Salinity misfits between ECCO estimates and Argo profiles.

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March 25, 2008

The following figures show time-mean misfits between current ECCO estimates and Argo profiles, computed for the Argo-rich period from 2004 to 2006. The four estimates are ECCO-GODAE version 2 iteration 216, ECCO-GODAE version 3 iteration 35, ECCO2 blend 78, and OCCA. They are respectively labelled ECCO1.2, ECCO1.3, ECCO2, and OCCA in the illustrations. Computations are all done for a monthly mean atlas (2004-2006 period) with a one degree resolution, to simplify comparison of the results.

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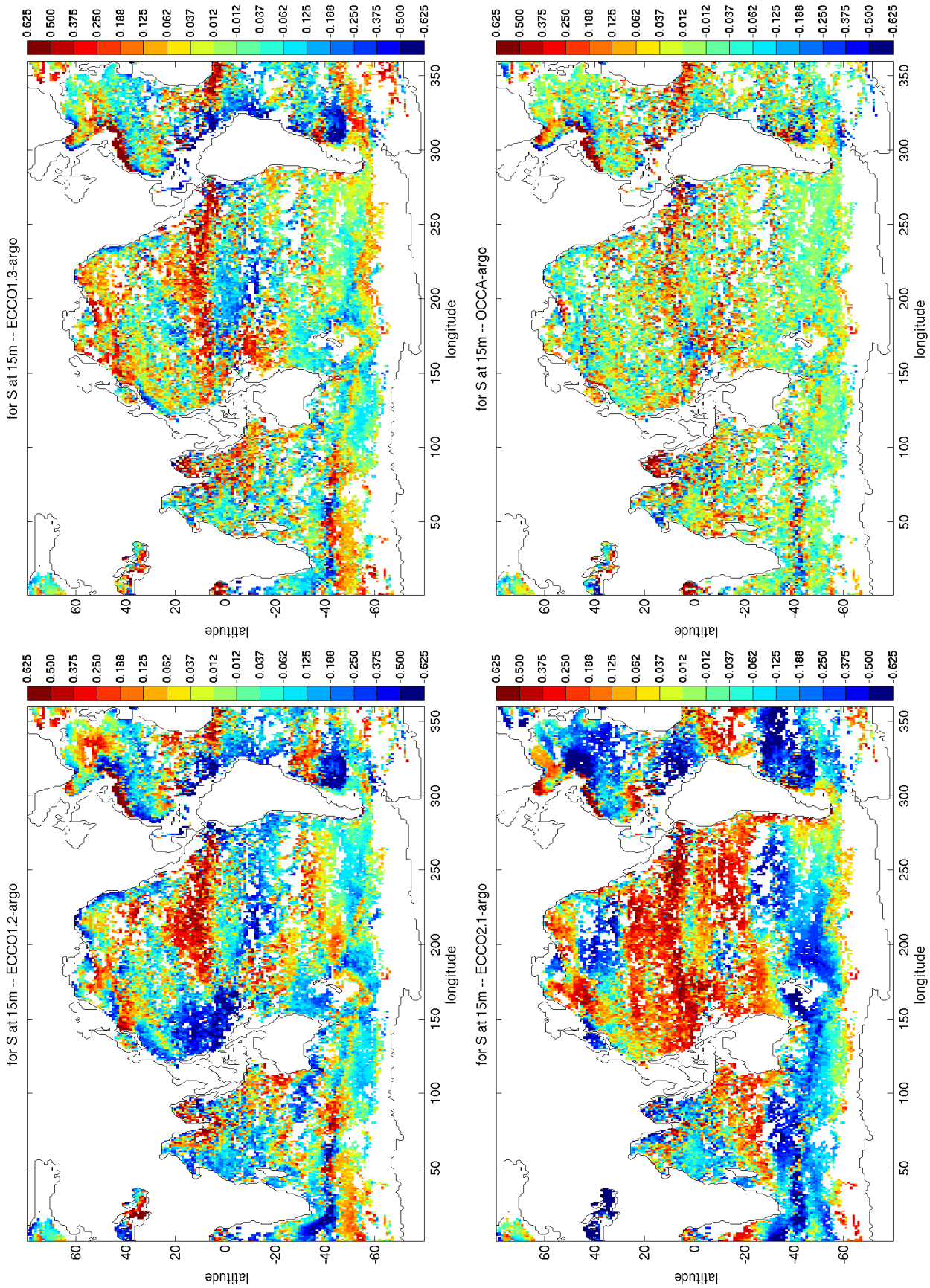
for S at 15m -- ECCO1.3-argo
for S at 15m -- OCCA-argo
for S at 15m -- ECCO1.2-argo
for S at 15m -- ECCO2.1-argo
latitude
longitude
0.625
0.500
0.375
0.250
0.188
0.125
0.062
0.037
0.012
-0.012
-0.037
-0.062
-0.125
-0.188
-0.250
-0.375
-0.500
-0.625

FIG. 1. S 15m.

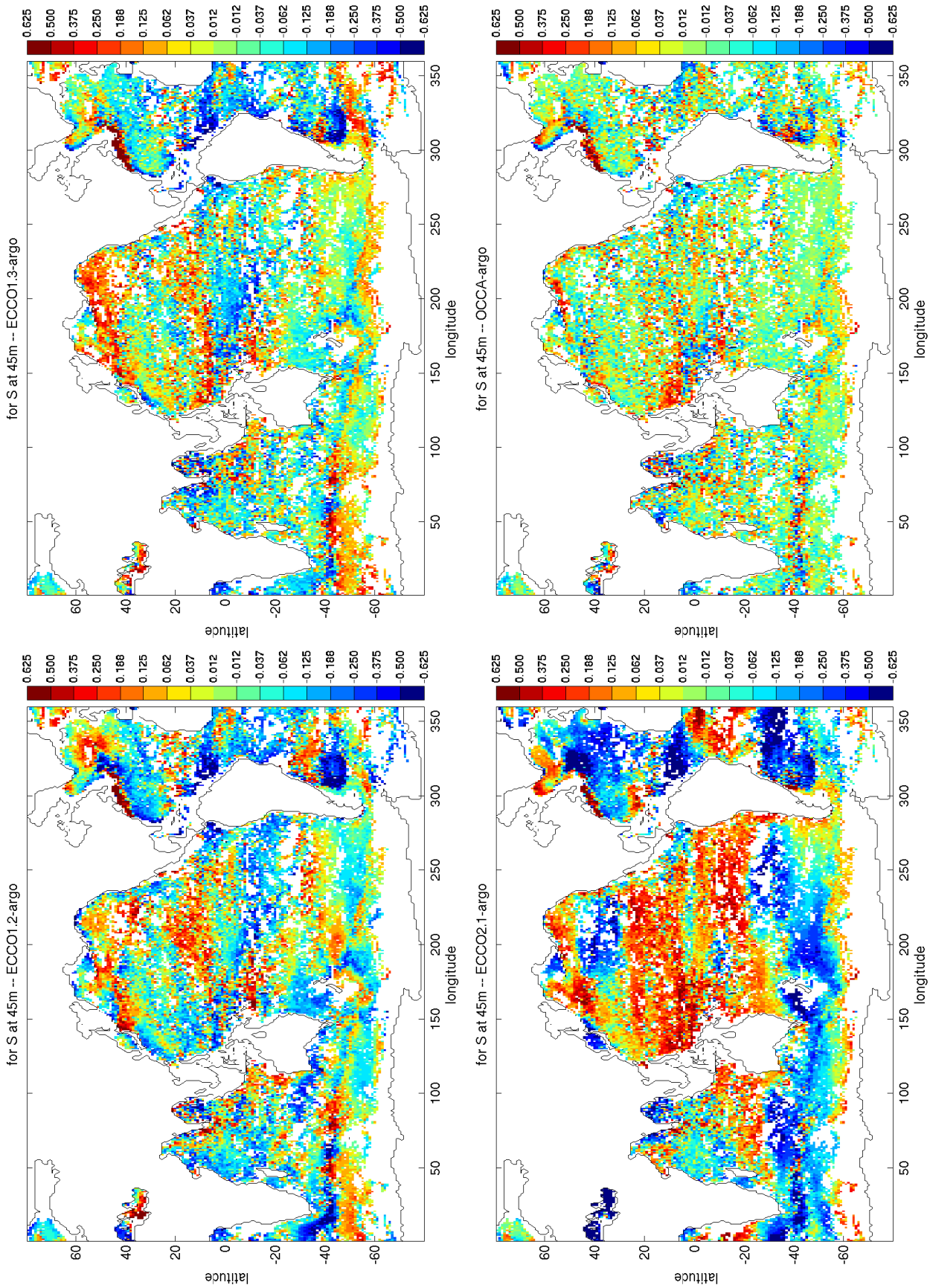
for S at 45m -- ECCO1.3-argo
for S at 45m -- OCCA-argo
for S at 45m -- ECCO1.2-argo
for S at 45m -- ECCO2.1-argo
latitude
longitude
0.625 0.500 0.375 0.250 0.188 0.125 0.062 0.037 0.012 -0.012 -0.037 -0.062 -0.125 -0.188 -0.250 -0.375 -0.500 -0.625

FIG. 2. S 45m.

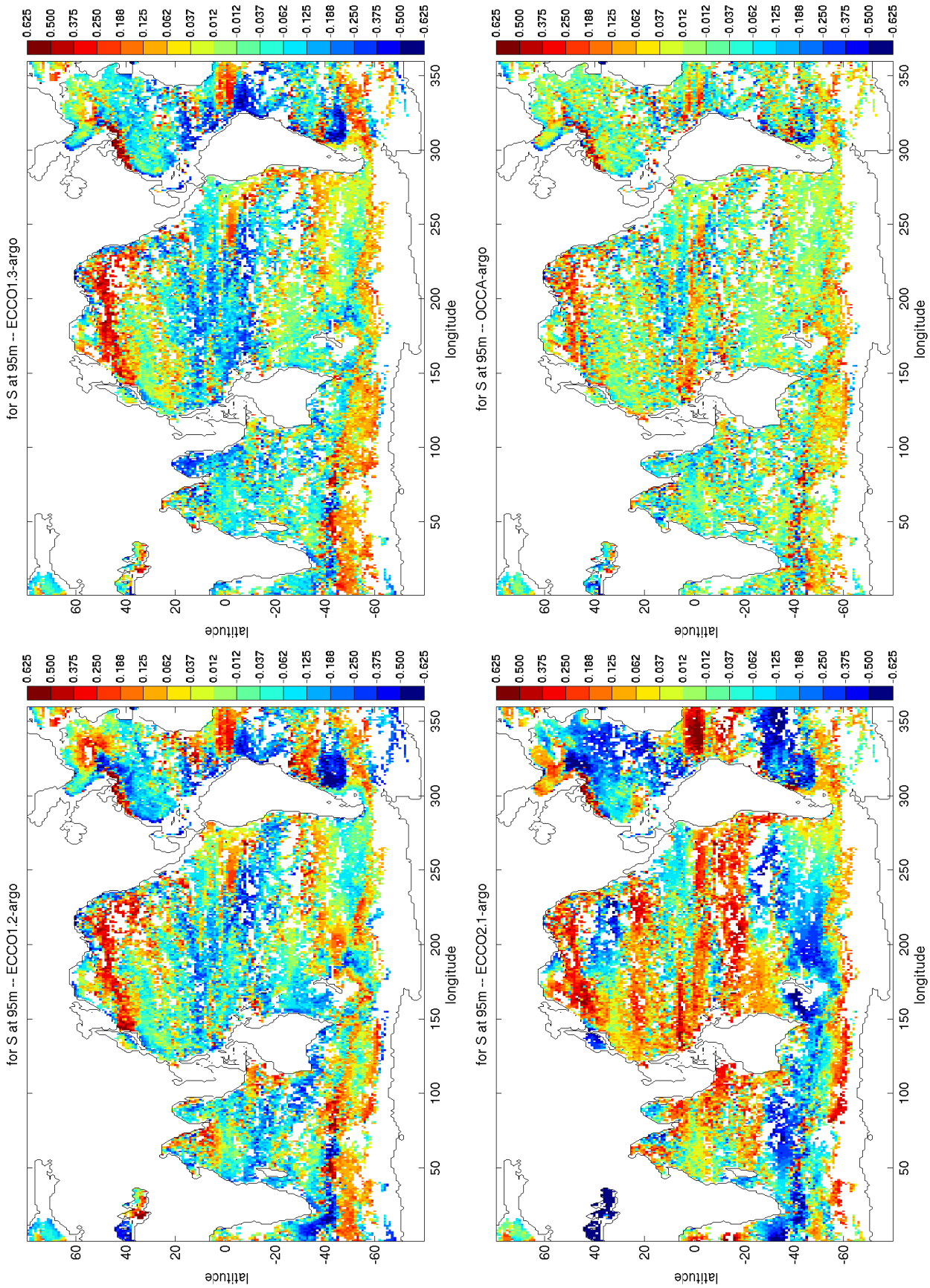
for S at 95m -- ECCO1.3-argo
for S at 95m -- OCCA-argo
for S at 95m -- ECCO1.2-argo
for S at 95m -- ECCO2.1-argo
latitude
longitude
0.625
0.500
0.375
0.250
0.188
0.125
0.062
0.037
0.012
-0.012
-0.037
-0.062
-0.125
-0.188
-0.250
-0.375
-0.500
-0.625

FIG. 3. S 95m.

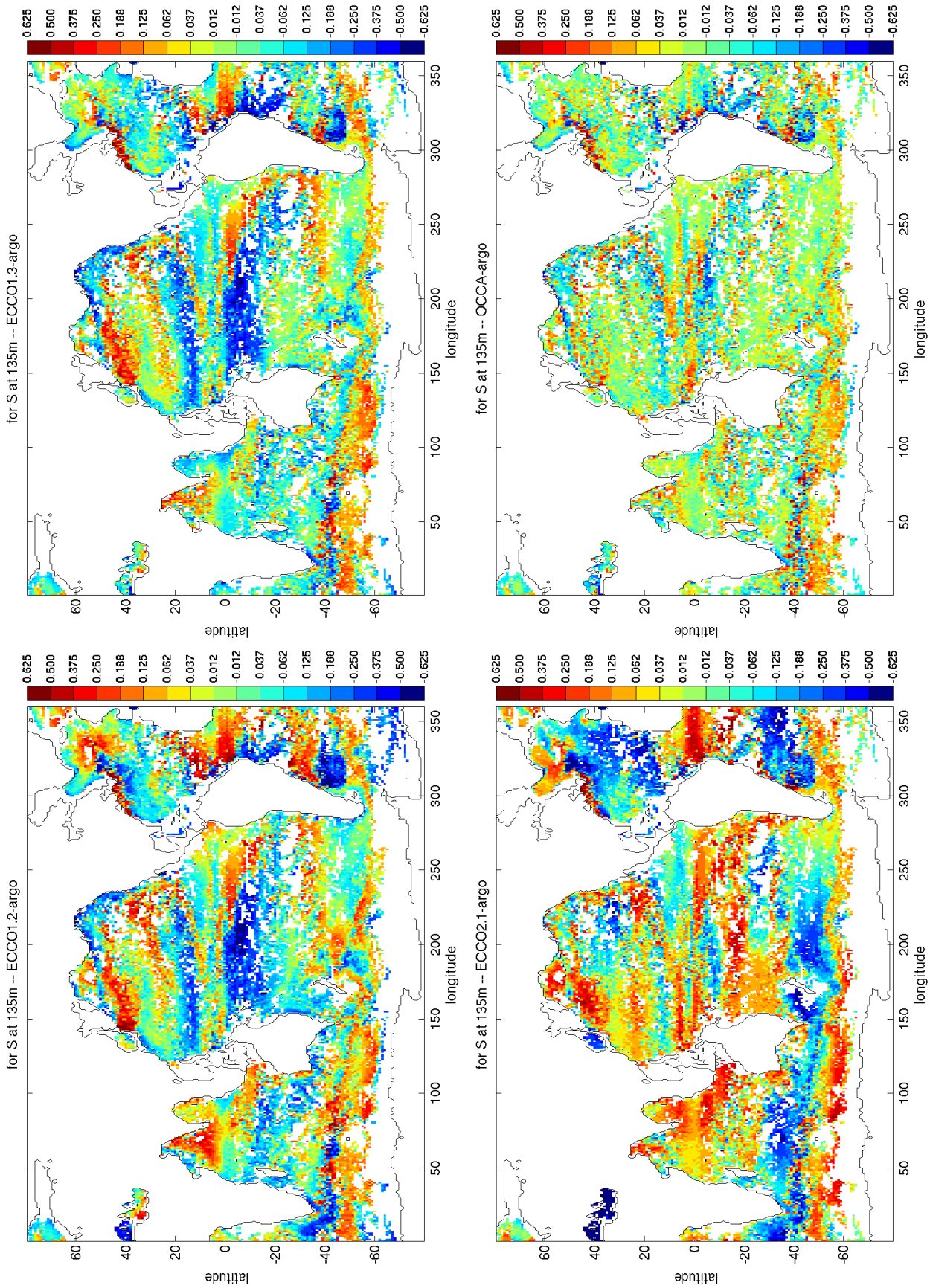
for S at 135m -- ECCO1.3-argo
for S at 135m -- OCCA-argo
for S at 135m -- ECCO1.2-argo
for S at 135m -- ECCO2.1-argo
latitude
longitude
0.625
0.500
0.375
0.250
0.188
0.125
0.062
0.037
0.012
-0.012
-0.037
-0.062
-0.125
-0.188
-0.250
-0.375
-0.500
-0.625

FIG. 4. S 135m.

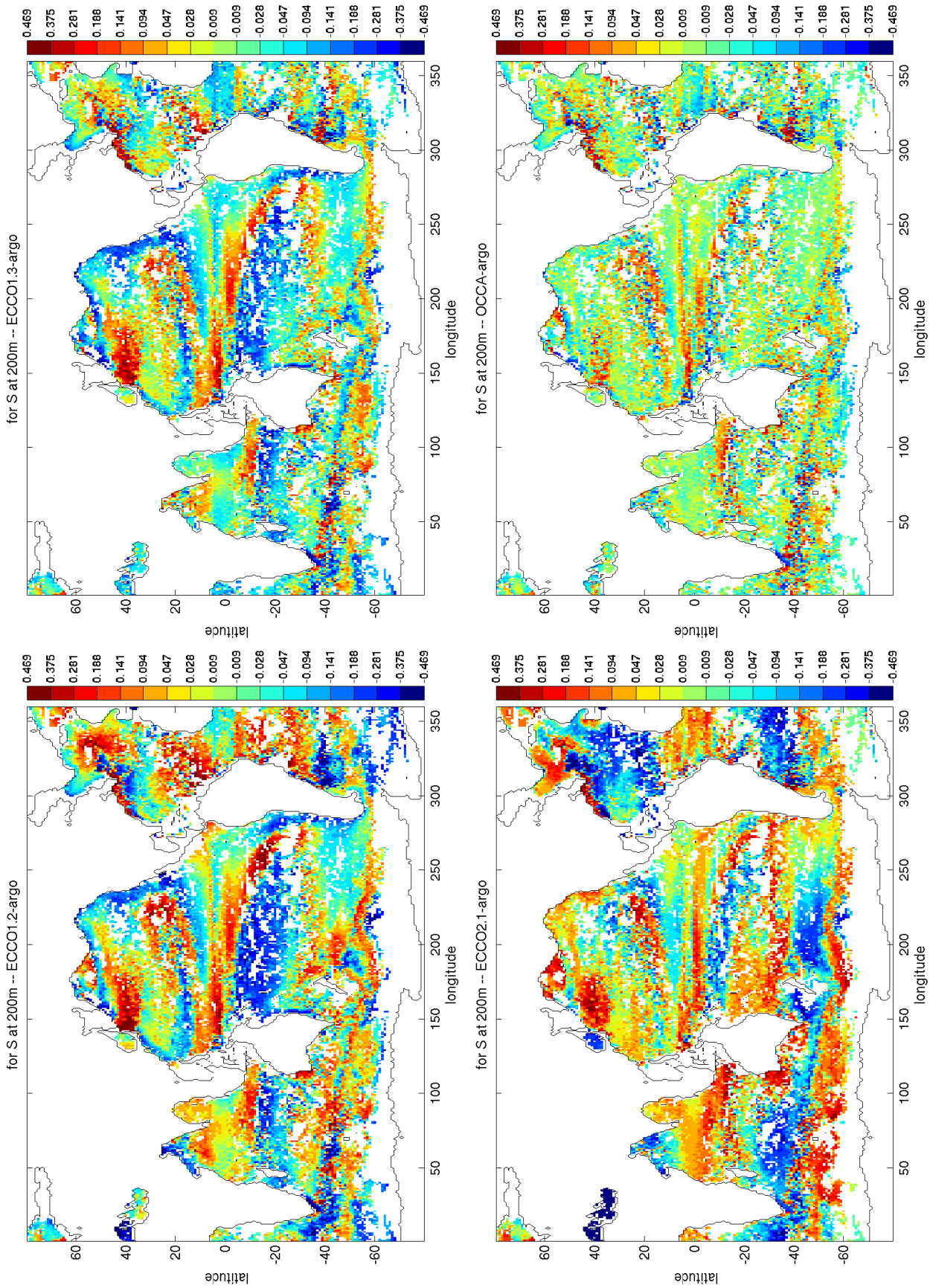
for S at 200m -- ECCO1.3-argo
for S at 200m -- OCCA-argo
for S at 200m -- ECCO1.2-argo
for S at 200m -- ECCO2.1-argo
latitude
longitude
0.469
0.375
0.281
0.188
0.141
0.094
0.047
0.028
0.009
-0.009
-0.028
-0.047
-0.094
-0.141
-0.188
-0.281
-0.375
-0.469

FIG. 5. S 200m.

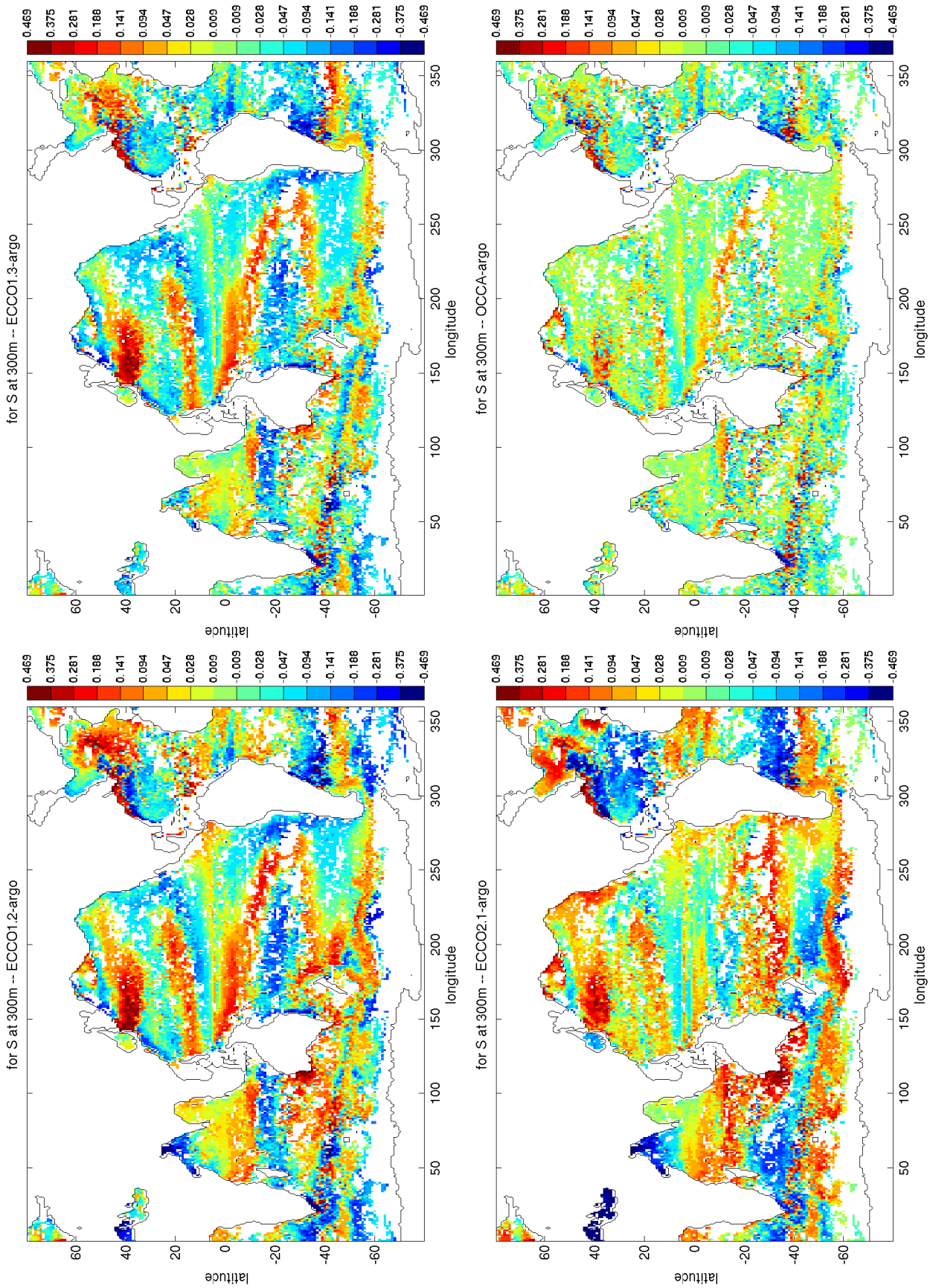
for S at 300m -- ECCO1.3-argo
for S at 300m -- OCCA-argo
for S at 300m -- ECCO1.2-argo
for S at 300m -- ECCO2.1-argo
latitude
longitude
0.469
0.375
0.281
0.188
0.141
0.094
0.047
0.028
0.009
-0.009
-0.028
-0.047
-0.094
-0.141
-0.188
-0.281
-0.375
-0.469

FIG. 6. S 300m.

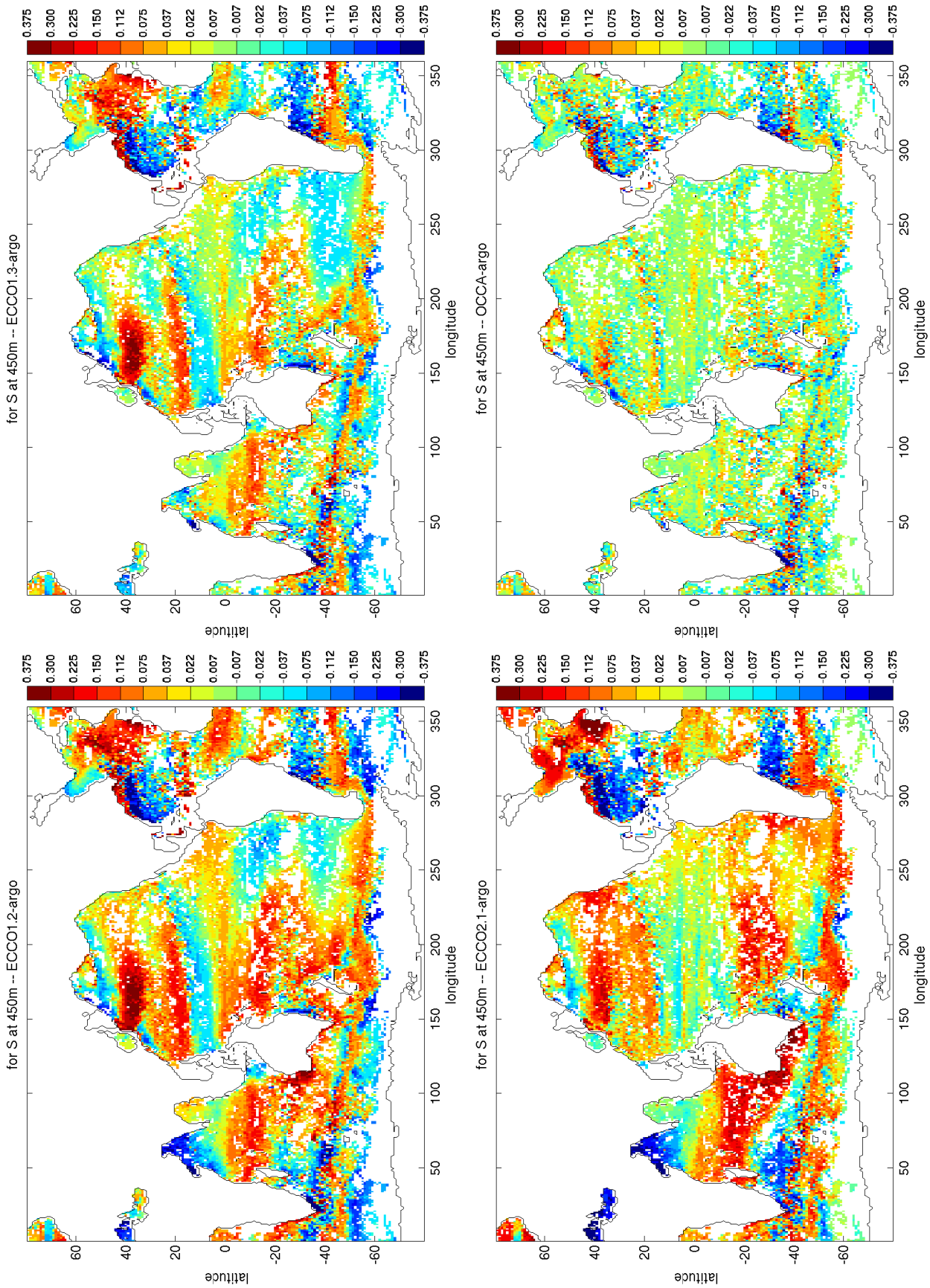
for S at 450m -- ECCO1.2-argo
for S at 450m -- ECCO1.3-argo
for S at 450m -- ECCO2.1-argo
for S at 450m -- OCCA-argo
latitude
longitude
0.375 0.300 0.225 0.150 0.112 0.075 0.037 0.022 0.007 -0.007 -0.022 -0.037 -0.075 -0.112 -0.150 -0.225 -0.300 -0.375

FIG. 7. S 450m.

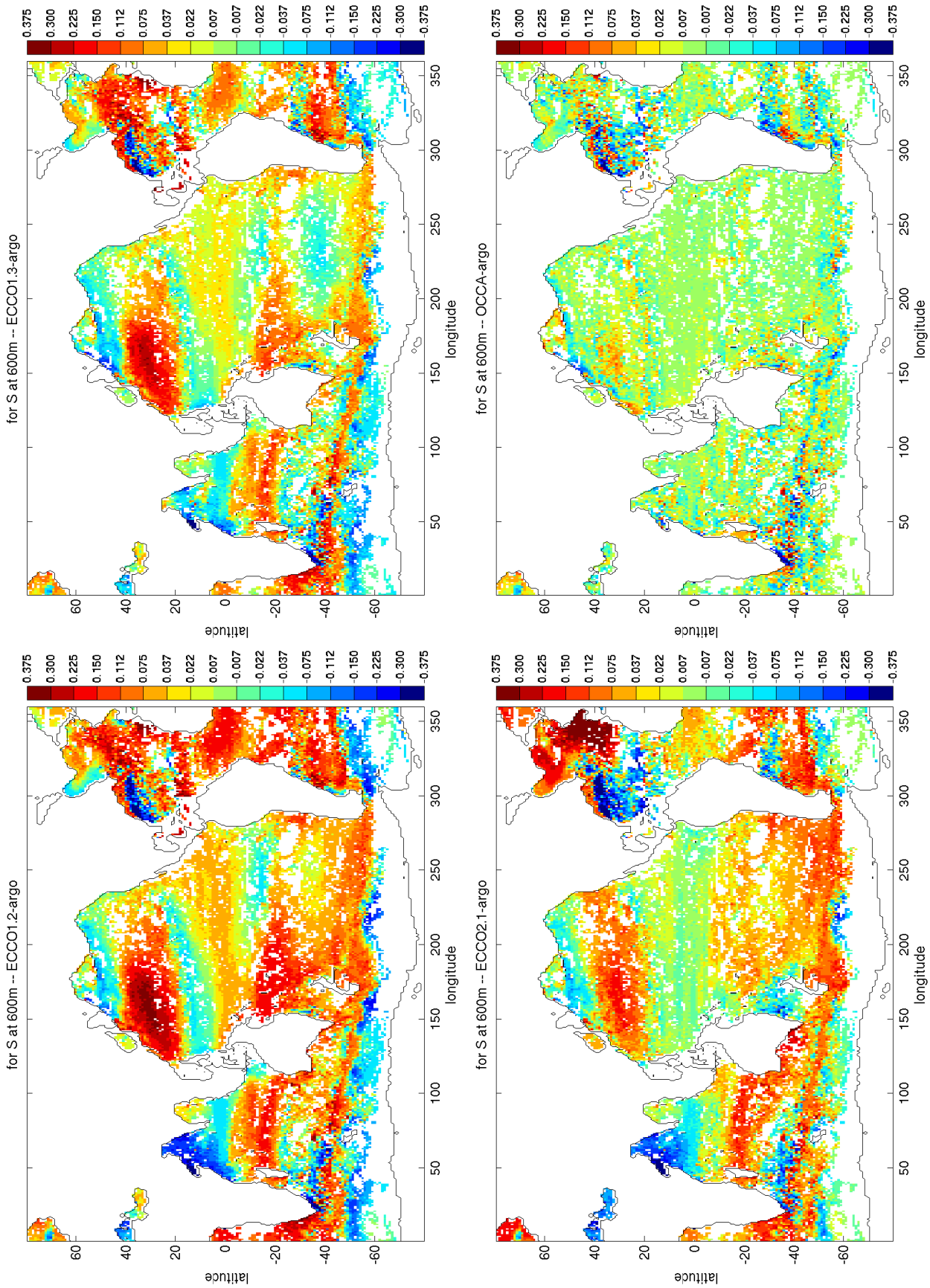
for S at 600m -- ECCO1.3-argo
for S at 600m -- OCCA-argo
for S at 600m -- ECCO1.2-argo
for S at 600m -- ECCO2.1-argo
latitude
longitude
0.375 0.300 0.225 0.150 0.112 0.075 0.037 0.022 0.007 -0.007 -0.022 -0.037 -0.075 -0.112 -0.150 -0.225 -0.300 -0.375

FIG. 8. S 600m.

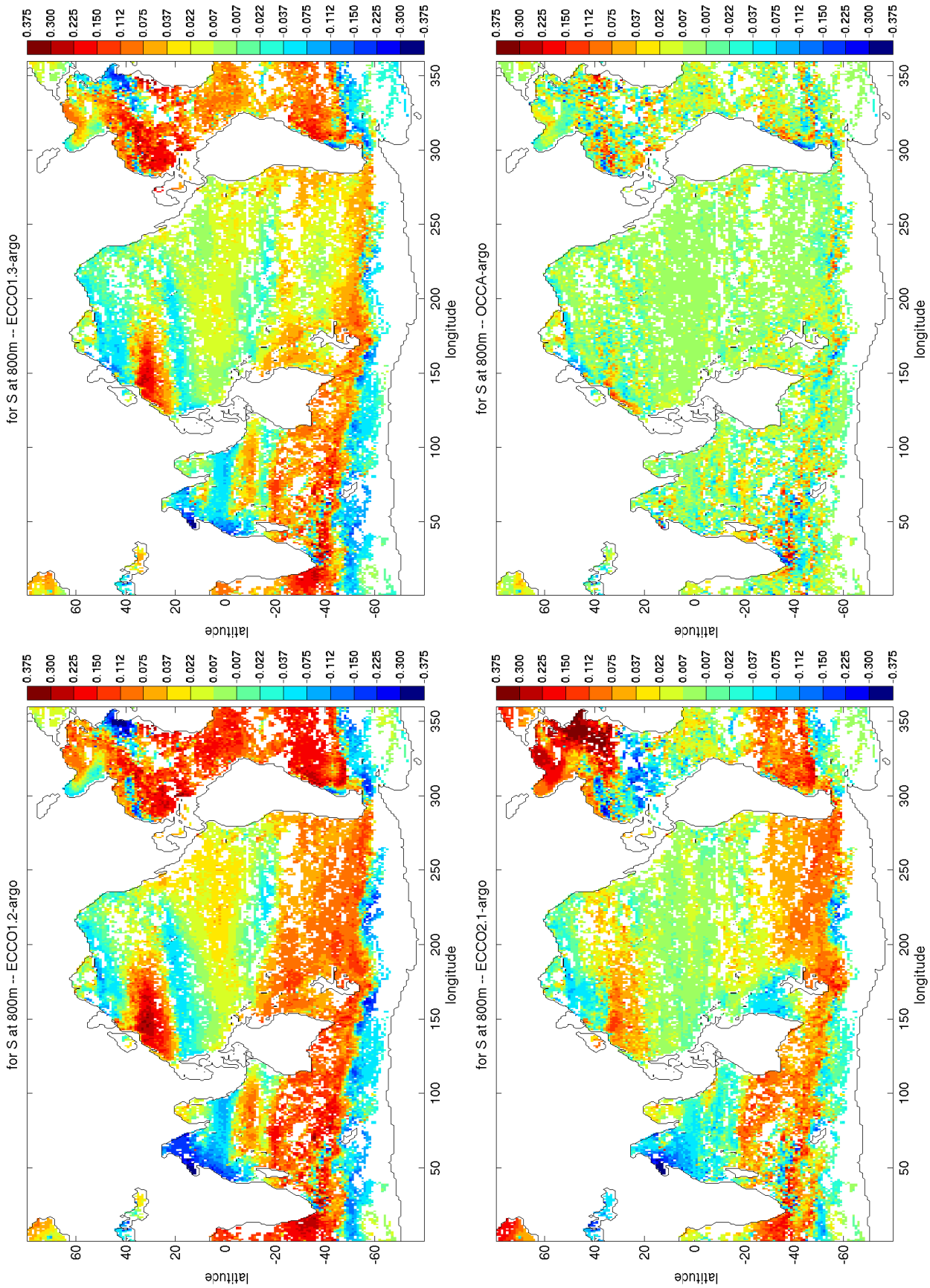
for S at 800m -- ECCO1.3-argo
for S at 800m -- OCCA-argo
for S at 800m -- ECCO1.2-argo
for S at 800m -- ECCO2.1-argo
latitude
longitude
0.375 0.300 0.225 0.150 0.112 0.075 0.037 0.022 0.007 -0.007 -0.022 -0.037 -0.075 -0.112 -0.150 -0.225 -0.300 -0.375

FIG. 9. S 800m.

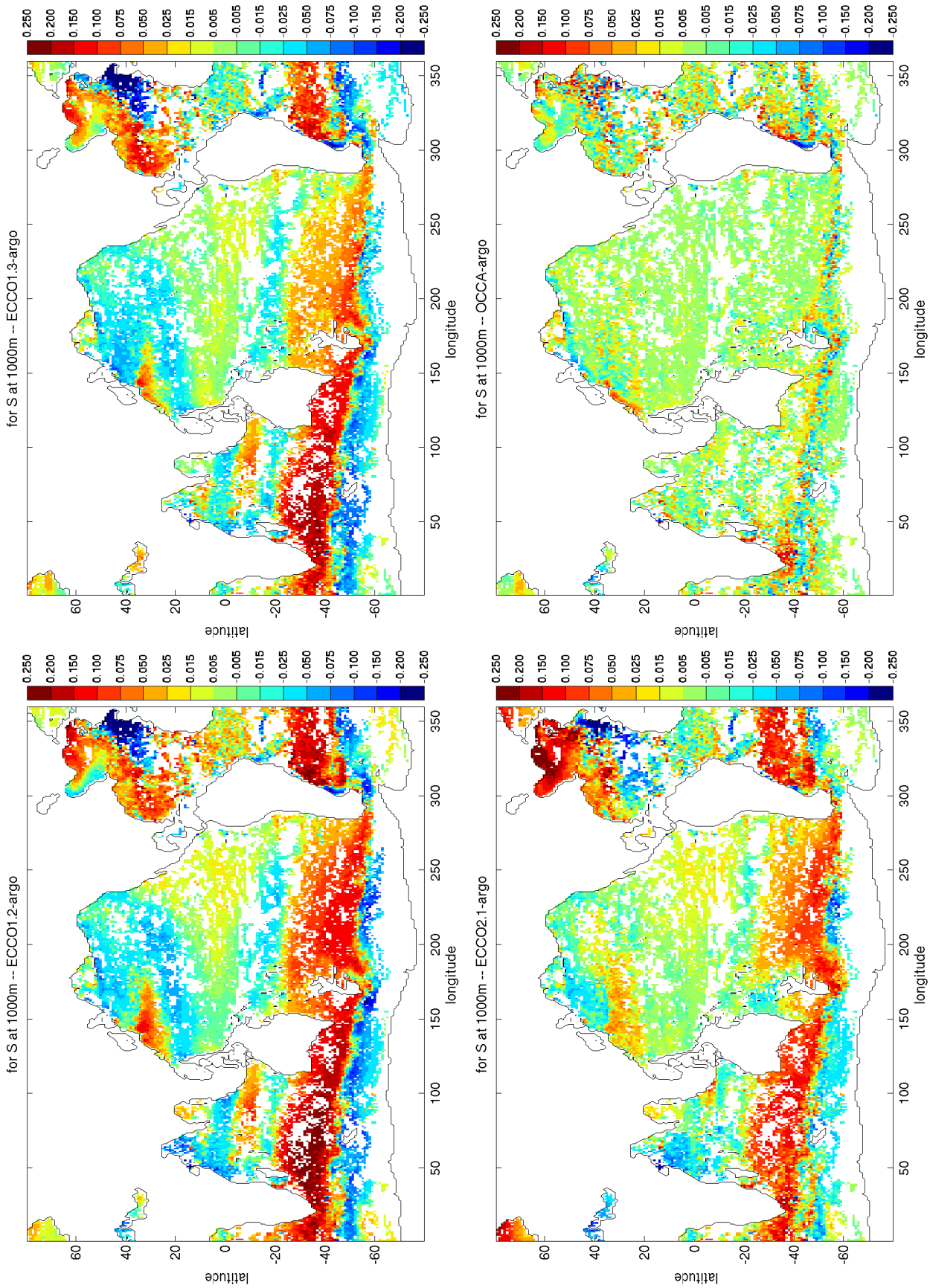

FIG. 10. S 1000m.

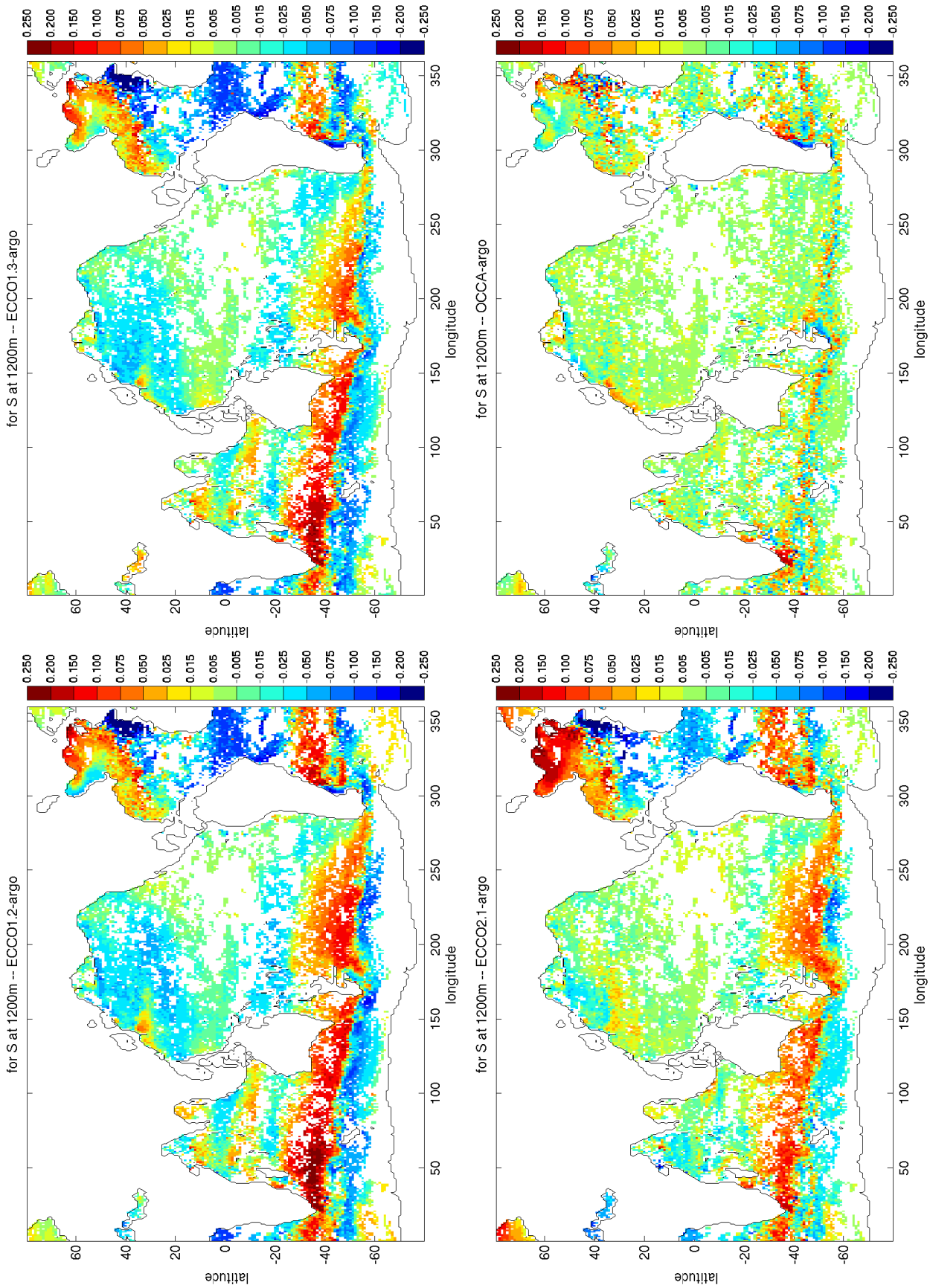

FIG. 11. S 1200m.

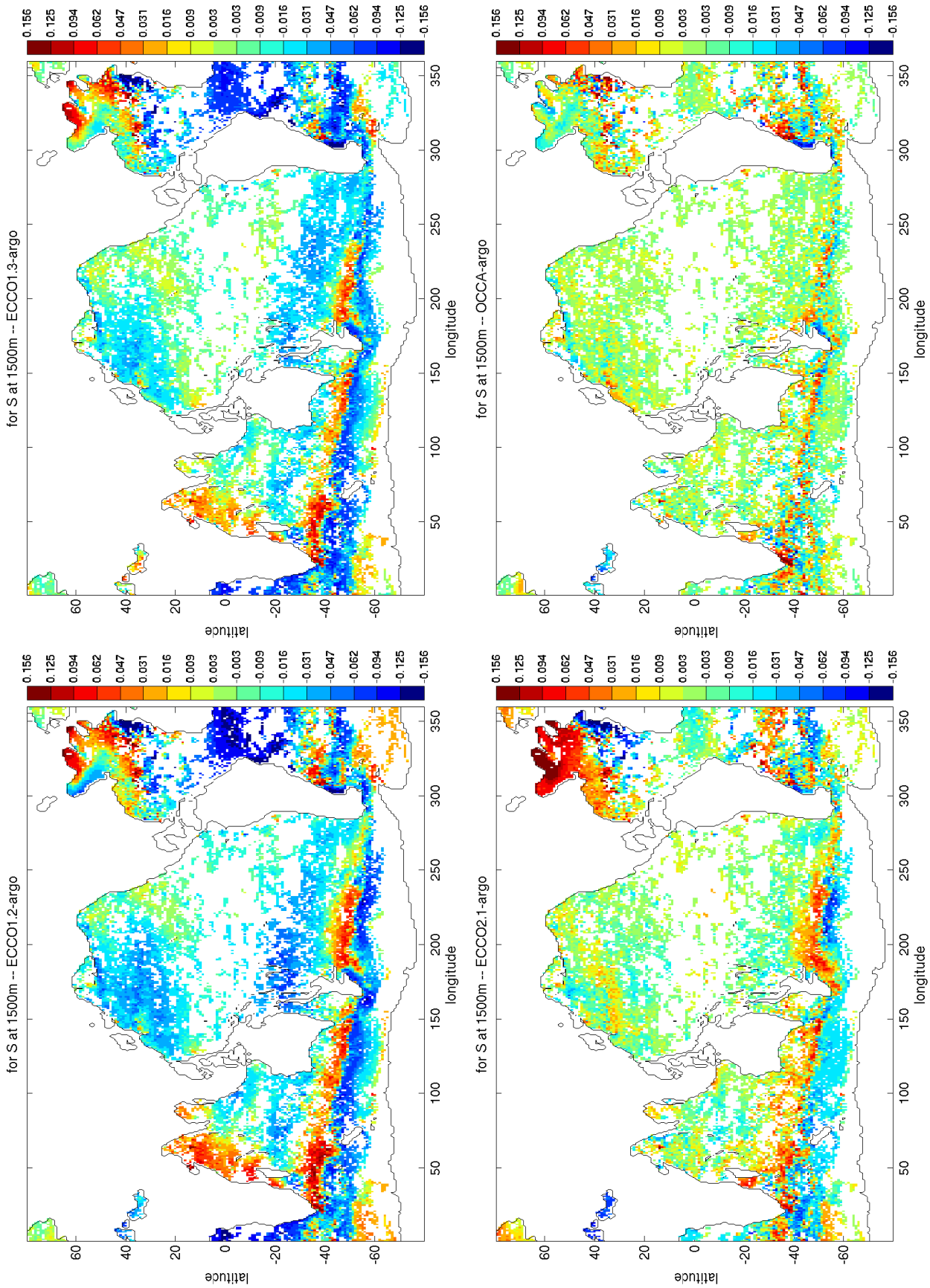

FIG. 12. S 1500m.

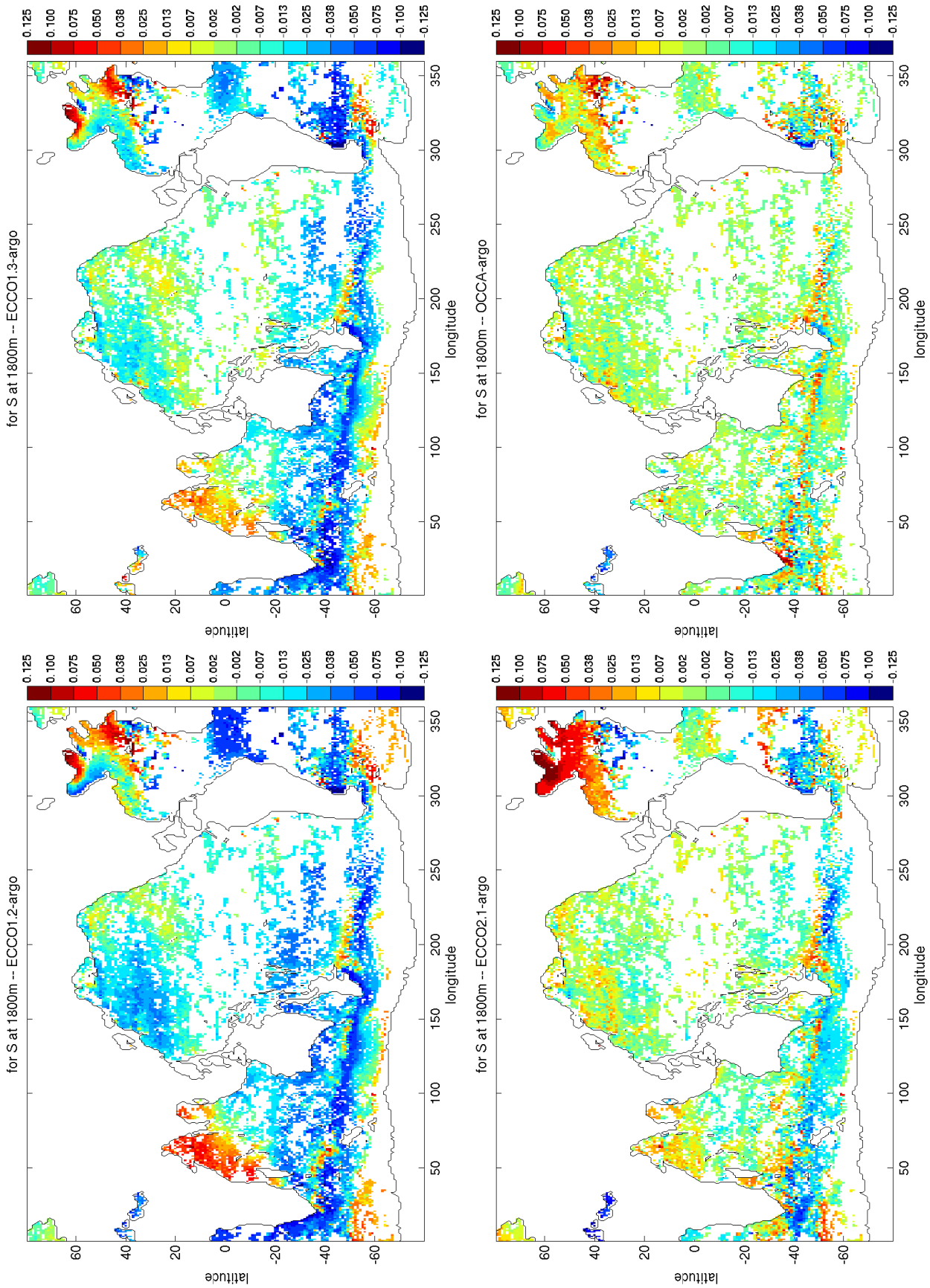

FIG. 13. S 1800m.