

## 熱収支・水収支ルーチン観測索引表

### An Index Table of Routine Observation of Heat and Water Balance

古藤田一雄・佐倉保夫・林 陽生

Kazuo KOTODA, Yasuo SAKURA and Yousay HAYASHI

水理実験センター熱収支・水収支部門では、ルーチン観測データを公表し、各方面の調査研究に供することができるが、これを実施するにあたり、現在まで測定をおこなった要素（第1表）と観測期間、ファイル番号、チャンネルスケール、サンプリングタイム、ラベルコードおよびテープ長、記録密度（第2表）をまとめた。また、観測

開始以来測器の故障等の期間を除き、モニター用として収録した打点記録があるため、これについても利用可能である。

データの利用に関しては、規定「筑波大学水理実験センター暫定利用について」に従い手続きをとっていただきたい。

| CH | OBSERVATION ELEMENT           | SYMBOL | CH | OBSERVATION ELEMENT          | SYMBOL |
|----|-------------------------------|--------|----|------------------------------|--------|
| 0  | WIND SPEED (31.0m)            | U      | 31 | SOIL HEAT FLUX (2cm)         | G1     |
| 1  | DIRECTION (31.0m)             | D      | 32 | SOIL HEAT FLUX (50cm)        | G2     |
| 2  | WIND SPEED (1.6m SE)          | U1     | 33 | AIR TEMPERATURE (1.6m)       | T1     |
| 3  | DIRECTION (1.6m SE)           | D1     | 34 | AIR TEMPERATURE (12.4m)      | T2     |
| 4  | MOMENTUM FLUX (1.6m SE)       | UW1    | 35 | AIR TEMPERATURE (30.0m)      | T3     |
| 5  | SENSIBLE HEAT FLUX (1.6m SE)  | WT1    | 36 | SOIL TEMPERATURE (2cm)       | ST1    |
| 6  | WIND SPEED (12.4m SE)         | U2     | 37 | SOIL TEMPERATURE (10cm)      | ST2    |
| 7  | DIRECTION (12.4m SE)          | D2     | 38 | SOIL TEMPERATURE (50cm)      | ST3    |
| 8  | MOMENTUM FLUX (12.4m SE)      | UW2    | 39 | SOIL TEMPERATURE (100cm)     | ST4    |
| 9  | SENSIBLE HEAT FLUX (12.4m SE) | WT2    | 40 | SOIL SUCTION (100cm)         | TN1    |
| 10 | WIND SPEED (30.0m SE)         | U3     | 41 | SOIL SUCTION (50cm)          | TN2    |
| 11 | DIRECTION (30.0m SE)          | D3     | 42 | SOIL SUCTION (30cm)          | TN3    |
| 12 | MOMENTUM FLUX (30.0m SE)      | UW3    | 43 | SOIL SUCTION (10cm)          | TN4    |
| 13 | SENSIBLE HEAT FLUX (30.0m SE) | WT3    | 44 | SOIL SUCTION (5cm)           | TN5    |
| 14 | WIND SPEED (1.6m NW)          | U4     | 45 | SOIL SUCTION (2cm)           | TN6    |
| 15 | DIRECTION (1.6m NW)           | D4     | 46 | OPEN                         |        |
| 16 | MOMENTUM FLUX (1.6m NW)       | UW4    | 47 | GROUND WATER LEVEL (2m)      | GW1    |
| 17 | SENSIBLE HEAT FLUX (1.6m NW)  | WT4    | 48 | GROUND WATER LEVEL (10m)     | GW2    |
| 18 | WIND SPEED (12.4m NW)         | U5     | 49 | GROUND WATER LEVEL (20cm)    | GW3    |
| 19 | DIRECTION (12.4m NW)          | D5     | 50 | SURFACE DISCHARGE            | SR     |
| 20 | MOMENTUM FLUX (12.4m NW)      | UW5    | 51 | EVAPORATION                  | E      |
| 21 | SENSIBLE HEAT FLUX (12.4m NE) | WT5    | 52 | PRECIPITATION                | P      |
| 22 | OPEN                          | U6     | 53 | RAINFALL INTENSITY           | PI     |
| 23 | OPEN                          | D6     | 54 | OPEN                         |        |
| 24 | OPEN                          | UW6    | 55 | DEW POINT TEMPERATURE(1.6m)  | TD1    |
| 25 | OPEN                          | WT6    | 56 | DEW POINT TEMPERATURE(12.4m) | TD2    |
| 26 | SHORT WAVE RADIATION          | I      | 57 | DEW POINT TEMPERATURE(30.0m) | TD3    |
| 27 | TOTAL RADIATION               | H      | 58 | EVAPOTRANSPIRATION           | ET     |
| 28 | NET RADIATION (BECKMAN)       | RN1    |    |                              |        |
| 29 | NET RADIATION (BECKMAN)       | RN2    |    |                              |        |
| 30 | NET RADIATION (MIDDLETON)     | RN     |    |                              |        |

第1表 ルーチン観測索引表

第2表 ルーチン観測要素

| 番号 | 測定期間 |    |    |    |    |     | ファイル番号 | チャンネルケール | サンプリングタイム(秒) | ラベルコード | テープ長(ft) | 記録密度(BPI) |       |     |      |      |
|----|------|----|----|----|----|-----|--------|----------|--------------|--------|----------|-----------|-------|-----|------|------|
|    | 年    | 月  | 日  | 時  | 分  | 年   |        |          |              |        |          |           | 月     | 日   | 時    | 分    |
| 1  | '76  | 9  | 15 | 11 | 00 | '76 | 9      | 15       | 15           | 00     | 017      | 24        | 0.05  | 760 | 1200 | 1600 |
| 2  | '77  | 5  | 14 | 12 | 00 | '77 | 5      | 15       | 14           | 30     | 010      | 58        | 2.0   | 760 | 1200 | 800  |
| 3  |      | 5  | 15 | 15 | 05 |     | 5      | 16       | 17           | 19     | 022      | 58        | 2.0   | 760 | 1200 | 800  |
| 4  |      | 5  | 16 | 17 | 30 |     | 5      | 17       | 20           | 00     | 050      | 58        | 2.0   | 760 | 1200 | 800  |
| 5  |      | 7  | 26 | 13 | 10 |     | 7      | 26       | 14           | 10     | 130      | 72        | 0.1   | 197 | 1200 | 1600 |
| 6  |      | 7  | 26 | 17 | 00 |     | 7      | 27       | 12           | 52     | 132      | 72        | 2.0   | 197 | 1200 | 1600 |
| 7  |      | 7  | 27 | 12 | 56 |     | 7      | 28       | 09           | 01     | 131      | 72        | 2.0   | 197 | 1200 | 1600 |
| 8  |      | 7  | 28 | 09 | 09 |     | 8      | 7        | 17           | 00     | 136      | 72        | 30.0  | 197 | 1200 | 1600 |
| 9  |      | 9  | 19 | 11 | 00 |     | 9      | 19       | 11           | 40     | 134      | 21        | 1.0   | 000 | 1200 | 1600 |
| 10 |      | 9  | 19 | 19 | 12 |     | 9      | 20       | 13           | 36     | 155      | 21        | 1.0   | 000 | 1200 | 1600 |
| 11 |      | 9  | 24 | 10 | 43 |     | 9      | 24       | 11           | 35     | 135      | 13        | 1.0   | 000 | 1200 | 1600 |
| 12 |      | 9  | 26 | 10 | 40 |     | 10     | 6        | 7            | 00     | 277      | 58        | 60.0  | 770 | 1200 | 800  |
| 13 |      | 10 | 24 | 13 | 33 |     | 11     | 7        | 10           | 22     | 149      | 58        | 30.0  | 770 | 1200 | 1600 |
| 14 |      | 11 | 8  | 12 | 10 |     | 11     | 8        | 20           | 30     | 148      | 84        | 1.0   | 770 | 1200 | 1600 |
| 15 |      | 11 | 12 | 10 | 04 |     | 11     | 15       | 10           | 45     | 154      | 84        | 30.0  | 770 | 1200 | 1600 |
| 16 |      | 12 | 2  | 23 | 40 |     | 12     | 13       | 18           | 16     | 151      | 70        | 30.0  | 770 | 1200 | 1600 |
| 17 |      | 12 | 13 | 18 | 20 |     | 12     | 26       | 11           | 03     | 124      | 70        | 30.0  | 770 | 1200 | 1600 |
| 18 | '78  | 1  | 8  | 14 | 45 | '78 | 1      | 9        | 16           | 30     | 123      | 72        | 10.0  | 770 | 1200 | 800  |
| 19 |      | 2  | 9  | 14 | 46 |     | 2      | 9        | 19           | 05     | 257      | 44        | 30.0  | 770 | 600  | 800  |
| 20 |      | 2  | 13 | 9  | 40 |     | 2      | 20       | 20           | 00     | 101      | 94        | 30.0  | 770 | 1200 | 800  |
| 21 |      | 2  | 21 | 12 | 30 |     | 2      | 21       | 18           | 22     | 263      | 44        | 30.0  | 770 | 1200 | 800  |
| 22 |      | 2  | 24 | 12 | 05 |     | 2      | 24       | 16           | 49     | 152      | 69        | 0.1   | 770 | 1200 | 1600 |
| 23 |      | 2  | 24 | 18 | 00 |     | 2      | 25       | 0            | 32     | 121      | 69        | 0.1   | 770 | 1200 | 800  |
| 24 |      | 2  | 25 | 2  | 01 |     | 2      | 25       | 6            | 31     | 125      | 69        | 0.1   | 770 | 1200 | 800  |
| 25 |      | 2  | 25 | 8  | 00 |     | 2      | 25       | 12           | 10     | 124      | 69        | 0.1   | 770 | 1200 | 800  |
| 26 |      | 4  | 28 | 21 | 50 |     | 5      | 6        | 10           | 30     | 274      | 65        | 120.0 | 780 | 600  | 800  |
| 27 |      | 5  | 6  | 11 | 21 |     | 6      | 1        | 11           | 05     | 279      | 65        | 120.0 | 780 | 1200 | 800  |
| 28 |      | 6  | 1  | 12 | 00 |     | 6      | 5        | 11           | 45     | 280      | 65        | 120.0 | 780 | 1200 | 800  |
| 29 |      | 6  | 5  | 19 | 28 |     | 6      | 8        | 12           | 30     | 282      | 65        | 120.0 | 780 | 600  | 800  |
| 30 |      | 6  | 13 | 14 | 00 |     | 7      | 7        | 15           | 41     | 347      | 65        | 120.0 | 780 | 1200 | 800  |
| 31 |      | 7  | 7  | 15 | 48 |     | 7      | 20       | 11           | 30     | 344      | 65        | 120.0 | 780 | 1200 | 800  |
| 32 |      | 7  | 24 | 16 | 40 |     | 7      | 27       | 11           | 04     | 362      | 67        | 120.0 | 780 | 600  | 800  |
| 33 |      | 7  | 31 | 11 | 00 |     | 9      | 8        | 13           | 48     | 363      | 67        | 120.0 | 780 | 600  | 800  |
| 34 |      | 9  | 8  | 10 | 10 |     | 9      | 15       | 13           | 20     | 360      | 67        | 120.0 | 780 | 600  | 800  |
| 35 |      | 10 | 16 | 9  | 40 |     | 10     | 23       | 16           | 40     | 422      | 66        | 120.0 | 781 | 600  | 800  |
| 36 |      | 10 | 25 | 9  | 30 |     | 11     | 17       | 10           | 00     | 420      | 66        | 120.0 | 781 | 600  | 1600 |
| 37 |      | 11 | 18 | 11 | 00 |     | 11     | 18       | 13           | 34     | 429      | 19        | 0.1   | 781 | 1200 | 1600 |
| 38 |      | 11 | 18 | 13 | 37 |     | 11     | 18       | 16           | 00     | 430      | 19        | 0.1   | 781 | 1200 | 1600 |
| 39 |      | 11 | 18 | 17 | 20 |     | 12     | 5        | 10           | 24     | 425      | 66        | 120.0 | 781 | 600  | 1600 |
| 40 |      | 12 | 4  | 10 | 53 |     | 12     | 4        | 13           | 25     | 431      | 19        | 0.1   | 781 | 1200 | 1600 |
| 41 |      | 12 | 4  | 13 | 28 |     | 12     | 4        | 16           | 00     | 433      | 19        | 0.1   | 781 | 1200 | 1600 |
| 42 |      | 12 | 6  | 10 | 10 |     | 12     | 29       | 14           | 04     | 423      | 66        | 120.0 | 781 | 600  | 1600 |
| 43 |      | 12 | 29 | 15 | 08 |     | 12     | 29       | 17           | 30     | 358      | 24        | 0.1   | 781 | 1200 | 1600 |
| 44 |      | 12 | 29 | 17 | 40 |     | 12     | 29       | 19           | 30     | 434      | 24        | 0.1   | 781 | 1200 | 1600 |
| 45 |      | 12 | 30 | 11 | 40 | '79 | 1      | 20       | 6            | 00     | 424      | 66        | 120.0 | 781 | 600  | 1600 |
| 46 | '79  | 5  | 30 | 18 | 00 |     | 6      | 15       | 19           | 30     | 631      | 66        | 120.0 | 790 | 600  | 1600 |
| 47 |      | 6  | 18 | 17 | 30 |     | 7      | 3        | 12           | 00     | 635      | 66        | 120.0 | 790 | 600  | 1600 |
| 48 |      | 8  | 6  | 10 | 22 |     | 8      | 6        | 11           | 14     |          | 25        | 0.05  | 790 | 1200 | 800  |
| 49 |      | 8  | 6  | 15 | 40 |     | 8      | 6        | 16           | 45     |          | 25        | 0.05  | 790 | 1200 | 800  |
| 50 |      | 8  | 8  | 9  | 26 |     | 8      | 8        | 10           | 40     |          | 25        | 0.05  | 790 | 1200 | 800  |

| 番号 | 測定期間 |    |    |    |    |   |     |    | ファイル<br>番号 | チャンネル<br>スケール | サンプ<br>リング<br>タイム<br>(秒) | ラベル<br>コード | テープ<br>長 (ft) | 記録<br>密度<br>(BPI) |     |      |      |
|----|------|----|----|----|----|---|-----|----|------------|---------------|--------------------------|------------|---------------|-------------------|-----|------|------|
|    | 年    | 月  | 日  | 時  | 分  | 年 | 月   | 日  |            |               |                          |            |               |                   | 時   | 分    |      |
| 51 | '79  | 8  | 8  | 13 | 31 | ~ | '79 | 8  | 8          | 14            | 46                       |            | 25            | 0.05              | 790 | 1200 | 800  |
| 52 |      | 8  | 8  | 16 | 12 | ~ |     | 8  | 8          | 17            | 00                       |            | 25            | 0.05              | 790 | 1200 | 800  |
| 53 |      | 8  | 9  | 9  | 00 | ~ |     | 8  | 9          | 10            | 30                       |            | 25            | 0.05              | 790 | 1200 | 800  |
| 54 |      | 8  | 9  | 15 | 15 | ~ |     | 8  | 9          | 16            | 25                       |            | 25            | 0.05              | 790 | 1200 | 800  |
| 55 |      | 8  | 11 | 9  | 22 | ~ |     | 8  | 11         | 10            | 25                       |            | 25            | 0.05              | 790 | 1200 | 800  |
| 56 |      | 9  | 3  | 11 | 00 | ~ |     | 9  | 20         | 9             | 50                       | 638        | 66            | 120.0             | 790 | 600  | 1600 |
| 57 |      | 10 | 5  | 15 | 30 | ~ |     | 10 | 30         | 10            | 50                       | 643        | 66            | 120.0             | 791 | 1200 | 1600 |
| 58 |      | 11 | 13 | 16 | 00 | ~ |     | 12 | 25         | 10            | 45                       | 644        | 66            | 120.0             | 791 | 1200 | 1600 |
| 59 |      | 12 | 25 | 11 | 00 | ~ |     |    |            |               |                          | 642        | 66            | 120.0             | 791 | 600  | 800  |