



## Archive of Tiksi standard meteorological observations (1932 – 2013)

21824 - WMO index

Meteorology: [General information][Data format] Data archive: [Archive][Citing]

### Surface meteorology

#### Description of the archive of Tiksi standard meteorological observations (1932 – 2013)

Standard meteorological parameters have been recorded 8 times per day (00, 03, 06, 09, 12, 15, 18, 21 GMT) at the Tiksi meteorological station for more than 30,000 days covering the period from August 1932 to December 31, 2013. For the period between August 1932 to December 31, 2010, hand written paper records were digitized by work teams led by R.M. Goon of the *Yakutian Hydrometeorological Office/Tiksi Branch/Climate Department* and V.A. Alekseev of the *Yakutian Hydrometeorological Office*. S.V. Shutlin and N.V. Ivanov of the Russian Government research laboratory *Arctic and Antarctic Research Institute* supervised a four-stage quality control process and archival of the data.

For the period from 2011-2013 the archive has been augmented using electronic WDC RIHMI data from the Russian network measurements of standard meteorological parameters. The Project Manager for the creation of this data archive is A.P. Makshtas.

#### Data format

Data is organized into 12 separate monthly files. For example, the file name «Tiksi\_dec.dat» contains all data fields for all Decembers, from 1932 to 2013.

The monthly files have internally labeled columns will the following definitions:

Parameter	The name of meteorological parameter	Field length	Missing Data code	Measurement unit
Julday	Julian Day	8		
year	year	5		
mn	month	3		
dd	day	3		
Tahh	air temperature at hh (hour of observation)	8	999.9	C
Tamax	maximum daily air temperature	8	999.9	C
Tamin	minimum daily air temperature	8	999.9	C
RHhh	relative humidity at hh (hour of observation)	6	999	%
Tshh	soil surface temperature at hh (hour of observation)	8	999.9	C
Tsmax	maximum daily soil temperature	8	999.9	C
Tsmin	minimum daily soil temperature	8	999.9	C
NThh	total cloud fraction at hh (hour of observation)	6	99	tenths
NLhh	low cloud fraction at hh (hour of observation)	6	99	tenths
vihh	visibility at hh (hour of observation)	6	999	coded
vikhh	visibility at hh (hour of observation)	7	99.99	km
RVhh	precipitation accumulation between 0-12 or 12-0 GMT	6	99.9	mm
slphh	air pressure at sea level at hh (hour of observation)	8	9999.9	hPa
WDhh	wind direction at hh (hour of observation)	6	999	degree
Whh	wind velocity at hh (hour of observation)	6	999	m/sec
hs	snow depth	6	999	cm
sohh	the soil surface condition at hh (hour of observation)	6	99	coded
sonn	состояние поверхности почвы в пп срок наблюдения	6	99	цифры кода

#### Notes:

1. Horizontal visibility (vihh) has separate codes for instrumental measurements (00 to 89, excluding 51-55) and observer estimates (90 to 99) as follows

00 – less than 0.1 km.  
01-50 – visibility in tenths of km, i.e. from 0.1 km to 5.0 km. For example, 25 = 2.5 km.  
51-55 – not used.  
56-80 – visibility from 6 to 30 km with the steps of 1 km. Visibility in km can be determined by subtracting 50 from the code. For example code number 65 means the horizontal visibility is 15 km.  
81-88 – visibility from 35 to 70 km with steps of 5 km  
89 – visibility more than 70 km  
  
90 – visibility less than 0.05 km.  
91 – visibility 0.05 km.  
92 – 0.2 km.  
93 – 0.5 km.  
94 – 1 km.  
95 – 2 km.  
96 – 4 km.  
97 – 10 km.  
98 – 20 km.  
99 – greater than 50 km.

In 1941, from January to June horizontal visibility (vihh) had been measured in kilometers. From 1943 to 1966 horizontal visibility had been measured following the International scale of 1935 as follows:

0 - from 0 to 50 meters;  
1 - from 50 to 200 m;  
2 - from 200 to 500 meters;  
3 - from 500 to 1000 meters;  
4 - from 1 to 2 km;  
5 - from 2 to 4 km;  
6 - from 4 to 10 km;  
7 - from 10 to 20 km;  
8 - from 20 to 50 km;  
9 ->50 km.

2. Total (NThh) and low (NLhh) cloud fraction is evaluated visually by observers in units of 10ths of cloud cover coded from 0 to 10. The value 0 indicates no clouds or cloud covering less than 1/10 of the sky. The value 10 indicates that the sky is completely covered with clouds. 11 indicates that clouds cover the entire sky but with some insignificant sections of clear sky detectable.

3. The soil surface conditions are coded as follows:

0 – dry (without appreciable amount of dust or unfixed sand)  
1 – wet (no puddles)  
2 – wet (with small or large puddles)  
3 – frozen  
4 – surface covered with ice crust, but without snow or melting snow  
5 – ice, snow or melting snow  
6 – ice, snow, melting snow and packed snow cover over more than half of the visible ground surface, but not the entire surface  
7 – ice, snow, melting snow and packed snow completely cover the entire visible ground surface  
8 – dry powdery snow, dust or unfixed sand cover more than half of the visible ground surface, but not the entire surface  
9 – dry powdery snow, dust, sand or unfixed sand completely cover the entire visible ground surface

#### Data archive

Month	January	February	March	April	May	June
Data	.dat .zip	.dat .zip	.dat .zip	.dat .zip	.dat .zip	.dat .zip
Month	July	August	September	October	November	December
Data	.dat .zip	.dat .zip	.dat .zip	.dat .zip	.dat .zip	.dat .zip

#### Citing

Users of this data are required to cite the Arctic and Antarctic Research Institute, <http://www.aari.ru/main.php?sub=2&id=3>.

©AARI, 2014

[Top]

[Top]