

# Annual Thaw Depths and Water Depths in Tanana Flats, Alaska, Version 1

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## USER GUIDE

### How to Cite These Data

As a condition of using these data, you must include a citation:

Racine, C., T. Jorgenson, and J. Walters 2003. Annual Thaw Depths and Water Depths in Tanana Flats, Alaska, Version 1. [Indicate subset used]. Boulder, Colorado USA. NSIDC: National Snow and Ice Data Center. <https://doi.org/10.7265/tabj-z790>. [Date Accessed].

FOR QUESTIONS ABOUT THESE DATA, CONTACT [NSIDC@NSIDC.ORG](mailto:NSIDC@NSIDC.ORG)

FOR CURRENT INFORMATION, VISIT <https://nsidc.org/data/GGD623>



National Snow and Ice Data Center

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# 1 DATA DESCRIPTION

Thaw depths and water depths were monitored at 1 m to 2 m intervals along a 255-m transect across an area of discontinuous and degrading permafrost on the Tanana Flats south of Fairbanks, Alaska. Measurements were taken once a year in late August from 1995 to 2002 to show effects of winter snow depths, climate warming, and vegetation and wetland creation-surface subsidence. Data are in a single tab-delimited ASCII text file, available via FTP.

## 1.1 Parameters

Thaw depth (cm) was measured each August in 1995, 1996, 1997, 2000, and 2002. Water depth (cm) was measured in August 2000 and 2002.

## 1.2 File Information

### 1.2.1 Format

The file `ggd623_thawdepth_tanana.txt` is in tab-delimited ASCII text format. Columns represent distance along the transect (m) from a reference rebar and thaw depth (cm) each August in 1995, 1996, 1997, 2000, and 2002. Water depth (cm) was measured in August 2000 and 2002.

Following image shows a series of records from `ggd623_thawdepth_tanana.txt`:

Transect	Distance (M)	Thaw depth and Water Depth (cm)											
1stSept_95	ThawSept_95	DistAug_96	ThawAug_96	DistAug_97	ThawAug_97	Dist_99	Thaw_99	Dist_8_19_00	Thaw8_19_00	WatDepth8_19_00	Dist8_27_02	Thaw8_27_02	WatDep8_27_02
1	138	2	52	5	43	0	225	8	99	0	0	>120	66
1	165	4	47	10	128	2	63	2.5	62	0	2.5	115	45
10	155	6	57	15	75	4	50	5	74	0	5	81	0
15	190	8	55	20	77	6	57	7.5	76	0	7.5	83	0
20	130	10	58	25	128	8	57	10	>120	5	10	>120	36
25	146	12	48	30	47	10	>120	12.5	89	5	12.5	>120	33
30	281	14	61	35	50	12	>120	15	89	10	15	80	17
35	196	16	48	40	128	14	45	17.5	>120	5	17.5	>120	28
40	195	18	>120	45	128	16	84	20	89	10	20	74	2

Figure 1. Image of Data

thaw depth was greater than the length of the probe (120 cm), then that record is assigned a value of >120 cm.

The file "`ggd623_thawdepth_tanana.txt`" is 2.67 KB.

### 1.2.2 Naming Convention

`ggd623_thawdepth_tanana.txt`

## 1.3 Spatial Information

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### 1.3.1 Coverage

Data were collected in an area of discontinuous and degrading permafrost on the Tanana Flats south of Fairbanks, Alaska. Coordinates are 64.7°N, 147.9°W.

## 1.4 Temporal Information

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### 1.4.1 Coverage

Data were collected once a year in August of 1995, 1996, 1997, 2000, and 2002.

## 2 CONTACTS AND ACKNOWLEDGMENTS

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## 3 REFERENCES

Jorgenson, T., C. Racine, J. Walters, and T. Osterkamp. 2001. Permafrost degradation and ecological changes associated with a warming climate in central Alaska. *Climatic Change* 48:551-579.

Osterkamp, T.E., L. Viereck, Y. Shur, M. Jorgenson, C. Racine, A. Doyle, and R. Boone. 2000. Observations of thermokarst and its impact on boreal forests in Alaska, USA. *Arctic, Antarctic and Alpine Research* 32:303-315

## 4 DOCUMENT INFORMATION

### 4.1 Publication Date

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May 2003

### 4.2 Date Last Updated

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20 January 2021