Rapport interne LPO/11-06

UMR 6523 **Laboratoire de Physique des Océans**	**DELAYED MODE QUALITY CONTROL OF OVIDE ARGO DATA** **FLOAT WMO 6900497**	
Date : **27 janvier 2011**	Auteurs : **Lagadec Catherine** **Thierry Virginie**	Archivage : **LPO**

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DELAYED MODE QUALITY CONTROL OF OVIDE ARGO DATA FLOAT WMO 6900497

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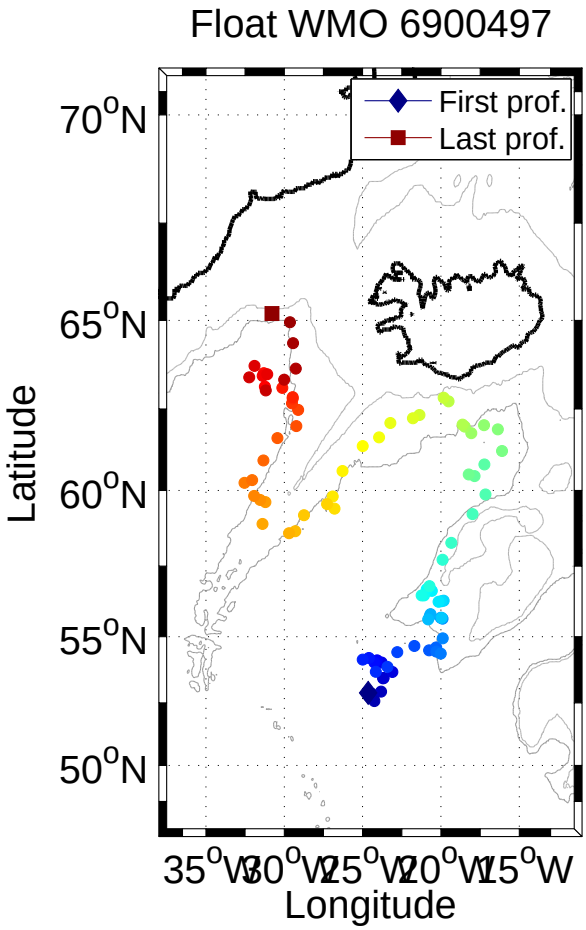
27 janvier 2011



1 Presentation and DMQC summary

Number	Deployment (cycle OD) cycle OD	Last cycle 89
Provor WMO 6900497	24/06/2008 15h01	
CTS3 07-S3-13	N 52.89 W 24.65	

Date of control	Float status	Last cycle
January 2011	DEAD	03/12/2010

Coriolis transmission	27/01/2011

Tab. 1: Status of the float

1.1 QC flag checks and interesting profiles

Cycle	Para-meter	Vertical level	Old flag	New flag	Comments	Coriolis transmission
0A	TEMP PSAL	456,466,496,506,516 dbar 446,476,486 dbar	4 1	1 4		19/01/11 19/01/11
31A	PSAL	406-526 dbar	3	4		19/01/11
36A	TEMP,PSAL	0-200 dbar	4	1		19/01/11
37A	PSAL TEMP	entire profile entire profile	4 3	1 1		19/01/11 19/01/11
40A	PSAL	200,800 dbar	4	1		19/01/11
47A	TEMP,PSAL	last	3	1		19/01/11
63A	TEMP,PSAL	1014 dbar	3	1		19/01/11
89A	TEMP PSAL	entire profile 16,36 dbar	4 4	1 1		19/01/11 19/01/11
all cycles (except 0D)	PSAL	1,2	1	4	unstrustable data	19/01/11 19/01/11

Tab. 2: Float 6900497. Summary of the modifications of the real-time QC flags and of the interesting or suspicous data.

The resolution is equal to 10 dbar from the surface to 800 dbar, then 25 dbar from 800 to 2000 dbar. Salinity data between 0 and 6 dbar are suspicious because they are acquired when the pump of the CTD is turned off.

1.2 Salinity correction from the OW method

We cannot see any evidence of a drift or bias in the salinity measurements. We thus conclude that it is not necessary to correct the salinity data. Errors bars are maximum value between 0.01 and those determined from the OW method with parameters from the OW configuration 1.

OW CONFIGURATION	1	3	11	12
CONFIG_MAX_CASTS	250	250	250	250
MAP_USE_PV	1	1	1	1
MAP_USE_PV_ELLIPSE	1	1	1	1
MAP_USE_FACTEUR	1	1	1	1
MAPSCALE_LONGITUDE_LARGE	3.2	3.2	3.2	1.6
MAPSCALE_LONGITUDE_SMALL	0.8	0.8	0.8	0.8
MAPSCALE_LATITUDE_LARGE	2	2	2	1
MAPSCALE_LATITUDE_SMALL	0.5	0.5	0.5	0.5
MAPSCALE_PHI_LARGE	0.5	0.5	0.5	0.5
MAPSCALE_PHI_SMALL	0.1	0.1	0.1	0.1
MAPSCALE_AGE	0.69	0.69	0.69	0.69
MAP_P_EXCLUDE	500	500	500	500
MAP_P_DELTA	250	250	250	250
Reference data base	CTD only	CTD only	ARGO	CTD and
Comments		no break point		ARGO

Tab. 3: Parameters of the OW method.

2 Data

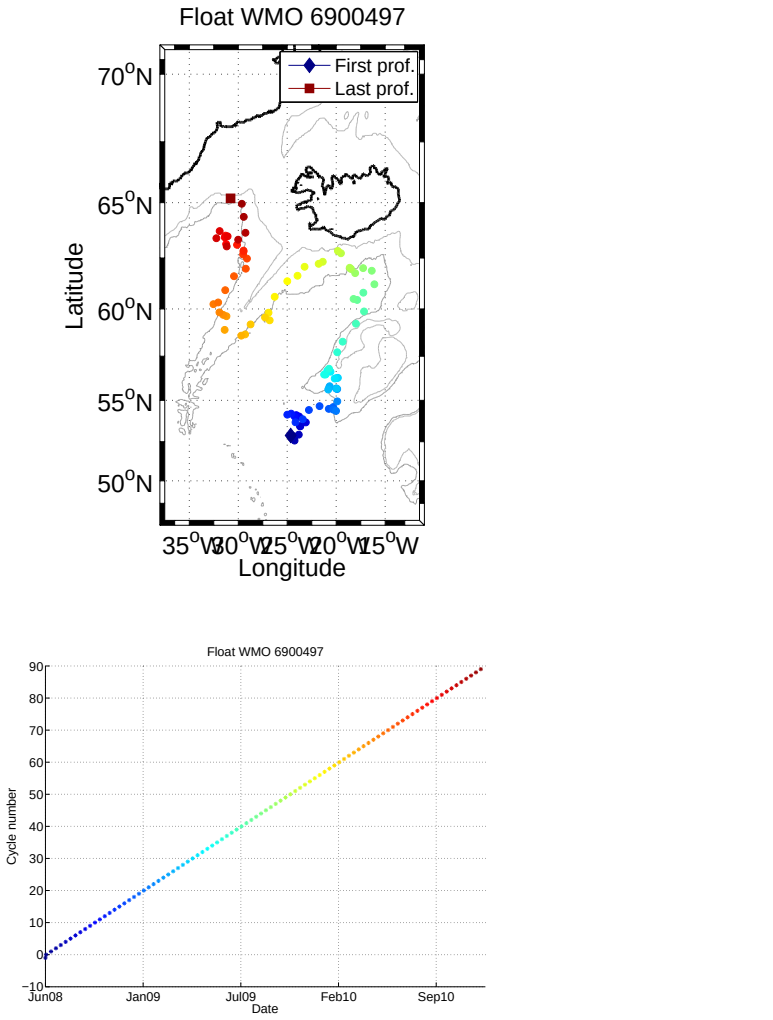


FIG. 1: Profiles position and relationship between cycle number, date and color.

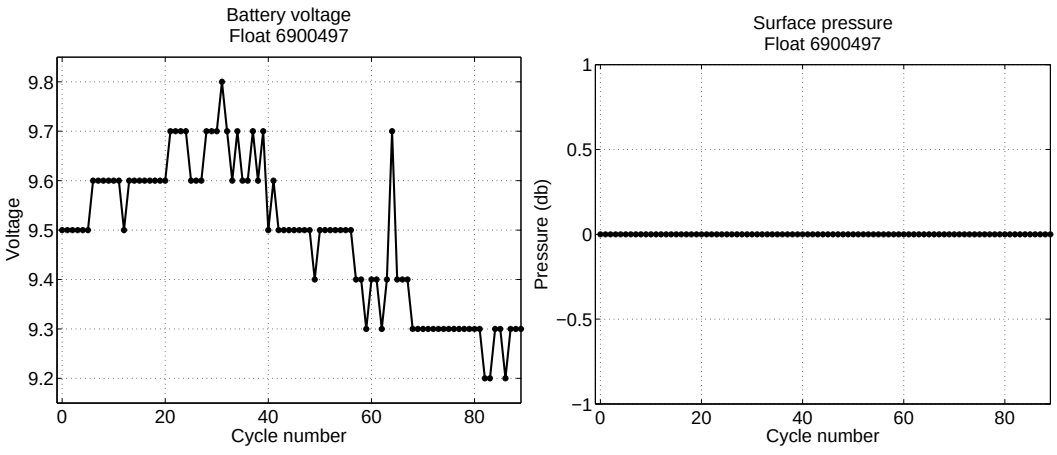


FIG. 2: Voltage Battery - Surface pressure

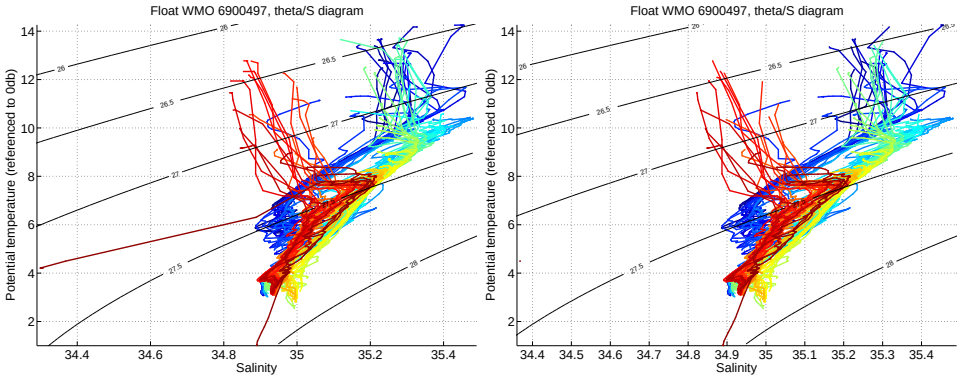


FIG. 3: θ/S diagrams. (Left panel) Flags are not taken into account. (Right panel) Quality flags are taken into account.

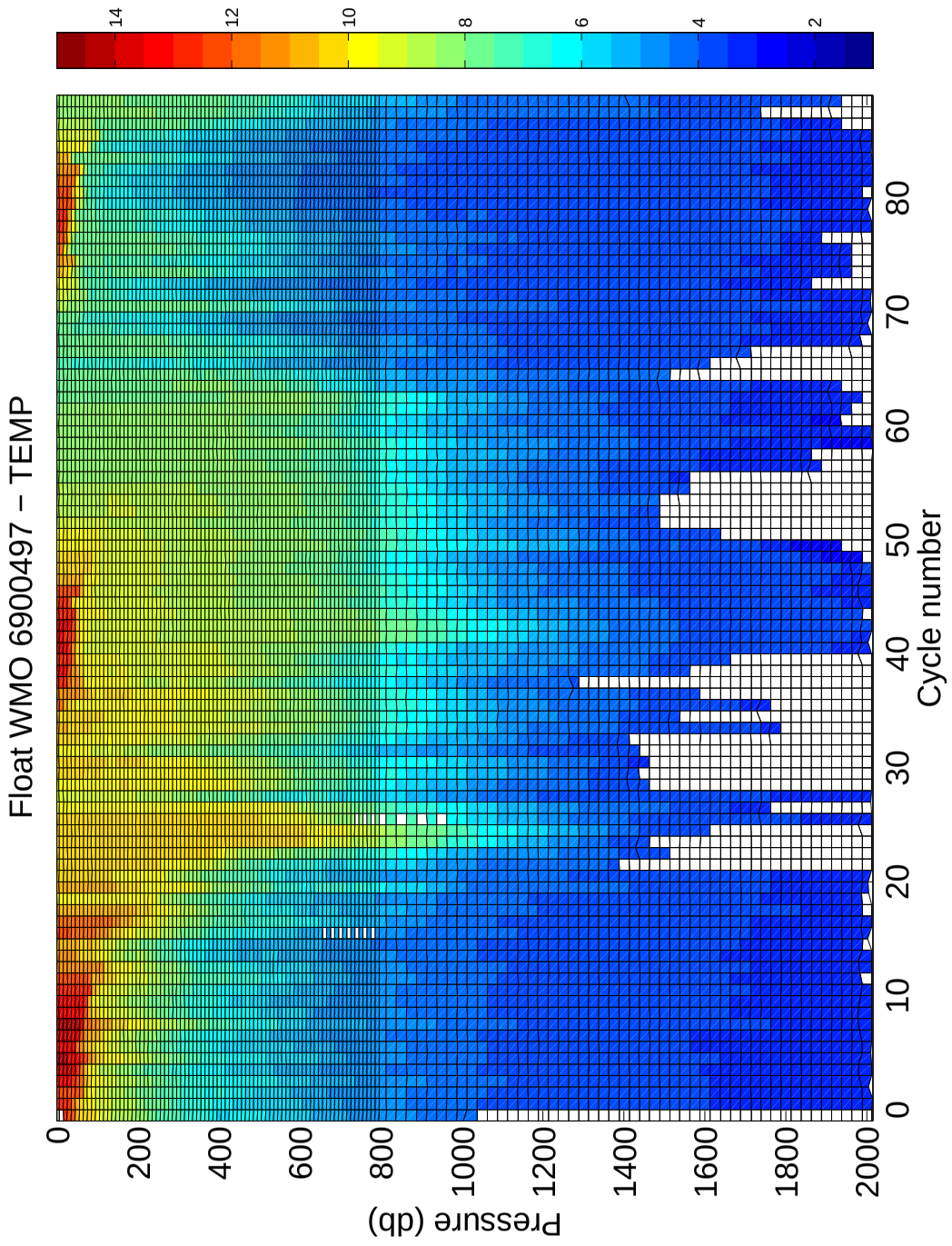


FIG. 4: Temperature section along the float trajectory. Quality flags are not taken into account.

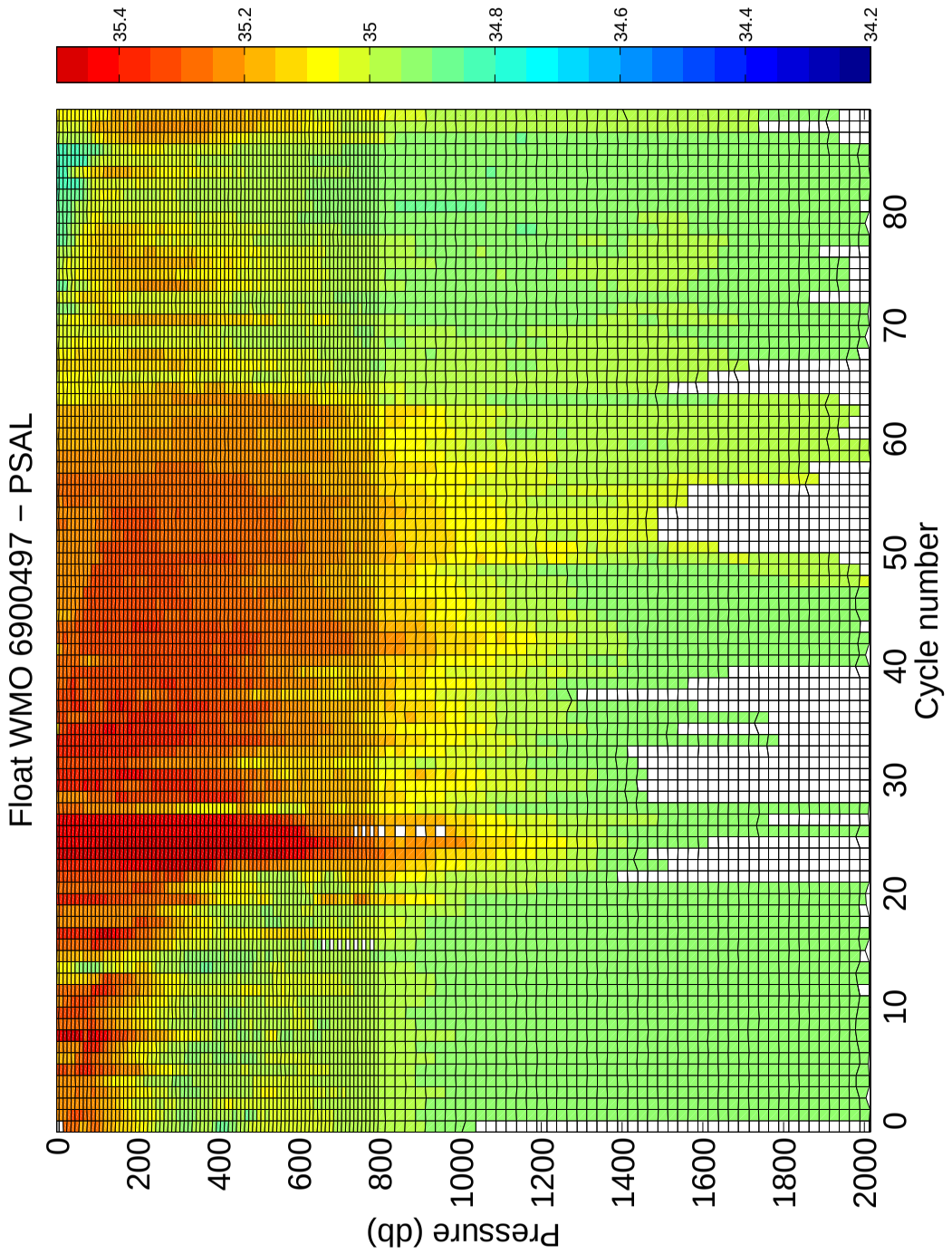


FIG. 5: Salinity section along the float trajectory. Quality flags are not taken into account.

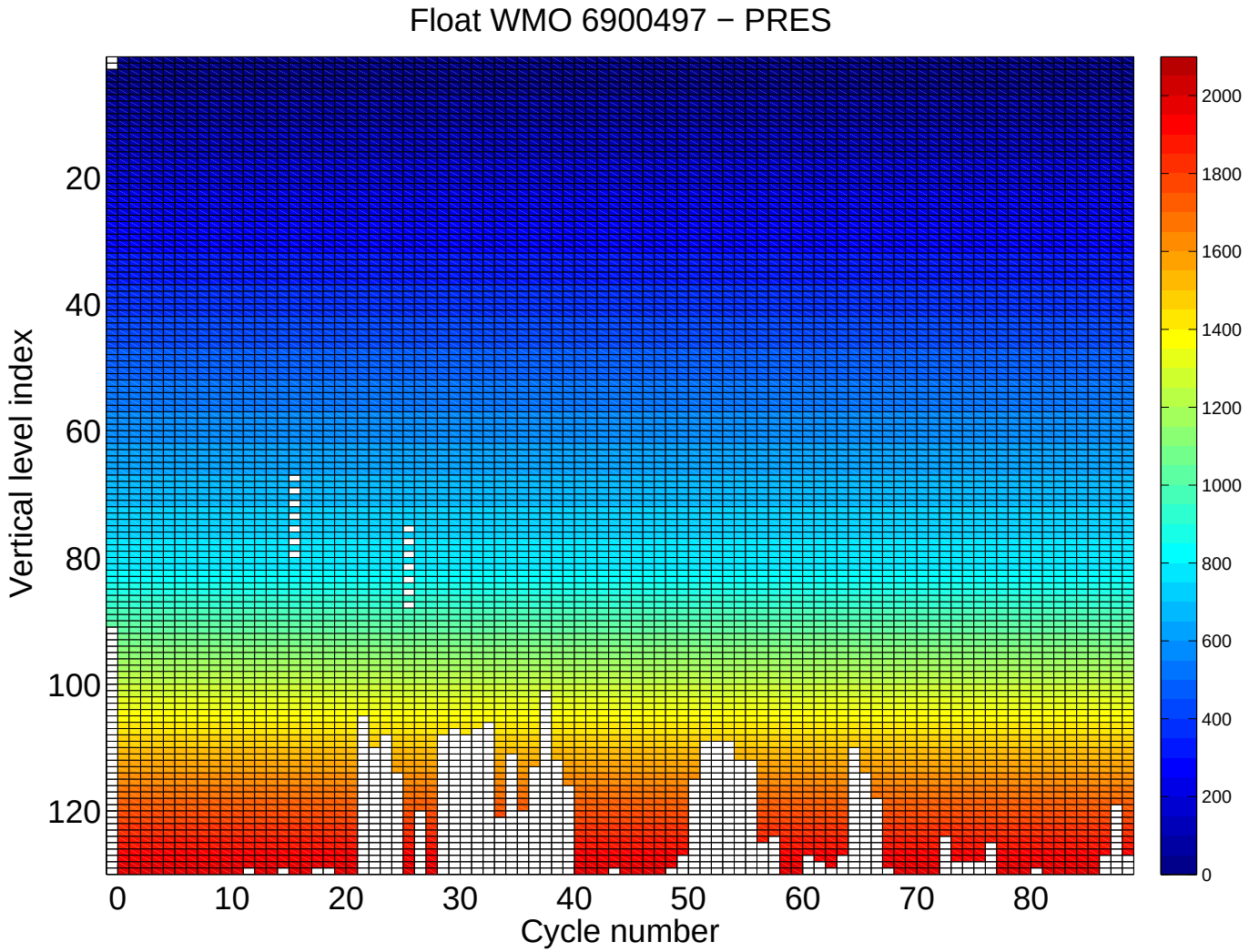


FIG. 6: Pression as fonction of cycle number and vertical level index along the float trajectory. Quality flags are taken into account.

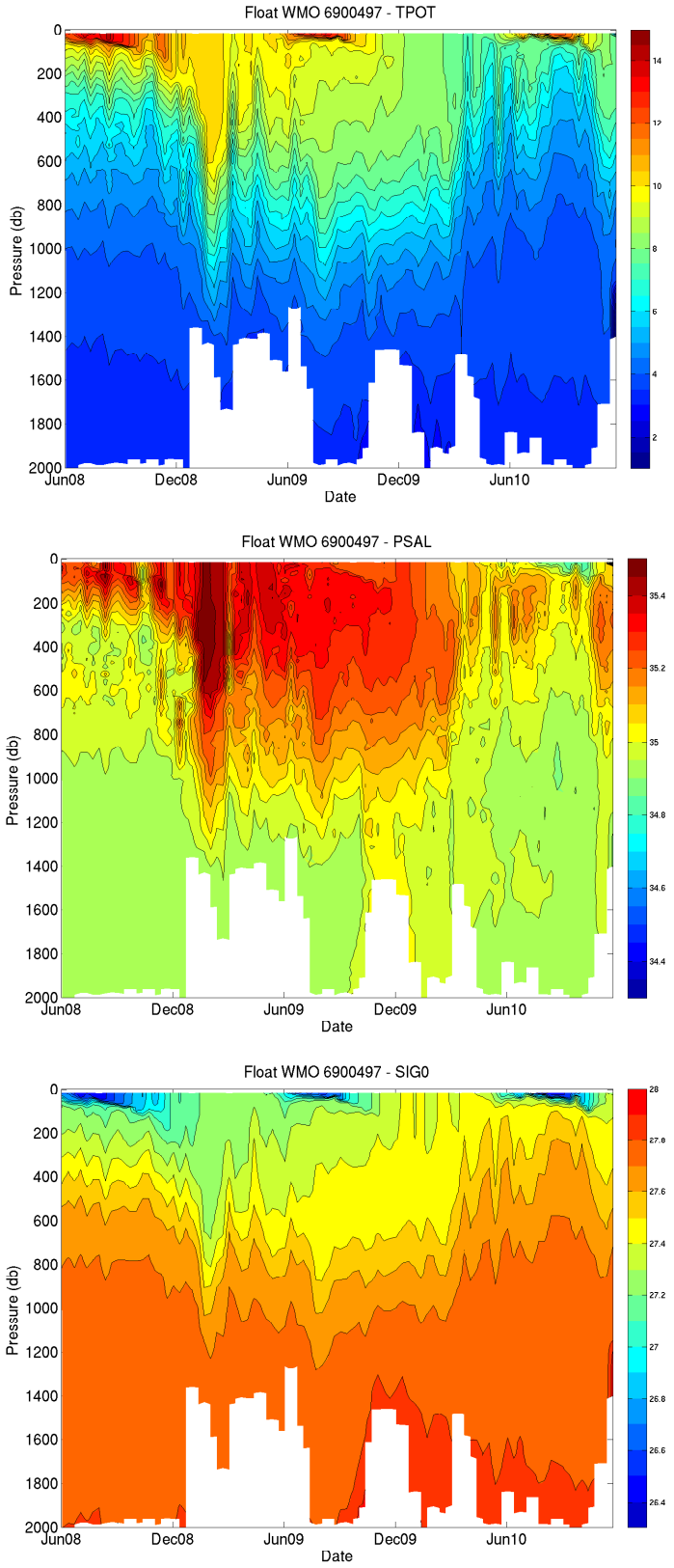


FIG. 7: Potential temperature, salinity and potential density sections along the float trajectory (interpolated on standard levels). Quality flags are taken into account.

3 Comparison to the OVIDE 2008 nearest CTD profile

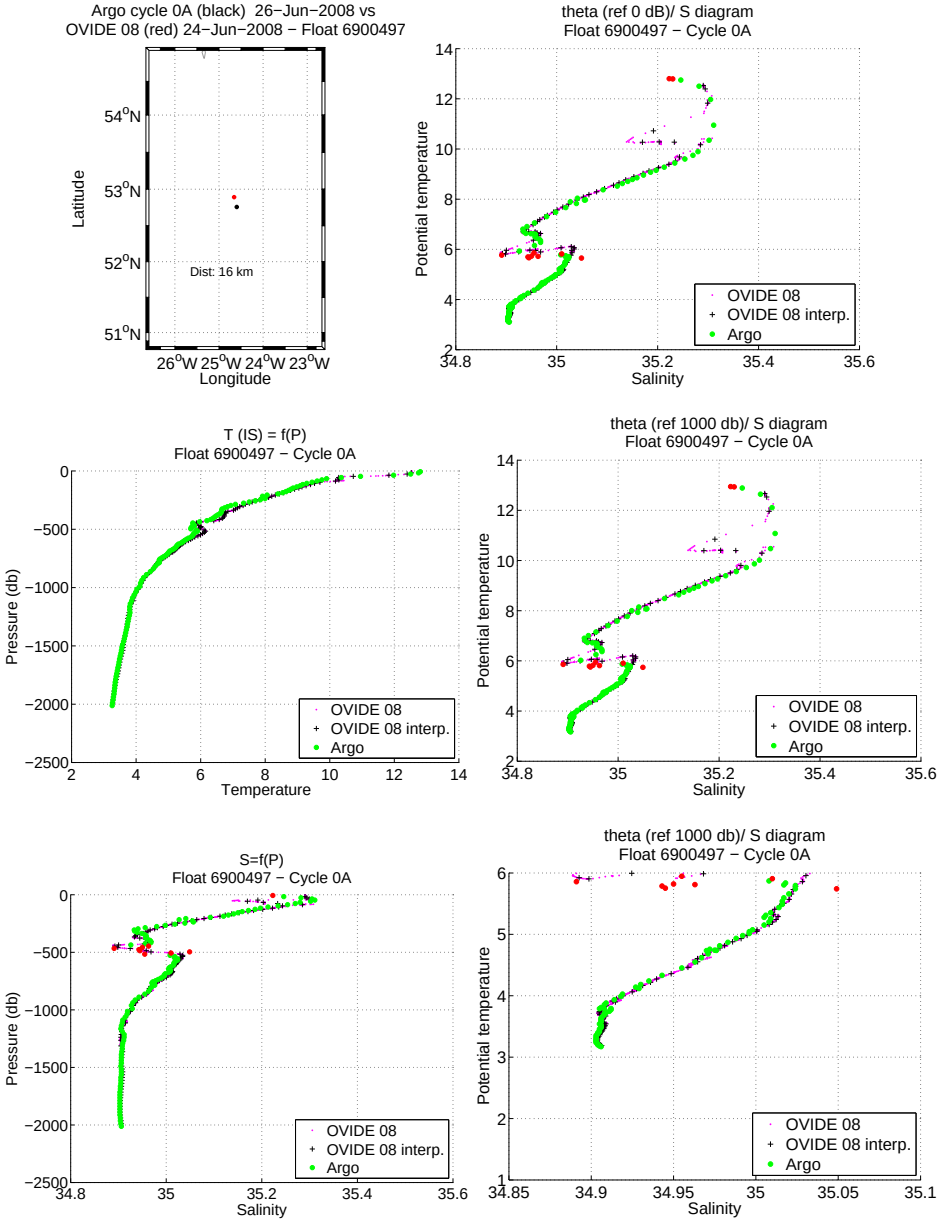


FIG. 8: Comparison of the cycle 0A with the nearest CTD profile done after the float deployment.

4 Cycle 0 - Comparaison to the nearest historical CTD profiles

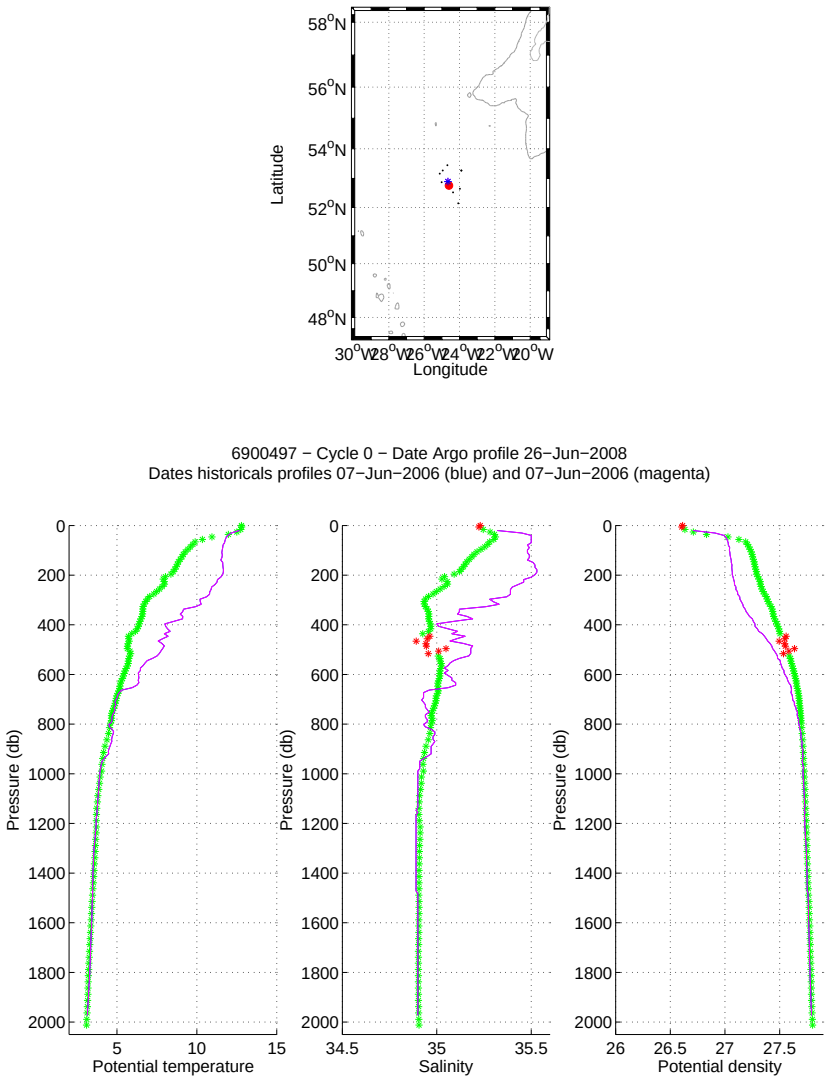


FIG. 9: Flotteur 6900497, cycle 0. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1; blue for a QC=2; orange for a QC=3 and red for a QC=4).

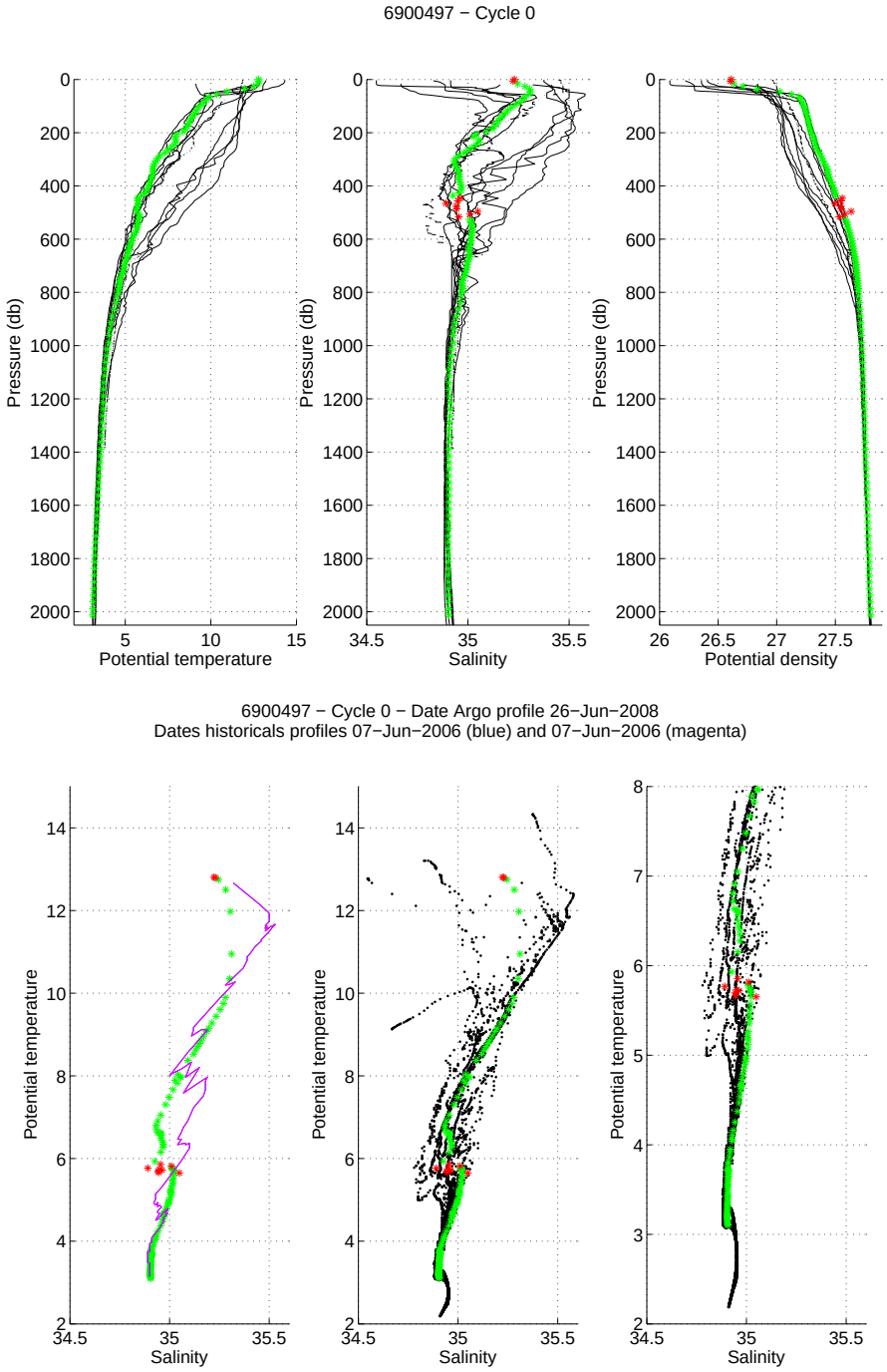


FIG. 10: Float 6900497, cycle 0. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

5 Cycle 0 - Comparaison to the nearest ARGO profiles

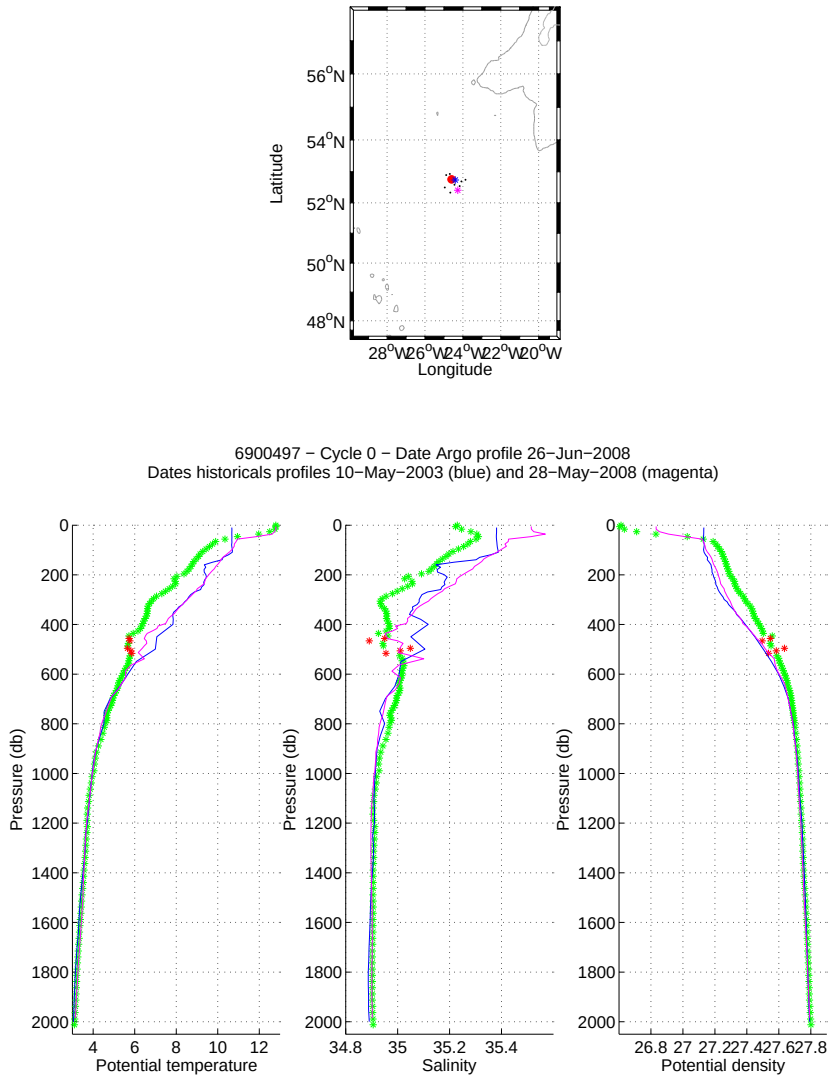


FIG. 11: Flotteur 6900497, cycle 0. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

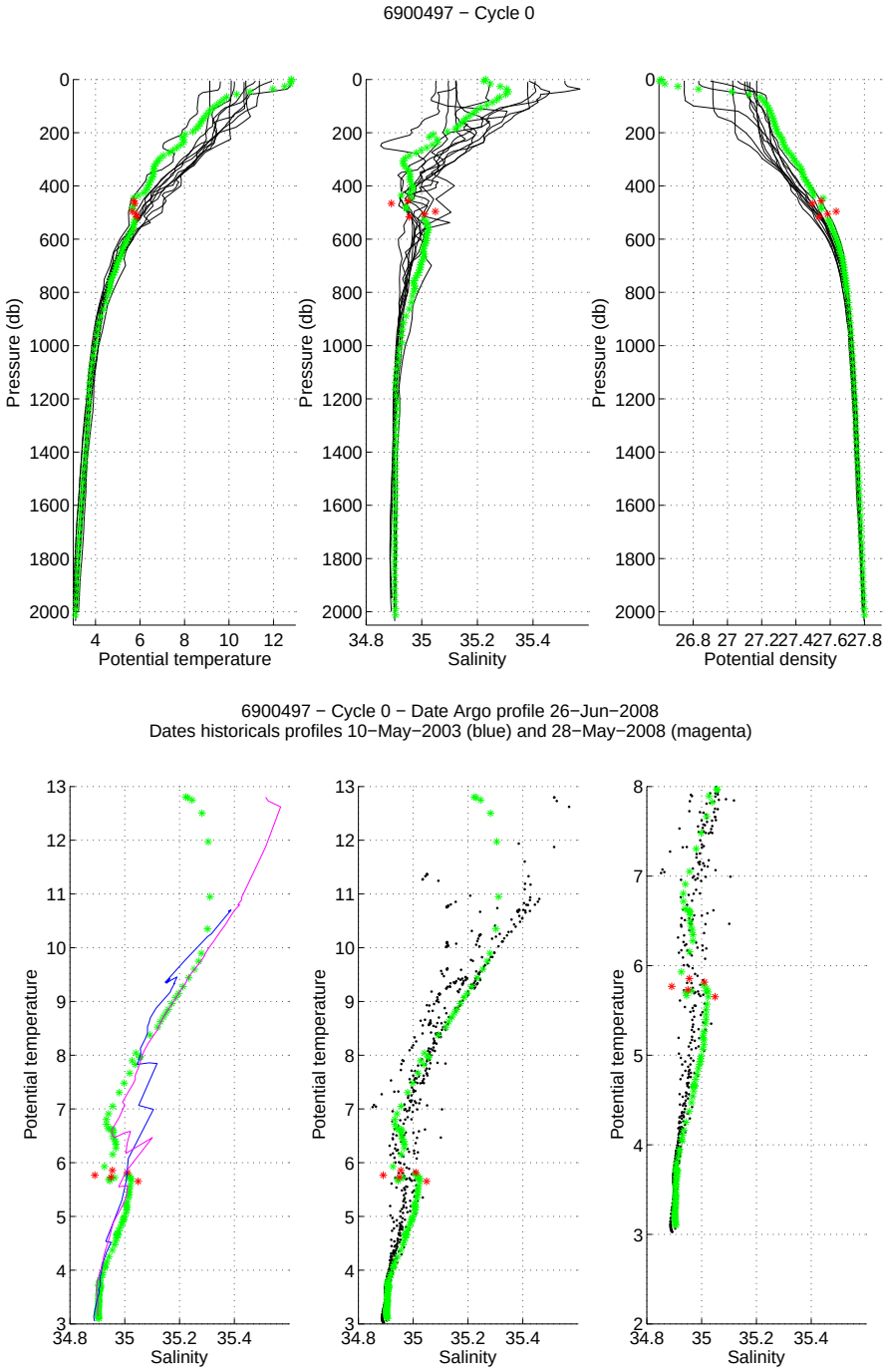


FIG. 12: Float 6900497, cycle 0. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

6 Cycle 31 - Comparaison to the nearest historical CTD profiles

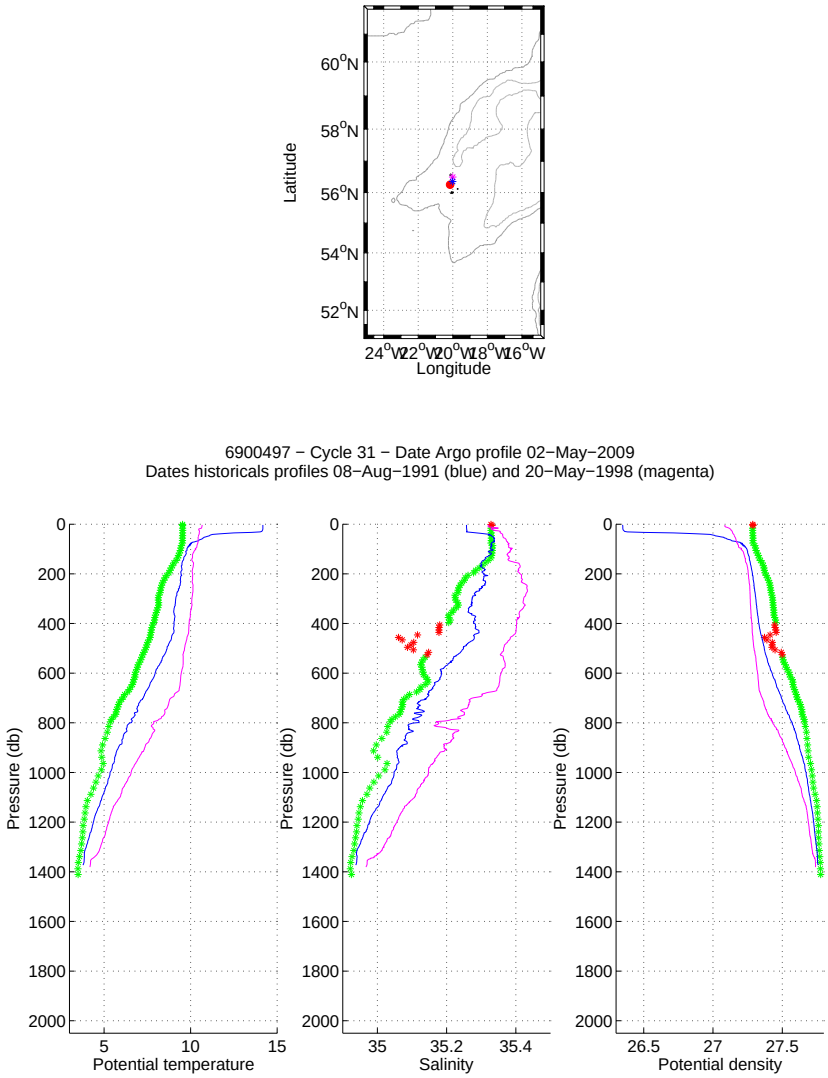


FIG. 13: Flotteur 6900497, cycle 31. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

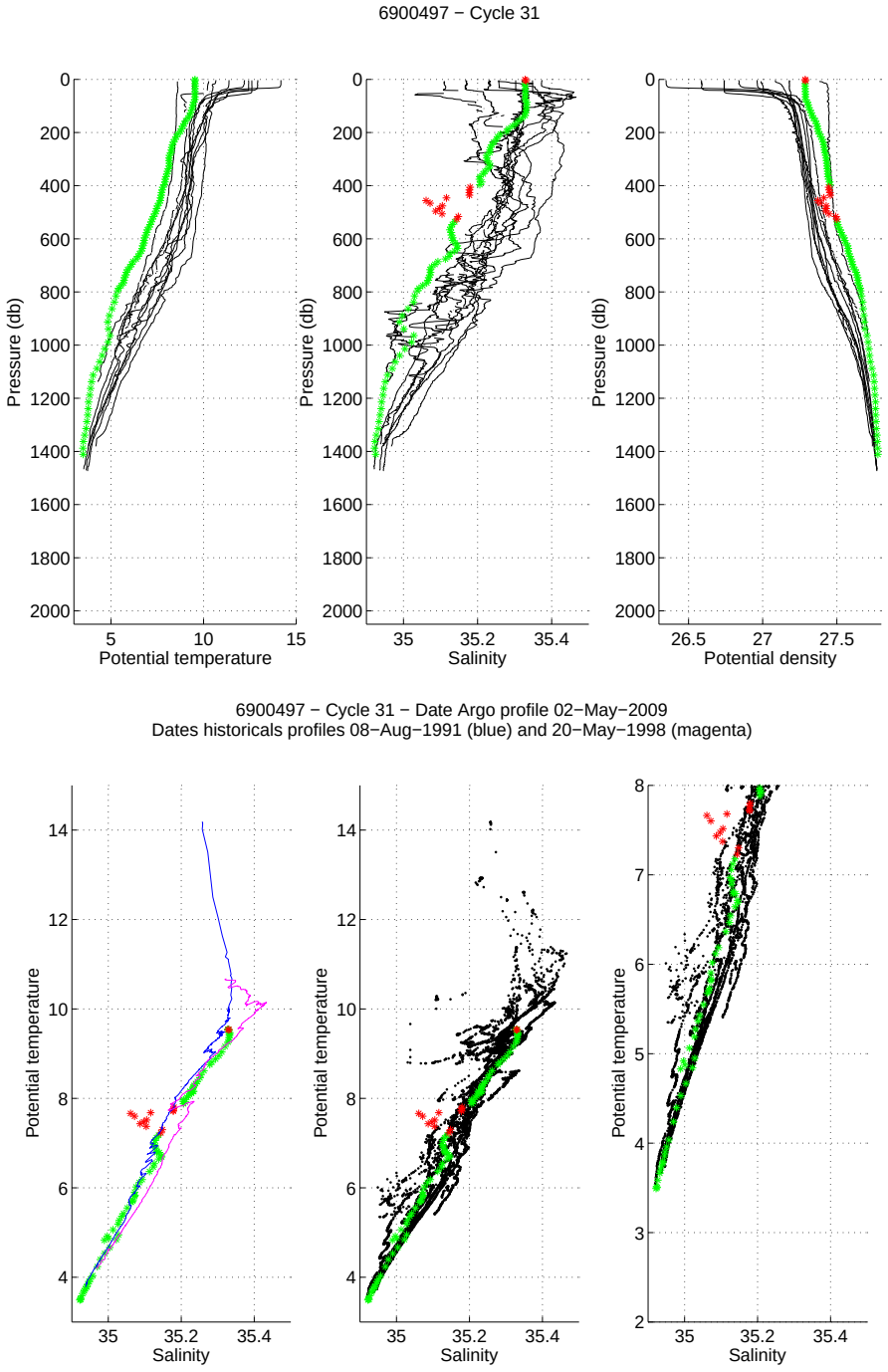


FIG. 14: Float 6900497, cycle 31. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

7 Cycle 31 - Comparaison to the nearest ARGO profiles

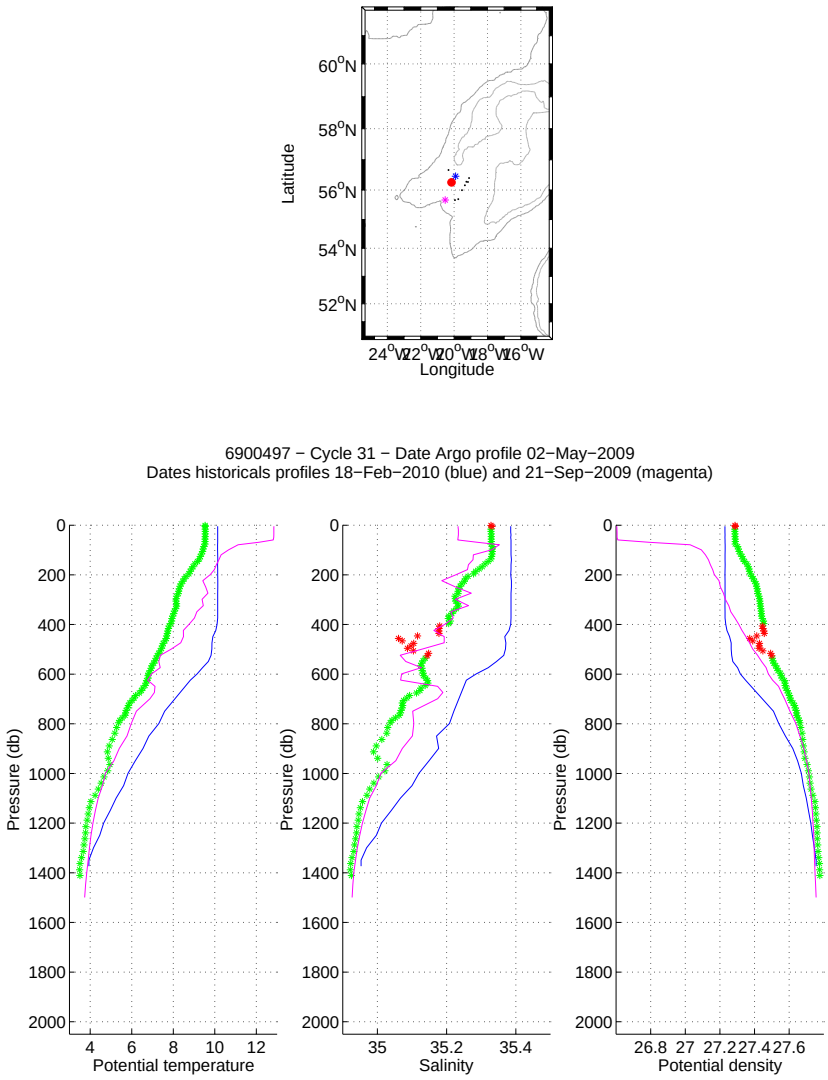


FIG. 15: Flotteur 6900497, cycle 31. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

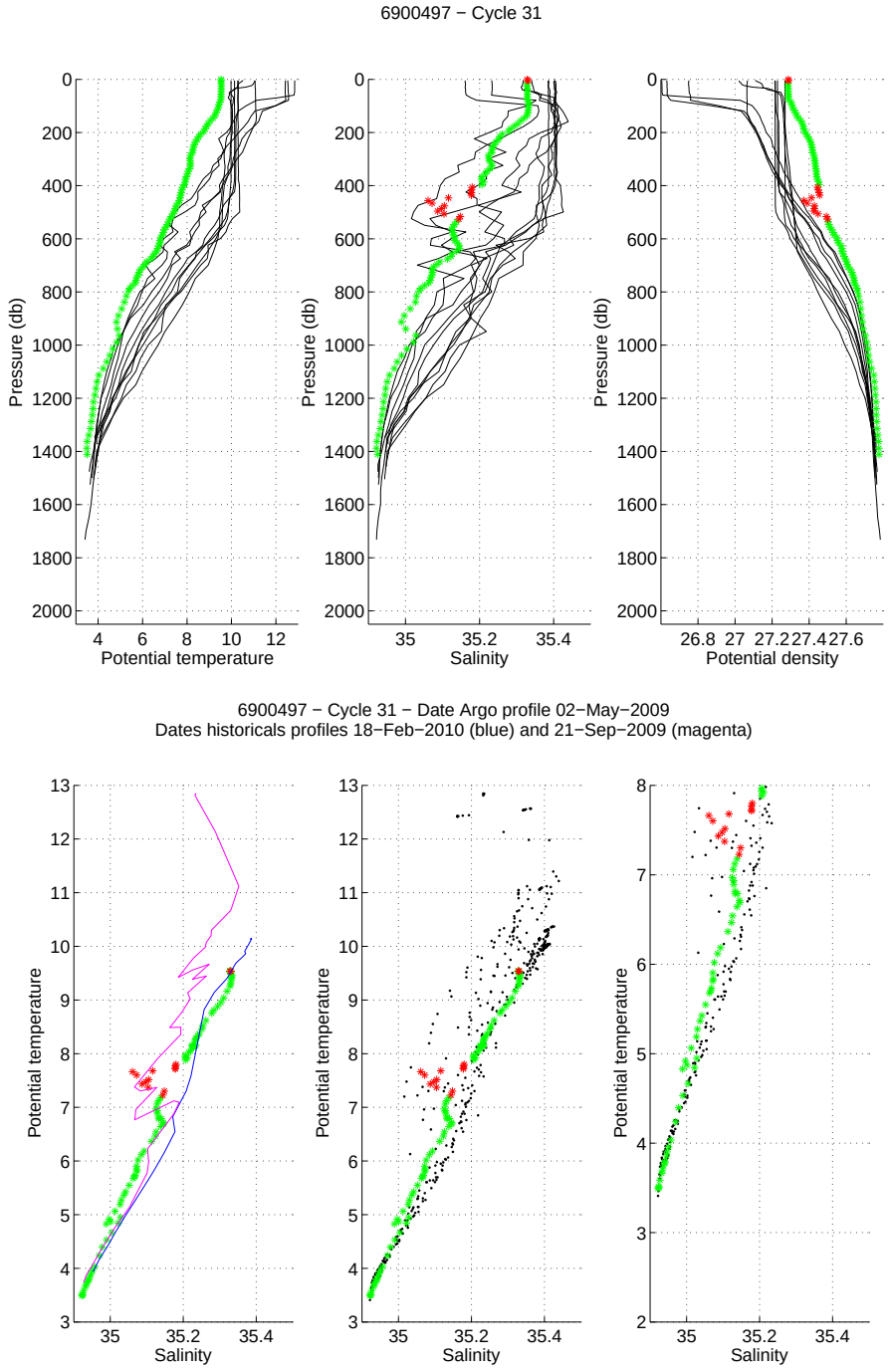


FIG. 16: Float 6900497, cycle 31. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

8 Cycle 36 - Comparaison to the nearest historical CTD profiles

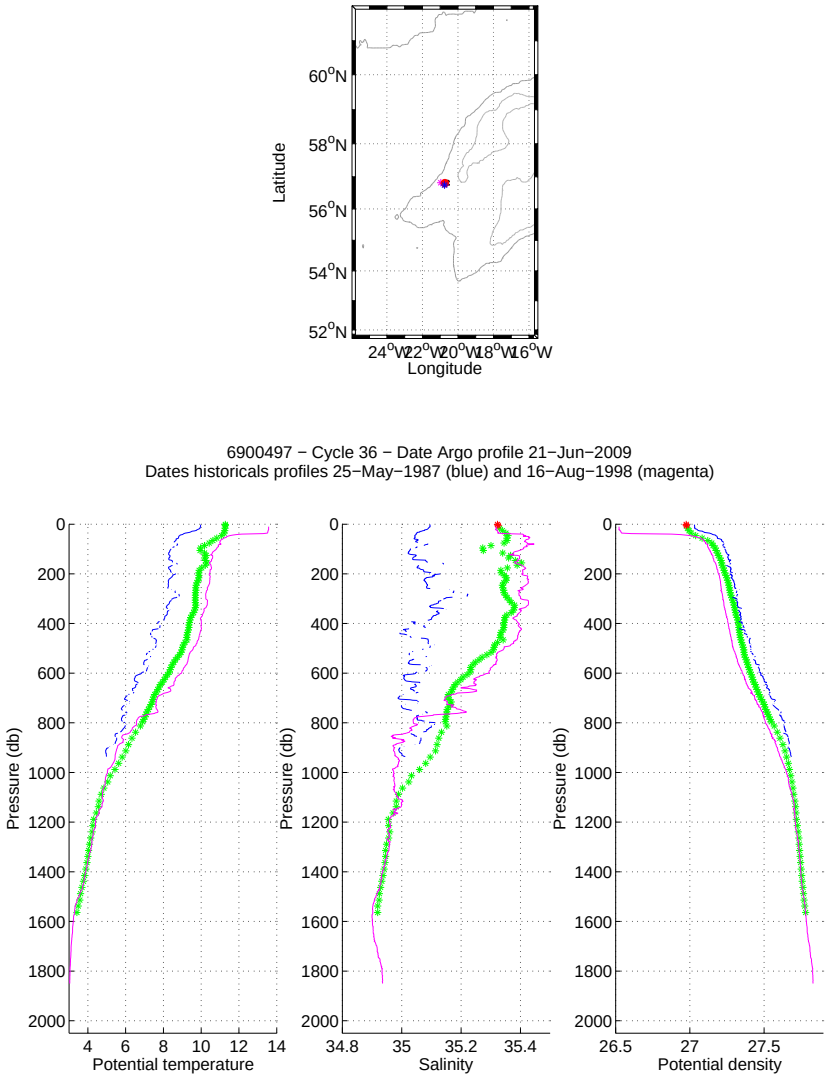


FIG. 17: Flotteur 6900497, cycle 36. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

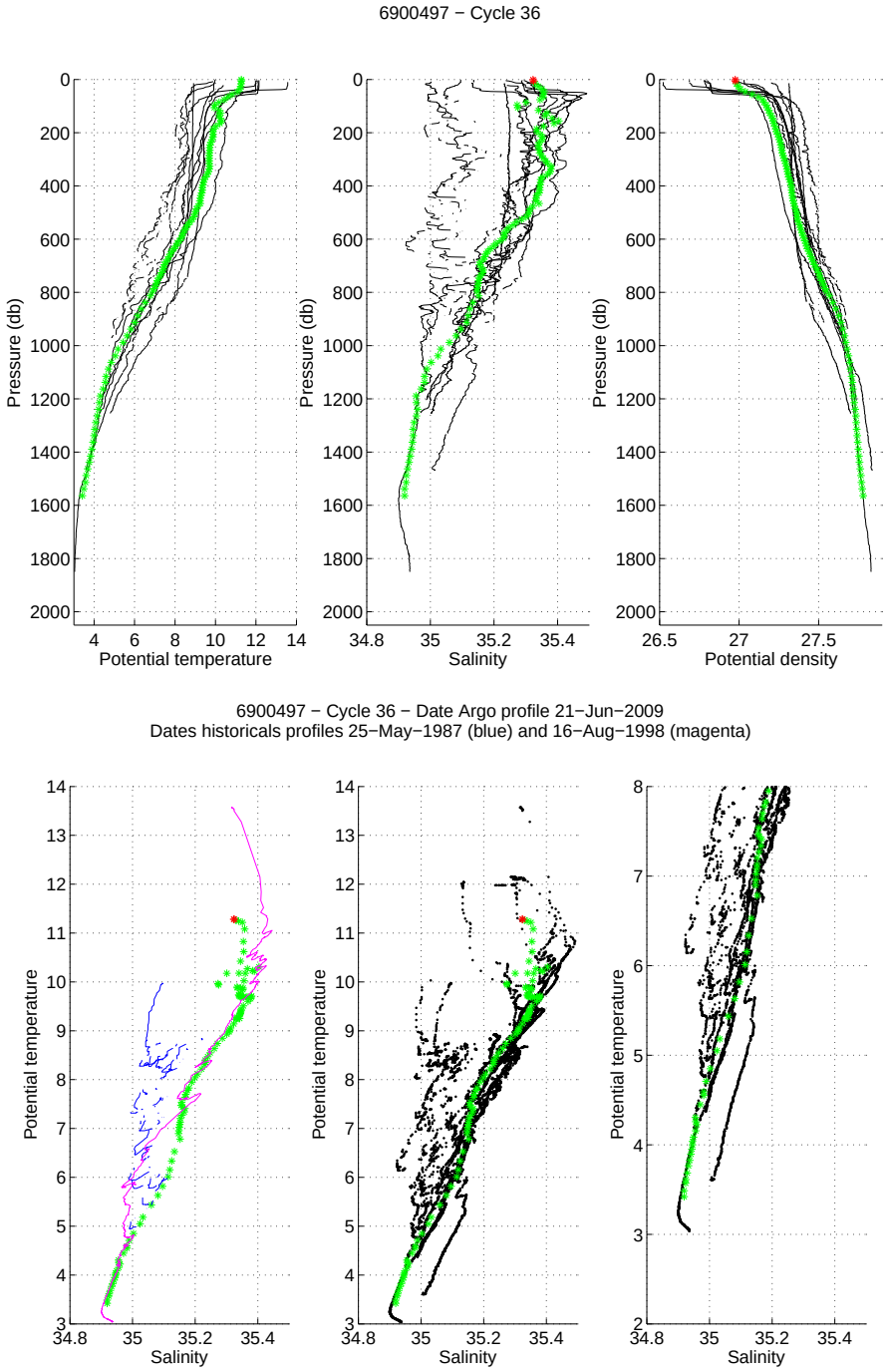


FIG. 18: Float 6900497, cycle 36. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

9 Cycle 36 - Comparaison to the nearest ARGO profiles

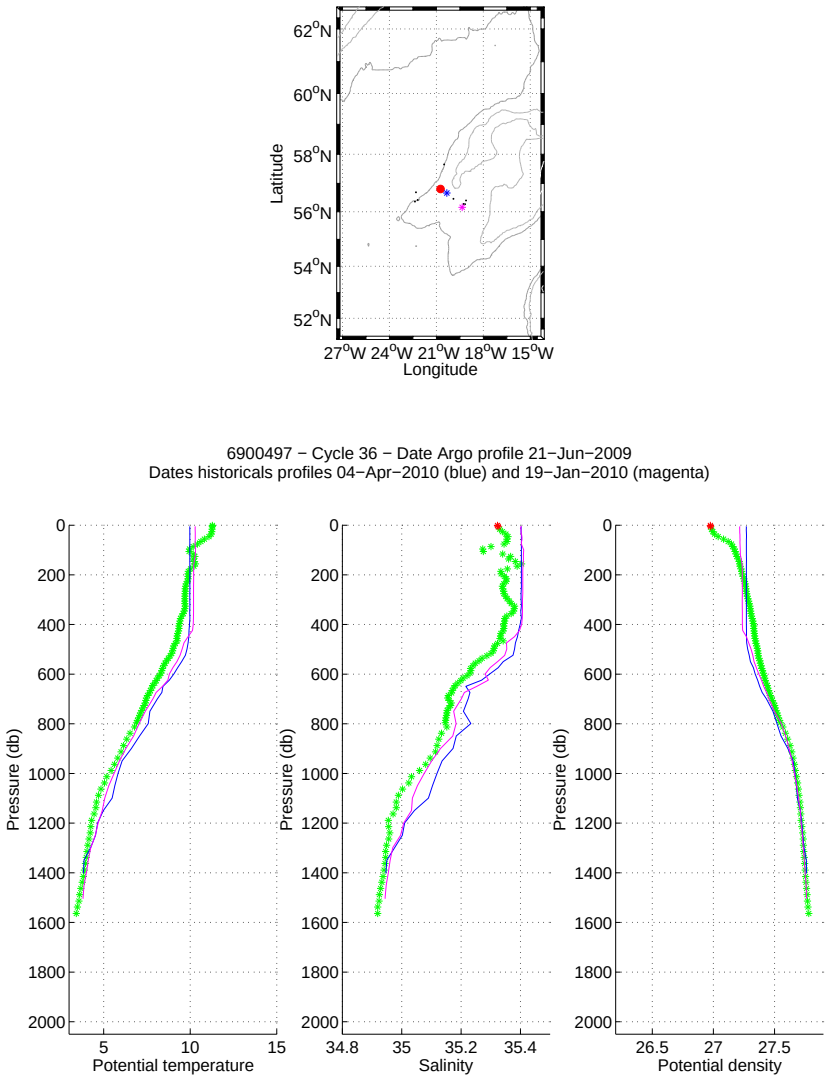


FIG. 19: Flotteur 6900497, cycle 36. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

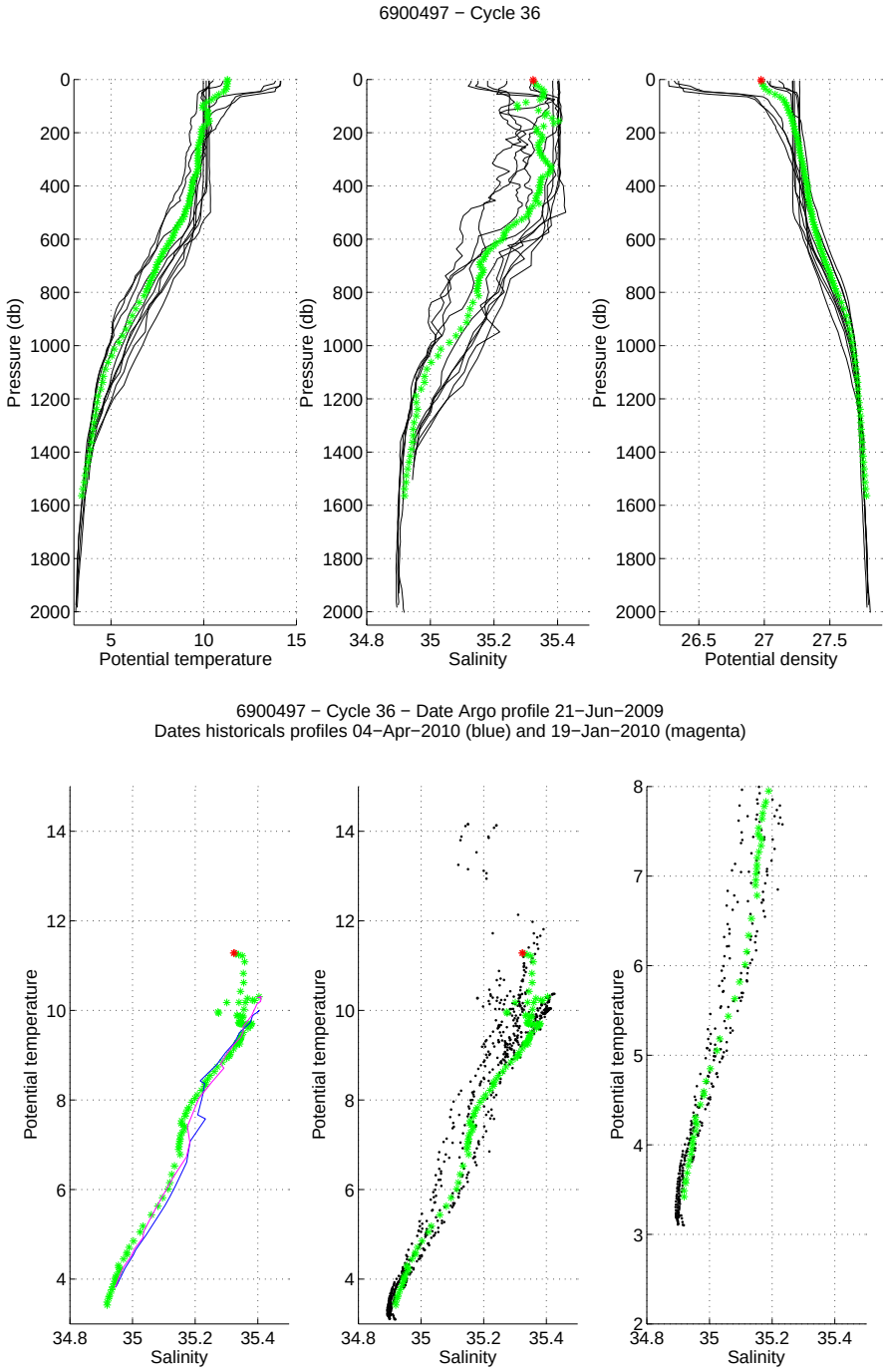


FIG. 20: Float 6900497, cycle 36. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

10 Cycle 37 - Comparaison to the nearest historical CTD profiles

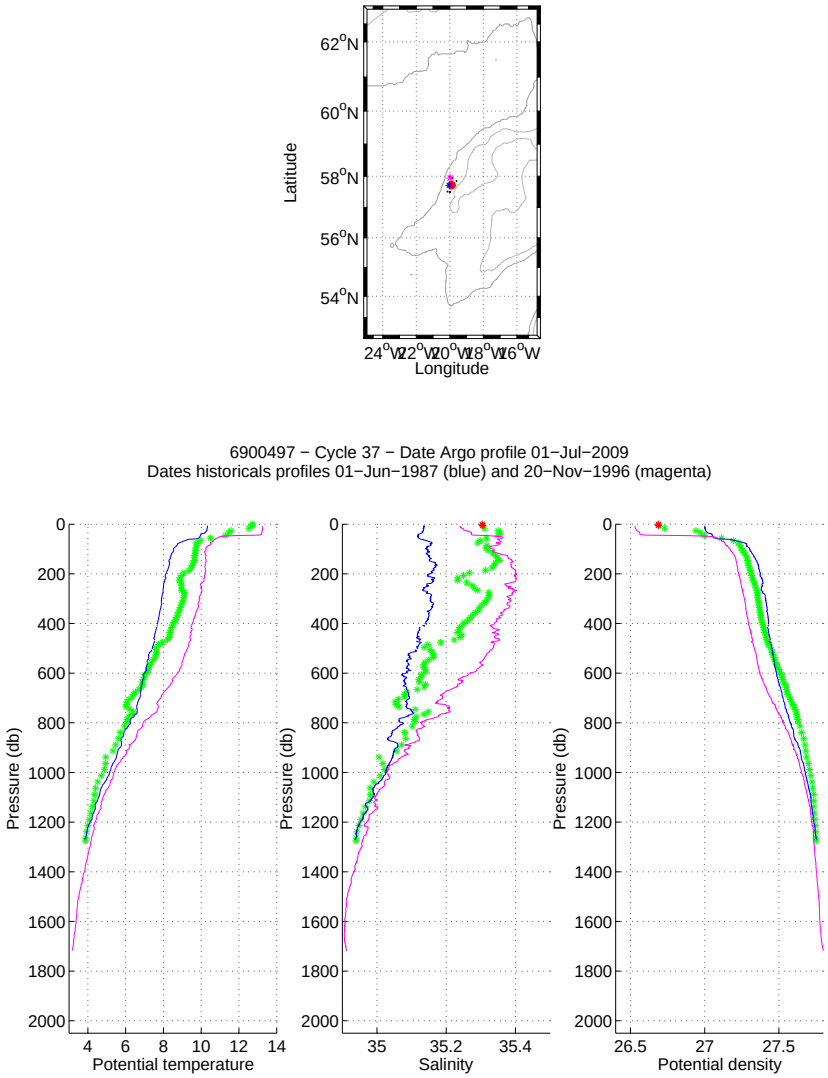


FIG. 21: Flotteur 6900497, cycle 37. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

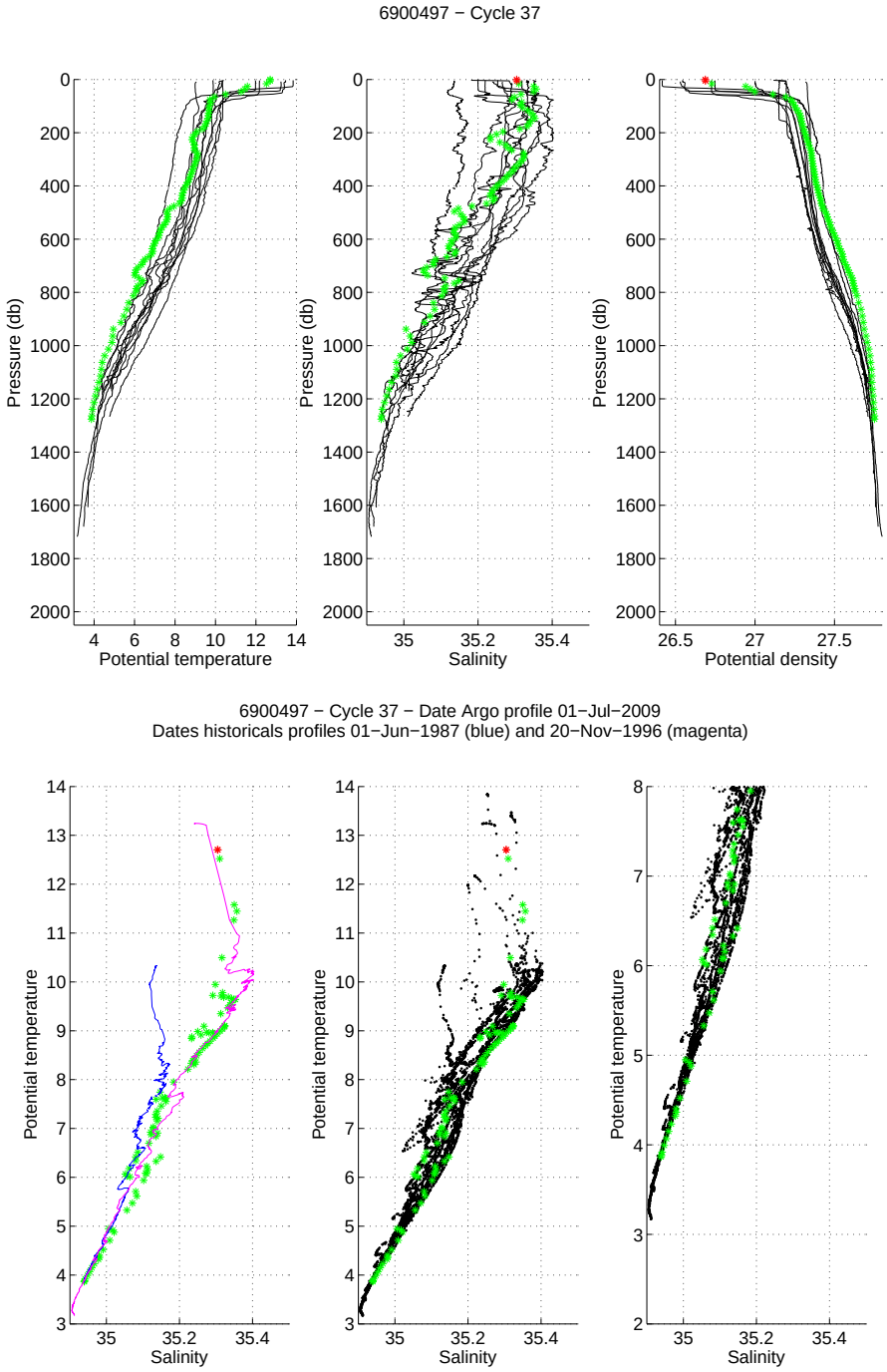


FIG. 22: Float 6900497, cycle 37. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

11 Cycle 37 - Comparaison to the nearest ARGO profiles

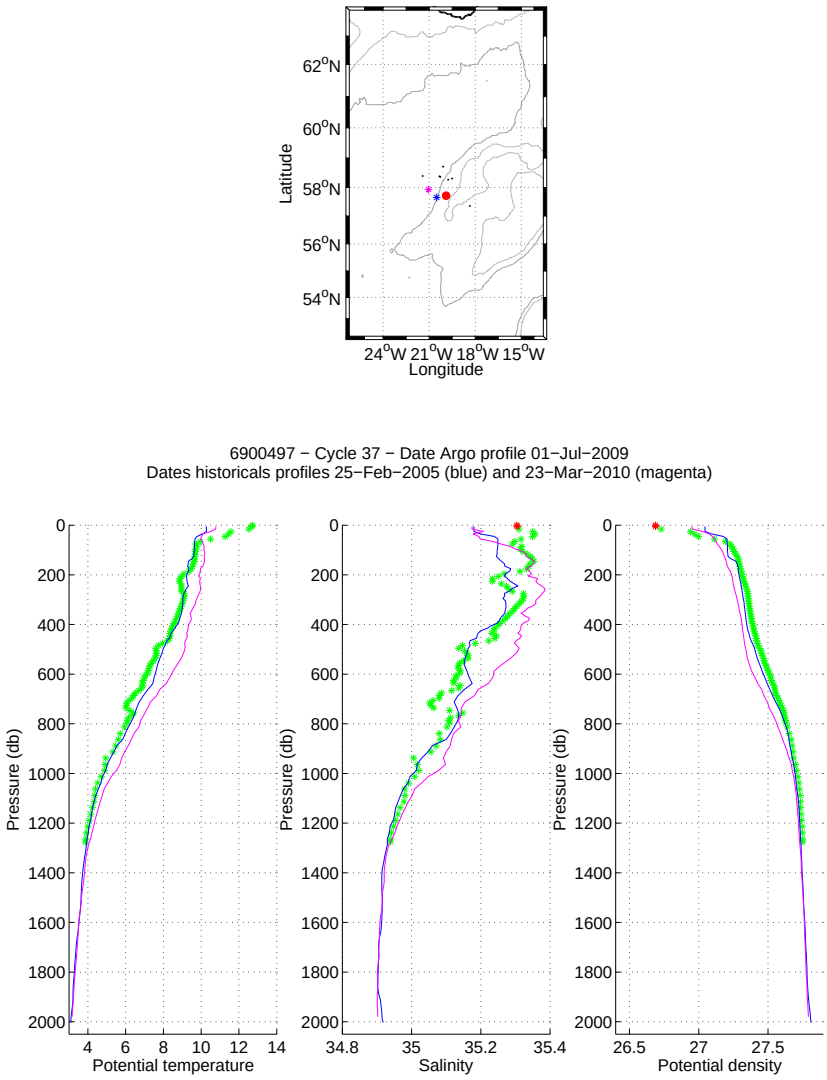


FIG. 23: Flotteur 6900497, cycle 37. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

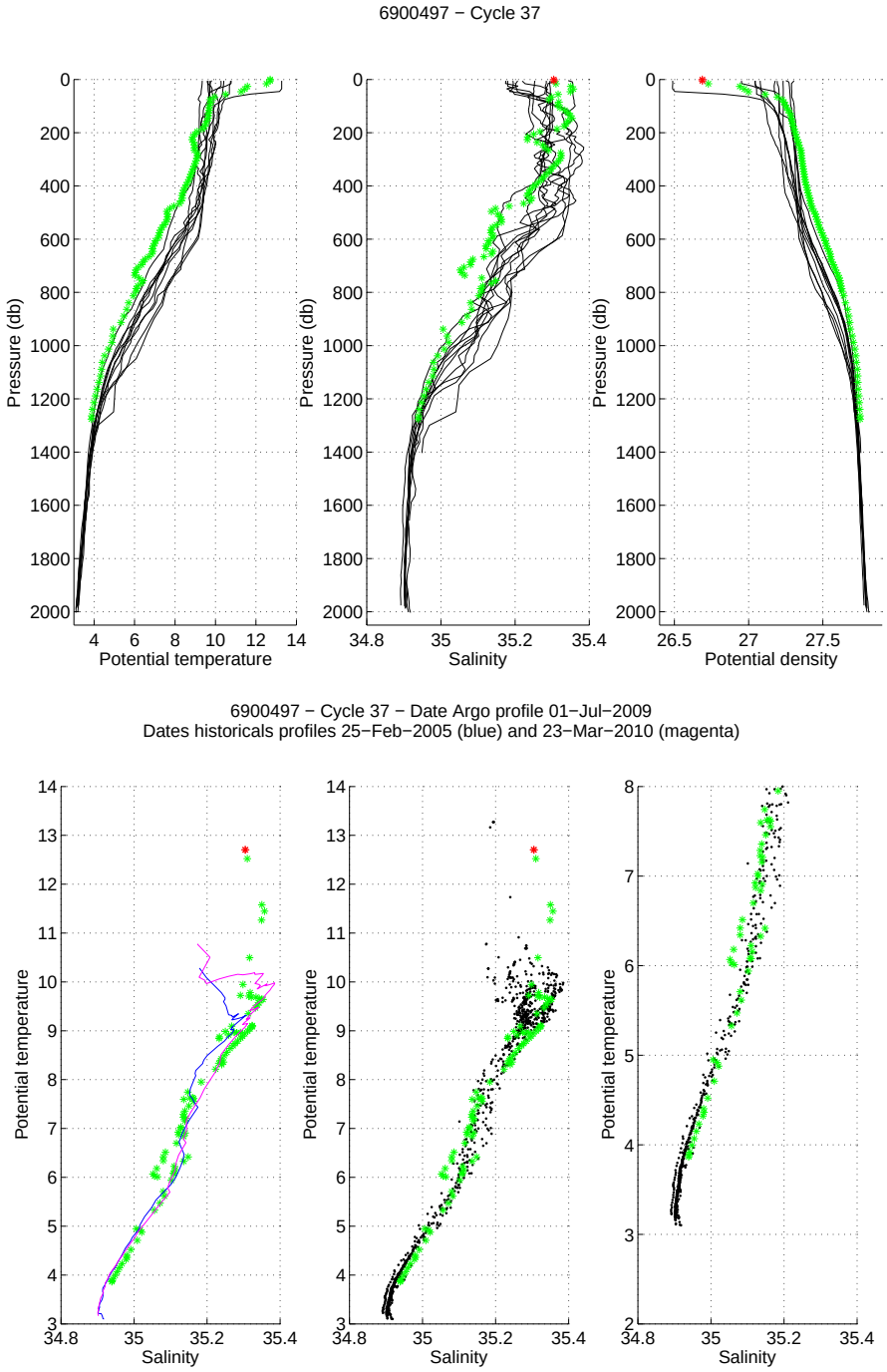


FIG. 24: Float 6900497, cycle 37. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

12 Cycle 40 - Comparaison to the nearest historical CTD profiles

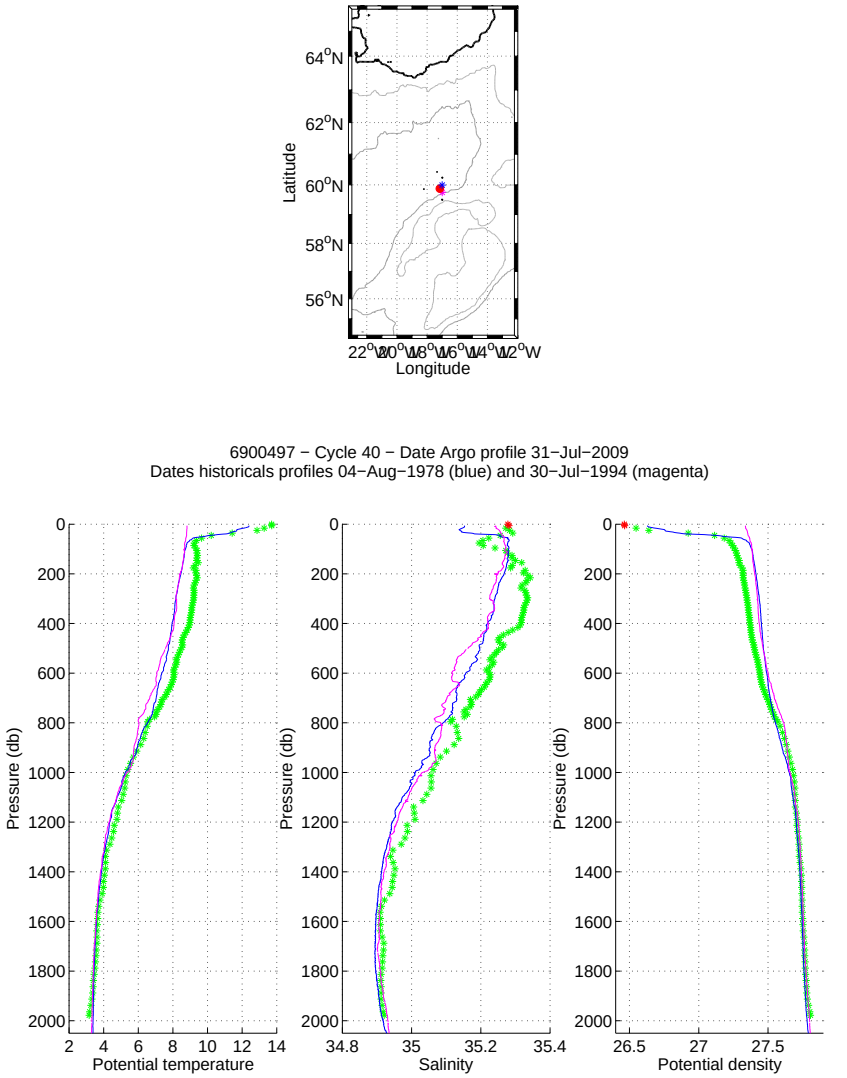


FIG. 25: Flotteur 6900497, cycle 40. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

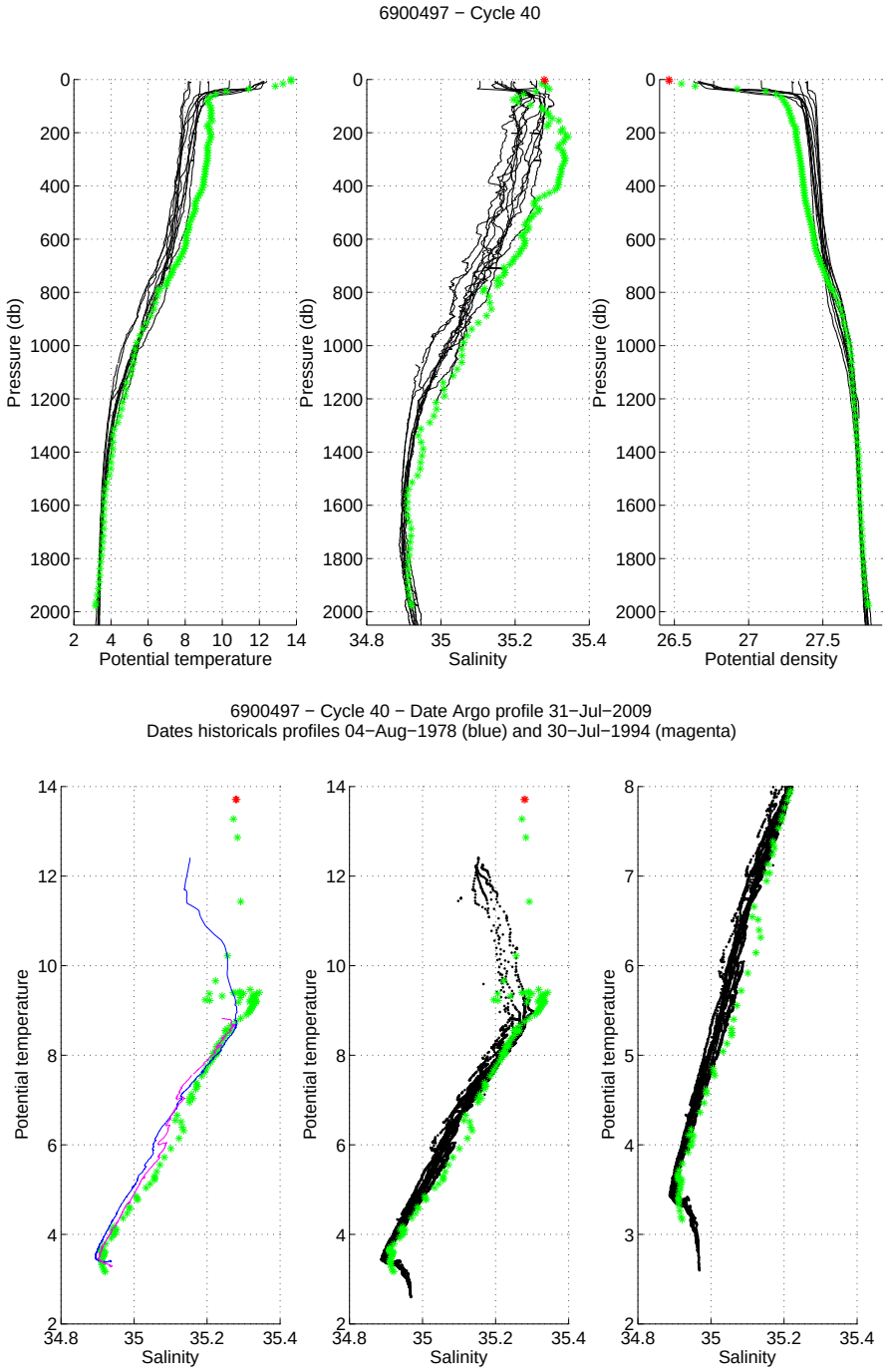


FIG. 26: Float 6900497, cycle 40. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

13 Cycle 40 - Comparaison to the nearest ARGO profiles

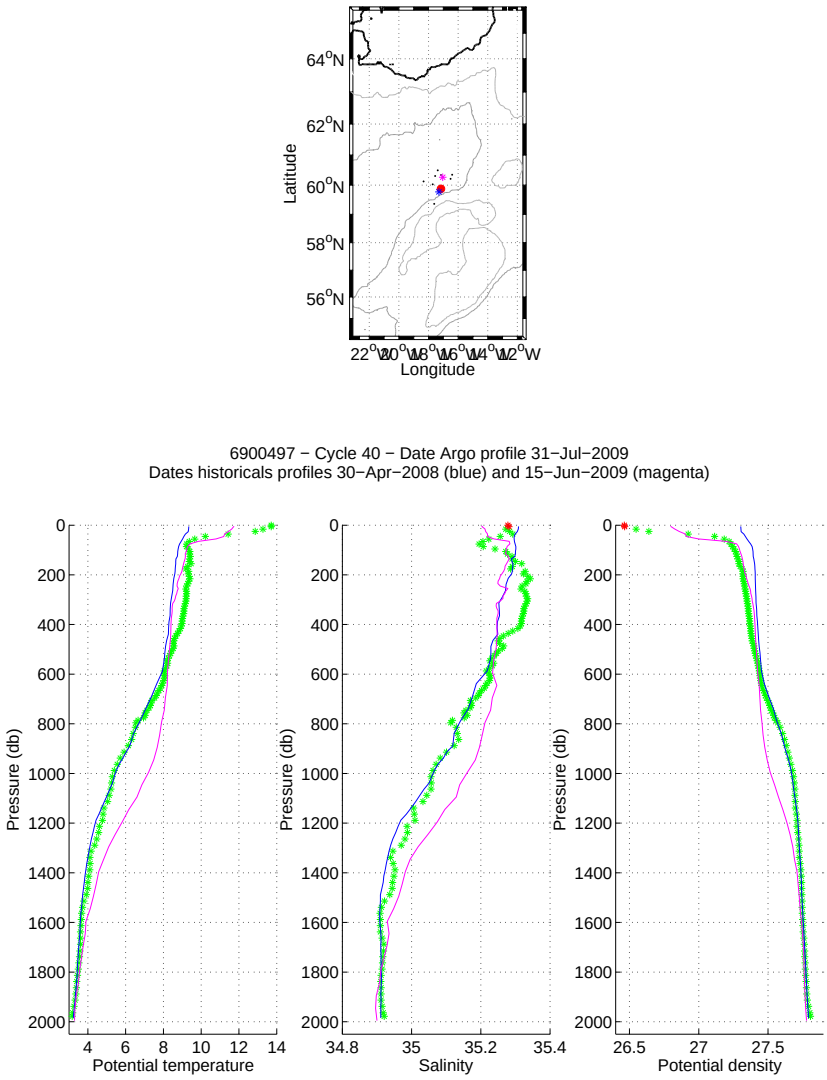


FIG. 27: Flotteur 6900497, cycle 40. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

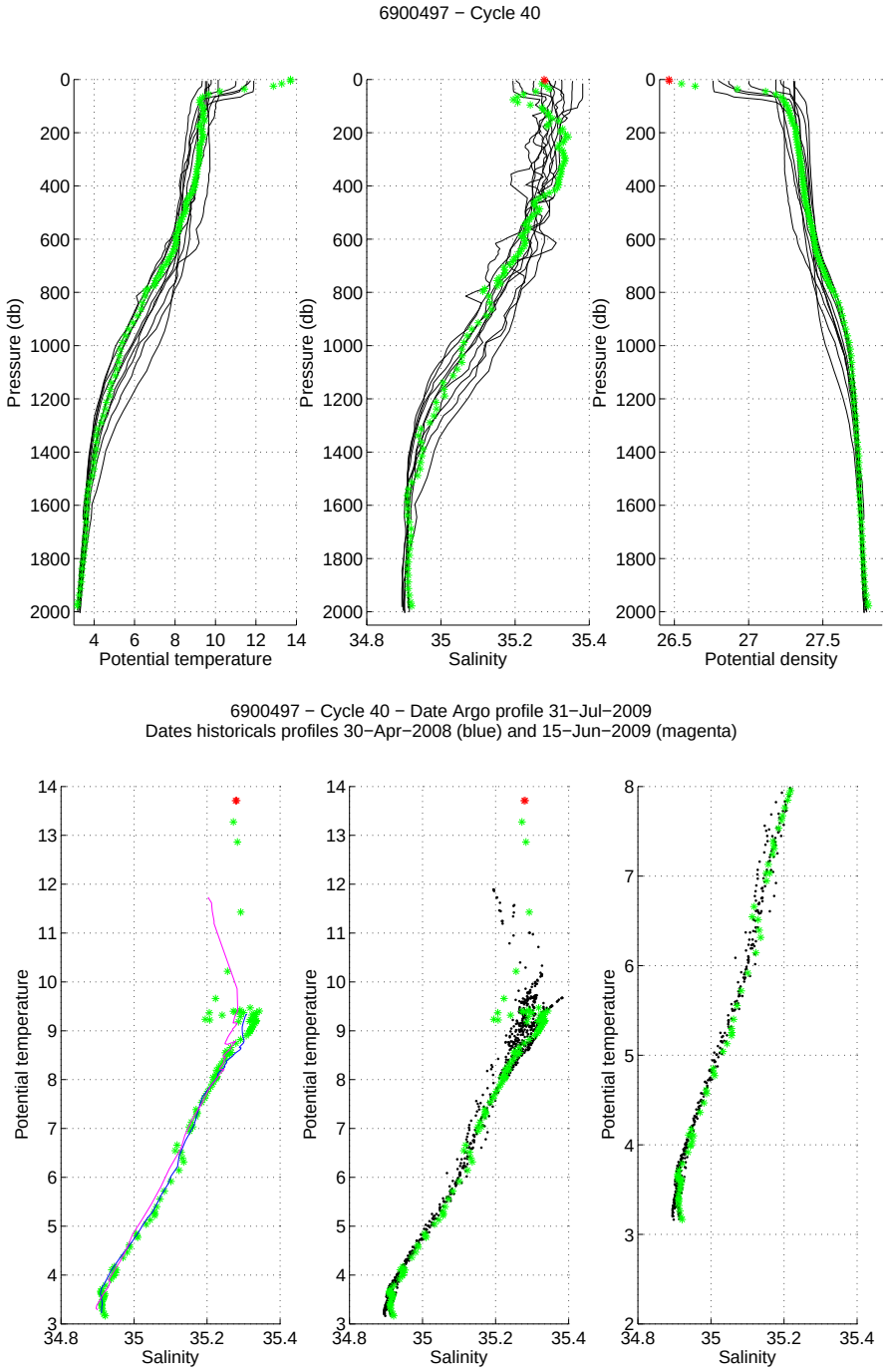


FIG. 28: Float 6900497, cycle 40. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

14 Cycle 47 - Comparaison to the nearest historical CTD profiles

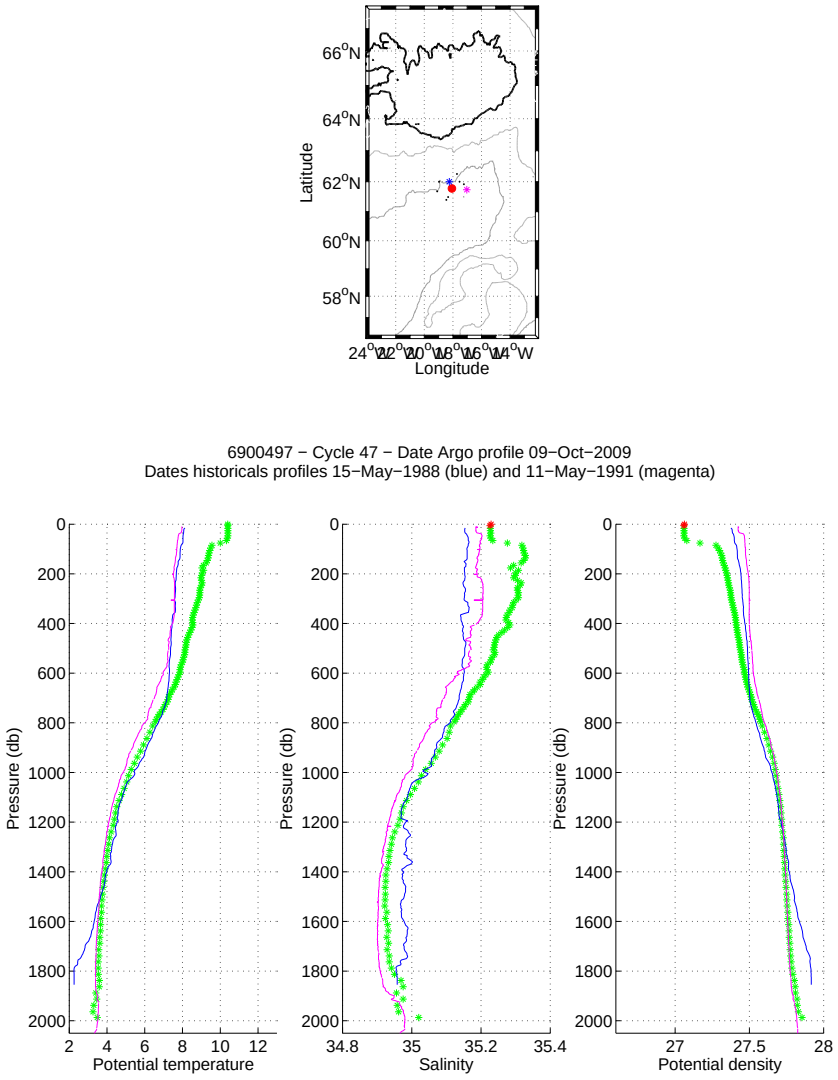


FIG. 29: Flotteur 6900497, cycle 47. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

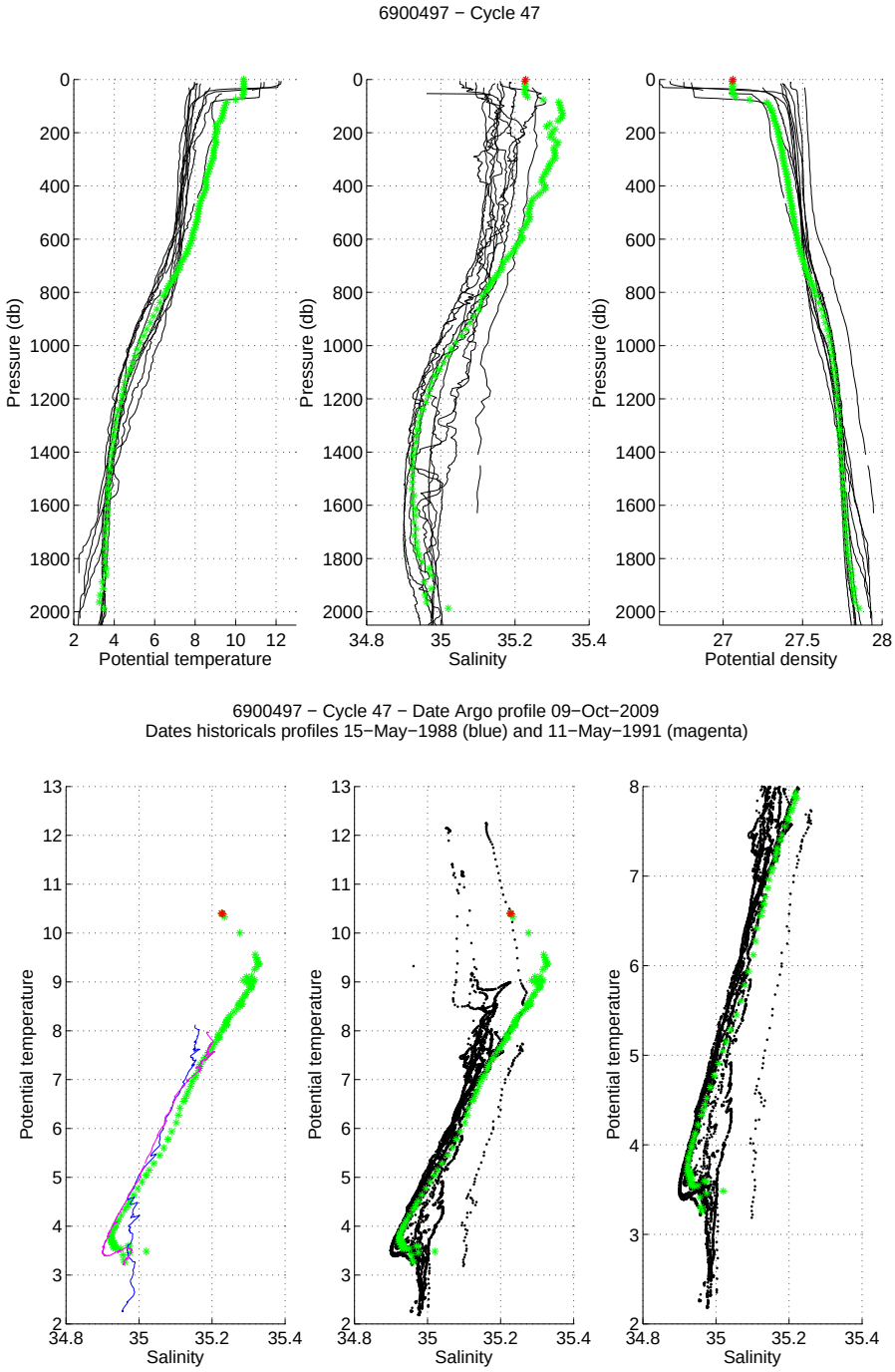


FIG. 30: Float 6900497, cycle 47. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

15 Cycle 47 - Comparaison to the nearest ARGO profiles

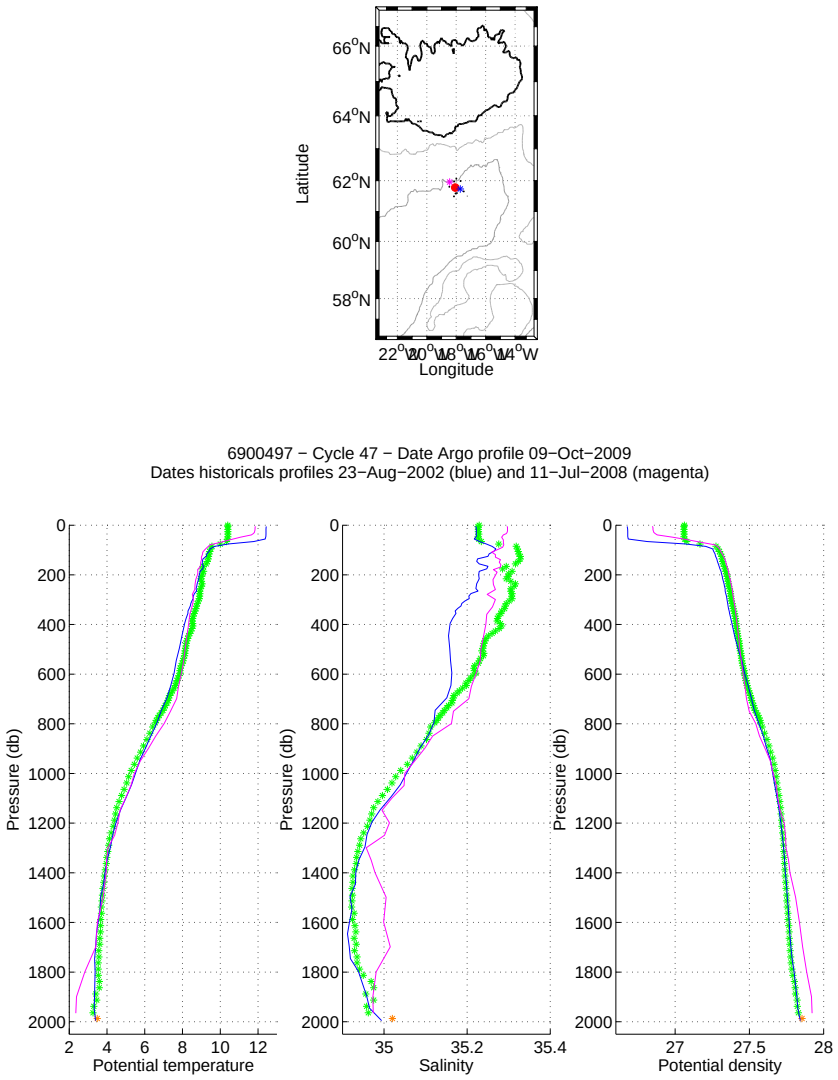


FIG. 31: Flotteur 6900497, cycle 47. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

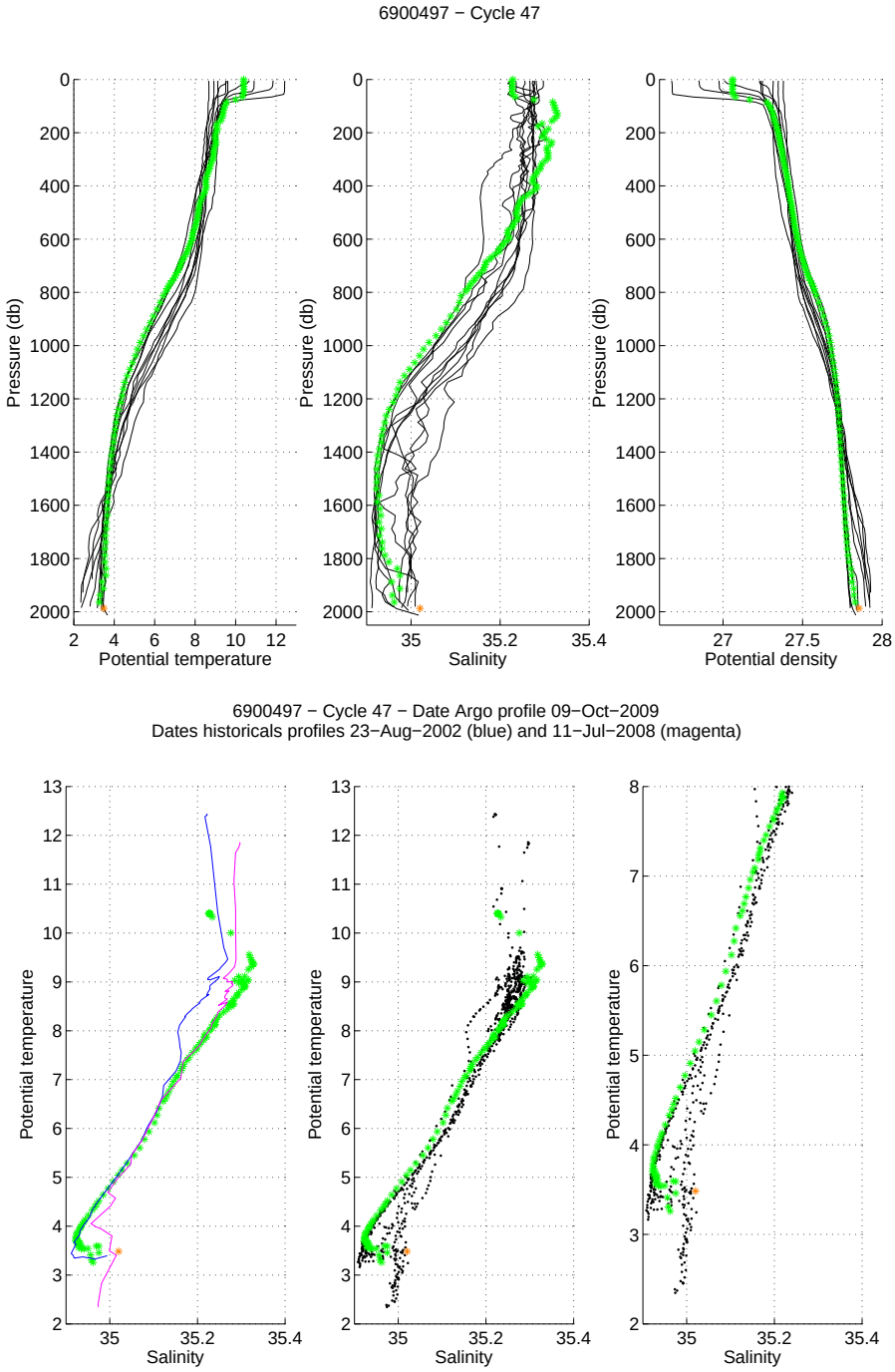


FIG. 32: Float 6900497, cycle 47. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

16 Cycle 63 - Comparaison to the nearest historical CTD profiles

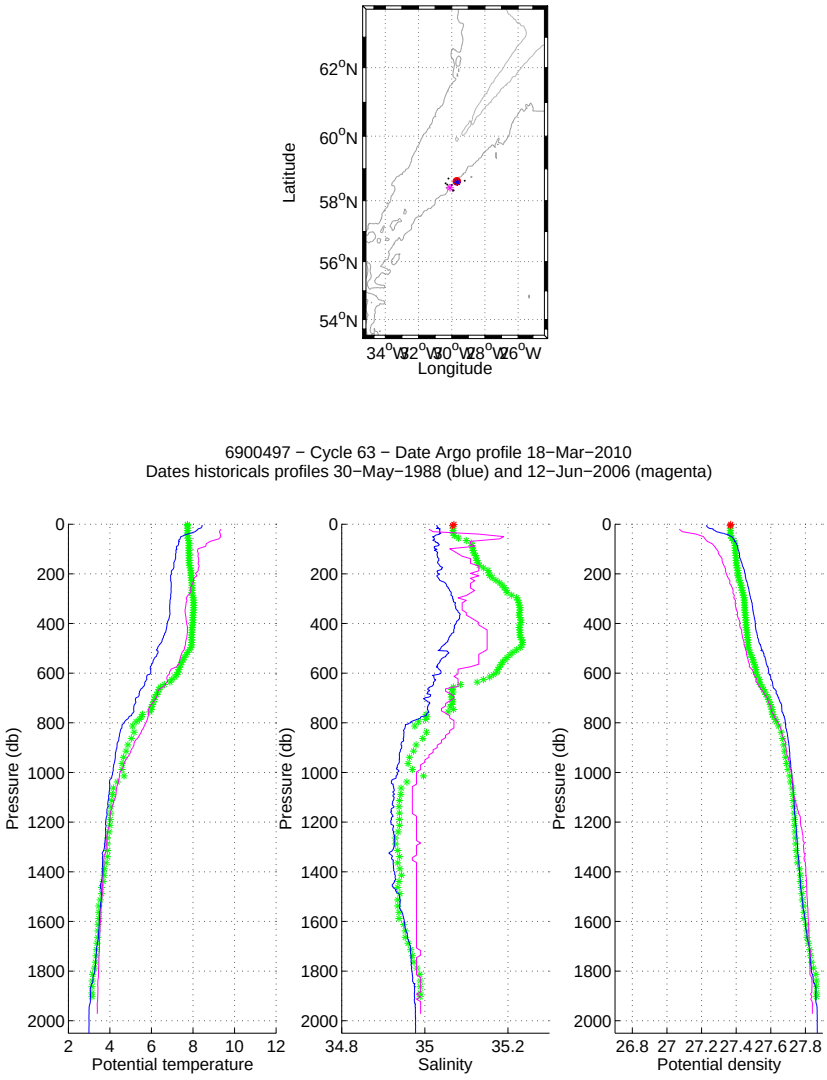


FIG. 33: Flotteur 6900497, cycle 63. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

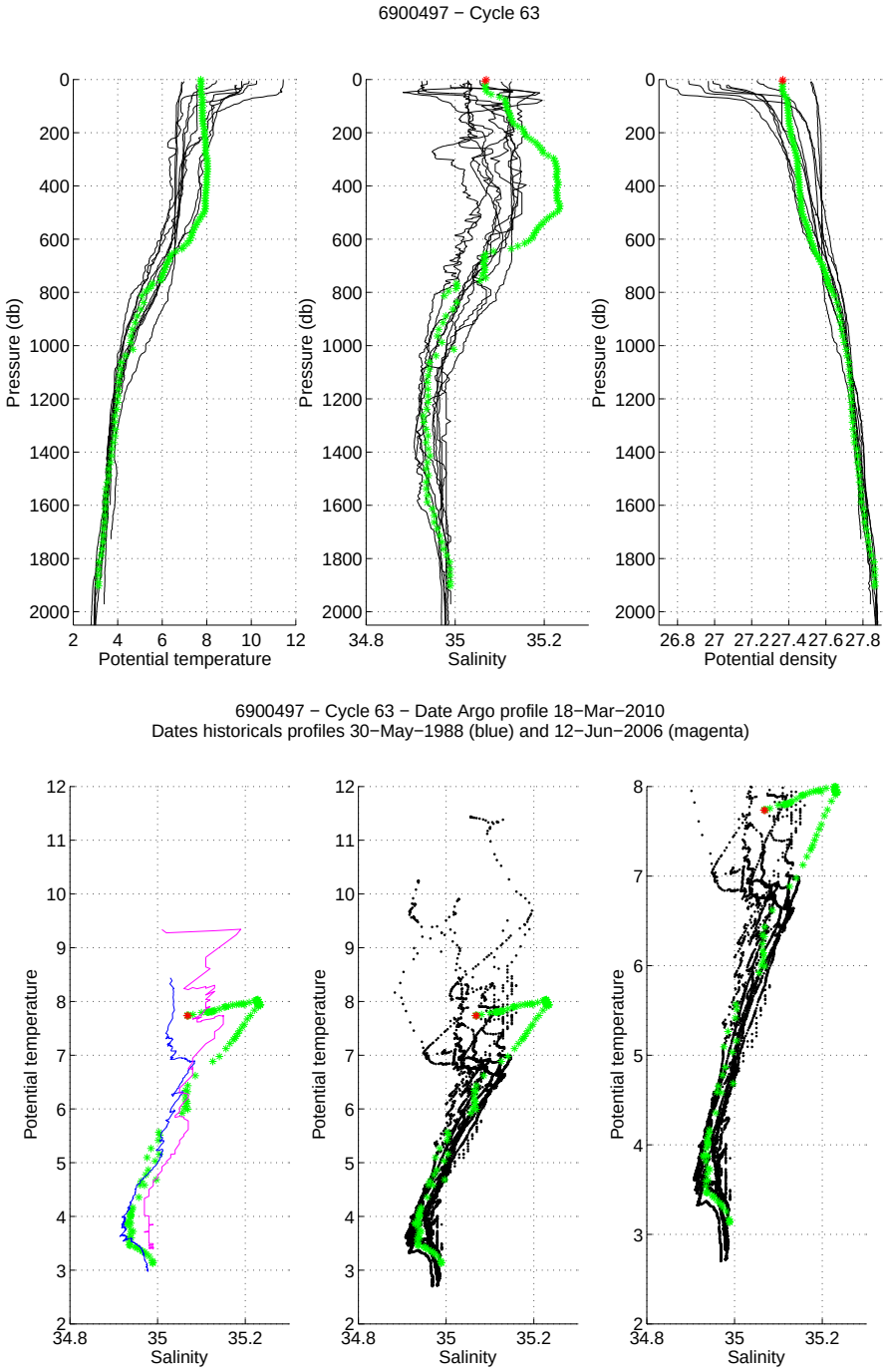


FIG. 34: Float 6900497, cycle 63. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

17 Cycle 63 - Comparaison to the nearest ARGO profiles

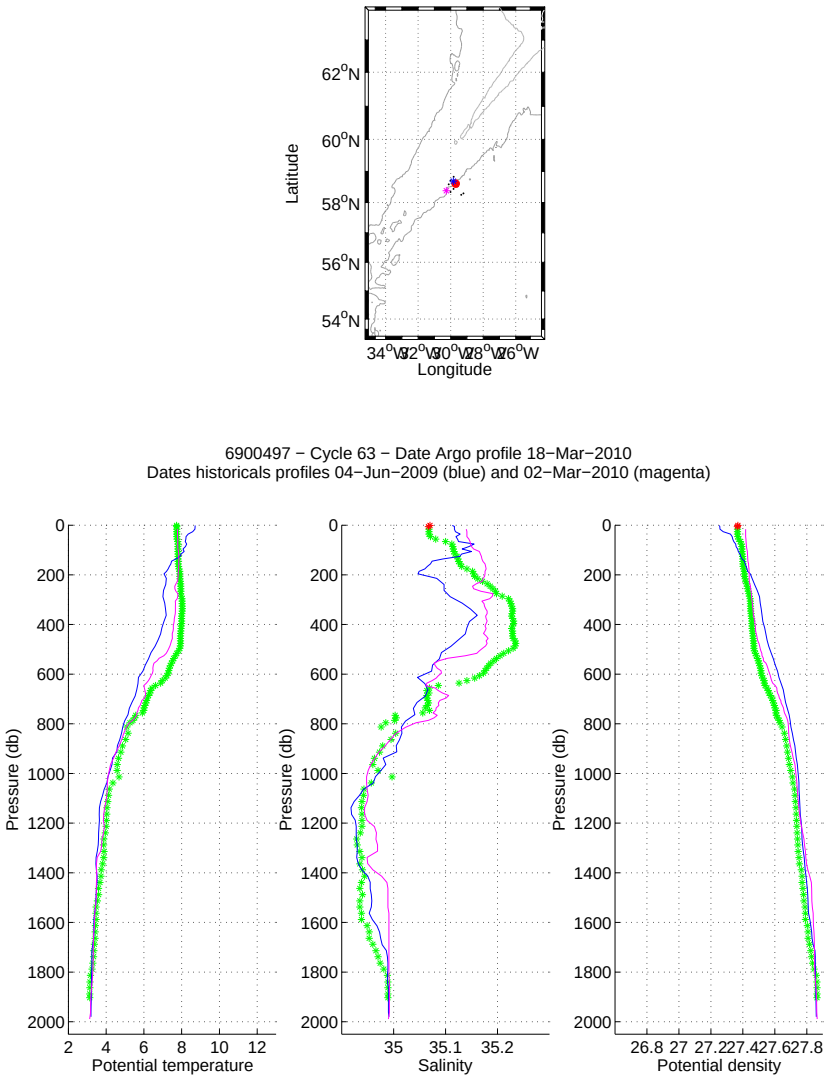


FIG. 35: Flotteur 6900497, cycle 63. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

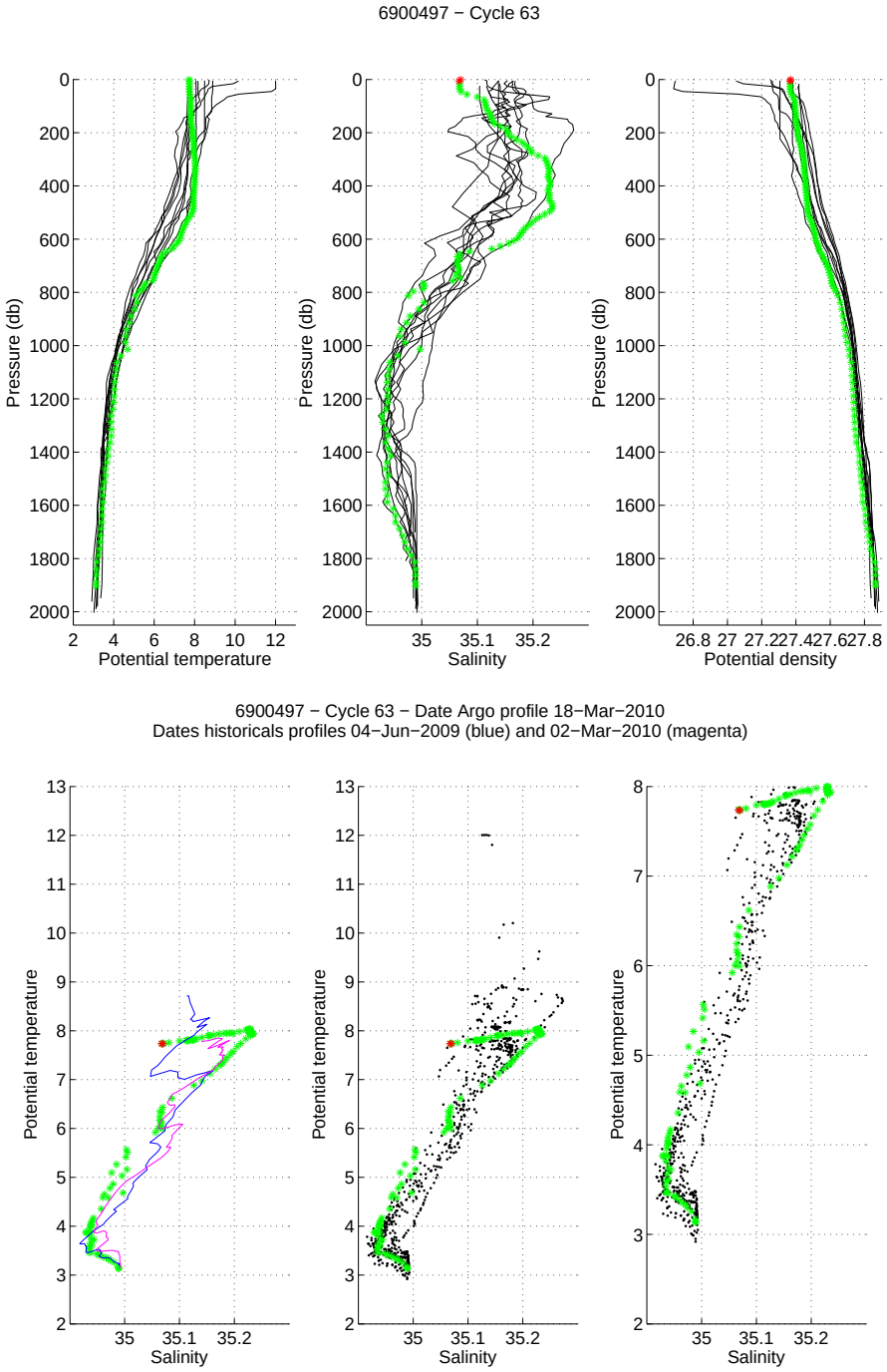


FIG. 36: Float 6900497, cycle 63. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

18 Cycle 89 - Comparaison to the nearest historical CTD profiles

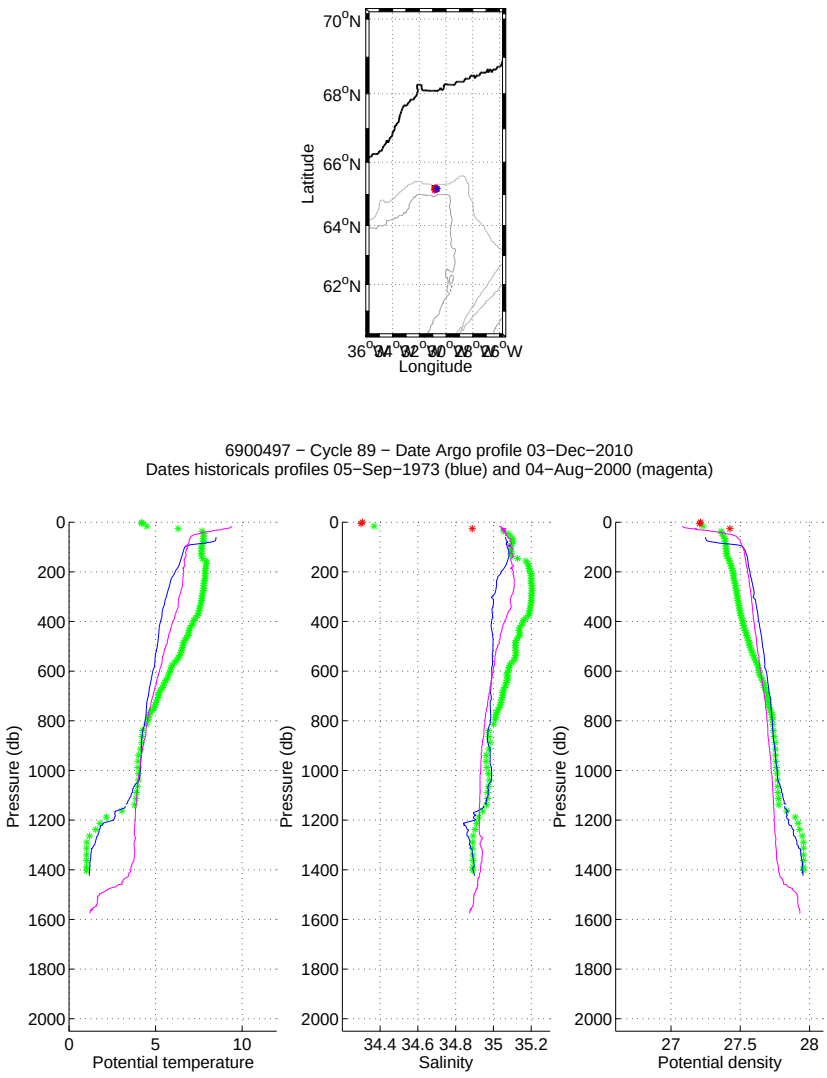


FIG. 37: Flotteur 6900497, cycle 89. Upper panel : Position of the Argo profile (red) and of the nearest CTD profiles (black). The nearest CTD profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the Argo profile (stars) and for the nearest CTD profile in time (magenta line) and for the nearest CTD profile in space (blue line). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

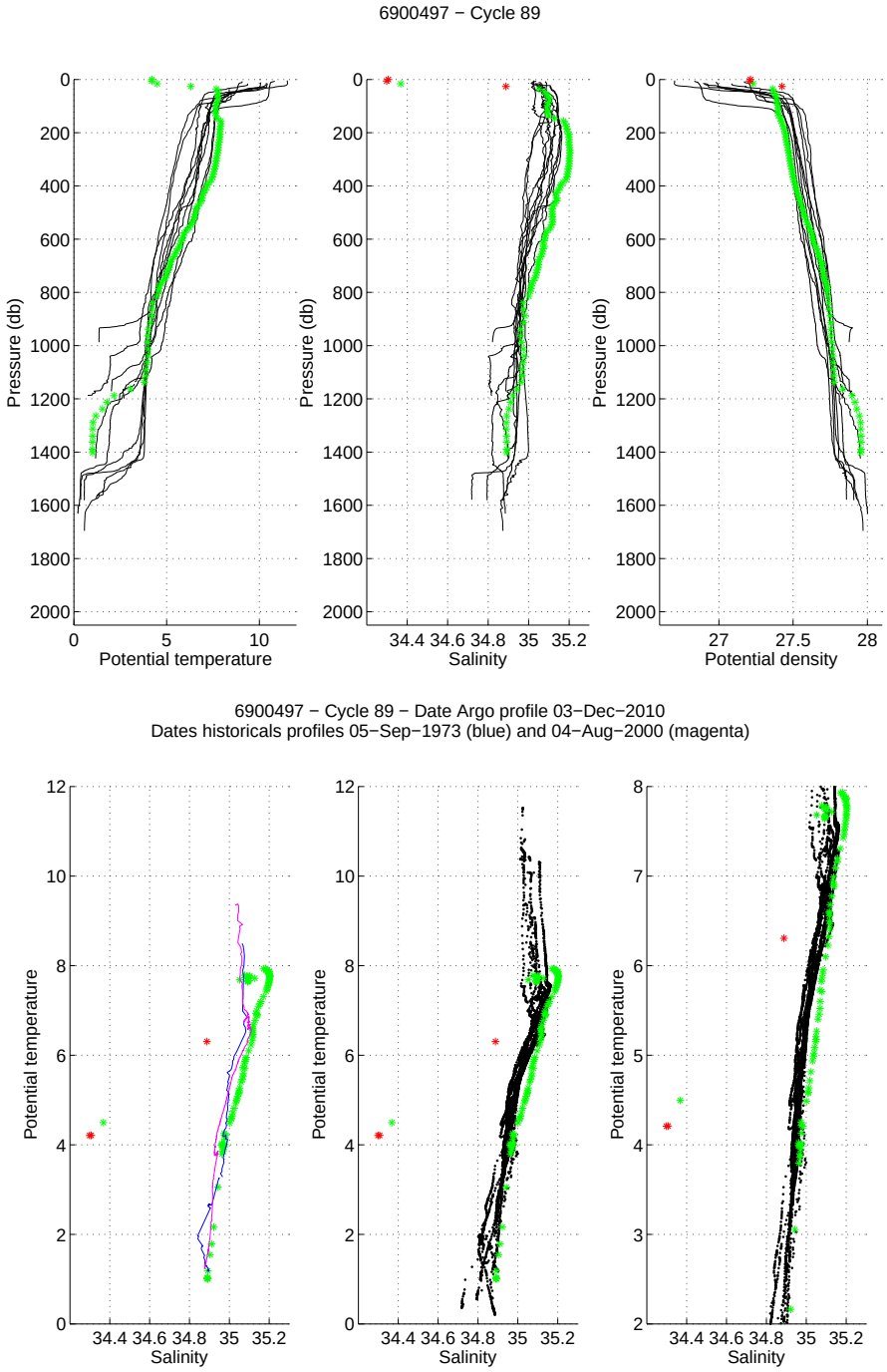


FIG. 38: Float 6900497, cycle 89. The Argo profile (stars) is compared to the nearest CTD profiles (black line) and to two specific profiles : the nearest profile in time (magenta) and the nearest profile in space (blue). The color of the Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

19 Cycle 89 - Comparaison to the nearest ARGO profiles

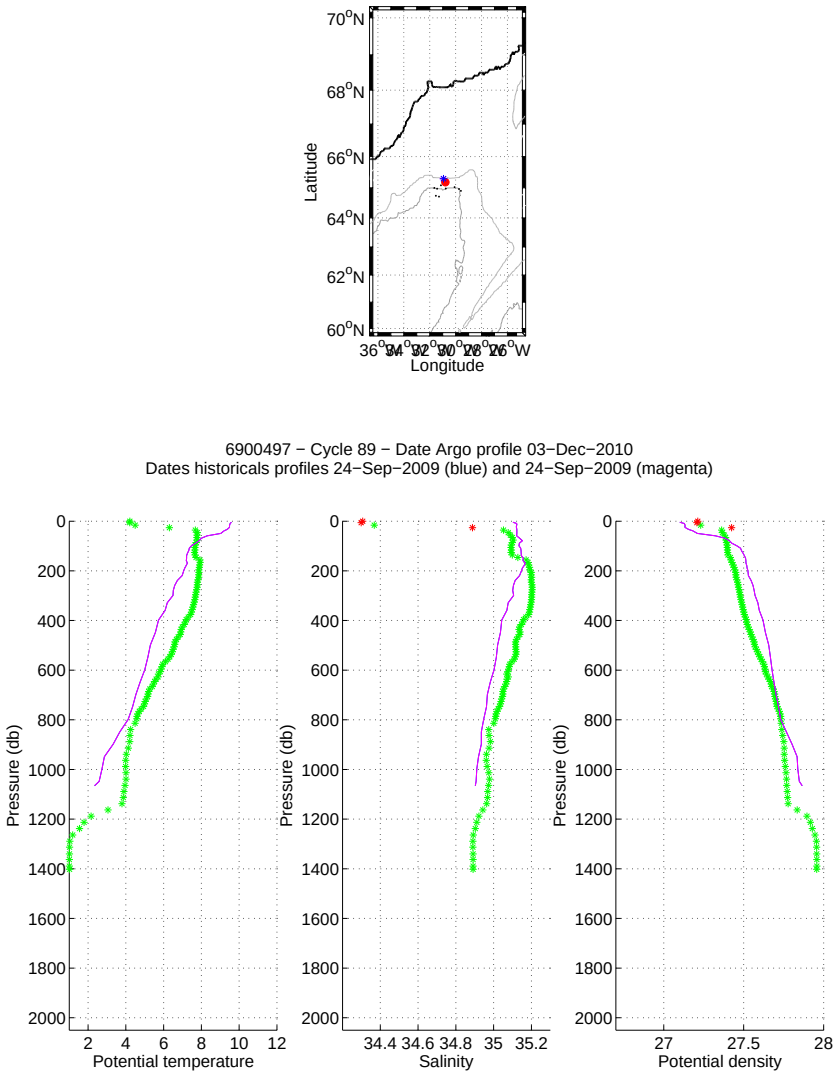


FIG. 39: Flotteur 6900497, cycle 89. Upper panel : Position of the analysed Argo profile (red) and of the nearest Argo profiles (black). The nearest Argo profile in time is in magenta while the nearest CTD profile in space is in blue. Lower panels : Temperature, salinity and potential density as function of pressure for the analysed Argo profile (stars) and for the nearest Argo profile in time (magenta line) and for the nearest Argo profile in space (blue line). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4).

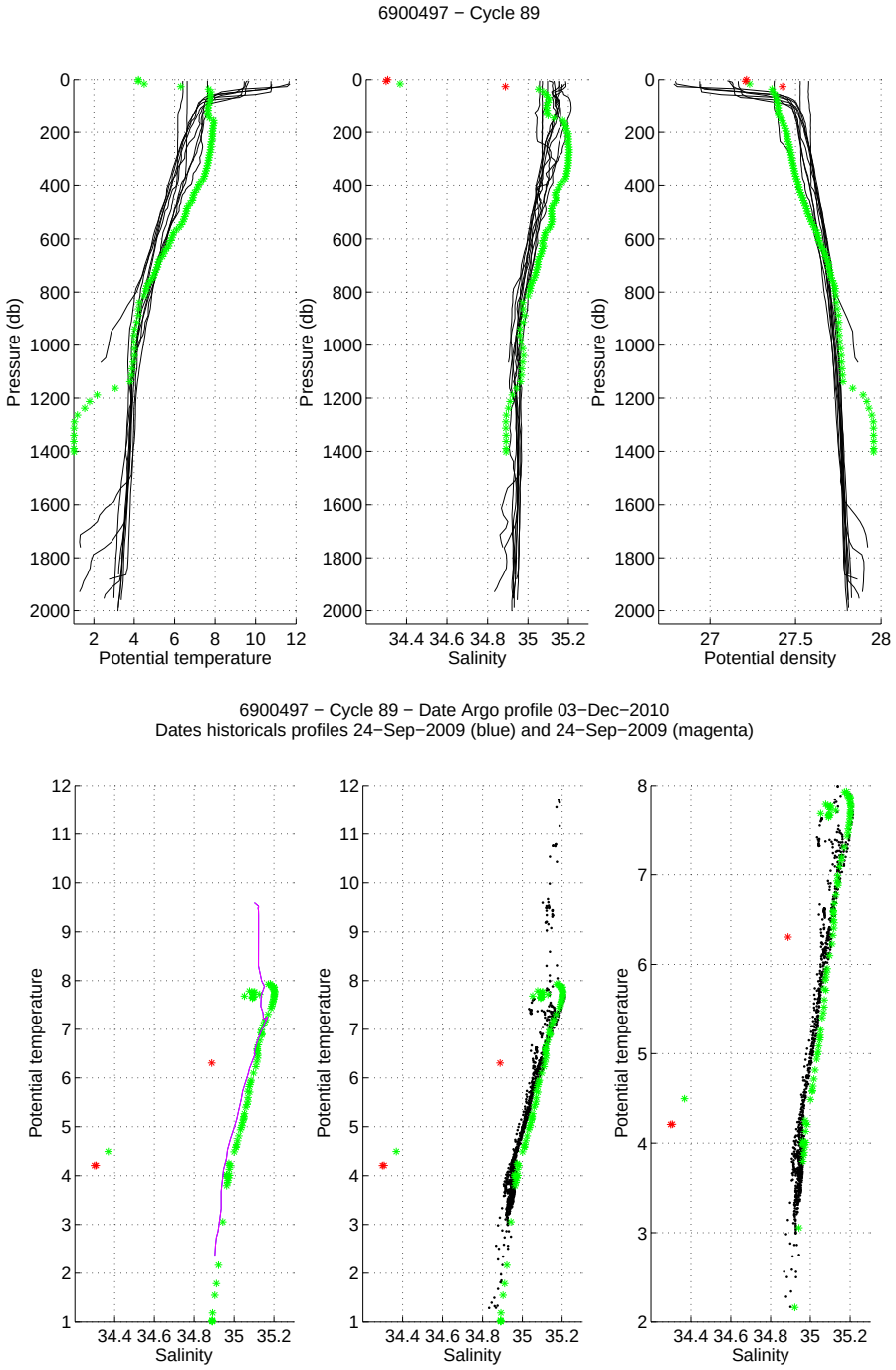


FIG. 40: Float 6900497, cycle 89. The analysed Argo profile (stars) is compared to the nearest Argo profiles (black line) and to two specific profiles : the nearest Argo profile in time (magenta) and the nearest Argo profile in space (blue). The color of the analysed Argo profile represents the QC flag (green for a QC=1 ; blue for a QC=2 ; orange for a QC=3 and red for a QC=4). (Upper panels) Temperature (left panel), salinity (middle panel) and potential density (right panel) as function of pressure. (Lower panels) θ/S diagrams.

20 OW method, CONFIGURATION # 1

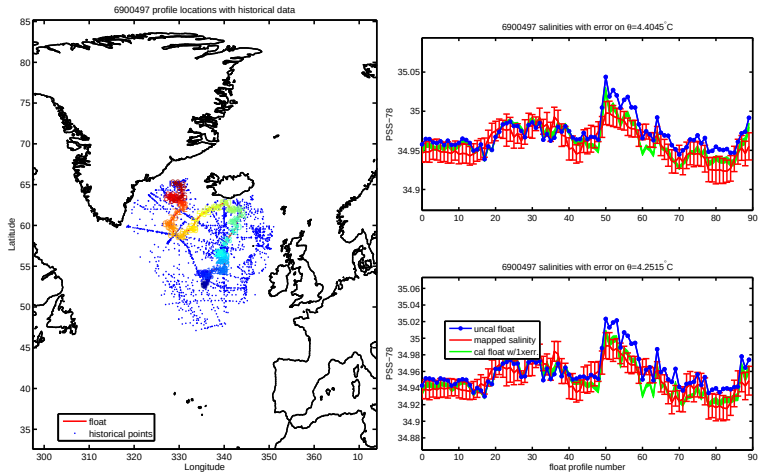


FIG. 41: Figures from the OW method. (Left) Position of the historical and float data. (Right) Comparison, on various θ levels, between the float data and the historical data interpolated at the float position.

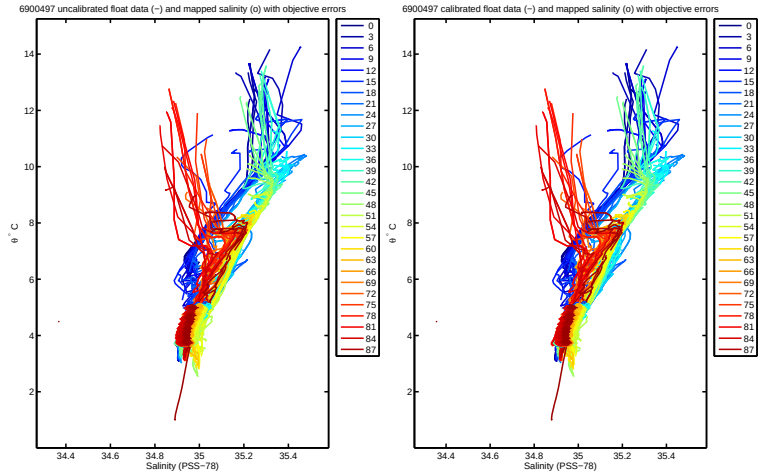


FIG. 42: Figures from the OW method. Compararison of the θ/S diagram of the float with the historial database. (left) raw data ; (right) corrected data using the OW correction.

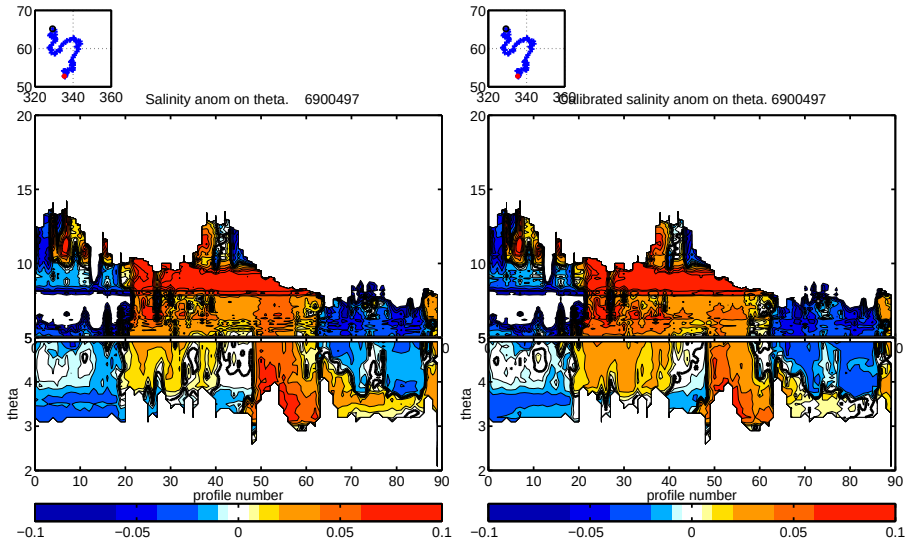


FIG. 43: Figures from the OW method. Salinity anomaly :(left) raw data ; (right) corrected data using the OW correction .

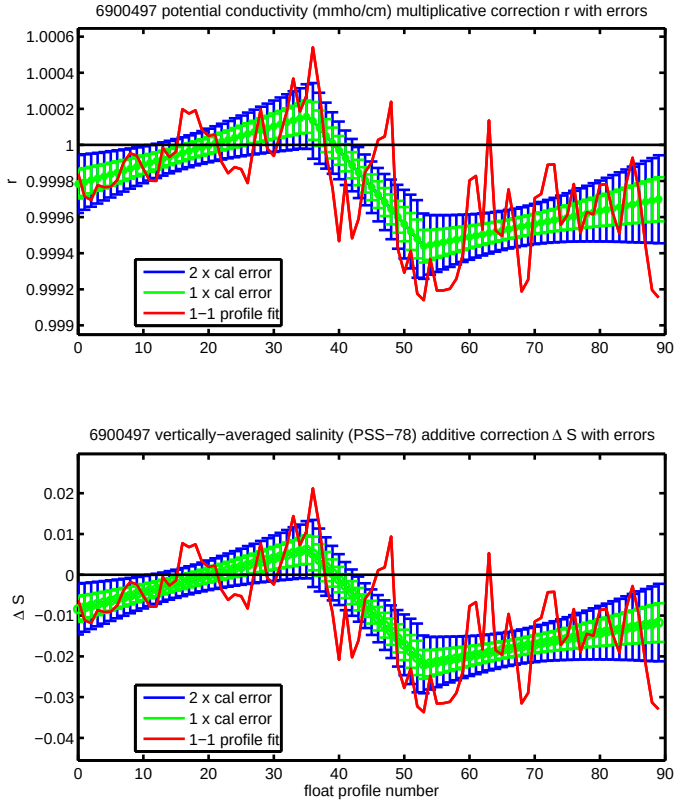


FIG. 44: Correction proposed by the OW method.

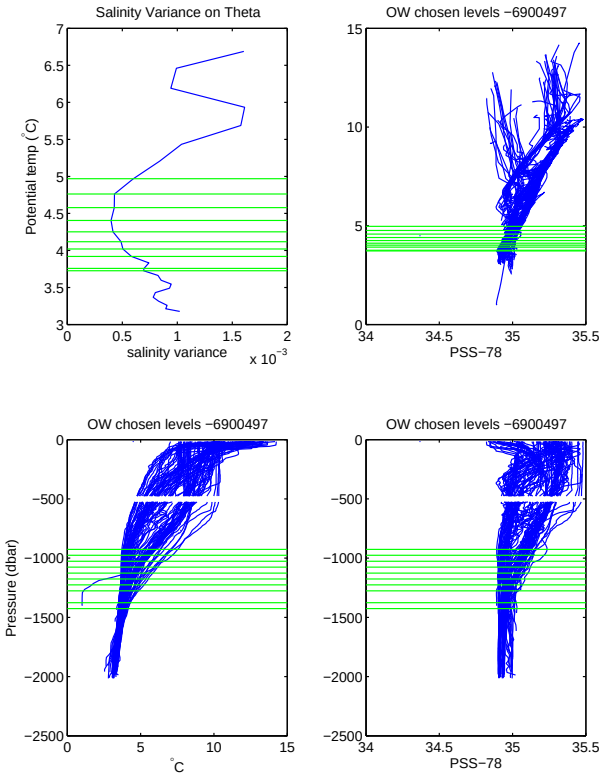


FIG. 45: Chosed levels by the OW method.

21 OW method, CONFIGURATION # 3

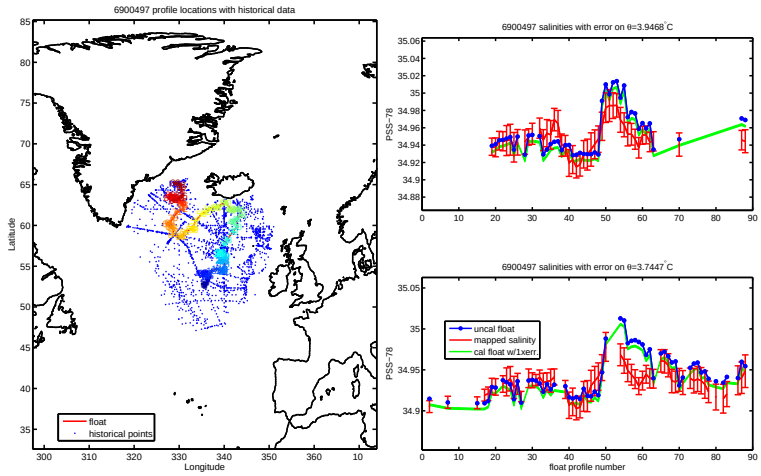


FIG. 46: Figures from the OW method. (Left) Position of the historical and float data. (Right) Comparison, on various θ levels, between the float data and the historical data interpolated at the float position.

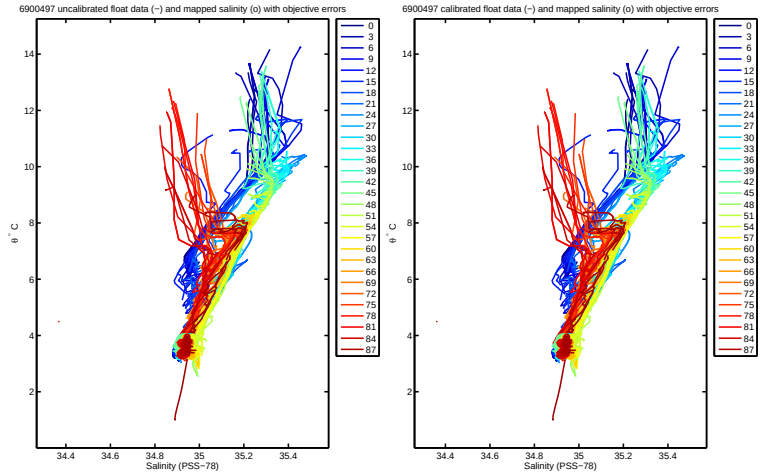


FIG. 47: Figures from the OW method. Compararison of the θ/S diagram of the float with the historial database. (left) raw data ; (right) corrected data using the OW correction.

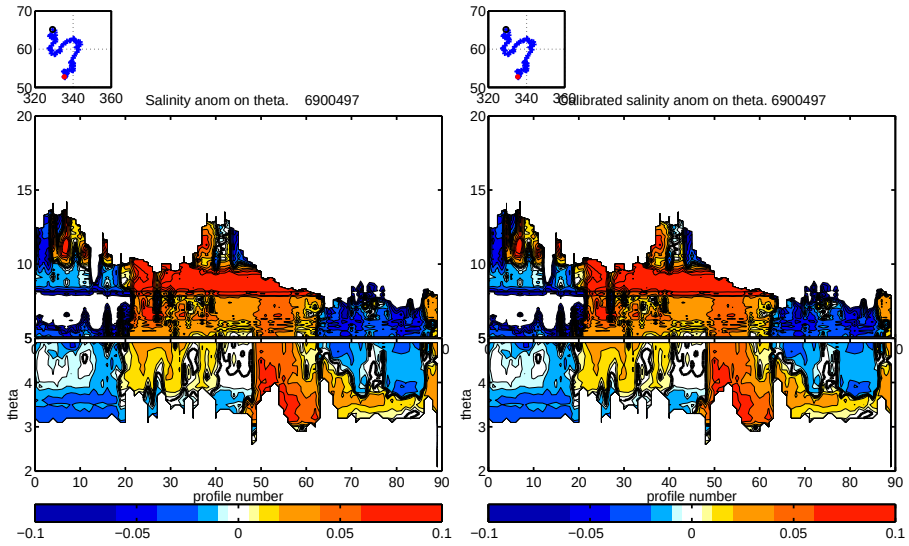


FIG. 48: Figures from the OW method. Salinity anomaly :(left) raw data ; (right) corrected data using the OW correction .

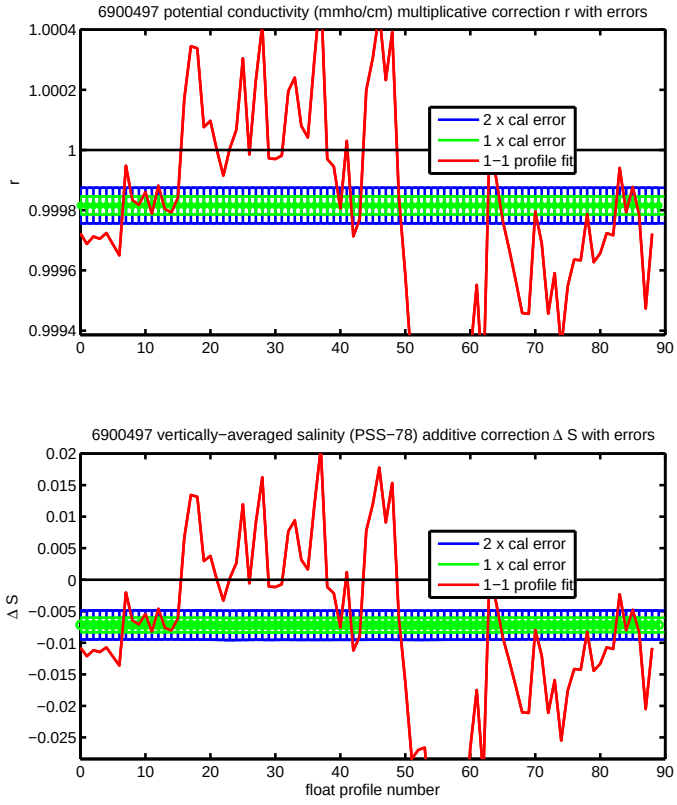


FIG. 49: Correction proposed by the OW method.

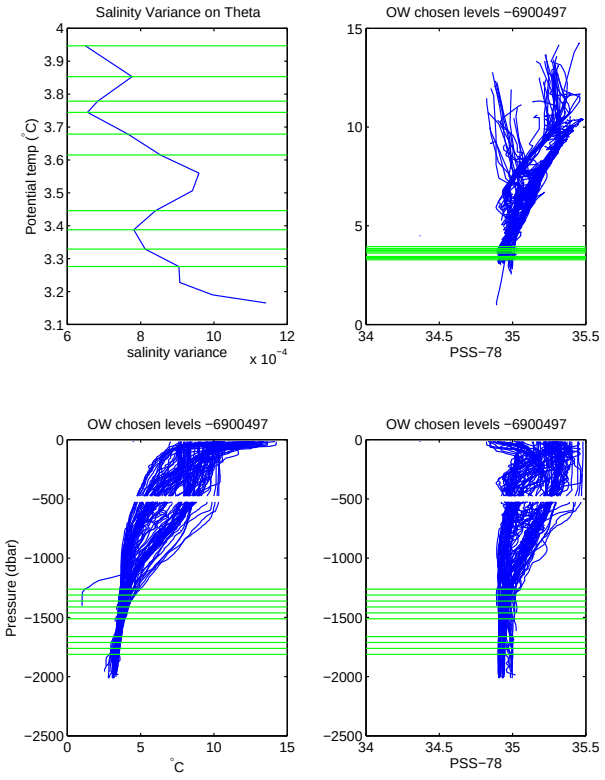


FIG. 50: Chosed levels by the OW method.

22 OW method, CONFIGURATION # 11

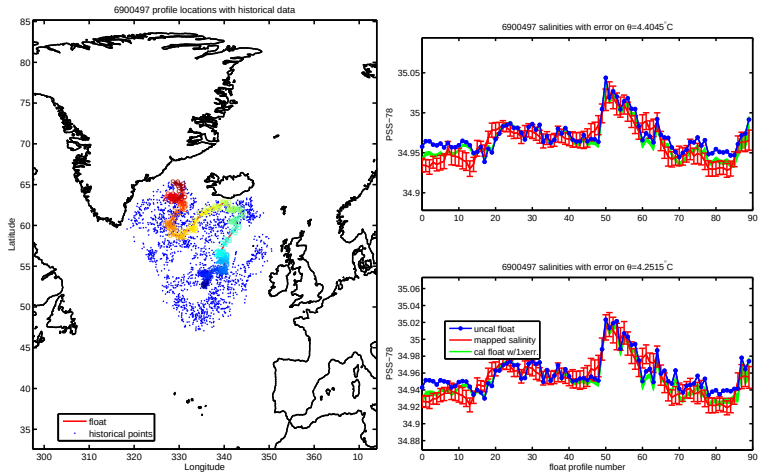


FIG. 51: Figures from the OW method. (Left) Position of the historical and float data. (Right) Comparison, on various θ levels, between the float data and the historical data interpolated at the float position.

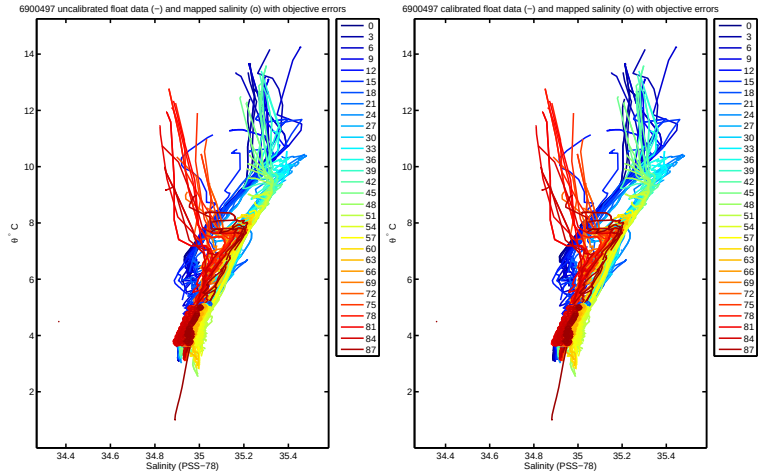


FIG. 52: Figures from the OW method. Compararison of the θ/S diagram of the float with the historial database. (left) raw data ; (right) corrected data using the OW correction.

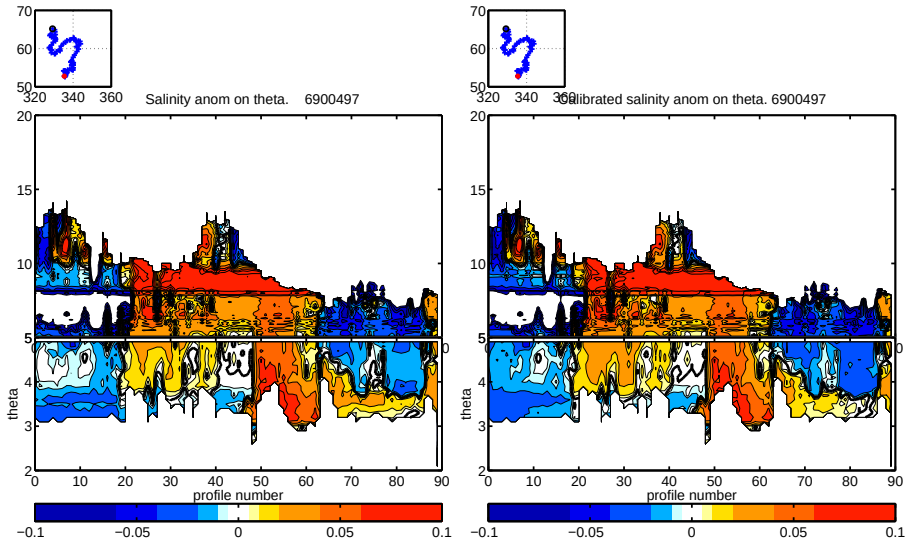


FIG. 53: Figures from the OW method. Salinity anomaly :(left) raw data ; (right) corrected data using the OW correction .

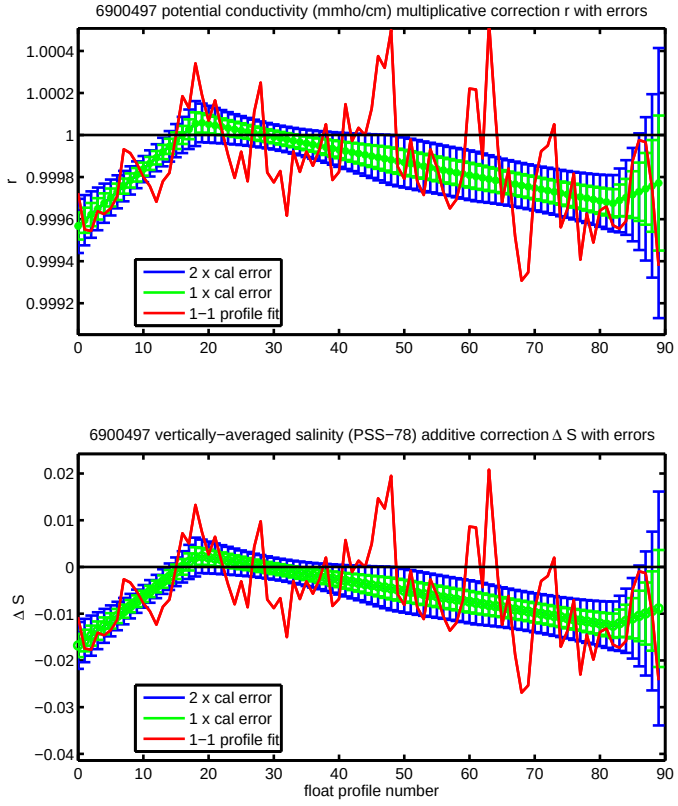


FIG. 54: Correction proposed by the OW method.

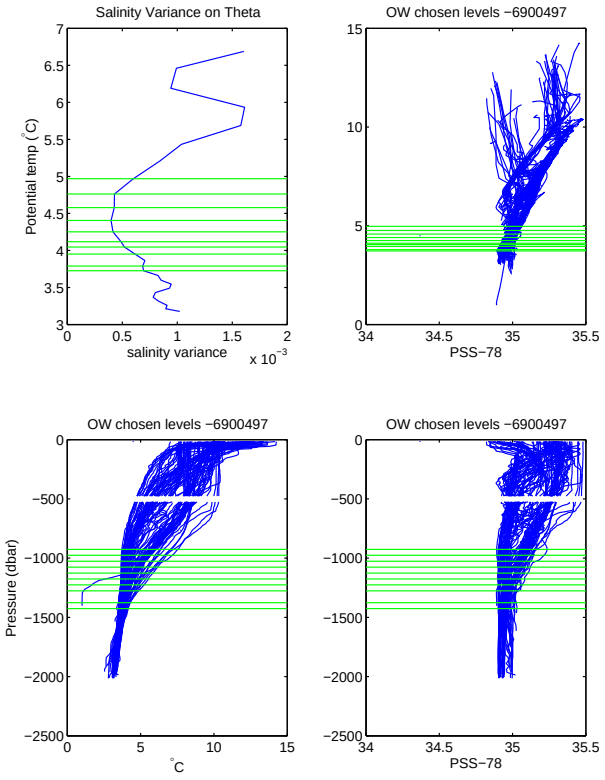


FIG. 55: Chosed levels by the OW method.

23 OW method, CONFIGURATION # 12

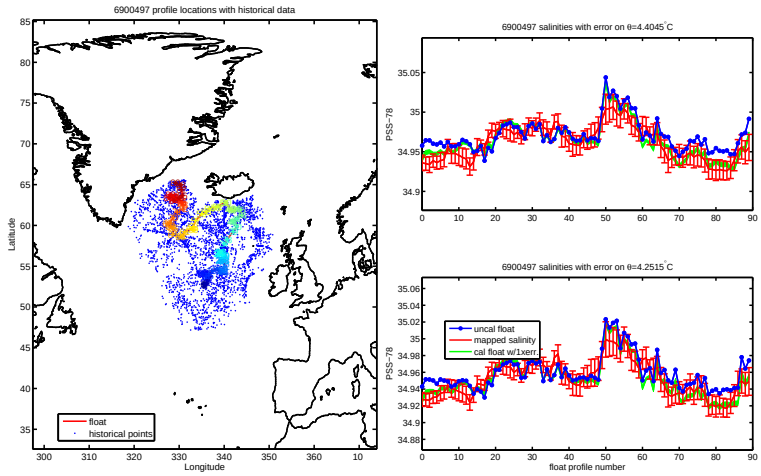


FIG. 56: Figures from the OW method. (Left) Position of the historical and float data. (Right) Comparison, on various θ levels, between the float data and the historical data interpolated at the float position.

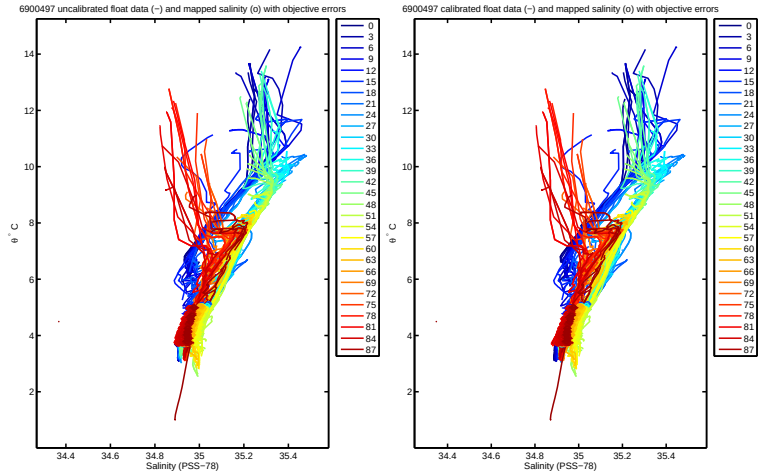


FIG. 57: Figures from the OW method. Compararison of the θ/S diagram of the float with the historial database. (left) raw data ; (right) corrected data using the OW correction.

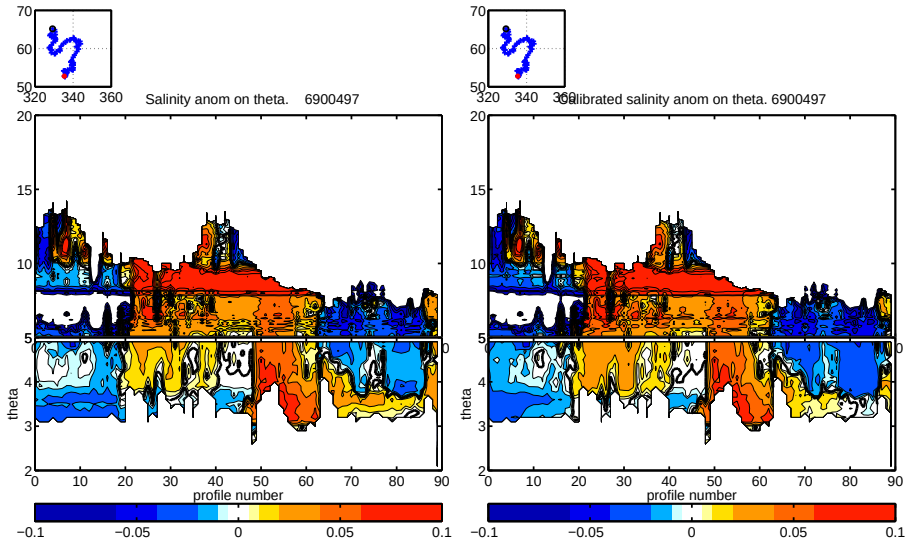


FIG. 58: Figures from the OW method. Salinity anomaly :(left) raw data ; (right) corrected data using the OW correction .

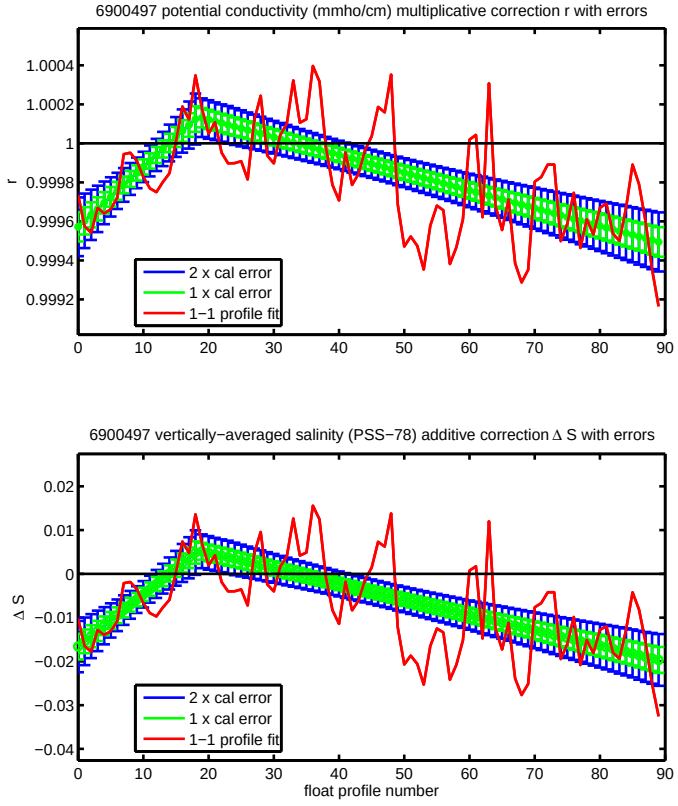


FIG. 59: Correction proposed by the OW method.

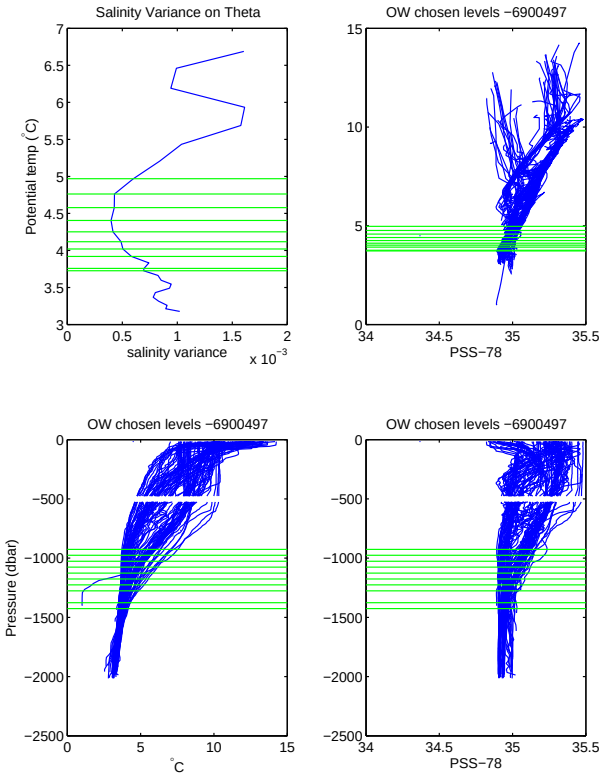


FIG. 60: Chosed levels by the OW method.