

7/24/05:

Yoyo control was implemented in the 3 scenarios in file sound_faf05_jul24_02_day0_1_sec1.mat.

Optimal: points=30, threshold=0.1 for morning 7/24/05

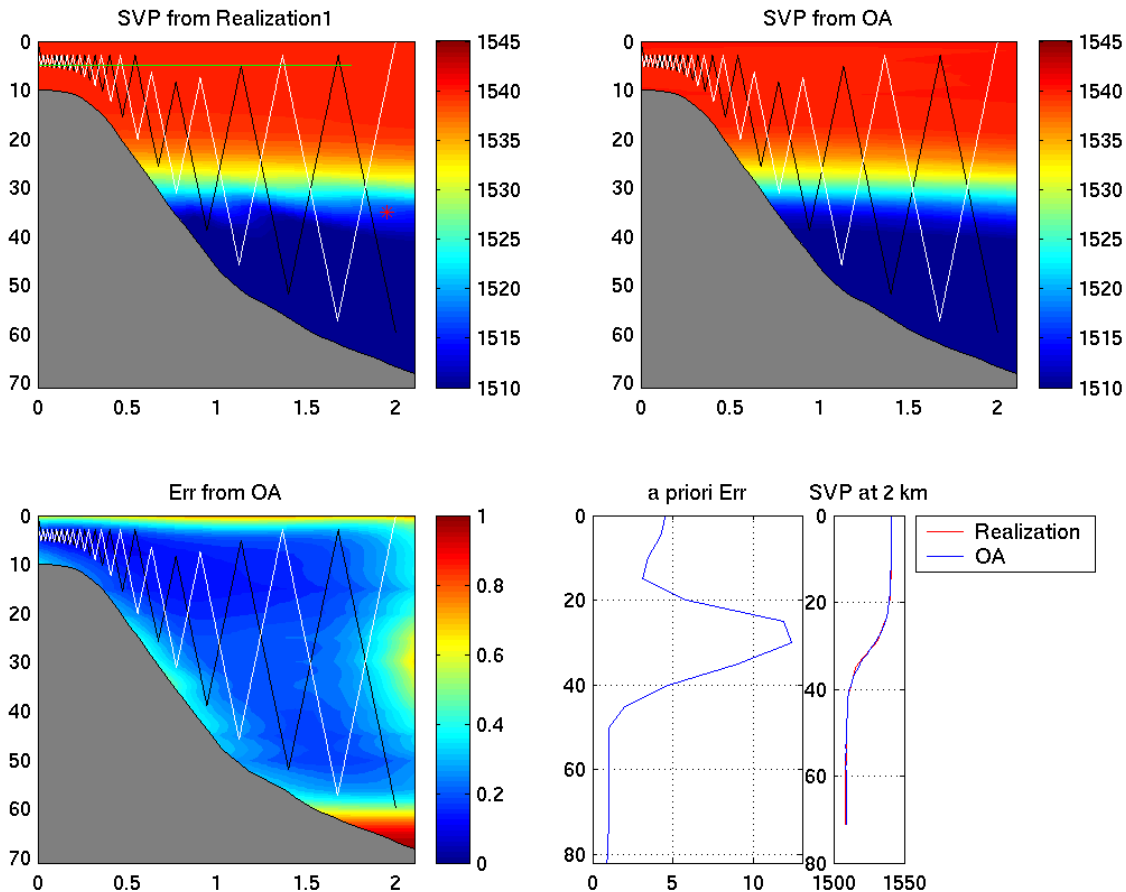


Figure 37: Yoyo control implementation. Morning 7/24/05. sound_faf05_jul24_02_day0_1_sec1.mat. Black line is the forward path; White line is the backward path. Note that to avoid bottom AUV turns around at 5 m above bottom.

Optimal: points=30, threshold=1000 for afternoon 7/24/05

Optimal: points=30, threshold=0.1 for morning 7/25/05

I have also included 4 images that illustrate what we think are our best environmental nowcast and predictions. They are horizontal maps in the HOPS runs that Pat carried out and they show the temperature and current fields at 0 and 20m, for this afternoon and for tomorrow morning. See Figure 43, 44, 45, 46

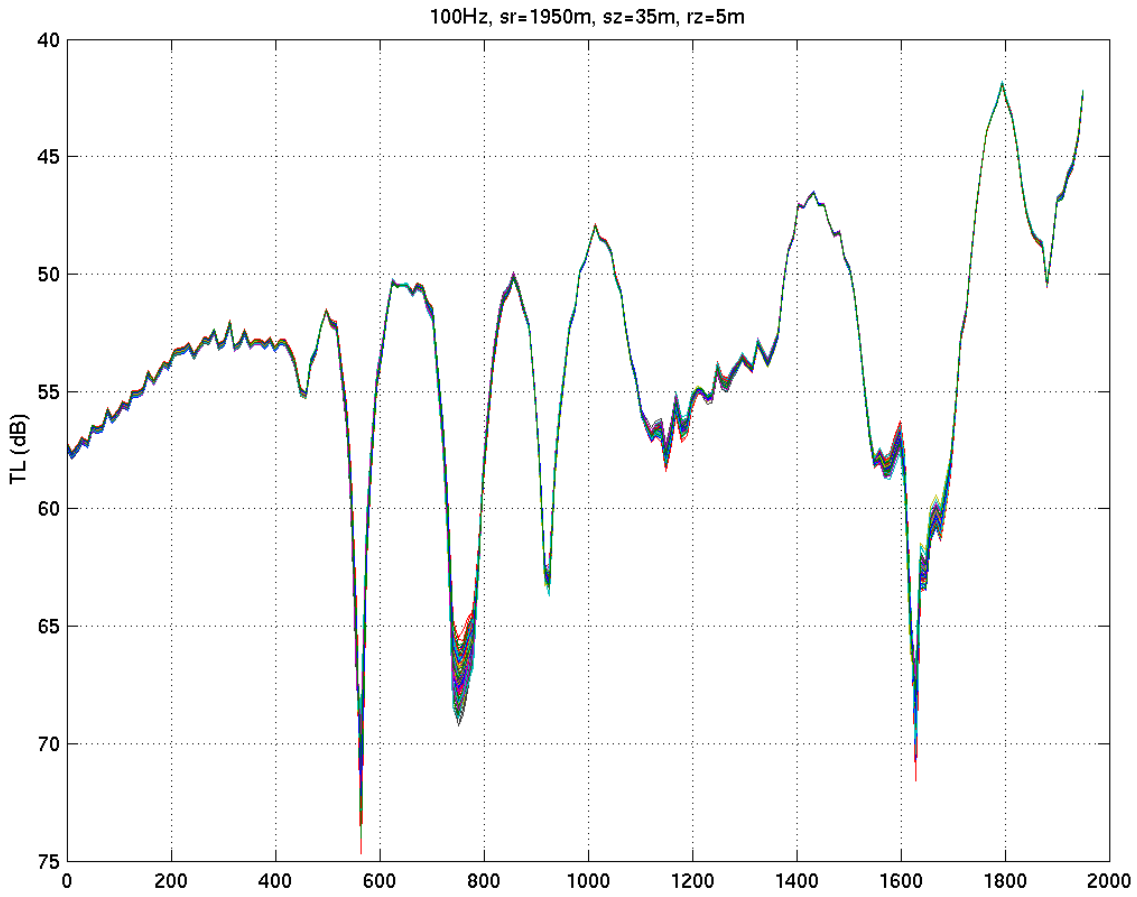


Figure 38: Morning 7/24/05. sound_faf05_jul24_02_day0_1_sec1.mat.

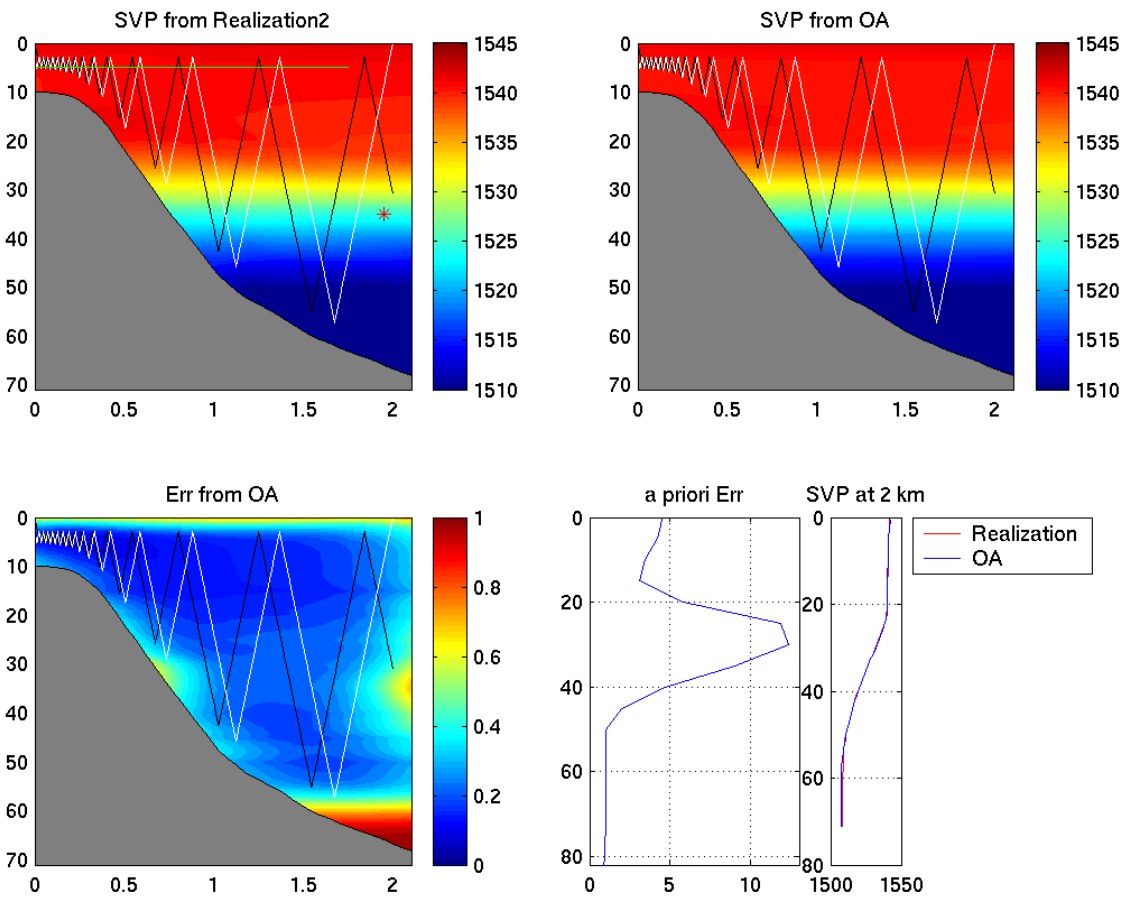


Figure 39: Yoyo control implementation. Afternoon 7/24/05. sound_faf05_jul24_02_day0_1_sec1.mat. Black line is the forward path; White line is the backward path. Note that to avoid bottom AUV turns around at 5 m above bottom.

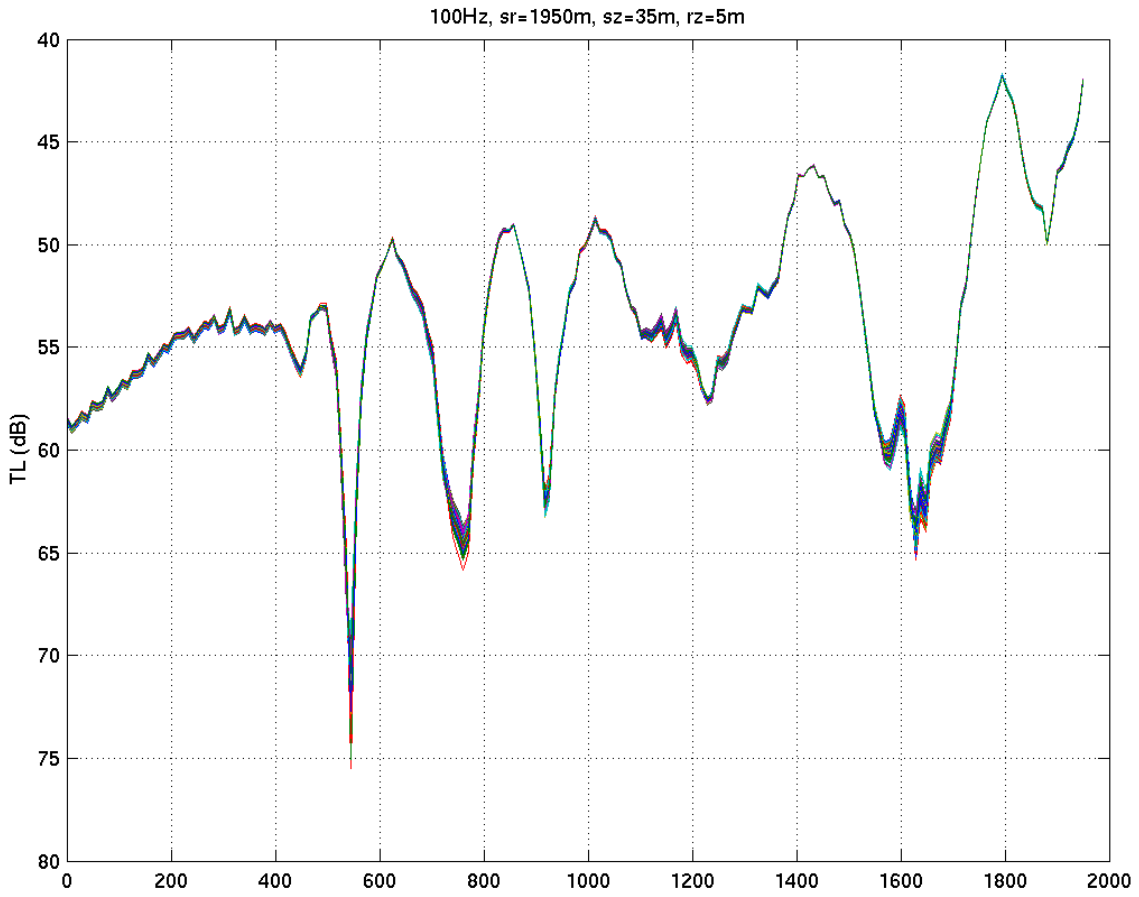


Figure 40: Afternoon 7/24/05. sound_faf05_jul24_02_day0_1_sec1.mat.

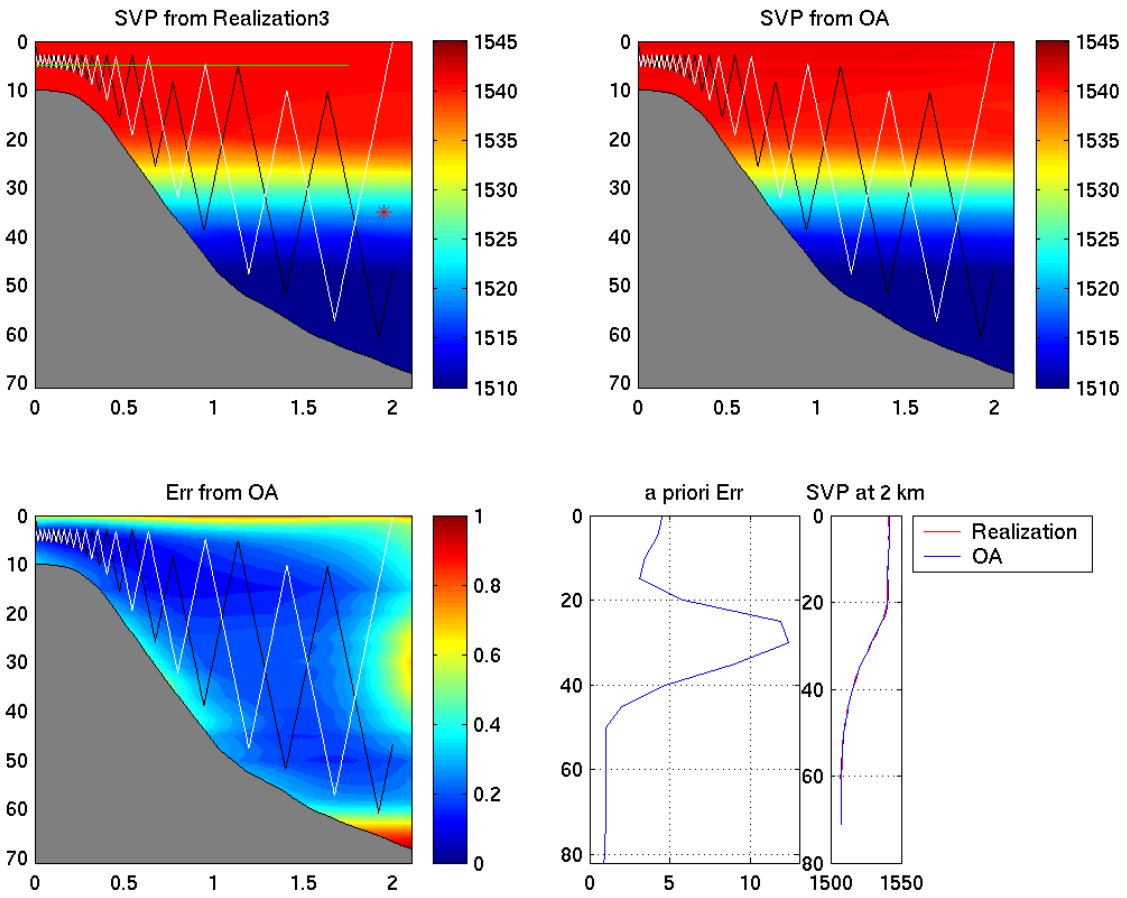


Figure 41: Yoyo control implementation. Morning 7/25/05. sound_faf05_jul24_02_day0_1_sec1.mat. Black line is the forward path; White line is the backward path. Note that to avoid bottom AUV turns around at 5 m above bottom.

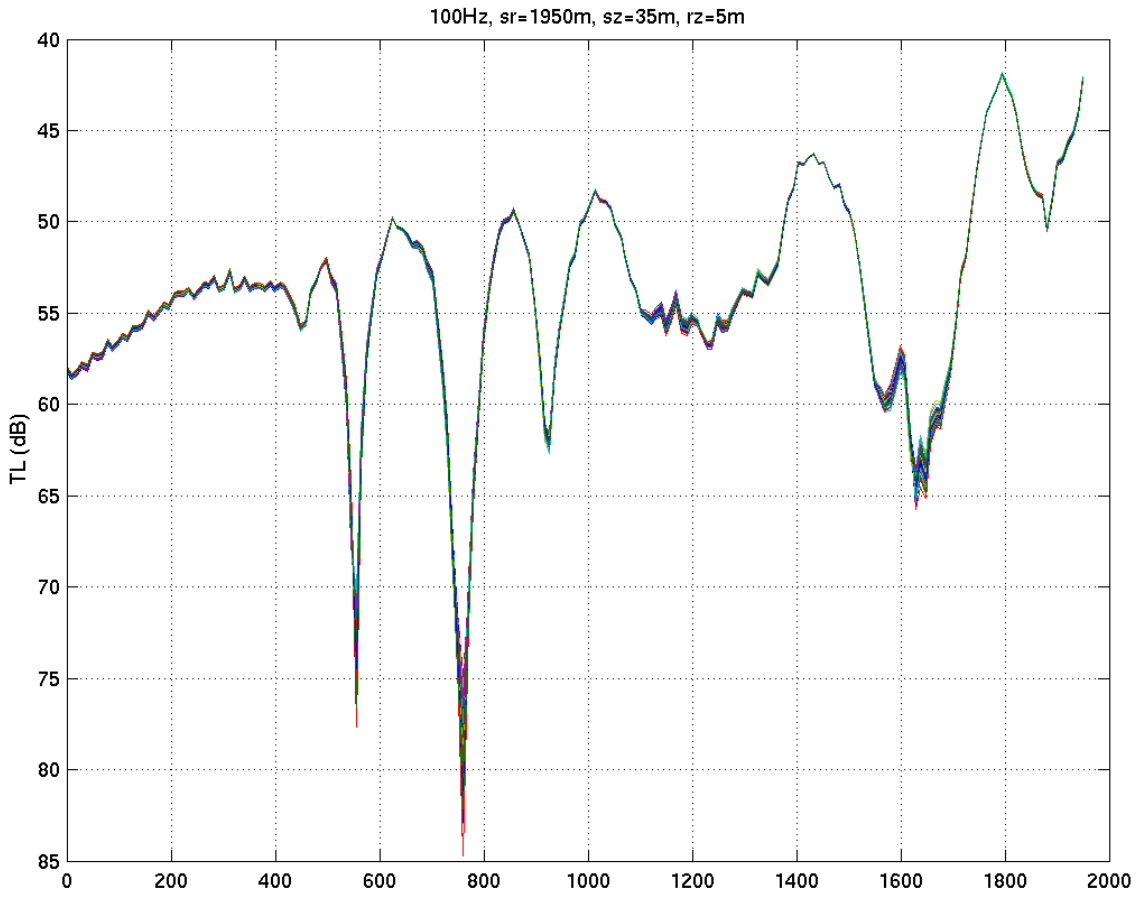


Figure 42: Morning 7/25/05. sound_faf05_jul24_02_day0_1_sec1.mat.

HARVARD UNIVERSITY: FAF05

PEMODEL

Physical fields

0.50 Day Forecast : 24 Jul 2005

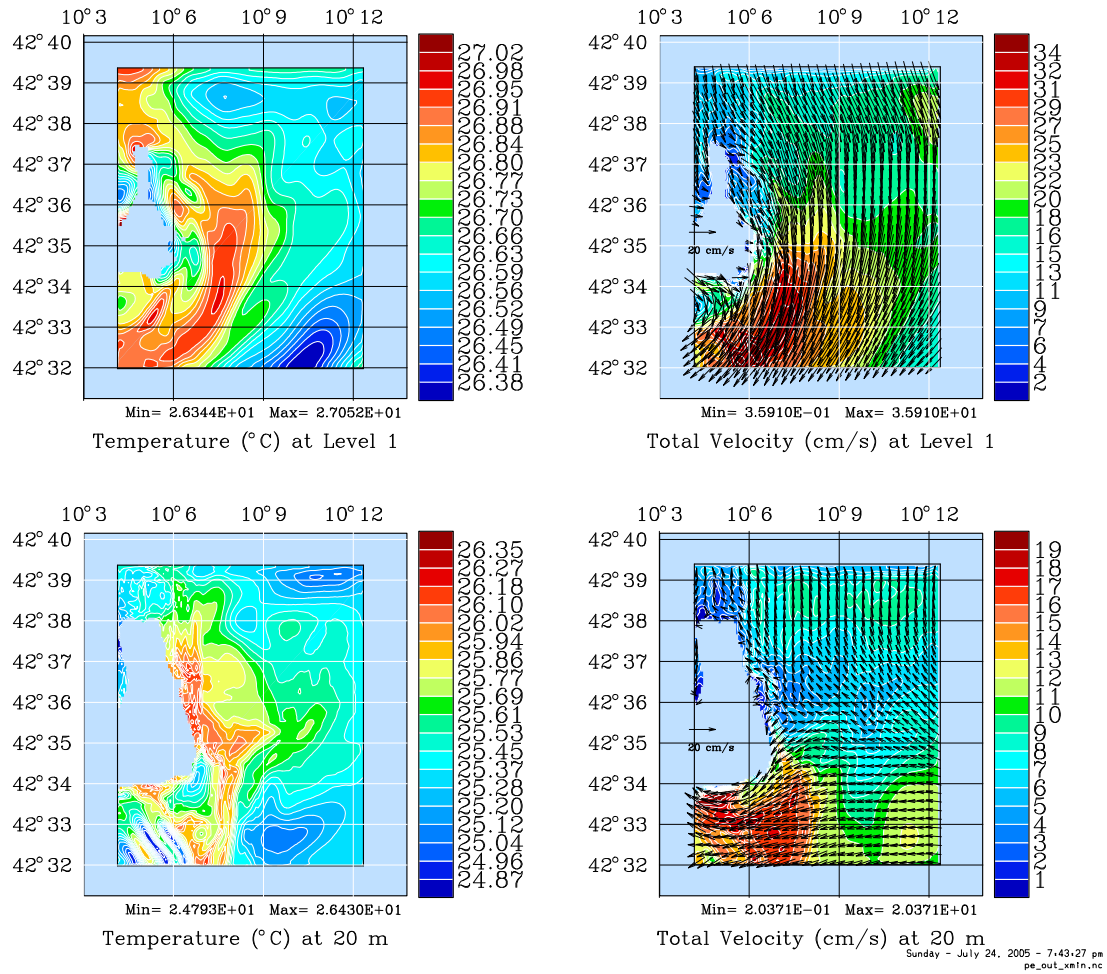


Figure 43: Temperature and current fields at 0 and 20m, for 7/24/05 afternoon. Pianosa area.

HARVARD UNIVERSITY: FAF05

PEMODEL

Physical fields

1.00 Day Forecast : 25 Jul 2005

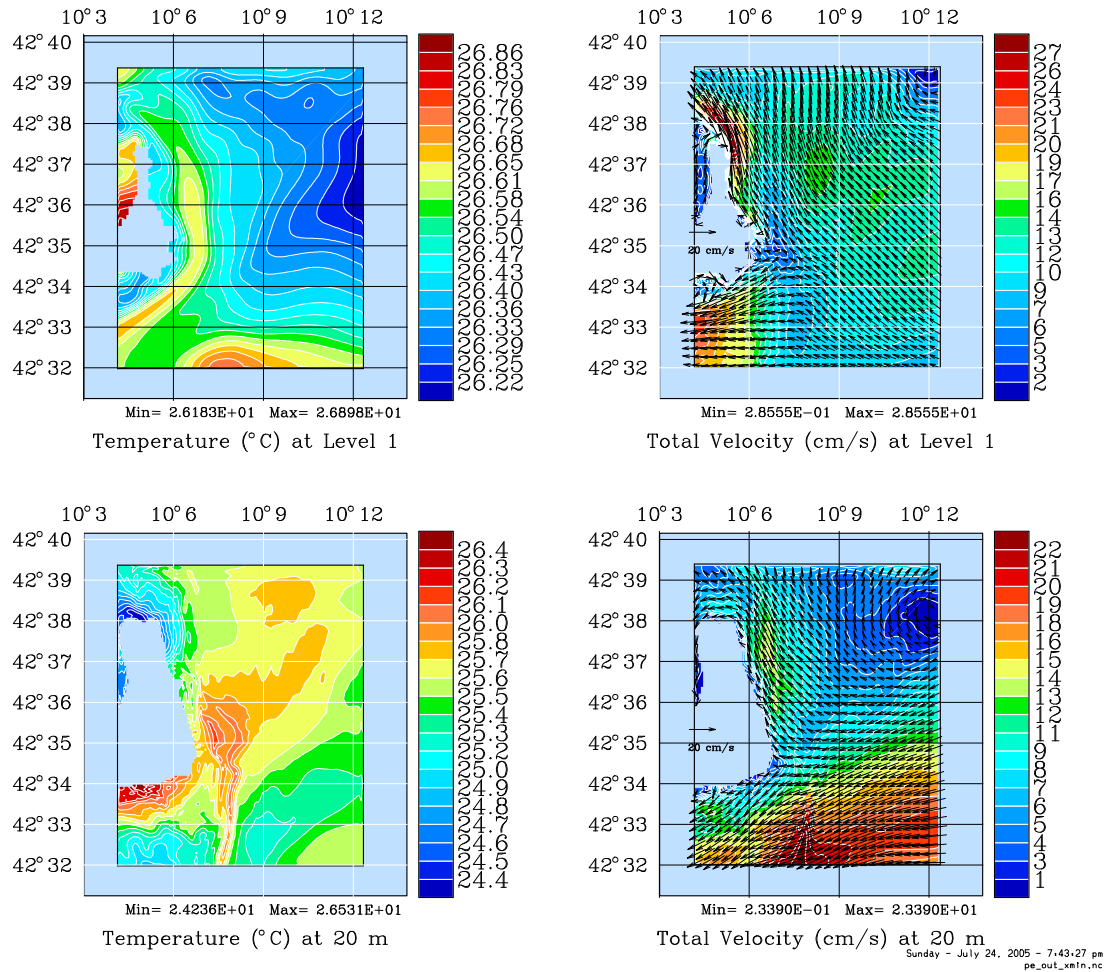


Figure 44: Temperature and current fields at 0 and 20m, for 7/25/05 morning. Pianosa area.

HARVARD UNIVERSITY: FAF05

PEMODEL

Physical fields

0.50 Day Forecast : 24 Jul 2005

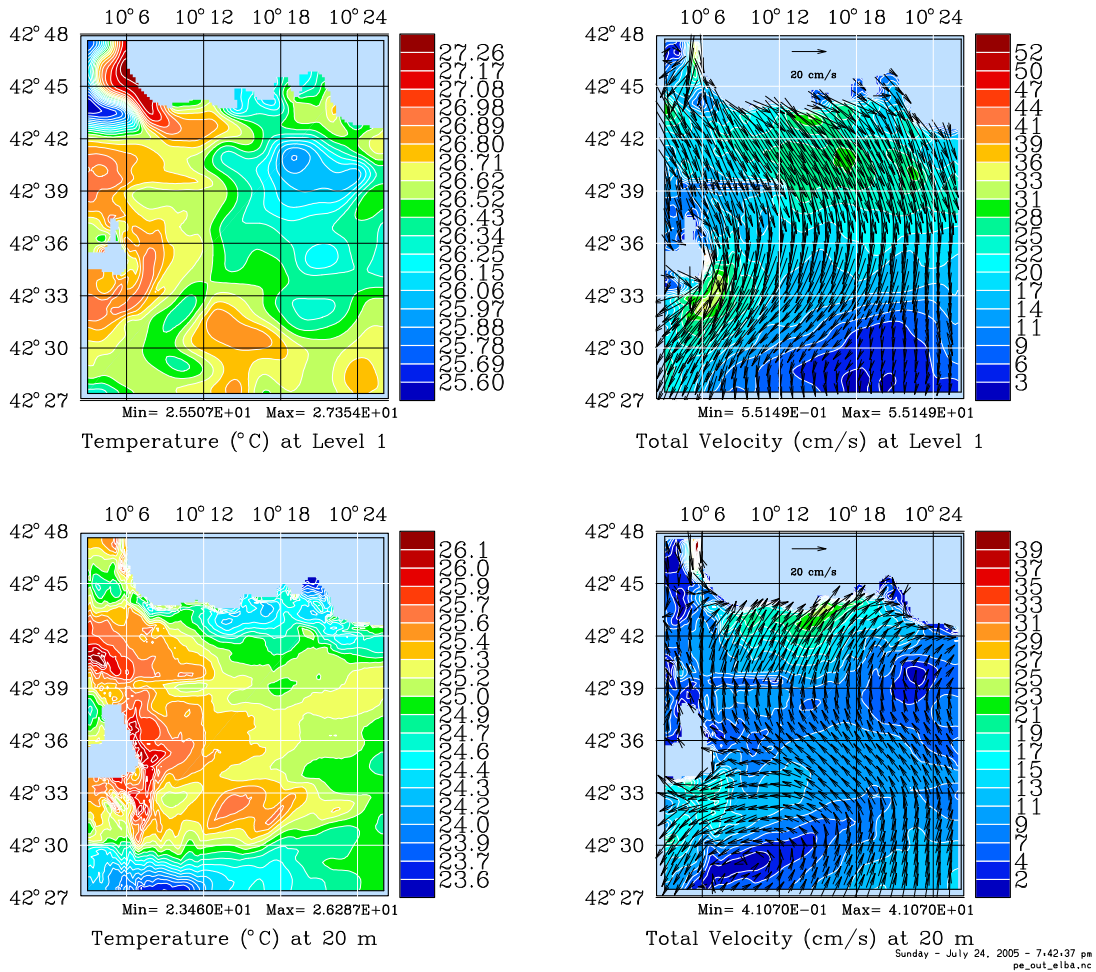


Figure 45: Temperature and current fields at 0 and 20m, for 7/24/05 afternoon. Elba area.

HARVARD UNIVERSITY: FAF05

PEMODEL

Physical fields

1.00 Day Forecast : 25 Jul 2005

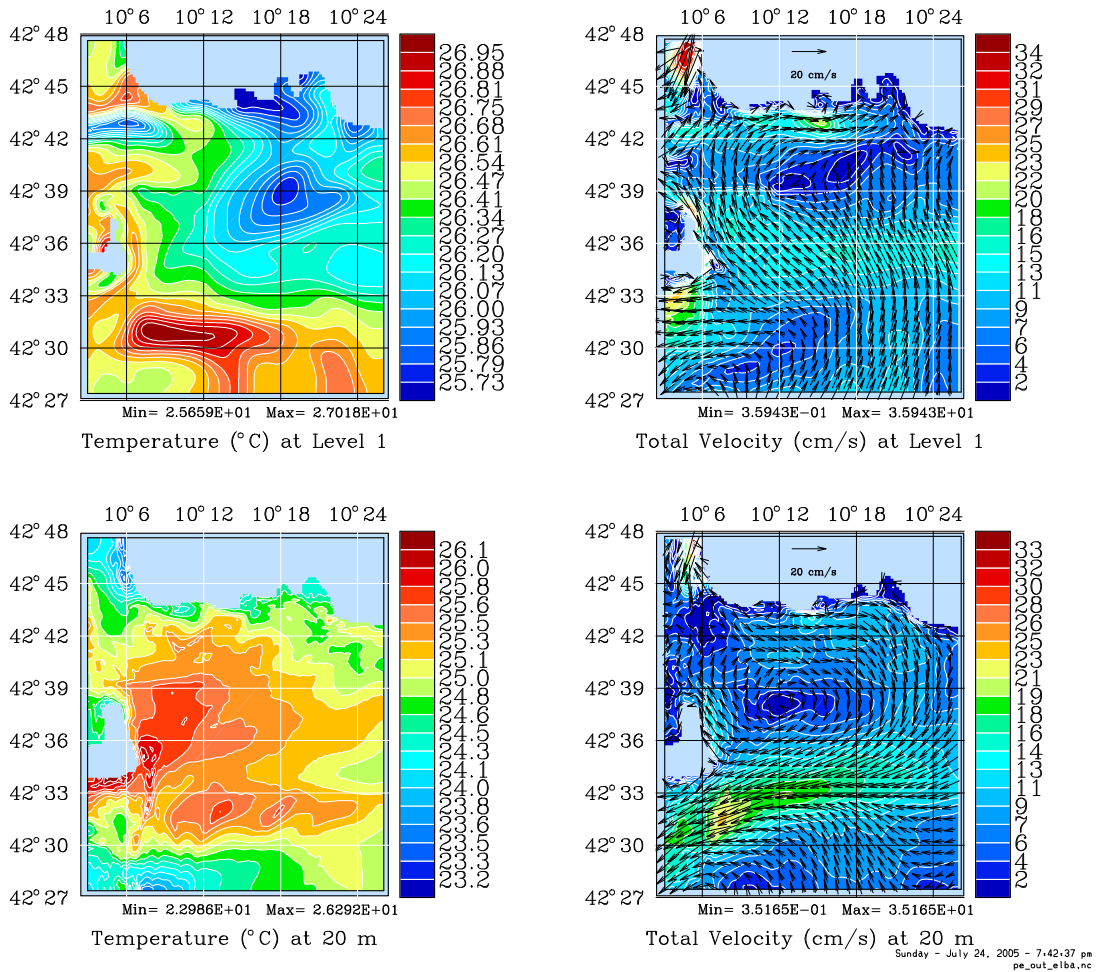


Figure 46: Temperature and current fields at 0 and 20m, for 7/25/05 morning. Elba area.