

沿岸定線観測結果 (2013-7月)

三重県水産研究所

| | |
|-------|-------------|
| 調査海域 | 熊野灘 |
| 調査年月日 | 2013年7月2-3日 |
| 調査船 | あさま (79トン) |
| 調査員 | 久野 正博 |

調査結果

調査時の表面水温は 23.1~26.2℃、50m では 18.3~23.7℃、100m では 16.2~21.4℃、200m では 12.5~18.3℃の範囲にあった。表面では全域でほぼ平年並、50m~200m 層では黒潮域でほぼ平年並の他は平年より 1~3℃程度も高めであった。50m 以深の高水温傾向は 6 月の観測時にいったん解消していたが、今月の観測では再び顕著になっていた。

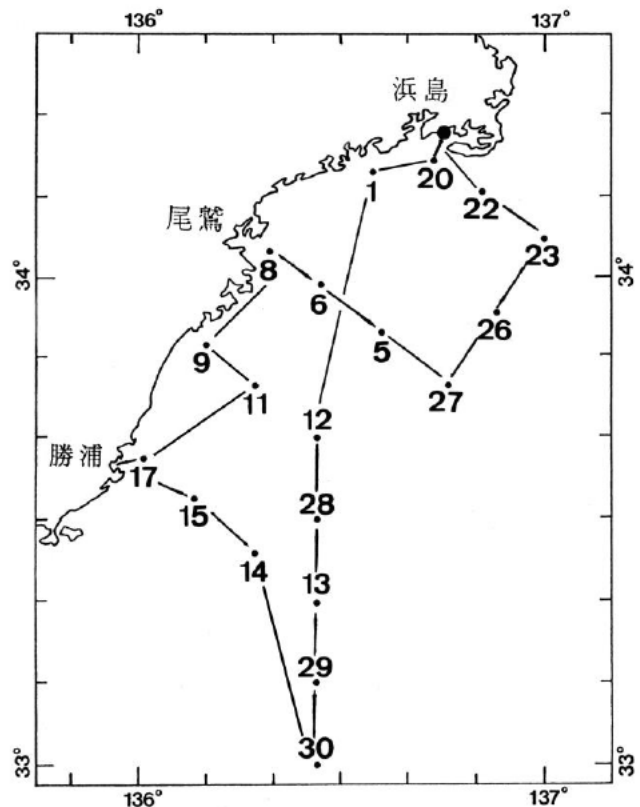
表面の塩分は 32.48~34.13、20m の塩分は 33.70~34.58 の範囲にあり、表面では北部沿岸で高め、黒潮域でやや低めの他は平年並、20m 層では全域で平年並~低めであった。

観測時の黒潮は潮岬東岸にほぼ接岸し、熊野灘沖を東へ流れていた。熊野灘沖の黒潮北縁は 33° 15~20' N 付近にあり、2.5 ノット程度の流れが観測された。黒潮域で通常観測される 3 ノット以上の強い流れは観測されなかった。黒潮域の表面水温は 25℃台で、一部では 26℃を超えていた。

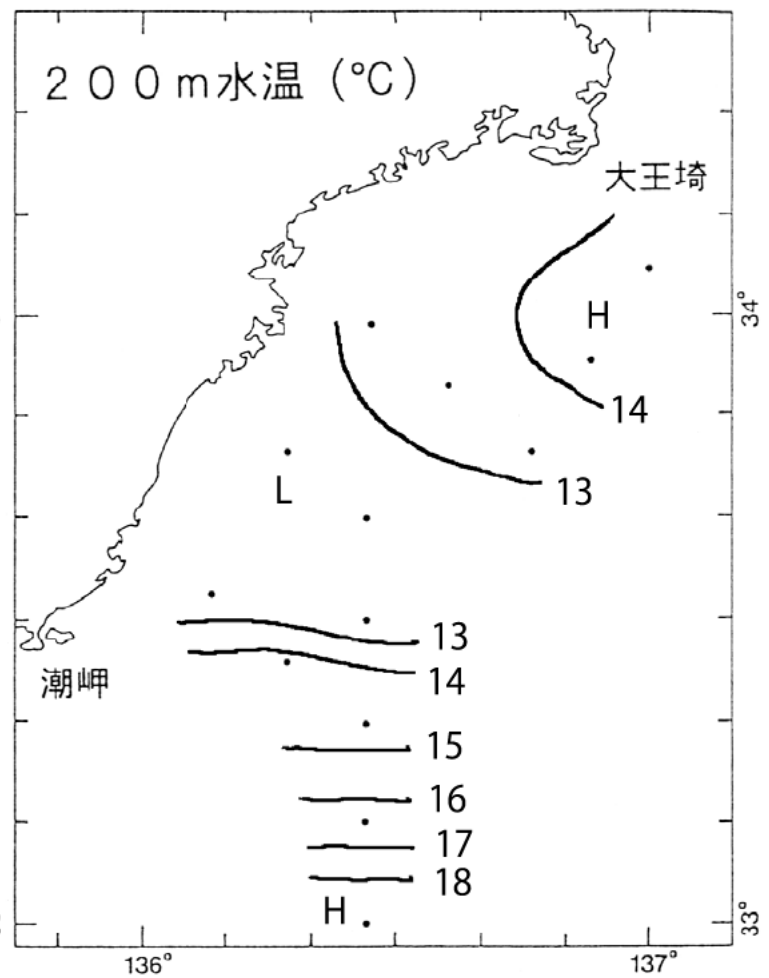
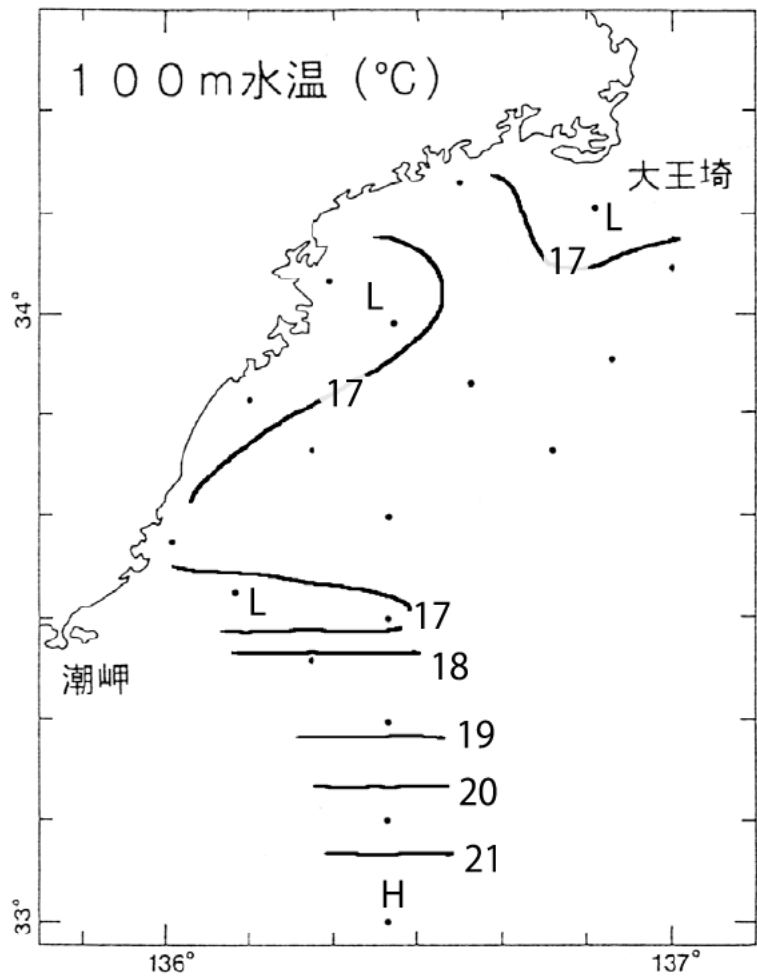
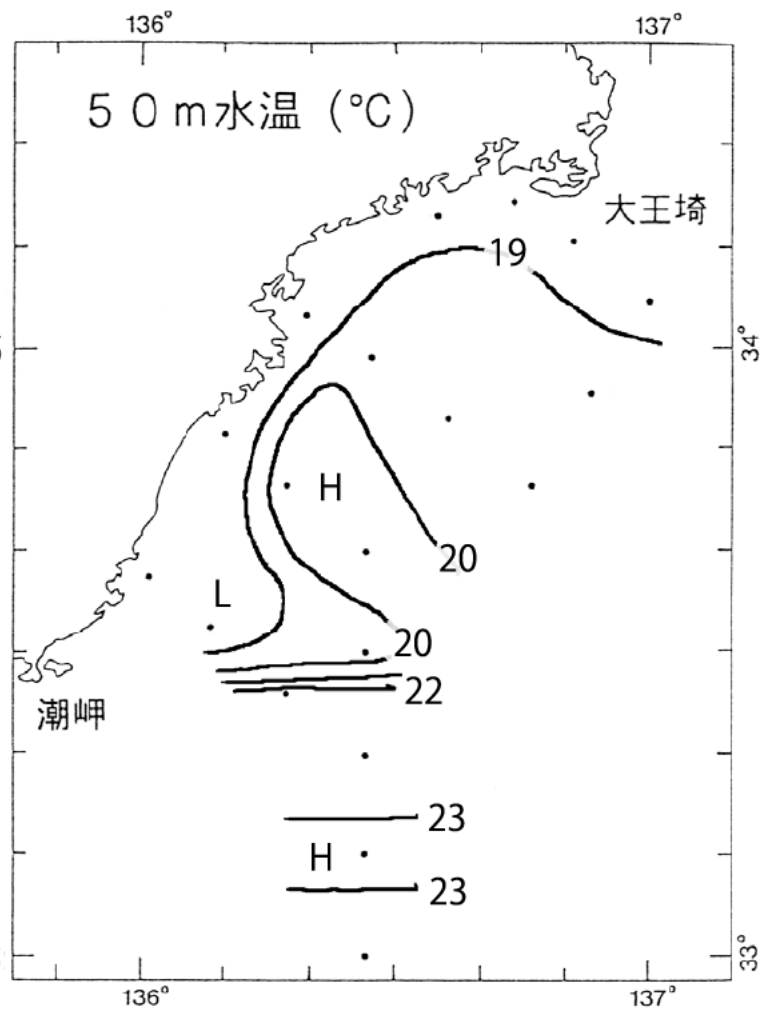
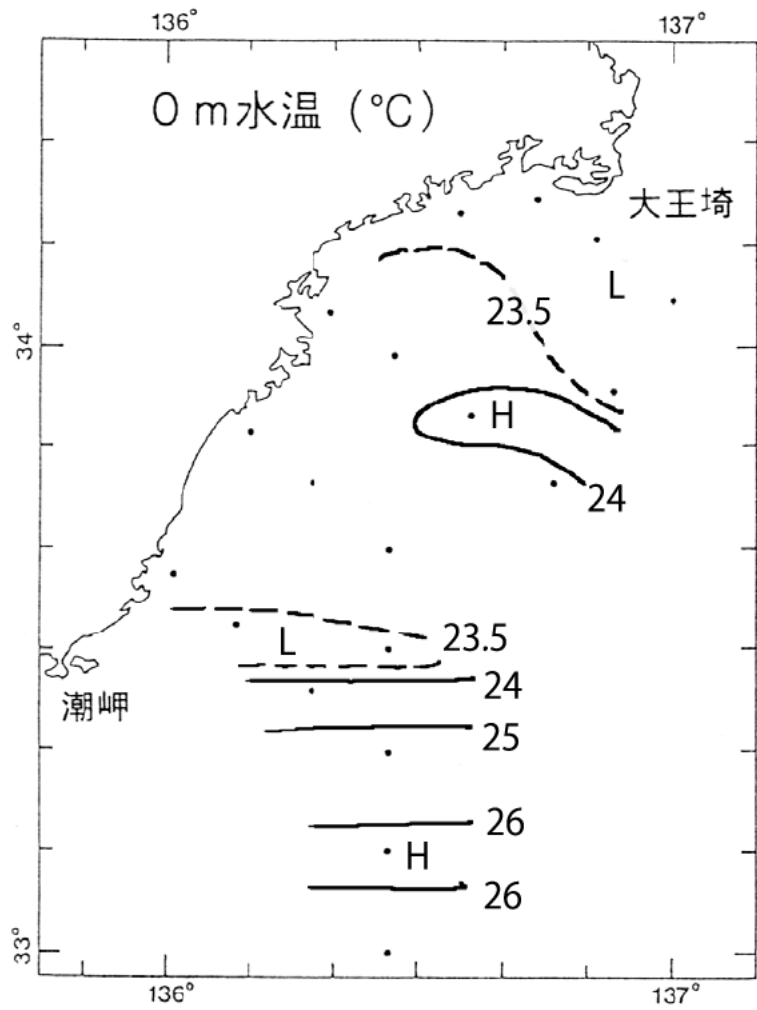
=====使用観測機器=====

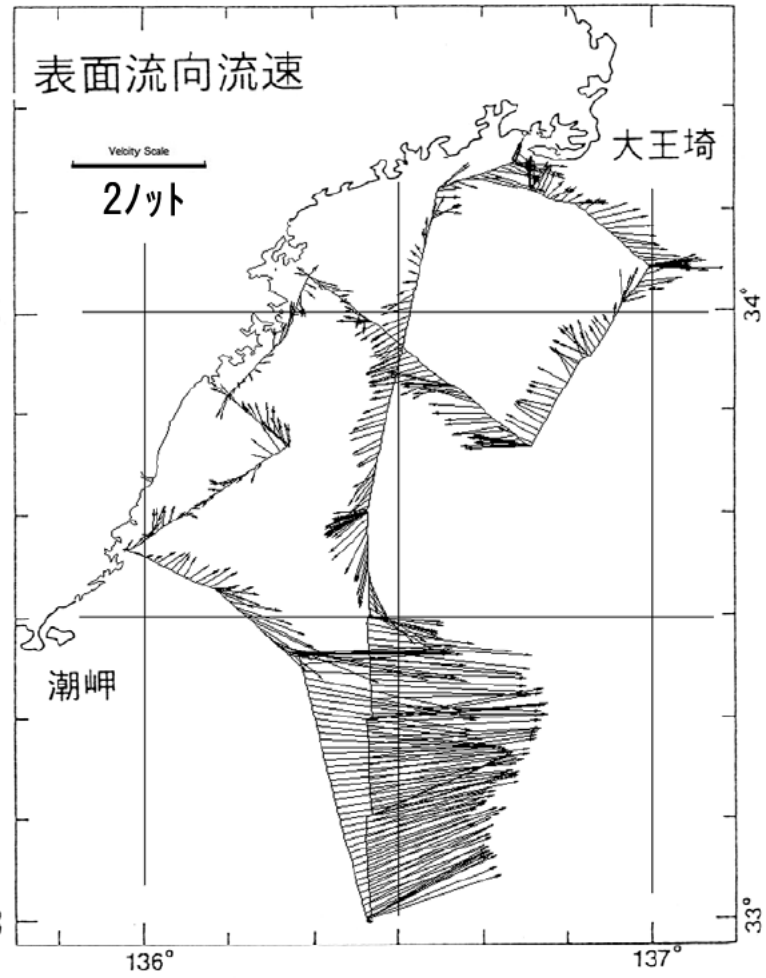
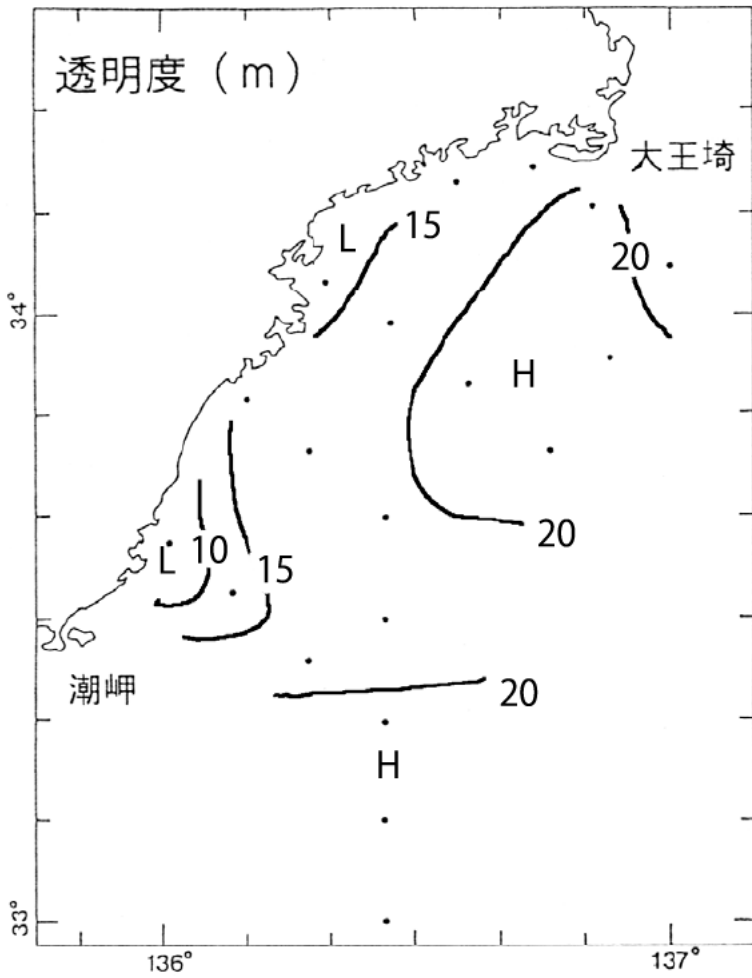
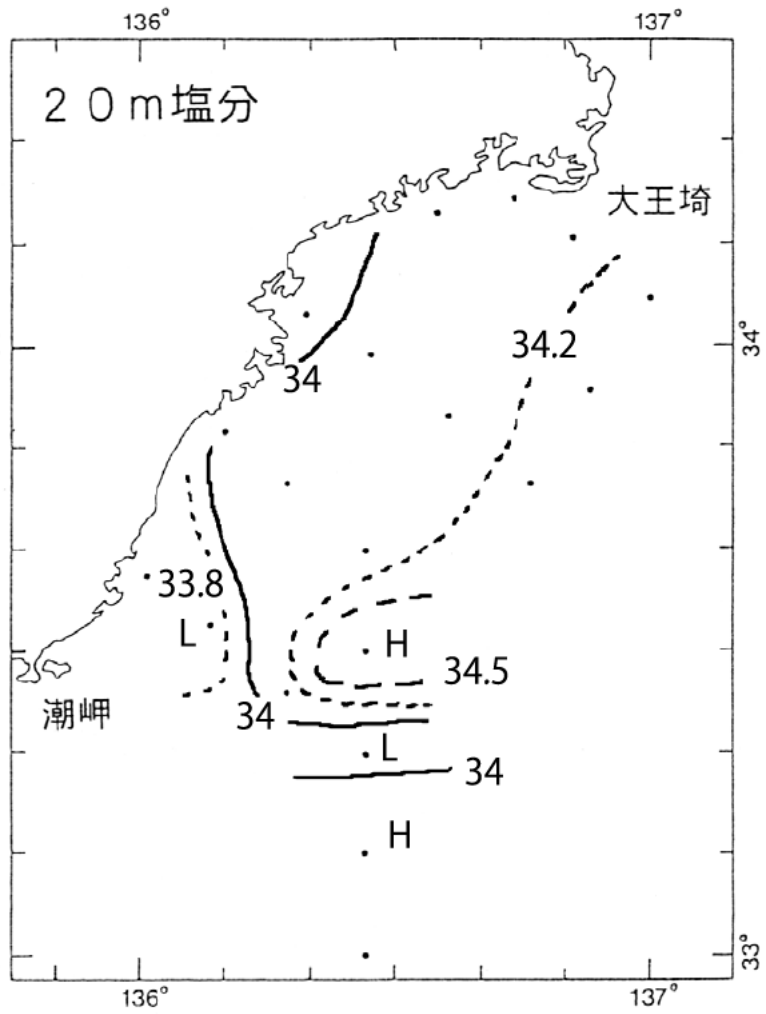
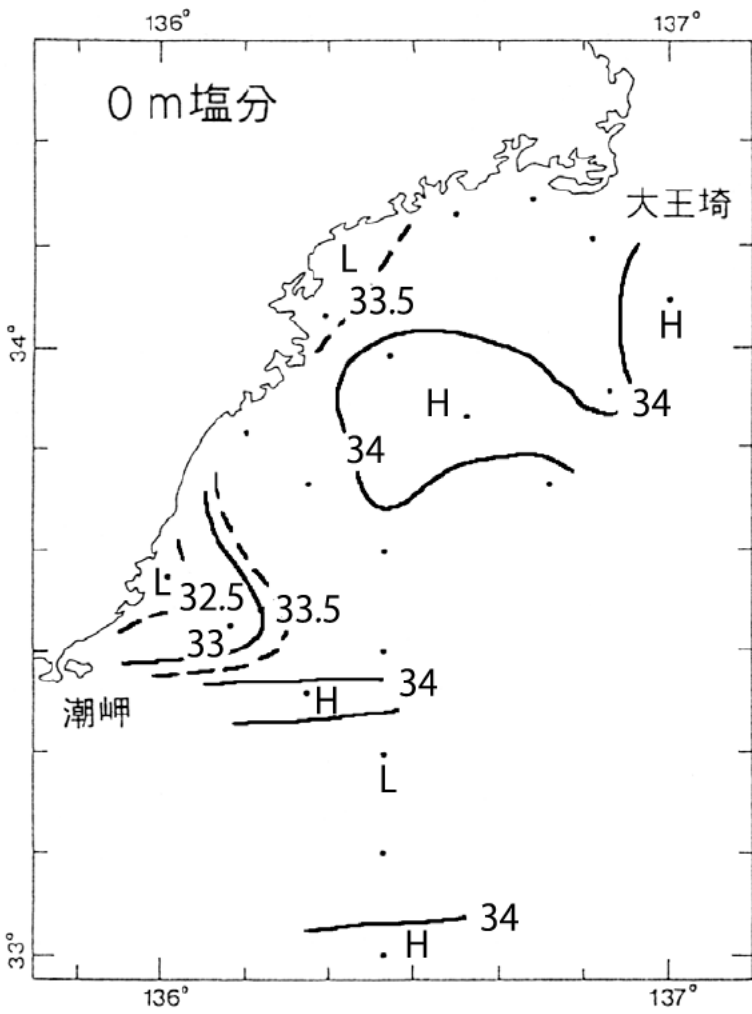
- ・ 水温、塩分、D0、クロロフィル
CTD : SeaBird 社製 SBE-9plus
SBE43 D0 sensor
Seapoint Chlorophyll Fluorometer
- ・ 流向流速計
ADCP : RD 社製 300kHz

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沿岸定線図





沿岸定線観測結果 (平成25年7月分)

調査員:久野 正博・松尾 剛平

| 測点 | | | 1 | | 5 | | 6 | | 8 | | 9 | | 11 | | 12 | |
|-------|-------|-------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|------------|--------|
| 年 | 月 | 日 | 13/07/03 | | 13/07/02 | | 13/07/02 | | 13/07/02 | | 13/07/02 | | 13/07/02 | | 13/07/03 | |
| 時 | 刻 | | 15:18 | | 13:31 | | 14:10 | | 14:56 | | 15:44 | | 16:13 | | 13:01 | |
| | | | -15:23 | | -13:41 | | -14:33 | | -15:00 | | -15:48 | | -16:23 | | -13:39 | |
| 緯 | 度 | (N) | 34° 12.20 | | 33° 52.66 | | 33° 58.94 | | 34° 03.72 | | 33° 51.69 | | 33° 46.68 | | 33° 40.15 | |
| 経 | 度 | (E) | 136° 34.61 | | 136° 36.43 | | 136° 26.89 | | 136° 19.26 | | 136° 09.81 | | 136° 17.12 | | 136° 26.30 | |
| 水 | 深 | | 109m | | 1983m | | 614m | | 113m | | 93m | | 1480m | | 2060m | |
| 水 | 色 | | 4 | | 3 | | 3 | | 4 | | 3 | | 3 | | 3 | |
| 傾 | 角 / 透 | 明 | 23 / 16.0 | | 35 / 22.0 | | 46 / 19.0 | | 29 / 14.0 | | 21 / 17.0 | | 17 / 16.0 | | 39 / 19.0 | |
| 風 | う | ね | S 3 | | SE 3 | | SE 3 | | SE 3 | | SSE 3 | | SE 4 | | S 4 | |
| 気 | 温 | | 24.8°C | | 26.3°C | | 26.9°C | | 26.0°C | | 25.3°C | | 25.4°C | | 26.7°C | |
| 天 | 気 | | F | | BC | | BC | | BC | | C | | BC | | O | |
| 雲 | 形 | ・ 雲 | ST 10 | | AC 7 | | AC CU 7 | | CU AC 7 | | CU AC 8 | | CU AC 7 | | SC 10 | |
| 風 | 向 | (風 | S(3) | | SE(2) | | SE(3) | | SSE(3) | | SSE(2) | | SE(3) | | S(4) | |
| 気 | 圧 | (hPa) | 1007.8 | | 1014.4 | | 1013.9 | | 1014.0 | | 1013.7 | | 1013.6 | | 1008.6 | |
| 流 | 向 | 10m | 88 | 0.4 | 266 | 0.6 | 260 | 0.2 | 173 | 0.4 | 343 | 0.1 | 313 | 0.6 | 231 | 0.5 |
| | | 20m | 102 | 0.4 | 275 | 0.6 | 192 | 0.1 | 27 | 0.1 | 219 | 0.1 | 310 | 0.5 | 240 | 0.5 |
| | | 30m | 90 | 0.6 | 286 | 0.5 | 188 | 0.3 | 250 | 0.1 | 206 | 0.2 | 255 | 0.2 | 257 | 0.2 |
| | | 40m | 92 | 0.4 | 257 | 0.5 | 210 | 0.4 | 293 | 0.2 | 59 | 0.2 | 240 | 0.4 | 181 | 0.4 |
| | | 50m | 62 | 0.5 | 248 | 0.5 | 213 | 0.3 | 31 | 0.2 | 337 | 0.2 | 250 | 0.5 | 200 | 0.4 |
| 水 | 温 | 0m | 23.34 | 33.790 | 24.11 | 34.040 | 23.76 | 34.012 | 23.70 | 33.137 | 23.77 | 33.787 | 23.79 | 33.746 | 23.58 | 33.934 |
| | | 10m | 23.24 | 33.874 | 23.45 | 34.013 | 23.10 | 34.029 | 23.16 | 33.760 | 23.16 | 33.780 | 23.34 | 33.963 | 23.58 | 33.948 |
| | | 20m | 22.68 | 34.052 | 22.43 | 34.169 | 22.71 | 34.133 | 22.93 | 33.933 | 22.58 | 34.130 | 23.01 | 34.108 | 23.58 | 34.008 |
| | | 30m | 21.42 | 34.483 | 21.91 | 34.223 | 20.66 | 34.465 | 21.54 | 34.296 | 20.98 | 34.384 | 22.06 | 34.543 | 22.65 | 34.094 |
| | | 50m | 18.91 | 34.645 | 19.62 | 34.569 | 19.36 | 34.568 | 18.83 | 34.637 | 18.70 | 34.564 | 20.42 | 34.575 | 20.34 | 34.564 |
| | | 75m | 17.73 | 34.651 | 18.33 | 34.594 | 17.81 | 34.642 | 17.61 | 34.638 | 17.47 | 34.595 | 18.12 | 34.532 | 18.79 | 34.585 |
| | | 100m | 17.15 | 34.593 | 17.11 | 34.604 | 16.58 | 34.600 | 16.73 | 34.614 | | | 17.13 | 34.590 | 17.23 | 34.606 |
| | | 125m | | | 16.28 | 34.573 | 15.76 | 34.577 | | | | | 15.84 | 34.567 | 15.74 | 34.567 |
| | | 150m | | | 15.07 | 34.526 | 15.12 | 34.553 | | | | | 14.48 | 34.513 | 14.58 | 34.520 |
| | | 175m | | | 14.04 | 34.492 | 14.34 | 34.517 | | | | | 13.75 | 34.482 | 13.98 | 34.495 |
| | | 200m | | | 13.37 | 34.466 | 13.15 | 34.454 | | | | | 12.48 | 34.418 | 12.75 | 34.432 |
| | | 250m | | | 11.31 | 34.368 | 11.51 | 34.373 | | | | | 10.90 | 34.345 | 10.70 | 34.340 |
| | | 300m | | | 9.62 | 34.306 | 10.00 | 34.307 | | | | | 9.77 | 34.301 | 9.35 | 34.294 |
| | | 400m | | | | | 7.80 | 34.254 | | | | | | | 7.51 | 34.237 |
| | | 500m | | | | | 6.34 | 34.262 | | | | | | | 6.43 | 34.241 |
| | | 600m | | | | | | | | | | | | | 5.24 | 34.287 |
| | | 700m | | | | | | | | | | | | | 4.58 | 34.318 |
| 800m | | | | | | | | | | | | | 4.14 | 34.351 | | |
| 900m | | | | | | | | | | | | | 3.67 | 34.385 | | |
| 1000m | | | | | | | | | | | | | 3.31 | 34.418 | | |
| D | O | 0m | 6.890 | 0.14 | 6.780 | 0.04 | 6.820 | 0.09 | 7.120 | 0.18 | 6.920 | 0.12 | 6.900 | 0.10 | 6.810 | 0.17 |
| | | 10m | 6.900 | 0.16 | 6.870 | 0.07 | 6.890 | 0.12 | 6.910 | 0.10 | 6.860 | 0.10 | 6.820 | 0.11 | 6.770 | 0.16 |
| | | 20m | 6.980 | 0.44 | 7.010 | 0.11 | 7.030 | 0.19 | 7.030 | 0.14 | 7.020 | 0.15 | 6.830 | 0.13 | 6.780 | 0.15 |
| | | 30m | 7.110 | 0.39 | 7.060 | 0.17 | 6.480 | 0.91 | 6.890 | 0.74 | 7.020 | 1.02 | 6.850 | 0.30 | 6.980 | 0.22 |
| | | 50m | 6.490 | 0.65 | 6.570 | 1.12 | 6.080 | 0.70 | 6.460 | 0.74 | 6.220 | 0.52 | 6.580 | 0.87 | 6.230 | 0.74 |
| | | 75m | 6.240 | 0.20 | 6.320 | 0.42 | 6.250 | 0.21 | 6.180 | 0.20 | 6.070 | 0.32 | 5.940 | 0.21 | 6.400 | 0.51 |
| | | 100m | 5.900 | 0.19 | 6.110 | 0.10 | 6.010 | 0.05 | 6.040 | 0.05 | | | 5.990 | 0.08 | 6.160 | 0.12 |
| | | 125m | | | 5.920 | 0.05 | 5.830 | 0.03 | | | | | 5.880 | 0.04 | 5.810 | 0.04 |
| | | 150m | | | 5.690 | 0.04 | 5.730 | 0.02 | | | | | 5.590 | 0.03 | 5.550 | 0.02 |
| | | 175m | | | 5.490 | 0.02 | 5.570 | 0.02 | | | | | 5.420 | 0.02 | 5.420 | 0.02 |
| | | 200m | | | 5.360 | 0.02 | 5.360 | 0.02 | | | | | 5.250 | 0.02 | 5.230 | 0.02 |
| | | 250m | | | 4.950 | 0.02 | 5.020 | 0.02 | | | | | 4.870 | 0.02 | 4.840 | 0.02 |
| | | 300m | | | 4.450 | 0.03 | 4.640 | 0.03 | | | | | 4.570 | 0.02 | 4.390 | 0.02 |
| | | 400m | | | | | 3.830 | 0.03 | | | | | | | 3.740 | 0.03 |
| | | 500m | | | | | 3.150 | 0.03 | | | | | | | 3.220 | 0.03 |
| | | 600m | | | | | | | | | | | | | 2.610 | 0.03 |
| | | 700m | | | | | | | | | | | | | 2.280 | 0.03 |
| 800m | | | | | | | | | | | | | 2.120 | 0.03 | | |
| 900m | | | | | | | | | | | | | 1.970 | 0.04 | | |
| 1000m | | | | | | | | | | | | | 1.950 | 0.04 | | |

注)緯度、経度は世界測地系による。

沿岸定線観測結果 (平成25年7月分)

調査員:久野 正博・松尾 剛平

| 測点 | | | 13 | | 14 | | 15 | | 17 | | 20 | | 22 | | 23 | | | |
|-------|-------|-------|------------|-------|------------|-------|------------|-------|------------|-------|------------|-------|------------|-------|------------|-------|--------|--------|
| 年 | 月 | 日 | 13/07/03 | | 13/07/03 | | 13/07/03 | | 13/07/02 | | 13/07/03 | | 13/07/02 | | 13/07/02 | | | |
| 時 | 刻 | | 11:36 | | 08:39 | | 08:00 | | 17:12 | | 15:44 | | 10:07 | | 10:44 | | | |
| | | | -11:49 | | -08:56 | | -08:11 | | -17:16 | | -15:48 | | -10:15 | | -11:25 | | | |
| 緯 | 度 | (N) | 33° 19.76 | | 33° 26.18 | | 33° 32.76 | | 33° 37.90 | | 34° 14.62 | | 34° 10.70 | | 34° 04.49 | | | |
| 経 | 度 | (E) | 136° 26.20 | | 136° 17.13 | | 136° 07.90 | | 136° 00.73 | | 136° 43.14 | | 136° 50.83 | | 136° 59.80 | | | |
| 水 | 深 | | 1973m | | 1944m | | 1447m | | 103m | | 59m | | 128m | | 1383m | | | |
| 水 | 色 | | 3 | | 3 | | 4 | | 7 | | 5 | | 3 | | 3 | | | |
| 傾 | 角 / 透 | 明 | 45 / 20.0 | | 31 / 17.0 | | 41 / 14.0 | | 15 / 5.0 | | 27 / 15.0 | | 35 / 21.0 | | 36 / 17.0 | | | |
| 風 | 浪 | | S 4 | | SSW 4 | | SSW 4 | | SE 3 | | SSW 3 | | ESE 4 | | SE 4 | | | |
| う | ね | り | S 2 | | SSW 2 | | SSW 2 | | SE 2 | | SSW 1 | | ESE 1 | | SE 2 | | | |
| 気 | 温 | | 26.5°C | | 25.0°C | | 24.7°C | | 24.8°C | | 24.3°C | | 26.1°C | | 25.6°C | | | |
| 天 | 気 | | C | | C | | R | | BC | | F | | BC | | BC | | | |
| 雲 | 形・雲 | 量 | CU SC 9 | | CU SC 9 | | CU SC 9 | | CU AC 7 | | ST 10 | | CU AC 7 | | CU AC 7 | | | |
| 風 | 向 (風 | 力) | S(4) | | SSW(4) | | SSW(3) | | SE(2) | | SSW(4) | | ESE(3) | | SE(2) | | | |
| 気 | 圧 | (hPa) | 1010.3 | | 1011.6 | | 1011.2 | | 1013.6 | | 1008.0 | | 1015.2 | | 1015.3 | | | |
| 流 | 向 | 速 | 10m | 87 | 2.5 | 89 | 2.0 | 104 | 0.5 | 16 | 0.3 | 102 | 0.5 | 68 | 0.3 | 88 | 0.3 | |
| | | | 20m | 87 | 2.1 | 90 | 2.1 | 89 | 0.3 | 346 | 0.6 | 66 | 0.5 | 73 | 0.5 | 80 | 0.5 | |
| | | | 30m | 94 | 2.0 | 92 | 1.9 | 68 | 0.2 | 31 | 0.5 | 66 | 0.3 | 87 | 0.8 | 95 | 0.5 | |
| | | | 40m | 88 | 2.1 | 94 | 1.7 | 118 | 0.3 | 62 | 0.3 | 112 | 0.2 | 73 | 0.9 | 77 | 0.5 | |
| | | | 50m | 87 | 2.3 | 100 | 0.9 | 209 | 0.2 | 57 | 0.3 | 95 | 0.2 | 78 | 0.3 | 94 | 0.7 | |
| 水 | 温 | 分 | 0m | 25.67 | 33.901 | 24.79 | 34.128 | 23.26 | 32.908 | 23.76 | 32.475 | 23.38 | 33.743 | 23.28 | 33.903 | 23.09 | 34.093 | |
| | | | 10m | 25.67 | 33.906 | 24.80 | 34.130 | 23.04 | 33.411 | 23.09 | 33.220 | 23.12 | 33.938 | 23.17 | 33.941 | 22.68 | 34.116 | |
| | | | 20m | 24.95 | 33.936 | 24.80 | 34.135 | 22.82 | 33.695 | 22.82 | 33.780 | 21.91 | 34.006 | 22.91 | 34.023 | 21.84 | 34.301 | |
| | | | 30m | 23.90 | 34.116 | 24.03 | 34.282 | 21.67 | 34.273 | 21.50 | 34.138 | 21.28 | 34.115 | 22.48 | 34.154 | 21.60 | 34.418 | |
| | | | 50m | 22.40 | 34.283 | 22.01 | 34.491 | 18.25 | 34.607 | 18.63 | 34.563 | 19.87 | 34.330 | 18.60 | 34.480 | 18.78 | 34.649 | |
| | | | 75m | 20.61 | 34.428 | 18.41 | 34.591 | 16.49 | 34.598 | 17.79 | 34.583 | | | 17.48 | 34.556 | 17.86 | 34.648 | |
| | | | 100m | 18.47 | 34.445 | 18.02 | 34.614 | 16.20 | 34.584 | 17.10 | 34.589 | | | 16.66 | 34.577 | 17.06 | 34.636 | |
| | | | 125m | 17.98 | 34.570 | 16.97 | 34.628 | 15.68 | 34.568 | | | | | 16.00 | 34.571 | 16.13 | 34.607 | |
| | | | 150m | 17.31 | 34.602 | 15.95 | 34.593 | 14.82 | 34.523 | | | | | | | 15.67 | 34.590 | |
| | | | 175m | 15.73 | 34.565 | 14.77 | 34.524 | 13.66 | 34.479 | | | | | | | 15.15 | 34.563 | |
| | | | 200m | 14.38 | 34.518 | 14.27 | 34.506 | 12.87 | 34.439 | | | | | | | 14.24 | 34.512 | |
| | | | 250m | 12.85 | 34.441 | 12.66 | 34.433 | 11.63 | 34.378 | | | | | | | 11.51 | 34.368 | |
| | | | 300m | 11.41 | 34.370 | 10.75 | 34.346 | 10.36 | 34.320 | | | | | | | 10.68 | 34.337 | |
| | | | 400m | | | | | | | | | | | | | | 8.30 | 34.265 |
| | | | 500m | | | | | | | | | | | | | | 6.51 | 34.261 |
| | | | 600m | | | | | | | | | | | | | | 5.44 | 34.290 |
| | | | 700m | | | | | | | | | | | | | | 4.71 | 34.318 |
| 800m | | | | | | | | | | | | | | 4.11 | 34.358 | | | |
| 900m | | | | | | | | | | | | | | 3.69 | 34.389 | | | |
| 1000m | | | | | | | | | | | | | | 3.39 | 34.420 | | | |
| D | O | クロロ | 0m | 6.500 | 0.09 | 6.610 | 0.09 | 7.000 | 0.20 | 7.260 | 0.54 | 7.540 | 0.65 | 6.910 | 0.06 | 6.920 | 0.07 | |
| | | | 10m | 6.470 | 0.10 | 6.590 | 0.09 | 6.930 | 0.22 | 6.970 | 0.42 | 7.290 | 0.75 | 6.960 | 0.07 | 6.920 | 0.09 | |
| | | | 20m | 6.650 | 0.16 | 6.600 | 0.10 | 6.830 | 0.47 | 6.940 | 0.56 | 7.140 | 1.42 | 6.990 | 0.11 | 7.030 | 0.08 | |
| | | | 30m | 6.770 | 0.31 | 6.650 | 0.22 | 7.100 | 0.33 | 6.940 | 1.06 | 6.650 | 1.98 | 7.040 | 0.14 | 6.980 | 0.12 | |
| | | | 50m | 6.570 | 0.52 | 6.460 | 0.49 | 6.310 | 0.72 | 6.370 | 0.58 | 6.480 | 0.87 | 6.490 | 0.70 | 6.580 | 0.46 | |
| | | | 75m | 6.230 | 0.17 | 6.150 | 0.41 | 6.070 | 0.05 | 6.030 | 0.28 | | | 6.040 | 0.26 | 6.290 | 0.19 | |
| | | | 100m | 5.980 | 0.10 | 6.140 | 0.43 | 5.770 | 0.07 | 5.890 | 0.16 | | | 5.890 | 0.18 | 6.080 | 0.05 | |
| | | | 125m | 5.740 | 0.04 | 6.050 | 0.07 | 5.680 | 0.05 | | | | | 5.770 | 0.13 | 5.950 | 0.03 | |
| | | | 150m | 5.740 | 0.05 | 5.910 | 0.02 | 5.600 | 0.03 | | | | | | | 5.850 | 0.02 | |
| | | | 175m | 5.730 | 0.04 | 5.600 | 0.03 | 5.370 | 0.02 | | | | | | | 5.760 | 0.02 | |
| | | | 200m | 5.550 | 0.02 | 5.500 | 0.03 | 5.220 | 0.02 | | | | | | | 5.570 | 0.02 | |
| | | | 250m | 5.240 | 0.02 | 5.180 | 0.02 | 5.040 | 0.02 | | | | | | | 5.080 | 0.03 | |
| | | | 300m | 4.940 | 0.02 | 4.780 | 0.02 | 4.740 | 0.02 | | | | | | | 4.790 | 0.02 | |
| | | | 400m | | | | | | | | | | | | | 4.010 | 0.03 | |
| | | | 500m | | | | | | | | | | | | | 3.210 | 0.03 | |
| | | | 600m | | | | | | | | | | | | | 2.700 | 0.04 | |
| | | | 700m | | | | | | | | | | | | | 2.370 | 0.04 | |
| 800m | | | | | | | | | | | | | 2.140 | 0.04 | | | | |
| 900m | | | | | | | | | | | | | 2.020 | 0.04 | | | | |
| 1000m | | | | | | | | | | | | | 2.050 | 0.04 | | | | |

注)緯度、経度は世界測地系による。

沿岸定線観測結果 (平成25年7月分)

調査員:久野 正博・松尾 剛平

| 測点 | | 26 | | 27 | | 28 | | 29 | | 30 | | | |
|----------------------|--|------------|-------|------------|-------|------------|-------|------------|-------|------------|-------|--------|--|
| 年 | 月 日 | 13/07/02 | | 13/07/02 | | 13/07/03 | | 13/07/03 | | 13/07/03 | | | |
| 時 | 刻 | 12:06 | | 12:50 | | 12:19 | | 10:56 | | 10:17 | | | |
| | | -12:16 | | -13:04 | | -12:30 | | -11:08 | | -10:28 | | | |
| 緯 | 度 (N) | 33° 55.58 | | 33° 46.80 | | 33° 29.82 | | 33° 10.02 | | 33° 00.34 | | | |
| 経 | 度 (E) | 136° 52.78 | | 136° 45.79 | | 136° 26.30 | | 136° 26.21 | | 136° 26.18 | | | |
| 水 | 深 | 1040m | | 1913m | | 2063m | | 2247m | | | | | |
| 水 | 色 | 3 | | 3 | | 3 | | 3 | | 3 | | | |
| 傾 | 角 / 透 明 度 | 37 / 22.0 | | 37 / 21.0 | | 41 / 19.0 | | 43 / 20.0 | | 52 / 20.0 | | | |
| 風 | 浪 | E 3 | | ESE 3 | | S 4 | | SSW 4 | | S 4 | | | |
| う | ね り | E 1 | | ESE 1 | | S 2 | | SSW 2 | | S 2 | | | |
| 気 | 温 | 25.5°C | | 25.4°C | | 26.3°C | | 25.1°C | | 26.1°C | | | |
| 天 | 気 | BC | | BC | | O | | C | | C | | | |
| 雲 | 形 ・ 雲 量 | AC 7 | | AC 7 | | CU SC 10 | | CU SC 9 | | CU SC 9 | | | |
| 風 | 向 (風 力) | E(2) | | ESE(2) | | S(4) | | SSW(4) | | S(4) | | | |
| 気 | 圧 (hPa) | 1015.0 | | 1014.7 | | 1009.2 | | 1010.6 | | 1010.7 | | | |
| 流 向 (度) | 流 速 (Kt) | 10m | 317 | 0.5 | 282 | 0.7 | 91 | 1.2 | 72 | 2.2 | 65 | 2.0 | |
| | | 20m | 325 | 0.6 | 286 | 0.8 | 83 | 1.5 | 75 | 2.3 | 62 | 2.0 | |
| | | 30m | 324 | 0.4 | 310 | 0.9 | 85 | 1.5 | 79 | 2.6 | 60 | 1.8 | |
| | | 40m | 344 | 0.6 | 299 | 0.8 | 88 | 1.2 | 80 | 2.6 | 63 | 1.8 | |
| | | 50m | 317 | 0.8 | 291 | 0.8 | 38 | 1.0 | 82 | 2.6 | 71 | 2.0 | |
| 水 温 (°C) | 塩 分 (PSU) | 0m | 23.42 | 33.971 | 23.75 | 33.914 | 23.25 | 33.792 | 26.19 | 33.908 | 25.52 | 34.007 | |
| | | 10m | 22.89 | 33.953 | 23.37 | 34.017 | 23.24 | 33.820 | 26.17 | 33.914 | 25.51 | 34.012 | |
| | | 20m | 22.03 | 34.274 | 21.97 | 34.227 | 21.90 | 34.323 | 25.59 | 34.100 | 25.44 | 34.016 | |
| | | 30m | 21.85 | 34.331 | 21.11 | 34.435 | 20.90 | 34.398 | 24.63 | 34.367 | 23.62 | 34.171 | |
| | | 50m | 19.42 | 34.637 | 19.27 | 34.591 | 19.53 | 34.583 | 23.74 | 34.431 | 22.88 | 34.199 | |
| | | 75m | 18.42 | 34.643 | 18.54 | 34.614 | 18.14 | 34.617 | 22.73 | 34.592 | 22.56 | 34.603 | |
| | | 100m | 17.82 | 34.639 | 17.18 | 34.600 | 16.97 | 34.590 | 20.58 | 34.400 | 21.41 | 34.755 | |
| | | 125m | 16.97 | 34.629 | 16.14 | 34.596 | 16.18 | 34.580 | 19.31 | 34.533 | 20.31 | 34.795 | |
| | | 150m | 16.53 | 34.619 | 15.34 | 34.558 | 15.29 | 34.549 | 18.52 | 34.636 | 19.33 | 34.767 | |
| | | 175m | 15.01 | 34.545 | 14.12 | 34.499 | 13.61 | 34.472 | 17.19 | 34.621 | 18.78 | 34.756 | |
| | | 200m | 14.48 | 34.525 | 13.05 | 34.449 | 12.96 | 34.446 | 16.47 | 34.619 | 18.31 | 34.752 | |
| | | 250m | 12.51 | 34.423 | 11.78 | 34.392 | 11.20 | 34.358 | 15.12 | 34.566 | 16.63 | 34.597 | |
| | | 300m | 10.89 | 34.349 | 9.62 | 34.287 | 9.45 | 34.278 | 13.39 | 34.466 | 15.11 | 34.564 | |
| | | | 400m | | | | | | | | | | |
| | | | 500m | | | | | | | | | | |
| | 600m | | | | | | | | | | | | |
| | 700m | | | | | | | | | | | | |
| | 800m | | | | | | | | | | | | |
| | 900m | | | | | | | | | | | | |
| | 1000m | | | | | | | | | | | | |
| D O (mg/l) | ク ロ ロ フ イ ル (μg/l) | 0m | 6.890 | 0.06 | 6.830 | 0.07 | 6.910 | 0.13 | 6.450 | 0.05 | 6.530 | 0.01 | |
| | | 10m | 6.990 | 0.08 | 6.820 | 0.08 | 7.000 | 0.18 | 6.410 | 0.07 | 6.510 | 0.05 | |
| | | 20m | 7.010 | 0.08 | 7.060 | 0.15 | 7.120 | 0.26 | 6.320 | 0.22 | 6.640 | 0.09 | |
| | | 30m | 7.010 | 0.10 | 7.160 | 0.30 | 7.050 | 1.17 | 6.390 | 0.71 | 6.610 | 0.69 | |
| | | 50m | 6.640 | 0.84 | 6.520 | 0.82 | 6.660 | 0.90 | 6.420 | 0.41 | 6.480 | 0.47 | |
| | | 75m | 6.440 | 0.56 | 6.500 | 0.51 | 6.440 | 0.41 | 5.920 | 0.18 | 6.340 | 0.31 | |
| | | 100m | 6.250 | 0.17 | 6.100 | 0.13 | 5.840 | 0.24 | 6.150 | 0.10 | 7.030 | 0.12 | |
| | | 125m | 6.100 | 0.05 | 5.940 | 0.04 | 5.720 | 0.08 | 5.870 | 0.08 | 7.040 | 0.08 | |
| | | 150m | 5.990 | 0.03 | 5.740 | 0.02 | 5.700 | 0.03 | 5.960 | 0.05 | 6.640 | 0.09 | |
| | | 175m | 5.720 | 0.02 | 5.500 | 0.03 | 5.390 | 0.02 | 5.800 | 0.03 | 6.050 | 0.04 | |
| | | 200m | 5.560 | 0.03 | 5.310 | 0.02 | 5.230 | 0.02 | 5.780 | 0.03 | 6.450 | 0.03 | |
| | | 250m | 5.180 | 0.02 | 5.010 | 0.02 | 4.910 | 0.02 | 5.840 | 0.02 | 5.720 | 0.02 | |
| | | 300m | 4.840 | 0.03 | 4.680 | 0.02 | 4.520 | 0.02 | 5.360 | 0.02 | 5.630 | 0.02 | |
| | | | 400m | | | | | | | | | | |
| | | | 500m | | | | | | | | | | |
| | 600m | | | | | | | | | | | | |
| | 700m | | | | | | | | | | | | |
| | 800m | | | | | | | | | | | | |
| | 900m | | | | | | | | | | | | |
| | 1000m | | | | | | | | | | | | |

注)緯度、経度は世界測地系による。