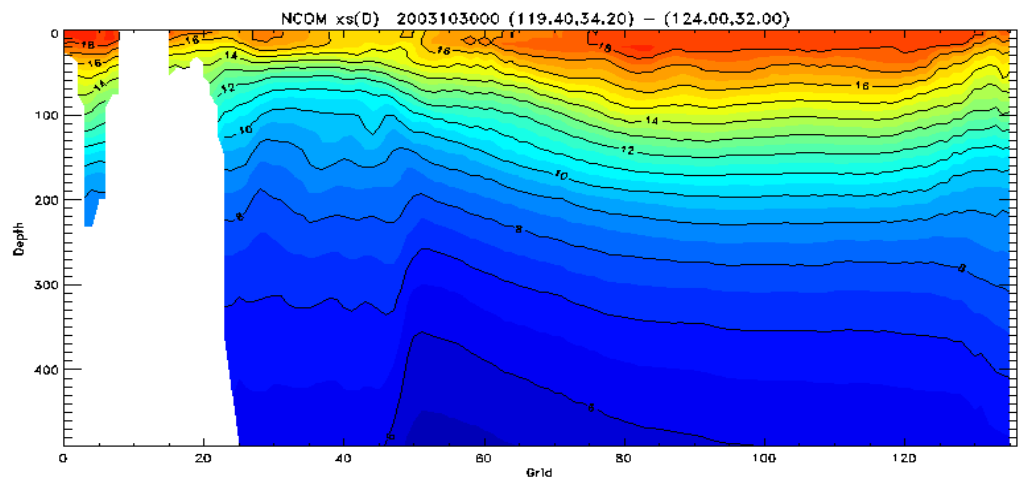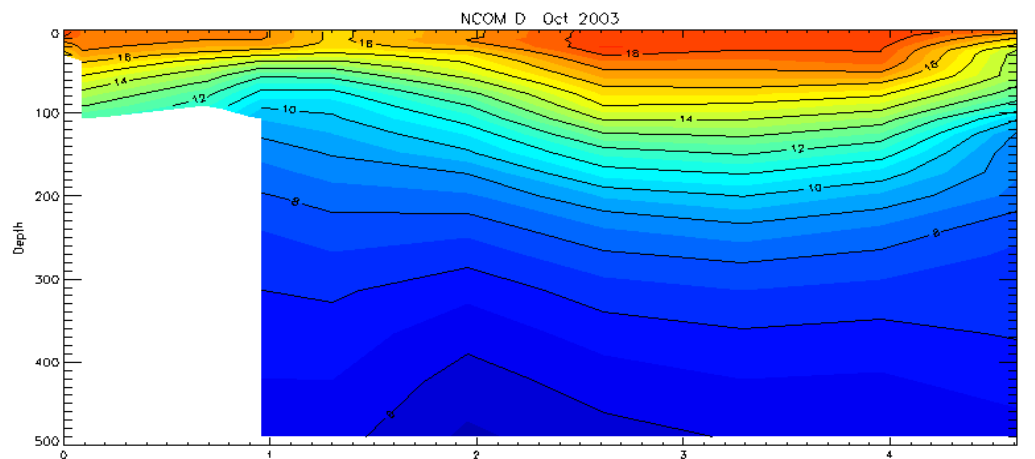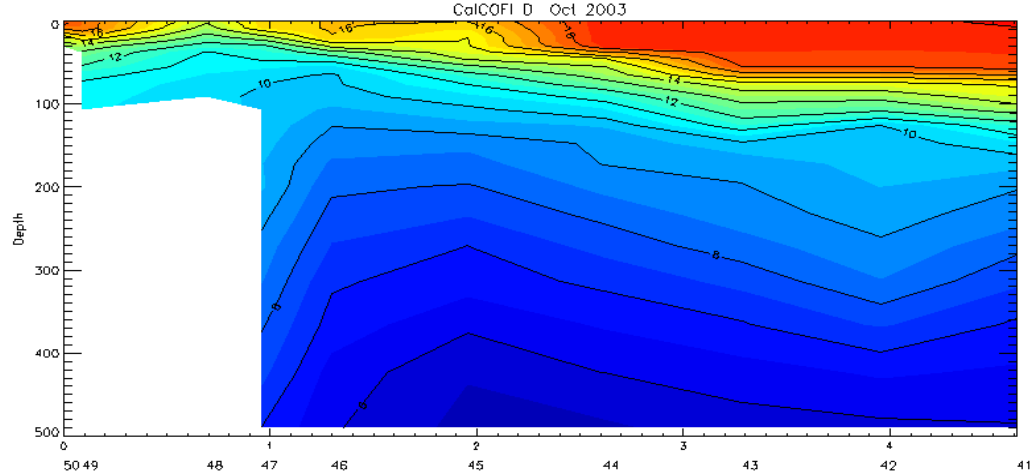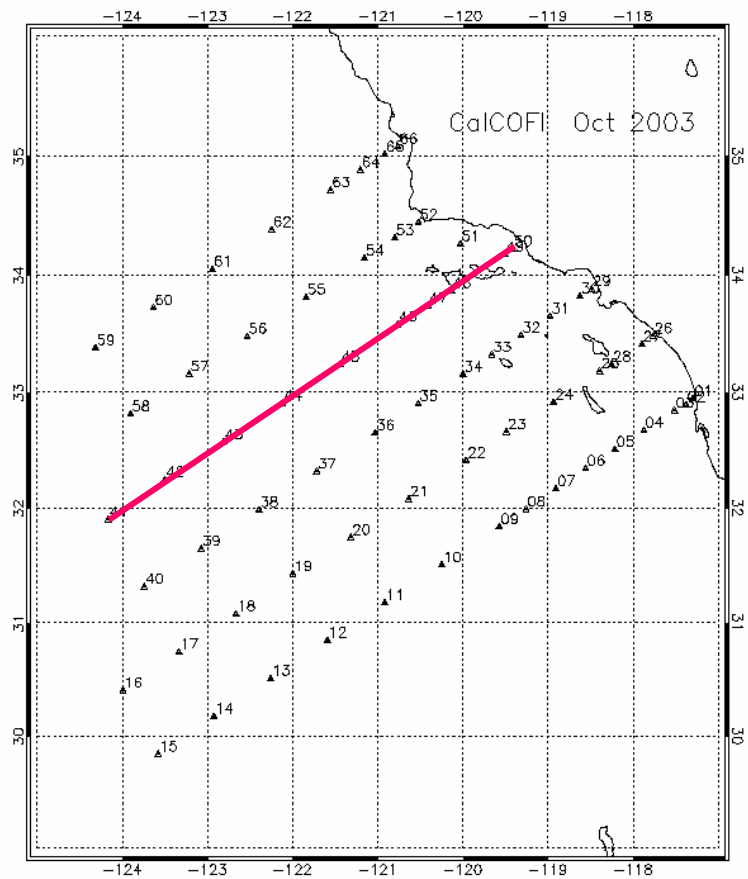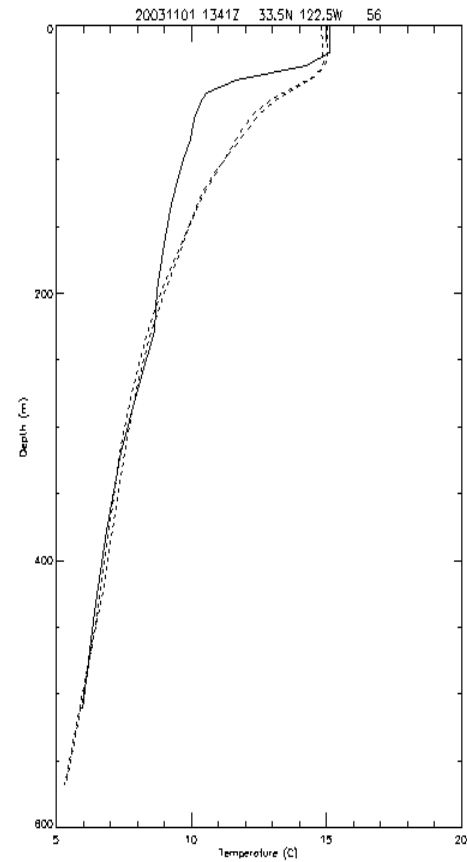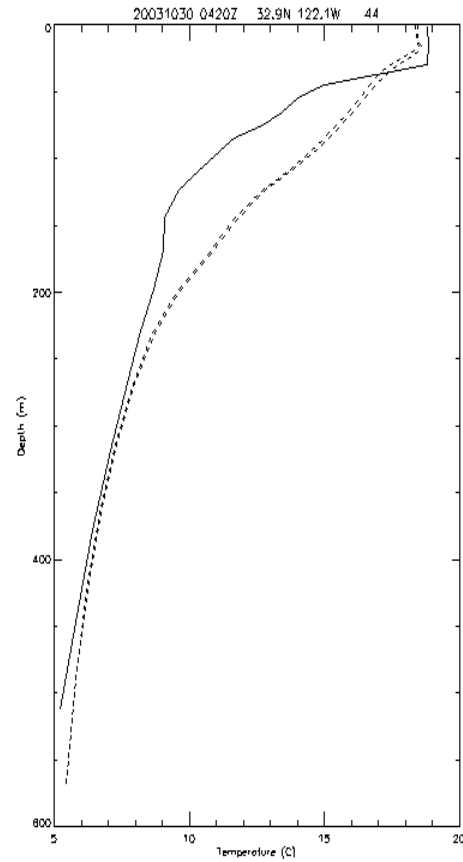
CalCOFI & NCOM Leg E XS
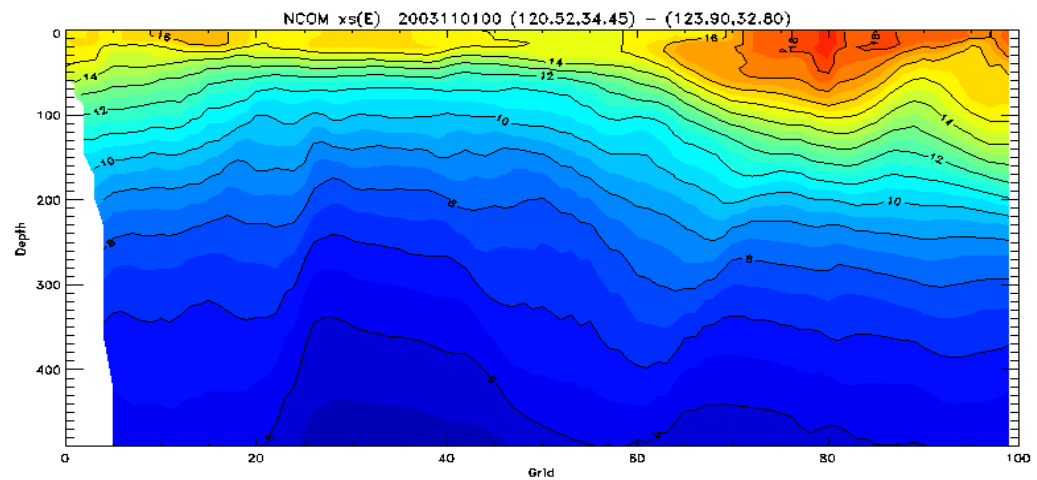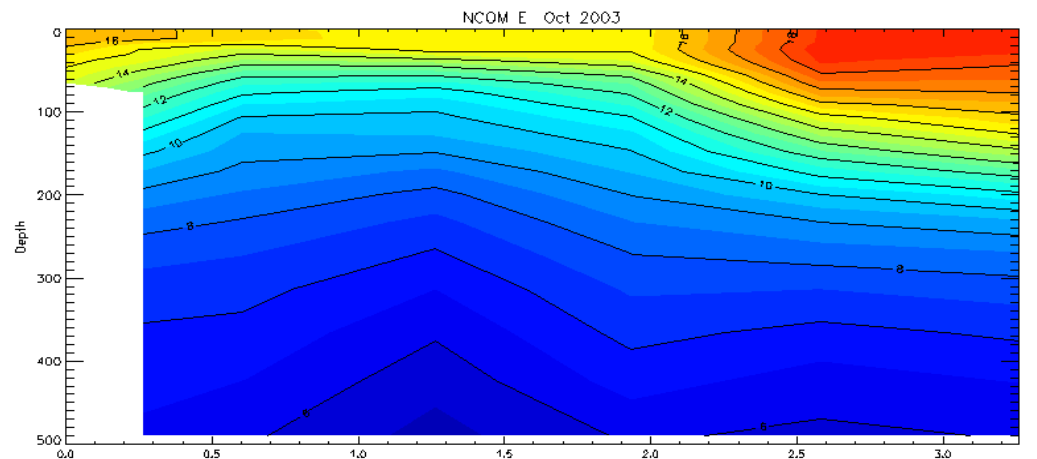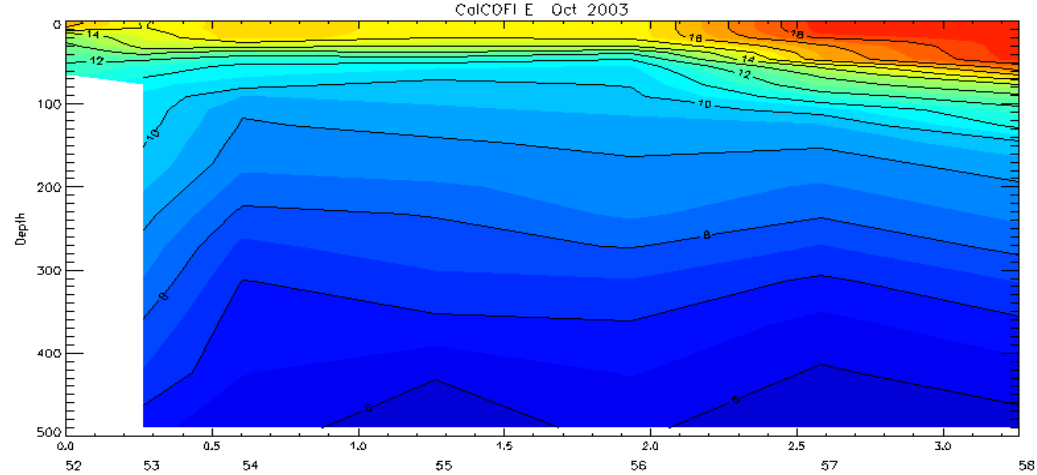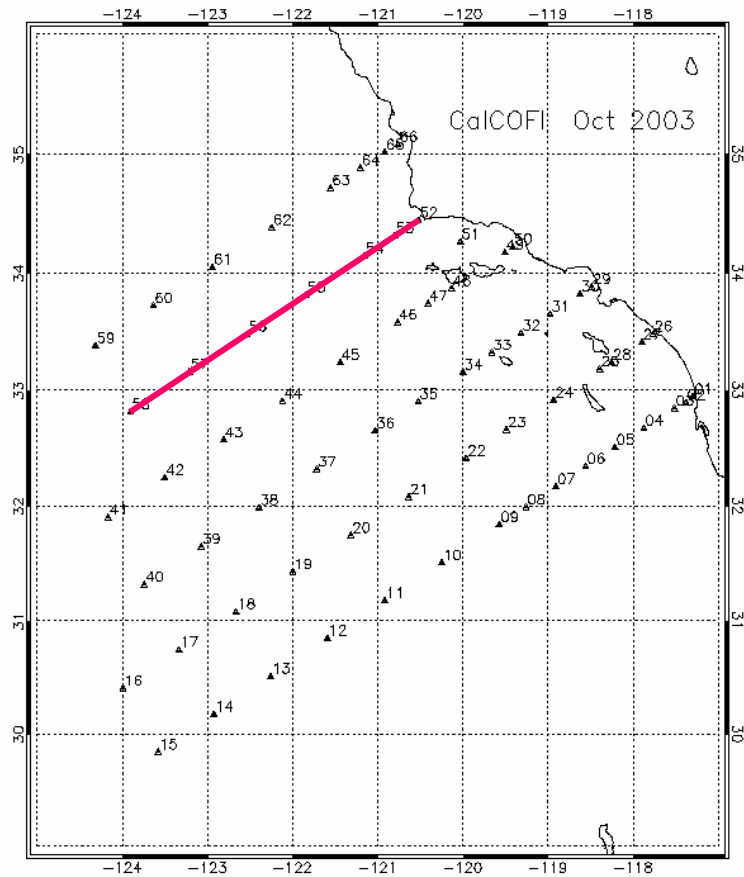
CalCOFI & NCOM Leg D XS

CalCOFI & NCOM Leg C XS

CalCOFI Oct 2003

CalCOFI C Oct 2003

NCOM C Oct 2003
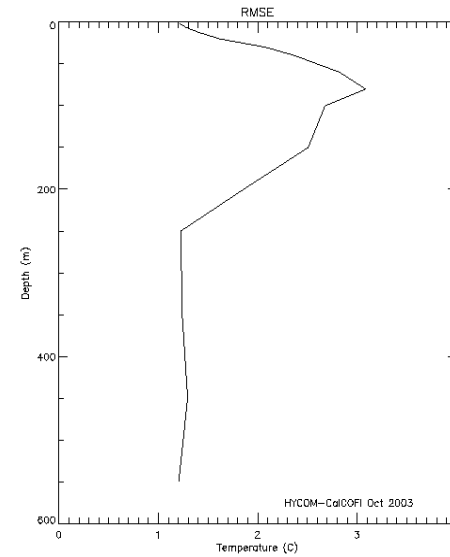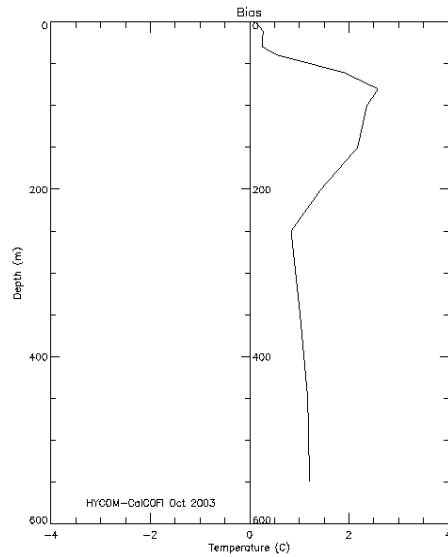
NCOM xs(C) 2003102700 (118.50,33.90) – (122.40,32.00)
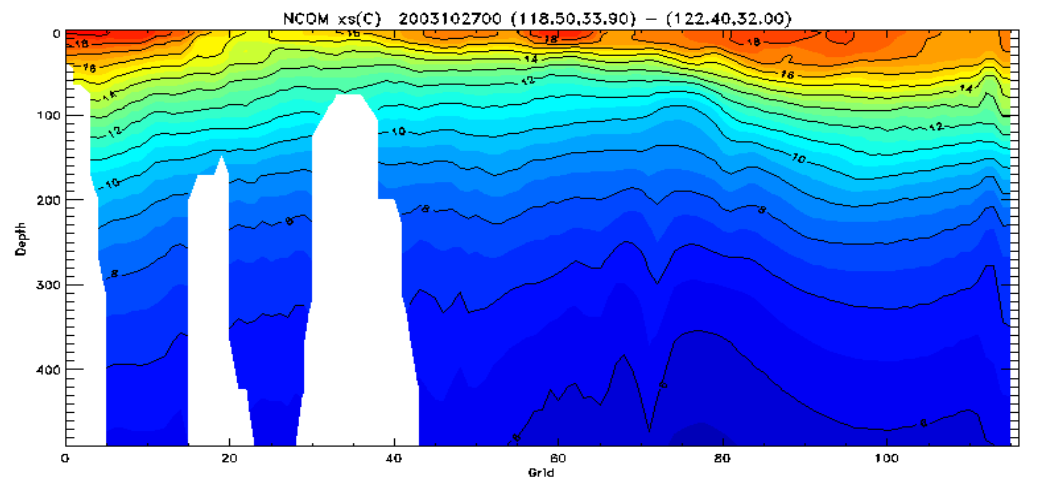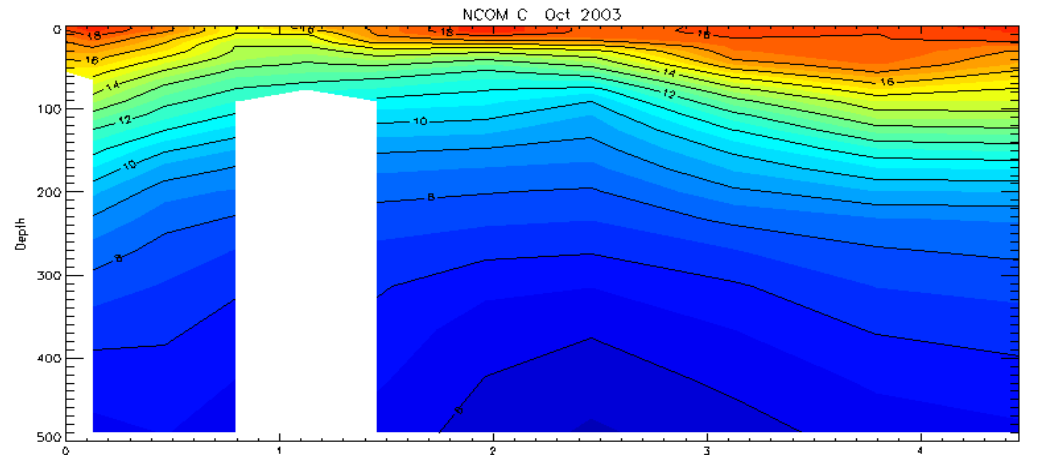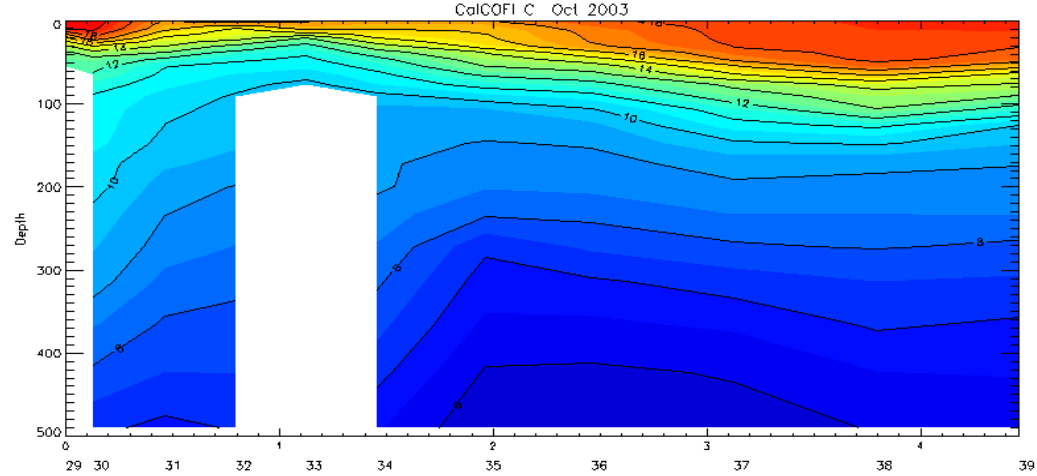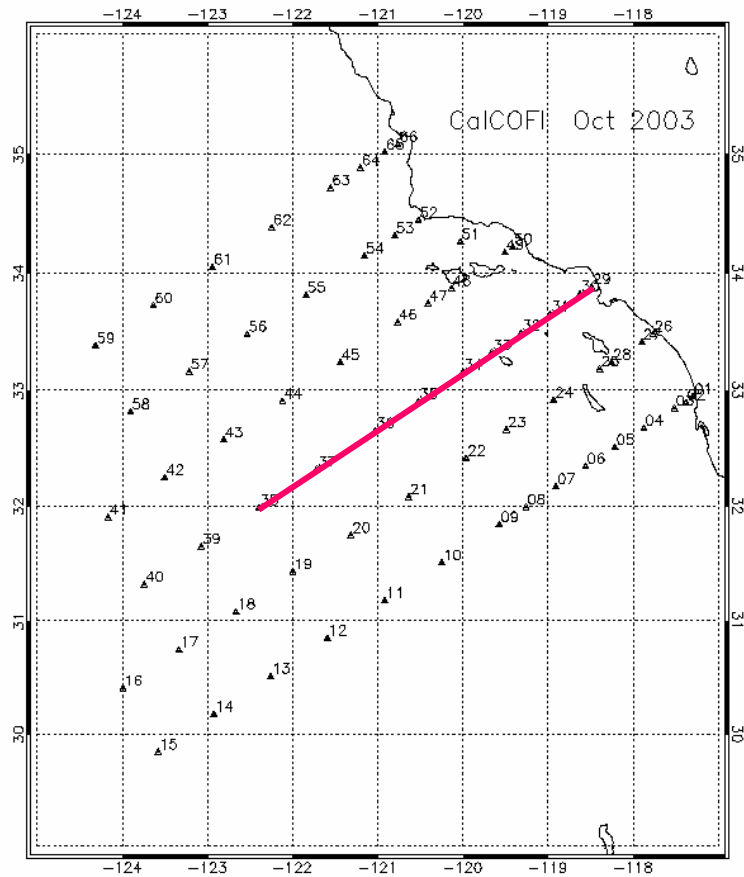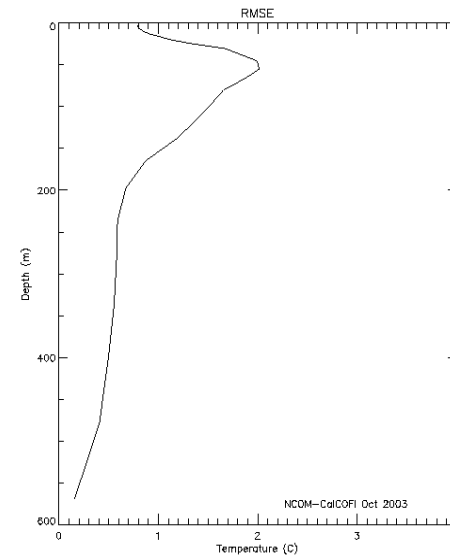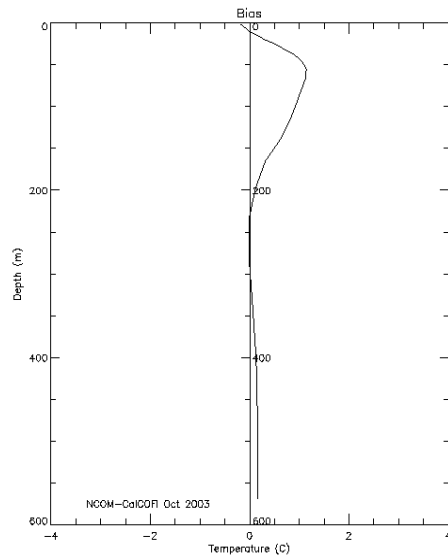
Selected Temperature Profiles
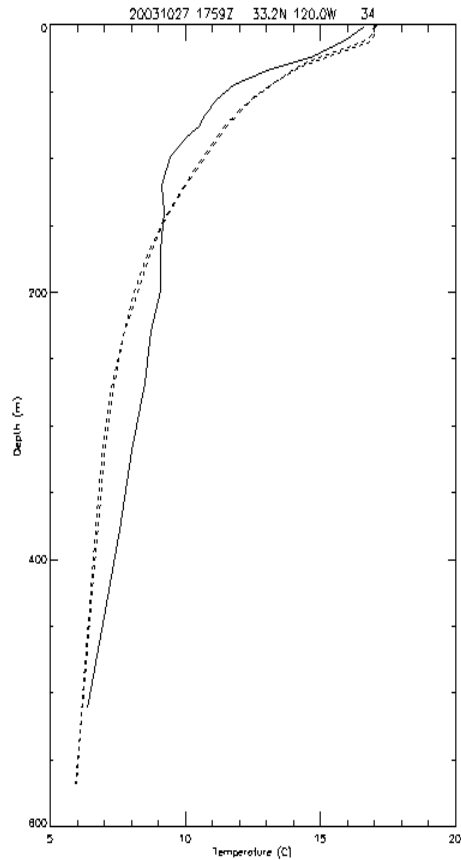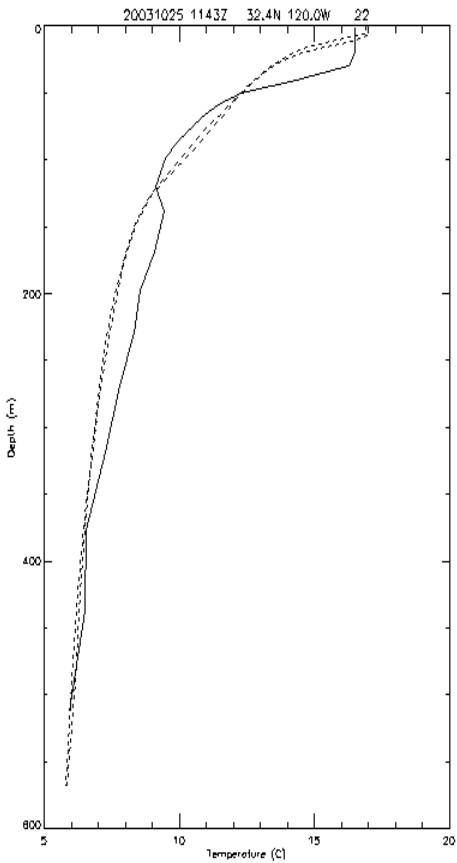
Initial/BC Temperature Errors (Oct 03)
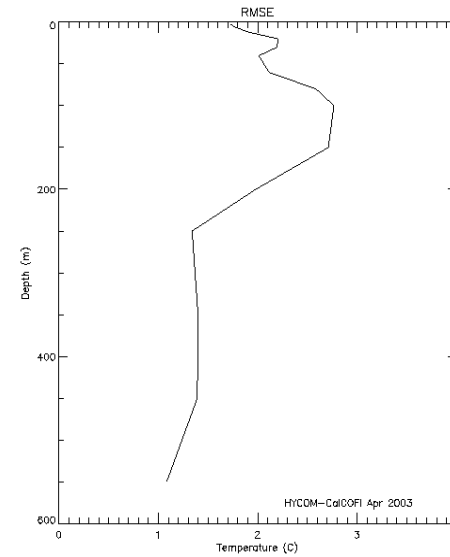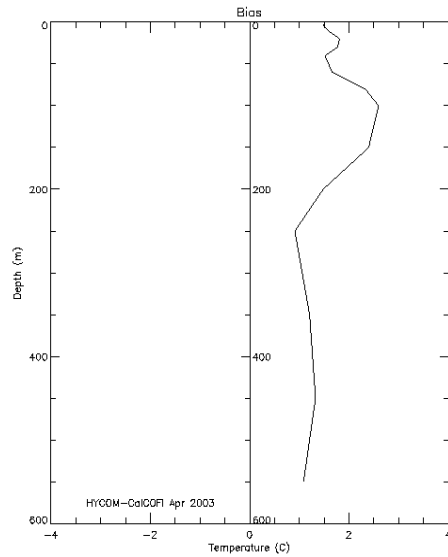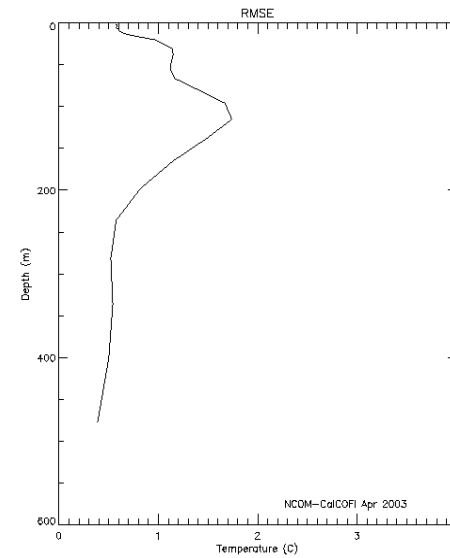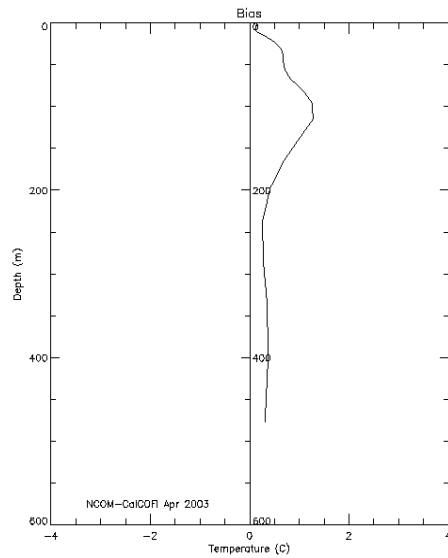
Global HYCOM

Global NCOM

Bias   RMSE
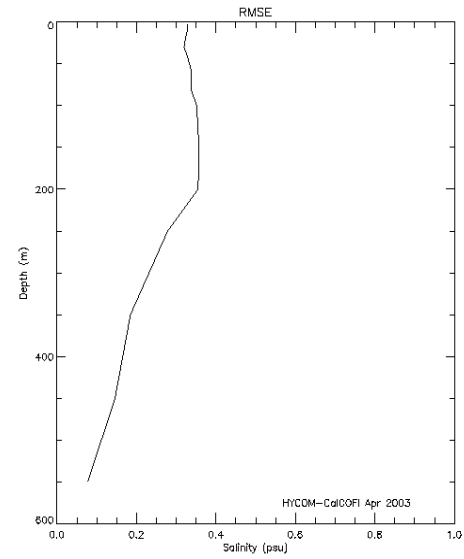
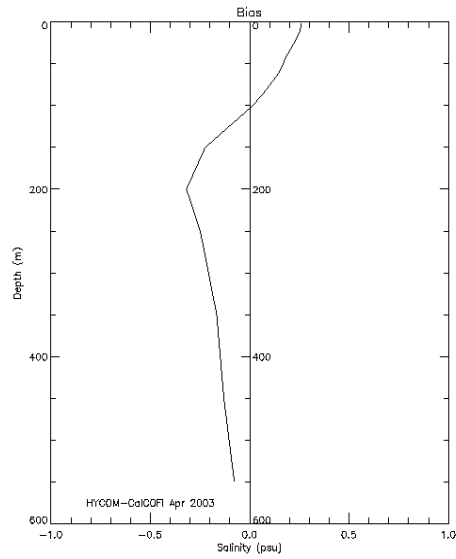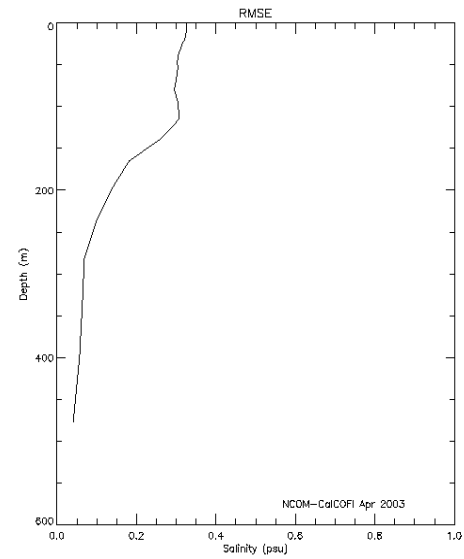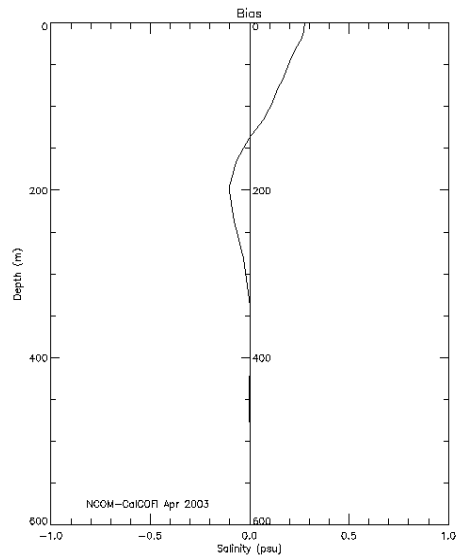# *Initial/BC Temperature Errors (Apr 03)*

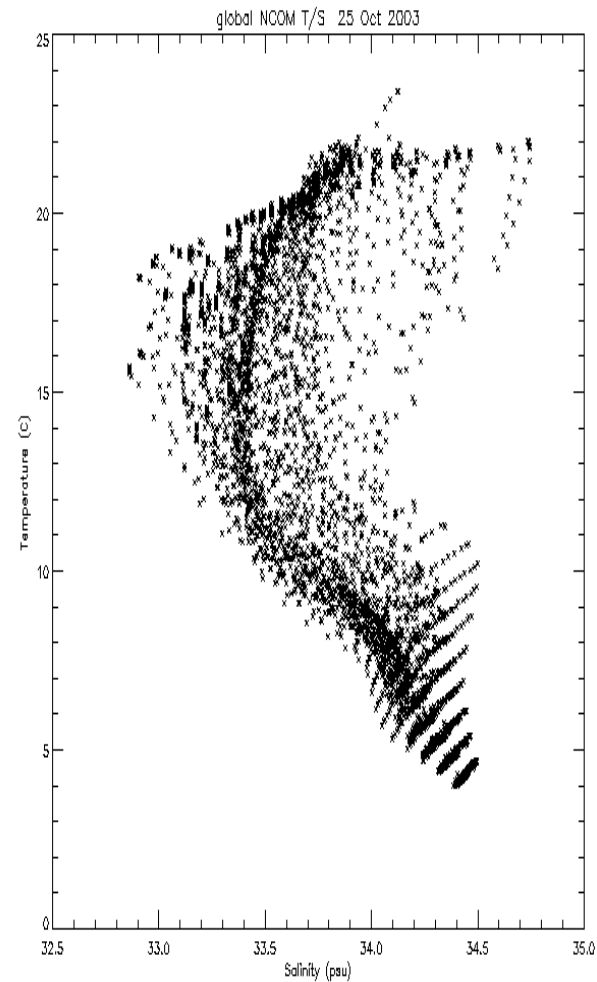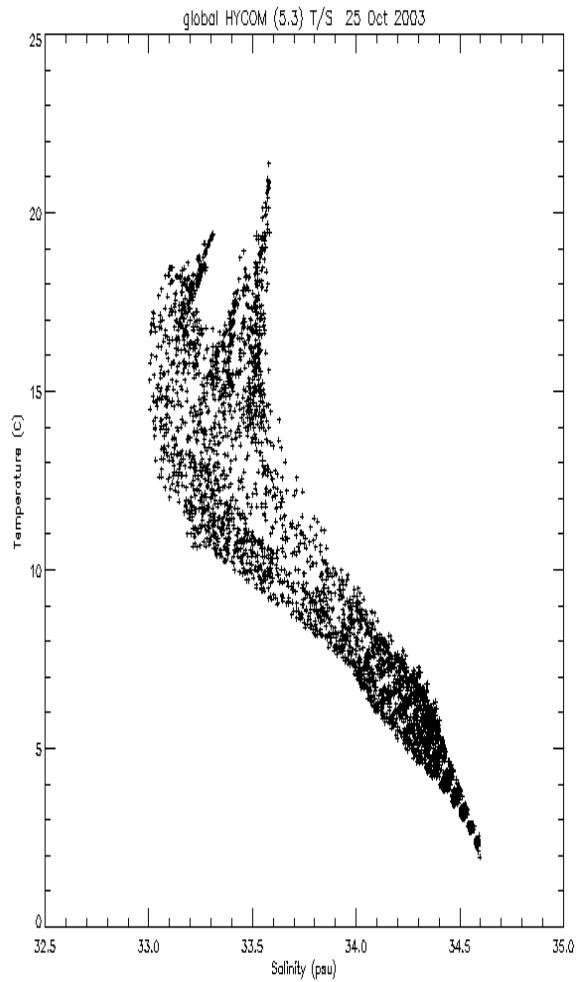**Global HYCOM**

Global NCOM

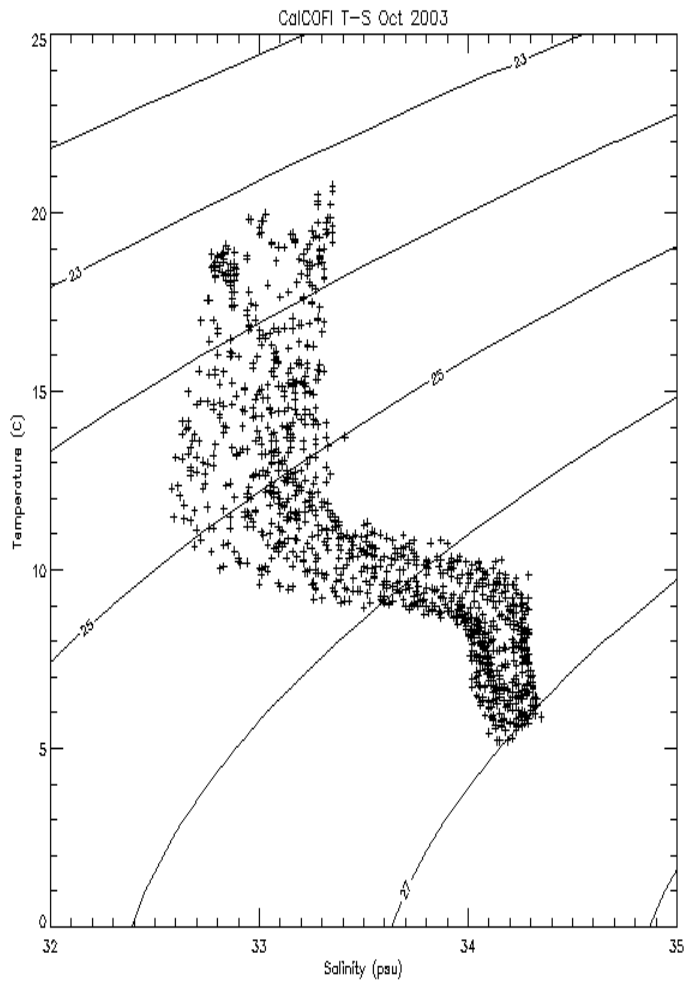Bias
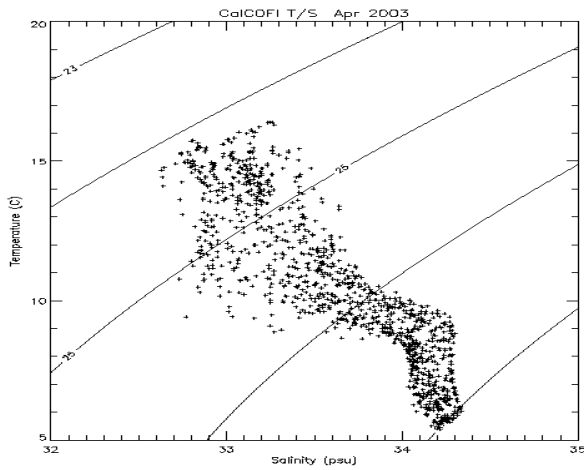
RMSE

Initial/BC Salinity Errors (Apr 03)

Global
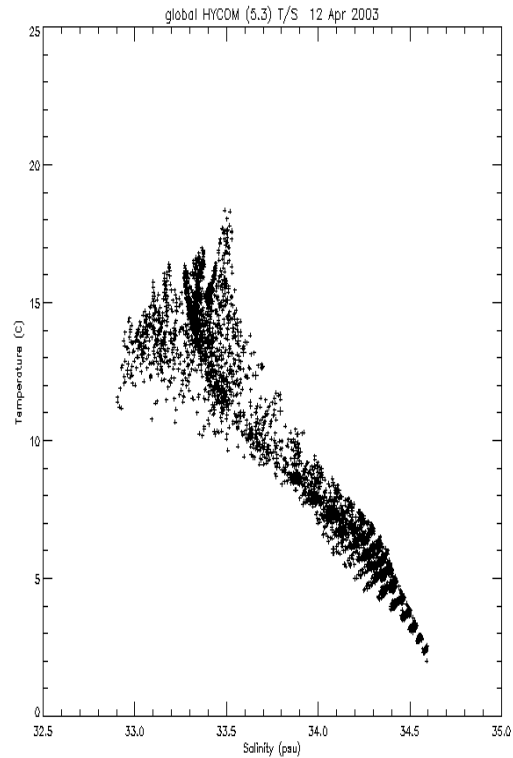HYCOM

Global
NCOM

T/S October 2003

Temperature/Salinity Diagrams
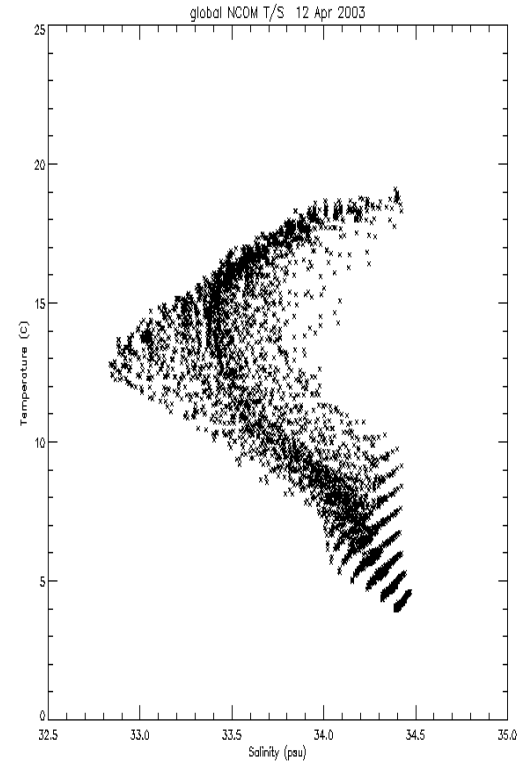## *April 2003*

CalCOFI

Global
HYCOM

Global
NCOM

Plans

- Initial/Boundary Conditions
  - Global HYCOM with DA
  - Global NCOM
  - CCS (John Kindle)
- Data comparisons
- Fully Coupled COAMPS/NCOM