



[Home](#) [Data Coverage](#) [Data Formats](#) [Link to FTP site](#) [Station Information](#) [Links](#) [Archives](#)

LONGFORMAT

The LONGFORMAT data with 4096 bytes for one month is a fundamental dataset of the WDC, having a header section including information on the data source, location, altitude, coefficients and constants which are necessary to calculate real counts. Information on the data source is included also. The number of days in one month is fixed to be 31 days. So that, every years have $31 \times 12 = 372$ days in our data. Hourly data for days which do not exist in the normal calendar (e.g. "31 April") are filed by 99999, which mean "no data". The data size for one-year data is 49152 bytes. An example of data with this format is shown below:

```
KIEL N64PCSA191 1 54.34 10.12 54.00 2.32 100.0 0.0 0.0 5694.3KIEL, GERMANY, INST. FUER REINE UND ANGEWANDT
KERNPHYSIK,UNIV.KIEL,KIEL, GERMANY18-NM-64 NEUTRON MONITOR, CORRECTED FOR PRESSURE TO 755 MM HG,
COEF. -.961%/MMHG
950613 5591 5616 5609 5606 5598 5610 5623 5624 5612 5649 5629 5657 5647 5645 5661 5650 5643 5634 5651 5648
5643 5626 5613 5620 5589 5587 5589 5596 5615 5605 5630 5614 5617 5598 5639 5650 5678 5654 5671 5671 5676
5680 5691 5656 5646 5632 5639 5628 5605 5595 5587 5604 5611 5637 5633 5604 5632 5686 5677 5649 5667 5668
5657 5646 5644 5625 5646 5650
```

.....

Format of 4096-Byte LONGFORMAT Data of Cosmic-Ray Neutron

bytes	format	notes
1-6	A6	First six characters of abbreviated station name
7-13	A7	Comments on data, e.g.: N64 NM-64neutron monitor P Pressure-corrected data C Counts S Scaled counts A Absolute values
14	I1	1: Hourly data 2: Two-hour data
15-16	I2	Year-1900 before 1999, Year-2000 after 2000
17-18	I2	Month
19-46	4F7.2	Latitude, Longitude, Altitude, Vertical cut-off rigidity
47-74	4F7.1	Scaling Factor(SF),UT of the beginning of the first data of a given day (for 1-hour data measured in the interval from 00:00 to 01:00, this value is 0), Constant to be added to the tabulated data, Monthly average Real Count = (tabulated value + Constant)*SF
75-364	A290	Information for data usage (see below)
365-370	A6	Warning for discontinuity in monthly data (by 1988) or information on data including contact point
371-376	3I2	Date of revision (YYMMDD)
377-4096	744I5	Hourly data ($24 \times 31=744$). 99999 for "no data"

In the header section from the 75th to 364th characters of each monthly dataset, following information for data usage is given:

The full name of the station (the organization conducting the observation, and the address of the organization.

Information on the neutron monitor.

When the dataset is for the pressure-corrected data, the average pressure and the correction factor with which the observed counts are corrected are also given.

The number of the operating counters is given by two digits from 155th bytes. From 164th to 364th bytes, information on the pressure correction, description on the normalization, information on data source (e. g. e-mail address) are given. For some stations, additional information concerning special observational situation to be taken it into account in data handling, e.g. heavy snow falls or strong wind, is given in the space.

World Data Center for Cosmic Rays, Solar-Terrestrial Environment Laboratory, Nagoya University
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