

表 - 8.8(a) 直江津 波高・周期別出現頻度統計 (2003年12月 ~ 2004年 2月)

2003年12月 ~ 2004年 2月(冬)

波高・周期別度数分布表 (有義波)

観測地点: 直江津

| 波高          | 周期     | ~ 3 | 3 ~ 4 | 4 ~ 5 | 5 ~ 6 | 6 ~ 7 | 7 ~ 8 | 8 ~ 9 | 9 ~ 10 | 10 ~ 11 | 11 ~ 12 | 12 ~ 13 | 13 ~ 14 | 14 ~ 15 | 15 ~ 16 | 16 ~ 17 | 17 ~ 18 | 18 ~ 19 | 19 ~ | 合 計    | 未超過  | 補足1    |      | 補足2    |      |
|-------------|--------|-----|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|--------|------|--------|------|--------|------|
|             |        |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      |        |      |        |      | 合 計    | 未超過  |
| 1201 ~      |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1092 | 0      | 1092 | 0      | 1092 |
| 1101 ~ 1200 |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1092 | 0      | 1092 | 0      | 1092 |
| 1001 ~ 1100 |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1092 | 0      | 1092 | 0      | 1092 |
| 901 ~ 1000  |        | 0   |       |       |       |       |       |       |        |         |         | 1       |         |         |         |         |         |         |      | 1      | 1092 | 1      | 1092 | 1      | 1092 |
| 801 ~ 900   |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1091 | 0      | 1091 | 0      | 1091 |
| 701 ~ 800   |        | 0   |       |       |       |       |       |       |        |         |         | 2       |         |         |         |         |         |         |      | 2      | 1091 | 2      | 1091 | 2      | 1091 |
| 651 ~ 700   |        | 0   |       |       |       |       |       |       |        | 1       | 1       |         |         |         |         |         |         |         |      | 2      | 1089 | 2      | 1089 | 2      | 1089 |
| 601 ~ 650   |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1087 | 0      | 1087 | 0      | 1087 |
| 551 ~ 600   |        | 0   |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1087 | 0      | 1087 | 0      | 1087 |
| 501 ~ 550   |        | 0   |       |       |       |       |       |       | 1      | 3       |         |         |         |         |         |         |         |         |      | 4      | 1087 | 4      | 1087 | 4      | 1087 |
| 451 ~ 500   |        | 0   |       |       |       |       |       |       | 7      | 14      | 1       |         |         |         |         |         |         |         |      | 22     | 1083 | 22     | 1083 | 22     | 1083 |
| 401 ~ 450   |        | 0   |       |       |       |       |       |       | 3      | 11      | 13      | 3       |         |         |         |         |         |         |      | 30     | 1061 | 30     | 1061 | 30     | 1061 |
| 351 ~ 400   |        | 0   |       |       |       |       |       |       | 10     | 19      | 14      | 4       |         |         |         |         |         |         |      | 47     | 1031 | 47     | 1031 | 47     | 1031 |
| 301 ~ 350   |        | 0   |       |       |       |       |       |       | 7      | 35      | 27      | 6       | 2       |         |         |         |         |         |      | 77     | 984  | 77     | 984  | 77     | 984  |
| 251 ~ 300   |        | 0   |       |       |       |       |       |       | 37     | 32      | 16      | 9       | 1       |         |         |         |         |         |      | 95     | 907  | 95     | 907  | 95     | 907  |
| 201 ~ 250   |        | 0   |       |       |       |       |       |       | 9      | 69      | 38      | 31      | 14      | 2       |         |         |         |         |      | 163    | 812  | 163    | 812  | 163    | 812  |
| 176 ~ 200   |        | 0   |       |       |       |       |       |       | 24     | 38      | 22      | 13      | 4       | 1       |         |         |         |         |      | 102    | 649  | 102    | 649  | 102    | 649  |
| 151 ~ 175   |        | 0   |       |       |       |       |       |       | 1      | 25      | 27      | 30      | 16      | 5       |         |         |         |         |      | 95     | 547  | 95     | 547  | 95     | 547  |
| 126 ~ 150   |        | 0   |       |       |       |       |       |       | 7      | 34      | 33      | 37      | 15      |         |         |         |         |         |      | 126    | 443  | 126    | 443  | 126    | 443  |
| 101 ~ 125   |        | 0   |       |       |       |       |       |       | 8      | 18      | 32      | 22      | 7       |         |         |         |         |         |      | 87     | 317  | 87     | 317  | 87     | 317  |
| 76 ~ 100    |        | 0   |       |       |       |       |       |       | 2      | 7       | 16      | 35      | 30      |         |         |         |         |         |      | 90     | 230  | 90     | 230  | 90     | 230  |
| 51 ~ 75     |        | 0   |       |       |       |       |       |       | 2      | 5       | 16      | 44      | 8       |         |         |         |         |         |      | 75     | 140  | 75     | 140  | 75     | 140  |
| 26 ~ 50     |        | 0   |       |       |       |       |       |       | 6      | 14      | 26      | 10      | 1       |         |         |         |         |         |      | 57     | 65   | 57     | 65   | 57     | 65   |
| ~ 25        |        | 0   |       |       |       |       |       |       | 1      | 7       |         |         |         |         |         |         |         |         |      | 8      | 8    | 8      | 8    | 8      | 8    |
| 合 計         |        | 0   | 11    | 49    | 168   | 332   | 268   | 162   | 80     | 18      | 1       | 3       | 0       | 0       | 0       | 0       | 0       | 0       | 0    | 1092   |      | 1092   |      | 1092   |      |
| 未超過         | (0.1%) | (0) | (10)  | (45)  | (154) | (304) | (245) | (148) | (73)   | (16)    | (1)     | (3)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)  | (1000) |      | (1000) |      | (1000) |      |

表 - 8.8(b) 直江津 波高・周期別出現頻度統計 (2004年 3月 ~ 2004年 5月)

2004年 3月 ~ 2004年 5月(春)

波高・周期別度数分布表 (有義波)

観測地点: 直江津

| 波高          | 周期     | ~ 3  | 3 ~ 4 | 4 ~ 5 | 5 ~ 6 | 6 ~ 7 | 7 ~ 8 | 8 ~ 9 | 9 ~ 10 | 10 ~ 11 | 11 ~ 12 | 12 ~ 13 | 13 ~ 14 | 14 ~ 15 | 15 ~ 16 | 16 ~ 17 | 17 ~ 18 | 18 ~ 19 | 19 ~ | 合 計    | 未超過  | 補足1    |      | 補足2    |      |
|-------------|--------|------|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------|--------|------|--------|------|--------|------|
|             |        |      |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      |        |      |        |      | 合 計    | 未超過  |
| 1201 ~      |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 1101 ~ 1200 |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 1001 ~ 1100 |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 901 ~ 1000  |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 801 ~ 900   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 701 ~ 800   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 651 ~ 700   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 601 ~ 650   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 551 ~ 600   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 501 ~ 550   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 451 ~ 500   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 401 ~ 450   |        | 0    |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |      | 0      | 1104 | 0      | 1104 | 0      | 1104 |
| 351 ~ 400   |        | 0    |       |       |       |       |       |       |        |         | 1       |         |         |         |         |         |         |         |      | 1      | 1104 | 1      | 1104 | 1      | 1104 |
| 301 ~ 350   |        | 0    |       |       |       |       |       |       |        |         | 7       |         |         |         |         |         |         |         |      | 6      | 999  | 6      | 999  | 6      | 999  |
| 251 ~ 300   |        | 0    |       |       |       |       |       |       |        |         | 1       | 14      | 13      | 2       |         |         |         |         |      | 30     | 1096 | 30     | 1096 | 30     | 1096 |
| 201 ~ 250   |        | 0    |       |       |       |       |       |       |        |         | 8       | 9       | 8       | 1       |         |         |         |         |      | 27     | 993  | 27     | 993  | 27     | 993  |
| 176 ~ 200   |        | 0    |       |       |       |       |       |       |        |         | 12      | 8       | 7       | 3       |         |         |         |         |      | 24     | 966  | 24     | 966  | 24     | 966  |
| 151 ~ 175   |        | 0    |       |       |       |       |       |       |        |         | 4       | 16      | 15      | 9       | 2       |         |         |         |      | 27     | 942  | 27     | 942  | 27     | 942  |
| 126 ~ 150   |        | 0    |       |       |       |       |       |       |        |         | 9       | 25      | 21      | 21      | 3       |         |         |         |      | 42     | 915  | 42     | 915  | 42     | 915  |
| 101 ~ 125   |        | 0    |       |       |       |       |       |       |        |         | 1       | 29      | 11      | 26      | 17      | 4       |         |         |      | 72     | 873  | 72     | 873  | 72     | 873  |
| 76 ~ 100    |        | 0    |       |       |       |       |       |       |        |         | 4       | 51      | 36      | 22      | 11      | 1       |         |         |      | 80     | 802  | 80     | 802  | 80     | 802  |
| 51 ~ 75     |        | 0    |       |       |       |       |       |       |        |         | 2       | 27      | 68      | 41      | 44      | 5       |         |         |      | 113    | 722  | 113    | 722  | 113    | 722  |
| 26 ~ 50     |        | 0    |       |       |       |       |       |       |        |         | 15      | 61      | 109     | 107     | 34      | 7       | 1       |         |      | 169    | 609  | 169    | 609  | 169    | 609  |
| ~ 25        |        | 0    |       |       |       |       |       |       |        |         | 1       | 82      | 58      | 10      |         |         |         |         |      | 303    | 439  | 303    | 439  | 303    | 439  |
| 合 計         |        | 18   | 175   | 328   | 267   | 193   | 105   | 18    | 0      | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0       | 0    | 1104   |      | 1104   |      | 1104   |      |
| 未超過         | (0.1%) | (16) | (159) | (297) | (242) | (175) | (95)  | (16)  | (0)    | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)  | (1000) |      | (1000) |      | (1000) |      |



表 - 8.8(e) 直江津 波高・周期別出現頻度統計 (2004年 1月 ~ 2004年12月)

2004年 1月 ~ 2004年12月(年)

波高・周期別度数分布表 (有義波)

観測地点: 直江津

| 波高          | 周期 | ~ 3 | 3 ~ 4 | 4 ~ 5 | 5 ~ 6 | 6 ~ 7 | 7 ~ 8 | 8 ~ 9 | 9 ~ 10 | 10 ~ 11 | 11 ~ 12 | 12 ~ 13 | 13 ~ 14 | 14 ~ 15 | 15 ~ 16 | 16 ~ 17 | 17 ~ 18 | 18 ~ 19 | 19 ~   | 合 計    | 未超過    | 補足1   |        | 補足2    |        |
|-------------|----|-----|-------|-------|-------|-------|-------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------|--------|--------|-------|--------|--------|--------|
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        |        |        |       |        | 合 計    | 未超過    |
| 1201 ~      |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 1101 ~ 1200 |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 1001 ~ 1100 |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 901 ~ 1000  |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 801 ~ 900   |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 701 ~ 800   |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 651 ~ 700   |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 601 ~ 650   |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 551 ~ 600   |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | 0      | 4352   |       | 4352   |        | 4352   |
|             |    |     |       |       |       |       |       |       |        |         |         |         |         |         |         |         |         |         |        | (0)    | (1000) |       | (1000) |        | (1000) |
| 501 ~ 550   |    |     |       |       |       |       |       |       | 1      | 2       | 1       |         |         |         |         |         |         |         |        | 4      | 4352   | 4     | 4352   | 4      | 4352   |
|             |    |     |       |       |       |       |       |       | (0)    | (0)     | (0)     |         |         |         |         |         |         |         |        | (1)    | (1000) | (1)   | (1000) | (1)    | (1000) |
| 451 ~ 500   |    |     |       |       |       |       |       | 5     | 14     | 3       |         |         | 1       |         |         |         |         |         |        | 23     | 4348   | 23    | 4348   | 23     | 4348   |
|             |    |     |       |       |       |       |       | (1)   | (3)    | (1)     |         |         | (0)     |         |         |         |         |         |        | (5)    | (999)  | (5)   | (999)  | (5)    | (999)  |
| 401 ~ 450   |    |     |       |       |       |       | 4     | 13    | 13     | 5       |         |         |         |         |         |         |         |         |        | 35     | 4325   | 35    | 4325   | 35     | 4325   |
|             |    |     |       |       |       |       | (1)   | (3)   | (3)    | (1)     |         |         |         |         |         |         |         |         |        | (8)    | (994)  | (8)   | (994)  | (8)    | (994)  |
| 351 ~ 400   |    |     |       |       |       |       | 12    | 22    | 17     | 4       | 2       |         |         |         |         |         |         |         |        | 57     | 4290   | 57    | 4290   | 57     | 4290   |
|             |    |     |       |       |       |       | (3)   | (5)   | (4)    | (1)     | (0)     |         |         |         |         |         |         |         |        | (13)   | (986)  | (13)  | (986)  | (13)   | (986)  |
| 301 ~ 350   |    |     |       |       |       | 8     | 43    | 29    | 11     | 3       |         |         |         |         |         |         |         |         |        | 94     | 4233   | 94    | 4233   | 94     | 4233   |
|             |    |     |       |       |       | (2)   | (10)  | (7)   | (3)    | (1)     |         |         |         |         |         |         |         |         |        | (22)   | (973)  | (22)  | (973)  | (22)   | (973)  |
| 251 ~ 300   |    |     |       |       | 3     | 49    | 46    | 27    | 11     | 3       |         |         |         |         |         |         |         |         |        | 139    | 4139   | 139   | 4139   | 139    | 4139   |
|             |    |     |       |       | (1)   | (11)  | (11)  | (6)   | (3)    | (1)     |         |         |         |         |         |         |         |         |        | (32)   | (951)  | (32)  | (951)  | (32)   | (951)  |
| 201 ~ 250   |    |     |       |       | 18    | 73    | 43    | 31    | 21     | 2       |         |         |         |         |         |         |         |         |        | 188    | 4000   | 188   | 4000   | 188    | 4000   |
|             |    |     |       |       | (4)   | (17)  | (10)  | (7)   | (5)    | (0)     |         |         |         |         |         |         |         |         |        | (43)   | (919)  | (43)  | (919)  | (43)   | (919)  |
| 176 ~ 200   |    |     |       |       | 47    | 51    | 26    | 29    | 14     | 1       |         |         |         |         |         |         |         |         |        | 168    | 3812   | 168   | 3812   | 168    | 3812   |
|             |    |     |       |       | (11)  | (12)  | (6)   | (7)   | (3)    | (0)     |         |         |         |         |         |         |         |         |        | (39)   | (876)  | (39)  | (876)  | (39)   | (876)  |
| 151 ~ 175   |    |     |       |       | 11    | 63    | 69    | 54    | 26     | 15      | 1       |         |         |         |         |         |         |         |        | 239    | 3644   | 239   | 3644   | 239    | 3644   |
|             |    |     |       |       | (3)   | (14)  | (16)  | (12)  | (6)    | (3)     | (0)     |         |         |         |         |         |         |         |        | (55)   | (837)  | (55)  | (837)  | (55)   | (837)  |
| 126 ~ 150   |    |     |       |       | 22    | 87    | 75    | 89    | 31     | 2       |         |         |         |         |         |         |         |         |        | 306    | 3405   | 306   | 3405   | 306    | 3405   |
|             |    |     |       |       | (5)   | (20)  | (17)  | (20)  | (7)    | (0)     |         |         |         |         |         |         |         |         |        | (70)   | (782)  | (70)  | (782)  | (70)   | (782)  |
| 101 ~ 125   |    |     |       |       | 3     | 85    | 79    | 89    | 77     | 23      | 2       |         |         |         |         |         |         |         |        | 358    | 3099   | 358   | 3099   | 358    | 3099   |
|             |    |     |       |       | (1)   | (20)  | (18)  | (20)  | (18)   | (5)     | (0)     |         |         |         |         |         |         |         |        | (82)   | (712)  | (82)  | (712)  | (82)   | (712)  |
| 76 ~ 100    |    |     |       |       | 35    | 150   | 113   | 117   | 82     | 9       |         |         |         |         |         |         |         |         |        | 506    | 2741   | 506   | 2741   | 506    | 2741   |
|             |    |     |       |       | (8)   | (34)  | (26)  | (27)  | (19)   | (2)     |         |         |         |         |         |         |         |         |        | (116)  | (630)  | (116) | (630)  | (116)  | (630)  |
| 51 ~ 75     |    |     |       |       | 2     | 94    | 193   | 174   | 160    | 36      | 6       |         |         |         |         |         |         |         |        | 665    | 2235   | 665   | 2235   | 665    | 2235   |
|             |    |     |       |       | (0)   | (22)  | (44)  | (40)  | (37)   | (8)     | (1)     |         |         |         |         |         |         |         |        | (153)  | (514)  | (153) | (514)  | (153)  | (514)  |
| 26 ~ 50     |    |     |       |       | 20    | 246   | 385   | 287   | 109    | 18      | 2       |         |         |         |         |         |         |         |        | 1067   | 1570   | 1067  | 1570   | 1067   | 1570   |
|             |    |     |       |       | (5)   | (57)  | (88)  | (66)  | (25)   | (4)     | (0)     |         |         |         |         |         |         |         |        | (245)  | (361)  | (245) | (361)  | (245)  | (361)  |
| ~ 25        |    |     |       |       | 10    | 259   | 187   | 44    | 3      |         |         |         |         |         |         |         |         |         |        | 503    | 503    | 503   | 503    | 503    | 503    |
|             |    |     |       |       | (2)   | (60)  | (43)  | (10)  | (1)    |         |         |         |         |         |         |         |         |         |        | (116)  | (116)  | (116) | (116)  | (116)  | (116)  |
| 合 計         |    | 32  | 637   | 1033  | 915   | 803   | 530   | 253   | 121    | 24      | 3       | 0       | 1       | 0       | 0       | 0       | 0       | 0       | 0      | 4352   |        |       |        | 4352   |        |
| (0.1%)      |    | (7) | (146) | (237) | (210) | (185) | (122) | (58)  | (28)   | (6)     | (1)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)     | (0)    | (1000) |        |       |        | (1000) |        |
| 未超過         |    | 32  | 669   | 1702  | 2617  | 3420  | 3950  | 4203  | 4324   | 4348    | 4351    | 4351    | 4352    | 4352    | 4352    | 4352    | 4352    | 4352    | 4352   |        |        |       |        |        |        |
| (0.1%)      |    | (7) | (154) | (391) | (601) | (786) | (908) | (966) | (994)  | (999)   | (1000)  | (1000)  | (1000)  | (1000)  | (1000)  | (1000)  | (1000)  | (1000)  | (1000) |        |        |       |        |        |        |